

# Substantive Public Comments and Responses

First Name	Last Name	Comment
<b>Anonymous</b>		Why is there no updated cost/benefit analysis of Bus Rapid Transit (BRT) including updated ridership when the rationale for its elimination was predicated on low ridership? This was asserted by DEIS reference to the 2012 Final AA 2035 population estimate. The 2012 LRT ridership of 12K was subsequently reassessed based on the 2040 population, with the result of a nearly twofold increase to 23K? Shouldn't a valid compare be based on figures from the same calendar year for accuracy?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As described in DEIS chapter 2, Bus Rapid Transit (BRT) was not studied as an alternative in the DEIS. BRT was eliminated from consideration for the D-O Corridor as a result of the Alternatives Analysis for the project and subsequent adoption of Light Rail Transit as the preferred technology by the DCHC MPO. As such, ridership and cost modeling for a BRT scenario was not performed as part of the DEIS. In addition, the factors contributing to the higher ridership forecast for the LRT in the DEIS as compared to that for the AA would likely not exert as a big an effect on forecast BRT ridership as on forecast LRT ridership, due to differences in the characteristics between LRT and BRT. LRT has a smoother ride and other attractive vehicle characteristics, including passenger amenities, that make it more attractive to passengers than BRT. Station amenities and priority guideway treatment are more universally recognized by passengers and more readily available for LRT vehicles than for BRT vehicles. As a result, higher ridership would be expected for LRT than for BRT all things being equal.*

DEIS chapter 2

First Name	Last Name	Comment
<b>Anonymous</b>		Safety / Environmental: Adverse Impact[REMOVED EMAIL]10/11/2015 11:05 AMinfo@ourtransitfuture.comHow does the Barbee Chapel Road/NC 54 intersection currently LOS F – F improve to B – C when at grade tracks are placed across this intersection (table 3.2.3)?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As stated in Table 3.2-5, an acceleration lane along westbound NC 54 for southbound East Barbee Chapel Road right turn would be added to improve traffic operations at this intersection. Providing an acceleration lane for this movement would allow vehicles to merge into the NC 54 traffic more efficiently, and thereby, reducing the corresponding delay. See section 6.1.1 of DEIS appendix K6 for more information.*

DEIS section 6.1.1  
DEIS Table 3.2-5  
DEIS appendix K6

First Name	Last Name	Comment
<b>Anonymous</b>		Safety / Environmental: Adverse Impact[REMOVED EMAIL ADDRESS]10/11/2015 11:06

AMinfo@ourtransitfuture.comGoTriangle has proposed merge/acceleration lanes as mitigation for the unsafe conditions motorists will face attempting to navigate the non-signalized, at grade crossings at both Little John Road and Downing Creek Parkway. This design contradicts the fact that NCDOT will be building an additional travel lane on NC54 along the C2A alignment, resulting in insufficient roadway space for these merge/acceleration lanes. Why hasn't GoTriangle incorporated this conflict in developing this strategy?

*Comment Responses*

*DEIS/Errata References*

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues). Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in Table 3.2-5. In coordination with stakeholders and the public during the development of this DEIS, the areas detailed in section 3.2.4.1 (NC 54), 3.2.4.2 (US 15-501), 3.2.4.3 (Erwin Road) and 3.2.4.4 (Downtown Durham) were identified for further study and potential refinement during the Engineering phase.*

DEIS section 3.2.4  
DEIS Table 3.2-3  
DEIS Table 3.2-5

First Name	Last Name	Comment
Anonymous		How does GoTriangle’s assumption that automobile ownership will decrease correlate with the expectation that adequate revenue will be raised by transit tax DMV fees?

*Comment Responses*

*DEIS/Errata References*

*The \$10 annual vehicle registration fee is only one of a number of sources of revenue used in the financial plan for the proposed project (costs are detailed in DEIS appendix K27, 28, and 29). Local funding will also be paid from a portion of the half-cent sales tax as well as a 5% tax surcharge on car rentals. Other local funding sources such as value capture strategies may also be pursued.*

DEIS appendix K27  
DEIS appendix K28  
DEIS appendix K29

While automobile ownership may decrease within the corridor, it is anticipated that it will grow within Durham and Orange counties, consistent with the expected population increase.

First Name	Last Name	Comment
Anonymous		How do you rationalize the notion that numerous high density projects planned along US15/501 and not served by a light rail corridor is compatible with the contention that light rail transit is a required catalyst for high density driven economic growth?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS.*

DEIS section 2.1

*Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham.*

*Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments.*

*Under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly.*

*Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan.*

Further information about the Compact Neighborhood destination is available from the Durham City-County Planning Department.

First Name	Last Name	Comment
Anonymous		If the DEIS referenced Final AA (April 2012) reflects daily projected LRT riders at 12K and BRT route/interlined riders at 17.6K (high)/16.3K (low) with transit times of 35, 39 and 44 minutes respectively, how did LRT ridership nearly double (12K to 23K) when there was a 20% degradation of LRT travel time (35 to 42 minutes)? This is of particular interest since alignment C2A was chosen for its 1 minute faster transit time compared to alignment C1A with the claim that there would be 1000 additional riders. Please reconcile this illogical outcome.

Comment Responses	DEIS/Errata References
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*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. There are differences between AA and DEIS in terms of the modeling methodology and planning assumptions used in the ridership forecasting, as detailed below: Methodology Difference • AA used the TRM Version 4 Enhanced (TRM4E.2) model • DEIS used the TRM Version 5 Inputs and Planning Assumptions Differences • AA and DEIS used different planning assumptions: - AA used socioeconomic/land use forecasts and networks associated with TRM Version 4, which was used for the development of the 2035 Long-Range Transportation Plans adopted in 2009-DEIS used the socioeconomic/land use forecasts and networks associated with TRM Version 5, which was used for development of the MTP 2040 adopted in 2013 • Fare assumptions- AA did not account for the discounted and pre-paid fare phenomenon- DEIS*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

accounted for the discounted and pre-paid fare phenomenon •Refinements to the design of the alternatives -Station locations-Park and ride locations-Supporting transit services•Horizon year-2035 for AA-2040 for DEISIn addition, the differences in ridership between AA and DEIS can be attributed to the differences in the modeling methodology and planning assumptions used in the ridership forecasting, as detailed above. For example, the DEIS accounted for the discounted and pre-paid fare phenomenon, which was not included in the AA. In January of 2002 Chapel Hill Transit began providing transit service in a manner that allowed anyone to ride Chapel Hill Transit without paying a fare for the trip. This resulted in a 76 percent increase in ridership from 2001 to 2003. UNC later expanded the pre-paid transit program to faculty, staff, and students who live beyond the transit service area of Chapel Hill Transit. The pre-paid annual transit pass became what is now commonly referred to as GoPass. Since 2006 the GoPass program has expanded to other large regional employers and institutions, most notably for the D-O Light Rail Corridor was Duke University in August 2011. The GoPass program is one of several factors, which has led to an 85 percent increase in transit ridership on Triangle Transit buses in the D-O Light Rail corridor, from FY 2006 to FY 2012.

First Name	Last Name	Comment
<b>Anonymous</b>		How can LRT transit time be claimed as the incentive for commuters to abandon their cars when the DCHC Metropolitan Planning Organization’s 2040 MPO MTP and CTP Alternatives (Travel Times analysis) reflects a 27 minute Chapel Hill to Durham based solely on existing and committed road improvements (E&C)? Isn’t the D-O-LRT’s transit time of 42 minutes woefully inadequate in comparison?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways. In addition, while travel times may be less via automobile at present, most commuters don't travel across the entire system, but rather shorter trip segments.*

DEIS section 1.4.1.1  
DEIS section 3.2

*Even under current demands, the region’s transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region’s explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (see ES-5 of the DEIS). Additional information regarding the expansion of roadway capacity can be found in DEIS section 1.4.1.1 and further in section 3.2 of the DEIS.*

First Name	Last Name	Comment
<b>Anonymous</b>		How will industrial contaminants, noise, lights, and other significant negative impacts from the presence of a ROMF operation in a residential neighborhood be managed? How will the safety of the residents and school children/school personnel be ensured?

<i>Comment Responses</i>		<i>DEIS/Errata References</i>
<p><i>The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents and other waste materials), used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. The SEPP will include an evacuation plan for the ROMF.</i></p>		<p>DEIS section 4.8.3.1 DEIS section 4.12.4</p>

First Name	Last Name	Comment
<b>Anonymous</b>		Since there are no travel time savings for commuters when the D-O-LRT is compared to auto and bus, how can the expenditure of \$1.6B to build this fixed rail system be an economically justified use of taxpayer money? Emphasis on fixed rail system.

<i>Comment Responses</i>		<i>DEIS/Errata References</i>
<p><i>As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development. Travel time on local and regional roads will continue to deteriorate in the future due to increasing population and an inability to provide corresponding increases in highway capacity. The D-O LRT will greatly improve travel time certainty and will provide substantial efficiency by connecting with the regional bus system. Enhanced mobility will also increase transit operating efficiency: offer a competitive,</i></p>		<p>DEIS chapter 1 DEIS section 8.1</p>



reliable transportation solution that will reduce travel time for many trips. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system. In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham. The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.

First Name	Last Name	Comment
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<b>Anonymous</b>		Since the Charlotte metro population reflects a static 16,000 Lynx ridership, despite a 17% population growth and 33% increase in Uptown workers across the 7.5 year horizon that it has been operational, how does the D-O-LRT DEIS predict 23,000+ daily riders for Durham/Orange given its far lower population?
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<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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<i>As stated in Triangle Transit’s Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project and clarified in DEIS Errata 19: “Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened.” Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT). See DEIS section 3.1, Public Transportation, and DEIS appendix K2, Travel Demand Methodology and Results Report for more information.</i>	DEIS section 3.1 DEIS appendix K2 DEIS Errata 19
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First Name	Last Name	Comment
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<b>Anonymous</b>		Is GoTriangle aware that Charlotte has the distinction of having the worst traffic congestion in NC in 2015 notwithstanding its Lynx LRT, and has that knowledge combined with the static 16,000 riders been incorporated into the D-O-LRT ridership and traffic mitigation analysis?
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<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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<i>As stated in Triangle Transit’s Request to Enter the New Starts Program Project Development Phase</i>	DEIS section 3.1
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for the proposed Durham-Orange Light Rail Transit Project and clarified in DEIS Errata 19: “Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened.” Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT). See DEIS section 3.1, Public Transportation, and DEIS appendix K2, Travel Demand Methodology and Results Report for more information.

DEIS appendix K2  
DEIS Errata 19

First Name	Last Name	Comment
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Anonymous		Why was a bus rider survey used to support using a 40% zero car ownership population as a parameter underlying LRT ridership estimates when bus riders alone are not a statistically representative population to determine area residents’ vehicle ownership?
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Comment Responses	DEIS/Errata References
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As stated in DEIS Appendix K2, section 5, “Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership.” The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the make up of all households within the D-O Corridor.

DEIS section 3.1.1  
DEIS appendix K1  
DEIS appendix K2

As stated in section 3.1.1 of the DEIS, “Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP).”

First Name	Last Name	Comment
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Anonymous		How does this LRT plan provide future flexibility for transit solutions in order to account for population growth locations changes,
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employment centers relocation and rapidly emerging technology advances? What consideration has there been for these variables which would likely lead to the obsolescence of a fixed route light rail system?

*Comment Responses*

*DEIS/Errata References*

*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com> Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. Section 4.1 of the DEIS describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments.*

DEIS section 2.2.1  
DEIS section 4.1  
DEIS section 4.2

First Name	Last Name	Comment
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**Anonymous**

Why, especially in this highly academic/technology/research centric area of North Carolina, were known emerging transit technology options ignored making this a circa 2015 not 2040 system? Why was the ability of BRT to provide interim transit improvements as well as cost minimization and routing flexibility (compared to LRT) not included in the analysis?

*Comment Responses*

*DEIS/Errata References*

*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT).*

DEIS section 2.2.1

*Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>*

First Name	Last Name	Comment
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<b>Anonymous</b>		When looking at the year of operational start thru 2040 in order to determine ridership data, how many ‘new riders’ per year are expected for LRT and what is total ridership per year? This information is critical to a taxpayer being able to understand cost/benefit and funding risks during the period 2026 – 2040.
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<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As required by FTA protocols, project ridership was determined for the horizon year, 2040, to be consistent with the DCHC MPO 2040 MTP and other planning documents. As such, yearly projections between 2026 and 2040 are not provided. As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

First Name	Last Name	Comment
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<b>Anonymous</b>		Why doesn’t the D-O-LRT corridor align with existing and future land use plans particularly in Chapel Hill where the highest
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concentration of density development is planned along the west side of US15/501 (over 3 million square feet mixed use currently planned) along with high density complexes located just south of US15/501 and NC54 intersection( Southern Village, Obey Creek)?

*Comment Responses*

*DEIS/Errata References*

*Various alternative alignments, including several along US 15-501 were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Through the Alternatives Analysis, the current alignment along NC 54, George King Road, and Farrington Road was selected as the best alternative to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on ourtransitfuture.com.*

DEIS Executive Summary ES-3  
DEIS section 4.1  
DEIS section 4.2

*Light rail was chosen for the D-O Corridor because this technology will: connect residential, educational, and major employment centers throughout the corridor; serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options; efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region; support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly; provide solid anchors needed to shape land use along this critical corridor; and, provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3). Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. Section 4.1 of the DEIS describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments. Additionally, under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly. Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK,*

*Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan. Further information about the Compact Neighborhood destination is available from the Durham City-County Planning Department.*

First Name	Last Name	Comment
Anonymous		If the goal is to support transit oriented developments, why does the preferred alignment C2A have two stations less than ½ mile apart on the same side of a major highway bypassing a 435 acre, residential/retail/commercial/medical TOD on the opposite side of the highway that has a reserved 50' wide transit guideway? The density build approval for this TOD was based on its transit route, and served by C1A, an alignment the Corps of Engineers stated they could support.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<p><i>As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment. Station locations were chosen based upon the access to economic, educational, cultural, and medical facilities, and in areas designated for future development along the Durham-Orange Corridor. As described in Section 2.1.5 of the DEIS, the station locations were proposed and evaluated during the Alternatives Analysis (AA). The station alternatives were evaluated based on their ability to meet the project’s Purpose and Need.</i></p>	<p>DEIS chapter 8 DEIS section 2.1.5 DEIS section 8.4 DEIS appendix G</p>
<p><i>The Town of Chapel Hill requested that alternatives to the Meadowmont/C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the D-O LRT Project, including both the C1 and C2 alignment corridors.</i></p> <p><i>The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning.</i></p> <p><i>The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (appendix G).</i></p> <p><i>The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the</i></p>	

longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the DEIS and are summarized in DEIS chapter 8, Evaluation of Alternatives.

First Name	Last Name	Comment
Anonymous		How is the Woodmont (C2A) station justified vis a vis C1A, or alternative alignments on the north side of NC54 or even the median dividing NC54? This proposed area embraces minimal buildable acreage with no guarantee of development, is landlocked by protected wetlands that prohibit further development and is within easy walking distance to the Friday Center station (approximately 1/2 mile).

Comment Responses	DEIS/Errata References
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*The Woodmont Station is a significant portion of the Town of Chapel Hill’s Future Focus area for growth along NC 54. The Chapel Hill 2020 Comprehensive Plan includes references to the proposed light rail project station areas, TOD, and form-based code elements, which will be part of the short-term implementation strategy. Chapel Hill’s first form-based code district was adopted in 2014 and it is adjacent to the half-mile radius around the proposed Gateway light rail station. Twenty potential TOD sites were identified, including one in the proposed Woodmont Station area, for which a conceptual plan was developed. Focus areas include the NC 54 and North U.S. 15-501 areas that are near the NEPA Preferred and Project Element Alternatives and proposed station areas. The plan calls for focusing development around transit stations, with density decreasing further from the stations where existing residential areas are dominated by single-family homes (section 4.1.2.2).*

DEIS section 4.1.2.2  
DEIS appendix G

*The Town of Chapel Hill requested that alternatives to the Meadowmont/C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning. The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE*

land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (appendix G). The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the DEIS and are summarized in DEIS section 8, Evaluation of Alternatives.

First Name	Last Name	Comment
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<b>Anonymous</b>		Regarding a letter in Appendix G, [Name removed], Chancellor NCCU to Mr. D. King, TTA dated April 13, 2014: Why is there a mutual understanding that a light rail stop on the NCCU campus will be included in Phase Two when doing so now is held out as not feasible. This is particularly significant in light of the Alston Avenue alignment having been for the past five years the advertised plan that influenced local residents to support the regressive transit tax that they are now so adversely affected by?
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<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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<i>The DCHC MPO identifies transportation planning priorities for the region including the DO LRT Project. Triangle Transit studies and works to implement those planning priorities. At this time LRT service to NCCU is not in the 2040 MTP, however, the DCHC MPO is exploring the possibility of including the an extension to NCCU in its 2045 MTP.</i>	DEIS chapter 2 DEIS appendix G
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First Name	Last Name	Comment
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<b>Anonymous</b>		Regarding a letter in Appendix G, Dr. Saunders-White, Chancellor NCCU to Mr. D. King, TTA dated April 13, 2014: Why is there a mutual understanding that a light rail stop on the NCCU campus will be included in Phase Two when doing so now is held out as not feasible. This is particularly significant in light of the Alston Avenue alignment having been for the past five years the advertised plan that influenced local residents to support the regressive transit tax that they are now so adversely affected by?
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<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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<i>The DCHC MPO identifies transportation planning priorities for the region including the DO LRT Project. Triangle Transit studies and works to implement those planning priorities. At this time LRT service to NCCU is not in the 2040 MTP, however, the DCHC MPO is exploring the possibility of including the an extension to NCCU in its 2045 MTP.</i>	DEIS chapter 2 DEIS appendix G
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First Name	Last Name	Comment
Anonymous		GoTriangle has proposed merge/acceleration lanes as mitigation for the unsafe conditions motorists will face attempting to navigate the non-signalized, at grade crossings at both Little John Road and Downing Creek Parkway. This design contradicts the fact that NCDOT will be building an additional travel lane on NC54 along the C2A alignment, resulting in insufficient roadway space for these merge/acceleration lanes. Why hasn't GoTriangle incorporated this conflict in developing this strategy?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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<p><i>The traffic micro-simulation modeling software VisSim was used to evaluate No Build traffic operations in forecast year 2040. The VisSim software simulates how traffic will move along existing and planned roadways. These simulation results help identify intersections where traffic would operate unimpeded as well as any intersections where congestion and queueing would cause substantial delays. The alternatives under study in this DEIS were then modeled and this analysis tool was used to predict how the implementation of the NEPA Preferred and Project Element Alternatives would potentially affect 2040 vehicular traffic. The overarching goals of the traffic simulation are to (1) evaluate the ability of the future roadway network to accommodate future travel demand; (2) help determine which modifications would be necessary to accommodate that demand; and (3) illustrate the potential effects on roadway traffic that would result from implementation of the alternatives being studied in this DEIS. Detailed documentation of the traffic analysis methodology is included in the traffic simulation reports (appendices K.4 through K.11). VisSim traffic models were developed for the No Build Alternative and for each of the NEPA Preferred and Project Element Alternatives. The proposed No Build Alternative would include: § The existing highway network § Highway projects that North Carolina Department of Transportation (NCDOT) has scheduled in the State Transportation Improvement Program § Highway projects listed in appendix M § Existing transit routes and schedules as of September 2013 § Other new bus services to which Triangle Transit, Durham Area Transit Authority (DATA), and Chapel Hill Transit (CHT) have committed, some of which have already been implemented § New bus services to serve areas that would be developed by forecast year 2040, with the exception of the proposed rail transit improvements and related bus transit modifications § Routine replacement of existing transit facilities and equipment at the end of their useful life § Projects contained in the following local plans: – Town of Chapel Hill Greenways Master Plan (2013) – Duke University Illustrative Master Plan Update, the 2024 Plan (2013) – Durham Comprehensive Bicycle Transportation Plan (Greenways Incorporated Team 2006) – Durham Walks! Pedestrian Plan (The Louis Berger Group 2006) – Durham Trails and Greenways Master Plan (2011) – UNC Campus Master Plan (2007) See DEIS section 2.3.1.</i></p>	<p>DEIS section 2.3.1 DEIS appendices K4 through K11 and appendix M</p>
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First Name	Last Name	Comment
Anonymous		How will industrial contaminants, noise, lights, and other significant negative impacts from the presence of a ROMF operation in a

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.*

*No noise impacts are anticipated as a result of the ROMF. See DEIS section 4.10.4*

*Section 4.4.3.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and standards in the design of project elements and provide landscaping and aesthetic treatments with in close proximity to residences. Section 4.4.3.1 and section 1.4 of the combined FEIS/ROD, DEIS Errata 76, notes that lighting would be aimed towards the ROMF to minimize the impacts of light on surrounding neighbors and wildlife. In addition, source-shielding would be used in exterior lighting at the ROMF. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. As clarified in section 1.4 of the combined FEIS/ROD, DEIS Errata 84, visual and aesthetic impacts associated with the Farrington Road ROMF*

DEIS section 4.4.3.1  
DEIS section 4.8.3.1  
DEIS section 4.10.4  
DEIS section 4.11.3  
DEIS section 4.12.4  
DEIS section 8.2.2  
FEIS/ROD section 1.2.2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
FEIS/ROD Table ROD-1  
DEIS Errata 21, 22, 52, 70, 76,  
78, 93, 94, 95 103, 104, 107,  
110, 119, 121, and 137

will be mitigated through coordination with the surrounding landowners and the City of Durham during Engineering. Potential treatments include landscaping, architectural treatments, visual barriers, and building height maximums. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.

As noted in DEIS section 4.11.3 and section 1.4 of the combined FEIS/ROD, DEIS Errata 121, the proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials because of associated maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While light rail vehicles, as noted in section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents, and other waste materials), used at the ROMF will be captured and stored in tanks (inside buildings), where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil.

First Name	Last Name	Comment
Anonymous		In the event of a ROMF industrial incident, have evacuation plans been developed and their effectiveness evaluated for the senior complex residents and elementary school students and personnel?

Comment Responses	DEIS/Errata References
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Section 4.12.4.6 states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.

DEIS section 4.12.4  
 DEIS section 4.12.4.6  
 FEIS/ROD section 1.4  
 DEIS Errata 110

First Name	Last Name	Comment
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Anonymous		What Is the backup plan for movement of the ROMF if the Farrington location is deemed to be unsuitable?
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Comment Responses		DEIS/Errata References
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<p><i>It is not anticipated that the Farrington Road ROMF would be deemed unsuitable, but during the Engineering Phase Triangle Transit will continue to evaluate the ROMF site. Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF</i></p>		<p>DEIS section 8.2.2            FEIS/ROD section 1.2.2            FEIS/ROD section 1.4            FEIS/ROD Table FEIS-2            DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119, 121, and 137</p>
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First Name	Last Name	Comment
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Anonymous		The D-O-LRT corridor alignment, and its route alternatives, compromise the Little Creek and New Hope wetlands. How is that alignment justified when an efficient, flexible, adaptable, scalable, ridership, and cost competitive BRT system can be much more easily implemented and avoid such environmental damage? This is especially true in light of the fact that a BRT system is readily attainable and is a more strategically appropriate 21st century option.
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Comment Responses		DEIS/Errata References
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<p><i>As described in DEIS section 2.3.2.2, East of the proposed station at Patterson Place, the alignment would turn north toward Southwest Durham Drive at Sayward Drive and continue adjacent to U.S. 15-501 on aerial structure across New Hope Creek. At Garrett Road, the elevated alignment would turn east and continue on an elevated structure to a commercial area and Sandy Creek before returning to ground level. The alignment would then follow the property line between Springfield Apartments and Laurel Trace Apartments and then transition to the median of University Drive at Ivy Creek Boulevard. A station is proposed in the median of University Drive east of Martin Luther King Jr. Parkway. As noted in DEIS section 8.2.2.1, one of the differentiating benefits of the NEPA</i></p>		<p>DEIS chapter 2            DEIS section 2.2.1            DEIS section 2.3.2.2            DEIS section 8.2.2.1</p>
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**D-O LRT FEIS / ROD**

*Preferred Alternative, compared to the other alternatives considered, is that it uses or parallels existing transportation rights-of-way to avoid or minimize impacts to the natural environment, such as the New Hope Creek Bottomlands.*

*In the vicinity of Little Creek, as described in DEIS chapter 2, the alignment would follow Prestwick Road until crossing Finley Golf Course Road. It then would turn slightly north and continue along the south side of NC 54 in NCDOT right-of-way to the proposed Friday Center Drive Station, west of Friday Center Drive. It then would continue in the NC 54 right-of-way to the proposed Woodmont Station east of Barbee Chapel Road. The alignment would cross Little John Road and Downing Creek Parkway, and then cross over to the north side of NC 54 on an elevated structure to George King Road. The alignment would travel through USACE property and low density residential development to the proposed Leigh Village Station. As noted in Chapter 8.2.2.1, one of the differentiating benefits of the NEPA Preferred Alternative, compared to the other alternatives considered, is that it uses or parallels existing transportation rights-of-way to avoid or minimize impacts to the natural environment, such as the Upper Little Creek Waterfowl Impoundment.*

*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>*

First Name	Last Name	Comment
Anonymous		Why is the LOS for No Build and NEPA Preferred alignments assessed for every intersection with NC 54 from Barbee Chapel Road east to I40 with the stunning exception of Little John Road and Downing Creek Parkway (table 3.2.3)?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains.*

DEIS section 3.2

First Name	Last Name	Comment
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<b>Anonymous</b>		Was a safety and traffic congestion impact analysis performed regarding the at grade tracks which are designed to cross heavily traveled Farrington Road? If so, what were the results?
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<i>Comment Responses</i>		<i>DEIS/Errata References</i>
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<p><i>DEIS section 3.2 describes the potential traffic impacts. With the NEPA Preferred Alternative, traffic operations at the intersections along Farrington Road would be similar to operations under the No Build Alternative, as listed in Table 3.2-3. Additional information on the traffic analysis is provided in the technical reports included as Appendix K3 through K12 of the DEIS.</i></p>		<p>DEIS section 3.2 DEIS section 3.2.3 DEIS section 3.6 DEIS Table 3.2-3 DEIS appendix L FEIS/ROD section 1.4 FEIS/ROD Table FEIS-2 DEIS Errata 36 and 108</p>
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*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.*

First Name	Last Name	Comment
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<b>Anonymous</b>		Was a safety and traffic congestion impact analysis performed regarding the at grade tracks which are designed to cross heavily traveled Farrington Road? If so, what were the results?
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<i>Comment Responses</i>		<i>DEIS/Errata References</i>
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<p><i>With the NEPA Preferred Alternative, traffic operations at the intersections along Farrington Road would be similar to operations under the No Build Alternative, as listed in Table 3.2-3. See DEIS</i></p>		<p>DEIS section 3.2 DEIS section 3.2.3</p>
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section 3.2 for more information. Also see the technical appendices K3 through K12 for detailed information on the traffic analyses completed as part of the DEIS.

DEIS section 3.6  
 DEIS Table 3.2-3  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 36 and 108

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.*

First Name	Last Name	Comment
Cathryn	Abernathy	Chapter 4 of the DEIS is fatally flawed. The Study Area of 400 feet along the 17 miles of the route is totally inadequate as a basis of analysis and evaluation. Negative environmental impacts affect every inch of the New Hope Creek Watershed. Compliance with Federal and State laws and regulations is also inadequate. Efforts to improve the environment and to prepare for further pollution of Lake Jordan are totally absent. With respect.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*The study area of 400 feet for the referenced resources is adequate to determine direct effects. The DEIS was prepared in accordance with the National Environmental Policy Act (NEPA), as well as Moving Ahead for Progress in the 21st Century Act (MAP-21); Environmental Impact and Related Procedures of 1987 [23 Code of Federal Regulations (CFR) § 771]; Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 [49 U.S.C. § 303] and [23 CFR § 774]; and Section 404 of the Clean Water Act of 1977 [33 U.S.C. § 1251], among others. A legal sufficiency review of the DEIS was also conducted by the FTA and Triangle Transit.*

DEIS section 4.8.3.1  
 DEIS section 4.17

*The selected alignment alternatives for the crossings of the Little Creek and New Hope Creek*

watersheds were chosen in part because of their limited fragmentation and wildlife impacts. The NEPA Preferred NHC 2 alternative avoids cutting through the intact inner portions of the New Hope Creek bottomland forest by following along the existing US 15-501 through the most sensitive portions of the New Hope Creek bottomlands. In addition to minimizing forest fragmentation by following along existing roadways, both the Little Creek and New Hope Creek crossings will feature raised rail sections supported by bridge piers. This will allow for terrestrial wildlife to pass easily underneath, maintaining the connectivity of this important wildlife corridor. The opening of forest habitat will also be minimized by only clearing vegetation along the rail corridor to the extent necessary and allowing vegetation to regenerate as close to the rail lines as is safe and practical. Construction impacts could also be minimized by using techniques such as “top down” construction, described in section 4.16 of the DEIS. Water resources are discussed in DEIS section 4.8. DEIS section 4.8.3.1 summarizes the potential impacts the NEPA Preferred Alternative (which includes the Farrington ROMF). Indirect Effects to Water Resources are described in DEIS Section 4.17. As stated on page 4-292, existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans. Indirect and cumulative effects of the Project are described in DEIS section 4.17.

First Name	Last Name	Comment
Gail	Abrams	<p>Dear Mayor Bell, Chairman Page, Members of City Council and the Board of County Commissioners, I am writing on behalf of Piedmont Wildlife Center (PWC), a nonprofit organization located in Leigh Farm Park directly across I-40 from the proposed Farrington Road ROMF. The board and staff of PWC oppose the location of this ROMF because of the environmental impacts it will have on Leigh Farm Park and the New Hope Creek Corridor. Leigh Farm Park is part of the City of Durham's Heritage Parks program. A long list of public and private organizations played a part in preserving the property. The former plantation with surviving buildings is listed on the National Register of Historic Places. It has been home to Piedmont Wildlife Center (PWC) since 2007 and is the main hub of activity for the Center's nature education and conservation efforts. Over 1,500 children explore the park's wetlands, streams, forest and fields every year as they learn about nature and how to conserve and protect it. PWC leases their facilities and use of the property from the City of Durham. Even though GoTriangle plans to have cisterns collect water run-off, 25 acres of impervious surfaces will not be 100% contained in those cisterns, causing additional flooding through Leigh Farm Park. This runoff will impact Leigh Farm Park and the New Hope Creek Corridor, into which it drains. PWC has spent its own money and provided volunteer efforts to improve the park trails, building extensive boardwalks to protect the wetlands and provide better opportunities for visitors and the children in our programs to observe wildlife activity in the park's wetland areas. The current drainage from I-40 and the area recommended for the Farrington Road ROMF already has a major impact on the wetlands in the park. Trash, oil, gas, other chemicals and sediment flow under I-40 during any rainstorm, flooding the wetlands and allowing plants such as poison ivy to take over the landscape. Our boardwalks and bridges are constantly being bombarded by flooding water, causing us to raise their level every few years. Run off from 25 acres of impervious surfaces will devastate the wetlands and our trail system through Leigh Farm Park. B. PWC has been participating in a scientific study of eastern box turtles since 2009. Over 150 eastern box turtles have been found on the property and marked, 8 turtles currently have transmitters on them and are being monitored regularly to collect</p>

data that is being used to identify threats and develop strategies for long-term conservation of the species. Piedmont Wildlife Center is a leader in this statewide effort to learn more about the eastern box turtle. In the NC Wildlife Commission's Wildlife Action Plan, Box Turtles have been identified a Priority Species in North Carolina. Globally they are considered Threatened on the IUCN Red List. <https://boxturtle.uncg.edu/what-is-the-box-turtle-connection/status-of-box-turtles-in-the-wild/>. Additional run-off from the ROMF will impact this scientific study as well as the wildlife corridor running through it and into the New Hope Creek Corridor C. The New Hope Creek Corridor Advisory Committee highlighted Leigh Farm Park in its 1991 New Hope Corridor Open Space Master Plan: <http://www.newhocreek.org/maps.html> "The entire 100-year floodplain is owned by the federal government and is subject to its protection measures. In particular, much of the land in this component lies within the Corps of Engineers land for Jordan Lake. Eight vegetation sites were identified by Ed Harrison in this component, comprising the New Hope Bottomlands Forest and Tributary Wetlands, the New Hope Swamp Forest and Tributary Wetlands, and the Leigh Farm Area Upland. Additionally, two sites from the Inventory of Natural Areas and Rare Species of Durham County lie in this area, the New Hope Bottomland Forest and the New Hope Overcup Oak Forest. The Corps land is included in this component because the Master Plan provides an opportunity to develop the existing resources of the Corps land and other adjacent resources into an integrated system for educational and recreational use. The Corps land, significant Durham County Inventory sites, Jordan High School, and Leigh Farm offer the possibility of developing a trail network and a center for cultural history and environmental education. Recommendations for Protection & Use • Develop cooperative relationships with the corps of Engineers and the North Carolina Wildlife Resources Commission concerning this and other recommendations of the Master Plan. • Establish an unpaved nature trail following the western edge of the floodplain, extending from Chapel Hill Road to NC 54. Establish lateral connections to Jordan High and Leigh Farm. • Support the acquisition of the historic Leigh Farm for the establishment, with the continuing support of local jurisdictions and civic organizations, of a major open space center at the southern terminus of the corridor. The emphasis of the center would be cultural and historic interpretation, with accompanying incidental recreational activities, in a manner similar to the center at West Point on the Eno. The acquisition of the tract would help preserve the scenic value of the landscape along this stretch of the Interstate 40 corridor. • Establish a trail entrance and anchor at the portion of the Leigh Farm tract in the vicinity of the existing historic buildings. Corridor public funds should be used only for acquisition of the portion of the land suitable for the anchor use, not for purchase or restoration of historic buildings." D. The NC Wildlife Resources Commission states in its description of floodplain forests in the Piedmont Ecoregion: Floodplains are the highest priority habitat for conservation in the Piedmont because of their importance to birds (Cooper and Demarest 1999), bats, and herpetofauna. Some of the best remaining examples of Piedmont Bottomland Forest and associated large floodplain communities are at New Hope Creek Bottomland in Durham County, Pee Dee National Wildlife Refuge in Anson and Richmond Counties, and along the Dan River. Impacts on these bottomland forests include: Altered hydrology - The most significant source of habitat alteration is altered hydrology. Altered hydrology changes plant communities and also affects the availability of ephemeral wetlands for breeding amphibians. Increased severe flooding can be caused by impervious surfaces in the uplands. Flooding for long periods of time during the breeding season can harm plant and animal reproduction and severe floods also threaten human safety and property. Water quality - Poor water quality due to nutrient inputs, reduced dissolved oxygen levels, sedimentation, and chemical contamination (among others) can have a strong impact on amphibians, turtles, and other animals associated with floodplain forests that forage or breed in aquatic areas, in addition to the direct impacts on fully aquatic species. Sediment pollution is a major problem in the Piedmont of North Carolina. [http://www.ncwildlife.org/Portals/0/Conserving/documents/Piedmont/P\\_Floodplain\\_forest.pdf](http://www.ncwildlife.org/Portals/0/Conserving/documents/Piedmont/P_Floodplain_forest.pdf) E. The North Carolina Natural Heritage Program has named the wetlands above RT 54 and below Leigh Farm Park as a Natural Heritage Site and further lists in The Durham County below Leigh Farm Park as a Natural Heritage Site and further lists in The Durham County Inventory of Important Natural Areas, Plants and

Wildlife <https://triangleland.org/assets/images/uploads/DurhamNatural%20Heritage%20Inventory.pdf> the following areas as significant for conservation: SITES OF NATIONAL, STATE, AND REGIONAL SIGNIFICANCE IN DURHAM COUNTY

New Hope Creek Bottomland Forest contains some of the best Piedmont/Mountain Swamp Forest and Piedmont/Mountain Bottomland Forest remaining in North Carolina. The rare bigshellbark hickory (*Carya laciniosa*) occurs here. The 800-acre site also provides important wildlife habitat. This is a Registered Heritage Area owned by the Army Corps of Engineers – Jordan Lake. New Hope Creek Floodplain Forest (Lower) is comprised of one of the state’s best collection of large floodplain communities, including Piedmont/Mountain Bottomland Forest and Piedmont/Mountain Swamp Forest. The site is partly owned by the Army Corps of Engineers – Jordan Lake; the remainder is privately owned. Jordan Lake Bald Eagle Habitat is a large roosting site for Bald Eagles (*Haliaeetus leucocephalus*). Eagles can also be seen foraging in the shallow water of lake and on mudflats. This site is owned by the Army Corps of Engineers – Jordan Lake and by North Carolina State University. Durham County forests are being rapidly developed due to the explosive growth of companies in the Research Triangle Park. In addition, many bottomland communities were lost when the Falls Lake (in the Neuse River drainage) and Jordan Lake (in the Cape Fear River drainage) reservoirs were filled. Despite these conditions, many Significant Natural Heritage Areas remain, particularly as corridors along the rivers and creeks. The sites can be grouped into those that follow the Eno River, Flat River, Little River, New Hope and Mud Creeks, and Jordan and Falls Lakes. All of these government agencies and advisory committees have done extensive inventories of flora and fauna found in these open spaces and found the New Hope Creek Corridor to contain numerous rare species or species of concern that are worthy of protection as well as numerous habitats not found anywhere else in North Carolina needing protection. The Farrington Road ROMF will have devastating impacts on operations of PWC as well as the floodplains and bottomlands that eventually drain into the Jordan Lake drinking water supply. We respectfully ask that other alternative ROMFs be studied that will not have the large amount of environmental impacts associated with the Farrington Road ROMF. We would be very willing to give a tour of Leigh Farm Park so you can see the existing drainage issues and impacts on our trail system. Thank you for your consideration of our concerns.

Sincerely,  
 Executive Director  
 Piedmont Wildlife Center  
 Gail Abrams  
 Executive Director  
 Piedmont Wildlife Center  
 364 Leigh Farm Road  
 Durham, NC 27707 (919) 489-0900 (919) 493-0988 (fax) [www.piedmontwildlifecenter.org](http://www.piedmontwildlifecenter.org)

*Comment Responses*

*DEIS/Errata References*

*DEIS section 4.17.2.3 discusses the anticipated cumulative impacts to water quality from the NEPA Preferred Alternative, including the ROMF. These impacts would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. The project will comply with stormwater management permitting requirements and include DWR stormwater management BMPs. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 103 clarifies that the ROMF site plan will manage stormwater runoff in a manner consistent with local and state regulations to avoid and minimize impacts to neighborhoods and community resources in the vicinity such as Leigh Farm Park and the Piedmont Wildlife Center.*

DEIS section 4.8.3.1  
 DEIS section 4.17  
 DEIS section 4.17.1.3  
 DEIS section 4.17.2.3  
 DEIS appendix K21  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-2  
 DEIS Errata 92, 102, and 103

*DEIS section 4.7 discusses the natural resources located within the D-O Corridor, including wildlife and habitats, with a focus on ecologically-sensitive areas and contiguous expanses of undisturbed lands. It documents federal and state-listed threatened and endangered species (fauna, flora, aquatic, and terrestrial). This section also identifies the potential effects to natural resources that*

would result from implementation of the alternatives under study in this DEIS. Where potential adverse effects are identified, efforts to avoid, minimize, or mitigate these effects through design modifications are also discussed. Additional detail regarding the natural resources located within the D-O Corridor is contained in appendix K21. Table 4.7-3 indicates the acreage of each biotic community that falls within the NEPA Preferred Alternative. Under the NEPA Preferred and Project Element Alternatives, no significant adverse impacts to terrestrial or aquatic habitat are anticipated. Under the NEPA Preferred Alternative, significant adverse impacts to terrestrial or aquatic wildlife are not anticipated. Limited wildlife disturbance would occur for the duration of the construction activities (DEIS section 4.16). Impacts to wildlife are expected to be limited after construction is completed. The NEPA Preferred Alternative is not anticipated to result in significant impacts to federal or state-listed threatened or endangered species, or their habitats.

Water resources are discussed in DEIS section 4.8. DEIS section 4.8.3.1 summarizes the potential impacts the NEPA Preferred Alternative (which includes the Farrington ROMF). Indirect Effects to Water Resources are described in DEIS section 4.17. As stated in DEIS section 4.17.1.3 under the Water Resources sub-heading, existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 92 clarifies that as the design progresses, construction related impacts, including temporary impacts or otherwise, will be identified and will be included as part of the 401 Water Quality Certification application. Section 1.4 of the combined FEIS/ROD, DEIS Errata 102 provides language that if hydraulic studies during Engineering determine that the NEPA Preferred Alternative would cause an increase in flood levels during the base flood discharge, then a No-Rise Certification would be obtained from the NC Department of Public Safety Division of Emergency Management. If studies indicate that there would be an increase in flood levels, then a Conditional Letter of Map Revision would be requested. Section 1.4 of the combined FEIS/ROD, DEIS Errata 97 further indicates that a floodplain development permit will be obtained from the local jurisdiction for all construction, grading, development, or the storage of equipment or materials within the Special Flood Hazard Area (SFHA).

First Name	Last Name	Comment
Louis	Almekinders	I submit these comments from several perspectives: 1. I am a home owner in the Oaks, directly adjacent to the proposed project. 2. I run my business at Patterson Place (North Carolina Orthopaedic Clinic) also directly adjacent to the proposed project. 3. I was born and raised in The Netherlands where the rail system is one of the main means of commuting and travel. Based on these, it is my strong opinion that especially the Orange County side of this project clearly lacks the residential density that would ever make the ridership on this light rail a worthwhile project. I am very familiar with the Meadowmont, Oaks, Falconbridge and Leigh village neighborhoods as I have lived and worked here for over 20 years. These are all low density neighborhoods with substantial number of people employed in Research Triangle Park, Raleigh and even Cary. Your ridership projections are unbelievable high from these



areas and, in my opinion, deceiving. Secondly, I have surveyed patients in my Patterson Place clinic as to their desired means of transportation. I have yet to find a single patient that was excited about traveling by light rail to my clinic or would even admit to likely using it. Metropolitan areas in this country and countries like the Netherlands can make rail transportation work because of two main factors: 1. high density residential and work areas (high rise buildings with little or no green space both for workers and residents) 2. an extensive rail network that gives additional travel options (reach the airport, long distance travel, etc). This area has neither. It is a very expensive project that, in my opinion, will result in "ghost" trains.

*Comment Responses*

*DEIS/Errata References*

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobility*
- o Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development*
- o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time*
- o Increase Connectivity*
- o Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system*
- o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*
- Promote Future Development*
- o Support local land use plans that foster compact development,*
- o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers*

*The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:*

- Connect residential, educational, and major employment centers throughout the corridor;*
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;*
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;*
- Provide solid anchors needed to shape land use along this critical corridor; and,*
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3). As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-*

DEIS chapter 1  
 DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33



*O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

*Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments.*

***D-O LRT FEIS / ROD***

First Name	Last Name	Comment
Arthur	Alt	Although I am having problems accessing your website and hence lack information beyond the letter I received in the mail (GO Triangle), I wonder why we need LRT between Chapel Hill and Durham. Why won't bus service do? Is it about collecting federal money available for such a project? The letter makes only a vague reference to potential ridership. For such a short distance why do we need it? There is a bus running between UNCCH and Duke (Robertson?) and most people drive, if they have to shuttle or go to work in either location. Are there any existing train tracks or do we start from scratch?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Chapter 1 of the DEIS provides detailed information on the population growth forecasted for the Triangle region and the rationale for a fixed guideway transit system to address future travel patterns and promote future development consistent with local land use plans. Section 1.5 of the DEIS addresses the need for the D-O LRT Project. The Triangle region has experienced extraordinary growth in recent years. Growth forecasts show population in the region increasing by 80 percent between 2010 and 2040, from 1.6 to 2.9 million. Within the D-O Corridor, the population is projected to double and the highest expected travel intensity (number of trips per acre) in the Triangle region is predominately located in this corridor. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (see ES-5 of the DEIS). Additional information regarding the expansion of roadway capacity can be found in DEIS section 1.4.1.1 and further in section 3.2 of the DEIS.*

DEIS chapter 1  
DEIS section 1.4.1.1  
DEIS section 1.5.1.2  
DEIS section 3.2

*Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that*

**D-O LRT FEIS / ROD**

*currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (ES-5).*

*No LRT tracks currently exist in the D-O Corridor. New tracks would be constructed as part of the project.*

First Name	Last Name	Comment
Philip	Azar	<p>Subject: Resolutions Regarding an Alston Avenue Light Rail Stop, Design and Route issues in Western Portions of Durham City and County, Rail Siting Processes and Planning Efforts Related to Transit Dear Members of the Durham County Board of Commissioners, Durham City Council Members, and Go Triangle Leadership: I am writing you regarding a series of resolutions passed by the InterNeighborhood Council of Durham. The first two resolutions focus on ends of the proposed rail corridor in Durham County. The first resolution calls for more attention to the need for a true Alston Avenue site. An Alston Avenue stop is seen as important in and of itself, but it also keep open the possibility of a rail service yard in East Durham and eventually light rail service to Durham Tech. The second resolution focuses on improved design as light heads west, entering Chapel Hill’s planning jurisdiction, but remaining within Durham City and/or Durham County. In addition to design and route issues, it addresses the need Durham elected officials to engage with concerned neighborhoods, even if technical responsibility for planning the stops in those neighborhoods has been delegated to Chapel Hill. The resolutions in the second set are non-stop specific. The first of these (third overall) is entitled, “Overarching Resolution Regarding Rail Siting” and addresses the need for more meaningful and direct discussions with neighborhoods, increased citizen outreach, and the importance of ensuring the plans to service low-income residents are accelerated. The second non-site specific resolution (fourth overall) is entitled “Resolution for a more inclusive, in-depth process for public involvement in planning ‘Compact Neighborhoods’ and ‘Compact Design Districts’ with higher-density development zoning around proposed light stations in Durham.” It addresses the complexity of the existing process, which undermines resident participation unless balanced by a greater commitment to best practices and neighborhood involvement (even if the Planning Department would need to help with neighborhood education efforts) and the need to work in a determined and genuine manner to provide equitable solutions around neighborhood stability and livability, affordability for residents and businesses, and greater access to more transit options. Overall, the resolutions show that Durham neighborhoods and residents are concerned with the planning and engagement process around rail. INC has reached out to the Planning Department to try to work together on issues raised in the last resolution, and the response has been very positive. In the midst of these concern, it is worth noting that INC remains committed to improvements in our transit system. Please read the resolutions in full. Sincerely Philip Azar</p> <p>Resolution Regarding the Alston Street Light Rail Station Site  The Northeast Central Durham Leadership Council has given careful attention to the recent announcement by the Triangle Transit Authority to move the Alston transit station one quarter mile west on Pettigrew to a location near Grant Street. East Durham is not well served by this change, and we call for TTA to identify a site east of Alston Avenue. TTA made presentations to our organization and other organizations and groups in Northeast Durham</p>

about the plans for station locations in the light rail system, and we are distressed that TTA did not request our input or inform us of the possible change in the station site before making the new recommendation to a meeting of the Durham City Council Commission on January 13, 2015. To be true to the statements from TTA about how light would serve East Durham, we think it is essential that they continue to look for ways to place the station in a location east of Alston Avenue. The NECD Leadership Council opposes the Grant Street location for the following reasons:

- The Grant Street location will not serve the heart of northeast Durham as well as a site east of Alston Avenue.
- The Grant station site would be three-quarter miles rather than one-half mile from Driver Street which is a focus of economic revitalization efforts by the neighborhood and the city. The Grant station is less convenient for pedestrians using the Bryant Bridge who would have to walk an additional quarter mile to reach the Grant Street location.
- The Grant station site would be three-quarter mile rather than one-half mile from MacDougald Terrace.
- The Grant station would be less than a half mile from the Dillard/Fayetteville Station and that station would serve many of the same residential areas that would be served by the Grant Street location.
- The new location would reduce the likelihood of placing the light rail Operations and Maintenance Facility in East Durham and eliminate the possibility that light rail could ever be extended to a new station that would directly service Driver Street, Briggs Avenue, and Durham Technical Community College. The light rail system should be planned now in a way that keeps open the possibility of extension in the future. Fundamentally, the level of light rail service promised to East Durham would not be provided and possible future enhancements would be eliminated by the using the Grant Street station site. TTA has announced that the Alston station cannot be at its exact original site north of the water tower on Pettigrew, but that does not mean that pulling the line farther back from East Durham is the only or best option. TTA has realigned the light rail with only slight shifts in the location of other stations in the latest version of plan. They should make the same effort to keep the station east of Alston by moving the line outside the railroad right of way. The light line could be moved closer to NC 147 with its own bridge over Alston Street at Gann Street and a station placed close to the Bryant Street bridge. We call for a balanced assessment of the pros and cons of this and other potentially feasible alternative sites east of Alston for the current eastern terminal station in the light rail system. This 23th day of June 2015.

THE NEIGHBORHOOD COUNCIL OF DURHAM  
By Phil Azar  
President  
Resolution on Little Creek Light Rail Route  
Submitted May 26, 2015

Whereas local and regional authorities including GoTriangle (formally Triangle Transit Authority), the city of Durham, the Town of Chapel Hill, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHMPO), and the North Carolina Department of Transportation are all presently engaged in forming plans for a proposed Durham-Orange Light Rail line; Whereas two routes under consideration, "C2" and "C2A," would use the south side of the N.C. Route 54 right-of-way to cross the Little Creek section of that proposed rail line; Whereas either of those routes would require the creation of several dangerous grade-level rail crossings that obstruct access to and across N.C. Route 54 for residents of several Durham and Chapel Hill neighborhoods; Whereas another route under consideration, "C1A," would carry the light rail line across Little Creek north of N.C. Route 54 and through Chapel Hill's "Meadowmont" subdivision; Whereas the Town of Chapel Hill's 1995 approval of the creation of Meadowmont was predicted on the future routing of light rail there; Whereas a "C1A" route through Meadowmont would draw ridership from a population that exists in place today, made up of people who brought or built their homes in an area posted as a future transit corridor, while a "C2" or "C2A" route would draw ridership only from a possible future population based on apparent plans shared by the Town of Chapel Hill and the University of North Carolina-Chapel Hill; Whereas Downing Creek, a member neighborhood of this council, has by vote of its community association board resolved to oppose light rail construction along either the "C2" or "C2A" corridor, and more than ninety percent of Downing Creek residents have responded to a survey by saying they are "strongly opposed" to these routes; Whereas in the course of several meetings, the authorities in control of this rail planning process have been dismissive of local residents' opinions and of their research into the relevant traffic and safety issues, as summarized online at [Transit.DowningCreek.org](http://Transit.DowningCreek.org); Be it resolved that

  1. The Interneighborhood Council of Durham recognizes that the several neighborhoods south of N.C. Route 54 in the affected area, including member community Downing Creek, strongly

objected to any light rail construction along proposed routes “C2” or “C2A”<sup>2</sup>.and concludes in its own right that the proposed Durham-Orange Light Rail project should use every effort to follow the originally intended path through Meadowmont, as represented by current option “C1A” or an alternative route with less negative impact on our communities.<sup>3</sup>.and calls upon all elected and appointed officials whose jurisdiction includes the light rail planning project to take heed of these community resolutions and to work constructively with Downing Creek and other neighborhood leaders in finding appropriate alternatives

4.and hereby directs its President to publish this resolution and directly to the Durham City Council, the Durham County Board of Commissioners, and the members of the state legislative delegation who represent the affected area.This 23th day of June 2015.THE INTERNEIGHBORHOOD COUNCIL OF DURHAMBY Phil AzarPresidentOverarching Resolution Regarding Rail Siting ProcessWhereas local and regional authorities including GoTriangle (formerly Triangle Transit Authority), the City of Durham, the Town of Chapel Hill, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHMPO), and the North Carolina Department of Transportation are all presently engaged in forming plans for a proposed Durham-Orange Light Rail line;Whereas neighborhoods and other groups continue to have concerns with the proposed routes-safety of at-grade crossings, impact on businesses, difficulties of pedestrian crossing, and reach into the eastern part of the city – and would like to see these concerns treated seriously;Whereas there have been concerns about sharing of working maps and other materials;Whereas although it is clear GoTriangle staff has worked hard to schedule public meetings and put a large amount of expertise and effort into the presentations made at these meetings, citizens feel they have not been listened to when they ask about anything other than the results of staff studies;Whereas meetings with neighborhoods and other groups should be part of a dialogue where GoTriangle uses its expertise to meet groups and individuals “where they are” and not opportunities to reiterate reasons for supporting positions already taken;Whereas INC has passed resolutions about a stop east of Alston Avenue and the alignment near Little Creek;Whereas INC has passed resolutions in support of light rail;Be it resolved that:1.INC continues to endorse such improvements in our transportation system.2.GoTriangle is encouraged to have more meaningful direct discussions with neighborhoods to address their concerns, using real world light rail examples and offering YouTube examples and specific examples from other transit systems, especially Charlotte.3.GoTriangle is encouraged to explore new ways to promote citizen involvement.4.Durham should proceed with plans to link the new Amtrak and bus stations with a pedestrian crosswalk as a downpayment against promises that transit expenditures will also benefit low-income residents that do not live in or immediately adjacent to downtown, and who rely on bus service linkage to rail. Failing that, other plans to serve low-income residents in meaningful manners should be accelerated so that the benefits of transit are shared more equitably.This 25th day of August 2015.

THE INTERNEIGHBORHOOD COUNCIL OF DURHAMBY Phil AzarPresidentResolution for a more inclusive, in-depth process for public involvement in planning “Compact Neighborhoods” and “Compact Design Districts” with higher density development zoning around proposed light rail stations in Durham (AKA Resolution on Density around Rail Stations)Whereas, in Spring and Summer 2015, Durham City and County staff put significant effort into the community meetings as a part of the process of planning “Compact Neighborhoods” with higher density development around proposed light rail stations;Whereas, residents, businesses and institutions in near and proposed “Compact Neighborhoods” may be displaced with the largest impact on lower income residents who would have the greatest difficulty finding homes they can afford;Whereas, many residents who live in “Compact Neighborhoods” did not get mailed notices of these meetings;Whereas public input was limited to drawing lines for “Compact Neighborhood,” with no discussion of the impact of high density development on residents or how the public and resident would be involved in planning for their neighborhoods in the future;Whereas, the public has not seen an analysis of the impact of higher density development already happening Downtown, 9th Street, and Duke/VA Hospital;Whereas, the plan for development around



9th Street was aided immensely by participation and expertise from the community;Whereas, new methods of public engagement are being used across the country to create dialog within communities and increase public knowledge, leaving them less dependent on outside experts (see example);Whereas, planning principles should support neighborhood values, including neighborhood stability, character, and smooth transitions among uses, and planning’s rule of drawing lines between back yards does not support this value;Whereas, Durham City-County Planning did not include adequate neighborhood involvement in creating “Compact Neighborhoods” and has not specified how the community would be involved in planning for “Compact Design Districts;”Whereas, once “Compact Design Districts” are in place, the public will have no say in what is built;Therefore, the InterNeighborhood Council (INC) of Durham resolves that:Before adopting plans for “Compact Neighborhoods” with higher density development near future light rail stations, we ask the City and County to:1.Investigate and implement best practices around the country for building a dialog among members of the community as well as experts;2.Inform the public about the potential impact of higher density development, including the effects of higher zoning, taxes, rents, and home prices on the stability of local neighborhoods, small businesses, institution, and residents;3.Involve the public in a more inclusive, in-depth planning process with:a.Neighborhood Planning Committees for each transit station with members of local neighborhoods, businesses, institutions, and residents who would be most effected by higher density development, andb.Training and involvement of community members in leadership of Neighborhood Planning Committees.4.Work in a determined and genuine manner to provide equitable solutions to ensure that:a.Neighborhoods stay stable and livable,b.Homeowners, home buyers, and renters can stay in safe, sustainably affordable homes and have opportunities for new homes they can afford long-term,c.Small businesses and local institutions can continue and have options for comparable locations, and d.Residents can access light rail transit with safe sidewalks, bike lanes, trails, and bus stations.This 25th day of August 2015.THE INTERNEIGHBORHOOD COUNCIL OF DURHAMBY Phil AzarPresident

*Comment Responses*

*DEIS/Errata References*

*In the Alternatives Analysis prepared for the D-O LRT Corridor (available on <http://ourtransitfuture.com>), the proposed location for the Alston Avenue terminus station was just east of Alston Avenue. Triangle Transit determined that a station on the east side of Alston Avenue is infeasible due to the required 40-foot spacing between the light rail track and nearest future railroad track, space constraints imposed by the Pettigrew Street bridge over Alston Avenue, and the City of Durham water tower east of Alston Avenue. Therefore, the proposed location for the Alston Avenue Station was moved to just west of Alston Avenue approximately 1,200 feet from the location described in the AA. On May 21, 2015, the NCR Board of Directors agreed to permit NCR management to enter into lease negotiations with Triangle Transit based on this refined alignment.A conceptual alignment east of Alston Avenue, south of the NCR Corridor, and adjacent to NC 147 was evaluated. This concept was determined to be technically infeasible, primarily due to constraints associated with the NCDOT right-of-way for NC 147, City of Durham historic water tower, and NCDOT’s Alston Avenue widening project.The combined FEIS/ROD will reflect that the existing pedestrian connection between the Durham Station and Amtrak Station will be maintained. The combined FEIS/ROD will also reflect that the alignment of the NEPA Preferred Alternative would not preclude future extensions, however extensions are not a part of this project.*

DEIS section 8.2.2.1  
DEIS chapter 5  
DEIS chapter 9

*As discussed in Ch. 8 section 8.2.2.1, the NEPA Preferred Alternative (C2A), supports Land Use Plans and Policies: This alternative is consistent with local land use plans and policies. In earlier*



transportation planning studies, portions of the C2A Alternative were identified as the preferred corridor for high capacity transit and the areas around the proposed Friday Center Drive and Woodmont Stations were identified for future growth. Minimizes Impacts to Public Parklands: Impacts to two parks with use of approximately 0.3 acre of land. This includes impacts to Finley Golf Course (0.1 acre) and USACE's Jordan Game Lands (0.2 acre). Within USACE owned property, an existing improved transportation corridor would be utilized. Triangle Transit has coordinated with both USACE and UNC and involved them in the development of the C2A Alternative. The C2A Alternative also avoids impacts to the existing Town of Chapel Hill public park and recreation facilities, Meadowmont Park and Little Creek Trail. Avoids Fragmentation of Natural Heritage Area: Minimizes adverse impacts to the Little Creek Bottomlands and Slopes Significant Natural Heritage Area and parallels an existing improved transportation corridor, so no new fragmentation of these sensitive resources would occur. Minimizes Vibration Impacts: A single residence on George King Road would experience impacts from vibration and ground-borne noise impacts. Moderates Property Acquisitions and Displacements: The C2A Alternative has fewer acquisitions than the C1A and C2 Alternatives; additionally, there are fewer displacements than the C2 Alternative and an equal number of displacements as the C1A Alternative. The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the DEIS and are summarized in DEIS chapter 8, Evaluation of Alternatives.

Triangle Transit is committed to engage the public in meaning ways throughout the development of the D-O LRT project. As discussed in chapter 9 of the DEIS, Triangle Transit has participated in more than 300 meetings with the public to inform them of the project and to gather feedback. However, this is just the beginning of the planning process Triangle Transit is committed to continue to engage the public through the Engineering and Construction phases of the D-O LRT project. Triangle Transit agrees that special consideration needs to be taken to ensure the low-income and minority populations are involved in the planning process. Ch. 5 of the DEIS is devoted to documenting the steps that Triangle Transit went through to ensure that low-income and minority populations were informed of and involved in the planning process. Triangle Transit will continue to engage low-income and minority populations in meaningful way throughout the Engineering and Construction phases of the project.

Triangle Transit has shared your resolution/comment regarding the greater public involvement in the Durham City/County Compact Zoning planning process with the Durham City/County planning department.

First Name	Last Name	Comment
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Tanja	Bauer	<p>To whom this may concern,I see several issues with building this light--rail, one of them is that the planned route does not connect people to the actual places where they need to go. When looking at the traffic in the morning, the majority of cars do not go into Chapel Hill or Durham, they go to RTP. Therefore, building a light--rail that connects Chapel Hill to Durham will not fix out traffic issues. Not that there are really any traffic issues, as compared to other cities the commute/traffic is really not bad at all. One of the benefits that is always pointed out during Go Triangles presentations is that it will connect the two universities. There is currently a bus that transports passengers between the colleges, however the average use is 5 persons per ride. Also, a recent UNC Chapel Hill study showed that the current bus system that is in place between Chapel Hill and Durham is being used by less than 1300 riders a day. I really believe that it would be a huge waste of tax dollars, if we build a light--rail for those few people. I understand that you believe the ridership will increase but when you look at Charlotte, which opened their light--rail in 2007, their ridership has NOT increased even though many more people have moved to the Charlotte area in the last 8 years.Please consider either a different route, which would really increase the usage of the light--railor to face the facts and discontinue the project and not further waste our tax dollars.Thank you,Tanja Bauer</p>
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Comment Responses	DEIS/Errata References
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<p><i>Hundreds of commuters to UNC from RTP, Morrisville, Cary, and Raleigh already park and ride today at parking lots at Southpoint Mall, Exit 282 off of I-40 at the Regional Transit Center, and at District Drive in Raleigh. They choose to use these bus services even though they are subjected to traffic on NC 54. The light rail, with a major park-and-ride facility at Leigh Village, will offer a higher level of frequency than these routes and will not be subject to traffic congestion in the future when traffic is worse.Furthermore, RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail.The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).</i></p> <p><i>The Triangle region has experienced extraordinary growth in recent years. Growth forecasts show population in the region increasing by 80 percent between 2010 and 2040, from 1.6 to 2.9 million. Within the D-O Corridor, the population is projected to double and the highest expected travel intensity (number of trips per acre) in the Triangle region is predominately located in this corridor.Even under current demands, the region’s transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region’s explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network.</i></p>	<p>DEIS section ES-5  DEIS section 1.3.2  DEIS section 1.5.1.2  DEIS section 1.5.2.3  DEIS Section 3.2</p>
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Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.

As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).

First Name	Last Name	Comment
Tanja	Bauer	To whom this may concern: One of the issues that this lightrail project completely leaves out is that it doesn't connect any of the lower social economic areas in Durham. There is a historically African American college and a community college that is being completely left out of the lightrail project planning. These are very likely the people that would actually use this system, as they often have to rely on public transportation, not like the Duke students whose parents can easily afford a car for their children. I personally would prefer you not waste our tax dollars on this project but if you do, the lightrail should service the areas that most heavily rely on public transportation. [name removed]

*Comment Responses* *DEIS/Errata References*

*The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in*

DEIS chapter 5  
DEIS Table 4.2-4  
FEIS/ROD section 1.4  
DEIS Errata 64

Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs. Extensions to Durham Tech or NCCU are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5)

As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor’s employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project.

First Name	Last Name	Comment
D	Berglund	To Whom It May Concern, Attached is summarized comparison of the annual operation and maintenance costs associated with the DOLRT and bus area transit, as well as the estimated cost build worksheet provided in the DEIS. Thank you, After careful review of Chapter Seven titled “Project Costs” of the Durham Orange Light Rail Transit (DOLRT) Draft Environmental Impact Statement (DEIS), please substantiate why it is necessary to incur over \$1.5 Billion in cost to build a 17 mile light rail system (Little Creek-New Hope Creek- Locally Preferred Alternative) infrastructure that will cost over \$17.8M annually to operate and maintain (O&M). This annual O&M expense is in addition to the \$16.2M needed annually to operate and maintain the three area bus transit systems. Also, given that the current proposed DOLRT project is unproven and does not provide any significant traffic congestion relief in the Durham Orange county corridor, please validate that the system will generate enough revenue to cover annual operation and maintenance expenses. In closing, since many if not all of the local politicians that are currently in favor of the DOLRT project will not be in office when the light rail system becomes functional, who then will be held accountable for the excessive project build costs, short fall in ridership and revenue.

*Comment Responses* *DEIS/Errata References*

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the*

*DEIS chapter 1*

**D-O LRT FEIS / ROD**

*proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobility*o Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development
- o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time
- Increase Connectivity
- o Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system
- o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham
- Promote Future Development
- o Support local land use plans that foster compact development,
- o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers

*The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:*

- Connect residential, educational, and major employment centers throughout the corridor;*
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;*
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;*
- Provide solid anchors needed to shape land use along this critical corridor; and,*
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).*

*As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.*

First Name	Last Name	Comment
Lori	Black	[removed name and email]10/10/2015 3:53 PMinfo@ourtransitfuture.com[removed name, phone number, and email] I am



writing to comment on the DEIS for the D-O LRT and to express my support in favor of the NO BUILD OPTION. The project as it is currently conceived is based on fundamentally unsound ridership projections and will not result in any appreciable reduction in automobile congestion in the Chapel Hill--Durham road corridor. In fact, in other urban centers around this country, the introduction of light rail primarily shifts ridership from buses to light rail, without significantly decreasing automobile traffic. Furthermore, the routing of the proposed light rail track is not aligned with the higher density compact neighborhood developments in Orange and Chatham counties, including the Ephesus--Ford, Glenn Lennox and Obey Village communities. Lastly, there is no incentive to take light rail to reduce travel time between Durham and Chapel Hill, with an estimated LRT time of 42-44 minutes end to end, versus a projected automobile commuting time of 27 minutes in 2035. And this does not include automobile commuting time to the station parking lots, parking time and walking time to the platform, and waiting time on the platform for the next train. This is neither convenient nor does it reduce automobile congestion. Academic studies reviewing the cost and feasibility of light rail projects across the USA indicate that most of these projects require an annual 70% taxpayer subsidy, as the ridership fare-box collection only supports a small percentage of the annual operating costs. The 1.6 billion dollar capital cost associated with this project is not a responsible use of scarce resources for mass transit development, and can be better allocated in a region of low population density (Chapel Hill-Durham) with increased investment in conventional bus service, which has the flexibility of deployment to actual growth areas, versus projected growth areas. A research working paper from the University of California--Berkeley, which analyzed urban light rail mass transit, indicated that a population density of 30 people per gross acre, or roughly 19,000 people per square mile (ppsm), was necessary in order to support light rail transit. The Chapel Hill--Durham corridor has a population density less than 20% of that threshold, with a current density of approximately 3,000 ppsm, which is predicted to rise to 4000 ppsm in 2035. This is not a recipe for success. The ridership projections for the D-O LRT are wildly optimistic, with estimated daily boardings of 23,000. This is in contrast to the Charlotte LRT system, with daily boardings of 16,000 (which has been static since inception in 2007, while the population has increased 17%, with no measurable decrease in traffic congestion), in an area with a population that is 70% larger than the Triangle area. These ridership projections are further inflated with the working assumption that 40% of households in the Durham-Chapel Hill corridor will not own automobiles in 2040, which flies in the face of current ownership levels and assumes a massive change in public behavior, which is then used to justify an overly optimistic ridership utilization. Just looking at the current utilization of the Robertson Scholars Express Bus between Duke University and UNC indicates a very low level of utilization, serving only 350 boardings per day, with buses running every 30 minutes between campus for 16 hours each weekday. This equates to an average of only 5 riders per bus, which is well below capacity. Why would this magically increase with the introduction of light rail, with a transit time that is longer than the current bus option? For all these reasons and more, I support the NO BUILD OPTION. The projected growth in the Triangle is predominately weighted toward Wake County, and Wake County, with a much larger population than Orange or Durham Counties has rejected the Light Rail option in favor of Bus Rapid Transit and Diesel Rail Rapid Transit, using established rail corridors and new bus rapid transit lanes, without incurring the unsustainable economic costs associated with light rail. Let's learn from Wake County and make smart choices for Durham and Orange counties when it comes to mass transit resources. The population density is not sufficient to justify an investment in light rail.

*Comment Responses*

*DEIS/Errata References*

*As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project:*

DEIS chapter 1  
 DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2

*"Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel*

***D-O LRT FEIS / ROD***



*Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened.”*

*Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

*As stated in section 3.1.1 of the DEIS, “Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP).”*

*As stated in DEIS Appendix K2, section 5, “Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership.” The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor.*

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobility*
- o Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development*
- o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time*
- Increase Connectivity*
- o Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system*
- o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*
- Promote Future*

*Developmento Support local land use plans that foster compact development, o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).Light rail was chosen for the D-O Corridor because this technology will:*

- Connect residential, educational, and major employment centers throughout the corridor;*
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;*
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;*
- Provide solid anchors needed to shape land use along this critical corridor; and,*
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).*

*As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.*

First Name	Last Name	Comment
Tony	Blake	<p>1) The project is a waste of public transit dollars that should be used to expand/upgrade the existing system and better serve the transit public. The proposed line misses most of the "health care corridor" along 15-501 where the hospitals and medical practices are expanding to. The line make no improvement in areas where the most congestion is, namely RTP and the airport, in fact it effectively links very little of the existing transit infrastructure.2) LRT is a 20th century technology that has failed for numerous reasons in areas with a much greater population density and other, better drivers of rail service than this area has. "If you build it they will come" has shown to be a false premise for LRT. There are technologies on the horizon that will make this LRT line obsolete such as connected and driverless cars. Further both Duke and UNC Hospitals (the primary beneficiaries of the LRT) are in the midst of decentralizing reducing traffic at their main facilities. Neither Duke nor UNC are contributing to the costs of the plan. 3) The effect of the LRT will be to drive up prices along the corridor forcing mid an low income families to move out further which exacerbates the traffic problems you claim LRT is being built to address. In point of fact the transit line goes directly by some of the most expensive properties in the area while ignoring areas that are currently undeserved. 4) The "our transit future" campaign was glib, misleading and dishonest. Millions have been wasted on studies and consultants over more than 15 years. Costs are already increasing rapidly and resistance to the deception is heating up which will further increase costs.</p>

Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>

DEIS chapter 5  
 DEIS chapter 9  
 DEIS section 2.1.1  
 FEIS/ROD section 1.4  
 DEIS Errata 58 and 64

The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs.

Through June 2015, Triangle Transit staff participated in more than 300 separate meetings, reaching more than 5,000 people. More information on the public involvement process can be found in DEIS chapter 9 Public Involvement and Agency Coordination.

First Name	Last Name	Comment
Laura	Blank	Dear Our Transit committee and elected officials --I am writing to submit this letter in strong opposition to the NEPA Preferred Alternative C2A alignment as currently planned and recommended in the DEIS. Downing Creek is a well-established Durham community located along south side of NC54 in the area defined as “Little Creek” in the proposed Durham-Orange light rail project. This area is a quilt of confusing city and county boundary lines. While the site proposed for the Woodmont station is in Durham County, it falls within the Town of Chapel Hill planning jurisdiction. As a result, our neighborhood is disenfranchised from development planning decisions that directly affect us. Our Durham elected officials have no planning control over this geographical area, and our neighborhood voice carries little weight with Town of Chapel Hill, as we are not their voting constituents. Despite years of repeated comments to Go Triangle and elected officials to provide an alternative placement (in the road median or on north side of NC54) or appropriate mitigation (such as elevated station and tracks), Downing Creek Residents’ safety concerns and traffic

impacts have been ignored and marginalized in order to reduce project costs. At-grade - Safety Concerns: The Meadowmont development was originally designed and planned to accommodate a future transit corridor for light rail. The DEIS contains detailed traffic studies for all those potential intersections C1 & C1A alignments. The C2A & C2 alignments did not receive the same type of analysis or thorough consideration. There were no traffic studies done for impacts at the grade crossings for either Downing Creek Parkway or Little John and for access to NC54. This information was repeatedly requested from GoTriangle. The only reference to our specific concerns in the DEIS is in Section 3.2.4.1 NC 54, pg. 3- 51 which states: "Residents of the Downing Creek neighborhood expressed concern regarding impacts to traffic and safety at the intersections of NC 54 with East Barbee Chapel Road, Littlejohn Road, and Downing Creek Parkway under the C2 and C2A alternatives. Per the request of City of Durham staff, Triangle Transit, in coordination with NCDOT, will refine traffic analysis and mitigation recommendations in this area during the Engineering phase if the C2 or C2A Alternative is selected. Environmental consequences and mitigation related to safety at intersections and at-grade crossings." The C2A (as well as C2) alignment will establish three at-grade light rail crossings within a half mile stretch of road at Barbee Chapel Hill Road, Little John & Downing Creek Parkway. This will have a detrimental effect on ingress and egress to the neighborhoods lying south of NC54 by obstructing roads and impeding access for our residents, school buses, as well as delaying any emergency response vehicles. There are planned train crossings 140 times a day. At peak times with trains traveling over the at-grade crossings every 10 minutes, it is expected that gates will obstruct one or more of the crossings and drivers will be forced to merge onto NC54 into heavy traffic without benefit of traffic signals or merge lanes. Even with gates and signals, light rail safety statistics continue to show that at-grade crossings are inherently dangerous. DEIS Appendix K-06- NC 54 Traffic Simulation Report, p 1- 3 clearly, states' Due to the proximity of the LRT at-grade alignment to NC 54 under the C2A Alternative, this alternative will affect more intersections along the NC 54 corridor than the other two Build LRT Alternatives. NC 54 signal coordination would be disrupted by LRT preemption events, and therefore, several movements along the corridor may experience moderate increases in delay and queuing. Appendix- L- VOL-1-REV-5-Basis-for-Engineering-February-2015, sheet C2A- 03 shows a planned addition of a median on Downing Creek Parkway. This median will restrict our resident's ability to turn left onto Stancell Drive and we will no longer be able to exit via Little John or Barbee Chapel. GoTriangle has indicated that the Stancell drive access will be modified or closed due to the proposed grade separated ramp when NC54 is widened. This means any traffic envisioned dropping off all the "forecasted riders" at Woodmont station kiss & ride will have little choice when they exit but to attempt to get on NC54 by crossing the tracks at Little John, or by cutting through the Downing Creek neighborhood. Our neighborhoods are home to many families with young children. Bicyclists and pedestrians from Downing Creek use Stancell Road to travel to trails in Meadowmont and Chapel Hill. There is concern about how they can safely take these routes. There will be increased traffic congestion on these roads and the DEIS does not address any plans to extend the bike and pedestrian trails shown on in the DEIS Woodmont station down to Downing Creek Parkway. We do not feel that our community should bear the negative safety and traffic impacts that will further stress and not relieve an already congested area. The proposed C2/C2A route does nothing to mitigate traffic congestion on NC54. The proposed light rail tracks and station, in conjunction with the NCDOT including the planned widening of NC54, the proposed superstreet and a grade separated ramp at Barbee Chapel interchange will dramatically reduce our ability to access and exit our neighborhood. There will be no room left to include merge lanes and there is no planned traffic signal at Downing Creek Parkway. Access points on C2/C2A obstructed roads will not be wide enough to provide motorists, particularly school buses and emergency vehicles, adequate 'wait to merge' areas. This situation will render our access roads to NC54 simply too hazardous to consider using, effectively isolating us. Noise Concerns: In addition to traffic and safety concerns, the DEIS states that the Little Creek Alternatives would have more noise, vibration, and ground-borne noise impacts than other areas. Downing Creek is identified as "category 2, residential" for both noise and vibration. Our neighborhood was not included in the DEIS data, Table 4.10- 5: Monitored Existing Noise Levels (dBA) which provided existing noise level data for locations in the alignment area. This is a very quiet residential neighborhood and the

residents located in close proximity to the entrance and three at-grade crossings will be subjected to the noise of the train horns, gate bells clanging every 10 minutes during rush hour (1 train in each direction) - about 140 crossings a day. The residences in closest proximity to the proposed route were not designed or built with any sound mitigation strategy. There seems to be a rush to obtain funding and not to take the time to plan this right. It has been suggested our issues can be worked out down the road, but if the DEIS is approved it is unlikely the route will be changed or there will be any mitigation efforts. It appears that NCDOT, GoTriangle projects and local municipality development planning projects are all working at cross-purposes with competing interests. No one is at looking at NC54 "Little Creek" area cohesively. We are seeking a comprehensive independent review of the LRT project assumptions and the development of an overall transportation and development strategy for the NC54, I40 & US15501 corridors by NCDOT, DCHCMPO, Durham and Chapel Hill. Please ensure that the DEIS does not go forward until this has been completed and the Little Creek alignment is revised. We strongly encourage you to take into account our serious concerns regarding safety of light rail, especially in regards to at-grade crossings. We have a lack of confidence in the overall ridership projections and associated assumptions. As taxpayers, we do not want to bear the burden of underwriting billions of dollars for a light rail system when there are more cost effective and flexible transit solutions such as BRT or the No Build Alternative. Sincerely, [removed PII]

*Comment Responses*

*DEIS/Errata References*

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signaled or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.*

DEIS section 3.2  
 DEIS section 3.2.2  
 DEIS section 3.2.3  
 DEIS section 3.2.4.1  
 DEIS section 3.2.4.2  
 DEIS section 3.2.4.3  
 DEIS section 3.2.4.4  
 DEIS section 3.6  
 DEIS Table 3.2-2  
 DEIS Table 3.2-5  
 DEIS appendix K24  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 36 and 108

*The impacts of proposed D-O LRT Project on US 15-501 and NC 54 are discussed in DEIS section 3.2. In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways. In coordination with stakeholders and the public during the development of this DEIS, the areas detailed in section 3.2.4.1 (NC 54), 3.2.4.2 (US 15-501), 3.2.4.3 (Erwin Road) and 3.2.4.4 (Downtown Durham) were identified for further study and potential refinement during the Engineering phase. According to Page 3-43: Right turn acceleration lanes are proposed at two intersections as part of the NEPA Preferred Alternative as described in*



*Table 3.2-5 to allow for right-on-red turning movements to enter into the congested stream of traffic on NC 54 more easily and reduce queuing on the side streets. As part of the NEPA Preferred Alternative, Triangle Transit would coordinate with NCDOT to determine whether these modifications would be implemented as part of the planned NC 54 superstreet project described in DEIS section 3.2.2. Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains.*

*As described in DEIS appendix K24, Triangle Transit conducted the noise analysis in accordance with FTA guidelines. Consistent with FTA guidance (see FTA's Transit Noise and Vibration Impact Assessment Guidance Manual), the following geographic areas were examined for the presence of noise-sensitive receptors: 350 feet from the center of the proposed track and station location alternatives; 225 feet from the center of the proposed park-and-ride alternatives; and 1,000 feet from the center of the five proposed ROMF alternatives. If intervening buildings exist between the source (the proposed light rail) and the receptor (building or land use), the following geographic areas were examined: 175 feet from the center of the proposed track and station location alternatives; 150 feet from the center of the proposed park-and-ride alternatives; 650 feet from the center of the five proposed ROMF alternatives. According to the FTA Guidance Manual, mitigation for noise impacts should be considered if the project falls within an "impact" range and should be implemented if the project would result in a severe impact. Table 4.10-13 identifies proposed mitigation measures for the NEPA Preferred Alternative and the Project Element Alternatives. Sites 2, 7, and 8 (Odum Village) are part of a larger redevelopment area sponsored by UNC. The remaining residential buildings that would be impacted, depending upon the selected alternative, are within the right-of-way for the project elements and would be acquired as part of the project. The remaining noise impact is the New Hope Creek Trail, under the NHC LPA Alternative. The alignment would be elevated and pass directly over the trail in two locations. As a result, mitigation measures would be limited to noise barriers on the elevated track. The NEPA Preferred Alternative would result in no noise impacts beyond the properties to be acquired for the project. Triangle Transit will coordinate design and policies related to audible warning devices with NCDOT and local jurisdictions in accordance with applicable regulations, guidance, municipal policies, and best management practices.*

First Name	Last Name	Comment
Jenny	Blazing	To: Federal Transportation Administration Subject: Oppose Light Rail – Route 1 oppose the proposed Durham – Orange Light Rail



because the proposed route of the rail travels through low-density areas. And in addition, the entire region does not have a dense enough population for such a monster of transportation. This train does not service areas that would use it, nor does it take riders places that are needed, such as the Research Triangle Park, shopping, or the airport.

*Comment Responses*

*DEIS/Errata References*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>*

FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 17

First Name	Last Name	Comment
Jenny	Blazing	Subject: Oppose Light Rail – why MUST it be a train! oppose the proposed Durham – Orange Light Rail because there are other forms of transportation and technology being developed that will solve the transportation needs in a much more efficient and flexible way. Why spend \$1.8 billion on a system that cannot be moved as ridership needs change, is dangerous and will be obsolete before it’s complete. I’d prefer my tax dollars to be spent more wisely and less frivolously.

*Comment Responses*

*DEIS/Errata References*

*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>*

DEIS section 2.2.1

First Name	Last Name	Comment
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<b>Margie</b>	<b>Bocchieri</b>	I oppose the proposed Durham - Orange Light Rail because there will be little additional parking at most of the stations and several stations will have no parking at all, including the Woodmont station. Duke is not adding parking and neither is UNC. Most stations will be walk-up only and this will further minimize ridership, which, by the way, is extremely overstated by GoTriangle.
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*Comment Responses*

*DEIS/Errata References*

*Parking is proposed at several stations as described in DEIS section 3.3. As described in DEIS Table 2.3-2 and further detailed in DEIS Table 3.3-2, park-and-ride facilities are currently planned at the following stations:-Friday Center-Leigh Village-Gateway-MLK Jr. Parkway-South Square-Durham-Dillard Street-Alston Avenue. The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and "kiss-and-ride" spaces for passenger pick-up and drop-off. Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (DEIS section 2.3.2.1). Typical images can be found in DEIS section 2.3.2.1 and conceptual designs in DEIS Appendix L. Section 1.4 of the combined FEIS/ROD, DEIS Errata 75 further adds clarification that Triangle Transit will coordinate with municipalities and neighborhoods on the aesthetic treatments for stations. Parking fees, if any, will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners. A total of 5,100 park-and-ride spaces will be added at station locations as part of the project.*

DEIS section 2.3.2.1  
DEIS section 3.1  
DEIS section 3.3  
DEIS Table 2.3-2  
DEIS Table 3.3-2  
DEIS appendix K2  
DEIS appendix L  
FEIS/ROD section 1.4  
DEIS Errata 75

*Triangle Transit forecasts an average of 23,000 weekday light rail trips by the year 2035. For more information about ridership please see DEIS Section 3.1: Public Transportation and DEIS Appendix K2: Travel Demand Methodology and Results Report.*

First Name	Last Name	Comment
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<b>Curtis</b>	<b>Booker</b>	To Whom It May Concern:I am writing in reference to the impact of the Farrington Road ROMF on the Walter Curtis Hudson Farm. I have been and continue to be a strong advocate of Durham/Orange Light Rail, and, in general, I support the Farrington Road ROMF, but I feel that GoTriangle has not done all that must be done to protect the historic integrity of the Hudson site. I agree wholeheartedly with Rene Gledhill-Early's assessment in her September 10, 2015 letter to you in which she writes that "the Draft and Final Environmental Impact Statements should clearly outline the environmental commitments for landscaping and other means proposed to reduce the effect of the undertaking on historic properties." She further writes that "The commitments should include the groups, organizations and/or agencies that will be involved in developing plans for any landscaping or other treatments that will be implemented to ensure that no adverse effects will occur." These comments are particularly germane to the Hudson Farm as no other historic site along the light rail route is so significantly compromised by visual degradation from the project. The baffling aspect of this problem is why it persists when remedies are so readily available and do not compromise the placement of the Farrington Road ROMF. Figures 100, 101, 102 and 103 of the Preliminary Assessment of Effects for Historic Properties clearly illustrate both the problem and the solution. The images make clear the topographical and landscape difficulties that the assessment does not address. The ROMF
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intrudes into an open field that has been part of the historic landscape for nearly a century. Additionally, the Hudson farmhouse sits well above the grade of the ROMF and in plain view of the back of the ROMF buildings and the southern portion of the rail yard. The final paragraph of page 5-62 of the Assessment admits that the ROMF will "introduce new visual and atmospheric elements to the project setting," but ignore Rene Gledhill-Early's directive regarding "environmental commitments for landscaping and other means . . . to reduce the effects of the undertaking." Finally, the Assessment falsely states that due "to the presence of woodland between the northern National Registry boundary and the ROMF, the ROMF would be largely screened from view from the Walter Curtis Hudson Farm." The Assessment then concludes that "Given the presence of the woodland, the proposed project would have No Adverse Effect on this historic property." Evidence of the failure of this evaluation is presented in the Assessment itself. Figure 95 clearly shows that the sight line from the north front of the farmhouse travels unencumbered to the back of the ROMF buildings and the rail yard. As the woodland lies to the east of the farmhouse and the ROMF buildings and rail yard, the principle elements of the historic property are exposed to the most industrial aspects of the ROMF site with no screening whatsoever. Only the parking lot is partially obscured. The last sentence on page 5-62 is thus rendered false since "the presence of the woodland" is not at all a mitigating factor. As it is "the presence of the woodland" that solely leads to the conclusion that "the proposed project would have No Adverse Effect on this historic property," that conclusion is false. This brings us again to Ms. Gledhill-Early's observation, an observation that should lead to a happy solution to this problem. That solution is screening including a full complement of berms, walls, plantings and other mitigations. Note that Ms. Gledhill-Early calls for the identification of "groups, organizations and/or agencies that will be involved in developing plans for any landscaping or other treatments that will be implemented to ensure that no adverse effects will occur." Although the proper mitigations are readily available, they will require significant outlays of time, expertise and money; and since the false application of the eastern woodland leads to the equally false conclusion that "the proposed project would have No Adverse Effect on this historic property," it must be assumed that GoTriangle has no plans to follow the directives of the North Carolina Department of Cultural Resources. It is significant that, following a statement of praise for the work of GoTriangle, the only directive in the Gledhill-Early letter is that quoted above. I realize that the Final Environmental Impact Statement can rectify these omissions and misstatements of fact, and I sincerely hope that such is the case. However, if I am not satisfied that all appropriate means to visually screen the Walter Curtis Hudson Farm from the clear adverse effects of the Farrington Road ROMF have been employed, I promise to use whatever political and legal means are available to force proper compliance. I add, as something of a postscript, that all available means must be used to fully screen Farrington Road from the ROMF facilities as well. The community as a whole deserves the best efforts of your organization to ameliorate any adverse consequences of this project. Visual screening is key to those efforts. Sincerely, [removed name]

Acknowledgement: I am the only grandchild of Walter Curtis Hudson and attorney-in-fact for his only child, my mother, [removed name], who still resides in the house in which she was born 92 years ago. Additionally, I am general manager of Patterson's Mill LLC, the entity which owns about eight acres of property to be acquired by GoTriangle on the southern edge of the twenty-five acre site. All shares of Patterson's Mill LLC are owned by myself, my mother, my wife and my two children.

for the following historic resources due to their non-urban settings: the Rocky Ridge Farm Historic District (HD), the Highland Woods HD, the Walter Curtis Hudson Farm, and the Ruth-Sizemore Store (Table 4.5-1). This visual buffer would provide a blooming of at least two seasons of each year. Triangle Transit will consult with property owners, historic district representatives, and the SHPO on the appearance of this buffer. In DEIS section 4.5.4, it states, If ordered to mitigate any indirect impacts on historic properties, the FTA will consult with the SHPO and other consulting parties about the design, landscaping, and other features of the NEPA Preferred Alternative at these historic properties. These efforts, as determined, will be included in the Final EIS/ROD.

DEIS section 4.5.4  
DEIS Table 4.5-1

First Name	Last Name	Comment
Curtis	Booker	<p>Please note: this hard copy is mailed to you simply to ensure that either the email or this hard copy reaches you. There is no presumption that both should enter the record. They are identical. Curtis Booker To Whom It May Concern: I am writing in reference to the impact of the Farrington Road ROMF on the Walter Curtis Hudson Farm. I have been and continue to be a strong advocate of Durham/Orange Light Rail, and, in general, I support the Farrington Road ROMF, but I feel that GoTriangle has not done all that must be done to protect the historic integrity of the Hudson site. I agree wholeheartedly with Rene Gledhill-Early's assessment in her September 10, 2015 letter to you in which she writes that "the Draft and Final Environmental Impact Statements should clearly outline the environmental commitments for landscaping and other means proposed to reduce the effect of the undertaking on historic properties." She further writes that "The commitments should include the groups, organizations and/or agencies that will be involved in developing plans for any landscaping or other treatments that will be implemented to ensure that no adverse effects will occur." These comments are particularly germane to the Hudson Farm as no other historic site along the light rail route is so significantly compromised by visual degradation from the project. The baffling aspect of this problem is why it persists when remedies are so readily available and do not compromise the placement of the Farrington Road ROMF. Figures 100, 101, 102 and 103 of the Preliminary Assessment of Effects for Historic Properties clearly illustrate both the problem and the solution. The images make clear the topographical and landscape difficulties that the assessment does not address. The ROMF intrudes into an open field that has been part of the historic landscape for nearly a century. Additionally, the Hudson farmhouse sits well above the grade of the ROMF and in plain view of the back of the ROMF buildings and the southern portion of the rail yard. The final paragraph of page 5-62 of the Assessment admits that the ROMF will "introduce new visual and atmospheric elements to the project setting," but ignore Rene Gledhill-Early's directive regarding "environmental commitments for landscaping and other means . . . to reduce the effects of the undertaking." Finally, the Assessment falsely states that due "to the presence of woodland between the northern National Registry boundary and the ROMF, the ROMF would be largely screened from view from the Walter Curtis Hudson Farm." The Assessment then concludes that "Given the presence of the woodland, the proposed project would have No Adverse Effect on this historic property." Evidence of the failure of this evaluation is presented in the Assessment itself. Figure 95 clearly shows that the sight line from the north front of the farmhouse travels unencumbered to the back of the ROMF buildings and the rail yard. As the woodland lies to the east of the farmhouse and the ROMF buildings and rail yard, the principle elements of the historic property are exposed to the most industrial aspects of the ROMF site with no screening whatsoever. Only the parking lot is partially obscured. The last sentence on page 5-62 is thus rendered false since "the presence of the woodland" is not at all a mitigating factor. As it is "the presence of the woodland" that solely leads to the conclusion that "the proposed project would have No Adverse Effect on this historic property," that conclusion is false. This brings us again to Ms. Gledhill-Early's observation, an</p>

observation that should lead to a happy solution to this problem. That solution is screening including a full complement of berms, walls, plantings and other mitigations. Note that Ms. Gledhill-Early calls for the identification of "groups, organizations and/or agencies that will be involved in developing plans for any landscaping or other treatments that will be implemented to ensure that no adverse effects will occur." Although the proper mitigations are readily available, they will require significant outlays of time, expertise and money; and since the false application of the eastern woodland leads to the equally false conclusion that "the proposed project would have No Adverse Effect on this historic property," it must be assumed that GoTriangle has no plans to follow the directives of the North Carolina Department of Cultural Resources. It is significant that, following a statement of praise for the work of GoTriangle, the only directive in the Gledhill-Early letter is that quoted above. I realize that the Final Environmental Impact Statement can rectify these omissions and misstatements of fact, and I sincerely hope that such is the case. However, if I am not satisfied that all appropriate means to visually screen the Walter Curtis Hudson Farm from the clear adverse effects of the Farrington Road ROMF have been employed, I promise to use whatever political and legal means are available to force proper compliance. I add, as something of a postscript, that all available means must be used to fully screen Farrington Road from the ROMF facilities as well. The community as a whole deserves the best efforts of your organization to ameliorate any adverse consequences of this project. Visual screening is key to those efforts. Sincerely, Curtis R. Booker

**Acknowledgement:** I am the only grandchild of Walter Curtis Hudson and attorney-in-fact for his only child, my mother, Elsie Hudson Booker, who still resides in the house in which she was born 92 years ago. Additionally, I am general manager of Patterson's Mill LLC, the entity which owns about eight acres of property to be acquired by GoTriangle on the southern edge of the twenty-five acre site. All shares of Patterson's Mill LLC are owned by myself, my mother, my wife and my two children.

*Comment Responses*

*DEIS/Errata References*

*As stated in DEIS section 4.5.3.1, Triangle Transit is committed to provide a landscape visual buffer for the following historic resources due to their non-urban settings: the Rocky Ridge Farm Historic District (HD), the Highland Woods HD, the Walter Curtis Hudson Farm, and the Ruth-Sizemore Store (Table 4.5-1). This visual buffer would provide a blooming of at least two seasons of each year. Triangle Transit will consult with property owners, historic district representatives, and the SHPO on the appearance of this buffer. In DEIS section 4.5.4, it states, If ordered to mitigate any indirect impacts on historic properties, the FTA will consult with the SHPO and other consulting parties about the design, landscaping, and other features of the NEPA Preferred Alternative at these historic properties. These efforts, as determined, will be included in the Final EIS/ROD.*

DEIS section 4.5.3.1  
DEIS section 4.5.4  
DEIS Table 4.5-1

First Name	Last Name	Comment
Tammy	Bouchelle	I am VERY excited about the D-O LRT Project! It will serve as yet another vital link between Chapel Hill and Durham and those who live, work and play in these growing areas. The D-O LRT Project will provide access to educational opportunities, medical care, jobs, activity centers, neighborhoods and housing, community facilities, and other development potential for tens of thousands of people - not just in the southern part of Heaven and the Bull City - but for our neighbors within and visitors to the metro Research Triangle region. The d-O LRT will be a game changer, and I can't wait to ride it! I appreciate GoTriangle's commitment to work with Town and City personnel to provide walkable stations. I encourage GoT and local jurisdictions to focus on bike and ped facilities not just at D-O LRT stations, but along the entire 17 mile alignment. For example, a multi-use path along the entire alignment would be

a welcomed consequence of or addition to the proposed D-O LRT Project. Additionally, I would like to see more sustainability measures incorporated into the final design of the project (e.g., LEED certified ROMF and certified stations (or the equivalent); solar lighting and solar powered project elements (ROMF, stations, project office, etc.); incorporation of recycling at stations; native plant species, etc. GoT should consider partnering with local jurisdictions to place historical markers, whether through the NC Department of Cultural resources, the Town of Chapel Hill, or the City of Durham, along the D-O LRT alignment and throughout the D-O Corridor. This is going to be amazing! Bring on the D-O LRT!

*Comment Responses*

*DEIS/Errata References*

*Triangle Transit will continue to consider sustainability measures during the Engineering phase. DEIS Errata 95 and 100 reflect that opportunities for green building design and low-impact development design will be reviewed during Engineering.*

DEIS Errata 95 and 100

First Name	Last Name	Comment
Ellen	Boylan	No to Light Rail The Light Rail does not make sense for our communities. We have been misled about the project. The expanded bus option is much less expensive, much more flexible and less disruptive. Cut it loose NOW and stop dumping money into useless studies.

*Comment Responses*

*DEIS/Errata References*

*As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the DEIS Executive Summary (ES-5), the region’s existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.*

DEIS Executive Summary (ES-5)  
DEIS section 1.5.1.2  
DEIS Section 3.2  
DEIS Figure 1.5-2

*In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS).*



*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>*

First Name	Last Name	Comment
Lisa	Brach	<p>Public Comment:In pouring over Chapter 9 of the DEIS I found that GoTriangle (aka Triangle Transit) states that they followed the guidelines for public participation including Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) and Executive Order 12898. This federal document talks about Environmental Justice which I believe GoTriangle has violated! Two of the six property owners one of which is an Hispanic family and one of which is a Biracial couple were not informed of the ROMF site of Farrington Rd – the land upon which their homes sit, until June 24, 2015 when the site had already been chosen as the NEPA preferred alternative.GoTriangle begins Chapter 9 of the DEIS stating: "For Triangle Transit, education, inclusion, transparency, accountability, and responsiveness have been key principles of the planning process for transit service in the Durham-Orange (D-O)Corridor, from before the Alternatives Analysis (AA) was completed in 2012 through the ongoing National Environmental Policy Act (NEPA) and Project Development Process. Agencies, nongovernmental groups, and the public have been engaged throughout the planning process for the proposed Durham-Orange Light Rail Transit (D-O LRT) Project as required by federal and state law. NEPA mandates agency and public participation in defining and evaluating the impacts of project alternatives." This did not occur for the people living on Farrington Rd - most specifically for the two stakeholders mentioned in the previous paragraph.Under the DEIS Table 9.3-17 entitled Summary of Stakeholder Notifications, GoTriangle States that in "August of 2014" using "Phone calls and/or postal mail" as their "Method of Outreach" GoTriangle had "285" as their "Targeted Stakeholders/Addresses" with the intent of talking to them about being "Residential property owners potentially affected by any portion of the alignment and/or any of the ROMF alternatives". In August 2014 none of the residents of the Villas of Culp Arbor received a call or a postcard or letter nor did the two homeowners on the ROMF site (stakeholders) mentioned in the previous paragraphs.Under Section 9.3.3 of the DEIS entitled Public Open Houses for Potentially Impacted Property Owners GoTriangle states: "In 2014, Triangle Transit began engaging property owners and tenants along the entire D-O Corridor to discuss the proposed D-O LRT Project, alternatives under consideration, and the DEIS process. The method of outreach, location, dates of the public open houses for property owners, and the number of attendees are shown in Table 9.3-4." In this table it clearly states that none of the Farrington Road ROMF Affected Property Owners "were 'invited' to a 'presentation or meeting' via 'direct mail' until '06/24/2015' 'at the Culp Arbor Clubhouse'. It was during this meeting that all of the Farrington Rd Residents who were present were told that the decision had already been made that the Farrington ROMF was the "preferred NEPA alternative site". Why, during this GoTriangle meeting (held June 24th, 2015) were the attendees not given comment cards?" If the EIS was not submitted until JULY 15, 2015 (which is the date we were quoted by GoTriangle) then in order to be compliant with both Federal DEIS guidelines as well as GoTriangle's self imposed guidelines of inclusion and input from "residents living within a 1- mile buffer of the ROMF", every person present should have been given comment cards to fill out and those cards should have been collected and the comments then calculated into the public responses, topics, concerns and criteria in selecting a ROMF alternative (these "missing" facts and figures would have been included in tables 9.3-11, 9.3-12, 9.3-13, 9.3-14,</p>

9.3-15, and 9.3-16). This should have taken place before a final decision was made to designate the Farrington Rd ROMF site as the NEPA Preferred Alternative. This manipulation of public comments and figures clearly illustrates the avoidance of “inclusion” of the attendees “in the planning process”. By delaying their meeting with the property owners and stake holders of the Farrington Rd ROMF site and then informing those present that the decision had already been made to “make the Farrington site the NEPA Preferred Alternative definitively excluded them from the “planning process”. Added to the list of errors by GoTriangle is the fact that the only notice of the meeting received by the residents of Culp Arbor was placed in an unsealed, unstamped envelope on the outside of residents mailboxes (exposed to the elements) just a few days prior to the meeting. GoTriangle employees were obviously making a rushed last minute attempt to “legally notify” the residents of the meeting. With the meeting that close to the date of their unprofessional delivery shouldn't they have at least rung every doorbell to see if people were at home and hand delivered the meeting notice to the residents? Considering that it had rained heavily the day before why take the risk of having the letters blown away by wind or destroyed by the rain if GoTriangle's true intent was to meet with us? When asked about their “last minute notification”, Ms. Murdock's excuse (given during the June 24th meeting) was that they did not realize that our mailing address was Chapel Hill, NC 27517. Interesting when you consider that the Durham City Tax Collector had been privy to that information for 6 years and that the addresses are public records. Interesting that earlier in the year they managed to contact Mr. Curtis Booker who has the same mailing address of Chapel Hill, NC 27517 (residing just across the road). Again, a huge lack of due diligence and federal compliance on GoTriangle's part. In Chapter 9 of the DEIS using tables 9.3-1 and 9.3-2 (covering public meetings and comments from 2013 through October of 2014) none of the facts and figures reflect input from Farrington Rd Residents specifically 2 of the stakeholders and the residents of the Villas of Culp Arbor. Why? Because despite GoTriangle's claims of education and inclusion and involvement of “residents within a 1 mile buffer of any tracks, stations or ROMF sites”, we were not included, we were not informed, we were not educated, and we were not involved in the planning process! It seems to me that Farrington Rd residents were intentionally avoided as long as possible when you view Table 9.3-3 entitled “Small Groups, Neighborhoods, Agency and Stakeholder Meeting List (January 2012 to June 30, 2015)”. It is interesting to me that GoTriangle made a point of meeting with: Oak Creek Village Apartments three times (in June & July 2014), Sam's Quick Shop on Erwin Rd (in March of 2015), and Downing Creek (in April of 2015) yet GoTriangle couldn't manage to set up a meeting with the Farrington Rd residents (the majority of which are retirees) at the Culp Arbor Club house until June 24, 2015 after the “Preferred Alternatives” had been selected. At the June 24th meeting no comment cards were handed out (and thus none collected) – again, probably because GoTriangle announced that the Farrington Rd ROMF site had already been chosen as the NEPA preferred alternative. Sensing our overwhelming number of negative concerns over the ROMF site did they intentionally choose not to hand out comment cards or was it a mere matter of incompetence? As a result, any numbers or statements made to City Officials stating that meetings were held with the homeowners along Farrington Rd and that there was little to no objection from those people (aka the public) to the Farrington ROMF was at a huge lie! Two of the homeowners living on the ROMF site (often referred to in the DEIS document as STAKEHOLDERS) were not informed of the ROMF location decision or the fact that it had already been selected as the NEPA Preferred Alternative until the meeting held June 24, 2015. Studying the DEIS it appears that the decision to make the Farrington Rd ROMF the preferred site of the final 5 (really only 4) site possibilities occurred somewhere between November of 2014 and April of 2015 and yet the property owners who would be directly affected by the placement of an industrial site like a ROMF in a neighborhood which is currently zoned Residential (R-20) were finally informed of its existence planned for their neighborhood on June 24, 2015. This is not following federal guidelines. This is not following the “key principles of the planning process” to which GoTriangle says that it ascribes. This is not the proper “education, inclusion, transparency, accountability and responsiveness” which GoTriangle claims to have accomplished during the D-O Light Rail planning process. Instead it is the polar opposite of all of the above descriptions. We the homeowners, stakeholders, neighbors, senior citizens and elementary school children within the “1 mile buffer of the Farrington

ROMF site” demand that this ROMF be moved to a more appropriate location. As shown in the examples above, GoTriangle has not done their due diligence. GoTriangle has not followed federal guidelines. They need to return to the drawing board and either make Patterson ROMF work or find a whole new location. As far as new location suggestions what about the tract of land off of Shannon Road that stretches all the way between University Dr and 15-501 Business which is already zoned Commercial and has a large percentage of existing impervious surface? Better yet, what about Downtown Durham at the Police Station site (since it has been announced that the police station is moving)? This location would not only be close to NC Hwy 147 but to Amtrak (should Raleigh ever become a part of the system). A 3 story shiny building and rail yard would look right in either of those locales, it could shine there, it would do no harm there and it would not displace people from their homes or negatively impact a Residential zoned neighborhood where senior citizens and an elementary school reside. It also would not affect New Hope Creek, ground water, Trenton resident's wells, wildlife and the natural beauty remaining in a tiny corner of Durham. Why didn't GoTriangle meet with the neighbors that would be most affected by an industrial site like a ROMF with a Rail Yard early enough to be effective in the planning process? It is time for GoTriangle to do what they were hired and charged to do find a suitable site for a ROMF – one that does no harm and serves the community! It is past time for GoTriangle to follow Federal guidelines and follow the guidelines which they set for themselves as described in the DEIS! Sincerely, Lisa Brach [removed address]

*Comment Responses*

*DEIS/Errata References*

*Public involvement associated with the environmental review of the D-O LRT Project initiated with project Scoping on April 3, 2012 and continued through the public circulation of the Draft Environmental Impact Statement (DEIS) and associated 45-day public comment period, which concluded October 13, 2015. During the 45-day public comment period, oral remarks were received during the two public hearings and transcribed by court reporters. Written comments were accepted by email, mail, and on the project website using an electronic including comment cards were accepted and provided at the Public Hearings and Public Workshops. Public involvement conducted through the release of the DEIS is documented in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6. As stated in 9.1, Triangle Transit drafted a Public Involvement and Agency Coordination Plan (PIP) at the onset of the environmental review process (appendix K30). The PIP for the proposed D-O LRT Project includes goals, community profiles, a variety of tools for ongoing dissemination of information and community outreach, and several continuously open channels for accepting public and agency comments. The Federal Transit Administration (FTA), Triangle Transit, and the project’s cooperating and participating agencies aim to ensure that the proposed D-O LRT Project responds appropriately to community needs and participation, while satisfying local, state, and federal environmental requirements. No group or individual has been purposefully or deliberately left out of public involvement. The selection of the NEPA Preferred Alternative of the D-O LRT is not final until a Record of Decision is published by the FTA. Residents in the D-O Corridor are diverse in terms of the length of time living and working in the region, income levels, languages spoken in the home, race and national origin, and English proficiency. Given this diversity, Triangle Transit uses multiple channels for releasing outgoing messages, project progress, and requests for public input. After the Scoping and through development of this DEIS (from 2012 through 2015), the D-O LRT Project staff has worked diligently to keep channels of communication*

DEIS chapter 9  
 DEIS appendix J  
 DEIS appendix K30  
 FEIS/ROD section 1.4  
 FEIS/ROD section 2.6

**D-O LRT FEIS / ROD**

*open with the public. The project team utilizes several different methods to collect public comments, including: public meetings, smaller group meetings, postal mail, email through [info@ourtransitfuture.com](mailto:info@ourtransitfuture.com), web forms, and surveys, and a telephone hotline with English and Spanish options. Project staff addresses comments with specific questions or requests through email, direct mail, or phone calls by directing the public to Frequently Asked Questions posted on the OurTransit Future website or by providing direct information from project staff. Table 9.4-3 includes a summary of the comment topics, and the full collection of public comments can be found in appendix J.7. Since 2010, the project team has employed a variety of notification techniques for the outreach meetings, events, and presentations. While no method of notification is all-encompassing, several methods were used in an attempt to make the public aware of the project and related project meetings hosted by Triangle Transit, including, but not limited to: news releases, newspaper articles, bus ads, municipal television stations, and radio announcements. As detailed in 9.3.9, project mailers were created and distributed by postal mail as listed in Table 9.3-17. The postal mailings were used to specifically invite the public to project-related meetings and to contact potentially impacted property owners. Targeted outreach included members of the public who live within the project area, and mass outreach in water bills included the City of Durham and Town of Chapel Hill residents who may be interested in the proposed project but who do not necessarily live within the project corridor. In addition to traditional mailers, a poster distribution service was engaged to post flyers on bulletin boards in Chapel Hill, Carrboro, and Durham in approximately 100 separate locations, including: § Chapel Hill: UNC campus, UNC Hospitals, poster kiosks on Franklin and Rosemary Streets, shops, restaurants and cafes, Farmers Market, Whole Foods, Weaver Street Market, and Chapel Hill Public Library § Carrboro: Weaver Street Market, Art Center, Cat's Cradle, and Elmo's § Durham: Duke University East and West campuses, Duke Medical Center, 9th Street, Broad Street, Whole Foods, Brightleaf Square, North Carolina Central University (NCCU) and Durham Technical Community College (DTCC) Appendix J.2 provides a compilation of flyers, letters, and comment forms that were distributed. Also, at the request of residents, yard signs were developed and posted for the ROMF meetings, to notify potentially affected residents and residents in the communities surrounding the ROMF sites. Similar yard signs were used during the 45-day public comment period of the DEIS and placed at major roadways and thoroughfares along the 17 mile project alignment to notify residents of the public information sessions and public hearings associated with the public comment period of the DEIS. A website, [ourtransitfuture.com](http://ourtransitfuture.com), was launched in May 2010 to provide the community with a consistent place on the internet to access project information and to provide input and comments. The [ourtransitfuture.com](http://ourtransitfuture.com) website offers the public access to project updates and activities, public meeting announcements, public documents, presentation materials, and an interactive map that allows the public to input their address and see the relationship of their property to the proposed D-O LRT Project. Regular weekly updates to the project website included web banners of upcoming meetings, surveys, project information, comment forms, and project meeting materials were provided on the [ourtransitfuture.com](http://ourtransitfuture.com) website. In addition, electronic notifications included regular monthly e-mails to members of the public who signed up either at a Triangle Transit meeting or online to receive project updates via an e-newsletter. The e-newsletter is*

*distributed to over 3,000 participants; monthly updates are provided about the proposed D-O LRT Project. Triangle Transit also used several social media channels under the Our Transit Future™ name. Social media resources include a Facebook page, facebook.com/OurTransitFuture; Twitter account, twitter.com/triangleotf; and Instagram account, instagram.com/triangleotf. As with the website, the project's Facebook, Twitter, and Instagram accounts were used to provide public meeting announcements, project updates, and as channels for the public to interact with the proposed D-O LRT Project process (Table 9.3-18). A project hotline (1-800-816-7817) was established in 2010 for the AA and continues to be used for the proposed D-O LRT Project through Project Development. A recording in English and Spanish instructs callers to select an option to speak to a member of the D-O LRT Project staff or leave a message and receive a return call. Phone calls are generally returned within 48 hours. There were a total of 30 calls received since the start of Scoping in 2012. After the AA and the selection of the LPA for further study, Triangle Transit coordinated with the FTA to begin the NEPA process for the proposed D-O LRT Project. During this phase of public involvement, Triangle Transit took into account extensive feedback from the public, stakeholders, elected officials, and local, state, and federal agencies. As a result, the D-O LRT Project has undergone several substantive changes. In some cases, new alternatives were (or are being) studied, while in others the alignment was modified in response to particular concerns. These changes are further discussed in DEIS section 9.2.4.A Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) was published on April 3, 2012, in the Federal Register (appendix H [Scoping Report appendix A part 1]). Scoping, which is required by NEPA as part of the EIS process, assists with defining alternatives and identifying potential social, economic, or environmental issues related to a proposed project that should be further evaluated (appendix H). Through Scoping, the D-O LRT Project team established goals and objectives to guide the evaluation of alternatives. This process was conducted in consultation with the DCHC MPO; the City and County of Durham; the Town of Chapel Hill; Orange County; affected local, regional, and federal agencies; interest groups; businesses; and the public. There were four Scoping meetings—two for invited stakeholders and two meetings for the public. The first meeting for invited stakeholders convened staff from federal, state, and local agencies with jurisdiction and/or interest in the project area. The list of meetings, dates, locations, and attendance are included in Table 9.2-1. In November 2013, Triangle Transit hosted a series of public meetings as part of the NEPA process. Triangle Transit assembled a list of nearly 300 agencies, community-based organizations, and neighborhood associations in and around the D-O Corridor with particular interest in the proposed D-O LRT Project. Triangle Transit then contacted each agency, organization, or group and offered to participate in formal meetings, attend events, or create opportunities for residents or group members to learn more about the proposed D-O LRT Project. Triangle Transit staff also presented to homeowner-owner and community-hosted groups upon invitation by these groups. Through June 2015, Triangle Transit staff participated in more than 300 separate meetings, reaching more than 5,000 people. In addition to small group and neighborhood meetings, Triangle Transit met with various stakeholders (including educational institutions, property owners, railroad companies, hospitals, utilities, professional organizations, and federal, state, and local agencies) throughout the development of*



the DEIS to ensure that stakeholders are aware of impacts (or perceived impacts) and project developments. A list of these meetings is provided in Table 9.3-3. Meeting summaries, notifications, handouts, presentations, and other materials made available during these meetings can be found in appendix J.4. In 2014, Triangle Transit began engaging property owners and tenants along the entire D-O Corridor to discuss the proposed D-O LRT Project, alternatives under consideration, and the DEIS process. The method of outreach, location, dates of the public open houses for property owners, and the number of attendees are shown in Table 9.3-4. The list of potentially impacted owners, meeting invitations, and slides presented to them are available in appendix J.4. The second series of public meetings held in November 2014, focused on five key decisions that would be made as part of the NEPA process, and provided draft station area plans and information about the ongoing environmental studies. The five key decisions are shown on Figure 9.3-1. The key decisions are the decisions needed to ultimately determine the project to be built, and include the selection of the Little Creek and New Hope Creek crossings, Duke/VA Medical Centers Station, and ROMF location. The exhibits, handouts, comment forms, survey cards, and sign-in forms available at the 2014 public meetings are shown in appendix J.2. The survey cards included a list of DEIS criteria that identify potentially distinguishing characteristics for each as well as a choice of alternatives. A total of 479 individuals attended at least one of the four public meetings in November 2014. More than 48,000 postcards were mailed to homes within a 1-mile buffer of the project corridor. Attendance at each public meeting is provided in Table 9.3-5. In March 2015, Triangle Transit held two public open houses where D-O LRT Project staff gave a series of presentations about the project updates. The purpose of these presentations was to provide information to the public about data that would be used in the DEIS to analyze the different alternatives and to make a determination for the NEPA Preferred Alternative. Following the presentations, attendees were given an opportunity to engage with project staff in an open house format, ask questions, and express concerns. Materials made available to the public included display boards, printed materials such as Next Steps information and the evaluation data, and interactive digital mapping tools. Materials made available to the public can be found in appendix J.3. In June 2015, Triangle Transit held three additional public open houses to discuss the refinements to the alignment through downtown Durham into east Durham. Updates regarding the entire D-O LRT alignment were also provided. More information about the March and June 2015 meetings is found in Table 9.3-7. Members of the public were asked to provide their preferences on the alternatives and to rank criteria which were most important to them. Between August 2014 and June 2015, Triangle Transit received 646 survey responses about Little Creek Alternatives, 395 responses about New Hope Creek Alternatives, 454 responses about Duke/VA Medical Centers Station Alternatives, and 487 responses about the ROMF alternatives. Surveys were available online and in paper-copy handouts. Reproductions of the surveys can be found in appendix J.6. In June 2015, additional data eliminated Cornwallis ROMF location from consideration and indicated that the Farrington Road ROMF was the most appropriate alternative. Triangle Transit invited more than 1500 property owners within 1 mile of the Farrington Road ROMF site to solicit additional community input on ways to better integrate the Farrington Road ROMF site into the community. More than 200 people attended the meeting (Creekside Elementary School on August



18, 2015) Project staff circulated surveys and led a work session designed to determine the community's main concerns with the Farrington Road ROMF and mitigation that they would like considered. Overall attendees were not in favor of the ROMF being located on Farrington Road. Top concerns and the corresponding desired mitigation considerations were increase in traffic congestion (optimize traffic signal timing near the ROMF), decrease in surrounding property values (No Build option or don't build the ROMF on Farrington Road), increase in noise due to the facility (include a noise barrier [wall or vegetation] in design), and danger from chemicals used at the site (use a containment system or develop safe storage). As a result of the decision making process, the Farrington Road ROMF was selected as part of the NEPA Preferred Alternative. Due to site considerations at Cornwallis Road ROMF site and Farrington Road ROMF site, project staff hosted two public meetings to specifically engage affected property owners at these two sites. Mailing lists of contacted property owners as well as presentations and handouts provided at these meetings are shown in appendix J.3 To supplement and support the meetings, events, and presentations about the proposed D-O LRT Project, all public meeting materials were posted to the project website, ourtransfuture.com. Members of the public were invited to submit their contact information (e.g., email address) in order to receive and review project details before/after public meetings, receive event invitations, and express their comments about the proposed D-O LRT Project. Appendices J.1, J.2, and J.3 provide a compilation of materials presented at the public meetings organized by year – 2013, 2014, and 2015.

First Name	Last Name	Comment
Lisa	Brach	<p>In pouring over Chapter 9 of the DEIS i found that GoTriangle (aka Triangle Transit) states that they followed guidelines for public participation including Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) and Executive Order 12898. This federal document talks about Environmental Justice which i believe GoTriangle has violated! Two of the six property owners one of which is an Hispanic family and one of which is a Biracial couple were not informed of the ROMF site of Farrington Rd- the land upon which their homes sit, until June 24, 2015 when the site has already been chosen as the NEPA preferred alternative GoTriangle begins Chapter 9 of the DEIS stating: "For Triangle Transit, education, inclusion, transparency, accountability, and responsiveness have been key principles of the planning process for transit service in the Durham-Orange (D-O) Corridor, from before the Alternatives Analysis (AA) was completed in 2012 through the ongoing National Environmental Policy Act (NEPA) and Project Development Process. Agencies, non governmental groups, and the public have been engaged throughout the planning process for the proposed Durham-Orange Light Rail Transit (D-O LRT) Project as required by federal and state law. NEPA mandates agency and public participation in defining and evaluating the impacts of project alternatives." This did not occur for the people living on Farrington Rd- most specifically for the two stakeholders mentioned in the previous paragraph. Under the DEIS Table 9.3-17 entitles Summary of Stakeholders Notifications, GoTriangle States that in "August of 2014" using "Phone calls and/or postal mail" as their method of Outreach" GoTriangle had "285" as their "Targeted Stakeholders /Addresses" with the intent of talking to them about being "Residential property owners potentially affected by any portion of the alignment and/or any of the ROMF alternatives" In August 2010 none of the residents of the Villas od Culp Arbor received a call or postcard or letter nor did the two homeowners of the ROMF site (stakeholders) mentioned in the previous paragraphs. Under Section 9.3.3 of the DEIS entitles Public Open Houses for Potentially</p>

Impacted Property Owners GoTriangle states: "in 2014, Triangle Transit began engaging property owners and tenants along the entire D-O Corridor to discuss the proposed D-O LRT Project, alternatives under consideration, and the DEIS process. The method of outreach, location, dates of the public open houses for property owners, and the number of attendees are shown in Table 9.3-3." In this table it clearly states that none of the Farrington Road ROMF Affected Property Owners "were invited" to a 'presentation or meeting' via 'direct mail' until '06/24/2015' at the Culp Arbor Clubhouse'. it was during this meeting that all of the Farrington Rd Residents who were present were told that the decision had already been made that the Farrington ROMF was the "preferred NEPA alternative site". Why, during this GoTriangle meeting (held June 24, 2015) were the attendees not given comment cards?" If the EIS was not submitted until July 15, 2015 (which is the date we were quoted by GoTriangle) then in order to be compliant with both Federal DEIS guidelines as well as GoTriangle's self imposed guidelines of inclusion and input from "residents living within 1-mile buffer of the ROMF", every person should have been given comment cards to fill out and those cards should have been collected and the comments then calculated into the public responses, topics, concerns and criteria in selecting a ROMF alternative (these "missing" facts and figures would have been included in tables 9.3-11, 9.3-12, 9.3-13, 9.3-14, 9.3-15, and 9.3-16). This should have taken place before a final decision was made to designate the Farrington Rd ROMF site as the NEPA Preferred Alternative. This manipulation of public comments and figures clearly illustrates the avoidance of "inclusion" of the attendees "in the planning process". By delaying their meeting with the property owners and stake holders of the Farrington Rd ROMF site and then informing those present that the decision had already been made to "make the Farrington site the NEPA Preferred Alternative definitively excluded them from the planning process. Added to the list of errors by GoTriangle is the fact that the only notice of the meeting received by the residents of Culp Arbor was placed in an unsealed, unstamped envelope on the outside of residents mailboxes (exposed to the elements) just a few days prior to the meeting. GoTriangle employees were obviously making a rushed last minute attempt to "legally notify" the residents of the meeting. With the meeting that close to the date of their unprofessional delivery shouldnt they have at least rung every doorbell to see if people were at home and hand delivered the meeting notice to the residents? Considering that it had rained heavily the day before why take the risk of having letters blown away by wind or destroyed by the last rain if GoTriangle's true intent was to meet with us? When asked about their "last minute notification", Ms. Murdock's excuse (given during the June 24th meeting) was that they did not realize that out mailing address was Chapel Hill, NC 27517. Interesting when you consider that the Durham City Tax Collector has been privy to that information for 6 years and that the addresses are public records. Interesting that earlier in the year they managed to contact Mr. Curtis Booker who has the same mailing address of Chapel Hill, NC 27517 (residing just across the road). Again, a huge lack of due diligence and federal compliance on GoTriangle's part. In Chapter 9 of the DEIS using tables 9.3-1 and 9.3-2 (covering public meetings and comments from 2013 through October of 2014) none of the facts and figures reflect input from Farrington Rd Residents specially 2 of the stakeholders and the residents of the Villas of Culp Arbor. Why? because despite GoTriangle's claims of education and inclusion and involvement of "residents within a 1-mile buffer of any tracks, stations, or ROMF sites", we were not included, we were not informed, we were not educated, and we were not involved in the planning process! It seems to me that Farrington Rd residents were intentionally avoided as long as possible when you view Table 9.3-3 entitled "Small groups, Neighborhoods, Agency and Stakeholder Meeting List (January 2012 to June 30, 2015)". It is interesting to me that GoTriangle made a point of meeting with: Oak Creek Village Apartments three times (in June & July 2014), Sam's Quick Shop on Erwin Road (in March of 2015), and Downing Creek (in April of 2015) yet GoTriangle couldn't manage to set up a meeting with the Farrington Rd residents (the majority of which are retirees) at the Culp Arbor Club house until June 24th, 2015 after the "preferred alternatives" had been selected. At the June 24th meeting no comment cards were handed out (and thus none collected-again, probably because GoTriangle announced that the Farrington Rd ROMF site had already been chosen as the NEPA preferred alternative. Sensing our overwhelming number of negative concerns over the ROMF site did they intentionally choose not to hand out comment cards or was it merely a matter of incompetence? As a result, any numbers it

statements made to the City Officials stating that meetings were held with the homeowners along Farrington Rd and that there was little to no objection from those people (aka the public) to the Farrington ROMF was a huge lie! Two of the homeowners living on the ROMF site (often referred to in the DEIS document as STAKEHOLDERS) were not informed of the ROMF location decision or the fact that it had already been selected as the NEPA Preferred Alternative until the meeting held June 24, 2015. Studying the DEIS it appears that the decision to make the Farrington Rd ROMF the preferred site of the final 5 (really only 4) site possibilities occurred somewhere between November of 2014 and April of 2015 and yet the property owners who would be directly affected by the placement of an industrial site like a ROMF in a neighborhood on June 24, 2015. This is not following federal guidelines. This is not following the "key principles of the planning process" to which GoTriangle says that it ascribes. This is not the proper "education, inclusion, transparency, accountability and responsiveness." which GoTriangle claims to have accomplished during the D-O Light Rail planning process. Instead it is the polar opposite of all the above descriptions. We the homeowners, stakeholders, neighbors, senior citizens and elementary school children within the "1 mile buffer of the Farrington ROMF site" demand that this ROMF be moved to a more appropriate location. As shown in the examples above, GoTriangle has not done their due diligence. GoTriangle has not followed federal guidelines. They need to return to the drawing board and either make Patterson ROMF work or find a whole new location. As far as new location suggestions what about the tract of land off of Shannon Road that stretches all the way between University Dr and 15-501 Business which is already zoned commercial and has a large percentage of existing impervious surface? Better yet, what about Downtown Durham at the Police Station site (since it has been announced that the police station is moving)? This location would not only be close to NC Hwy 147 but to Amtrak (should Raleigh ever become part of the system). A 3 story shiny building and rail yard would look right in either of those locales, it could shine there, it would do no harm there and it would not displace people from their homes or negatively impact a Residential zones neighborhood where senior citizens and an elementary school reside. It also would not affect New Hope Creek, ground water, Trenton resident's wells, wildlife and the natural beauty remaining in a tiny corner of Durham. Why didn't GoTriangle meet with the neighbors that would be most affected by an industrial site like a ROMF with a Rail Yard early enough to be effective in the planning process? It is time for GoTriangle to do what they were hired and charged to do- find a suitable site for a ROMF- one that does no harm and serves the community! It is past time for GoTriangle to follow Federal guidelines and follow the guidelines which they set for themselves as described in the DEIS!

*Comment Responses*

*DEIS/Errata References*

*Public involvement associated with the environmental review of the D-O LRT Project initiated with project Scoping on April 3, 2012 and continued through the public circulation of the Draft Environmental Impact Statement (DEIS) and associated 45-day public comment period, which concluded October 13, 2015. During the 45-day public comment period, oral remarks were received during the two public hearings and transcribed by court reporters. Written comments were accepted by email, mail, and on the project website using an electronic including comment cards were accepted and provided at the Public Hearings and Public Workshops. Public involvement conducted through the release of the DEIS is documented in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6. As stated in 9.1, Triangle Transit drafted a Public Involvement and Agency Coordination Plan (PIP) at the onset of the environmental review process (appendix K30). The PIP for the proposed D-O LRT Project includes goals, community profiles, a variety of tools for ongoing dissemination of information and community outreach, and several continuously open channels for accepting public and agency comments. The Federal Transit Administration (FTA),*

DEIS chapter 9  
DEIS appendix K30  
FEIS/ROD section 1.4  
FEIS/ROD section 2.6

**D-O LRT FEIS / ROD**

*Triangle Transit, and the project's cooperating and participating agencies aim to ensure that the proposed D-O LRT Project responds appropriately to community needs and participation, while satisfying local, state, and federal environmental requirements. No group or individual has been purposefully or deliberately left out of public involvement. The selection of the NEPA Preferred Alternative of the D-O LRT is not final until a Record of Decision is published by the FTA. Residents in the D-O Corridor are diverse in terms of the length of time living and working in the region, income levels, languages spoken in the home, race and national origin, and English proficiency. Given this diversity, Triangle Transit uses multiple channels for releasing outgoing messages, project progress, and requests for public input. After the Scoping and through development of this DEIS (from 2012 through 2015), the D-O LRT Project staff has worked diligently to keep channels of communication open with the public. The project team utilizes several different methods to collect public comments, including: public meetings, smaller group meetings, postal mail, email through [info@ourtransitfuture.com](mailto:info@ourtransitfuture.com), web forms, and surveys, and a telephone hotline with English and Spanish options. Project staff addresses comments with specific questions or requests through email, direct mail, or phone calls by directing the public to Frequently Asked Questions posted on the OurTransit Future website or by providing direct information from project staff. Table 9.4-3 includes a summary of the comment topics, and the full collection of public comments can be found in appendix J.7. Since 2010, the project team has employed a variety of notification techniques for the outreach meetings, events, and presentations. While no method of notification is all-encompassing, several methods were used in an attempt to make the public aware of the project and related project meetings hosted by Triangle Transit, including, but not limited to: news releases, newspaper articles, bus ads, municipal television stations, and radio announcements. As detailed in 9.3.9, project mailers were created and distributed by postal mail as listed in Table 9.3-17. The postal mailings were used to specifically invite the public to project-related meetings and to contact potentially impacted property owners. Targeted outreach included members of the public who live within the project area, and mass outreach in water bills included the City of Durham and Town of Chapel Hill residents who may be interested in the proposed project but who do not necessarily live within the project corridor. In addition to traditional mailers, a poster distribution service was engaged to post flyers on bulletin boards in Chapel Hill, Carrboro, and Durham in approximately 100 separate locations, including: § Chapel Hill: UNC campus, UNC Hospitals, poster kiosks on Franklin and Rosemary Streets, shops, restaurants and cafes, Farmers Market, Whole Foods, Weaver Street Market, and Chapel Hill Public Library § Carrboro: Weaver Street Market, Art Center, Cat's Cradle, and Elmo's § Durham: Duke University East and West campuses, Duke Medical Center, 9th Street, Broad Street, Whole Foods, Brightleaf Square, North Carolina Central University (NCCU) and Durham Technical Community College (DTCC) Appendix J.2 provides a compilation of flyers, letters, and comment forms that were distributed. Also, at the request of residents, yard signs were developed and posted for the ROMF meetings, to notify potentially affected residents and residents in the communities surrounding the ROMF sites. Similar yard signs were used during the 45-day public comment period of the DEIS and placed at major roadways and thoroughfares along the 17 mile project alignment to notify residents of the public information sessions and public hearings associated with the public*

comment period of the DEIS. A website, [ourtransitfuture.com](http://ourtransitfuture.com), was launched in May 2010 to provide the community with a consistent place on the internet to access project information and to provide input and comments. The [ourtransitfuture.com](http://ourtransitfuture.com) website offers the public access to project updates and activities, public meeting announcements, public documents, presentation materials, and an interactive map that allows the public to input their address and see the relationship of their property to the proposed D-O LRT Project. Regular weekly updates to the project website included web banners of upcoming meetings, surveys, project information, comment forms, and project meeting materials were provided on the [ourtransitfuture.com](http://ourtransitfuture.com) website. In addition, electronic notifications included regular monthly e-mails to members of the public who signed up either at a Triangle Transit meeting or online to receive project updates via an e-newsletter. The e-newsletter is distributed to over 3,000 participants; monthly updates are provided about the proposed D-O LRT Project. Triangle Transit also used several social media channels under the Our Transit Future™ name. Social media resources include a Facebook page, [facebook.com/OurTransitFuture](https://www.facebook.com/OurTransitFuture); Twitter account, [twitter.com/triangleotf](https://twitter.com/triangleotf); and Instagram account, [instagram.com/triangleotf](https://www.instagram.com/triangleotf). As with the website, the project's Facebook, Twitter, and Instagram accounts were used to provide public meeting announcements, project updates, and as channels for the public to interact with the proposed D-O LRT Project process (Table 9.3-18). A project hotline (1-800-816-7817) was established in 2010 for the AA and continues to be used for the proposed D-O LRT Project through Project Development. A recording in English and Spanish instructs callers to select an option to speak to a member of the D-O LRT Project staff or leave a message and receive a return call. Phone calls are generally returned within 48 hours. There were a total of 30 calls received since the start of Scoping in 2012. After the AA and the selection of the LPA for further study, Triangle Transit coordinated with the FTA to begin the NEPA process for the proposed D-O LRT Project. During this phase of public involvement, Triangle Transit took into account extensive feedback from the public, stakeholders, elected officials, and local, state, and federal agencies. As a result, the D-O LRT Project has undergone several substantive changes. In some cases, new alternatives were (or are being) studied, while in others the alignment was modified in response to particular concerns. These changes are further discussed in DEIS section 9.2.4. A Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) was published on April 3, 2012, in the Federal Register (appendix H [Scoping Report appendix A part 1]). Scoping, which is required by NEPA as part of the EIS process, assists with defining alternatives and identifying potential social, economic, or environmental issues related to a proposed project that should be further evaluated (appendix H). Through Scoping, the D-O LRT Project team established goals and objectives to guide the evaluation of alternatives. This process was conducted in consultation with the DCHC MPO; the City and County of Durham; the Town of Chapel Hill; Orange County; affected local, regional, and federal agencies; interest groups; businesses; and the public. There were four Scoping meetings—two for invited stakeholders and two meetings for the public. The first meeting for invited stakeholders convened staff from federal, state, and local agencies with jurisdiction and/or interest in the project area. The list of meetings, dates, locations, and attendance are included in Table 9.2-1. In November 2013, Triangle Transit hosted a series of public meetings as part of the NEPA process. Triangle Transit



assembled a list of nearly 300 agencies, community-based organizations, and neighborhood associations in and around the D-O Corridor with particular interest in the proposed D-O LRT Project. Triangle Transit then contacted each agency, organization, or group and offered to participate in formal meetings, attend events, or create opportunities for residents or group members to learn more about the proposed D-O LRT Project. Triangle Transit staff also presented to homeowner-owner and community-hosted groups upon invitation by these groups. Through June 2015, Triangle Transit staff participated in more than 300 separate meetings, reaching more than 5,000 people. In addition to small group and neighborhood meetings, Triangle Transit met with various stakeholders (including educational institutions, property owners, railroad companies, hospitals, utilities, professional organizations, and federal, state, and local agencies) throughout the development of the DEIS to ensure that stakeholders are aware of impacts (or perceived impacts) and project developments. A list of these meetings is provided in Table 9.3-3. Meeting summaries, notifications, handouts, presentations, and other materials made available during these meetings can be found in appendix J.4. In 2014, Triangle Transit began engaging property owners and tenants along the entire D-O Corridor to discuss the proposed D-O LRT Project, alternatives under consideration, and the DEIS process. The method of outreach, location, dates of the public open houses for property owners, and the number of attendees are shown in Table 9.3-4. The list of potentially impacted owners, meeting invitations, and slides presented to them are available in appendix J.4. The second series of public meetings held in November 2014, focused on five key decisions that would be made as part of the NEPA process, and provided draft station area plans and information about the ongoing environmental studies. The five key decisions are shown on Figure 9.3-1. The key decisions are the decisions needed to ultimately determine the project to be built, and include the selection of the Little Creek and New Hope Creek crossings, Duke/VA Medical Centers Station, and ROMF location. The exhibits, handouts, comment forms, survey cards, and sign-in forms available at the 2014 public meetings are shown in appendix J.2. The survey cards included a list of DEIS criteria that identify potentially distinguishing characteristics for each as well as a choice of alternatives. A total of 479 individuals attended at least one of the four public meetings in November 2014. More than 48,000 postcards were mailed to homes within a 1-mile buffer of the project corridor. Attendance at each public meeting is provided in Table 9.3-5. In March 2015, Triangle Transit held two public open houses where D-O LRT Project staff gave a series of presentations about the project updates. The purpose of these presentations was to provide information to the public about data that would be used in the DEIS to analyze the different alternatives and to make a determination for the NEPA Preferred Alternative. Following the presentations, attendees were given an opportunity to engage with project staff in an open house format, ask questions, and express concerns. Materials made available to the public included display boards, printed materials such as Next Steps information and the evaluation data, and interactive digital mapping tools. Materials made available to the public can be found in appendix J.3. In June 2015, Triangle Transit held three additional public open houses to discuss the refinements to the alignment through downtown Durham into east Durham. Updates regarding the entire D-O LRT alignment were also provided. More information about the March and June 2015 meetings is found in Table 9.3-7. Members of the public were asked to provide their



preferences on the alternatives and to rank criteria which were most important to them. Between August 2014 and June 2015, Triangle Transit received 646 survey responses about Little Creek Alternatives, 395 responses about New Hope Creek Alternatives, 454 responses about Duke/VA Medical Centers Station Alternatives, and 487 responses about the ROMF alternatives. Surveys were available online and in paper-copy handouts. Reproductions of the surveys can be found in appendix J.6. In June 2015, additional data eliminated Cornwallis ROMF location from consideration and indicated that the Farrington Road ROMF was the most appropriate alternative. Triangle Transit invited more than 1500 property owners within 1 mile of the Farrington Road ROMF site to solicit additional community input on ways to better integrate the Farrington Road ROMF site into the community. More than 200 people attended the meeting (Creekside Elementary School on August 18, 2015) Project staff circulated surveys and led a work session designed to determine the community's main concerns with the Farrington Road ROMF and mitigation that they would like considered. Overall attendees were not in favor of the ROMF being located on Farrington Road. Top concerns and the corresponding desired mitigation considerations were increase in traffic congestion (optimize traffic signal timing near the ROMF), decrease in surrounding property values (No Build option or don't build the ROMF on Farrington Road), increase in noise due to the facility (include a noise barrier [wall or vegetation] in design), and danger from chemicals used at the site (use a containment system or develop safe storage). As a result of the decision making process, the Farrington Road ROMF was selected as part of the NEPA Preferred Alternative. Due to site considerations at Cornwallis Road ROMF site and Farrington Road ROMF site, project staff hosted two public meetings to specifically engage affected property owners at these two sites. Mailing lists of contacted property owners as well as presentations and handouts provided at these meetings are shown in appendix J.3 To supplement and support the meetings, events, and presentations about the proposed D-O LRT Project, all public meeting materials were posted to the project website, ourtranstifuture.com. Members of the public were invited to submit their contact information (e.g., email address) in order to receive and review project details before/after public meetings, receive event invitations, and express their comments about the proposed D-O LRT Project. Appendices J.1, J.2, and J.3 provide a compilation of materials presented at the public meetings organized by year – 2013, 2014, and 2015.

First Name	Last Name	Comment
Lisa	Brach	My name is [REMOVED NAME]. My address is [REMOVED ADDRESS, CITY, STATE, ZIP], and I am most assuredly a [REMOVED COUNTY] taxpayer. As I attended these public -- As I have attended these public comment meetings, I hear a recurring theme among those who deal with the light rail is the only answer to Durham and Orange County's transportation problems. First, that the light rail will end the traffic congestion along 15/501 and 54 and, second, that it will provide better transportation for those who are in lower-income level jobs and situations. To the first assumption of reducing traffic, I would ask, how? On 15/501, only two stops are vaguely close. On 54, the majority of eastbound traffic is either attempting to access I-40 or attempting to travel further east on 54 to south parts -- parts of southeast Durham or the RTP where the light rail does not go. The majority of the westbound traffic is traveling to

UNC Hospital from I-40 or from southeast Durham. Again, no tracks or stations. As to the second and more important false assumption that this 17-mile route will provide reliable and affordable transportation for minorities and lower-income families, I would ask how? How will it do this when the closest stations are so far away that they will either need a car to get to a station or they will have to pay for a bus to get to a station to pay for a train ticket to get to their job, which better be located at Duke or UNC Hospitals where it means another bus fare? Add to all this the extreme tax debt, which will be placed on the shoulders of all Durham and Orange County taxpayers from the poorest on up, and the light rail becomes a slap in the face of those who truly need good public transportation. Do not waste 400 million of Durham's tax dollars just to build it. Do not commit us to a debt which will take generations to pay and still not solve our public transportation problem for those who need it most. Where is the environmental justice in this plan and method of transportation?

### *Comment Responses*

### *DEIS/Errata References*

*The impacts of proposed D-O LRT Project on US 15-501 and NC 54 are discussed in DEIS section 3.2. In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways. In coordination with stakeholders and the public during the development of this DEIS, the areas detailed in section 3.2.4.1 (NC 54), 3.2.4.2 (US 15-501), 3.2.4.3 (Erwin Road) and 3.2.4.4 (Downtown Durham) were identified for further study and potential refinement during the Engineering phase.*

DEIS chapter 5  
DEIS section 3.1.4  
DEIS section 3.2  
DEIS Table 4.2-4  
DEIS Table 5.3-1

*The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. Enhancements to bus service are part of the Durham County and Orange County Bus and Rail Investment Plans (BRIPs). Both BRIPs were developed and approved by county commissioners before the successful sales tax referenda in 2011 and 2012, and both have guided the provision of new bus service in the two counties over the past few years. For more information about provisions for improved bus service under the BRIPs, please see <http://ourtransitfuture.com/durham-county-bus-and-rail-investment-plan/>. As noted in DEIS Table 5.3-1, the revenue from the half-cent sales tax in Durham County for public transportation is being used to fund project development for the proposed D-O LRT Project and to implement improvements to DATA bus services. In addition, the sales tax will be used to support the design and construction of Neighborhood Transit Centers and make improvements to bus stops and pedestrian/bicycle infrastructure along Transit Emphasis Corridors in Durham. When the light rail opens, funds for bus services made redundant by rail operations will also be used to improve connections across Durham to newly opened rail stations. As noted in DEIS section 3.1.4, prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke*

*Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis (section 3.1.4).*

First Name	Last Name	Comment
Megan	Buckley	<p>Please do not build this light rail. No Build! It is going to cost much more than the taxpayers will be able to support and it benefits very few Durham and Orange county residents.</p> <ol style="list-style-type: none"> <li>1. Why doesn't the LRT go to the places where everyone wanted it to go like RTP and Raleigh and Southpoint Mall and up US 15/501 from NC 54 intersection north?</li> <li>2. Why isn't it a better solution to improve our bus system including bus rapid transit on dedicated lanes during rush hours?</li> <li>3. Why are you planning fixed railroad tracks that will use up our scarce transportation money when new technologies happening now will be so much better than light rail starting in 2026?</li> <li>4. Why is the community that most needs this LRT system, the East Alston/NC Central/Durham Tech area, not served by the LRT but instead left with the bus?</li> <li>5. Why don't you spend time and money to develop an engineering solution for the East Alston residents instead of putting train tracks in areas where there is no sure plan for density build or affordable housing, where a significant length of track crosses wetland that cannot be developed, and where there are very few low income, transit using persons,?</li> </ol> <p>Let's do this right for everyone not just the lucky few at UNC and Duke. Megan Buckley[removed address]</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com> Hundreds of commuters to UNC from RTP, Morrisville, Cary, and Raleigh already park and ride today at parking lots at Southpoint Mall, Exit 282 off of I-40 at the Regional Transit Center, and at District Drive in Raleigh. They choose to use these bus services even though they are subjected to traffic on NC 54. The light rail, with a major park-and-ride facility at Leigh Village, will offer a higher level of frequency than these routes and will not be subject to traffic congestion in the future when traffic is worse. Various alternative alignments, including those*

DEIS chapter 5  
 DEIS section ES-5  
 DEIS section 1.5.1.2  
 DEIS section 3.2  
 DEIS Table 4.2-4  
 DEIS Table 5.3-1  
 DEIS Figure 1.5-2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17

***D-O LRT FEIS / ROD***

along US 15-501, were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Through the Alternatives Analysis, the alignment along NC 54 and Farrington Road was selected as the best alternative to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://www.ourtransitfuture.com). Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>

Bus routes that currently service the D-O LRT Corridor alone carry an average of 9,700 passengers every weekday. Overall, Chapel Hill Transit, GoDurham, and Triangle Transit’s services within Durham and Orange Counties carry 71,300 passengers per weekday. Transit ridership in Durham and Orange Counties has grown over the last few years, and is projected to grow in the future as the communities encourage the growth of walkable, pedestrian-friendly communities and the universities continue to grow and encourage transit use to their campuses by restricting parking. As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the DEIS Executive Summary (ES-5), the region’s existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS). Autonomous automobiles would not satisfy the project’s Purpose and Need since they would rely on the limited capacity of the existing roadway system and do not conform with or

*contribute to more compact development identified in local and regional plans (see Chapter 1 of the DEIS for a full discussion of the Purpose and Need for the project).*

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2). As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income. The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.*

*The D-O LRT Project would benefit transit-dependent populations (including those in the Alston Avenue / east Durham area) by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities (including Alston Avenue / east Durham) along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project. If the proposed D-O LRT Project is built, it is expected that it would be funded by a combination of federal, state, and local funds. Dedicated local funding for bus and rail transit investments was identified when citizens of both Durham and Orange counties passed referenda to increase sales taxes to support transit improvements. (Effective April 1, 2013, Durham and Orange counties adopted resolutions to levy an additional one-half cent local sales tax to be used only for public transportation systems.) Established federal and regional funding sources means no one group in the D-O Corridor or the region would receive a disproportionate share of the financial*

**D-O LRT FEIS / ROD**



*burden of the capital and operating and maintenance costs relative to the benefits received. No financial equity considerations would be raised by the project, either in terms of the source of subsidy or the level of fare payments required of passengers (section 8.3.2). Pursuant to the Orange County and Durham County Bus-Rail Integration Plans, an adequate share of local sales tax funds is being dedicated to the cost of the LRT system.*

*The extension is not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process (section 9.2.5). Given the applicable NCR/NS requirements, an extension from the Alston Avenue station toward an additional station at Driver Street or Briggs Avenue would likely require either (1) single tracking from Alston Avenue or (2) double tracking that would require the reconstruction of the new Pettigrew Street bridge over Alston Avenue, relocation of Pettigrew St. to the south with the inherent property and utility impacts, and resolving impacts to the pump house and cell towers at the water tower. This would also require a grade separation of the LRT over the existing rail spur at Brenntag. Detailed analysis of engineering impacts and costs of potential future extensions is not required as part of Project Development for the D-O LRT Project. An extension would be a collaborative study process with the local governments and the FTA. Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments. Under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly. Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan. Further information about the Compact Neighborhood*



destination is available from the Durham City-County Planning Department.

First Name	Last Name	Comment
Marshall	Burkes, Ph.D	With an increasing population, particularly in this area this is expected to continue, I am a progressive and support alternatives to auto roads. My education says that the shortest distance between two locations is a straight line. Thus, the light rail should go from East Raleigh thru Downtown Raleigh thru NC State thru Downtown Durham/Duke Complex thru Downtown Chapel Hill/UNC Complex. If the fails, a flawed short route would be from North Durham thru the Duke Complex thru Downtown Chapel Hill/UNC Complex thru South Chapel Hill. Anything short of that 20 to 25 mile route would NOT be ridership effective and to costly. An deviation, such as the two miles along I-40 in Durham County is unwarranted, excessive and pure POLITICS. So, if the I-40 zig-sag and the Repair Facility is pursued any further, then I am strongly and totally NEGATIVE on a bob-tailed light rail in only Chapel Hill & Durham. Marshall Burkes, Ph.D / Trenton

Comment Responses	DEIS/Errata References
<p><i>Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <a href="http://www.WakeTransit.com">http://www.WakeTransit.com</a></i></p>	<p>FEIS/ROD section 1.4 FEIS/ROD Table FEIS-2 DEIS Errata 17</p>

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 1-5: Misleading and inaccurate UNC student projections[removed name]Sent: 10/4/2015 3:52PMTo: info@ourtransitfuture.com[removed email]DOLRT DEIS 1-5: Misleading and inaccurate UNC student projectionsMuch of this growth can be attributed to increased residential development for employees and students at UNC to keep pace with rising student enrollment. In 2007, UNC had just over 28,000 students and by 2017 total enrollment is projected to reach 33,000 students, a net increase of 18 percent. [DEIS 1-5]CORRECTION:UNC 2014 student population = 29,135 (or 4% increase over last 8 years). Excluding online / distance students, would reduce the 2014 on campus population by approximately 4,646 students, making for a total of 24,489 on campus students versus the inflated 33,000 cited in the DEIS. According to UNC public records, student (undergraduate and graduate studies) enrollment were:2007 = 28,1362008 = 28,5672009 = 28,9162010 = 29,2902011 = 29,1372012 = 29,2782013 = 29,1272014 = 29,135Given the 3.5% growth to date over the last 8 years, it is highly unlikely that UNC will grow to 33,000 students (or the 18% cited as the justification)http://oira.unc.edu/facts-and -figures/student-

Comment Responses

DEIS/Errata References

According to the UNC Office of Institutional Research & Assessment, as of the official fall reporting date of October 15, 2007, the grand total enrollment for the University was 28,136, while the latest information from October 15, 2014 indicated the grand total enrollment for the University was 29,135. Details of the enrollment can be found:  
[http://oira.unc.edu/files/2012/03/cds\\_2007\\_2008\\_final.pdf](http://oira.unc.edu/files/2012/03/cds_2007_2008_final.pdf)

DEIS section 1.1.1  
 DEIS Errata 18

[http://oira.unc.edu/files/2015/05/cds\\_2014\\_2015.pdf](http://oira.unc.edu/files/2015/05/cds_2014_2015.pdf)In addition, as per the Chapel Hill 2020 Plan, "By the Fall of 2018, the University of North Carolina at Chapel Hill student enrollment is projected to be 33,000. This number includes undergraduate and graduate students".

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 1-5: Substantially lower population projections from Alternative Analysis[removed name]Sent: 10/4/2015 4:04PMTo: info@ourtransitfuture.com[removed email address]DOLRT DEIS 1-5: Substantially lower population projections from Alternative AnalysisAccording to DEIS page 1-5, Table 1.1-1, the current population within the 57 mile study corridor (DEIS 1-2, figure 1-0.1) is 27,000 growing 54,000 in 2040.These population projections are inconsistent with earlier cited projections and substantially lower than those cited in the Alternative Analysis. According to the AA, the corridor study area is projected to have a population 231K residents in 2035 (up from 175K in 2005) or a 34% increase, not the cited 'double' and far less than the 64% and 52% cited within the DEIS. <a href="http://ourtransitfuture.com/wp-content/uploads/2013/07/573_DO_AA_Final_Report_8_Jun_12_web.pdf#page=33">http://ourtransitfuture.com/wp-content/uploads/2013/07/573_DO_AA_Final_Report_8_Jun_12_web.pdf#page=33</a>

Comment Responses

DEIS/Errata References

The study area that was used to conduct the Alternatives Analysis was much larger than that used for the DEIS (57 square miles versus 18 square miles). Projections are higher in the DEIS as the population along the proposed corridor is growing at a higher rate than that of the broader Durham and Orange county areas. In addition, population actuals and projections changed between 2005 and 2010 as well as between 2035 and 2040 based on observed information and future plans and policies.Standard transit industry practice for population and ridership projections for rail projects seeking federal funding includes utilizing population data from the adopted locally for transportation planning purposes, highway or transit. Table 1.1-1 utilizes the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) population and employment numbers adopted as part the 2040 Metropolitan Transportation Plan. Information on the DCHC MPO population employment numbers can be found on the following website (<http://www.dchcmpo.org/publications/maps/data/default.asp>).

DEIS Table 1.1-1

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 1-8: Inconsistent population estimatesAccording to the US Census, there were 55,900 housing units in Orange County and 118,700 in Durham County in 2010. The total number of housing units in all the proposed station areas was 15,500, or 9 percent of the housing units in Orange and Durham Counties combined.North Carolina average household is 2.53 people per household, or approximately 39,215 people within station proximity. •Durham County 2.36 persons per household @ <a href="http://quickfacts.census.gov/qfd/states/37/37063.html">http://quickfacts.census.gov/qfd/states/37/37063.html</a> •Orange County 2.45 persons per household @ <a href="http://quickfacts.census.gov/qfd/states/37/37135.html">http://quickfacts.census.gov/qfd/states/37/37135.html</a> •Chapel Hill 2.38 persons per household @ <a href="http://quickfacts.census.gov/qfd/states/37/3711800.html">http://quickfacts.census.gov/qfd/states/37/3711800.html</a> This is inconsistent with population estimates from earlier referenced material.For example, according to the DEIS 1-5, Table 1.1-1, the current population within the 57 mile study corridor (DEIS 1-2, figure 1-0.1) is 27,000 growing to 54,000 (projected) in 2040.These population projections are inconsistent with earlier cited projections and substantially lower than those cited in the Alternative Analysis used as the basis and justification for the DOLRT plan. According to the AA, the corridor study area is projected to have a population 231,000 residents in 2035 (up from 175,000 in 2005). <a href="http://ourtransitfuture.com/wp-content/uploads/2013/07/573_DO_AA_Final_Report_8_Jun_12_web.pdf#page=33">http://ourtransitfuture.com/wp-content/uploads/2013/07/573_DO_AA_Final_Report_8_Jun_12_web.pdf#page=33</a>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<i>The study area used for the Alternatives Analysis is different to that of the DEIS (57 square miles versus 18 square miles). In addition, the number of households calculated were the cumulative of those within one half mile of each station area, not within the entire corridor.</i>	DEIS chapter 1 DEIS section 4.2

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 1-12: Misrepresenting On-time Bus Route Performance[removed name and email] Sent: 10/4/2015 4:43PMTo: info@ourtransitfuture.com[removed email]DOLRT DEIS 1-12: Misrepresenting On-time Bus Route PerformanceDEIS 1-12, table 1.3-1 information is out-of-date concluding in 2013, and not reflecting more current data reflecting improved on-time performance. In addition, DEIS does not use consistent on-time performance metrics used by GoTriangle.According to the latest 2015 On-time performance, GoTriangle has been exceeding the 85% on-time arrival goal, having achieved 87% on-time arrival in FY14 and FY15. This includes Route 400 which is now performing at 93% on-time arrivals.Staff includes on-time performance as an unofficial performance indicator. "On Time" is defined as arriving at an end-of-line timepoint within five minutes of the published schedule. Triangle Transit aims to achieve more than 85% of trips arriving on time. In Q1 and Q2 of FY 2015, Triangle Transit met the goal with 87% of trips arriving on time to the end-of-line timepoints. <a href="http://www.triangletransit.org/sites/default/files/February3,20150%26FAgenda.pdf#page=11">www.triangletransit.org/sites/default/files/February3,20150%26FAgenda.pdf#page=11</a> <a href="http://www.triangletransit.org/sites/default/files/February3,20150%26FAgenda.pdf#page=14">www.triangletransit.org/sites/default/files/February3,20150%26FAgenda.pdf#page=14</a> <a href="http://www.triangletransit.org/sites/default/files/February3,20150%26FAgenda.pdf#page=15">www.triangletransit.org/sites/default/files/February3,20150%26FAgenda.pdf#page=15</a>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<i>DEIS Table 1.3-1 provides on-time performance statistics from 2013. DEIS Figure 1.3-3 however</i>	DEIS section 1.3.1 DEIS Table 1.3-1

provides a graph of on-time performance between FY 2012 and FY 2015. Notes included with Figure 1.3-3 provide information on the reasons for improvement in on-time performance, namely schedule changes, elimination of specific stops, and service changes. On-time performance for many bus routes is anticipated to suffer from traffic congestion forecasted in future years as indicated in DEIS section 1.3.1. The footnote on Table 1.3-1 "Late being defined as greater than 5 minutes off the scheduled time at the end-of-line time point." which is consistent with the how GoTriangle reports on-time performance.

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 1-6: Incomplete reference to proposed 90-acre Leigh Village development Alex Cabanes Sent: 10/4/2015 4:50PM To: info@ourtransitfuture.com alex_ncus@yahoo.com DOLRT DEIS 1-6: Incomplete reference to proposed 90-acre Leigh Village development Leigh Village is a 90 acre, future development to include 990 parking spaces for PnR and DOLRT station. The Leigh Village proposal has not been developed or rezoned for compact neighborhood usage. As a point of comparison, the Meadowmont development is approximately 435 acres and already in place, yet the DOLRT C1/C1A routing avoids the existing Meadowmont TOD, in favor of smaller planned Leigh Village.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As documented in DEIS chapter 2, the Town of Chapel Hill requested that alternatives to the Meadowmont/C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the D-O LRT Project, including both the C1 and C2 alignment corridors.*

DEIS chapter 1  
DEIS chapter 2  
DEIS section 4.1.2.2

*As documented in DEIS section 4.1.2.2, under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly.*

*The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan.*

First Name	Last Name	Comment
Alex	Cabanes	GoTriangle DOLRT selection Bias Accuracy of forecast model is highly questionable given that material changes in inputs and assumptions such as:- Route selection of "C2A has fastest travel time & carries 1,000 more daily riders than C1A" [DCHC MPO], yet has no impact to ridership and travel time not reduced- Forecast for 23,000 daily boardings shifts from 2035 to 2040 [DEIS 32], yet the change in population during those 5 years should increase as should boardings.- Travel time increases from 34 minutes (2011)

to 4244 minutes [DEIS 313], yet no impact on boardings due to increase travel times- 705 parking places removed [DEIS 32], yet no impact to Park'N'Ride estimate or total daily boardings. And despite all of these material changes, the daily boarding is still projected at 23,000? Comparisons to alternatives, highly inflate costs of BRT and travel times relative to LRT. As a point of comparison, the Chapel Hill BRT planned for the MLK corridor with dedicate BRT lane is projected to cost a total of \$25 million. (Picture placed by Author) SOURCE:

[http://ourtransitfuture.com/wpcontent/uploads/2013/07/000681\\_REV\\_Scoping\\_Report\\_web.pdf#page=265](http://ourtransitfuture.com/wpcontent/uploads/2013/07/000681_REV_Scoping_Report_web.pdf#page=265) As point of comparison, H3 is one of the most expensive Interstate Highways ever built, on a cost per mile basis. Its final cost was \$1.3 billion, or approximately \$80 million per mile (Hawaii) with tunnels, etc. SOURCE: [https://en.wikipedia.org/wiki/Interstate\\_H3](https://en.wikipedia.org/wiki/Interstate_H3) GOOGLE: "how much does a freeway cost?" "Construct a new 2 lane undivided road – about \$2\$ 3 million per mile in rural areas, about \$35 million in urban areas. Construct a new 4 lane highway — \$4\$ 6 million per mile in rural and suburban areas, \$8\$ 10 million per mile in urban areas."

### Comment Responses

### DEIS/Errata References

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. The commenter is correct that the increase in population and employment between 2035 and 2040 would have resulted in higher ridership if all other elements remained constant, however, as pointed out by the commenter the end to end travel increased and number of park-and-ride spaces changed. Both of which reduce the ridership. These changes pointed out by the commenter have counter balancing impacts on ridership, resulting in similar ridership numbers from 2012 to 2015 estimates.*

DEIS section 3.1.1  
DEIS appendix K1  
DEIS appendix K2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 30, 32, and 33

*Project costs for individual projects vary based on the specifics of the project.*

First Name	Last Name	Comment
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Alex	Cabanes	<p>DOLRT DEIS 110: Inaccurate claim regarding traffic congestionAccording to the DEIS:The existing roadway network experiences high levels of congestion, which will increase in severity with rises in population and employment within the DORridor.The DEIS neglects to cite current or E+C travel times, or the fact that the DOLRT routing along NC54 corridor will actually exacerbate travel times by the increased traffic congestion created by the DOLRT routing (as opposed to the more direct 15501 DOLRT alignment).The mean travel time to work according to the 2014 US Census is 21.5 minutes (Durham County) and 22.0 minutes (Chapel Hill). 2040 Existing+Committed projected to be 27 minutes. Yet according to the latest DEIS filing, the proposed 17 mile light rail train will take 4244 minutes (versus the original 34 minutes projected in 2011).Light rail does not reduce traffic congestion. Total national ridership (APTA 19902014) reveals that despite massive light rail investments over past 25 years, combined ridership of light rail and bus service has stagnated at 5.7 billion annual trips. There is no evidence of increased ridership across these two modes of transportation, despite 28% population growth. Aggregate data suggests bus ridership shifted to expensive light rail and no measurable impact of reducing overall automobile traffic congestion.SOURCE: Quarterly and Annual Totals by Mode collected by American PublicTransportation Associationhttp://www.apta.com/resources/statistics/Documents/APTARidershipbyModeandQuarter1990Present.xls(Picture inserted by Author)</p>
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Comment Responses	DEIS/Errata References
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*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways.*

DEIS chapter 1  
DEIS section 8.1

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans.The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobilityo Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact developmento Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time• Increase Connectivityo Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit systemo Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham• Promote Future Developmento Support local land use plans that foster compact development,o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a*



large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:

- Connect residential, educational, and major employment centers throughout the corridor;
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;
- Provide solid anchors needed to shape land use along this critical corridor; and,
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).

As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.

Mean commute times are not an accurate measure when comparing end-to-end travel time. Many individuals do not live at UNC and work at Alston, or vice-versa. There are many destinations, employment centers, and residential areas along the corridor that would be reached in shorter times, especially during congested peak periods. The activity centers within walking distance of the D-O LRT Project include:

- Major Universities: UNC Chapel Hill (UNC) and Duke University
- Major Medical Facilities: UNC Hospitals, Durham Veterans Affairs (VA) Medical Center, and Duke University Medical Center
- Employment Centers: area hospitals and universities, mixed-use office and retail, including Patterson Place, South Square, the American Tobacco Campus, and downtown Durham
- Athletic Facilities: Dean E. Smith Center, Kenan Memorial Stadium, Finley Golf Course, and Durham Bulls Athletic Park (AAA baseball)
- Major Arts and Cultural Facilities: the William and Ida Friday Center for Continuing Education (Friday Center), Sarah P. Duke Memorial Gardens, Carolina Theatre, Hayti Heritage Center and the Durham Performing Arts Center
- Major Transportation Hubs: Durham Station (intercity, local, and regional bus service) and the Durham Amtrak Station.

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 110: False implication of DOLRT service to NCCU and DTCC According to DEIS 110, implies service to NCCU and DTCC. In fact, DEIS neglects to state that NCCU (Historical Black College) and DTCC (Durham Technical Community College) are not served by DOLRT plan. Major daily trip attractors within these subareas include Duke, Duke Medical Center, Durham VA Medical Center, downtown Durham, NCCU, and DTCC. Attached is agreement letter (April 2014) between NCCU and GoTriangle that outlines in subsequent phases of DOLRT, NCCU will be included with a LRT station to connect NCCU with the rest of the Durham community. Copyright © (Attached Letter):

*The DEIS clearly states the origin and extent of the D-O LRT NEPA Preferred Alternative in chapter 2. Extensions, such as those to NCCU or Durham Tech are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5)Enhancements to bus service are part of the Durham County and Orange County Bus and Rail Investment Plans (BRIPs). Both BRIPs were developed and approved by county commissioners before the successful sales tax referenda in 2011 and 2012, and both have guided the provision of new bus service in the two counties over the past few years. For more information about provisions for improved bus service under the BRIPs, please see <http://ourtransitfuture.com/durham-county-bus-and-rail-investment-plan/>.As noted in DEIS Table 5.3-1, the revenue from the half-cent sales tax in Durham County for public transportation is being used to fund project development for the proposed D-O LRT Project and to implement improvements to DATA bus services. In addition, the sales tax will be used to support the design and construction of Neighborhood Transit Centers and make improvements to bus stops and pedestrian/bicycle infrastructure along Transit Emphasis Corridors in Durham as well as connections to NCCU and DTCC. When the light rail opens, funds for bus services made redundant by rail operations will also be used to improve connections across Durham to newly opened rail stations.*

DEIS chapter 2  
DEIS Table 5.3-1

*The DCHC MPO identifies transportation planning priorities for the region, including the DO LRT Project. Triangle Transit studies and works to implement those planning priorities. At this time LRT service to NCCU is not in the 2040 MTP, however, the DCHC MPO is exploring the possibility of including the an extension to NCCU in its 2045 MTP.*

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 120: Misleading and inaccurate geographic references, and service areasAccording to the DEIS 120:In Durham, the highest concentrations of transit-dependent persons are located primarily around downtown Durham, along the NC 55 corridor, in south Carrboro, and in northern Chapel Hill (near the I-40 corridor). In Orange County, the areas with high concentrations of transit-dependent persons include the area surrounding Duke, Duke Medical Center, the Durham VA Medical Center, and the areas south of NCCU, north of I-85 between US 501 and US 501.This statement is inaccurate and misleading.Carrboro is located in Orange County (not Durham County as referenced in the DEIS), and is not directly served by the DOLRT.Duke, Duke Medical Center, Durham VA and NCCU are located in Durham County (not Orange County as referenced in the DEIS). In addition, NCCU is not directly served by the DOLRT route.

*Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 20 provides clarification that south Carrboro is located in Orange County and not in Durham County.*

FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 20

First Name	Last Name	Comment
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Alex	Cabanes	<p>DOLRT DEIS 1-6: Misrepresented travel times[removed name and email]Sent:10/4/2015 5:17 PM[removed email]DOLRT DEIS 1-6: Misrepresented travel timesAccording to the DEISThis results in increased travel times and reduced reliability of the transportation system between Chapel Hill and east Durham as discussed in DEIS chapter 3.If left unmanaged, this rapid growth will not only continue to constrain corridor mobility,The DEIS neglects to cite current or E+C travel times, or the fact that routing along NC54 corridor will actually exacerbate travel times by the traffic congestion that will be increased due to the DOLRT routing (as opposed to the more direct 15-501 DOLRT alignment).The mean travel time to work according to the 2014 US Census is 21.5 minutes (Durham County) and 22.0 minutes (Chapel Hill).2040 Existing+Committed projected to be 27 minutes.Yet according to the latest DEIS filing, the proposed 17 mile light rail train will take 42-44 minutes (versus the original 34 minutes projections in 2011).As compared to bus service of 57 minutes from UNC hospital to Alston, or the earlier BRT projected 39 minutes (and less expensive). Include wait time for the next train, time to get to/from the station (via Park&amp;Ride, Kiss&amp;Ride, bicycle, walking, or bus transfer), it will be even LONGER than the projected 42-44 minutes.In addition, a recent study US Census Bureau shows that automobile commuting(2006-2013) has decreased 2.9%, surpassed only by San Francisco and Boston. So local commuting patterns have already started to change, without the need of this expensive project. <a href="https://nextcity.org/daily/entry/solo-driving-still-americas-choice-commute">https://nextcity.org/daily/entry/solo-driving-still-americas-choice-commute</a></p>
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<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Mean commute times are not an accurate measure when comparing end-to-end travel time. Many individuals do not live at UNC and work at Alston, or vice-versa. There are many destinations, employment centers, and residential areas along the corridor that would be reached in shorter times, especially during congested peak periods. The activity centers within walking distance of the D-O LRT Project include:*

- Major Universities: UNC Chapel Hill (UNC) and Duke University
- Major Medical Facilities: UNC Hospitals, Durham Veterans Affairs (VA) Medical Center, and Duke University Medical Center
- Employment Centers: area hospitals and universities, mixed-use office and retail, including Patterson Place, South Square, the American Tobacco Campus, and downtown Durham
- Athletic Facilities: Dean E. Smith Center, Kenan Memorial Stadium, Finley Golf Course, and Durham Bulls Athletic Park (AAA baseball)
- Major Arts and Cultural Facilities: the William and Ida Friday Center for Continuing Education (Friday Center), Sarah P. Duke Memorial Gardens, Carolina Theatre, Hayti Heritage Center and the Durham Performing Arts Center
- Major Transportation Hubs: Durham Station (intercity, local, and regional bus service) and the Durham Amtrak Station.

DEIS section ES-5  
 DEIS section 1.3.2  
 DEIS section 1.5.1.2  
 DEIS section 3.2

*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours.*

*As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time*

performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (ES-5).

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 1-6: Misleading statement about impact of road widening[removed name and email]DOLRT DEIS 1-6: Misleading statement about impact of road wideningThe existing built and natural environments limit the ability to widen the roadways to accommodate additional travel lanes, which could meet the increasing mobility needs as the population continues to grow.The DEIS neglects to inform the reader that the DOLRT requires a 50' Right of Way which is the equivalent of 4 x 12' highway lanes.The DEIS neglects to cite current or E+C travel times, or the fact that DOLRT routing along NC54 corridor will actually exacerbate travel times by the increased traffic congestion created by DOLRT routing (as opposed to the more direct 15-501 DOLRT alignment).The mean travel time to work according to the 2014 US Census is 21.5 minutes (Durham County) and 22.0 minutes (Chapel Hill).2040 Existing+Committed projected to be 27 minutes.Yet according to the latest DEIS filing, the proposed 17 mile light rail train will take 42-44 minutes (versus the original 34 minutes projections in 2011).In addition the NC54 highway corridor is already planned to be widened to 6-lanes for consistent travel flow with other sections of the NC54 highway.The DOLRT projected 23,000 boardings (in 2040) during 18.5 hours of daily operation across the 17 mile circuit (at a cost of \$1.6 BILLION or \$94 million per mile), by building a steel rail highway with exclusive 50' right-of-way. Typical highways can accommodate 2,200 vehicles per lane per hour X 4 (human driven), utilizing 5% of roadway capacity or 8800 vehicles in 48' right-of-way And by 2040, highway capacity will dramatically increase with the introduction of autonomous vehicles.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Table 2.3-1 provides the reader with 28 example street cross sections of the proposed D-O LRT Project. The cross-sections included the width of the tracks and other related features. Several of the cross-sections also include automobile lanes or existing freight track to allow the reader to picture the relative size compared to features they are more familiar with in D-O Corridor. In addition, through out the DEIS there are numerous photos of similar LRT systems to help the reader to visualize the size of the proposed infrastructure and how it will fit into their community. Section 2.1*

DEIS chapter 1  
DEIS section ES-5  
DEIS section 2.1.1  
DEIS section 8.1

*discusses the planning history leading up to the D-O LRT project. Section 2.1.1 discusses the US 15-501 Major Investment Study, which evaluated the alignment you are recommending along US 15-501, as well as the alignment along I-40 and NC 54. That study didn't recommend an alignment along US 15-501, due in part to the ability of alignment serving NC 54 and I-40 corridor would have great impact on shaping the regions land use patterns.It unclear why a comparison is being made between communities mean travel time to work with end-to-end travel time for the LRT. Most riders are not anticipated to commute from UNC Hospitals Station to the Alston Avenue Station. The Triangle region has experienced extraordinary growth in recent years. Growth forecasts show population in the region increasing by 80 percent between 2010 and 2040, from 1.6 to 2.9 million. Within the D-O Corridor, the population is projected to double and the highest expected travel intensity (number of trips per acre) in the Triangle region is predominately located in this corridor. Page 3-13 states that "The NEPA Preferred Alternative would have a total travel time of approximately 42 to 44 minutes each way." The plan for the DEIS and planned D-O LRT takes into account the planned improvements for NC 54. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (ES-5).*

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans.*

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS – NO BUILD – Flawed assumptions – 40% zero vehicle households[removed name and email]Sent:10/4/2015 5:17 PMTo:“Our Transit Future” info@ourtransitfuture.com[removed email]I recommend a NO BUILD to this proposed DOLRT plan.The plan has numerous flawed assumptions that impact the fiscal feasibility and sustainability of this project. One flawed project assumption of 25% state funding has already brought the fiscal feasibility into question and has been capped by the state at 10%, and the recent state budget negotiations have highlighted that even that assumption is highly questionable with the current \$500,000 budget cap.In addition, the 23,000 daily boardings is built on numerous flawed assumptions, such as the assumption that



40% of the area households within the 57 square mile corridor will be zero-vehicle residences (DEIS K2.-27). Current zero-vehicle households comprise 10.4% in Durham and 7.4% in Chapel Hill according to the US Census Bureau's 2010-2013 American Community Survey. As a matter of fact, material changes in the project including travel times changing from 34 minutes in 2011 to 42-44 minutes in the latest DEIS, or elimination of 700 parking spaces, or changes in alignments such as C1 to C2A alignments which was suppose to be 1 minute shorter and increase 1000 daily boardings, or the original estimated daily boardings being pushed out by 5 years to 2040 .. despite ALL of these changes, the daily boarding projection has remained unchanged at 23,000 daily boardings. Or peer comparisons to Wake and Charlotte with substantially larger populations projecting 16,000 daily boardings for Wake and 16,000 daily boardings in Charlotte for the past 8 years. Yet, we are projecting 23,000 for much smaller, less dense 57 square mile corridor with 231,000 people in 2040? And all of this for an area where the mean commute time according to the 2014 US Census is 22 minutes (Chapel Hill / Durham), and the 2040 Existing+Committed projections is 27 minutes. And the DOLRT is currently projected to take 42-44 minutes (from the initial 34 minutes)? And not accounting for slower speeds due to heat advisories where LRT has to slow down on days over 90 degrees? The current proposed DOLRT plan is fatally flawed and should not be built as currently designed. I urge you to recommend a NO BUILD decision.

*Comment Responses*

*DEIS/Errata References*

*As stated in Triangle Transit Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project and clarified in DEIS Errata 19: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

DEIS chapter 1  
DEIS appendix K2  
DEIS Errata 19

*Mean commute times are not an accurate measure when comparing end-to-end travel time. Many individuals do not live at UNC and work at Alston, or vice-versa. There are many destinations, employment centers, and residential areas along the corridor that would be reached in shorter times, especially during congested peak periods. The activity centers within walking distance of the D-O LRT Project include: • Major Universities: UNC Chapel Hill (UNC) and Duke University • Major Medical Facilities: UNC Hospitals, Durham Veterans Affairs (VA) Medical Center, and Duke University Medical Center • Employment Centers: area hospitals and universities, mixed-use office and retail, including Patterson Place, South Square, the American Tobacco Campus, and downtown Durham • Athletic Facilities: Dean E. Smith Center, Kenan Memorial Stadium, Finley Golf Course, and Durham Bulls Athletic Park (AAA baseball) • Major Arts and Cultural Facilities: the William and Ida Friday Center for Continuing Education (Friday Center), Sarah P. Duke Memorial Gardens, Carolina Theatre, Hayti Heritage Center and the Durham Performing Arts Center • Major Transportation Hubs: Durham Station (intercity, local, and regional bus service) and the Durham Amtrak Station.*



As stated in DEIS Appendix K2, section 5, “Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership.” The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor.

First Name	Last Name	Comment
Alex	Cabanes	<p>DOLRT DEIS – Material Omission of Fact: Impact on DOLRT travel times due to heat advisory[removed name and email] Sent:10/4/2015 5:45 PM[removed email] Cc:“NC54 Transit Impact” nc54.transit.impact@gmail.comDOLRT DEIS – Material Omission of Fact: Impact on DOLRT travel times due to heat advisoryNo where in DEIS is there any discussion on the impact of travel times due to heat advisories . According to Portland TriMet system site,<a href="http://howweroll.trimet.org/2015/06/23/ask-trimet-why-do-max-trains-have-to-slow-down-in-hot-weather/">http://howweroll.trimet.org/2015/06/23/ask-trimet-why-do-max-trains-have-to-slow-down-in-hot-weather/</a>At 90+ degrees, operators slow down for you safetyOur operators have to watch for both sagging power wires and “sun kinked” rails when it’s really hot out. To be safe, they slow down to make sure nothing goes wrong. As it gets hotter, they have to slow down even more.When temperatures hit the 90s, trains traveling in speed zones above 35 mph will need to run 10 mph slower. This will affect segments of all MAX lines and may cause minor service delays.</p> <p>At 95 degrees, WES Commuter Rail trains must also run slower-no more than 30 mph-to ensure safety. This can cause up to 30-minute delays.If temperatures climb above 100 degrees, MAX trains cannot go faster than 35 mphA quick review of local temperatures between June thru September show over 40 days of 90+ degree weather.<a href="http://www.accuweather.com/en/us/durham-nc/27701/june-weather/329821?Monyr=6/1/2015">http://www.accuweather.com/en/us/durham-nc/27701/june-weather/329821?Monyr=6/1/2015</a><a href="http://www.accuweather.com/en/us/durham-nc/27701/june-weather/329821?Monyr=7/1/2015">http://www.accuweather.com/en/us/durham-nc/27701/june-weather/329821?Monyr=7/1/2015</a><a href="http://www.accuweather.com/en/us/durham-nc/27701/june-weather/329821?Monyr=8/1/2015">http://www.accuweather.com/en/us/durham-nc/27701/june-weather/329821?Monyr=8/1/2015</a><a href="http://www.accuweather.com/en/us/durham-nc/27701/june-weather/329821?Monyr=9/1/2015">http://www.accuweather.com/en/us/durham-nc/27701/june-weather/329821?Monyr=9/1/2015</a></p>

Comment Responses	DEIS/Errata References
<p><i>Operating times are only adjusted in extreme weather conditions, temperature above 90 degrees being one of them. Note that much of the corridor will be served at speeds under 35mph, thus extreme heat events are unlikely to significantly affect travel times. Travel times reported in DEIS chapter 3 and clarified in DEIS Errata 32 reflect anticipated operating speeds.</i></p>	<p>DEIS chapter 3 DEIS Errata 32</p>

First Name	Last Name	Comment
Alex	Cabanes	<p>DOLRT DEIS 3--32: Table 3.2--3: Overall Intersection 2040LOS - Omission of Littlejohn Road and Downing CreekParkwayDOLRT DEIS 3--32, Table 3.2--3: Overall Intersection 2040 LOSTwo intersections along NC54 highway between East Barbee Chapel and Huntington Road are omitted from report.Specifically, Littlejohn Road and Downing Creek Parkway are absent from traffic analysis or impact assessment.</p>

Comment Responses	DEIS/Errata References

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains.*

DEIS Table 3.2-2

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 3--32: Table 3.2-3: Overall Intersection 2040LOS -- Omission of Littlejohn Road and Downing Creek Parkway [removed name and email] 10/10/2015 2:47 PM info@ourtransitfuture.com [removed email] DOLRT DEIS 3--32, Table 3.2-3: Overall Intersection 2040 LOSTwo intersections along NC54 highway between East Barbee Chapel and Huntington Road are omitted from report. Specifically, Littlejohn Road and Downing Creek Parkway are absent from traffic analysis or impact assessment.
		<i>Comment Responses</i>
		<i>DEIS/Errata References</i>

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains.*

DEIS Table 3.2-2

First Name	Last Name	Comment
Alex	Cabanes	The DEIS NO BUILD option is misrepresented and does not fully articulate the impact of the NO BUILD option. For example, the mean travel time to work according to the 2014 US Census is 22 minutes (Chapel Hill / Durham), with 2040 Existing+Committed projected to be 27 minutes. Yet the proposed 17 mile light rail train will now take 42-44 minutes (vs BRT alternative of 39 minutes). Include wait time for the next train, time to get to/from the station (via Park&Ride, Kiss&Ride, bicycle, walking, or bus transfer), it will be even LONGER than 42-44 minutes. How is this faster than the automobile that it is supposed to replace?
		<i>Comment Responses</i>
		<i>DEIS/Errata References</i>

*Even under current demands, the region's transportation system is beginning to strain. Levels of*

DEIS section ES-5

congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project, nor always offer a faster travel time. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours.

Mean commute times are not an accurate measure when comparing end-to-end travel time. Many individuals do not live at UNC and work at Alston, or vice-versa. There are many destinations, employment centers, and residential areas along the corridor that would be reached in shorter times, especially during congested peak periods. The activity centers within walking distance of the D-O LRT Project include: • Major Universities: UNC Chapel Hill (UNC) and Duke University • Major Medical Facilities: UNC Hospitals, Durham Veterans Affairs (VA) Medical Center, and Duke University Medical Center • Employment Centers: area hospitals and universities, mixed-use office and retail, including Patterson Place, South Square, the American Tobacco Campus, and downtown Durham • Athletic Facilities: Dean E. Smith Center, Kenan Memorial Stadium, Finley Golf Course, and Durham Bulls Athletic Park (AAA baseball) • Major Arts and Cultural Facilities: the William and Ida Friday Center for Continuing Education (Friday Center), Sarah P. Duke Memorial Gardens, Carolina Theatre, Hayti Heritage Center and the Durham Performing Arts Center • Major Transportation Hubs: Durham Station (intercity, local, and regional bus service) and the Durham Amtrak Station.

First Name	Last Name	Comment
Alex	Cabanes	<p>In reviewing the DOLRT DEIS proposal, the 23,000 daily boardings (in 2040, vs the original 2035 projection) is highly inflated and inconsistent with estimated Operation &amp; Maintenance budget projections filed in DEIS K.29. For example, a calculation starting with the O&amp;M budget and working backwards to estimate daily boardings, shows that the daily boardings projections are inconsistent with the financials cited in the DEIS. So either the daily boardings are over inflated, or the estimated O&amp;M is significantly under represented. METHOD #1 - using rough estimate \$16M Operating &amp; Maintenance budget [DEIS K.29] @ 20% farebox recovery planned (currently 15%) ----- \$3.2M collected in fares \$2 fare (less than current \$3 GoTriangle EXPRESS fare) -----</p> <p>1.6M annual boardings 200 days (workdays only) ----- 8000 daily boardings? METHOD #2 - using GoTriangle provided estimates. \$16M Operating &amp; Maintenance budget [DEIS K.29] @ 15% farebox recovery current ----- \$2.4M collected in fares \$1.15 fare (less than current \$3 GoTriangle EXPRESS fare) ----- 2.1 annual boardings 290 days based on GoTriangle information exchange Oct 1, 2015 ----- 7241 daily boardings?</p>

*Comment Responses* *DEIS/Errata References*

*As per Chapter 7 of the DEIS, Operations and Maintenance Costs for the Durham-Orange Light Rail Project are estimated to be \$17.9M, not \$16M. The DEIS does not however, discuss revenue or*

DEIS chapter 7

*planned farebox recovery. Annual operating and maintenance costs will be paid for with revenue from fares as well as local tax dollars, including sales tax revenue generated in Durham and Orange counties, funding from North Carolina Department of Transportation (NCDOT), and other local fees and taxes. However, rather than the estimated 23,000 boarding per day, if the D-O LRT only carried 8,000 passengers or 16,000 boardings at average fare of \$2, which is a 2/3rds of the current express GoTriangle fare of \$3, the D-O LRT would have a fare recovery of 20% which is higher than the current Go Triangle Bus service (15%).*

First Name	Last Name	Comment
Alex	Cabanes	Durham-Orange light rail boardings are overly optimistic. Model assumes 40% zero-vehicle households, when in fact Durham has 10.4% zero-vehicle households and Chapel Hill has 7.4% zero-vehicle households - according to the US Census Bureau's 2010-2013 American Community Survey. Charlotte area has +70% larger population with 16,000 daily boardings over the last 7 years (service began Nov 27, 2007). Using the Charlotte experience would suggest less than 10,000 daily boardings (vs 23,000 projected by GoTriangle, revised from the original 2011 estimate of 12,000 daily boardings). Or compared to Wake's Coutny (defunct) LRT proposal of projected 16,000 daily boardings with 1 million population.

Comment Responses	DEIS/Errata References
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*As stated in DEIS Appendix K02, section 5, "Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership." The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor. Additionally, as stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT). As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.

First Name	Last Name	Comment
Alex	Cabanes	The DOLRT DEIS makes no peer comparisons to Charlotte or other areas, providing the reader with no relative peer benchmarks to evaluate DEIS claims. A DOLRT peer comparison to Charlotte Lynx which has daily ridership stagnating @ 16,000 over last 7 years while the area's population grew 17% and fuel prices had no apparent impact on ridership. In the mean time, DOLRT projection of 23,000 daily boardings, for a substantially smaller population with lower density than Charlotte? And despite all of these massive investments in Charlotte LRT, the 2015 Urban Mobility Scorecard rated Charlotte First In Worst Traffic In North Carolina 8/31/2015 ( <a href="http://wfae.org/post/charlotte-first-worst-traffic-north-carolina">http://wfae.org/post/charlotte-first-worst-traffic-north-carolina</a> ) Charlotte Observer: Lynx light rail ridership back to 2008 levels However, the train's seven years have shown that it's been difficult for CATS to get new riders, even as uptown employment has grown significantly and thousands of new apartments have been built along the line in uptown and the South End. Former UNC Charlotte transportation consultant David Hartgen, a transportation consultant, said ridership suggests light rail is losing market share in the commuting corridor along South Boulevard, Interstate 77 and Park Road. "The fundamental assumption is that the Lynx traffic would increase as the region got denser," he said. "That hasn't happened." Nevertheless, 10 rail systems fail to produce net positive benefits under the scenario. Charlotte, Buffalo, New Jersey Transit, Pittsburgh, and San Jose perform particularly badly. These systems do not have enough riders to produce the economies of scale that make transit provision by rail significantly less expensive than bus.

Comment Responses	DEIS/Errata References
As stated in GoTriangle's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project and clarified in DEIS Errata 19: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line	DEIS chapter 1 DEIS Errata 19



First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS - Leigh Village proposed TOD - inflated PnR+ Walk-in projections[REMOVED NAME AND EMAIL] 10/12/2015 6:51 PM"Our Transit Future" <info@ourtransitfuture.com>[REMOVED NAME AND EMAIL]The proposed Leigh Village development is focused on 90-acres of undeveloped land that has not been approved or rezoned for a compact neighborhood. The mixed use residential / retail development would dedicate 12 acres for PnR (Park & Ride) with 990 parking spaces (no parking structure) thereby adversely impacting sensitive wetlands / watershed areas with the introduction of impervious surfaces.In addition, the city of Durham is on water restrictions, which raises the question of where the water is coming from for all of these new developments?In addition, the neighboring Creekside Elementary School is already over capacity, with students in temporary units. Where are the extra students going to go to school?Also, the projected 990 parking spaces are projected to drive 960 daily boardings, with an average 97% capacity utilization, which is out of line with estimates from other PnR facilities in the DOLRT project. Also, with the anticipated population density of 4000 people per square mile, the 550 walk in daily boardings seems particularly high. Using the 2040 projected density, would suggest a number closer to 187 daily boardings from walk in passengers in the surrounding (unapproved) future development.

Comment Responses	DEIS/Errata References
<p><i>Under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly.Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan.The development and permit application process requires addressing any water/sewer connections. Further information about the Compact Neighborhood destination is available from the Durham City-County Planning Department.</i></p>	<p>DEIS section 2.3.2.1 DEIS section 3.1.1 DEIS section 3.3 DEIS Table 2.3-2 DEIS Table 3.3-2 DEIS appendix K1 DEIS appendix K2 DEIS appendix L FEIS/ROD section 1.4 FEIS/ROD Table FEIS-2 DEIS Errata 30, 32, 33, and 75</p>
<p><i>As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project.The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in</i></p>	

cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.

Parking is proposed at several stations as described in DEIS section 3.3. As described in DEIS Table 2.3-2 and further detailed in DEIS Table 3.3-2, park-and-ride facilities are currently planned at the following stations: Friday Center, Leigh Village, Gateway, MLK Jr. Parkway, South Square, Durham, Dillard Street, Alston Avenue. The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and "kiss-and-ride" spaces for passenger pick-up and drop-off. Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (DEIS section 2.3.2.1). Typical images can be found in DEIS section 2.3.2.1 and conceptual designs in DEIS Appendix L. Section 1.4 of the combined FEIS/ROD, DEIS Errata 75 further adds clarification that Triangle Transit will coordinate with municipalities and neighborhoods on the aesthetic treatments for stations. Parking fees, if any, will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners.

First Name	Last Name	Comment
Alex	Cabanès	DOLRT DEIS Downing Creek Parkway hazardous at-grade crossing engineering / elevation A review of the engineering designs of C2/C2A routing (Woodmont section) along NC54 highway crossing Downing Creek Parkway shows that the elevation will drop from 300' down (or 285' on the East) to low of 260' at Downing Creek Parkway. This will create an incline that will be a 'gravity well' exacerbating stopping characteristics of train. Based on 35 mph travel speed, a zero-grade incline (level ground), would take the train approximately 428' to come to a complete stop. Even if the train is traveling at a lower speed, the topology and track incline will increase inertial momentum, especially as the train is coming from Durham into the Woodmont station, making the Downing Creek Parkway at-grade crossing particularly hazardous giving the poor braking capabilities of the train. This traffic hazard is further compounded by the fact that there is not a traffic signal (current or planned) along NC54 highway, thereby providing no prioritized access for Downing Creek Parkway traffic to safely merge onto NC54 highway. Additionally, the NCDOT plans for NC54 widening in this section will consume an additional 22' (12' travel lane + 10' shoulder) making any potential remedies for merge lanes or other accommodation particularly problematic. Additional soil analysis is recommended. The area's close proximity to wetlands will likely require additional concrete reinforcement to provide a solid track foundation over the wet soil. As such, an elevated track over this area should be considered as it would address the safety concerns, as well as potential engineering requirements. Alex

Comment Responses

DEIS/Errata References

Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. An elevated section along NC 54 at the crossings of Downing Creek Parkway was evaluated and it was determined that the alignment would be in conflict with future plans for NC 54. The NEPA preferred alternative would complement future plans and allows for the addition of an outside lane along NC 54. The elevated section would also require Woodmont Station to be elevated, adding additional cost to the project.

DEIS section 3.2  
 DEIS section 3.2.3  
 DEIS section 3.6  
 DEIS section 4.12.3.5  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 36 and 108

All D-O LRT trains, including those traveling from Durham into the Woodmont Station, would be operated in accordance with all relevant safety procedures to ensure appropriate stopping distance and advanced warning of train approaches for all at-grade crossings. Triangle Transit will complete additional geotechnical studies during Engineering.

Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at at-grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS Downing Creek LOS / Traffic Counts hazard / fatalities An independent review of traffic level of service (LOS) for intersections along NC54 highway, specifically Downing Creek Parkway shows that the projected increased traffic flow compounded by the reduced time window due to train crossings will create more congestion and reduce the LOS further given the unique topology and traffic flow characteristics along the NC54 highway corridor. Current LOS D will deteriorate further. If desired LOS B is to be achieved, this would suggest a 40% capacity shortfall in traffic flow in this area. This is further compounded by the lack of traffic prioritization for merging traffic onto NC54 highway, and insufficient merge space once the NC54 widening project is completed. This

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains. During the next phase of design, a more detailed study may be performed if required and mitigation measures such as an eastbound acceleration lane for the northbound Downing Creek Parkway right turn to eastbound NC 54 could be added. NC 54 will continue to be coordinated in the east/west direction. Under a separate planned NCDOT project, the nearest signal that would impact westbound NC 54 is located over 3,800 feet to the west of Littlejohn Road. The nearest signal that would impact eastbound NC 54 is located approximately 4,500 feet to the east at Falconbridge Road and should not impact vehicles exiting from Downing Creek Parkway or Littlejohn Road. The northbound Littlejohn Road left turn to westbound NC 54 currently has very limited usage with less than 10 vehicles per hour performing this maneuver in both the AM and PM peak hours. Downing Creek Parkway is configured today as an eastbound NC 54 right turn to southbound Downing Creek Parkway and a northbound Downing Creek Parkway right turn to eastbound NC 54. This configuration will be maintained in the LRT build condition. The stop/yield controlled right turns do not operate on a fixed pattern and therefore the 12 or fewer train crossings in a peak hour should not significantly affect these low volume turning movements.*

DEIS section 3.2

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS Dangerous / Safety impact of C2/C2 routing along NC54 highway Downing Creek + LittlejohnA review of the area topology around the Downing Creek, Littlejohn Road and Barbee Chapel reveal that there is insufficient space for the NC54 widening project and the proposed C2/C2 routing. Measurements along the section of road between NC54 highway and parallel Stancell Road shows that there is approximately 65' between both existing roads. DOLRT ROW of 50' is required per GoTriangle discussions. Current NCDOT plans for NC54 highway widening will require an additional 12' for travel lane + 10' for shoulder. Even if the 50' ROW for DOLRT was compromised, the sum of the required elements would still exceed available space as depicted below. Furthermore, this would restrict or eliminate any traffic accommodation for potential merge lanes or 'pockets' for ingress/egress into the neighborhood. The net effect would be to back vehicles into travel lanes, creating dangerous congestion along NC54. In addition, egress out of the neighborhood would be constrained by the lack of any traffic prioritization onto NC54 (traffic signal or merge lane), thereby creating a dangerous situation where vehicles would have to 'sit' on the tracks as they waited

to get onto NC54. Sample vehicle lengths provided below.(Image)

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in Table 3.2-5.In coordination with stakeholders and the public during the development of this DEIS, the areas detailed in section 3.2.4.1 (NC 54), 3.2.4.2 (US 15-501), 3.2.4.3 (Erwin Road) and 3.2.4.4 (Downtown Durham) were identified for further study and potential refinement during the Engineering phase.*

DEIS section 3.2.4  
DEIS Table 3.2-5

First Name	Last Name	Comment
Alex	Cabanes	DOLRT DEIS 331: NC54 highway wideningDespite recognizing NCDOT plans to widen the NC54 highway in DEIS 331:NC 54 is currently a divided highway with at-grade intersections. Contiguous future projects would convert NC 54 to a superstreet corridor and widen the existing four-lane section to six lanes between Burning Tree Drive/Finley Golf Course Road and the interchange with I-40 [MTP 70 (U-5324A), 70.1, 70.2, and 70.3, and 69.1 (U-5324B)].GoTriangle and the DEIS does not account, accommodate or reconciliation the impact of this future highway widening in any of the DEIS plans. DEIS 3-32, table 3.2-3 is particularly glaring by the conspicuous absence of two adversely impacted intersection in their LOS traffic assessment, specifically Littlejohn Road and Downing Creek Parkway (despite repeatedly being discussed and pointed out during multiple meetings with GoTriangle representatives).As such, this DEIS is incomplete and does not adequately address (much less remediate) the impact on these and other intersections.

*Comment Responses*

*DEIS/Errata References*

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance.As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive*

DEIS section 3.2.2  
DEIS section 3.2.4  
DEIS Table 3.2-2  
DEIS Table 3.2-3  
DEIS Table 3.2-5



*delays and queues). Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in Table 3.2-5. In coordination with stakeholders and the public during the development of this DEIS, the areas detailed in section 3.2.4.1 (NC 54), 3.2.4.2 (US 15-501), 3.2.4.3 (Erwin Road) and 3.2.4.4 (Downtown Durham) were identified for further study and potential refinement during the Engineering phase.*

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains.*

First Name	Last Name	Comment
Alex	Cabanes	Every community that would be directly impacted by the DOLRT routing has actively voiced opposition to the routing and supposed ‘benefits’ bestowed upon them. "Progressive" Chapel Hill wants the benefits of DOLRT, but the original Meadowmont C1/C1A routing was aggressively opposed by local residents. The Chapel Hill Town Council unanimously voted to reroute DOLRT over on the “other side of the county line” in Durham along the NC54 highway. Polling of local residents around the Downing Creek area showed that over 95% are strongly opposed to the C2/C2A routing. Chapel Hill Town Council (CHTC) opted to issue a letter of support for DOLRT project, prior to the completion of DEIS public comment period. I did not see CHTC present (exception of Maria Palmer who spoke as a private citizen) at the UNC Friday Center citizen hearing on DOLRT project. We definitely need better transit options to connect Chapel Hill, Durham, Raleigh, RDU, RTP, and other parts of the Triangle. Chapel Hill needs \$80 million to replace its aging bus fleet. And we need to invest in the \$25 million for Bus Rapid Transit (BRT) with dedicated lanes along the MLK corridor. Ironic many advocating for this DOLRT routing are safely located far away in Chapel Hill communities, far beyond the adverse impacts of DOLRT routing. However, the \$1.6 BILLION DOLRT project funding continues to be a large unknown. Consuming approximately \$50 million to date, and consuming (distracting?) the time & attention of our elected officials. Yet CHTC and Durham continue head-long into a flawed plan based on flawed assumptions (like 40% zero-vehicle households). The original DOLRT plan expected 25% funding (\$400 million) from the state, which the state has already reduced to a maximum 10% (which garnered \$138 million using the latest state's appropriation formula) and the recent NC budget capped the state contribution to a cumulative \$500,000. In

the mean time, the Federal government is anticipated to run out of funding (for the ENTIRE nation) in early November unless an emergency continuing spending resolution is passed by Congress, and Congress has not funded basic transportation investments. But no matter, let's continue to borrow and spend. The bill for these fiscally flawed plans will come due upon the local taxpayers, once the political incumbents have long moved on. I guess anyone can 'afford' to be 'progressive' as long as they do not have to directly bear the full costs in blood or treasure. [REMOVED PII]

*Comment Responses*

*DEIS/Errata References*

*As stated in DEIS Appendix K2, section 5, "Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership." The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor.*

DEIS appendix K2

First Name	Last Name	Comment
Alex	Cabanes	A recent study by UNC Demographic Center concluded that approximately 1259 daily publictransit commuters travel across the Durham / Orange county line. This low inter-county public-transit usage is consistent with the 155 daily passengers using the RSX express bus service connecting UNC and Duke cited in DEIS 3-10. A further examination of DEIS 3-16 shows that the daily boardings starting at the UNC Friday center for Alston-to-UNC Hospital boardings represents 1110 (x 2) or 2220 daily boardings, traffic that is exclusively within Orange County. A similar analysis starting at Woodmont station for UNC-to-Alston boardings represents 6830 (x 2) or 13660 daily boardings exclusively within Durham County. The remaining 3670 (x 2) or 7340 daily boardings projections actually cross the Durham/Orange County line. However, a closer analysis shows that if you exclude the non-existent (proposed) TOD communities within Durham County that border Orange County, the number of inter-county crossing drops dramatically to 1280 (x 2) or 2560 daily boardings. The other 2290 (x 2) or 4580 daily boardings are synthetic from non-existent Durham developments that will be created to serve as an extended parking lot for UNC (Chapel Hill). A much less costly alternative, in the form of structured parking at the UNC Friday Center could accomplish the same results, at substantially lower cost and the cost burden responsibility rightfully placed at the beneficiary of said parking lot, principally UNC. Commenters' comment reference websites and charts sent to GoTriangle.

*Comment Responses*

*DEIS/Errata References*

*Table 3.1-1 on page 3-10 identifies several corridor routes that cross the Durham/Orange County line, in addition to the RSX, including the Triangle Transit's 400, 405, 800, 805, and CRX, combined these routes have 3,960 daily boardings. Some of these trips don't cross the Durham/Orange county line. It is unclear why any of boarding at the proposed stations would not be included in analysis, in particular when two of those stations are adjacent to freeway interchanges and are planned to have large park-and-ride lots. Building additional park-and-ride lots near I-40 will likely change commuting patterns. Building a structured parking deck a Friday Center Drive to accommodate the increased demand would not accomplish the projects needs of enhancing mobility, increase transit operating efficiency, of promoting future development. While a large parking deck would provide*

DEIS Figure 1.5-2  
DEIS Figure 3.1-1

*additional parking at the Friday Center Drive park-and-ride. It would likely increase congestion on most congested portion of NC 54, between Friday Center Drive and I-40 by encouraging more people to drive to the Friday Center Drive park-and-ride. In addition, Chapel Hill Transit already provides very frequent service from the park-and-ride lots along Friday Center Drive, routes FCX, HU, S, and V, currently provide 22 trips per peak hour along Friday Center Drive in each direction, Figure 1.5-2, page 1-18. This combined with the peak hour bus congestion that exists near UNC Hospitals; Figure 3.1-1, page 3-11 indicates there is currently a bus every 45 seconds during the peak hour (84 buses per peak hour). If a parking structure were built at Friday Center Drive sufficient to meet the forecasted travel demand and supported by additional buses there would not be sufficient capacity at key locations (i.e. UNC Hospitals) to accommodate the additional bus service.*

First Name	Last Name	Comment
Alex	Cabanes	The DOLRT misrepresents the impact of NO BUILD alternative and neglects to cite current or E+C travel times, or the fact that the DOLRT C2/C2A routing along the NC54 highway corridor will actually exacerbate travel times by the traffic congestion that will be increased due to the DOLRT routing (as opposed to the more direct 15-501 DOLRT alignment). The mean travel time to work according to the 2014 US Census is 21.5 minutes (Durham County) and 22.0 minutes (Chapel Hill). 2040 Existing+Committed projected to be 27 minutes. Yet according to the latest DEIS filing, the proposed 17 mile light rail train will take 42-44 minutes (versus the original 34 minutes projections in 2011). As compared to bus service of 57 minutes from UNC Hospital to Alston, or the earlier BRT projected 39 minutes (and less expensive). Include wait time for the next train, time to get to/from the station (via Park&Ride, Kiss&Ride, bicycle, walking, or bus transfer), it will be even LONGER than the projected 42--44 minutes. Advocates portray No Build option as unsustainable urban sprawl, and that the only option is to build a light rail system. The DOLRT projects 23,000 boardings (in 2040) during 18.5 hours of daily operation across the 17 mile circuit (at a cost of \$1.6 BILLION or \$94 million per mile), by building a steel rail highway with exclusive 50' right of way or 622 passengers per hour (each track) X 2 or 1243 passengers in 50' right-of-way required for DOLRT. Typical highways can accommodate 2,200 vehicles per lane per hour X 4 (human driven), utilizing 5% of roadway capacity or 8800 vehicles in 48' right-of-way With the introduction of autonomous vehicles, highway capacity will dramatically increase thereby significantly reducing traffic congestion thru the better utilization of our existing road infrastructure. Commenters' comment reference an image sent to GoTriangle.

Comment Responses	DEIS/Errata References
<i>The mean travel time to work as reported in the US Census has no relationship with the end to end travel time anticipated for the D-O LRT. As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following: • Improve Mobility to Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development • Increase transit operating efficiency: offer a competitive, reliable transportation</i>	DEIS chapter 1 DEIS section ES-2 DEIS section ES-5 DEIS section 3.2 DEIS section 8.1

**D-O LRT FEIS / ROD**

*solution that will reduce travel time*

- *Increase Connectivity*

*Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system*

- o *Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*

- *Promote Future Development*

- o *Support local land use plans that foster compact development,*
- o *Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers*

*The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).*

*Light rail was chosen for the D-O Corridor because this technology will:*

- *Connect residential, educational, and major employment centers throughout the corridor;*
- *Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*
- *Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;*
- *Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;*
- *Provide solid anchors needed to shape land use along this critical corridor; and,*
- *Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).*

*The Triangle region has experienced extraordinary growth in recent years. Growth forecasts show population in the region increasing by 80 percent between 2010 and 2040, from 1.6 to 2.9 million. Within the D-O Corridor, the population is projected to double and the highest expected travel intensity (number of trips per acre) in the Triangle region is predominately located in this corridor. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is*

currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (ES-5). The D-O Corridor was identified as a high priority transit corridor as early as the 1990s due to the rapid growth in the corridor. The D-O Corridor includes the University of North Carolina at Chapel Hill (UNC), Duke University, downtown Durham, and North Carolina Central University (ES-2). Autonomous automobiles would not satisfy project purpose and need since they would rely on the limited capacity of the existing roadway system and do not conform with or contribute to more compact development identified in local and regional plans.

First Name	Last Name	Comment
Alex	Cabanes	The DOLRT DEIS and the earlier Alternative Analysis artificially inflated the construction costs of alternatives like BRT and handicapped BRT time performance in favor of LRT bias. Commenters' comment reference an image sent to GoTriangle. Estimated construction costs of US roadways. Construction costs per mile of road depend on location, terrain, type of construction, number of lanes, lane width, durability, number of bridges, etc. Some states have developed cost models to guide planning for their highway construction programs. These models give a ballpark figure for various kinds of highway improvements. The following are some examples: Construct a new 2-lane undivided road – about \$2–\$3 million per mile in rural areas, about \$3–5 million in urban areas. Construct a new 4-lane highway — \$4–\$6 million per mile in rural and suburban areas, \$8–\$10 million per mile in urban areas. Construct a new 6-lane Interstate highway – about \$7 million per mile in rural areas, \$11 million or more per mile in urban areas. Mill and resurface a 4-lane road – about \$1.25 million per mile. Expand an Interstate Highway from 4 lanes to 6 lanes – about \$4 million per mile. The Florida Department of Transportation has published its generic cost per mile information for 2013 online. The Arkansas Highway Department's estimated cost per mile for 2013 is available online. SOURCE: <a href="http://www.artba.org/about/transportation-faqs/#20">http://www.artba.org/about/transportation-faqs/#20</a>

Comment Responses	DEIS/Errata References
<i>BRT was not evaluated as an alternative in the DEIS. Section 2.2 discusses the process through, which LRT was selected in the AA and states "BRT was eliminated due to lower ridership and lower potential to attract/shape new development in the region." As identified in the AA Volume 3 Section A Capital Costs. The BRT alternatives that were evaluated in the AA were more complex than general roadway projects, which would only be part of BRT project. The BRT alternatives and corresponding</i>	DEIS section 2.2

**D-O LRT FEIS / ROD**



cost estimates as defined in the AA included stations, park-and-rides, aerial structures, vehicles, communications systems, fare collection equipment, professional services, and right-of-way. To present a comparative cost to the LRT alternatives that were being evaluated in the AA. DEIS chapter 7 discusses the two major cost components associated with the proposed D-O LRT Project. These components are (1) capital costs and (2) operating and maintenance (O&M) costs (chapter 7). The D-O LRT would cost between approximately \$1.47 and \$1.62 billion to build and \$17.9 million per year to operate and maintain, in 2015 dollars.

First Name	Last Name	Comment
Alex	Cabanes	<p>DOLRT DEIS and GoTriangle during neighborhood outreach misrepresented hazards associated with proposed DOLRT project. During community meetings, GoTriangle portrayed LRT as safe and made comparisons to handling characteristics of a Honda Accord. At no time did GoTriangle reveal the true hazards of LRT travel to those on board and the neighboring communities impacted by the LRT routing. Below are some of the omitted information from the DEIS and GoTriangle communtiy outreach on the dangers of at-grade crossings and should be included as part of the DEIS / FEIS.Small sampling of LRT accidents and fatalities across the US:•Woman killed by Green Line light-rail train was Minnesota Senate employee – St. Paul, 2015–04 •1 hurt as car collides with Link light rail train in S. Seattle – Seattle @ 2015–04 •Pedestrian struck, killed by light rail train in Los Angeles – Los Angeles @ 2015–04 •Pedestrian Fatally Struck by Gold Line Train in Highland Park – Los Angeles @ 2015–04 •RTD Closed Portion Of Light Rail Line In Lakewood For Possible Death Investigation – Denver @ 2015–04 •Light rail trains delayed due to crash – St Paul @ 2015–03</p> <p>•Portland Streetcar collisions? Nearly 1 a week, reports say – Portland @ 2015– 03 •21 INJURED AFTER METRO TRAIN CRASHES INTO CAR NEAR USC CAMPUS – Los Angeles @ 2015–03 •Woman dies in light rail accident – Houston @ 2015–03 •RTD Light Rail service disrupted by pedestrian accident, mechanical problem – Denver @ 2015–03 •VTA Light Rail Car and Vehicle Crash in San Jose – San Jose @ 2015–02 •San Jose man hit, killed by light rail train – San Jose @ 2015–02 •Vehicle strikes Hudson–Bergen light rail train in Downtown Jersey City – Jersey City @ 2015–02 •Person injured after being hit by light rail train near Bellevue station – Denver @ 2015–02 •Pedestrian struck, killed by Light Rail train near Colorado Convention Center in downtown Denver – Denver @ 2015–02 •Pedestrian struck, killed by Light Rail ID’d as Naythan Cordova; 41-year-old died on his birthday – Denver @ 2015–02 •Man Killed In Light Rail Train Accident – Denver @ 2015–02 •Light Rail, car collide near Speer &amp; Stout in downtown Denver – Denver @ 2015–02•Light rail service delayed after accident between train, car – Baltimore @ 2015– 02•Child, Driver Seriously Injured After Car Collides With Muni Train In SF’s West Portal – San Francisco @ 2015–01 •3–YEAR–OLD DIES AFTER CAR HIT BY RIVER LINE LIGHT RAIL – Philadelphia @ 2015–01 •Man struck, killed by light rail train in Rancho Cordova ID’d – Sacramento @ 2014–12 •Denver police investigate fatal accident at RTD’s Colorado Station – Denver @ 2014–12 •St. Paul Squad Car Collides With Light Rail Train – St Paul @ 2014–11 •Rancho Cordova teen killed by light-rail train. Hundreds flock to candlelight vigil Thursday night – Sacramento @ 2014–11 •Bicyclist killed by light rail train – Sacramento @ 2014–11 •Man injured in Denver accident with light rail – Denver @ 2014–11 •Downtown Dallas light rail service restored following accident involving pedestrian, train – Dallas @ 2014–11 •NJ Transit light rail rams into car in Jersey City – Jersey City @ 2014–10 •Teen Girl Killed By Light Rail Train In Golden – Denver @ 2014–10 •Green Line train fatally hits woman wearing headphones – St Paul @ 2014–09 •Green Line light rail train hits pedestrian in St. Paul – St Paul @ 2014–08 •5 hurt in van, light-rail train crash in Rainier Valley – Seattle @ 2014–08 •Blue Line service restored after accident involving light rail train, truck – Philadelphia @ 2014–08 •1 injured after car hit</p>

by light rail – Denver @ 2014–08 •1 injured in crash between car, light-rail train in Castle Shannon – Philadelphia @ 2014–07

•Man dies in DART light rail accident at Dallas’ Bachman Station – Dallas @ 2014–07 •Woman struck and killed by Blue Line light-rail train in south Minneapolis – St Paul @ 2014–06 •MAN FATALLY STRUCK BY VTA TRAIN WAS CHASING AFTER DOG – San Jose @ 2014–06 •Victim hospitalized after METRO light rail accident – Houston @ 2014–05 •Minneapolis Man, 62, Killed In Light Rail Train Accident – St Paul @ 2014–01 According to the National Highway Traffic Safety Administration (NHTSA) at U.S. DOT: Three out of four crashes occur within 25 miles of a motorist’s home. 50% of all crashes occur within five miles of home. A calculation of NHTSA statistics on the rate of deaths per collision in vehicle/vehicle crashes versus the FRA statistics of deaths per collision in vehicle/train crashes reveals: A motorist is almost 20 times more likely to die in a crash involving a train than in a collision involving another motor vehicle. Commenters’ comment reference images and charts sent to GoTriangle.

*Comment Responses*

*DEIS/Errata References*

*In general, light rail transit is a very safe mode of transportation. Per FTA’s 2009 Rail Safety Statistics Report, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>. Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.*

DEIS section 3.2.3  
DEIS appendix L  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 36 and 108

First Name	Last Name	Comment
Alex	Cabanes	Based on the City of Durham Unified Development Ordinance, Article 10: page 10–5, All passenger terminals require 1 vehicle parking per 200 square feet of waiting floor area + 1 per 2 employees. Minimum 10% of required vehicle parking. Minimum 8 spaces. Parking must be covered. This would require a minimum of 25 additional parking places to support the passenger terminal waiting area (approximately 270’ x 18’) just to accommodate a minimal passenger pickup at every single station within the City of Durham.

*While the UDO Section 10.3.1.A.4 Required Parking, Required Motorized Vehicle and Bicycle Parking, Parking Rates, Parking Rate Table states that passenger terminals, require 1 auto parking space per 200 SF waiting floor area. The specific circumstances detailing how the criteria should be applied are detailed in 10.3.1.B, Required Parking, Required Motorized Vehicle and Bicycle Parking, Required Parking:*

DEIS section 3.3

*1. reduces the required parking space shown in the parking rate table for the Downtown Tier, Compact Neighborhood Tier and Urban Tier. The Downtown Tier has no minimum parking requirements.*

*9.b. Parking Reductions Allowed By-Right - (1)Proposed development sites or change of use sites where public transit stops exist or will be provided at a location approved by the transit provider as part of the site plan submittal. (a) The stop is within one-quarter mile walking distance; and (b) The stop and development site are connected via an existing or proposed paved and handicap-accessible walkway or sidewalk. (2) An additional six bicycle parking spaces are provided for every one motor vehicle parking space reduced.*

*10. Parking Reductions Allowed with a Minor Special Use Permit - Reductions of more than 20% of required motor vehicle parking shall require the approval of a minor special use permit pursuant to Sec. 3.9, Special Use Permit. In addition to the findings within paragraph 3.9.8A, General Findings, the following findings shall be made: a. Current industry standards and parking rate methodologies were utilized; b. Comparable developments that serve similar population densities or development intensities were studied;*

*As a result, when the Durham UDO is applied in its fullest it is more flexible than portrayed than if one were to only read 10.3.1.A.4 of the UDO. In particular, given that the 10.3.1.B.10 allows for reductions great than 20% of the parking identified in 10.3.1.A.4, with no maximum reduction when current industry standards and parking rate methodologies are utilized and examples of similar development densities and intensities are studied. Given the prevalence of walk-up light rail stations throughout the country. Triangle Transit doesn't anticipate a challenge obtaining a Minor Special Use Permit from Durham for those stations in Durham, outside of the Downtown Tier, and without park-and-ride (9th Street, Duke/VA Medical Centers, LaSalle Street, and Patterson Place Stations). However, given there are currently more than the required parking spaces devoted to park-and-ride at the Patterson Place Station (see DEIS section 3.3) it is unclear if a Minor Special Use Permit would be required.*

First Name	Last Name	Comment
Alex	Cabanes	Based on the City of Durham Unified Development Ordinance, Article 10: page 10–5, All passenger terminals require 1 vehicle parking per 200 square feet of waiting floor area + 1 per 2 employees. Minimum 10% of required vehicle parking. Minimum 8 spaces. Parking must be covered. This would require a minimum of 25 additional parking places to support the passenger terminal waiting

*While the UDO Section 10.3.1.A.4 Required Parking, Required Motorized Vehicle and Bicycle Parking, Parking Rates, Parking Rate Table states that passenger terminals, require 1 auto parking space per 200 SF waiting floor area. The specific circumstances detailing how the criteria should be applied are detailed in 10.3.1.B, Required Parking, Required Motorized Vehicle and Bicycle Parking, Required Parking*

DEIS section 3.3

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*9.b. Parking Reductions Allowed By-Right - (1)Proposed development sites or change of use sites where public transit stops exist or will be provided at a location approved by the transit provider as part of the site plan submittal. (a) The stop is within one-quarter mile walking distance; and (b) The stop and development site are connected via an existing or proposed paved and handicap-accessible walkway or sidewalk. (2) An additional six bicycle parking spaces are provided for every one motor vehicle parking space reduced.*

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*As a result, when the Durham UDO is applied in its fullest it is more flexible than portrayed than if one were to only read 10.3.1.A.4 of the UDO. In particular, given that the 10.3.1.B.10 allows for reductions great than 20% of the parking identified in 10.3.1.A.4, with no maximum reduction when current industry standards and parking rate methodologies are utilized and examples of similar development densities and intensities are studied. Given the prevalence of walk-up light rail stations throughout the country. Triangle Transit doesn't anticipate a challenge obtaining a Minor Special Use Permit from Durham for those stations in Durham, outside of the Downtown Tier, and without park-and-ride (9th Street, Duke/VA Medical Centers, LaSalle Street, and Patterson Place Stations). However, given there are currently more than the required parking spaces devoted to park-and-ride at the Patterson Place Station (see DEIS section 3.3) it is unclear if a Minor Special Use Permit would be required.*

First Name	Last Name	Comment
Alex	Cabanes	Sorry whoever's behind me. My name is [REMOVED NAME, ADDRESS, CITY, STATE]. I stand before you to recommend a no build

option to the proposed light rail plan The plan has numerous flawed assumptions that impact the fiscal feasibility and sustainability of this One flawed project assumption is percent state funding that's already been -- brought fiscal feasibility into question and has been capped by the state at 10 percent. The recent state budge negotiations have highlighted that even this assumption is highly questionable12· ·with the current \$500,000 budget cap. In addition, the projected 23,000 daily boardings is built on numerous flawed assumptions, such as the assumption that 40 percent of the area households within the 57-square-mile corridor will be zero vehicle residences, according to K2-27 of the DEIS· Current zero vehicle households comprise 10.4 percent in Durham, 7.4 percent in Chapel Hill, according to the census bureau. As a matter of fact, material changes in the project, including travel times changing from 34 minutes in 2011 to 42 to 44 in the DIS, elimination of 700 parking spaces, changes in alignments, such as C1 to C2A that was supposed to be a minute shorter and increase a thousand daily boardings, and all of the original estimated daily boardings have been pushed out five years to 2040, despite all of-9· ·these changes, the daily boarding projections remain unchanged at 23,00011· ·daily boardings· For this reason, these are fatally flawed models and we recommend no build. Thank you.

*Comment Responses*

*DEIS/Errata References*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. As stated in DEIS Appendix K2, section 5, “Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership.” The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor.*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

First Name	Last Name	Comment
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Alex

Cabanes (7)

DOLRT DEIS - Daily boardings station analysis -Woodmont + Leigh Village + Alston comparison[Name and e-mail address removed]10/12/2015 7:25 PM"Our Transit Future" <info@ourtransitfuture.com>[NAME AND EMAIL ADDRESS REMOVED]Further analysis of DOLRT daily boardings by station highlight some inconsistent projections.For example, the Woodmont estimates are for a station with existing low-density residential properties, with 30 acres of undeveloped land. Development in the are has been consistently hampered by the proximity to sensitive wetlands and numerous (previous) attempts to develop the 30 acres have failed due to low-financial returns given city imposed development restrictions.In addition, the proposed 30 acre Woodmont development and associated Woodmont station would only serve the communities directly south of NC54, since the NC54 highway creates a barrier preventing passengers from the communities north of NC54 (specifically the 435 acre Meadowmont TOD).So using a projected 2040 population density of 4000 ppsm, divided in half due to NC54 barrier, would suggest walk in daily boardings of approximately 100 people (4000ppsm / 2 \*5%) as opposed to the overly optimistic 690 daily boardings projected for Woodmont station.Given this background, it seems inconsistent that 690 daily boardings would be projected for 30 acres, versus the 550 daily boardings for the 90 acres in the unapproved Leigh Village development. It also is inconsistent with projected 310 daily boardings for Alston terminus which is supposed to serve the existing transit dependent communities located in East Durham.In addition, the communities associated with the Woodmont station do not (nor are they planned to) have bus service. So the associated 10 daily boardings from bus transfers are rounding errors and 'noise' from the model. We would recommend that any numbers 50 (or less) be eliminated from these estimates as they are within the margin of error and serve to artificially inflate the projections.Using the standard catchment area of ½ mile walk--up radius around each of the 17 stations, represents approximately 68,000 people within walking distance of a station. Given the national average for public transportation utilization is 5% (Durham 3%) suggests 6800 daily boardings (68K \* 5% \* 2) within the 57 square mile corridor study area, not the projected 12,180 daily boardings..

*Comment Responses*

*DEIS/Errata References*

*The population and employment projections have been approved by the DCHC MPO and are used for all transportation planning efforts within the DCHC MPO. Triangle Transit is not allowed increase or decrease those projections based on its impression of the local real estate market. It is important to note that several of the ridership numbers referenced above are inconsistent with those presented in the DEIS or appendix K2 Travel Demand Methodology and Results Report. Those documents forecast 2040 average weekday boardings for the NEPA Preferred Alternative at stations referenced to be (Woodmont Station 700, Leigh Village Station 1,760, and Alston Avenue Station 1,410). The forecasted 2040 average weekday boardings for the NEPA Preferred Alternative is 23,020 not 12,180. Mode of access by station is not discussed in either DEIS or appendix K2 Travel Demand Methodology and Results Report. However, there is currently and anticipated in the future to have bus service along NC 54, while there are reasons why this transfer would likely not be appealing to large numbers of people, hence low number of people utilizing transferring from bus to rail at the Woodmont Station. Forecasting transit ridership is more complex than applying national average transit utilization to the population of an area. The national average includes portions of the country where little or no transit service is available, western North Dakota, eastern Montana, and central Alaska. As a result, a more robust travel demand models are used that take into account local conditions and travel behaviors.*

DEIS appendix K2

First Name	Last Name	Comment
Caroline	Cameron	To: Federal Transportation Administration Subject: Oppose Light Rail – no parking at stations I oppose the proposed Durham – Orange Light Rail because there will be little additional parking at most of the stations and several stations will have no parking at all, including the Woodmont station. Duke is not adding parking and neither is UNC. Most stations will be walk-up only and this will further minimize ridership, which, by the way, is extremely overstated by GoTriangle. [REMOVED PII]

Comment Responses		DEIS/Errata References
<p><i>Parking is proposed at several stations as described in DEIS section 3.3. As described in DEIS Table 2.3-2 and further detailed in DEIS Table 3.3-2, park-and-ride facilities are currently planned at the following stations: \$Friday Center\$Leigh Village\$Gateway\$MLK Jr. Parkway\$South Square\$Durham\$Dillard Street\$Alston Avenue. The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and “kiss-and-ride” spaces for passenger pick-up and drop-off. Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (DEIS section 2.3.2.1). Typical images can be found in DEIS section 2.3.2.1 and conceptual designs in DEIS Appendix L. Section 1.4 of the combined FEIS/ROD, DEIS Errata 75 further adds clarification that Triangle Transit will coordinate with municipalities and neighborhoods on the aesthetic treatments for stations. Parking fees, if any, will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners.</i></p>		<p>DEIS section 2.3.2.1  DEIS section 3.3  DEIS Table 2.3-2  DEIS Table 3.3-2  DEIS appendix L  FEIS/ROD section 1.4  DEIS Errata 75</p>

First Name	Last Name	Comment
Diane	Catotti	With the NEPA preferred alternative NHC 2, I would like a new station considered at Garrett rd and 15-501.

Comment Responses		DEIS/Errata References
<p><i>The addition of station locations and other refinements in the Project’s design may be evaluated during the Engineering phase of the project, which is slated for 2016-2019. Station locations were chosen based upon the access to economic, educational, cultural, and medical facilities, and in areas designated for future development along the Durham-Orange Corridor. As described in DEIS section 2.1.5, the station locations were proposed and evaluated during the Alternatives Analysis (AA). The station alternatives were evaluated based on their ability to meet the project’s Purpose and Need.</i></p>		<p>DEIS section 2.1.5</p>

First Name	Last Name	Comment
David M.	Cocchetto	September 26, 2015[removed name and address]D-O LRT Project – DEIS/o Triangle TransitPO Box 530Morrisville, NC 27560RE: Comments in Response to Draft Environmental Impact Statement (EIS) for the proposed Durham-Orange Light Rail

**D-O LRT FEIS / ROD**

Transit ProjectDear Sir:The purpose of this letter is to provide written comments for your consideration regarding the proposed Durham-Orange Light Rail Transit (D-O LRT) project. Based on public notices published in The News & Observer and posted on your website (<http://ourtransitfuture.com/>), my understanding is that the project (including the draft EIS) is open for comment until October 12, 2015.I have been a resident of the Durham and Chapel Hill area for over 30 years. During this time, my wife and I have owned homes in Chapel Hill and Durham. Currently, I reside on Marcella Court, in a neighborhood off Farrington Road in Durham. I have worked and been active in the Durham community for many years. I have followed with keen interest the information and proposals regarding rail transit in the Triangle area.In this letter, I am providing the following main comments along with information on the basis for my positions: ● I support the “no build” alternative. I am opposed to construction of the proposed light rail system in the Durham and Chapel Hill areas.● I am opposed to all proposed routes with any rail line adjacent to Farrington Road.● I am opposed to construction of a Rail Operations and Maintenance Facility (ROMF) on Farrington Road.My opposition to the proposed D-O LRT system is due to the greatly diminished scope of this project, particularly following withdrawal of Wake County from participation in the light rail. The proposed D-O LRT system will not provide rail service to many of the most popular destinations in the Durham and Chapel Hill areas, and it will not provide any rail service to any location in Wake County. The estimates of riders per day seem very high relative to the data on riders on the existing LRT system in Charlotte, NC. The LRT system slows travel, rather than speeding travel; projected travel between Chapel Hill and Durham in 2040 is September 26, 2015Page 2slower on D-O LRT (42-44 minutes) and faster by car (27 minutes) and bus rapid transit (39 minutes). Further, the pace of light rail must be even slower during the months when temperatures are above 90°. Taken together, the diminished scope of the project, lack of service to many popular destinations, inflexibility, high front-loaded cost of a static rail system, slow pace of travel, and apparent overestimates of riders will result in a higher than projected burden on taxpayers and an underutilized light rail system. For these reasons, the proposed D-O LRT should not be built.My opposition to all routes that include any rail line adjacent to Farrington Road and my opposition to construction of a ROMF on Farrington Road are due to (1) the lack of prospective disclosure to homeowners in this area (while the future plan for construction of a light rail system in their development was prospectively disclosed to future homeowners in Meadowmont), (2) the inevitable increase in traffic congestion on the already congested corridors on NC 54, Farrington Road, and US 15-501, (3) the negative impact of increased traffic congestion and road-level rail crossings on timely service by emergency vehicles, (4) my support for the factors stated by the Durham City-County Planning Department that currently preclude construction of rail lines and the ROMF on Farrington Road, (5) noise pollution due to frequent, high decibel train horns imposed on homeowners along NC 54 and Farrington Road, (6) the negative impact on a historic site (Patterson’s Mill Store) on Farrington Road, and (7) light rail cars on lines adjacent to I-40 comprising an additional distraction, potentially leading to more high-speed accidents, particularly for drivers in the eastbound lanes on I-40 between US 15-501 and NC 54.The remaining pages of this letter provide additional comments in opposition to light rail transit, in particular my opposition to construction of a ROMF on Farrington Road and my opposition to construction of any route with a rail line adjacent to Farrington Road.Change in participating municipalities: In 2011, we in Durham had the opportunity to vote on a new tax for public transportation. Since Wake County decided against a light rail system, the original premise for the tax is no longer valid and the markedly different plan (with a much shorter rail line, slower trains, and no stations serving many major venues) for light rail in Durham and Chapel Hill should be terminated.Prospective disclosure: Those of us in neighborhoods adjacent to NC 54 and Farrington Road (e.g., Downing Creek, Falconbridge, Culp Arbor, and Glenview Park) had no prior notice before buying or building a home that our property would be adjacent to a light rail line or a Rail Operations Maintenance Facility. We had no prospective full disclosure. In contrast, future residents of Meadowmont had prospective disclosure - - they knew the site plan included light rail when they bought their lots and decided to build their homes. The Meadowmont site plan (as approved by local authorities) was designed and approved with light rail traveling through this development. It is wrong to transfer the burdens of the D-O light rail line

from homeowners in Meadowmont who had prospective disclosure to homeowners in other neighborhoods who did not have disclosure prior to buying or building their homes. September 26, 2015 Page 3 Popular venues without rail service: As a longstanding resident of Durham, I would be in rail service if it provided a means of transportation to stations at popular venues. It is not obvious to me who would be interested in riding the D-O LRT due to the lack of stations at many of the area's most popular venues. The decision-making authorities for D-O LRT, reviewers, and people who review requests for funds should carefully consider the likelihood of failure of D-O LRT in view of the fact that rail service is not provided to stations at the following popular venues:

Downtown Chapel Hill (e.g., Franklin St.) Kenan Stadium Carrboro (e.g., Main St., Carr Mill area) Dean Smith Center  
 UNC Chapel Hill campus Wallace Wade Stadium Duke University (main campus) Cameron Indoor  
 Stadium NCCU campus Duke Regional Hospital Durham Technical Community College  
 American Tobacco Campus Seymour Center Durham Performing Arts Center Durham Center for  
 Senior Life Durham Bulls Athletic Park University Mall Raleigh-Durham Airport

Streets at Southpoint Mall Northgate Mall Without stations at these popular venues, I understand why some of my neighbors have called the proposed D-O LRT the "train to nowhere". Input from the Durham City-County Planning Department: I noted the written comments provided by the Durham City-County Planning Department to Triangle Transit on March 13, 2015. I commend the Durham City-County Planning Department for providing comments that are clear and specific regarding the location of the proposed ROMF and certain other aspects of light rail. Note that the required buffer for the stream on parcel 0907-03-32-5392 on Farrington Road may make construction of the proposed ROMF nonviable. I obtained additional information on this topic at the public meeting with GoTransit on September 15, 2015 at The Friday Center. At the meeting, I spoke with a representative of GoTransit about the stream on the property at Farrington Road, i.e., the proposed site of the ROMF. I asked about GoTransit's plan to meet the required buffer around the stream (as stated in a letter of March 13, 2015 from the Durham City-County Planning Department to Triangle Transit). I was informed that GoTransit proposes not to comply with the buffer, but rather to enclose the stream inside a culvert that will go under the ROMF's parking lot. Such a culvert is a bad idea and a deviation from Durham's current requirements. Residents of Durham and Chapel Hill will be familiar with two well publicized examples of culverts that have failed. In Durham, the Rockwood Building (at the intersection of University Drive and James Street) has a history multiple businesses with repeated flooding due in part to a culvert that fails to function properly in handling water from a stream. In Chapel Hill, Eastgate Shopping Center (1800 East Franklin Street) is built over a culvert that fails, periodically, to handle water from a stream. Multiple businesses at Eastgate Shopping Center have flooded due to problems with the culvert. In view of these prominent examples in our own communities, Durham County September 26, 2015 Page 4 should not accept GoTransit's proposal to enclose the stream on Farrington Road in an underground culvert. GoTransit should honor the required buffer as stated by the Durham City-County Planning Department. I also want to highlight my support for the following statements in the letter (dated March 13, 2015) from the Durham City-County Planning Department 1. Regarding the proposed Farrington Road location for a ROMF: ● "We find an industrial use to be incompatible with the existing land use pattern and/or designated future land uses." ● "It appears there may be a stream crossing parcel 0907-03-32-5392. If it is determined to be a perennial stream, a buffer of 100 feet would be required. An intermittent stream would require a buffer of 50 feet. This would significantly alter the proposed footprint of the ROMF." 2. Regarding the proposed Leigh Village: ● "We find an industrial use to be incompatible with the existing land use pattern and/or designated future land uses." ● "It appears there may be a stream crossing parcel 0907-03-32-5392. If it is determined to be a perennial stream, a buffer of 100 feet would be required. An intermittent stream would require a buffer of 50 feet. This would significantly alter the proposed footprint of the ROMF." Location of the ROMF: The NEPA preferred alternative for the location of the ROMF is the site on Farrington Road. However, through information in the DEIS, newspapers, and other sources, I have come to

understand that the Farrington Road site was the only one of the alternative sites that was even viable. I was told at the public meeting on September 15 that the Cornwallis Road site was never viable due to property deeded to the neighboring Jewish congregation. I've read in various documents that the Alston Avenue site was not viable due to issues with creek in that location. GoTransit should re-open consideration of location of the ROMF so that at least two truly viable locations are considered. Surely a forthright selection process must include more than one viable option for the location of the ROMF.

**Adverse impact of routes on multiple neighborhoods:** Many public comments have clearly stated that multiple rail routes will have multiple adverse impacts on longstanding residential neighborhoods along NC 54 and Farrington Road. Specifically, these neighborhoods include Culp Arbor, Downing Creek, and Falconbridge. Homeowners in these neighborhoods (who are all taxpayers in Durham County) have stated their concerns about the marked increase in congestion that will be caused by multiple street-level train crossings, as well as the adverse impacts of a ROMF on Farrington Road.

**September 26, 2015 Page 5 Traffic congestion:** The proposed plans call for thousands of rail riders to drive on I-40, NC 54, and US 15-501 to parking lots near rail stations (e.g., The Friday Center, Leigh Village). The rail plans do not appear to account for the increase in volume of motor vehicles on these already congested roads or the increase in road congestion that will result from multiple, proposed, road-level rail crossings along NC 54 (between the I-40 interchange at NC 54 and the intersection of NC 54 and US 15-501). These proposed crossings will impede motor vehicles and slow the very commuters the plan proposes to assist. Road-level crossings are proposed to be operating 24 hours a day, 7 days a week, with traffic to be stopped every 10 minutes during peak hours. Such crossings will delay thousands of drivers every day. Such crossings will also delay emergency responders. Note that these crossings in the NC 54 corridor will also wreak havoc with UNC alumni, sports fans, and others attempting to travel to and from Kenan Stadium and the Dean Smith Center to attend games and other events. Table 3.2-4 in the DEIS provides a roster of at-grade interfaces for the proposed light rail line. Note the large number of interfaces in the relatively short distances from UNC to US 15-501. Specifically, Table 3.2-4 lists 17 at-grade interfaces from UNC to NC 54 and an additional 13 at-grade interfaces from University Drive to US 15-501. This large number of interfaces, including multiple road-level crossings, will further increase congestion for emergency vehicles, automobiles, and buses on NC 54, US 15-501, and Farrington Road.

**Crossing near Farrington Road:** The C2A route includes a road-level crossing west of the intersection of Farrington Road and NC 54. Some of us residents along Farrington Road object to the delay of emergency vehicles caused by rail crossings and associated traffic congestion. Farrington is commonly used by emergency vehicles traveling to southwest Durham and Chapel Hill. Durham has two active fire stations on Farrington Road itself, i.e., 4200 Farrington Road and 6303 Farrington Road. Today, none of the emergency vehicles from these two stations are delayed by light rail. However, if routes with road-level crossings along NC 54 and near Farrington Road are implemented, emergency vehicles from these two fire stations, as well as police and other emergency vehicles, will be adversely impacted, inevitably prolonging emergency response times.

**Traffic on Farrington Road:** I live in a development off Farrington Road. I would be adversely impacted by the anticipated increase in traffic as employees of the ROMF (proposed for Farrington Road) drive to and from work. The ROMF would be open 24 hours a day, 7 days a week, thereby producing an increase, every day, in the number of drivers using Farrington Road. This source of increased traffic on Farrington Road is only one of the multiple, new sources of traffic and congestion fostered by light rail on Farrington Road, i.e.,

- Employees of the ROMF driving to and from work
- Commuters using Farrington Road to drive to lots where they can park and then board light rail car
- drivers diverting to Farrington Rd in hope of avoiding congestion on NC 54 or US 15-501
- a road-level crossing near the intersection of Farrington Road and NC 54
- traffic congestion due to delayed emergency vehicles (who always have the right-of-way)

**September 26, 2015 Page 6 Parking:** The proposed light rail system requires riders to get to stations where they can board a train. Many riders will get to a station by driving. Unfortunately, most stations appear to have inadequate parking adjacent to the stations. Lack of adequate parking, particularly free parking, will be a substantial disincentive to many riders to use light rail.

**Potential for accidents on I-40:** My understanding is that various rail routes take the train from the eastern side of Farrington



Road to tracks that parallel I-40 (running below the road bridge, under Farrington Road and adjacent to I-40) until the train reaches 15-501, at which time the train proceeds north towards Durham. Just as human nature prompts many automobile drivers to be distracted and “rubber neck” at various sites along the highway, there is a real danger that drivers along I-40 will be distracted by a train running on rails adjacent to the eastbound lanes of I-40. This additional distraction could increase the potential for high-speed accidents along this key interstate highway. Such accidents can adversely affect drivers and their passengers, as well commuters to work and travelers. Projected riders: Officials have projected 23,000 boardings per day on D-O LRT. This projection seems much higher than any reasonable expectation based on this area’s population and the limited locations to receive rail service. For comparison, consider that the light rail system in Charlotte, NC had an average of 16,186 boarding per weekday (for the period from July-December 2014; reference 1) in the context of a population of 809,958 (reference 2). Note that the population of Charlotte is more than 2.5 times as large as the combined population of the city of Durham (251,893; reference 2) plus the Town of Chapel Hill (59,376; reference 2). LRT in Durham and Chapel Hill is likely to have ridership that is much less than 16,000 boardings per day, resulting in higher costs for the sponsoring municipalities and their taxpayers for many years into the future. Historic site: Patterson’s Mill Country Store is a business that has been in operation at 5109 Farrington Road in Durham County since 1973. Its predecessor was Patterson and Company Store which opened in the 1870s at the same location. This historic site is open to the public. Visitors can see an extensive collection of medical and pharmaceutical items from the 1800s and 1900s, as well as other items, primarily collected by Ms. Elsie Booker (a pharmacist and UNC alumnus). The land around Patterson’s Mill Country Store has been occupied since 1834 by five generations of Ms. Booker’s mother’s family (reference 3). From my perspective, it is a shame and a disservice to history that any consideration is being given to building the ROMF next to this historic property or displacing any part of this family and their multigenerational business with a route for light rail or a ROMF. Noise: My understanding is that a train’s horn makes a sound in the range of 105-110 decibels. The horn is used at road-level crossings and when approaching stations. The high frequency of the horn, as well as its high decibels, makes it a source of noise pollution for residents living in the NC-54 corridor and along Farrington Road. This noise pollution may substantially reduce the likelihood of selling a home and substantially reduce property values for individuals who own homes in those areas. September 26, 2015 Page 7 Previous vote in Durham: I have read a number of documents and heard multiple speakers say that voters in Durham supported use of a portion of taxes to pay for light rail service. Such verbal and written statements are a misrepresentation of the facts. “Light rail” or “rail” were not specified on the ballot for voters’ consideration. Rather, voters were asked to cast ballots on whether to support use of a portion of taxes “... to be used only for public transportation systems”. Therefore, it would be consistent with the vote to use these funds to improve existing bus services or evaluate bus rapid transit (by the total exclusion of the proposed D-O LRT). Alternatives to light rail: Chapel Hill Transit and its partners are already progressing a plan to introduce bus rapid transit on the Martin Luther King Boulevard corridor. In view of this progress towards bus rapid transit, consideration should be given to bus rapid transit for the main corridors between Chapel Hill and Durham (i.e., US 15-501 corridor and the NC 54 corridor). Such bus rapid transit would be much more flexible and require much lower start-up funding than light rail. The need for new, public transportation may be negated in the coming years by emerging technological and lifestyle advances. New technologies (e.g., hybrid buses and cars; electric cars and buses; vehicles powered by natural gas or fuel cells) and lifestyle options (e.g., telecommuting) are changing our country and seem likely to markedly alter the need for new public transportation. In view of these rapidly changing factors, our representative and transit authorities would be wise to consider flexible, cost-effective options for transportation, rather than an inflexible LRT option requiring a large upfront capital investment and a decade or more from approval of the project to start of service. Some of these factors appear to have impacted the thinking in Wake County, prompting them to withdraw from construction of light rail. Thank you for your consideration of these comments. Sincerely, [removed name] References 1. Lynx light rail ridership back to 2008 levels. The Charlotte Observer. January 21, 2015. 2. U.S. Census Bureau: State and County QuickFacts. Revised August 6,

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>*

DEIS chapter 9  
 DEIS section 2.3.2.1  
 DEIS section 2.4  
 DEIS section 3.1.1  
 DEIS section 3.2  
 DEIS section 3.2.2  
 DEIS section 3.2.4  
 DEIS section 3.6  
 DEIS section 4.12.4.6  
 DEIS Table 2.3-2  
 DEIS Table 2.4-1  
 DEIS Table 3.2-3  
 DEIS Table 3.2-5  
 DEIS Table 3.3-2  
 DEIS Table 5.3-1  
 DEIS appendix K1  
 DEIS appendix K2  
 DEIS appendix K4 through K11  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-1  
 DEIS Errata 17 and 30

*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project, nor always offer a faster travel time. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours and will provide improved travel time reliability compared to bus transit services.*

*DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS.*

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in DEIS Table 3.2-3 of the DEIS. In addition, as described in DEIS section 3.2.2, there are numerous roadway projects planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance.*

*As described in DEIS section 3.2.4 and as shown in Table 3.2-5 of the DEIS, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project.*

*The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP).*

*Table 3.1-3 presents the 2040 ridership forecasts for the NEPA Preferred Alternative compared to the No Build Alternative, as well as the Project Element Alternatives. The NEPA Preferred Alternative is expected to carry just over 23,000 trips on the project per average weekday in 2040. Ridership forecasts also predict that bus service would remain an important component of the transit service's approximately 17,000 boardings per average weekday in 2040, a reduction of approximately 3,000 boardings from the No Build Alternative. See also DEIS appendix K2 for more information.*

*As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations and to get input during the development of the SSMP. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table*

*ROD-1. All LRT systems in the US have grade crossings or run within public streets. Light Rail Transit (LRT) technology is designed to facilitate safe at-grade crossings of public streets. Other types of rail transit technology, such as heavy rail transit that uses an electrified third rail as opposed to overhead electric wires for propulsion (such as MARTA in Atlanta or Metro in DC), must be installed in fully grade separated exclusive guideway since the electrified rail must be kept away from the public. LRT, on the other hand, is designed with overhead electric wires with sufficient clearance to allow vehicular traffic to pass safely underneath where roadways cross the tracks. All at-grade crossings of the light rail tracks across public roadways will be designed in accordance with state and federal safety regulations pertaining to such crossing. As discussed in section 4.16.2, three types of light rail crossings are proposed as part of the D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Approximately 30 to 35 at-grade crossings are proposed for the D-O LRT alignment. Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. The D-O LRT would include approximately 25-30 elevated light rail crossings over existing roadways, including crossings over US 15-501 (Fordham Boulevard), Business US 15-501 (Durham-Chapel Hill Boulevard), NC 54, I-40, Garrett Road (NHC 1 and NHC 2 only), NC 147, Erwin Road, Swift Avenue, and Campus Drive (4.16.2). As described in 4.12.3.5, the proposed D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit, a 17-mile transit alignment, and light rail transit vehicles that would interact with vehicular, bicycle, and pedestrian traffic. The safety implications are particularly important for higher volume areas where multiple modes of transportation coexist like the UNC campus, University Drive, Erwin Road, and in downtown Durham. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Potential impacts from the development of light rail systems with exclusive and/or semi-exclusive rights-of-way include risks of injury or fatalities to pedestrians, bicyclists, vehicle occupants, light rail passengers, and employees due to light rail operations, collisions between light rail and road vehicles, increased street and alignment crossings, and incidents on/or around light rail facilities. Members of the public expressed concern for some of these risks through comments submitted as part of the Scoping meetings and subsequent public involvement as summarized in chapter 9, Public Involvement and Agency Coordination. The design of the project acknowledges these concerns and includes provisions for safe operation and appropriate connectivity for pedestrians, bicyclists, and motorists. To avoid the potential for incidents at at-grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines. Section 4.12.4.5 describes the proposed mitigation to address safety and security impacts of the introduction of light rail on pedestrians, bicyclists, and motorists. Noise Potential measures to mitigate noise and vibration impacts are described in the following sections. According to the FTA Noise and Vibration Guidance Manual, mitigation for noise impacts should be considered if the project falls within an "impact" range and should be*

implemented if the project would result in a severe impact. Receptors that would be experience noise impacts with the NEPA Preferred Alternative are identified in Table 4.10-7. All noise impacts would be at residential locations. In some cases, properties identified as noise-sensitive would be displaced by the NEPA Preferred Alternative. Descriptions of all property displacement and acquisitions are provided in DEIS section 4.14. There would be no noise or vibration impacts anticipated from the Farrington Road ROMF, or any of the other ROMF alternatives. Table 4.10-13 identifies proposed mitigation measures for the NEPA Preferred Alternative and the Project Element Alternatives. Mitigation measures would be limited to noise barriers on the elevated track. The NEPA Preferred Alternative would result in no noise impacts beyond the properties to be acquired for the project. Triangle Transit will coordinate design and policies related to audible warning devices with NCDOT and local jurisdictions in accordance with applicable regulations, guidance, municipal policies, and best management practices. Historic Resources Historic Resources DEIS section 4.5 describes the potential effects of the D-O LRT Project on historic and archaeological resources. The Patterson's Mill Store, which was erected in 1972-1973 and located to the north, along with a few outbuildings, was found in 2015 not to be National Register of Historic Places (NRHP)-eligible, either individually or in association with the store. Appendix G of the DEIS provides additional detail regarding the determination of eligibility for historic resources. As also stated in Section 4.5, the Walter Curtis Hudson Farm and associated outbuildings, located south of the Patterson's Mill Store, was determined to be eligible for NHRP listing. The location of the proposed Leigh Village ROMF site would have an adverse effect upon this NRHP-eligible resource. However, the NEPA Preferred Alternative, Farrington ROMF would avoid this NRHP-eligible resource and would have no adverse effect on this resource. TaxAs noted in Table 5.3-1 of the DEIS, the revenue from the half-cent sales tax in Durham County for public transportation is not being used solely to fund light rail project development. Revenue from the half-cent sales tax has already been used to implement near term improvements to DATA bus services. In addition, the sales tax will be used to support the design and construction of a Neighborhood Transit Center at The Village Shopping Center near the intersection of Raynor Street and Miami Boulevard, a location in east Durham that has the second-highest level of bus boardings in Durham after Durham Station. In coordination with the City of Durham, revenue from the half-cent sales tax will also be used to make improvements to bus stops and pedestrian/bicycle infrastructure along a Transit Emphasis Corridor where DATA routes 3 and 16 run through the city, including east Durham. When the light rail opens, funds for bus services made redundant by rail operations will also be used to improve connections from east Durham to the newly opened rail station BRT Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on ourtransitfuture.com. ParkingAs described in Table 2.3-2 and further detailed in Table 3.3-2, park-and-ride facilities are currently



planned at the following stations:-Friday Center-Leigh Village-Gateway-MLK Jr. Parkway-South Square-Durham-Dillard Street-Alston Avenue.The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and “kiss-and-ride” spaces for passenger pick-up and drop-off.Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (section 2.3.2.1). See also typical images on p.2-23 and conceptual designs in appendix L.

First Name	Last Name	Comment
Rodalyn A.	Coleman	How will pollutants derived from clean and repairing light rail trains be stored and transported from GoTriangle’s proposed Farrington Road, Durham, NC ROMF location to a storage facility or are the toxins going to be stored on site? My neighbors and I will live 500 feet from the ROMF and are deeply concerned about pollutants emitted from the light train maintenance facility, because of the many people over 65 who reside here at the Villas of Culp Arbor, as well as the 903 school children and staff members of Creekside Elementary School, 5000 feet from the ROMF.According to the EPA (Environmental Protection Agency) lead, chromium, and cadmium are metals that form particle pollution during sanding and welding light rail trains. EPA’s Air Toxics Health Effects Notebook has more information on lead, chromium, and cadmium, also by products of repairing the trains. Breathing particle pollution can cause respiratory problems and other harmful health effects.From the EPA Particle Pollution Web Site:People with heart or lung diseases, children and older adults are the most likely to be affected by particle pollution exposure. However, even if you are healthy, you may experience temporary symptoms from exposure to elevated levels of particle pollution.Particle pollution - especially - fine particles contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including: premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.Thank you

*Comment Responses* *DEIS/Errata References*

*Appendix K23 Air Quality Technical Report discusses the methodology used in the air quality analysis for the DEIS. As stated in section 2 of the technical report, the air quality analysis follows the regulations promulgated by the Environmental Protection Agency to implement the Clean Air Act, including the Federal Transportation Conformity Rule. Carbon dioxide is not required by federal air quality regulations to be included in the air quality analysis, and therefore was not analyzed. Several intersections were modeled for carbon monoxide concentrations. These intersections were selected in a process consistent with the EPA Guidelines for Modeling Carbon Monoxide from Roadway Intersections, as discussed in section 3.1 of the technical report. Please refer to Appendix K23 Air Quality Technical Report for more information.*

DEIS section 2.2.3  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3  
 DEIS appendix K23  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 94, and 95

*The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other*

**D-O LRT FEIS / ROD**

waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.

First Name	Last Name	Comment
Rodalyn A.	Coleman	What kind of checks and balances will be in place in case a malfunction becomes hazardous to the area's 11,000+ homes and to its vital ecosystem? What kind of collection system is being built to accumulate the varied toxins that emanate from the service areas?

Comment Responses	DEIS/Errata References
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As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.

DEIS section 2.2.3  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3  
 DEIS section 4.12.4  
 DEIS section 4.17.2.3  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-2  
 DEIS Errata 21, 94, 95, 103,  
 and 110

The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as

any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. DEIS section 4.17.2.3 discusses the anticipated cumulative impacts to water quality from the NEPA Preferred Alternative, including the ROMF. These impacts would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. The project will comply with stormwater management permitting requirements and include DWR stormwater management BMPs. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 103 clarifies that the ROMF site plan will manage stormwater runoff in a manner consistent with local and state regulations to avoid and minimize impacts to neighborhoods and community resources in the vicinity such as Leigh Farm Park and the Piedmont Wildlife Center.

First Name	Last Name	Comment
Rodalyn	Coleman	The proposed Durham-Orange Light Rail Transit (D-O LRT) Project is a 17 mile light rail transit line which is projected to extend from UNC Hospitals to East Durham by way of the UNC Friday Center & I-40 ,The proposed D-O LRT line does NOT connect Chapel Hill or Durham to major commercial, retail, or employment destinations east of the corridor like 15501, Southpoint Mall, Research Triangle Park or the Raleigh/Durham Airport. My question is WHO does this boondoggle benefit? Developers? Contractors? Certainly not the hospital workers who need viable transportation to their jobs, not minority students who need to get to Central U or Tech, not anyone who needs to get to DPAC or shopping or restaurants in downtown Durham... WHO?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*The proposed alignment connects a range of educational, medical, employment, and other important activity centers, including: UNC, UNC Hospitals, the Friday Center, Duke University, Durham VA and Duke University Medical Centers, downtown and east Durham. Bus service will link transit passengers to area destinations from light rail stations, including NCCU and DTCC. Final station locations will be decided in future phases of the proposed Durham-Orange Light Rail Transit Project. The activity centers within walking distance of the D-O LRT Project include:*

- Major Universities: UNC Chapel Hill (UNC) and Duke University
- Major Medical Facilities: UNC Hospitals, Durham Veterans Affairs (VA) Medical Center, and Duke University Medical Center
- Employment

FEIS/ROD section 1.4  
DEIS Errata 17

**D-O LRT FEIS / ROD**

*Centers: area hospitals and universities, mixed-use office and retail, including Patterson Place, South Square, the American Tobacco Campus, and downtown Durham• Athletic Facilities: Dean E. Smith Center, Kenan Memorial Stadium, Finley Golf Course, and Durham Bulls Athletic Park (AAA baseball)• Major Arts and Cultural Facilities: the William and Ida Friday Center for Continuing Education (Friday Center), Sarah P. Duke Memorial Gardens, Carolina Theatre, Hayti Heritage Center and the Durham Performing Arts Center• Major Transportation Hubs: Durham Station (intercity, local, and regional bus service) and the Durham Amtrak Station.*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>*

First Name	Last Name	Comment
Rodalyn	Coleman	The mean travel time to work, according the 2014 US Census, is 21.5 minutes (Durham) & 22.0 minutes (Chapel Hill) yet the proposed 17 mile proposed GoTriangle Light Rail Transit (D-O LRT) will take 42 minutes from end to end. At 90 degrees, the trains will have to slow because the electrical lines buckle! Is this really how the federal government wants to use our tax dollars on machinery that will soon be outdated. \$1.82 billion with \$105 million per mile and the residents have to make up 80% of the ridership costs. Not to mention a whopping \$12.8 tax liability to the residents in Durham and Chapel Hill.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project, nor always offer a faster travel time. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours and will provide improved travel time reliability compared to bus transit services. Typical weather conditions do not affect the speed or reliability of light rail vehicles.*

DEIS chapter 1  
DEIS appendix K1

*Travel times on the D-O LRT would be approximately 42 to 44 minutes each way for the full length of the project. Based on the origin and destination information provided in Chapter 1 of the DEIS, most*

*riders would not travel end to end, thus travel times would be substantially shorter than the full 44 minutes. Appendix K1 contains detailed descriptions of the proposed alignment by segment, including station locations, estimated light rail travel times, the proposed service plan, and estimated operating requirements. See DEIS Table 8.2.1 for a comparison of travel times.*

First Name	Last Name	Comment
Rodalyn	Coleman	<p>D-O LRT DEIS CommentGo Triangle’s DEIS has not effectively addressed the environment and environmental consequences within the D-O LRT study areas found in Section 4.9 through 4.17.2.3, pages 4- 199 to 4- 302. There is some question as to the efficacy of GoTriangle’s organization that is addressed on page 5 of this discussion. The sections comprise air quality, noise and vibration, as well as hazardous, contaminated and regulated materials and safety involving light-rail transit. In addition, acquisitions, construction and impacts also contained omissions. These topics will be subjected to comment and/or question; they are in the order in which they occur in the DEIS. GoTriangle has clarified in the first section of the DEIS that neither comment nor question will receive answers. Light Rail Transit Car Body Repair and Paint Shop: GoTriangle failed to include any data on the Light Rail Transit Car Body Repair and Paint Shop. Had the data been included it would have been linked to the following DEIS sections. • Section 4.9 Air Quality, page 4- 199 • Section 4:12 Safety and Security, page 4- 241 • Section 4.11 Hazardous Contaminated and Regulated Materials, page 2821. (EPA) Environmental Protection Agency reported... “(Light transit) body and paint shops emit pollutants such as hazardous air pollutants (HAPs), particle pollution (dust), and volatile organic compounds (VOC). While federal, state and local regulations limit the amount of emissions from body shops, dangerous releases of HAPs can occur if a shop does not operate in compliance with regulations.” See list below, but keep in mind that many of these toxins will be used at both the body and paint shop and the ROMF (Rail Organization Maintenance Facility) and require underground storage tanks: • Paints, cleaners, and paint strippers “...used in light transit body shops...” can release HAPS (Hazardous Air Pollutant) and VOC (Volatile Organic Compound). Chemicals in these substances can form ground-level ozone, which has been linked to a number of respiratory effects, such as asthma and COPD. <a href="http://www2.epa.gov/ust/revising-underground-storage-tank-regulations-revisions-existing-requirements-and-new">http://www2.epa.gov/ust/revising-underground-storage-tank-regulations-revisions-existing-requirements-and-new</a> • Lead, chromium, and cadmium are metals that form particle pollution during sanding and welding and found in the light rail body and paint shops. o Particle pollution - especially fine particles – contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. o Diisocyanates are hazardous air pollutants emitted during painting operations. Question: Why did GoTriangle neglect to report any information about the Car Body Repair and Paint Shop in the DEIS? Question: If the shop is not located at the ROMF, as has been reported, how will wrecked, damaged or aged equipment be transported and what precautions against hazardous waste spills will GoTriangle provide to protect the neighborhoods, schools and businesses on the route between the ROMF and the shop, as well as the environment on which the spill or accident could have an adverse effect? Comment: Table 4.12.2.6, page 4- 243, includes the list of police, security and emergency services available for the light rail transit route and the ROMF. However, in the case of Farrington Road, the approved location for the ROMF, all of the emergency services are to the South of an at-grade crossing on Farrington Road, while Creekside Elementary School and major neighborhoods, such as the Villas of Culp Arbor – less than 100 yards from the ROMF, are all to the North of that crossing. According to Durham firemen, police and emergency room physicians, this will slow the process of rescue considerably. WHY? Because of the at-grade level crossing train track and excess traffic from the ROMF personnel added to an already heavily traveled road. When an incident happens at the end of a school day with buses and excessive traffic, the hazard is doubly increased. Lives can be irreparably damaged or death may occur. Comment: Page 4- 242 through 4- 244 lists emergency</p>



personnel and undetailed references to environmental consequences, passenger safety and other areas of safety concerns. However, there is no rescue contingency or an outline of one for disasters, only the promise of one in the future. Question: What kind of checks and balances are planned in case of a hazardous malfunction and part or all of the area's 11,000+ homes and the ecosystem are in harm's way? Comment: NO environmental statement should be released, much less approved unless GoTriangle makes public the location of its car body repair and paint shop facility, provide studies on the impact of this facility and inform the community of the steps GoTriangle will take to protect the environment and neighboring residents from the harm of the pollutants generated. Section 4:10 Noise and Vibration – Page 4- 204 through 4- 2312. According to the FTA, Transit Cooperative Research Program (TCRP) & the DEIS, noise is described as 'unwanted sound' that travels to a receiver and is measured in decibels (dB). Vibration is the transfer of energy resulting from the motion of a mechanical system. Lv is the velocity level and is measured in vibration decibels. • Table 4.101, page 4- 212 shows the sources of transit noise for the light rail, such as wheels rolling on rail, wheel squeal on sharp curves, horns, whistles, brakes and bells at crossings or in case of collision or other types of accidents. [http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf) Question: Light rail transit wheels are an important part of the system because of the constant noise and vibration they emit, especially if care is not given in purchasing the right type of wheel. Since there was no discussion or information about the types of rail wheels used nor about their maintenance, will GoTriangle use resilient wheels (resilient wheels use rubber or some other resilient material between the wheel and tire) or damping wheels that lessens rolling noise by 15- 20 decibels if used on a tangent (straight) rail? [http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf) Question: Will the ROMF be equipped with a wheel maintenance center to cut down on the cost of frequent wheel purchases? Question: Will the rails be laid tangent (straight) in order to keep down the cost of wheel replacement and to create less noise? (Some wheels cost \$2,000 each and need replacement several times during the year.) • Table 4.10- 4, page 4- 218, lists the locations where 'noise-and vibration sensitive receptors' will be placed and the distance from the receptors to the tracks. Farrington Road, both north and south, is listed. Question: How effectively will the wheel – rail racket and wheel squeal be contained by Farrington ROMF's only receptor so that it will not be heard by those residents living within 100 yards or the children at Creekside Elementary at 500 yards? According to Track Design Handbook for Light Rail Transit, sponsored by the FTA, "...the wheel noise will be a constant source of disruption for the entire neighborhood since the maintenance shop is usually opened 24/7. Damaged and wrecked train cars will be in the repair shop where engineered equipment, also earsplitting, will make attempts to overhaul them." [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) Question: What precautions are being planned to prevent ground vibration with 100 tons of train moving into and out of the maintenance yard 18/7? According to the resource below, "...as the light rail train wears, the noise and vibration increase, as well as other menacing noises involve impact noise due to loss of contact between the wheel and rail, caused by rail head defects, gaps and joints. Rail corrugation noise and grinding artifact noise, as well as singing rail sound. The vibration can destroy our fragile ecosystem, including the protected watersheds." [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) 3. The interstate noise will increase without the I-40 tree buffer that must be removed. According to TD Handbook, in order for the Farrington Road ROMF to be built, the tree buffer will be removed and the land leveled to a "...desired grade of 0.5% for the Yard Running Tracks..." & a "...desired grade of 0.0% for the Yard Storage Tracks . . . to prevent roll away of trains waiting on maintenance." With the removal of the existing tree buffer and leveling of the land, Farrington Road will experience increased noise pollution from I-40 in addition to the noise pollution produced by the ROMF. [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) Comment: Even though, the DEIS frequently mentions the methodology of the Federal Transportation Association, at no time does it use the FTA's recommendations for creating an esthetic environment for the train and its many harsh features. [http://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/sidewalk2/sidewalks204.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/sidewalks204.cfm) Comment: FTA

Transit Noise and Vibration Impact Assessment, Section 6, discusses the variables of noise and vibration "...and the proximity (of the light rail maintenance facility) to the same major stationary noise sources, such as power plants, industrial facilities, rail yards and airports..." Question: What purpose did GoTriangle have in choosing the only 100% residential site, out of at least 25+, on which to build the ROMF, located 500 yards from Creekside Elementary Public School with 906 students + staff and in a vibrant neighborhood of over 11,000 homes? Section 4.11 Hazardous, Contaminated and Regulated Materials, Page 4- 423 Section 4.12 Safety and Security, Page 4- 241 Comment: Table 4.113, page 4- 239 gives a summary of high and medium risk site. Figure 4.11 shows a map of high risk sites. The Rail Organization Maintenance Facility (ROMF), according to GoTriangle's engineers, will be built on Farrington Road, Durham County. The ROMF will negatively affect the traffic, housing prices, safety of the 22,000 taxpayers who live on Farrington Road or in the vicinity and will pose potential harm to the 906 Creekside Public Elementary School students and faculty, only 500 yards from the site. • Opened 18 hours per day, 7 days per week, the ROMF will be an out of place industrial facility in a 100% residential area. Pollution, from noise, light and vibration caused by the ROMF will disrupt the daily activities and quality of life for all 22,000+ homeowners in this area. [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) • The tree buffer, that protects the neighborhood from traffic noise of I-40, will be removed and the ground leveled to a "desired grade of 0.5% [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) Comment: When the tree buffer has been removed and the area where the ROMF will be built has been leveled, the Farrington Road area from Hwy 54, past Ephesus Church Road and to the other side of the overpass will experience increased noise pollution not only from I-40 but also from the ROMF. • With an at-grade crossing less than a mile away from the entrance to the ROMF, all the inhabitants of Farrington Road will experience the effect of extreme traffic congestion from additional cars at ROMF shift changes. • All emergency personnel are to the South of Farrington. Those living on Farrington are to the North. • Transporting damaged train cars and other train parts to the Car Body and Paint Shop on Farrington's busy road, creates the possibility of an industrial accident or toxic waste fire occurring at the ROMF. To date GoTriangle has not created an evacuation plan that would apply not only to the ROMF but to the neighborhoods, like Villas of Culp Arbor, Trenton and others close to the facility. • 100 yards away from the ROMF is the 'over 55' community of the Villas of Culp Arbor, where 134 home owners and taxpayers reside. Many of the residents are active & vibrant; however, some are in wheelchairs, use walkers and on oxygen. • 500 yards away is Creekside Elementary School, with 906 students and staff. • The potential is high for traffic gridlock at the grade level crossing or the intersection of Farrington and Ephesus Church roads. Emergency personnel from the fire station will be delayed, it is possible that death can occur. • All emergency personnel are to the South of Farrington. Those living on Farrington are to the North. Question: Why choose the only 100% residential site, out of at least 25+, on which to build the ROMF, located 500 yards from Creekside Elementary Public School with 906 students + staff and in a vibrant neighborhood of over 11,000 homes, AND an area totally toxic free? Comment: If GoTriangle builds the ROMF in any 100% residential, pollutant free neighborhood, this act will turn the area into a medium to high risk toxin zone with a potential hazardous impact on the public's health from contaminated materials, used both at the ROMF and transported from the facility to the transit body and paint shop... resulting in an ironic course of action! (See page 4- 238, Table 4.112: Summary of High Risk Sites) Section 4:13 Energy5. Page 4- 252 Chapel Hill, Durham, Durham and Orange counties have "...adopted plans to reduce greenhouse gas emissions, beginning back in 2005. It is speculated that by the year 2030, those emissions will be reduced by 30%." Part of this plan rests on building new, more efficient building, erecting a vast billion dollar light rail transit system and developing large areas of Chapel Hill, Durham & Orange County into compact housing. Question: From local news items, GoTriangle meeting, DEIS Hearings and other venues, the public is aware that several high density, mixed use developments are planned along 15- 501. Why is no LRT service planned for this growth area? Question: Where is the reliable LRT transportation for those living in East Durham, beyond Alston Avenue, who have limited or no modes of travel? Section 4.14 Acquisitions, Relocations and Displacements, Page 4- 255 Section 4.16 Construction, Page 4.269 Section 4.17 Indirect and Cumulative Impacts, Page 4- 288 Below is a summary of the estimated cost of GoTriangle Light

Rail:A. \$1.82 BILLION – Total estimated cost in today’s dollarsB. \$107 MILLION PER MILE of 17 miles of track for construction. (The completion of the lite rail is not projected until 2025.)C. 80% ridership costs will be paid by the LOCAL TAXPAYER. (A total of 12.8 MILLION in annual tax liability to Durham and Chapel Hill residents.)6. Page 4.256 With \$1.82+ billion dollars at stake, a definitive organizational plan should have been set into motion, one in which communicating with residents, whose personal lives will change because of the new transit plan, was critical but lacking. Thus far, the FTA has approved Project Development that according to DEIS Appendix J.4 “...includes a complete environmental review and adopting it into the fiscally constrained long range transportation plan.” Beginning in 2016, the Engineering Process will begin. There is a need for overhauling GoTriangle’s management which became apparent during 4 GoTriangle meetings held this year: 24 June (Villas of Culp Arbor), 18 August (Creekside Elementary Public School), 29 September (DEIS Hearing) & 1 October (DEIS Hearing). No strategy had been incorporated to help GoTriangle’s employees explain to VCA & other neighborhood groups that a massive rail maintenance facility (ROMF), was going to be built 100 yards from their homes. Without exception all the meetings have been met with chaos, distractions, staff members not knowing who was in charge, what duties had to be done, the sign-in sheets could not be found and GoTriangle’s many employees seemed somewhat confused and unprepared. Question: With the lack of organizational skills and management evident in 4 very simple meetings, as well as the poorly written DEIS, how can the taxpayers of Durham-Chapel Hill, Orange and Durham counties, trust GoTriangle to make the right monetary decisions that benefits all of the residents of this large area of NC? \$1.82+ billion dollars are at stake... Comment: Page 4- 272 Under Section 4.16, there is no mention of how and when the tree buffer will be removed. 24 June 2015 meeting at the Villas of Culp Arbor, residents were told that construction on the ROMF would begin as early as 2018. Question: When will be the tree buffer be removed and what steps will be taken to protect the immediate neighborhoods from I-40 noise? Question: Farrington Road is a 100% residential area and also pollutant free. Why couldn’t the ROMF be constructed so that it would situated with the same major stationary noise sources, such as power plants, industrial facilities, rail yards and airports, downtown buildings? These noise and vibration manufacturing locations also act as natural receivers and their pollutants can be more easily contained.

*Comment Responses*

*DEIS/Errata References*

*As noted in DEIS section 4.11.3 and section 1.4 of the combined FEIS/ROD, DEIS Errata 121, the proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials because of associated maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While light rail vehicles, as noted in section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents, and other waste materials), used at the ROMF will be captured and stored in tanks (inside buildings), where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not*

DEIS section 1.2.2  
 DEIS section 2.2.3  
 DEIS section 2.4  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.10.4  
 DEIS section 4.11.3  
 DEIS section 4.12.4  
 DEIS section 4.12.4.6  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS Table 2.4-1  
 DEIS appendix K24  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4

**D-O LRT FEIS / ROD**

include a LRT body repair and paint shop. These functions would be performed off site as needed. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials. Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations. Coordination with departments would also be conducted during the Engineering Phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.

DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts. Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24. As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed

FEIS/ROD Table FEIS-2  
FEIS/ROD Table ROD-1  
DEIS Errata 21, 22, 52, 70, 76,  
78, 93, 94, 95 103, 104, 107,  
110, 119, 121 and 137

light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions including wheel squeal. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF. In accordance with the FTA Guidance Manual, a detailed vibration analysis will be conducted during the Engineering phase to further evaluate geotechnical conditions and more precisely predict the vibration effects of the proposed light rail system on area receptors. When the vibration assessment indicates that vibration levels will be excessive, it is usually the track support system that is changed to reduce the vibration levels. Floating slabs, resiliently supported ties, high-resilience fasteners, and ballast mats have all been used to reduce the levels of ground-borne vibration. To be effective, all of these measures must be optimized for the frequency spectrum of the vibration. Most of these relatively standard procedures have been successfully used on transit projects. Light rail vehicles are powered by overhead electric catenary wires and are powered using electric motors that are self-contained within each vehicle. DEIS table 4.10-1 identifies some of the most common noises generated by light rail operations. Sound levels are measured in decibels (dBA). At fifty feet away from a person, the sound of a city bus would measure 84 dBA and a heavy truck would measure 90 dBA. The sound of light rail vehicles would be 66 dBA at that same distance. Comparatively, conversational speech is about 60 dBA.

Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape



*design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the “Farrington Road ROMF Alternative” subsection or DEIS section 1.2.2 under the “Farrington ROMF Alternative” subsection.*

*A conceptual alignment following US 15-501 was evaluated during the Alternatives Analysis process. Based on a number of factors, the route along NC 54 and Farrington Road was determined to better meet the Purpose and Need of the project, and the US 15-501 alternative was not carried forward for detailed study. The Alternatives Analysis can be found on ourtransitfuture.com. An extension past Alston Avenue is not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process (section 9.2.5). Given the applicable NCR/NS requirements, an extension from the Alston Avenue station toward an additional station at Driver Street or Briggs Avenue would likely require either (1) single tracking from Alston Avenue or (2) double tracking that would require the reconstruction of the new Pettigrew Street bridge over Alston Avenue, relocation of Pettigrew St. to the south with the inherent property and utility impacts, and resolving impacts to the pump house and cell towers at the water tower. This would also require a grade separation of the LRT over the existing rail spur at Brenntag. Detailed analysis of engineering impacts and costs of potential future extensions is not required as part of Project Development for the D-O LRT Project. An extension would be a collaborative study process with the local governments and the FTA.*

First Name	Last Name	Comment
Rodalyn A.	Coleman	D-O LRT DEIS CommentGo Triangle’s DEIS has not effectively addressed the environment and environmental consequences within the D-O LRT study areas found in Section 4.9 through 4.17.2.3, pages 4-199 to 4-302. There is some question as to the efficacy of GoTriangle’s organization that is addressed on page 5 of this discussion. The sections comprise air quality, noise and vibration, as well as hazardous, contaminated and regulated materials and safety involving light-rail transit. In addition, acquisitions, construction and impacts also contained omissions. These topics will be subjected to comment and/or question; they are in the order in which they occur in the DEIS. GoTriangle has clarified in the first section of the DEIS that neither comment nor question will receive answers. Light Rail Transit Car Body Repair and Paint Shop: GoTriangle failed to include any data on the Light Rail Transit Car Body Repair and Paint Shop. Had the data been included it would have been linked to the following DEIS sections. • Section 4.9 Air Quality, page 4-199 • Section 4:12 Safety and Security, page 4-241 • Section 4.11 Hazardous Contaminated and Regulated

Materials, page 2821. (EPA) Environmental Protection Agency reported... “(Light transit) body and paint shops emit pollutants such as hazardous air pollutants (HAPs), particle pollution (dust), and volatile organic compounds (VOC). While federal, state and local regulations limit the amount of emissions from body shops, dangerous releases of HAPs can occur if a shop does not operate in compliance with regulations.” See list below, but keep in mind that many of these toxins will be used at both the body and paint shop and the ROMF (Rail Organization Maintenance Facility) and require underground storage tanks: • Paints, cleaners, and paint strippers “...used in light transit body shops...” can release HAPS (Hazardous Air Pollutant) and VOC (Volatile Organic Compound). Chemicals in these substances can form ground-level ozone, which has been linked to a number of respiratory effects, such as asthma and COPD. <http://www2.epa.gov/ust/revising-underground-storage-tank-regulations-revisions-existing-requirements-and-new> • Lead, chromium, and cadmium are metals that form particle pollution during sanding and welding and found in the light rail body and paint shops. o Particle pollution - especially fine particles - contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. o Diisocyanates are hazardous air pollutants emitted during painting operations. Question: Why did GoTriangle neglect to report any information about the Car Body Repair and Paint Shop in the DEIS? Question: If the shop is not located at the ROMF, as has been reported, how will wrecked, damaged or aged equipment be transported and what precautions against hazardous waste spills will GoTriangle provide to protect the neighborhoods, schools and businesses on the route between the ROMF and the shop, as well as the environment on which the spill or accident could have an adverse effect? Comment: Table 4.12.2.6, page 4-243, includes the list of police, security and emergency services available for the light rail transit route and the ROMF. However, in the case of Farrington Road, the EPA preferred location for the ROMF, all of the emergency services are to the South of an at-grade Farrington Road rail crossing, while Creekside Elementary School and major neighborhoods, such as the Villas of Culp Arbor - less than 100 yards from the ROMF, are all to the North of this at-grade crossing. According to Durham firemen, police and emergency room physicians, this will slow the process of rescue considerably. WHY? Because trains will cross at the at-grade level crossing train track approximately every 5 minutes at peak times. In addition, traffic from the ROMF personnel added to an already heavily traveled road will further delay emergency vehicles. When an incident happens at the end of a school day with buses and excessive traffic, the hazard is doubly increased. Lives can be irreparably damaged or death may occur. Comment: Page 4-242 through 4-244 lists emergency personnel and undetailed references to environmental consequences, passenger safety and other areas of safety concerns. However, there is no rescue contingency or an outline of one for disasters, only the promise of one in the future. Question: What kind of checks and balances are planned in case of a hazardous malfunction and part or all of the area’s 11,000+ homes and the ecosystem are in harm’s way? Comment: No environmental statement should be released, much less approved unless GoTriangle makes public the location of its car body repair and paint shop facility, provide studies on the impact of this facility and inform the community of the steps GoTriangle will take to protect the environment and neighboring residents from the harm of the pollutants generated. Section 4:10 Noise and Vibration – Page 4-204 through 4-2312. According to the FTA, Transit Cooperative Research Program (TCRP) & the DEIS, noise is described as ‘unwanted sound’ that travels to a receiver and is measured in decibels (dB). Vibration is the transfer of energy resulting from the motion of a mechanical system. Lv is the velocity level and is measured in vibration decibels. • Table 4.10-1, page 4-212 shows the sources of transit noise for the light rail, such as wheels rolling on rail, wheel squeal on sharp curves, horns, whistles, brakes and bells at crossings or in case of collision or other types of accidents. [http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf) Question: Light rail transit wheels are an important part of the system because of the constant noise and vibration they emit, especially if care is not given in purchasing the right type of wheel. Since there was no discussion or information about the types of rail wheels used nor about their maintenance, will GoTriangle use resilient wheels (resilient wheels use rubber or some other resilient material between the wheel and tire) or damping wheels that lessens rolling noise by 15-20 decibels if used on a tangent (straight) rail?

[http://www.fta.dot.gov/documents/FTA\\_Noise\\_and\\_Vibration\\_Manual.pdf](http://www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf) Question: Will the ROMF be equipped with a wheel maintenance center to cut down on the cost of frequent wheel purchases? Question: Will the rails be laid tangent (straight) in order to keep down the cost of wheel replacement and to create less noise? (Some wheels cost \$2,000 each and need replacement several times during the year.) • Table 4.10-4, page 4-218, lists the locations where ‘noise-and vibration sensitive receptors’ will be placed and the distance from the receptors to the tracks. Farrington Road, both north and south, is listed. Question: How effectively will the wheel – rail racket and wheel squeal be contained by Farrington ROMF’s only receptor so that it will not be heard by those residents living within 100 yards or the children at Creekside Elementary at 500 yards? According to Track Design Handbook for Light Rail Transit, sponsored by the FTA, “...the wheel noise will be a constant source of disruption for the entire neighborhood since the maintenance shop is usually opened 24/7. Damaged and wrecked train cars will be in the repair shop where engineered equipment, also earsplitting, will make attempts to overhaul them.”

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) Question: What precautions are being planned to prevent ground vibration with 100 tons of train moving into and out of the maintenance yard 18/7? According to the resource below, “...as the light rail train wears, the noise and vibration increase, as well as other menacing noises involve impact noise due to loss of contact between the wheel and rail, caused by rail head defects, gaps and joints. Rail corrugation noise and grinding artifact noise, as well as singing rail sound. The vibration can destroy our fragile ecosystem, including the protected watersheds.”

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) 3. The interstate noise will increase without the I-40 tree buffer that must be removed. According to TD Handbook, in order for the Farrington Road ROMF to be built, the tree buffer will be removed and the land leveled to a “...desired grade of 0.5% for the Yard Running Tracks...” & a “...desired grade of 0.0% for the Yard Storage Tracks . . . to prevent roll away of trains waiting on maintenance.” With the removal of the existing tree buffer and leveling of the land, Farrington Road will experience increased noise pollution from I-40 in addition to the noise pollution produced by the ROMF.

[http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) Comment: Even though, the DEIS frequently mentions the methodology of the Federal Transportation Association, at no time does it use the FTA’s recommendations for creating an esthetic environment for the train and its many harsh features.

[http://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/sidewalk2/sidewalks204.cfm](http://www.fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/sidewalks204.cfm) Comment: FTA Transit Noise and Vibration Impact Assessment, Section 6, discusses the variables of noise and vibration “...and the proximity (of the light rail maintenance facility) to the same major stationary noise sources, such as power plants, industrial facilities, rail yards and airports...” Question: What purpose did GoTriangle have in choosing the only 100% residential site, out of at least 25+, on which to build the ROMF, located 500 yards from Creekside Elementary Public School with 906 students + staff and in a vibrant neighborhood of over 11,000 homes? Section 4.11 Hazardous, Contaminated and Regulated Materials, Page 4-423 Section 4.12 Safety and Security, Page 4-241 Comment: Table 4.11-3, page 4-239 gives a summary of high and medium risk site. Figure 4.11 shows a map of high risk sites. The Rail Organization Maintenance Facility (ROMF), according to GoTriangle’s engineers, will be built on Farrington Road, Durham County. 4. The ROMF will negatively affect the traffic, housing prices, safety of the 22,000 taxpayers who live on Farrington Road or in the vicinity and will pose potential harm to the 906 Creekside Public Elementary School students and faculty, only 500 yards from the site. • Opened 18 hours per day, 7 days per week, the ROMF will be an out of place industrial facility in a 100% residential area. Pollution, from noise, light and vibration caused by the ROMF will disrupt the daily activities and quality of life for all 22,000+ homeowners in this area. [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) • The tree buffer, that protects the neighborhood from traffic noise of I-40, will be removed and the ground leveled to a “desired grade of 0.5% [http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp\\_rpt\\_155.pdf](http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_rpt_155.pdf) Comment: When the tree buffer has been removed and the area where the ROMF will be built has been leveled, the Farrington Road area from Hwy 54, past Ephesus Church Road and to the other side of the overpass will experience increased noise pollution not only from I-40 but also from the ROMF. • With an at-grade

crossing less than a mile away from the entrance to the ROMF, all the inhabitants of Farrington Road will experience the effect of extreme traffic congestion from additional cars at ROMF shift changes. • All emergency personnel are to the South of an at-grade Farrington Road crossing. Those living on Farrington are to the North of that crossing. • Transporting damaged train cars and other train parts to the Car Body and Paint Shop on Farrington's busy road, creates the possibility of an industrial accident or toxic waste fire occurring at the ROMF. To date GoTriangle has not created an evacuation plan that would apply not only to the ROMF but to the neighborhoods, like Villas of Culp Arbor, Trenton and others close to the facility. 100 yards away from the ROMF is the 'over 55' community of the Villas of Culp Arbor, where 134 home owners and taxpayers reside. Many of the residents are active & vibrant; however, some are in wheelchairs, use walkers and on oxygen. • 500 yards away is Creekside Elementary School, with 906 students and staff. • The potential is high for traffic gridlock at the grade level crossing or the intersection of Farrington and Ephesus Church roads. Emergency personnel from the fire station will be delayed, it is possible that death can occur. Question: Why choose the only 100% residential site, out of at least 25+, on which to build the ROMF, located 500 yards from Creekside Elementary Public School with 906 students + staff and in a vibrant neighborhood of over 11,000 homes, AND an area totally toxic free? Comment: If GoTriangle builds the ROMF in any 100% residential, pollutant free neighborhood, this act will turn the area into a medium to high risk toxin zone with a potential hazardous impact on the public's health from contaminated materials, used both at the ROMF and transported from the facility to the transit body and paint shop... resulting in an ironic course of action! (see page 4-238, Table 4.11-2: Summary of High Risk Sites) Section 4:13 Energy 5. Page 4-252 Chapel Hill, Durham, Durham and Orange counties have "...adopted plans to reduce greenhouse gas emissions, beginning back in 2005. It is speculated that by the year 2030, those emissions will be reduced by 30%." Part of this plan rests on building new, more efficient building, erecting a vast billion dollar light rail transit system and developing large areas of Chapel Hill, Durham & Orange County into compact housing. Question: From local news items, GoTriangle meeting, DEIS Hearings and other venues, the public is aware that several high density, mixed use developments are planned along 15-501. Why is no LRT service planned for this growth area? Question: Where is the reliable LRT transportation for those living east of Alston Avenue in Durham who have limited modes of travel? Section 4.14 Acquisitions, Relocations and Displacements, Page 4-255 Section 4.16 Construction, Page 4.269 Section 4.17 Indirect and Cumulative Impacts, Page 4-288 Below is a summary of the estimated cost of GoTriangle Light Rail: A. \$1.82 BILLION – Total estimated cost in today's dollars B. \$107 MILLION PER MILE of 17 miles of track for construction. (The completion of the lite rail is not projected until 2025.) C. 80% ridership costs will be paid by the LOCAL TAXPAYER. (A total of 12.8 MILLION in annual tax liability to Durham and Chapel Hill residents.) 6. Page 4.256 With \$1.82+ billion dollars at stake, a definitive organizational plan should have been set into motion, one in which communicating with residents, whose personal lives will change because of the new transit plan, was critical but lacking. Thus far, the FTA has approved Project Development that according to DEIS Appendix J.4 "...includes a complete environmental review and adopting it into the fiscally constrained long range transportation plan." Beginning in 2016, the Engineering Process will begin. There is a need for overhauling GoTriangle's management which became apparent during 4 GoTriangle meetings held this year: 24 June (Villas of Culp Arbor), 18 August (Creekside Elementary Public School), 29 September (DEIS Hearing) & 1 October (DEIS Hearing). No strategy had been incorporated to help GoTriangle's employees explain to VCA & other neighborhood groups that a rail maintenance facility (ROMF), was going to be built 100 yards from their homes. Without exception all the meetings have been met with chaos, distractions, staff members not knowing who was in charge, what duties had to be done, the sign-in sheets could not be found and GoTriangle's many employees seemed somewhat confused and unprepared. Question: With the lack of organizational skills and management evident in 4 very simple meetings, as well as the poorly written DEIS, how can the taxpayers of Durham-Chapel Hill, Orange and Durham counties, trust GoTriangle to make the right monetary decisions that benefits all of the residents of this large area of NC? \$1.82+ billion dollars are at stake... Comment: Page 4-272 Under Section 4.16, there is no mention of how and when the tree buffer will be removed. 24 June 2015 meeting at the Villas of

Culp Arbor, residents were told that construction on the ROMF would begin as early as 2018. Question: When will be the tree buffer be removed and what steps will be taken to protect the immediate neighborhoods from I-40 noise? Question: Farrington Road is a 100% residential area and also pollutant free. Why couldn't the ROMF be constructed so that it would be situated with the same major stationary noise sources, such as power plants, industrial facilities, rail yards and airports, downtown buildings? These noise and vibration manufacturing locations also act as natural receivers and their pollutants can be more easily contained.

*Comment Responses*

*DEIS/Errata References*

*As noted in DEIS section 4.11.3 and section 1.4 of the combined FEIS/ROD, DEIS Errata 121, the proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials because of associated maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While light rail vehicles, as noted in section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents, and other waste materials), used at the ROMF will be captured and stored in tanks (inside buildings), where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials. Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations. Coordination with departments would also be conducted during the Engineering Phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these*

DEIS section 1.2.2  
 DEIS section 2.2.3  
 DEIS section 2.4  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.10.4  
 DEIS section 4.11.3  
 DEIS section 4.12.4  
 DEIS section 4.12.4.6  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS Table 2.4-1  
 DEIS appendix K24  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95, 103, 104, 107,  
 110, 119, 121 and 137



personnel can assist in informing and educating the public about system safety. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.

DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts. Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24. As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions including wheel squeal. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF. In accordance with the FTA Guidance Manual, a detailed vibration analysis will be conducted during the Engineering phase to further evaluate geotechnical conditions and more precisely predict the vibration effects of the proposed light rail system on area receptors. When the vibration assessment indicates that vibration levels will be excessive, it is usually the track support system that is changed to reduce the vibration levels. Floating slabs, resiliently supported ties, high-resilience fasteners, and ballast mats have all been used to reduce the levels of ground-borne vibration. To be effective, all of these measures must be optimized for the frequency spectrum of the vibration. Most of these relatively standard procedures have been successfully used on transit projects. Light rail vehicles are powered by overhead electric catenary wires and are powered using electric motors that are self-contained within each vehicle. DEIS table 4.10-1 identifies some of the most common noises generated by light rail operations. Sound levels are measured in decibels (dBA). At fifty feet away from a person, the sound of a city bus would measure 84 dBA and a

*heavy truck would measure 90 dBA. The sound of light rail vehicles would be 66 dBA at that same distance. Comparatively, conversational speech is about 60 dBA.*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the "Farrington Road ROMF Alternative" subsection or DEIS section 1.2.2 under the "Farrington ROMF Alternative" subsection.*

*A conceptual alignment following US 15-501 was evaluated during the Alternatives Analysis process. Based on a number of factors, the route along NC 54 and Farrington Road was determined to better meet the Purpose and Need of the project, and the US 15-501 alternative was not carried forward for detailed study. The Alternatives Analysis can be found on [ourtransitfuture.com](http://ourtransitfuture.com). An extension past*

*Alston Avenue is not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process (section 9.2.5). Given the applicable NCRR/NS requirements, an extension from the Alston Avenue station toward an additional station at Driver Street or Briggs Avenue would likely require either (1) single tracking from Alston Avenue or (2) double tracking that would require the reconstruction of the new Pettigrew Street bridge over Alston Avenue, relocation of Pettigrew St. to the south with the inherent property and utility impacts, and resolving impacts to the pump house and cell towers at the water tower. This would also require a grade separation of the LRT over the existing rail spur at Brenntag. Detailed analysis of engineering impacts and costs of potential future extensions is not required as part of Project Development for the D-O LRT Project. An extension would be a collaborative study process with the local governments and the FTA.*

First Name	Last Name	Comment
Rodalyn A.	Coleman	<p>Car Body Repair and Paint Shop            In 24 June 2015, Villas of Culp Arbor ROMF meeting on Farrington Road, the residents were shown slides with drawings of the ROMF. The drawing of the Farrington Road ROMF displayed a “Future Car Body Repair and Paint Shop”. We were told that the drawing was incorrect and decision on a “paint shop” had not been made. In their response (08/08/2015) to the meeting question, When will the body repair and paint shop be built? GoTriangle's reply was: “Light rail vehicle body repairs and painting will be contracted to an off-site business that does body and paint work. This type of work will not be done at the ROMF. There are no plans to construct a paint and body shop on site”. In the Draft Environmental Impact Statement (DEIS), I can find no reference to a “Body Repair and Paint Facility. Because of the following information, it is my opinion that no environmental statement should be released, much less approved, without identifying the location of this facility, providing studies on the impact of this facility and letting us know exactly how they intend to protect our environment and people from the pollutants generated. From the EPA: What kinds of pollutants are emitted from body shops? Body shops emit pollutants such as hazardous air pollutants (HAPs), particle pollution (dust), and volatile organic compounds (VOC). These pollutants can contribute to health problems that may affect shop employees and the community. While Federal, state, local, and Tribal regulations limit the amount of emissions from body shops, dangerous releases of HAPs can occur if a shop does not operate in compliance with regulations. • Paints, cleaners, and paint strippers can release some HAPs and VOC. Chemicals in these substances can also react in the air to form ground-level ozone, which has been linked to a number of respiratory effects. EPA has developed a Web site on ground-level ozone. From the EPA Ground-Level Ozone Web Site: Breathing ground-level ozone can trigger a variety of health problems, particularly for children, the elderly, and people of all ages who have lung diseases such as asthma. Ground level ozone can also have harmful effects on sensitive vegetation and ecosystems. Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. • Lead, chromium, and cadmium are metals that form particle pollution during sanding and welding. EPA's Air Toxics Health Effects Notebook has more information on lead, chromium, and cadmium. • Breathing particle pollution can cause respiratory problems and other harmful health effects. EPA has developed a Web site on particle pollution. From the EPA Particle Pollution Web Site: People with heart or lung diseases, children and older adults are the most likely to be affected by particle pollution exposure. However, even if you are healthy, you may experience temporary symptoms from exposure to elevated levels of particle pollution. Particle pollution - especially fine particles - contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including: premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat,</p>

aggravated asthma, decreased lung function, and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing. • Diisocyanates are hazardous air pollutants emitted during painting operations. These compounds are a leading cause of occupational asthma.

*Comment Responses*

*DEIS/Errata References*

*The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.*

DEIS section 2.2.3  
DEIS section 4.11.3  
DEIS section 4.8.3.1  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 21, 94, and 95

First Name	Last Name	Comment
Rodalyn	Coleman	Why do we need another mode of transportation, like the light rail, that will require constant and expensive maintenance, when many of GoTriangle’s roadways and interstate highways, such as heavily used 54 & 55, have little to no maintenance over a 2 year period? Here in the Triangle area we have hazardous potholes on major roads, big enough to puncture a tire or damage the suspension, such as Alston Street, Farrington Road, Old Chapel Hill Blvd, University, Estes, Weaver Street, to name roadways in Chapel Hill and Durham. How is GoTriangle planning to keep up a regular maintenance schedule when it does not have one now that meets the needs of our community, especially with the installation and daily maintenance costs of the light rail? (see projected installation costs below) 1. \$1.8 Billion Dollars is estimated Total Cost; to increase through 2025. 2. Over \$100 Million Dollars for Each Mile will be spent. 3. Only 20% of the costs are recovered from the passenger fare. 4. Federal money will cover 50% of the construction and operational budgets. But Federal money is not free; it is collected from every US taxpayer. 5. Nearly \$13 Million Dollars in annual taxes to Durham & Orange residents

*Comment Responses*

*DEIS/Errata References*

*The Triangle region has experienced extraordinary growth in recent years. Growth forecasts show population in the region increasing by 80 percent between 2010 and 2040, from 1.6 to 2.9 million.*

DEIS chapter 1  
DEIS section ES-2

*Within the D-O Corridor, the population is projected to double and the highest expected travel intensity (number of trips per acre) in the Triangle region is predominately located in this corridor. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS). The D-O Corridor was identified as a high priority transit corridor as early as the 1990s due to the rapid growth in the corridor. The D-O Corridor includes the University of North Carolina at Chapel Hill (UNC), Duke University, downtown Durham, and North Carolina Central University (ES-2). As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development. Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system. In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham. The proposed D-O LRT Project*

DEIS section ES-5  
DEIS section 1.3.2  
DEIS section 1.5.1.2  
DEIS section 3.2  
DEIS section 8.1



*will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.*

First Name	Last Name	Comment
Anonymous	Comment 3	I have lived in the Triangle for nearly 30 years. In that time, the area has grown in many wonderful ways, but so has traffic. We need alternative forms of transportation in our community. I live within walking distance of the Feamington Rd Rail Operations & Maintenance Facility. There is currently no planned station at that location. If my neighborhood is to bear the burden of increased noise, traffic & any environmental impact of light rail & its maintenance facility, please let us also benefit from light rail & the increased economic development that will surround each station. Please add a station to the Feamington Rd ROMF, so people who can walk to the facility can also walk onto a train. THANK You

Comment Responses	DEIS/Errata References
<i>Station locations were chosen based upon the access to economic, educational, cultural, and medical facilities, and in areas designated for future development along the Durham-Orange Corridor. As described in DEIS section 2.1.5, the station locations were proposed and evaluated during the Alternatives Analysis (AA). The station alternatives were evaluated based on their ability to meet the project's Purpose and Need.</i>	DEIS Section 2.1.5

First Name	Last Name	Comment
Anonymous	Comment 4	1) I live near proposed Mason Farm Station. As long as rail is behind student housing buildings and not on MF RD (it appears in the maps that station will be behind the student housing) then I'm okay with it.Re: Durham. 1) No new affordable units have been built in recent new apt/condo construction downtown or around Duke. How can that be addressed properly?2) I'd like to know exactly why the Alson Ave. ROMF would be a net loss in jobs. Does not really make sense @ face value.

Comment Responses	DEIS/Errata References
<i>As noted in the Basis for Engineering Design (appendix L), the proposed location of the Mason Farm Road Station is north of the student housing located adjacent to Mason Farm Road.</i>	DEIS section 4.2 DEIS Table 5.3-1 DEIS appendix L

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2).As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and*

*the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income. The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.*

*Section 4.2 of the DEIS provides information on anticipated levels of employment. Employment associated with ROMF alternatives is provided in Table 4.2-8. The potential for a net loss of employment with the Alston Avenue ROMF site is due to the high level of current employment at businesses currently occupying the site. The level of employment anticipated with the ROMF may not exceed current employment, thus there was the potential for a net loss of employment if the site was selected as part of the NEPA Preferred Alternative.*

First Name	Last Name	Comment
Anonymous	Comment 6	Go Triangle DOLRT does not serve the NC Central community which is a minority community. It serves UNC & Duke, it does not meet environmental Injustice Standards and is not equitable transportation with this route.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Chapter 5 of the DEIS presents detailed analysis of environmental justice and identifies that the NEPA Preferred Alternative would improve accessibility for all communities, including low-income and minority populations. Overall, the potential impacts would be minimal compared with the proposed project’s benefits, which would include improvements to connectivity and mobility; access to jobs, services, education, and entertainment; pedestrian and bicycle conditions; access to transit; and reliability in transit service. In those areas where stations are proposed, there is the potential for economic opportunities through associated development. As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor’s employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project. If the proposed D-O LRT Project is built, it is expected that it would be funded by a combination of federal, state, and local funds. Dedicated local funding for bus and rail*

DEIS chapter 5  
DEIS section 8.3.1  
DEIS section 8.3.2

transit investments was identified when citizens of both Durham and Orange counties passed referenda to increase sales taxes to support transit improvements. (Effective April 1, 2013, Durham and Orange counties adopted resolutions to levy an additional one-half cent local sales tax to be used only for public transportation systems.) Established federal and regional funding sources means no one group in the D-O Corridor or the region would receive a disproportionate share of the financial burden of the capital and operating and maintenance costs relative to the benefits received. No financial equity considerations would be raised by the project, either in terms of the source of subsidy or the level of fare payments required of passengers (section 8.3.2). Pursuant to the Orange County and Durham County Bus-Rail Integration Plans, an adequate share of local sales tax funds is being dedicated to the cost of the LRT system.

Extension to Durham Tech or NCCU are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5)

First Name	Last Name	Comment
Carolyn	Coolidge	I am Carolyn Coolidge [removed ADDRESS]. I believe that we need mass transit in the Triangle, to limit use of fossil fuels and reduce highway congestion. Having come from Berkeley, California, where I lived from 1963-1993, before, during, and after the installation of BART (the Bay Area Rapid Transit system), I am excited to think of what changes the Light Rail system will provide. In the Bay Area, we were initially concerned about the proposed single-line system, as are people in this area. However, we found there, as surely we will here, that feeder lines from other transit systems will be provided. For ten years, before I moved here, I commuted easily between Berkeley and San Francisco. My concerns about this plans are: 1) cost, and will there be transfers available between bus and light-rail lines? 2) the proposed route along Farrington Rd: would not the Cornwallis Rd route displace fewer homes and reduce grade crossings? I think the Judea Reform congregation is able to manage with the loss of some of their land. Carolyn Coolidge, 10/13/15

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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Prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis. See DEIS section 3.1.4.

DEIS section 3.1.4  
 DEIS section 8.2.2  
 DEIS section 8.2.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 22

Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer

overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS).

First Name	Last Name	Comment
Wallis	Cooper	My name is [REMOVED NAME].• My address is [REMOVED ADDRESS, NEIGHBORHOOD] in [REMOVED CITY, COUNTY]. I have to apologize -- start by apologizing.I'm a native New Yorker and I naturally speak extremely fast, so I'm going to slow down too, only fast. When I attended a recent information session here, I asked one of the GoTransit representatives what is better about light rail when the buses are now running less than half full?• And he said, it's going to have lots of amenities and it's going to have really good branding. So in exchange for all the costs, noise, danger, and fierce objections, apparently what we are actually going to gain are amenities and branding. That's according to one of the representatives of GoTransit. Now, there's something more disturbing to me, and that is a comment that one of the previous speakers that just left had said about students, which made me realize that when GoTransit is using a figure of 40 percent of no cars that there may be a deep deception there if they're including students, which then makes one wonder what other deceptions are involved. Thank you.

Comment Responses	DEIS/Errata References
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*As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development.Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system.In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham.The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.*

DEIS section ES-5  
 DEIS chapter 1  
 DEIS section 1.5.1.2  
 DEIS section 3.1.1  
 DEIS section 3.2  
 DEIS Figure 1.5-2  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1,*

consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. As stated in DEIS Appendix K2, section 5, "Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership." The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor.

Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com> As noted in the DEIS Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and



Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS).

The table below presents the number boardings on each system per revenue hour, (If there are 2 buses operating on a route for 8 hours, that is 16 revenue hours). A standard bus, 40 ft., general have 35-40 seats depending on configuration, while an articulate bus, 60 ft., generally seat between 50 and 60 passengers depending on configuration. Unlinked Passenger Trips per Vehicle Revenue Hour 2013 2012 2011 2010 2009 Triangle Transit 16.14 14.65 11.77 10.61 11.28 GoDurham 33.35 33.13 30.92 8.67 29.52 CHT 44.21 43.47 43.19 44.84 8.33 Source: National Transit Database, <http://www.ntdprogram.gov/> Based on the data, system-wide occupancy rates for GoTriangle would be between 32-37% depending on the vehicle, 78-89% on GoDurham, and between 75-90% on Chapel Hill Transit.

First Name	Last Name	Comment
Karen and Al	Crumbly	<p>To Whom It May Concern: We have lived in the City of Durham since 1970 and have always been involved in and relatively well informed about our community. When we first heard that light transit was being considered, we were interested, having used it in other cities. It has many advantages in ease of use, minimal noise distraction, and attractive vehicles. When routes were being considered, we did not see sufficient news to grab our attention, excepting the conflicts about where the Duke Medical Center stop would be located. Perhaps we were away when it was put out for the public, but that was our experience. Recently, we were rather suddenly made aware that the location of the vehicle maintenance center was being considered and meetings were occurring. At one of those meetings, we realized where the path of the light transit is projected to be located for Durham and Orange County. We became quite concerned. Our primary concerns are these: * Route touches only a very limited area of Durham and the same is true of Chapel Hill/Orange. Therefore only a small percentage of Durham residents will benefit. * Given the above, the cost projected is extremely high. * We have seen very little about the parking needed for those who don't live in walking distance of the stops. Have the calculations been done for the relative advantage of someone who has to drive to park to get on the train? Given the distance and time from home to park ,and park to destination on transit, isn't it likely more advantageous to simply drive? Or take the bus which reaches far more residential and business areas of the counties? * How much consideration has been given to the number of streets which will be crossed by the light transit and how the cross traffic will be affected by the needed signals? In sum, we feel Durham and Orange Counties are way too spread out to be viable communities for the cost/benefit ratio to its citizens. In order to be viable, it would have to go to the RTP, the airport, and Raleigh. Until that is in the plan we are not supportive. We also agree with the editorial comments of Eric Ghysels in the Durham Herald-Sun on August 28, 2015, "Durham-Orange light rail is train wreck in the making." Thank you for the opportunity to register our opinions.</p>

*Comment Responses* *DEIS/Errata References*

*As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development. Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and*

DEIS chapter 1  
 DEIS section 2.3.2.1  
 DEIS section 3.1.1  
 DEIS section 3.2  
 DEIS section 3.2.2  
 DEIS section 3.2.4

*Chapel Hill by enhancing and seamlessly connecting with the existing transit system. In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham. The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.*

DEIS section 3.3  
DEIS section 8.1  
DEIS Table 2.3-2  
DEIS Table 3.2-3  
DEIS Table 3.2-5  
DEIS Table 3.3-2  
DEIS appendix K1  
DEIS appendix K2  
DEIS appendix K4 through K11  
DEIS appendix L  
FEIS/ROD section 1.4  
DEIS Errata 30, 32, 33, and 75

*Parking is proposed at several stations as described in DEIS section 3.3. As described in DEIS Table 2.3-2 and further detailed in DEIS Table 3.3-2, park-and-ride facilities are currently planned at the following stations: Friday Center, Leigh Village, Gateway, MLK Jr. Parkway, South Square, Durham, Dillard Street, Alston Avenue. The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and “kiss-and-ride” spaces for passenger pick-up and drop-off. Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (DEIS section 2.3.2.1). Typical images can be found in DEIS section 2.3.2.1 and conceptual designs in DEIS appendix L. Section 1.4 of the combined FEIS/ROD, DEIS Errata 75 further adds clarification that Triangle Transit will coordinate with municipalities and neighborhoods on the aesthetic treatments for stations. Parking fees, if any, will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners. A total of 5,100 park-and-ride spaces will be added at station locations as part of the project.*

*DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS.*

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3 of the DEIS. In addition, as described in DEIS section 3.2.2, there are numerous roadway projects planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance.*

*As described in DEIS section 3.2.4 and as shown in Table 3.2-5 of the DEIS, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).*

*Section 3.1 of the DEIS details the anticipated effects of the proposed D-O LRT Project on the public transportation network. Table 3.1-3 presents the 2040 ridership forecasts for the NEPA Preferred Alternative compared to the No Build Alternative, as well as the Project Element Alternatives. The NEPA Preferred Alternative is expected to carry just over 23,000 trips on the project per average weekday in 2040. Ridership forecasts also predict that bus service would remain an important component of the transit service’s approximately 17,000 boardings per average weekday in 2040, a reduction of approximately 3,000 boardings from the No Build Alternative.*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project.*

*The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP).*

*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

First Name	Last Name	Comment
Karen	Crumbliss	To Whom It May Concern:We have lived in the City of Durham since 1970 and have always been involved in and relatively well informed about our community. When we first heard that light transit was being considered, we were interested, having used it in other cities. It has many advantages in ease of use, minimal noise distraction, and attractive vehicles. When routes were being considered, we did not see sufficient news to grab our attention, excepting the conflicts about where the Duke Medical Center stop would be located. Perhaps we were away when it was put out for the public, but that was our experience.Recently, we were rather suddenly made aware that the location of the vehicle maintenance center was being considered and meetings were occurring. At one of those meetings, we realized where the path of the light transit is projected to be located for Durham and Orange County. We became quite concerned.Our primary concerns are these:- Route touches only a very limited area of Durham and the same is true of Chapel Hill/Orange. Therefore only a small percentage of Durham residents will benefit.- Given the above, the cost projected is extremely high.- We have seen very little about the parking needed for those who don’t live in walking distance of the stops. Have

the calculations been done for the relative advantage of someone who has to drive to park to get on the train? Given the distance and time from home to park ,and park to destination on transit, isn't it likely more advantageous to simply drive? Or take the bus which reaches far more residential and business areas of the counties?- How much consideration has been given to the number of streets which will be crossed by the light transit and how the cross traffic will be affected by the needed signals?In sum, we feel Durham and Orange Counties are way too spread out to be viable communities for the cost/benefit ratio to its citizens. In order to be viable, it would have to go to the RTP, the airport, and Raleigh. Until that is in the plan we are not supportive.We also agree with the editorial comments of Eric Ghysels in the Durham Herald-Sun on August 28, 2015, "Durham-Orange light rail is train wreck in the making." Thank you for the opportunity to register our opinions.

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development.Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system.In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham.The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.*

DEIS chapter 1  
 DEIS section 2.3.2.1  
 DEIS section 3.1.1  
 DEIS section 3.2  
 DEIS section 3.2.2  
 DEIS section 3.2.4  
 DEIS section 3.3  
 DEIS Table 2.3-2  
 DEIS Table 3.2-3  
 DEIS Table 3.2-5  
 DEIS Table 3.3-2  
 DEIS appendix K1  
 DEIS appendix K2  
 DEIS appendix K4 through K11  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, 33, and 75

*Parking is proposed at several stations as described in DEIS section 3.3. As described in DEIS Table 2.3-2 and further detailed in DEIS Table 3.3-2, park-and-ride facilities are currently planned at the following stations:Friday Center Leigh Village Gateway MLK Jr. Parkway South Square Durham Dillard Street Alston Avenue The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and "kiss-and-ride" spaces for passenger pick-up and drop-off.Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (DEIS section 2.3.2.1). Typical images can be found in DEIS section 2.3.2.1 and conceptual designs in DEIS Appendix L. Section 1.4 of the combined FEIS/ROD, DEIS*

*Errata 75 further adds clarification that Triangle Transit will coordinate with municipalities and neighborhoods on the aesthetic treatments for stations. Parking fees, if any, will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners. A total of 5,100 park-and-ride spaces will be added at station locations as part of the project.*

*DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS. DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3 of the DEIS. In addition, as described in DEIS section 3.2.2, there are numerous roadway projects planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5 of the DEIS, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).*

*Section 3.1 of the DEIS details the anticipated effects of the proposed D-O LRT Project on the public transportation network. Table 3.1-3 presents the 2040 ridership forecasts for the NEPA Preferred Alternative compared to the No Build Alternative, as well as the Project Element Alternatives. The NEPA Preferred Alternative is expected to carry just over 23,000 trips on the project per average weekday in 2040. Ridership forecasts also predict that bus service would remain an important component of the transit service's approximately 17,000 boardings per average weekday in 2040, a reduction of approximately 3,000 boardings from the No Build Alternative. As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, it should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on*



these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.

First Name	Last Name	Comment
Lorna Lynn	Culton	Subject: Oppose Light Rail - noise and safety at grade level crossingsI oppose the proposed Durham - Orange Light Rail because the grade level crossings on the C2A route will create dangerous situations as people try to access NC54 without the benefit of traffic lights. Please either, scrap the project and investigate alternative options, move C2A route to the north side of NC54 or elevate it to eliminate these dangerous intersections.

Comment Responses	DEIS/Errata References
<p><i>Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.</i></p> <p><i>Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L).As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.</i></p>	<p>DEIS section 3.2 DEIS section 3.2.3 DEIS section 3.6 DEIS appendix L FEIS/ROD section 1.4 FEIS/ROD Table FEIS-2 DEIS Errata 36 and 108</p>

First Name	Last Name	Comment
Lorna Lynn	Culton	Subject: Oppose Light Rail – Safety – Downing Creek Parkway Crossing not in DEIS Traffic StudyThe grade level crossing at the intersection of Downing Creek Parkway and NC54 was inadequately studied in the DEIS Traffic Simulations. No traffic counts were performed for this intersection that is a major ingress/egress from a neighborhood of over 400 residences. Without adequate information, how can Go Triangle consider this intersection as safe? Please have this area investigated further for adequate mitigation before proceeding.

Comment Responses	DEIS/Errata References
<p><i>Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these</i></p>	<p>DEIS section 2.4 DEIS section 3.2 DEIS section 3.2.3 DEIS section 3.6</p>

**D-O LRT FEIS / ROD**

roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains. Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending.

DEIS Table 2.4-1  
 DEIS Table 3.2-2  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 36 and 108

Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.

First Name	Last Name	Comment
Ellen	De Flora	I am completely against the light rail system proposed between Chapel Hill and Durham. It serves very few people and will no relieve the the main source of congestion which is I-40 into and out of Research Triangle Park and Raleigh, NC. A light rail system makes immense sense for that route, but none for the Durham-Chapel Hill Corridor. A more flexible rapid bus system for that corridor make abundantly more sense. I am very upset about the proposed ROMF in a non industrial area in which churches, historic sites, schools and neighborhoods are already present. This indicates GoTriangle's complete disregard for the communities it is supposedly servicing.

Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>

DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17, 21, 22, 52, 70,  
 76, 78, 93, 94, 95 103, 104,  
 110, 119 121 and 137

Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.

First Name	Last Name	Comment
L	diGiovanni	I prefer a No Build status as the light rail will put Downing Creek subdivision in a dangerous, very dangerous situation, due to frequency of trains and cut-off of the two major roads (Downing Creek Parkway, Barbee Chapel Rd) This will limit access of emergency vehicles and be hazardous to the residents at the crossings.

Comment Responses	DEIS/Errata References
As detailed in DEIS section 4.12.2.5, to the extent practicable, Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles. Many safety measures, including	DEIS section 2.4 DEIS section 3.2

**D-O LRT FEIS / ROD**

*crosswalks, signals, lighting, and fencing in certain locations, are used to help reduce the number of conflicts and incidents. In addition, basic design elements are used to enhance safety, including the use of facility siting and parking lot layouts that avoid pedestrian/vehicle and vehicle/vehicle conflicts, as well as the careful use of landscaping to eliminate blind spots and provide openness for security surveillance. Detailed information regarding the roadways (including Downing Creek Parkway and Barbee Chapel Road), sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). To avoid the potential for incidents at -grade intersections, crossings of roads (including Downing Creek Parkway and Barbee Chapel Road) would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines. In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>. Section 4.12.4.6 states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations.*

DEIS section 3.6  
 DEIS section 4.12.4.6  
 DEIS Table 2.4-1  
 DEIS appendix L

*As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.*

First Name	Last Name	Comment
Shane	Dikolli	Dear Sir/Madam, Would you please help me understand how the projected annual financial deficit in operating the proposed Durham-Orange Light Rail will be funded? Applying simple math to projections of ridership, average fares, and the preferred annual operating costs, it is clear that the annual operating costs would not be offset by ridership revenues. This is even before the financing costs on any debt and also does not allow for any repayment of the capital cost. In addition, would you please provide a detailed breakdown of the estimated annual operating and maintenance costs? I noticed in Table 7.2-1 of The DEIS statement online ( <a href="http://ourtransitfuture.com/wp-content/uploads/2015/08/07_Chapter-7_Project_Costs.pdf">http://ourtransitfuture.com/wp-content/uploads/2015/08/07_Chapter-7_Project_Costs.pdf</a> ) that only an aggregate cost number is disclosed. I would appreciate seeing disaggregated details so that I can ask the 225 Duke MBAs in my cost accounting class this Fall to analyze the plausibility of the assumptions underpinning those numbers. I view this as an excellent opportunity for you to have

the numbers scrutinized by independent outside sources, which would provide you with persuasive evidence to help combat concerns about the adverse financial impact of the proposed light-rail system. I very much look forward to your response.

*Comment Responses*

*DEIS/Errata References*

*As stated in DEIS section 7.1, when the proposed D-O LRT Project is fully advanced through the New Starts process, it is anticipated that the New Starts program will provide approximately 50 percent of the D-O LRT Project's capital cost. The non-New Starts costs will be covered by a combination of funding sources, including sales tax revenue generated in Durham and Orange counties, funding from North Carolina Department of Transportation (NCDOT), and other local fees and taxes. Triangle Transit will also pursue Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance and possible alternative financing and value capture options. The non-federal share of the D-O LRT Project is currently being analyzed. The next stage of the New Starts process is Engineering. During review for entry into Engineering only a portion of the non-federal share funds are required to be committed. Triangle Transit will continue to work with the local jurisdictions and state on the D-O LRT Project.*

DEIS section 7.1

First Name	Last Name	Comment
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<b>Shane S</b>	<b>Dikolli</b>	Dear Triangle Transit, You state below that "you may find several answers to your questions within our Frequently Asked Questions..." Pardon my boldness but that's an incredibly lazy answer, don't you think? Nevertheless, I've followed your suggestion and searched through the Frequently Asked Questions. I can assure you that there are no answers there that address my questions. Instead, I will try to simplify my request by repeating only one question and I respectfully ask that you provide a direct response: Would you please provide a detailed breakdown of the estimated annual operating and maintenance costs? In Table 7.2-1 of The DEIS statement online ( <a href="http://ourtransitfuture.com/wp-content/uploads/2015/08/07_Chapter-7_Project_Costs.pdf">http://ourtransitfuture.com/wp-content/uploads/2015/08/07_Chapter-7_Project_Costs.pdf</a> ) only an aggregate cost number of \$17.944 million is disclosed. Sincerely, Shane Dikolli
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*Comment Responses*

*DEIS/Errata References*

*General Information on the project capital and operations and maintenance costs can be found in DEIS chapter 7. More detailed information on capital costs can be found in appendix K27. More detail on operating and maintenance costs can be found in appendix K29. The specific detail requested can be found in Table 4-1 in Appendix K29. Tables that make up Appendices A through C of the Operations and Maintenance Cost Results report provide additional backup data on operations and maintenance costs.*

DEIS chapter 7  
DEIS appendix K27 and K29

First Name	Last Name	Comment
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<b>Carol</b>	<b>Dodge</b>	I have lived in Downing Creek for 27 years. I have recently stopped driving due to an inherited eye disease. When I first heard about the light rail system, I thought this would be great for me. Now that I have studied what it means in terms of transportation, I have
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changed my mind. With the exception of the Duke Eye Center, this rail system will not get me to any of the places that I need or want to go to. Not only that, it will make walking my normal routes with my dog within the neighborhood, and exiting the neighborhood very dangerous for me. And what about EMS and Fire Fighters trying to get in to our neighborhood for an emergency? In talking with others who live in this area, I have found that most agree with me. I will continue to use the bus service that can get me to the places I am interested in getting to. I just hope that I will be able to safely exit and reenter the neighborhood. I will not vote to spend any of my money on this light rail system. Why not add some bus routes, see how they work, and make changes if needed? If there was to be a light rail system, it should include travel to the airport, Raleigh and RTP. None of these are included in this system. Also, a reminder that people who bought homes in Meadowmont in Chapel Hill agreed when they bought their homes that they would have the light rail system in their neighborhood. Why is it suddenly out of their neighborhood, and in our laps in Durham, literally?

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 4.12.3.5, the D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit that would interact with vehicular, bicycle, and pedestrian traffic. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations. Coordination with departments would also be conducted during the Engineering Phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

DEIS section 3.2  
 DEIS section 3.2.3  
 DEIS section 3.6  
 DEIS section 4.12.4.6  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 36 and 108

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional*

*bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>*

*The Town of Chapel Hill requested that alternatives to the C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the proposed D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning. The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (appendix G). The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the DEIS and are summarized in DEIS chapter 8, Evaluation of Alternatives.*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. The Wake County Transit Plan is currently*

#### **D-O LRT FEIS / ROD**

*evaluating future potential transit corridors, which could be studied if a funding source is secured for transit in Wake County. For more information, please see WakeTransit.com*

First Name	Last Name	Comment
James	Doughty	<p>This evening I call upon the Federal Transit Administration to reject this draft environmental impact statement, and I appeal for state, municipal and federal to renew consideration of a Bus Rapid Transit, or BRT, system instead. In my opinion, the 2012 Alternative Analysis (AA) report, which is part of the foundation of this DEIS, was flawed in its rejection of BRT. The AA states, "BRT was eliminated due to lower ridership and lower potential to attract/shape new development in the region." (ref: DEIS 2.2, Development of the Build Alternatives")But the AA report itself says that interlining, BRT could have 4,3000 to 5,000 more daily boardings than light rail. And a study by the Orange County (Calif). Transportation Authority shows development along light rail corridors is spurred by tax incentive, not the train themselves. Meanwhile, the highest cost estimate for BRT is \$20 million per mile cheaper than the lowest estimate for light rail, and change in travel time estimates mean BRT would now be faster end-to-end trip. I contend that the failure to account honestly for the potential of BRT is a fatal flaw of this DEIS. Tonight's process is as important as any of these details. When we ask the FTA to reject the DEIS, what we're really saying is: Administrator McMillan, please stop this project. Why is that important? Because this may be our last chance. The planning process was suppose to offer one firebreak. But it turned into a Mobius loop: Go Triangle told us to petition our elected officials. Our elected officials told us they are "trusting in the professionals." Did I invoke Mobius? Should have been Kafka. The state legislature's funding cap may look like another firebreak. But anything a legislature can do, it can undo. What we can't undo is the acceptance of a DEIS that should not be accepted. Some supporters of the light rail plan argue that our region needs modern, updated transit, Well, yes it does. You may well try to sell me an old black and white Philco by telling me how much I really need a home entertainment system. We who oppose light rail are also pro-transit. What we want is the right transit. And we get only one try. A BRT system is flexible and scalable in ways that rails pinned to the ground are not. Wake County is building BRT. Chapel Hill, the bastion of light rail advocacy, is building BRT for itself. We should get this one right too.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As part of the AA process, a range of transit technologies was evaluated to determine how well each would meet the project's Purpose and Need. Figure 2.2-1 in the DEIS provides a comparison between conventional bus, Bus Rapid Transit (BRT), streetcar, light rail, and commuter rail. Streetcar and commuter rail were eliminated from further consideration because they do not serve the length of trips typically taken in the D-O Corridor. Streetcar lines are typically less than 3 miles in length and serve trips that are less than 1 mile, while commuter rail is typically between 20 and 80 miles in length and serves trips that are 15 miles or more. Despite a lower cost per mile, BRT was eliminated due to lower ridership (excluding interlining potential) and lower potential to attract/shape new development in the region. Details of the technology analysis are included in chapter 5 of the AA Final Report.*

DEIS chapter 2  
DEIS Figure 2.2-1

*While the AA indicated the interlined BRT would have a higher ridership, a number of factors were evaluated between the AA and the DEIS. The factors contributing to the higher ridership forecast for the LRT in the DEIS as compared to that for the AA would likely not exert as a big an effect on forecast BRT ridership as on forecast LRT ridership, due to differences in the characteristics between*

*LRT and BRT. LRT has a smoother ride and other attractive vehicle characteristics, including passenger amenities, that make it more attractive to passengers than BRT. Station amenities and priority guideway treatment are more universally recognized by passengers and more readily available for LRT vehicles than for BRT vehicles. As a result, higher ridership would be expected for LRT than for BRT all things being equal.*

First Name	Last Name	Comment
Donna	Douglas	Hello, I have lived in Chapel Hill for the past 28 years and have enjoyed the beauty of this community. When the light rail project was brought up several years ago, we were not aware of the exact route it would take. We were led to believe it would be safe, alleviate traffic, and route people to high demand areas like the Southpoint Mall, the Raleigh Durham Airport, or to the Research Triangle Park. Now we find out it goes to none of those places. Not only that, there are 42 at-grade crossings. Three of them will be surrounding my neighborhood. One of these crossings does not even have a stoplight. This is a serious safety hazard. If drivers are trying to merge East from Downing Creek Parkway onto Highway 54 during rush hour, they are normally trapped at the exit of our community. If they pull up to merge right to get into traffic, they could end up stuck on the railroad tracks while traffic backs up behind them. They would not be able to back up! This issue presents a danger to the citizens of our community. Furthermore, ambulances may be delayed going into our neighborhood while the light rail passes. I wish someone would take a look at the safety issues involved in this project.

Comment Responses	DEIS/Errata References
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*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>*

DEIS section 3.2  
 DEIS section 3.6  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17, 36, and 108

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for*

incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.

First Name	Last Name	Comment
Joy	Dunlap	What is current occupancy rate for buses to & from Durham to Chapel Hill? Not ridership but % of occupancy [REMOVED PII]

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. Bus routes that currently service the D-O LRT Corridor alone carry an average of 9,700 passengers every weekday. Overall, Chapel Hill Transit, GoDurham, and Triangle Transit's services within Durham and Orange Counties carry 71,300 passengers per weekday. Transit ridership in Durham and Orange Counties has grown over the last few years, and is projected to grow in the future as the communities encourage the growth of walkable, pedestrian-friendly communities and the universities continue to grow and encourage transit use to their campuses by restricting parking. The table below presents the number boardings on each system per revenue hour, (if there are 2 buses operating on a route for 8 hours, that is 16 revenue hours). A standard bus, 40 ft., general have 35-40 seats depending on configuration, while an articulate bus, 60 ft., generally seat between 50 and 60 passengers depending on configuration. Unlinked Passenger Trips per Vehicle Revenue Hour

2013	2012	2011	2010	2009	Triangle
16.14	14.65	11.77	10.61	11.28	GoDurham
33.35	33.13	30.92	28.67	29.52	CHT
44.21					

DEIS section 1.5.1.2 DEIS section 3.2

**D-O LRT FEIS / ROD**



43.4743.1944.848.33Source: National Transit Database, <http://www.ntdprogram.gov/>Based on the data, system-wide occupancy rates for GoTriangle would be between 32-37% depending on the vehicle, 78-89% on GoDurham, and between 75-90% on Chapel Hill Transit.

First Name	Last Name	Comment
John	Eaddy	<p>As president of the Woodland Acres Homeowners Association, I have the following comments on the DEIS for the D-O LRT in the Leigh Village transit station area. These comments refer to the station plans as depicted in Appendix L vol 3, Station 11.1. The location of the intersection of the New E-W Connector C with the New N-S Connector (Falconbridge Extension) in the Leigh Village area does not adhere to the approved Collector Street Plan or the NC 54/I-40 Corridor plans. The intersection shown in the DEIS is further south than the one in the Collector Street Plan (CSP). The CSP was agreed upon by the DCHC MPO after much public discussion and input. A plan that was approved by the public and by organizations representing the governments of three cities should be the priority guidance document for road planning in this area.2. The DEIS shows this same intersection as being bisected by the rail line and next to the station platform. This is unnecessarily complicated. Traffic from all four directions must be halted while the train passes, and the train will be moving slowly as it is approaching the station, adding to a long delay to road traffic. If the intersection is moved from the current location (SE of the pond) back to the location in the CSP (NE of the pond), then only one road will have to be blocked during the train passage (the Falconbridge Extension). In the CSP, the New E-W Connector C curves to the north as it leaves the intersection, essentially parallel to the rail line such that there is no rail crossing of E-W Connector C.3. The eastward extension of New E-W Connector C from the intersection of Falconbridge Extension really does not serve much of a purpose for the transit station, regardless of the location of the intersection. Farrington Road will be an overpass of Hwy 54 with no access to Hwy 54. The major N-S road will be the Falconbridge Extension combined with the northern part of Farrington Road where the two merge. Traffic coming from the north of the station will be using either George King or Falconbridge Extension. Traffic from I-40 and Hwy 54 will have to use the southern entrances of either George King or Falconbridge Extension. Traffic coming from areas south of Hwy 54 on Farrington Road (which will be the least amount of traffic compared to the other two) will use Cleora Drive. There is no reason to build the section of the E-W Connector C between Falconbridge Extension and Farrington Road. This section would go through an already developed neighborhood and make further development of a Compact Neighborhood more difficult.4. The rationale for eliminating the eastward extension of Connector C is also valid for the eastward extension of Connector D. The expense and disruption of existing neighborhoods are not justified by the expected traffic patterns. The Compact Neighborhood plans for this area to become a transit--oriented high-density walkable community should minimize the number of major roads in this area, leaving more property for residential/commercial development.5. If the transit platform was moved a bit further SE down the line, closer to the parking area, then there would be less of a traffic delay at the crossing of the Falconbridge Extension (since the train would be moving faster), and less distance for those in the parking lot, car drop-off area, and bus drop-off, to have to walk to the platform. Please add these objections and suggestions to the official Comments on the DEIS. I am happy to discuss any of these issues further with GoTriangle or Durham Planning staff. Thank you.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<p><i>With the City of Durham's desire to have a Light Rail Transit (LRT) Station at the centroid of the Leigh Village area coupled with the preferred LRT alignment along the southern portion of George King Road, the roadway network was modified to suit as coordinated with the City of Durham. The traffic</i></p>	<p>DEIS section 3.2.2 DEIS section 3.2.4 DEIS Table 3.2-3</p>

**D-O LRT FEIS / ROD**

*grid pattern movements remain essentially the same. The new traffic roadway layout is also consistent with the NC 54 superstreet study layout consolidating access to Leigh Village at the NS Connector/Falconbridge Road intersection. As stated in meetings with Triangle Transit during the project development phase, the City of Durham will be modifying their planned adopted roadway network accordingly because the current planned roadway network does not take into account the LRT system and the City's desire to have a LRT station at Leigh Village situated as shown in the engineering plans.*

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues). Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in Table 3.2-5.*

First Name	Last Name	Comment
Allison	Eisner	To whom it may concern: This is to express my deep concern over the fact that the Cornwallis Road site is under consideration for the ROMF. There are two schools, a synagogue and a community center right next to the proposed site. A ROMF on Cornwallis Road would necessitate that the Western Bypass road be relocated so that it is closer to the schools, the synagogue and the community center. There would be significant noise and disruption to these PLACES OF LEARNING, WORSHIP AND COMMUNITY caused not only by the excavation necessary for relocating the road, but also by the continuing operations of the ROMF. I find it especially troubling that you continue to display complete disregard for the Jewish Campus and all that it provides. The construction of and operation of the ROMF will produce significant noise and vibrations that will disrupt the LEARNING, WORSHIP and COMMUNITY activities that take place at these institutions. The light and noise will be disruptive to the religious services that take place regularly at Judea Reform Synagogue. Also, moving the Western Bypass road closer to the schools will create safety and security problems for the children. The increase in traffic that will be created by the ROMF, and the resultant increase in fumes from emissions, will pose a health concern to these children as well. I do not believe you would want this facility constructed right next to YOUR place of worship, YOUR children's school, or YOUR community gathering place. Why do you believe it is acceptable to

construct the ROMF next to mine?

*Comment Responses*

*DEIS/Errata References*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119 121 and 137

First Name	Last Name	Comment
Tom	Englund	<p>I sent you the following email last Tuesday, and haven't heard back from you, either with an acknowledgement of my request or with a reply. Every time people express concern about hazardous materials at the proposed ROMF, the reply they get from your team is that since the trains are electric, no hazardous materials are required. In fact there is only one less hazardous material required: diesel fuel. All the cleaning products, lubricants, brake materials, paints, body fillers... everything else a train needed to repair or maintain trains remains the same. Since so many of the team members from Go Triangle worked in the past with people from CATS, it shouldn't be any problem to get a list of all products and materials which require Material Safety Data Sheets that are used in the Charlotte facility. Since the federal government requires the MSDS to be available to workers at the facility, I'm sure you'll agree that the public is entitled to know about the same products as well. Thanks, Jeffrey. I know you have a big job, so I appreciate your help in getting the information that we need. Best regards, Original Message</p> <p>Could you please get me a list of all of the products used in the Charlotte equivalent of the ROMF which have federally mandated Material Safety Data Sheets? Since the federal government requires them, I think we, the proposed neighbors of the ROMF, should have access to what will be used there. Although every facility that uses hazardous materials aims to contain them all, none actually catch 100%, so it makes sense to know what could possibly get past the containment/recovery equipment. There should be many products that would require MSDS forms: all petrochemicals, including but not limited to lubricants and cleaning solvents; washing detergents which might possibly be acidic or basic, gasses used to generate heat for repairs, and others. Since the Durham Orange ROMF is not yet in process, the best corollary would probably be whatever Charlotte is using. I'm sure someone in charge of the Charlotte facility has to have the MSDS sheets on hand, so it shouldn't be a big deal to get copies of them. Thanks, I appreciate your help.</p>

*A response to the original e-mail was sent on September 14, 2015. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.*

DEIS section 2.2.3  
DEIS section 4.8.3.1  
DEIS section 4.11.3  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 21, 94, and 95

First Name	Last Name	Comment
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Tom	Englund	In talking with Go Triangle team members about the alternative sites to the ROMF, I have several times pointed out that theCornwallis site "problems" can easily be mitigated by purchasing the Herald Sun site which is right next door to theCornwallis site and has been for sale for years. Go Triangle team members including Patrick McDonough, NatalieMurdock and David King have denied knowledge of the property being available and had no response to the idea ofadding the Herald Sun site to the old Pepsi site to make a ROMF site that would be very viable. They have tried to ignorethis opportunity. Perhaps this site would be a tad more expensive, but it would not do the serious harm to the environmentand property values that locating the ROMF on Farrington Road would do.
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources*

DEIS section 8.2.2  
DEIS section 8.2.2.2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 22

*(The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS). Triangle Transit has looked at the possibility of the utilizing the former Herald Sun property as potential ROMF location. However, site itself is only about 8 acres, it is estimated the ROMF will require 20-25 acres. Linking the Pepsi Plant site and Herald Sun site would prove technically infeasible due to the narrow width of the parcels bounded by Picket Park on the east and US 15-501 on the west as well as the parcel in between containing a USACE regulated stream and associated wetlands. Furthermore, grading issues (over 80 feet of elevation difference) between the two parcels would necessitate additional land requirements for trackwork, impacting several commercial sites.*

First Name	Last Name	Comment
Tom	Englund	Whenever people bring up the Alston Avenue alternative for the ROMF, one reason that's stated for taking it off the list is the fact that there might be toxic waste there that has to be cleaned up. Why in the world would it be a bad idea to get the extra funding (potentially from the Super Fund) to remediate that situation and then locate the ROMF there? The people of East Durham deserve to have that mess removed from their neighborhood anyway. They also deserve to have the rail line go further into East Durham where people need it the most. If we're going to spend billions of taxpayer dollars on 17 miles of light rail, why not do it right. Clean up Alston Avenue. Bring the line further into East Durham where it's needed. Put the ROMF in an urban area that already had industrial sites mixed into it. Provide better paying jobs in that neighborhood than the low paying jobs that are on that site now. WinWinWin!

Comment Responses	DEIS/Errata References
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made*

DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137



*regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. Although the Alston Avenue ROMF alternative would not require rezoning, it would introduce several risks to both the project schedule and budget, associated with the potential of regulated materials remediation and relocation of businesses. It also has the potential to result in net loss of employment within the D-O Corridor if the existing businesses that would be displaced could not be relocated within the D-O Corridor. This alternative has the highest capital cost of all of the alternatives considered in this DEIS (section 8.2.2.2).*

First Name	Last Name	Comment
Tom	Englund	<p>Good afternoon, all. I've been wondering about something related to Lisa's message. Why was it never considered that the ROMF could be located in the middle of the future Leigh Village? The land is flat. The alignment passes right through there. There's plenty of available land there and the parcel could be of any shape desired. Council members, Commissioners, Go Triangle team members all agree that a ROMF is no detriment to high density housing. Charlotte claims that high density housing residents like to be near the rail and don't mind a being next to a maintenance facility. The current landowners all want to sell and give up their homes. The only drawback I can see is: The city would take a hit on property taxes that they want from the uber-high density housing planned for Leigh Village. Perhaps the ROMF wouldn't pay enough property tax? Would it pay any? With a perfect site being overlooked, instead there is an insistence that the ROMF must go on Farrington Road. Why? Why was the perfect site never on the list of possible sites? Did the potential loss of future revenue from high density housing keep it from being considered? Who participated in that decision? Further, it's never been addressed that the Cornwallis site problems could all be remediated by adding the adjacent Herald Sun property to the old Pepsi plant property. The Herald Sun property has been for sale for years. Go Triangle officials all deny knowledge of that, even though there's been a billboard on the site for years, saying "FOR SALE". I personally have brought this to the attention of David King who denied knowing it, promised to look into it and get back to me. He didn't. I brought it to the attention of Mr. Schewel and Ms. Catotti. They promised to look into it. I've never heard back from either of them. So, there are two sites that are viable. Instead, the momentum continues, determined to use the Farrington Road site. That site is the most environmentally fragile of all the sites considered. It will force people out of their homes. It will devalue low density residential properties all around it. It will drastically effect the viability of Culp Arbor. You know all the objections. So does Durham Planning. It's director and at least one lead planner agree that Farrington Road is unacceptable. If you all really think a ROMF should be no problem, why not put it in the middle of your new pet project: Leigh Village? I bet there's no good answer to that question. Sincerely, [removed name, address, phone number]</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*The Leigh Village Station area has been identified by the City and County of Durham as a primary area in the City to receive both jobs and housing growth in the next 20-30 years. A ROMF location in this area would be inconsistent with local transit oriented development planning. Furthermore, Triangle Transit did an evaluation of the area around Leigh Village for possible ROMF. In order for a ROMF to function properly it requires a runaround track within the site itself with lead tracks tying into the mainline in each direction. The lead tracks require a cross-over beyond the turnout in order to get the trainset from one track to another. Both turnout and cross-over require a tangent within*

DEIS section 8.2.2  
 DEIS section 8.2.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 22

*the LRT alignment. The problem is that although a site might be available to situate the ROMF the nearest tangent to it is 3500' north and 1500' to the south. In both directions at-grade crossings exist and in the southern direction the USACE property would be involved.*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS). Triangle Transit has looked at the possibility of the utilizing the former Herald Sun property as potential ROMF location. However, site itself is only about 8 acres, it is estimated the ROMF will require 20-25 acres. Linking the Pepsi Plant site and Herald Sun site would prove technically infeasible due to the narrow width of the parcels bounded by Picket Park on the east and US 15-501 on the west as well as the parcel in between containing a USACE regulated stream and associated wetlands. Furthermore, grading issues (over 80 feet of elevation difference) between the two parcels would necessitate additional land requirements for trackwork, impacting several commercial sites.*

First Name	Last Name	Comment
Susan	Erickson	Hello,Rumor has it that you will soon be meeting with City Council members to discuss rezoning Farrington Rd., in order to accommodate construction of the proposed Rail Operations Maintenance Facility (ROMF). I understand that in order to construct the ROMF at the proposed site, the zoning would need to be changed from RS-20 (Residential Suburban-20) to IL (Industrial Light). At present, except for a few office buildings and a church near the intersection of Hwy 54 and Farrington Rd., the remainder is purely residential. I believe that the Durham Comprehensive Plan for future land use has designated this site for Commercial and Office Development. Although I would prefer that zoning remain RS-20, office development would be more acceptable than industrial.The ROMF will operate 24 hours a day, 7 days per week. Trains will enter and exit into the facility at street level with a buffer of 50 - 60 feet between it and Farrington Rd. In my opinion, this is hardly a buffer! Go Triangle did admit that there will be a significant amount of noise from the trains (screeching of metal against metal, bells, whistles, and operation of machinery). This noise will be heard not only by the residents of the retirement villas located directly across the street, but also by surrounding neighborhoods, and an elementary school which is located 1/4 mile from the site. The ROMF is nothing more than a rail yard that is aesthetically unappealing.Would you want this in your backyard?Leigh Village has also been selected as a possible site. I also oppose this site for the same reasons.On March 13, 2015, Steven Medlin, Durham City-County Planning Director, sent a letter to Mr. Greg Northcutt, Director of Capital Development for Triangle Transit (now known as Go Triangle). This letter was in response to

the review of materials that had been presented by the Durham- Orange Light Rail Transit Technical Advisory Committee on March 3, 2015. In the letter, Mr. Medlin stated that Planning Staff would be unable to support the plan amendment to Farrington Rd. Mr. Medlin said, "We find an Industrial use to be incompatible with the existing land use pattern and/or designated future land uses". He also mentioned that in order to receive City of Durham services, including water and sewer, Triangle Transit would need to petition the City Council to annex the property because it is within Durham County's jurisdiction. I agree totally with Mr. Medlin and the Planning Staff's conclusions. I sincerely hope that you also agree. In reference to the Leigh Village site, Mr. Medlin said that the Durham Comprehensive Plan for future land use designates this site for Office and Low Density Residential. It is presently zoned as Residential Suburban-20. In order to build the ROMF at this location, an amendment would be needed to the Future Land Use Map of the Durham Comprehensive Plan to designate this site as Industrial. Furthermore, this site is also within Durham County's jurisdiction and would have to be annexed by the City of Durham in order to receive services. There is also a stream on both sites that might interfere with the plan to build the ROMF. As with the Farrington Rd. site, Mr. Medlin stated that the Planning Staff would likely be unable to support the Plan Amendment. Again, he said, "We find an industrial use to be incompatible with the existing land use pattern and/or designated future land uses". Again I agree, and hope that you do too. Although no one wants the ROMF in their neighborhood, other sites on Cornwallis Rd which is now zoned as Commercial General, and Alston Ave. which is zoned as Industrial Light, should be re-evaluated. I would also like to go on record as opposed to the entire Light Rail Plan in its present state, and at the present time. Our tax dollars could be put to better use by making improvements to existing bus transit, rather than a light rail that will be obsolete before construction is completed in 2025. My opinions are shared by many in my neighborhood and others which will be negatively impacted by the ROMF. Your vote will be noted and remembered at election time. Thank you for reading this email .

*Comment Responses*

*DEIS/Errata References*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 1.5.1.2  
 DEIS Section 3.2  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119 121 and 137

*The Triangle region has experienced extraordinary growth in recent years. Growth forecasts show population in the region increasing by 80 percent between 2010 and 2040, from 1.6 to 2.9 million.*

*Within the D-O Corridor, the population is projected to double and the highest expected travel intensity (number of trips per acre) in the Triangle region is predominately located in this corridor. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (ES-5). The D-O Corridor was identified as a high priority transit corridor as early as the 1990s due to the rapid growth in the corridor. The D-O Corridor includes the University of North Carolina at Chapel Hill (UNC), Duke University, downtown Durham, and North Carolina Central University (ES-2).*

First Name	Last Name	Comment
Susan	Erickson	I believe that members of several committees will be meeting soon to discuss the rezoning of Farrington Rd. in order to accommodate construction of the proposed Rail Operations Maintenance Facility (ROMF). I understand that to accomplish this, zoning will need to be changed from RS20 (Residential Suburban20) to IL (Industrial Light). At present, except for a few office buildings and a church located near the intersection of Hwy 54 and Farrington Rd., the remainder of Farrington Rd. is purely residential. The Durham Comprehensive Plan for future land use has designated this site for future commercial and office development. Although I would prefer that zoning remain RS20, office development would be more acceptable than industrial. In the Developmental Environmental Impact Study (DEIS), which is currently under review, Chapter 414 Table 4.02 stated that the NEPA preferred site (Farrington Rd.) is not consistent with the future land use plan for this site. In addition, a plan amendment to the

Durham Comprehensive Plan, and rezoning would be needed for both the Farrington Rd and Leigh Village sites. Rezoning would be required for an ROMF on Cornwallis Rd. (now zoned as Commercial General), but a comprehensive plan amendment would not be needed. Table 4.02 page 419 of the DEIS indicates that acquisition of 11 homes is anticipated at the Farrington Rd. location. Families who have lived there for generations will be forced to re-locate. I understand that the Alston Ave. site was eliminated because of some sort of conflict with other rail lines, and a few small businesses. However, the Durham Comprehensive Plan designates this area for Industrial development on the Future Land Use Map. Perhaps by extending the light rail tracks beyond the present ending point, a new location for the ROMF could be identified. Job opportunities would then be close to neighborhoods that need them. There will not be station on Farrington Rd., and there is presently no bus service, which creates a problem for workers who depend on public transportation. Why were no locations considered in Chapel Hill? The light rail will have a station on Mason Farm Rd. which already has a waste water treatment plan on it, why not consider a site on unused land there? The ROMF will operate 24 hours every day. Trains will enter and exit the facility at street level with a 50 foot buffer between it and Farrington Rd. In my opinion, this is not an acceptable buffer. Go Triangle has admitted that there will be a significant amount of noise from the trains (screeching of metal against metal, bells, whistles and machinery). This noise will be heard not only by the residents of the retirement villas located directly across the street, but also by surrounding neighborhoods, and an elementary school which is located 1/4 mile from the site. To create aesthetic appeal, Go Triangle has offered to plant "vegetative screening". A few low growing plants and trees will not be sufficient to mask the ROMF, which is nothing more than a rail yard that is aesthetically unappealing. Would you want this in your backyard? Leigh Village has also been selected as a possible site. I oppose this site for the same reasons. In the Developmental Environmental Impact Study (DEIS) which is currently under review, chapter 417 table 4.02, (summary of ROMF impacts) stated that moderate to severe noise impacts would occur. In addition, vibration impacts and ground borne noise impacts would also occur at the preferred NEPA site, which is Farrington Rd. On March 13, 2015, Steven Medlin, Durham City/County Planning Director, sent a letter to Mr. Greg Northcutt, Director of Capital Development for Triangle Transit (now known as Go Triangle). This letter was in response to the review of materials that had been presented by the Durham-Orange Light Rail Transit Technical Advisory Committee on March 3, 2015. In the letter, Mr. Medlin stated that Planning Staff would be unable to support the plan amendment to Farrington Rd. Mr. Medlin said, "We find an Industrial use to be incompatible with the existing land use pattern and /or designated future land uses". He also mentioned that in order to receive City of Durham services, including water and sewer, Triangle Transit would need to petition the City Council to annex the property because it is within Durham County's jurisdiction. Regarding the Leigh Village site, Mr. Medlin stated that the Durham Comprehensive Plan for future land use designates this site for Office and Low Density Residential. It is presently zoned as Residential Suburban 20. As with the Farrington Rd. site, Mr. Medlin stated "We find an industrial use to be incompatible with the existing land use pattern and/or designated future land uses". I agree with both of the decisions, and hope that you will too. Thank you for reading this email. Susan Erickson

*Comment Responses*

*DEIS/Errata References*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making*

DEIS section 4.1.4.1  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95, 103, 104, 110,

**D-O LRT FEIS / ROD**



preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning.It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design.During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process.

First Name	Last Name	Comment
Susan	Erickson	<p>I am submitting another reason to choose the "NO BUILD" alternative.LIGHT RAIL IS INEFFICIENTBased on literature from Go Triangle, it will take approximately 45 minutes for a light rail train traveling at the maximum speed of 24 miles per hour to complete the 17 mile route from UNC Hospitals to East Alston Ave. in Durham. However, this means time spent on the train, not time getting to the nearest train station. Unless one plans to live in one of the densely populated communities that are planned near some, but not all stations, a rider will need to take a bus, drive a car, or walk to the station that is nearest to their home. If driving by car, time will be needed to find a parking space in one of the park and ride lots. However, not all stations will have a park and ride lot! Wait times for trains will depend on the time of day. During morning and evening commute hours, wait times of 10 minutes will be the norm. At all other times, the wait will be 20 minutes. Another consideration will be that once the rider arrives at the station closest to his or her final destination, it might be necessary to walk a long distance, or wait to transfer to a bus to reach their journey's end. Simply put, Light Rail travel will not significantly reduce transit times for commuters who currently use the bus, and in some cases, it could actually increase the time. However, for commuters who presently use their cars to reach a planned destination along the planned route, a longer and slower commute would be expected by switching to Light Rail.Americans have had a love affair with their cars since the first Model T. I do not think that commuters will abandon their cars for an ugly, bulky snail train!LIGHT RAIL IS INFLEXIBLELight Rail trains are inflexible modes of transportation because for movement, they depend upon fixed steel rails. Once the train route is planned, and the rail is laid, the route cannot be easily or inexpensively relocated, which renders the entire system resistant to change. If an additional route were to be added at a future date, it might be impossible to accomplish because of existing permanent structures on the planned route. Light Rail does not have the flexibility to serve large neighborhoods, just a select few.Compare this to a bus system that can be easily changed to serve many neighborhoods rather than a few. For example, if a particular bus route proved to be underused, service to that route could be decreased or eliminated. If an underserved neighborhood is identified, or a new neighborhood were to be constructed, new bus routes could be added. Also, more buses and</p>

increased frequency could be added to busy routes, and during busy commute times. These options are possible for buses, but not for trains. Another fact to consider is that trains require a 50 foot wide path for tracks. Bus lanes require 12 feet. Four bus lanes can easily fit into one Light Rail Track.

*Comment Responses*

*DEIS/Errata References*

*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours.*

DEIS section ES-5  
 DEIS section 1.5.1.2  
 DEIS section 3.2  
 DEIS Figure 1.5-2

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com> As noted in the DEIS Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS).*

First Name	Last Name	Comment
Susan	Erickson	I request that a "NO Build" alternative be pursued for the following reason: SOCIAL JUSTICE A large portion of the poor and working poor depend upon public transportation. It appears that many of the bus routes that currently serve these neighborhoods will be eliminated. Those citizens will be forced to ride the Light Rail, but will need transportation to get to the nearest rail station. A flexible bus service will be needed, but is not presently part of GoTriangle's plan. In fact, some sections of East Alston Ave. in Durham, which is a low income, minority, transit dependent community, will not be served. Furthermore, rail service will not extend to NCCU and Durham Tech. High density "compact housing" developments are planned. However, downtown Durham is presently becoming

gentrified, and is already attracting young, upwardly mobile professionals who will be able to afford expensive condos and apartments that will be built near downtown. This will cause displacement of poor and working class residents. It is not entirely clear if affordable housing will be offered to those who will be "priced out" of their neighborhoods. The materials and presentations from Go Triangle, as well as routes that are planned for the DOLRT, suggest that they are not concerned about our least advantaged citizens. Despite the fact that these same citizens are paying a disproportionate amount of their income due to the increased sales tax to finance the project, they are NOT the ones that are targeted to be served. One of Go Triangle's many selling points is that as a result of the DOLRT, new neighborhoods will be created around some of the rail stations. My counterpoint is that many new neighborhoods have sprouted in Durham and Chapel Hill in the last 10 years without a Light Rail. In fact, one of those neighborhoods (Meadowmont) had a Light Rail plan written into the development plan for the community. When residents learned that the DOLRT would go through their neighborhood, the majority of residents rallied against it. They won, and the Light Rail route was changed. So much for Go Triangle's claim that everyone will want to live in one of the densely populated neighborhoods near the rail stations! I suggest that affordable housing be built in neighborhoods that desperately need it. Include reliable bus or rapid bus transit stops at convenient locations. Equal Justice for all.

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project. If the proposed D-O LRT Project is built, it is expected that it would be funded by a combination of federal, state, and local funds. Dedicated local funding for bus and rail transit investments was identified when citizens of both Durham and Orange counties passed referenda to increase sales taxes to support transit improvements. (Effective April 1, 2013, Durham and Orange counties adopted resolutions to levy an additional one-half cent local sales tax to be used only for public transportation systems.) Established federal and regional funding sources means no one group in the D-O Corridor or the region would receive a disproportionate share of the financial burden of the capital and operating and maintenance costs relative to the benefits received. No financial equity considerations would be raised by the project, either in terms of the source of subsidy or the level of fare payments required of passengers (section 8.3.2). Pursuant to the Orange County and Durham County Bus-Rail Integration Plans, an adequate share of local sales tax funds is being dedicated to the cost of the LRT system.*

DEIS chapter 5  
 DEIS section 4.1  
 DEIS section 4.1.2.2  
 DEIS section 8.3.1  
 DEIS section 8.3.2  
 DEIS section 9.2.5  
 DEIS Table 5.3-1  
 DEIS Errata 58, 64, and 126

*The extension past Alston Avenue, to Durham Tech, or NCCU are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate*

*NEPA process (section 9.2.5). Detailed analysis of engineering impacts and costs of potential future extensions is not required as part of Project Development for the D-O LRT Project. An extension would be a collaborative study process with the local governments and the FTA. The combined FEIS/ROD will reflect that the alignment of the NEPA Preferred Alternative would not preclude future extensions, however extensions are not a part of this project.*

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2). As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income. This will be reflected in the combined FEIS/ROD. The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.*

First Name	Last Name	Comment
Erickson		<p>I request the "NO BUILD " alternative for the following reason: SAFETY ISSUES AND ADVERSE IMPACTS According to Go Triangle's plan, the DOLRT will have 42 at grade crossings that will cause threats to the safety of pedestrians, cyclists, vehicles, and school buses. In addition traffic delays at these crossings will cause immense traffic delays. Also emergency vehicles would be delayed, and this could cause unnecessary death and destruction. In an emergency, every second counts. Another consideration is that access to multiple neighborhoods will be compromised due to rail crossings at the entrance to those neighborhoods. In the DEIS Section 4.12, Safety and Security, the impacts for the NEPA Alternative were described as, "Minimal impacts anticipated: potential safety hazards at stations, park and ride lots, park and ride facilities, impacts to police, security, and emergency service operations. Mitigation measures consisted of "use of police, private security, lighting, security cameras, pedestrian crossings, pedestrian bridges and underpasses, road surface markings, and public education programs". SIGH! Another negative impact will be a decline in property values. Contrary to what Go Triangle has stated, property values in neighborhoods in close proximity to the DOLRT route or ROMF will decline significantly due to noise, structural damage due to ground vibration, ugly visual and aesthetic conditions, and rezoning from residential to mixed use or industrial. In DEIS section 4.1 Land use and Zoning, the impacts for the NEPA Alternative stated, "No impacts anticipated: consistent with local planning efforts." For Mitigation, it stated, "Impacts are considered beneficial and as such, no mitigation would be required.. This is absurd. Rezoning will be required on Farrington Rd. from residential to Industrial, and other neighborhoods that will be rezoned from residential to mixed use. In DEIS section 4.4 Visual and Aesthetic, the impacts for the NEPA Alternative range from low to moderate high. Mitigations included create aesthetic guidelines, plant vegetation, use source shielding in exterior lighting, provide landscaping and aesthetic treatment when in close proximity to residences with aerial structures, and Art-in-Transit opportunities ( what does this mean?) I suspect that they are suggesting graffiti art which is found wherever there is a rail line. These statements are words without substance, which means they will do nothing. In DEIS Section 410</p>

Noise and Vibration, The impacts at the NEPA Alternative noted one severe noise impact, and 4 moderate noise impacts, and 13 ground borne noise impacts. Mitigation measures included detailed vibration analysis, noise mitigation measures such as elevated track barriers, track supports, resilient fasteners, and floating slabs. I'm surprised that they didn't suggest that we buy earplugs, which would probably do more than what was suggested!

*Comment Responses*

*DEIS/Errata References*

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

DEIS section 3.2  
DEIS section 3.2.3

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signaled or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. Furthermore, Triangle Transit facilities are designed to comply with the Americans with Disabilities Act (ADA) to improve safety and ease of movement for disabled individuals. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). The proposed D-O LRT Project would be designed and operated in accordance with Triangle Transit's current safety and security plans. These plans would be updated to include specific requirements for the NEPA Preferred and Project Element alternatives, reviewed by FTA, and submitted through the NCDOT State Safety Oversight process for approval prior to revenue service. Triangle Transit uses Crime Prevention Through Environmental Design (CPTED) concepts to assist in deterring criminal activity in the design of its facilities. The basic principle of CPTED is to increase natural surveillance by providing good sight-lines and avoiding conditions such as tall landscaping that could potentially provide individuals with areas to hide or obstruct mechanical methods of surveillance, such as closed-circuit television (CCTV) cameras.*

DEIS section 3.6  
DEIS section 4.10.4  
DEIS appendix K24  
DEIS appendix L  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 36 and 108

*DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would*



*result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts. Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24. As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF.*

First Name	Last Name	Comment
Susan	Erickson	<p>CHOOSE THE "NO BUILD ALTERNATIVE There were only two alternatives that were evaluated for transit improvements. As a reminder, transit improvements, not Light Rail, is what voters were asked to approve or disapprove. The "No Build" Alternative would build "only those highway and transit improvements without Light Rail". The "Build" Alternate would build only Light Rail. As described in DEIS chapter 2, Bus Rapid Transit (BRT), was not studied as an alternative. My question is, Why Not? Voters voted for transit improvements, and BRT would be included in that category. Light Rail would not. To date, Go Triangle has spent approximately \$40 million taxpayer dollars on studies and planning. So far, the entire process has been fraught with issues ranging from route problems, train speed, escalating costs, ridership, growth patterns, and inaccurate statements about the content of the 2011 ballot. Escalating public opposition, the state's cap on funding, and Wake County's decision to opt out of the Light Rail plan, are all indications of a plan that is destined to fail. We need to put the brakes on Light Rail (LRT), switch gears, and consider the "No Build" alternative, thus eliminating a Light Rail system. In order to determine alternatives to LRT, a new assessment of Durham-Orangetransit needs should be conducted by an independent entity with no vested interest in LRT, or ties to local politicians. Wake County did this, and as a result, LRT was not considered. Instead, BRT and improvements to existing rail lines were chosen, and are in the planning stage. In fact, Chapel Hill is planning high capacity BRT with dedicated bus lanes, for the MLK Blvd (formerly known as Airport Rd.) corridor as a way to augment the current transit system. Why not plan this for the 15- 501 and Hwy 54 corridors, and tie in with routes planned using BRT instead of LRT? Bus Rapid Transit is a high quality, high capacity, flexible rapid transit system that improves transportation at a significantly lower cost. One of the major advantages of BRT, instead of DOLRT, is that it is more flexible, and can be easily integrated into our overall transportation infrastructure. Other advantages include the fact that BRT requires a 12 foot wide right of way for a bus lane, versus LRT that consumes a 50 foot wide right of way. Also, LRT requires an overhead electrification infrastructure to distribute the electricity that is needed to fuel the light rail. Further restrictions like limits on how steep rails can be, and speed limitations when temperatures rise above 90 degrees F, are impediments that do not apply to BRT. New "clean" technology, such as Wireless Induction Technology, is already being used to power BRT in several countries in Europe and Asia, thus eliminating the constraints of ugly steel rails and overhead power lines. Another added benefit of BRT is that NO ROMF would need to be built on 25 acres of residential property. Bus maintenance facilities require less space, emit less noise and vibration, and have the flexibility to be built in a place that is already zoned as industrial. Existing plans for construction of new</p>

commercial development, and high density neighborhoods could easily be integrated into a plan for BRT. Let's switch from a Light Rail plan that uses obsolete technology, and replace it with a BRT that uses 21st century technology.

*Comment Responses*

*DEIS/Errata References*

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com> Light rail was chosen for the D-O Corridor because this technology will:*

- Connect residential, educational, and major employment centers throughout the corridor;*
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;*
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;*
- Provide solid anchors needed to shape land use along this critical corridor; and,*
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).*

*As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.*

DEIS chapter 5  
DEIS section 2.2.1  
DEIS section 3.1.4  
DEIS section 8.4  
DEIS Table 5.3-1

*Enhancements to bus service are part of the Durham County and Orange County Bus and Rail Investment Plans (BRIPs). Both BRIPs were developed and approved by county commissioners before the successful sales tax referenda in 2011 and 2012, and both have guided the provision of new bus service in the two counties over the past few years. For more information about provisions for improved bus service under the BRIPs, please see <http://ourtransitfuture.com/durham-county-bus-and-rail-investment-plan/>. As noted in DEIS Table 5.3-1, the revenue from the half-cent sales tax in Durham County for public transportation is being used to fund project development for the proposed D-O LRT Project and to implement improvements to DATA bus services. In addition, the sales tax will be used to support the design and construction of Neighborhood Transit Centers and make improvements to bus stops and pedestrian/bicycle infrastructure along Transit Emphasis Corridors in Durham. When the light rail opens, funds for bus services made redundant by rail operations will also be used to improve connections across Durham to newly opened rail stations. As noted in DEIS section 3.1.4, prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a*

First Name	Last Name	Comment
Susan	Erickson	<p>Hello, I was told that you are the Environmental Protection Specialist for region four. I am writing to voice several questions and concerns about the DEIS that is presently in the comment period.</p> <p>Go Triangle has told the public that all comments must be submitted to them by mail, email, in person at the public hearings, or through the DOLRT project website. I understand that there is a process, and that the FTA cannot manage monitoring, receiving, and sorting hundreds of comments from the public. However, Go Triangle has stated that all comments, regardless of language or channel of collection will be CONSIDERED. We were also told that only comments "OF SUBSTANCE" would be forwarded to regulatory agencies. During a conversation with one of Go Triangle's representatives, I asked for clarification and validation of those two statements. He said that all comments would be sorted and reviewed. I asked who would be the reviewers, and was told that Go Triangle employees would be responsible. Then, I asked if ALL comments would be forwarded to the regulatory agencies, and was told, "NO", just comments of substance.</p> <p>I, and many other residents, find this offensive. We have all spent many hours to become informed about all aspects of the DOLRT, and additional hours to compose thoughtful and meaningful comments. In my opinion, they are all "of substance". Furthermore, we do not trust Go Triangle. We know that they are in the business of selling trains, and they have demonstrated that they will take whatever measures are needed to get the train rolling. We fear that only comments that are in favor of building the DOLRT will be forwarded to you. Many are opposed and voted for the "NO BUILD" alternative. We are afraid that our voices will not be heard.</p> <p>Go Triangle loves to broadcast the myth that the majority of Durham and Orange voters endorsed the light rail project when they approved the 1/2% sales tax increase that was added to the 2011 ballot, and they are using this as a mandate to build. The truth is that the majority of registered voters in both counties did not go to the polls. The turnout was approximately 17% in both counties. Furthermore, the wording on the ballot was deceptive. It asked voters to approve a 1/2% sales tax increase to fund improvements to transit, It did not say, "LIGHT RAIL". We also have reservations about the validity of the DEIS. I was able to learn, that Go Triangle chose and financed URS/AECOM to conduct the DEIS. When I visited their website, it did not say that they had expertise in environmental impact studies.</p> <p>The results, in my opinion, were biased. For example, I found it interesting that for most of the NEPA preferred alternatives, they found mostly "low impact" or "no impact", and "no mitigation" required for most categories. Do any of the regulatory agencies send a qualified human being to conduct an onsite review of the facts in the DEIS to verify the accuracy of the data? It looks great on paper, but our wetlands, creeks, floodplains, ecosystems, wildlife, animal habitats, trees and birds depend upon the accuracy of these results in order to survive. I request that a new on site review be performed by an entity with no vested interest in the DOLRT. Please tell me what we can do to insure that our voices will be heard by all regulatory agencies that will be involved in the approval process. Thank you for your time. Susan Erickson</p>

described in DEIS chapter 9, Triangle Transit staff will be compiling questions and comments about the project. Triangle Transit will not respond directly to comments, but will address substantive comments in the combined Final Environmental Impact Statement (FEIS)/Record of Decision (ROD), as stated on <http://ourtransitfuture.com/deis/>. All comments received will be reviewed and provided to the FTA.

A list of preparers is provided as Appendix C of the DEIS. The list includes the names, roles, and educational qualifications of all members of the team involved in the data collection, analysis, and writing required to compile the DEIS. URS/AECOM, a company consulting with Triangle Transit, prepared the technical information and environmental impact analysis for the Project on behalf of the Federal Transit Administration as well as GoTriangle. The DEIS was prepared in accordance with the National Environmental Policy Act (NEPA), as well as Moving Ahead for Progress in the 21st Century Act (MAP-21); Environmental Impact and Related Procedures of 1987 [23 Code of Federal Regulations (CFR) § 771]; Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 [49 U.S.C. § 303] and [23 CFR § 774]; and Section 404 of the Clean Water Act of 1977 [33 U.S.C. § 1251], among others. A legal sufficiency review of the DEIS was also conducted by the FTA and Triangle Transit.

First Name	Last Name	Comment
Susan	Erickson	<p>Hello, I was told that you are the Environmental Protection Specialist for region four. I am writing to voice several questions and concerns about the DEIS that is presently in the comment period.</p> <p>Go Triangle has told the public that all comments must be submitted to them by mail, email, in person at the public hearings, or through the DOLRT project website. I understand that there is a process, and that the FTA cannot manage monitoring, receiving, and sorting hundreds of comments from the public. However, Go Triangle has stated that all comments, regardless of language or channel of collection will be CONSIDERED. We were also told that only comments "OF SUBSTANCE" would be forwarded to regulatory agencies. During a conversation with one of Go Triangle's representatives, I asked for clarification and validation of those two statements. He said that all comments would be sorted and reviewed. I asked who would be the reviewers, and was told that Go Triangle employees would be responsible. Then, I asked if ALL comments would be forwarded to the regulatory agencies, and was told, "NO", just comments of substance.</p> <p>I, and many other residents, find this offensive. We have all spent many hours to become informed about all aspects of the DOLRT, and additional hours to compose thoughtful and meaningful comments. In my opinion, they are all "of substance". Furthermore, we do not trust Go Triangle. We know that they are in the business of selling trains, and they have demonstrated that they will take whatever measures are needed to get the train rolling. We fear that only comments that are in favor of building the DOLRT will be forwarded to you. Many are opposed and voted for the "NO BUILD" alternative. We are afraid that our voices will not be heard.</p> <p>Go Triangle loves to broadcast the myth that the majority of Durham and Orange voters endorsed the light rail project when they approved the 1/2% sales tax increase that was added to the 2011 ballot, and they are using this as a mandate to build. The truth is that the majority of registered voters in both counties did not go to the</p>

polls. The turnout was approximately 17% in both counties. Furthermore, the wording on the ballot was deceptive. It asked voters to approve a 1/2% sales tax increase to fund improvements to transit, It did not say, "LIGHT RAIL". We also have reservations about the validity of the DEIS. I was able to learn, that Go Triangle chose and financed URS/AECOM to conduct the DEIS. When I visited their website, it did not say that they had expertise in environmental impact studies.

The results, in my opinion, were biased. For example, I found it interesting that for most of the NEPA preferred alternatives, they found mostly "low impact" or "no impact", and "no mitigation" required for most categories. Do any of the regulatory agencies send a qualified human being to conduct an onsite review of the facts in the DEIS to verify the accuracy of the data? It looks great on paper, but our wetlands, creeks, floodplains, ecosystems, wildlife, animal habitats, trees and birds depend upon the accuracy of these results in order to survive. I request that a new on site review be performed by an entity with no vested interest in the DOLRT. Please tell me what we can do to insure that our voices will be heard by all regulatory agencies that will be involved in the approval process. Thank you for your time. [name removed]

### *Comment Responses*

### *DEIS/Errata References*

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DEIS chapter 9  
DEIS appendix C

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*scientific and regulatory consulting staff--a number of whom have direct regulatory agency career experience. Our permitting professionals guide a project from site selection to final agency approval and licensing. We resolve impact assessment and permitting issues associated with air quality, water, wetlands, cultural issues, public health, social impact, and other stakeholder concerns. Our thorough approach has contributed to project success across a broad range of government agencies around the world for numerous energy (oil and gas, wind, solar, tidal), industrial, waste disposal, utilities, mining entities and real-estate developers.*

First Name	Last Name	Comment
Susan	Erickson	<p>Hello, I was told that you are the Environmental Protection Specialist for region four. I am writing to voice several questions and concerns about the DEIS that is presently in the comment period.</p> <p>Go Triangle has told the public that all comments must be submitted to them by mail, email, in person at the public hearings, or through the DOLRT project website. I understand that there is a process, and that the FTA cannot manage monitoring, receiving, and sorting hundreds of comments from the public. However, Go Triangle has stated that all comments, regardless of language or channel of collection will be CONSIDERED. We were also told that only comments "OF SUBSTANCE" would be forwarded to regulatory agencies. During a conversation with one of Go Triangle's representatives, I asked for clarification and validation of those two statements. He said that all comments would be sorted and reviewed. I asked who would be the reviewers, and was told that Go Triangle employees would be responsible. Then, I asked if ALL comments would be forwarded to the regulatory agencies, and was told, "NO", just comments of substance.</p> <p>I, and many other residents, find this offensive. We have all spent many hours to become informed about all aspects of the DOLRT, and additional hours to compose thoughtful and meaningful comments. In my opinion, they are all "of substance". Furthermore, we do not trust Go Triangle. We know that they are in the business of selling trains, and they have demonstrated that they will take whatever measures are needed to get the train rolling. We fear that only comments that are in favor of building the DOLRT will be forwarded to you. Many are opposed and voted for the "NO BUILD" alternative. We are afraid that our voices will not be heard.</p> <p>Go Triangle loves to broadcast the myth that the majority of Durham and Orange voters endorsed the light rail project when they approved the 1/2% sales tax increase that was added to the 2011 ballot, and they are using this as a mandate to build. The truth is that the majority of registered voters in both counties did not go to the polls. The turnout was approximately 17% in both counties. Furthermore, the wording on the ballot was deceptive. It asked voters to approve a 1/2% sales tax increase to fund improvements to transit, It did not say, "LIGHT RAIL". We also have reservations about the validity of the DEIS. I was able to learn, that Go Triangle chose and financed URS/AECOM to conduct the DEIS. When I visited their website, it did not say that they had expertise in environmental impact studies.</p> <p>The results, in my opinion, were biased. For example, I found it interesting that for most of the NEPA preferred alternatives, they found mostly "low impact" or "no impact", and "no mitigation" required for most categories. Do any of the regulatory agencies send a qualified human being to conduct an onsite review of the facts in the DEIS to verify the accuracy of the data? It looks great on paper, but our wetlands, creeks, floodplains, ecosystems, wildlife, animal habitats, trees and birds depend upon the accuracy of these results in order to</p>

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DEIS chapter 9  
DEIS appendix C

*In accordance with industry standard practices, Triangle Transit hired a engineering and environmental consulting team led by AECOM to assist with aspects of the project development including the environmental analysis and completion of the DEIS. A list of preparers is provided as Appendix C of the DEIS. The list includes the names, roles, and educational qualifications of all members of the team involved in the data collection, analysis, and writing required to compile the DEIS. Information regarding AECOM's technical services can be found at: <http://www.aecom.com/What+We+Do/Environment/Practice+Areas/Impact+Assesment+and+Permitting.com/What+We+Do/Environment/Practice+Areas/Impact+Assesment+and+Permitting>"By anticipating and addressing permit requirements early on in project design, we help implement a permitting strategy, development schedule, and mitigation plans that expedite permit acquisition and compliance. Expert regulatory negotiations throughout the project help resolve technical and external stakeholder issues and develop favorable permit conditions while achieving the ultimate goal of maintaining project time and cost schedules, and ensuring compliance. Working with regulatory agencies, for example, the Bureau of Land Management in the US, we have completed over 30 major Environmental Impact Statements for energy and industrial development projects over the last 10 years alone. AECOM draws on the skills and seamless delivery capability of our highly experienced approval and permitting processes, as well as our technical, engineering, planning, scientific and regulatory consulting staff--a number of whom have direct regulatory agency career experience. Our permitting professionals guide a project from site selection to final agency approval and licensing. We resolve impact assessment and permitting issues associated with air quality, water, wetlands, cultural issues, public health, social impact, and other stakeholder concerns. Our thorough approach has contributed to project success across a broad range of government agencies around the world for numerous energy (oil and gas, wind, solar, tidal), industrial, waste disposal, utilities, mining entities and real-estate developers.*

First Name	Last Name	Comment
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I believe that members of several committees will be meeting soon to discuss the rezoning of Farrington Rd. in order to accommodate construction of the proposed Rail Operations Maintenance Facility (ROMF). I understand that to accomplish this, zoning will need to be changed from RS-20 (Residential Suburban-20) to IL (Industrial Light). At present, except for a few office buildings and a church located near the intersection of Hwy 54 and Farrington Rd., the remainder of Farrington Rd. is purely residential. The Durham Comprehensive Plan for future land use has designated this site for future commercial and office development. Although I would prefer that zoning remain RS-20, office development would be more acceptable than industrial. In the Developmental Environmental Impact Study (DEIS), which is currently under review, Chapter 4-14 Table 4.0-2 stated that the NEPA preferred site (Farrington Rd.) is not consistent with the future land use plan for this site. In addition, a plan amendment to the Durham Comprehensive Plan, and rezoning would be needed for both the Farrington Rd and Leigh Village sites. Rezoning would be required for an ROMF on Cornwallis Rd. (now zoned as Commercial General), but a comprehensive plan amendment would not be needed. Table 4.0-2 page 4-19 of the DEIS indicates that acquisition of 11 homes is anticipated at the Farrington Rd. location. Families who have lived there for generations will be forced to re locate. I understand that the Alston Ave. site was eliminated because of some sort of conflict with other rail lines, and a few small businesses. However, the Durham Comprehensive Plan designates this area for Industrial development on the Future Land Use Map. Perhaps by extending the light rail tracks beyond the present ending point, a new location for the ROMF could be identified. Job opportunities would then be close to neighborhoods that need them. There will not be station on Farrington Rd., and there is presently no bus service, which creates a problem for workers who depend on public transportation. Why were no locations considered in Chapel Hill? The light rail will have a station on Mason Farm Rd. which already has a waste water treatment plan on it, why not consider a site on unused land there? The ROMF will operate 24 hours every day. Trains will enter and exit the facility at street level with a 50 foot buffer between it and Farrington Rd. In my opinion, this is not an acceptable buffer. Go Triangle has admitted that there will be a significant amount of noise from the trains (screeching of metal against metal, bells, whistles and machinery). This noise will be heard not only by the residents of the retirement villas located directly across the street, but also by surrounding neighborhoods, and an elementary school which is located 1/4 mile from the site. To create aesthetic appeal, Go Triangle has offered to plant "vegetative screening". A few low growing plants and trees will not be sufficient to mask the ROMF, which is nothing more than a rail yard that is aesthetically unappealing. Would you want this in your backyard? Leigh Village has also been selected as a possible site. I oppose this site for the same reasons. In the Developmental Environmental Impact Study (DEIS) which is currently under review, chapter 4-17 table 4.0-2, (summary of ROMF impacts) stated that moderate to severe noise impacts would occur. In addition, vibration impacts and ground borne noise impacts would also occur at the preferred NEPA site, which is Farrington Rd. On March 13, 2015, Steven Medlin, Durham City- County Planning Director, sent a letter to Mr. Greg Northcutt, Director of Capital Development for Triangle Transit (now known as Go Triangle). This letter was in response to the review of materials that had been presented by the Durham-Orange Light Rail Transit Technical Advisory Committee on March 3, 2015. In the letter, Mr. Medlin stated that Planning Staff would be unable to support the plan amendment to Farrington Rd. Mr. Medlin said, "We find an Industrial use to be incompatible with the existing land use pattern and /or designated future land uses". He also mentioned that in order to receive City of Durham services, including water and sewer, Triangle Transit would need to petition the City Council to annex the property because it is within Durham County's jurisdiction. Regarding the Leigh Village site, Mr. Medlin stated that the Durham Comprehensive Plan for future land use designates this site for Office and Low Density Residential. It is presently zoned as Residential Suburban-20. As with the Farrington Rd. site, Mr. Medlin stated "We find an industrial use to be incompatible with the existing land use pattern and/or designated future land uses". I agree with both of the decisions, and hope that you will to. Thank you for reading this.

Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process.

DEIS section 4.1.4.1  
 DIES section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119 121 and 137

First Name	Last Name	Comment
Susan	Erickson	I request the "NO BUILD" Alternative for the DOLRT. DEIS Chapter 4, Page 11, Table 4.01, Section 4.1 LAND USE AND ZONING NEPA Preferred Alternative states, "No impacts anticipated". "Consistent with local planning efforts". I believe that this is a false statement. Along the route, there are many sections that are zoned as Residential and Residential Suburban. Rezoning will be required in order to accommodate commercial and high density developments that are planned for locations along the route of the train, and near the planned stations. Regarding Leigh Village, the Durham Comprehensive Plan for future land use, has designated this site for Office and Low Density Residential. Rezoning will be required. The potential mitigation measures in the DEIS stated that none would be required because the impacts are considered beneficial. My question is, beneficial for whom? The DOLRT will disrupt neighborhoods that are now low density single family residences, and surround them with high density and commercial developments. Property values will surely decrease. DEIS Chapter 4, Page 11, Table 4.01, Section 4.2 SOCIO ECONOMIC AND DEMOGRAPHIC CONDITIONS NEPA Preferred Alternative states, "No adverse impacts anticipated". "Expected concentrated populations, households, and employment around LRT stations". I disagree with this conclusion. Gentrification and reduction in affordable housing is an expected side effect of the DOLRT. Properties along the route that are presently inhabited by working class,

and working poor families, will be negatively affected. Many will be "priced out" of their neighborhoods. Since affordable housing is not part of the plan, where will these families live? DEIS Chapter 4, Page 12, Table 4.01, Section 4.3 NEIGHBORHOODS AND COMMUNITY RESOURCES NEPA Preferred Alternative states, "Impacts to access and mobility in community resources in some places". "Improves mobility and access for communities and community facility". The two statements seem to be contradictory. In reality, neighborhoods will be disrupted, and entry into most neighborhoods along the route will be compromised. Established vehicular and pedestrian traffic patterns will be disturbed, and established bus routes will be impaired. Regarding Potential Mitigation Measures, Creekside Elementary School which is located 1/4 mile from the proposed ROMF site, was not mentioned. Noise, safety concerns, and disruptions for school buses were not addressed. [REMOVED NAME]

*Comment Responses*

*DEIS/Errata References*

*Regional and local planning activities encourage more intensified growth in the region, particularly in and around future transit stations. As compared to the No Build Alternative, the D-O LRT Project would result in a conversion of lower density land uses to higher density and mixed-use land uses, including retail, commercial, and residential development. However, this conversion is consistent with future land use plans. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. Information rezoning, can be found on page 8-16.*

DEIS section 3.2.3.2  
 DEIS section 4.1.4.1  
 DEIS section 4.12.4  
 DEIS section 8.2.2.1  
 DEIS Table 3.2-3  
 DEIS Table 4.2-4  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-1  
 DEIS Errata 64

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2). As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs. In addition to Triangle Transit's efforts*



*with the local jurisdictions to develop affordable housing policies, any privately-owned businesses that are displaced by the project will be compensated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and its implementing regulations (42 U.S.C. § 4601 et seq.; 49 C.F.R. Part 24)The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.Although the D-O LRT will generally improve access to communities and community facilities, there are isolated areas where the project would limit access. As a result, in the DEIS Triangle Transit subdivided the corridor into smaller geographic areas to allow it to reflect the limited negative impacts the project may have in select areas. In general, the alignment follows existing major transportation corridors, rather than subdividing existing communities minimizing the adverse impacts of the access and mobility in/to communities and community resources.*

*No noise impacts are anticipated at the ROMF. Mitigation strategies for the impacts of the ROMF Alternatives will be site-specific. Triangle Transit would mitigate visual effects of the project by using interdisciplinary design teams to create aesthetic guidelines and standards in the design of project elements; Integrating facilities with area redevelopment plans; Planting appropriate vegetation in and adjoining the project right-of-way; Replanting remainder parcels; Using source-shielding in exterior lighting at ROMFs, stations, and auxiliary facilities; and Provide landscaping and aesthetic treatments when in close proximity to residences. See DEIS section 4.4.4. Triangle Transit will continue to coordinate with affected residents, businesses, and community facilities to identify strategies to minimize the effects of the selected ROMF Alternative. The combined FEIS/ROD will reflect that direct impacts to Creekside Elementary School are not anticipated due to the distance from the Farrington Road ROMF and existing vegetation.*

*No traffic impacts are anticipated as a result of the implementation of the Farrington Road ROMF. DEIS section 3.2.3.2 states with the NEPA Preferred Alternative, traffic operations at the intersections along Farrington Road would be similar to operations under the No Build Alternative, as listed in Table 3.2-3.As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design.During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process.It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the*

**D-O LRT FEIS / ROD**

surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. The SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.

First Name	Last Name	Comment
Susan	Erickson	<p>I request the "NO BUILD" Alternative for the following reasons DEIS Page 15, Table 4.01 Section 4.7 NATURAL RESOURCES NEPA Alternative stated that approximately 316 acres of habitat will be impacted, and that no significant adverse impacts to terrestrial or aquatic wildlife is anticipated. Furthermore, no significant impact to federal or state listed threatened or endangered species is anticipated. Mitigation measures included: *Avoidance of bisecting floodplain and bottomland habitat degrading the quality and relatively intact character of the natural heritage corridor. *Avoidance and minimization of impacts by consideration of alternative alignments. *Placement of piers outside of wetlands and streams to the greatest extent possible, and use of bottomless culverts. *Compensatory measures in consultation with the USACE and DWR *If construction takes place during nesting season for migratory birds, a nesting survey will be conducted. My comments: NEPA Alternative states that no significant impacts are anticipated. However, that does not mean that negative impacts will not occur! The wetlands are pristine and provide habitats for many species. Not all of those are threatened or endangered, but all are needed to preserve the natural balance and ecosystems in the wetlands. On several occasions, I have seen bald eagles, and many species of heron, and migratory birds. Perhaps no sightings of endangered species were seen during the survey, but they do exist in the wetlands. One of the mitigation measures states that if construction occurs during nesting season for migratory birds, a nesting survey will be conducted. Since construction will span a 10 year period, it will be impossible not to disturb nesting birds. What would be done as a result of this intended survey? Would Go Triangle stop construction, or would they post signs which say, "Notice to all migratory birds": "For your safety do not nest here"? Seriously, during and after construction, the DOLRT will have a negative impact on the wetlands, and all forms of wildlife that live there. I suggest that another independent study be conducted by an entity with no vested interest in the DOLRT, or the politicians and developers who will benefit from this ill fated project. If that is not possible, I suggest that qualified representatives from the EPA, USACE, NC Wildlife Game Lands, and FTA make an on site visit to verify the results of the DEIS, which I consider to be biased.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*DEIS section 4.7 discusses the natural resources located within the D-O Corridor, including wildlife and habitats, with a focus on ecologically-sensitive areas and contiguous expanses of undisturbed lands. It documents federal and state-listed threatened and endangered species (fauna, flora,*

DEIS section 4.7  
DEIS section 4.7.4.8  
DEIS Table 4.7-3

aquatic, and terrestrial). This section also identifies the potential effects to natural resources that would result from implementation of the alternatives under study in this DEIS. Where potential adverse effects are identified, efforts to avoid, minimize, or mitigate these effects through design modifications are also discussed. Additional detail regarding the natural resources located within the D-O Corridor is contained in appendix K21. Table 4.7-3 indicates the acreage of each biotic community that falls within the NEPA Preferred Alternative. Under the NEPA Preferred and Project Element Alternatives, no significant adverse impacts to terrestrial or aquatic habitat are anticipated. Under the NEPA Preferred Alternative, significant adverse impacts to terrestrial or aquatic wildlife are not anticipated. Limited wildlife disturbance would occur for the duration of the construction activities (DEIS section 4.16). Impacts to wildlife are expected to be limited after construction is completed. The NEPA Preferred Alternative is not anticipated to result in significant impacts to federal or state-listed threatened or endangered species, or their habitats. The purpose of a nesting survey would be to document the presence or absence of particular species during nesting seasons. Were nesting to be observed, measures could be incorporated to reduce effects of construction during nesting periods.

The Migratory Bird Treaty Act states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a federal permit issued in accordance with the Act's policies and regulations. Appropriate measures, including the following, will be taken to avoid adverse impacts on migratory birds. Between October 1 and February 15, the contractor would remove all old migratory bird nests from any structures that would be affected by the proposed project, and complete any necessary construction on existing bridges and/or vegetation clearing. In addition, the contractor would be prepared to prevent migratory birds from building nests between February 15 and October 1, per the Environmental Permits, Issues, and Commitments (EPIC) plan. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected birds, active nests, eggs, and/or young would be avoided. See DEIS section 4.7.4.8.

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First Name	Last Name	Comment
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D-O LRT FEIS / ROD

Susan

Erickson

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*Comment Responses*

*DEIS/Errata References*

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DEIS section 3.2.3.2  
 DEIS section 4.1.4.1  
 DEIS section 4.12.4  
 DEIS section 8.2.2.1  
 DEIS Table 3.2-3  
 DEIS Table 4.2-4  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-1  
 DEIS Errata 64

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these*

**D-O LRT FEIS / ROD**

*compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2). As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs. In addition to Triangle Transit's efforts with the local jurisdictions to develop affordable housing policies, any privately-owned businesses that are displaced by the project will be compensated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and its implementing regulations (42 U.S.C. § 4601 et seq.; 49 C.F.R. Part 24) The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing. Although the D-O LRT will generally improve access to communities and community facilities, there are isolated areas where the project would limit access. As a result, in the DEIS Triangle Transit subdivided the corridor into smaller geographic areas to allow it to reflect the limited negative impacts the project may have in select areas. In general, the alignment follows existing major transportation corridors, rather than subdividing existing communities minimizing the adverse impacts of the access and mobility in/to communities and community resources.*

*No noise impacts are anticipated at the ROMF. Mitigation strategies for the impacts of the ROMF Alternatives will be site-specific. Triangle Transit would mitigate visual effects of the project by using interdisciplinary design teams to create aesthetic guidelines and standards in the design of project elements; Integrating facilities with area redevelopment plans; Planting appropriate vegetation in and adjoining the project right-of-way; Replanting remainder parcels; Using source-shielding in exterior lighting at ROMFs, stations, and auxiliary facilities; and Provide landscaping and aesthetic treatments when in close proximity to residences. See DEIS section 4.4.4. Triangle Transit will continue to coordinate with affected residents, businesses, and community facilities to identify strategies to minimize the effects of the selected ROMF Alternative. The combined FEIS/ROD will reflect that direct impacts to Creekside Elementary School are not anticipated due to the distance from the Farrington Road ROMF and existing vegetation.*

*No traffic impacts are anticipated as a result of the implementation of the Farrington Road ROMF. DEIS section 3.2.3.2 states with the NEPA Preferred Alternative, traffic operations at the intersections*

**D-O LRT FEIS / ROD**



along Farrington Road would be similar to operations under the No Build Alternative, as listed in Table 3.2-3. As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. The SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.

First Name	Last Name	Comment
Susan	Erickson	I request the "NO BUILD" Alternative for the following reasons DEIS Page 15, Table 4.01 Section 4.7 NATURAL RESOURCES NEPA Alternative stated that approximately 316 acres of habitat will be impacted, and that no significant adverse impacts to terrestrial or aquatic wildlife is anticipated. Furthermore, no significant impact to federal or state listed threatened or endangered species is anticipated. Mitigation measures included: *Avoidance of bisecting floodplain and bottomland habitat degrading the quality and relatively intact character of the natural heritage corridor. *Avoidance and minimization of impacts by consideration of alternative alignments. *Placement of piers outside of wetlands and streams to the greatest extent possible, and use of bottomless culverts. *Compensatory measures in consultation with the USACE and DWR *If construction takes place during nesting season for migratory birds, a nesting survey will be conducted. My comments: NEPA Alternative states that no significant impacts are anticipated. However, that does not mean that negative impacts will not occur! The wetlands are pristine and provide habitats for many species. Not all of those are threatened or endangered, but all are needed to preserve the natural balance and ecosystems in the wetlands. On several occasions, I have seen bald eagles, and many species of heron, and migratory birds. Perhaps no sightings of endangered species were seen during the survey, but they do exist in the wetlands. One of the mitigation measures states that if construction occurs during nesting season for migratory birds, a nesting survey will be conducted. Since construction will span a 10

year period, it will be impossible not to disturb nesting birds. What would be done as a result of this intended survey? Would Go Triangle stop construction, or would they post signs which say, "Notice to all migratory birds": "For your safety do not nest here"? Seriously, during and after construction, the DOLRT will have a negative impact on the wetlands, and all forms of wildlife that live there. I suggest that another independent study be conducted by an entity with no vested interest in the DOLRT, or the politicians and developers who will benefit from this ill fated project. If that is not possible, I suggest that qualified representatives from the EPA, USACE, NC Wildlife Game Lands, and FTA make an on site visit to verify the results of the DEIS, which I consider to be biased.

*Comment Responses*

*DEIS/Errata References*

*DEIS section 4.7 discusses the natural resources located within the D-O Corridor, including wildlife and habitats, with a focus on ecologically-sensitive areas and contiguous expanses of undisturbed lands. It documents federal and state-listed threatened and endangered species (fauna, flora, aquatic, and terrestrial). This section also identifies the potential effects to natural resources that would result from implementation of the alternatives under study in this DEIS. Where potential adverse effects are identified, efforts to avoid, minimize, or mitigate these effects through design modifications are also discussed. Additional detail regarding the natural resources located within the D-O Corridor is contained in appendix K21. Table 4.7-3 indicates the acreage of each biotic community that falls within the NEPA Preferred Alternative. Under the NEPA Preferred and Project Element Alternatives, no significant adverse impacts to terrestrial or aquatic habitat are anticipated. Under the NEPA Preferred Alternative, significant adverse impacts to terrestrial or aquatic wildlife are not anticipated. Limited wildlife disturbance would occur for the duration of the construction activities (DEIS section 4.16). Impacts to wildlife are expected to be limited after construction is completed. The NEPA Preferred Alternative is not anticipated to result in significant impacts to federal or state-listed threatened or endangered species, or their habitats.*

DEIS section 4.7  
DEIS section 4.7.4.8  
DEIS section 4.16  
DEIS Table 4.7-3  
DEIS appendix K21

*The Migratory Bird Treaty Act states that it is unlawful to kill, capture, collect, possess, buy, sell, trade, or transport any migratory bird, nest, young, feather, or egg in part or in whole, without a federal permit issued in accordance with the Act's policies and regulations. Appropriate measures, including the following, will be taken to avoid adverse impacts on migratory birds. Between October 1 and February 15, the contractor would remove all old migratory bird nests from any structures that would be affected by the proposed project, and complete any necessary construction on existing bridges and/or vegetation clearing. In addition, the contractor would be prepared to prevent migratory birds from building nests between February 15 and October 1, per the Environmental Permits, Issues, and Commitments (EPIC) plan. In the event that migratory birds are encountered on-site during project construction, adverse impacts on protected birds, active nests, eggs, and/or young would be avoided. See DEIS section 4.7.4.8.*

First Name	Last Name	Comment
Nancy	Farmer	I live off Farrington Road and have two questions and have not had anyone answer them for me (I attended an input session at

Creekside Elementary and have sent emails and made phone calls, none returned):-Is Farrington Road being reclassified as an industrial site?-Is the Rail Operations and Maintenance Facility going to be located on Farrington Road?

*Comment Responses*

*DEIS/Errata References*

*The NEPA Preferred Alternative includes C2A, NHC 2, Trent/Flowers Drive Station, and the Farrington Road ROMF. The NEPA Preferred Alternative, including the Farrington ROMF is being proposed for construction.*

DEIS section 4.1.4.1  
DEIS section 8.2.2.1  
FEIS/ROD Table ROD-1

*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process.*

First Name	Last Name	Comment
Nancy	Farmer	Looks like its a done deal, so I live near the proposed maintenance facility on Farrington Rd & would request: 1. an attractive building. I don't want to look at something that resembles a prison (or walgreens in chapel hill)2. Heavy border vegetation (no wall) but arborvitea or cryptomeria trees . (large size- \$400-500 each!)

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 4.4.4.1, for locations where visual impacts occur, in addition to coordination with the Town of Chapel Hill and the City of Durham, planting appropriate vegetation in and adjoining the project right-of-way, replanting remainder parcels, and/or providing landscaping and aesthetic treatments when in close proximity to residences with aerial structures or the ROMF. The combined FEIS/ROD will reflect that visual and aesthetic impacts associated with the Farrington Road ROMF will be mitigated through coordination with the surrounding landowners and the City of Durham during Engineering. Potential treatments include landscaping, architectural treatments, visual barriers, and building height maximums. As clarified in section 1.4 of the combined FEIS/ROD, DEIS Errata 78, visual and aesthetic impacts associated with the Farrington Road ROMF will be mitigated through coordination with the surrounding landowners and the City of Durham during Engineering. Potential treatments include landscaping, architectural treatments, visual barriers, and building height maximums. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

DEIS section 4.4.4.1  
FEIS/ROD section 1.4  
FEIS/ROD Table ROD-1  
DEIS Errata 78

First Name	Last Name	Comment
G	Farrington	I live on Farrington Road near Old Chapel Hill Road and would like to know how far (miles, etc.)the DEIS for the Farrington ROMP would be from us.

*Comment Responses*

*DEIS/Errata References*

*DEIS appendix L provides the Basis of Engineering Design Plans that illustrate the precise location of the Farrington Road ROMF. An interactive project map with measuring tools can be found at the following location: [http://ourtransitfuture.com/interactive\\_dolrt\\_map/](http://ourtransitfuture.com/interactive_dolrt_map/)*

DEIS appendix L

First Name	Last Name	Comment
Lida	Fay	I am interested to see the documentation on the Federal Funding for the Light Rail. Does it specify that the funding go towards Public Transportation or only Light Rail?Why can't we beef up the buses in Durham County and improve the stations while we decide about the Light Rail?[removed name and email]

*Comment Responses*

*DEIS/Errata References*

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>.As noted in the DEIS Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. As noted in DEIS section 3.1.4, prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis (section 3.1.4).*

DEIS section ES-5  
DEIS section 1.5.1.2  
DEIS section 3.1.4  
DEIS section 3.2  
DEIS Figure 1.5-2

First Name	Last Name	Comment
Laurel	Files	I grew up in a big city and support public transportation. However, I support options that maximize ridership at minimal cost. The proposed LRT look appealing but the anchor points seem unlikely to address the real need of the everyday commuter, or even the occasional commuter. Why not transportation to RDU? Or to key areas in Durham downtown. If, in fact, LRT proceeds C2-A is the route I'd prefer for that portion of track. Also I am NOT in favor of the Cornwallis site for the maintenance facility.

Comment Responses		DEIS/Errata References
<p><i>Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU is not warranted or cost effective for the Project. With the exception of a small percentage of regular business travelers, most Triangle residents use RDU between 1 and 10 times per year, but travel to their workplace 250+ days per year. As a region builds its transit system, a consistent model for success has been to link neighborhoods to those “250+ day destinations” with the highest capacity service, while ensuring quality bus links to other important trip generators like the primary regional airport. Hundreds of commuters to UNC from RTP, Morrisville, Cary, and Raleigh already park and ride today at parking lots at Southpoint Mall, Exit 282 off of I-40 at the Regional Transit Center, and at District Drive in Raleigh. They choose to use these bus services even though they are subjected to traffic on NC 54. The light rail, with a major park-and-ride facility at Leigh Village, will offer a higher level of frequency than these routes and will not be subject to traffic congestion in the future when traffic is worse. Furthermore, RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <a href="http://www.WakeTransit.com">http://www.WakeTransit.com</a>.</i></p>		<p>FEIS/ROD section 1.4 FEIS/ROD Table FEIS-2 DEIS Errata 17</p>

First Name	Last Name	Comment
Joy	Fisher	I support the No Build Option. The DOLRT project as it is currently conceived is based on fundamentally unsound ridership projections, and if the Charlotte experience with LRT is any guide, will probably not result in any appreciable reduction in traffic congestion between Durham and Chapel Hill. Furthermore, the routing of the proposed light rail track is not aligned with the higher density compact neighborhood developments in Orange and Chatham counties, including the Ephesus-Ford, Glenn Lennox and Obey Village communities. Lastly, there is no incentive to take light rail to reduce travel time between Durham and Chapel Hill, with an estimated LRT time of 42-44minutes end to end, versus a projected automobile commuting time of 27 minutes in 2035-



2040. Academic studies reviewing the cost and feasibility of light rail projects across the USA indicate that most of these projects require an annual 70% taxpayer subsidy, as the ridership fare collection only supports a small percentage of the annual operating costs. The \$1.6 billion capital cost associated with this project (\$94 million/mile) is not a responsible use of scarce resources for mass transit development when equally effective and lower cost alternatives exist. Although urban, Chapel Hill- Durham has a relatively low population density where increasing conventional bus service frequency, building high occupancy vehicle (HOV) lanes, and using Bus Rapid Transit can be deployed at a fraction of the cost of light rail. In addition, present and future technologies such as Uber ridesharing and autonomous smart driving cars may render much of our current mass transit systems obsolete, with the promise of cheap and convenient door-to-door service that will trump the inconvenience of walking to a transit stop, or driving to a parking lot and then waiting to catch a bus or train. A research working paper from the University of California-Berkeley, which analyzed urban light rail mass transit, indicated that a population density of 30 people per gross acre, or roughly 19,000 people per square mile (ppsm), was necessary in order to support LRT. The Chapel Hill-Durham corridor has a population density less than 20% of that threshold, with a current density of approximately 3,000 ppsm, which is predicted only to rise to 4000 ppsm in 2035. This is not a recipe for success. The ridership projections for the Durham-Orange LRT are wildly optimistic, with 23,000 estimated daily boardings. This is in contrast to the Charlotte LRT system which currently experiences 16,000 daily boardings (which has been static since inception in 2007, while the population has increased 17%, with no measurable decrease in traffic congestion), in an area with a population that is 70% larger than the Triangle. These ridership projections are further inflated with the working assumption that 40% of households in the Durham-Chapel Hill corridor will not own automobiles in 2040, which flies in the face of current ownership levels and assumes a massive change in public behavior, which is then used to justify overly optimistic ridership utilization. Just look at the current ridership of the Robertson Scholars Express Bus between Duke University and UNC, which demonstrates a very low level of utilization, serving only 350 boardings per day with buses running every 30 minutes between campuses for 16 hours each weekday. This equates to an average of only 5 riders per bus on a 40 passenger bus, which is well below capacity. Why would this magically increase with the introduction of light rail? Furthermore, an article posted on Sept 3, 2015, on the UNC Carolina Demography website, entitled, "NC in Focus: Commuting by Public Transportation," tabulates data from the 2009-2013 American Community Survey of Commuting traffic flows, which indicates a mere 1,259 mass transit daily commuters cross between Durham and Orange County lines. Is it plausible that LRT would boost that demand by tenfold, as the ridership projections assume?

*Comment Responses*

*DEIS/Errata References*

*As summarized in 8.1, and further explained in chapter 1, As explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service located within the D-O Corridor, between Chapel Hill and Durham, along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors, that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following: \*Improve Mobility - Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development - Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time \*Increase Connectivity - Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system - Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown*

DEIS chapter 1  
 DEIS section ES-3  
 DEIS section 3.1.1  
 DEIS section 8.1  
 DEIS appendix K1  
 DEIS appendix K2  
 DEIS Errata 19

**D-O LRT FEIS / ROD**

*Durham, and east Durham\*Promote Future Development - Support local land use plans that foster compact development: provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).Light rail was chosen for the D-O Corridor because this technology will: connect residential, educational, and major employment centers throughout the corridor; serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options; efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region; support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly; provide solid anchors needed to shape land use along this critical corridor; and, provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.*

*As stated in Triangle Transit’s Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project and clarified in DEIS Errata 19:“Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened.”Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).The ridership estimate methodology and results estimates are closely reviewed by the FTA that specialize in developing ridership forecasts for transit projects. For a detailed description of the methodology and assumptions used to develop the ridership estimates, refer to Appendix K2 of the DEIS.As stated in section 3.1.1 of the DEIS, “Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. The TRM was developed by the Triangle Regional Model Service Bureau*

*(TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)."*

First Name	Last Name	Comment
Dick	Ford	<p>I oppose the Durham Orange Light Rail because it is primarily a development project and should not qualify for Federal funding. I live in Downing Creek. I am sure that you will look very carefully at the ridership estimate. GoTriangle has refused two local professors the ridership data. So there has been, to my knowledge, no independent evaluation. The funding model is broken. The state of NC only committed to providing \$138M of funding, only 1/3 of the \$400M needed. Now the State has cut that contribution down to \$500K. What does that tell you about state support for this project? No official associated with the project has provided citizens with any ideas on how this shortfall will be made up. The proposed line has 17 stops. Only two (and barely) are in the area most in need of jobs and development. The ROMF has been located at the last minute on a site requiring a very difficult rezoning. GoTriangle says they have no Plan B for the ROMF. Should Federal money be spent on that type of planning?? Since the 90's a dedicated transit lane has existed in Meadowmont, an exclusive development in Chapel Hill. This year GoTriangle moved the route to another location, much less wealthy and not built for transit. At the new location, they chose to have at grade crossings at the exits and entrances to this neighborhood. That was the cheapest solution. It was done to pave the way for a new development at Woodmont. Residents of the neighborhood (Downing Creek) have protested this proposed route since it was first proposed 5 years ago. Our concerns have never been addressed. Only recently, under political pressure, did GoTriangle say they would address them in the next phase. I'm not banking on that either. I do not believe that GoTriangle met their obligation to inform our elected officials of the concerns on our neighborhood. GoTriangle asked that comments and concerns be sent to them but it appears they were never shared these with our elected official when they sought their approval. One City Councilor told me that he was unaware of these concerns until we in the neighborhood started our protest this spring. Clearly GoTriangle did not meet a reasonable standard. Although this project has been touted as a first step to a Triangle wide system. GoTriangle has ignored the findings of independent consultants hired by Wake County (Raleigh) that light rail is not the right solution for them. Why is light rail right for Durham and wrong for Raleigh?? Why has no independent review been made of DOLRT. GoTriangle has made much of the fact that the Army Corps of Engineers nixed one of the Meadowmont routes. However, I am not aware of any attempt by GoTriangle to work with ACOE to find a solution. They just moved on to putting the line in our much less affluent neighborhood. Similarly when they were told that another site considered for the ROMF was under agreement, GoTriangle apparently never determined the status of that agreement but moved on to another site requiring a difficult rezoning. At best the effect on congestion and pollution might be slightly positive, but given the increased development and the low transportation element of the plan they might increase as well. Advocates say that the voter approved this projected when voting for a tax increase in 2011. That increase was for the transportation system. Light rail was not on the ballot. Similarly they say that the public has voted for density, because that is what light rail might deliver. But that was not the ballot either. I am from the Northeast and have depended on public transportation since I was an infant. As a senior, I wish DOLRT would deliver public transportation that is needed. But it doesn't. I called a very flawed process for a project designed to serve the people. Therefore, no more Federal funds should be allocated to DOLRT. Thank</p>

*The link below includes documentation on the Triangle Regional Model (TRM) V5 as it was deployed for the 2040 Metropolitan Transportation Plan (MTP) by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO). <https://sites.google.com/a/ncsu.edu/dchc-mpo/home/trm-v5-data> This model serves as the basis for the travel demand modeling performed for the DEIS as explained in DEIS section 3.1, Public Transportation, and DEIS appendix K2, Travel Demand Methodology and Results Report. In the documentation, particularly pertaining to items such as Alternative-Specific Effects, the methodology differs from the modeling work described in the DEIS for the Durham-Orange Light Rail Transit Project. This is because the TRM is only capable of applying one set of Alternative-Specific Effects for all individual fixed guideway transit projects in the model at a time. As the DCHC MPO MTP has two fixed guideway transit projects (Durham-Orange Light Rail; Durham-Wake Commuter Rail) in their adopted MTP, the MPO decided to use a hybrid of the recommended Alternative Specific Effects for Commuter Rail and Light Rail in the 2040 MTP, knowing that this approach would not be what would ultimately be accepted for FTA purposes if either project advanced. The work in the DEIS builds upon the work in the 2040 MTP, using the TRM V5 as a tool, but then deviates from the MTP approach by applying Alternative Specific Effects for light-rail-only (excluding commuter rail) in the DEIS, which was done according to FTA best practice recommendations. As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

*The Town of Chapel Hill requested that alternatives to the C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the proposed D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning. The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper*

DEIS section 3.1  
DEIS appendix K2  
FEIS/ROD section 1.2.2  
DEIS Errata 21, 22, 52, 70, 76,  
78, 93, 94, 95 103, 104, 110,  
119, 121, and 137

*Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (appendix G).The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the DEIS and are summarized in DEIS chapter 8, Evaluation of Alternatives.*

*A total of five alternative ROMF sites were evaluated in the DEIS. Section 8.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

First Name	Last Name	Comment
Anita	Foust	[REMOVED NAME]: Good afternoon. I'm [REMOVED NAME]. I live in [REMOVED CITY]. I'm against the light rail. I follow behind all the rest of them who are against it, but I also come here to speak for a disabled mother who lives over in the Crest Street area which is right there behind Veteran's Hospital, the Duke area. She's already been damaged by the construction that is going on on Erwin Road. Prosperity is going on on Erwin Road, but where she lives behind VA Hospital, there's all kinds of negative-type economic problems going on. She is against the light rail. I am, too. But her reason is because she will be affected. I hear everyone talking about the pie in the sky and how they're going to look out for low-income people. That's a promise that probably won't be kept, so let's not have the light rail until we have something in writing, in concrete, to prove the point that we've heard and -- the rest of them say, that they are authorities on -- and I heard people saying that people have conflicts of interest that are coming down here. I don't have a dog in the fight, either. I can't drive. I can't catch the bus. People have to take me where I need to go as well as this



mother who lives in the Crest Street area, which is also called Hicks Town. This is going to negatively affect poor neighborhoods, and I don't want to hear all of that pie in the sky without some proof. So I'm against the light-rail. Thank you.

Comment Responses

DEIS/Errata References

*As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project. If the proposed D-O LRT Project is built, it is expected that it would be funded by a combination of federal, state, and local funds. Dedicated local funding for bus and rail transit investments was identified when citizens of both Durham and Orange counties passed referenda to increase sales taxes to support transit improvements. (Effective April 1, 2013, Durham and Orange counties adopted resolutions to levy an additional one-half cent local sales tax to be used only for public transportation systems.) Established federal and regional funding sources means no one group in the D-O Corridor or the region would receive a disproportionate share of the financial burden of the capital and operating and maintenance costs relative to the benefits received. No financial equity considerations would be raised by the project, either in terms of the source of subsidy or the level of fare payments required of passengers (section 8.3.2). Pursuant to the Orange County and Durham County Bus-Rail Integration Plans, an adequate share of local sales tax funds is being dedicated to the cost of the LRT system. The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600.*

DEIS chapter 5  
DEIS section 8.3.1  
DEIS section 8.3.2  
DEIS Table 4.2-4

First Name	Last Name	Comment
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TIm	Fox	I do not support a project that is a patch rather than a comprehensive plan to solve traffic as a whole. This project does not solve the greater Triangle traffic problem and seems like a drop in the bucket so to speak that will likely become outdated and not fit in with whatever greater solution will absolutely be needed. I also do not support a train maintenance station in a location that is primarily
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residential off of Farrington Road. The site near the Herald Sun offices is already industrial. That is an appropriate site for a train maintenance building. Farrington Road is where one would want a passenger pick up site if anything at all, not an industrial maintenance site

### Comment Responses

### DEIS/Errata References

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-3, DEIS Errata 21. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 54, 73, 84, 111, and 150 for changes made regarding documentation of outreach efforts, potential impacts and mitigation at the Farrington Road ROMF.*

DEIS section 8.2.2  
DEIS section 8.2.2.1  
DEIS section 8.2.2.2  
DEIS Table 2.3-2  
FEIS/ROD section 1.2.2  
FEIS/ROD section 1.4  
DEIS Errata 21 and 22

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS).*

*As stated in the Executive Summary, 17 stations are proposed as part of the proposed D-O LRT Project. DEIS section 2.3.2 includes a description of the station locations. Proposed station locations are shown on Figures 2.3-2 to 2.3-5. A summary of station characteristics is provided on Table 2.3-2. The precise locations and final names for the stations will be decided during future phases of the project.*

As stated in the Executive Summary, 17 stations are proposed as part of the proposed D-O LRT Project. DEIS section 2.3.2 includes a description of the station locations. Proposed station locations are shown on Figures 2.3-2 to 2.3-5. A summary of station characteristics is provided on Table 2.3-2. The precise locations and final names for the stations will be decided during future phases of the project.

First Name	Last Name	Comment
Rod	Gerwe	<p>Dear Sirs/Madams:I urge GoTriangle to put light rail aside for now.The current light rail project makes poor economic sense. It is neither cost- or performance effectiveAs you very well know, the construction and start-up costs of upwards of \$1.6 billion would amount to a huge federal state and local tax burden of \$4,000 per person (assuming an optimistic 400,000 area residents) You also know that it would take a half century of service to get the per passenger construction and startup costs down to a reasonable level. For example at 20,000 riders per day, it would take 20 years to get the construction/startup costs down to \$11 per passenger (divide \$1.6 billion by the product of 20 years X 365 days X 20,000). This is an enormous and justified cost.The one-dimensional rail would serve only small fraction of Durham/Chapel Hill residents, who do not live close to the proposed line. It makes little sense to assume that people not close to the line will drive their cars a significant distance and park their cars. It also does not make sense to assume that Durham and Chapel Hill governments can or should force high density growth along the rail line on which the current project is highly dependent.GoTriangle must go back and carefully evaluate alternatives, especially gradual enhancement of the DATA bus system. Expanded bus service can be far more cost effective, would offer more flexibility and greater efficiency in designing routes and times to capture maximum ridership or address changing conditions. A one-dimensional railway cannot do that. Each 60-passenger bus can reduce rush hour traffic and road burden by replacing up to thirty 2-passenger cars on the roads.Electrically powered buses will become more practical and will reduce pollution.It is very clear that light rail as it currently exists, is not the project that voters were led to believe four years ago when they approved the sales tax increase for light rail. The project's current cost is much higher, and the destinations it covers are not what was implied four years. Raleigh, RDU, RTP, NCCU and other key destinations are out. It is likely that the level of local funding attained four years ago will be far short of current and future needs. GoTriangle needs to come up with a new plan and the local governments need to bring it up for a new vote. The vote four years ago is no longer valid; the project presented at that time no longer is the same.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development.Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system.In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham.The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a*

- DEIS Executive Summary (ES-5)
- DEIS chapter 1
- DEIS section 1.5.1.2
- DEIS section 3.1.4
- DEIS section 3.2
- DEIS Table 5.3-1
- DEIS Figure 1.5-2
- FEIS/ROD section 1.4
- FEIS/ROD Table FEIS-2
- DEIS Errata 17

**D-O LRT FEIS / ROD**

transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.

Enhancements to bus service are part of the Durham County and Orange County Bus and Rail Investment Plans (BRIPs). Both BRIPs were developed and approved by county commissioners before the successful sales tax referenda in 2011 and 2012, and both have guided the provision of new bus service in the two counties over the past few years. For more information about provisions for improved bus service under the BRIPs, please see <http://ourtransitfuture.com/durham-county-bus-and-rail-investment-plan>. As noted in DEIS Table 5.3-1, the revenue from the half-cent sales tax in Durham County for public transportation is being used to fund project development for the proposed D-O LRT Project and to implement improvements to DATA bus services. In addition, the sales tax will be used to support the design and construction of Neighborhood Transit Centers and make improvements to bus stops and pedestrian/bicycle infrastructure along Transit Emphasis Corridors in Durham. When the light rail opens, funds for bus services made redundant by rail operations will also be used to improve connections across Durham to newly opened rail stations. As noted in DEIS section 3.1.4, prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis (section 3.1.4).

Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>. As noted in the DEIS Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of

#### **D-O LRT FEIS / ROD**

life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS). The D-O Corridor was identified as a high priority transit corridor as early as the 1990s due to the rapid growth in the corridor. The D-O Corridor includes the University of North Carolina at Chapel Hill (UNC), Duke University, downtown Durham, and North Carolina Central University (ES-2).

First Name	Last Name	Comment
Eric	Ghysels	I would appreciate if you could help me (and my colleague Bob Healy) with some of the supporting material pertaining to Appendix K2 in the DEIS.1. for all discreet choice models described in Appendix K2 of the DEIS (multinomial probit, non-nested logit, etc):(a) one spreadsheet with acronyms and data sources for both endogenous and exogenous variables. Data sources must include year/period used in the model estimation sample.(b) one spreadsheet with acronyms and values for estimation sample for all variable specified in item (a) - for continuous variables, min, max, mean and standard deviation, for discrete variables the sample empirical frequency of the discrete outcomes.(c) one spreadsheet with acronyms and values for input/exogenous variables for 2040 prediction sample - for continuous variables, min, max, mean and standard deviation2. a detailed description of how light rail is incorporated as a choice in the prediction sample.3. a clarification of the 'rail' transportation mode in the estimation and prediction sample4. the study equivalent to the Light Rail reported in Appendix K2 of the DEIS for a Rapid Bus Transit alternative.I appreciate you providing me with this information in a timely fashion - within a week given the upcoming public hearings.I look forward to your reply.

Comment Responses	DEIS/Errata References
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*Item 1: The information requested under Item 1 was not produced as part of our Environmental Impact Statement (EIS) work program. The Triangle Regional Model Service Bureau (TRMSB) housed at the North Carolina State University (NC State) Institute for Transportation Research and Education (ITRE) was the primary developer of the Triangle Regional Model (TRM) regional travel demand model in use for this study. The model requires TransCAD software, a product of Caliper Corporation of Newton, Massachusetts, to operate; it cannot be exported to run outside of this software. Model documentation is available from TRMSB, including the Triangle Regional Travel Demand Model Users' Guide for Version 5.*

DEIS appendix K2

*Item 2: The alternative specific constant (ASC) applicable to light rail transit (LRT) in the mode choice model was asserted as described in the draft EIS Appendix K2. In asserting the ASC for LRT, we followed an approach which is typical in work performed for the Federal Transit Administration (i.e., identifying attributes that are premium as compared with existing modes). The ASC is incorporated into the utility calculation for the LRT mode choice within the mode choice model step in the TRM.*



Item 3: The only rail transportation mode considered in the build alternatives studied under the draft EIS work program was the Durham-Orange LRT project. Other proposed projects of a rail transportation mode were removed from the baseline transportation network.

Item 4: We did not prepare documentation of an ASC for a rapid bus transit alternative as part of the draft EIS.

First Name	Last Name	Comment
Lut	Ghysels	Sounds good as long as there will be adequate park and ride areas to go with it. I will use this for recreational needs and reduce my car use for future. How safe will the system be at night when we ride home from evening outings. Durham has a lot of drive by shooting incidents and people waiting at a railshop will worse (illegible). (illegible handwriting)
		<i>Comment Responses</i>
		<i>DEIS/Errata References</i>

*As detailed in section 4.12.4.2 of the DEIS, the D-O LRT Project Team will consult with local law enforcement and other public agencies to design the project’s public facilities to maximize the safety and security of light rail patrons and the transit system’s employees. As part of this effort, station platforms and park-and-ride facilities will be designed using Crime Prevention Through Environmental Design (CPTED) principles to increase natural surveillance opportunities. CCTV cameras will be placed on every platform and in park-and-ride facilities. Blue light emergency phones will be available at regular intervals on station platforms and in park-and-ride locations. The ticket vending machines will contain passenger assistance telephones to link passengers with a central control center. Security will be provided using roving patrols along the corridor, at stations, and at the proposed park-and-ride facilities. Each station platform will be equipped with a public notification system. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

DEIS section 4.12.4.2

First Name	Last Name	Comment
Eric	Ghysels	Comments by [REMOVED NAME AND ADDRESS] on the Draft Environmental Impact Statement for the Durham-Orange LRT13 October 2015Most of my comments coincide with those of [REMOVED NAME], my colleague at Duke University. As two academic researchers in respectively economics and environmental science, we have been critical of the DO LRT for the following reasons – also reflected in our public oral testimony:--the presumption that 25 % would be covered by state funding is most likely false. It looks like the state will at most contribute 10 %. This makes the project prohibitively expensive to finance with local funding. Durham and Orange counties, Chapel Hill and Durham will have to raise taxes beyond the already imposed sales tax and car rental tax. It will be a financial train wreck – as I have argued in a Op-Ed which appeared in the Herald Sun (appearing at the end of this document).-- only one stop of 17 serves a major concentration of low income persons. Many people in East Durham – with a higher density of low income families – feel left out and betrayed by the planned DO LRT.--an antiquated, inflexible fixed rail technology that is almost

certain to be made obsolete by rapid developments in “smart vehicles” and “smart highways”. This argument was made in a joint Op-Ed published by Robert Healy and I (appearing at the end of this document).--probable seriously overestimated ridership--failure of the LRT to relieve traffic congestion on highway 15-501--a large number of at grade crossings, which, based on the experience of other cities, presents a significant hazard to automobiles, cyclists and pedestrians--a decision making process that operated largely in secret, with sham public information sessions and consistent refusal to release information Robert Healy and I requested, in clear violation of the North Carolina Public Records Act

Considered as a whole, the economic and social benefits of this project must be considered NEGATIVE. In an Environmental Impact Statement, one must consider the project benefits as they relate to environmental costs. The latter include:--damage to wetlands, particularly in the New Hope Bottomlands, Sandy Creek wetlands, and the area around Meadowmount--additional air pollution caused by traffic backups at the at grade crossings--immense amounts of CO2 and energy embodied in the concrete, steel and other materials needed to construct the LFT--disturbance of wildlife migration, and recreational trail use, associated with the crossing of New Hope Creek at the 15-501 bridge--light, noise and water quality impacts due to the recommended location for the Operations and Maintenance Facility

Since the environmental impacts are positive and the economic and social benefits are negative, the NO BUILD OPTION SHOULD be chosen. There is another environmental consideration not mentioned in the DEIS. Perhaps the principal benefit put forth by GoTriangle as a justification for the use of LRT technology and the choice of this particular corridor is the opportunity to concentrate high density development around the station areas. Much attention is paid in the DEIS of future population and job growth in the Research Triangle region. But is the LRT corridor (1) the place where growth is most likely to occur and (2) the place where growth should be encouraged from a planning and environmental standpoint? I believe the answer to both questions is NO. Two of the principal anchors for the LRT route are Duke Hospital and UNC Hospital. Neither is likely to grow significantly. One already sees both health systems putting new freestanding facilities in locations far from the main hospital. Downtown Durham is attracting growth, but the narrow streets and many historic buildings mean that it does not have unlimited capacity for new buildings (unlike downtown Charlotte in 1990, for example). The LRT proposes new, very high density nodes on the edge of Chapel Hill, yet Chapel Hill residents have long been noted for opposition to large scale growth and density. I believe that the best place to accommodate new population and job growth is in the Research Triangle Park and in nearby areas (e.g. Morrisville). These places have abundant building sites, good transportation (especially if supplemented by enhanced transit), and little citizen opposition to growth.

Op-Ed Herald Sun August 27, 2015

Durham-Orange Light Rail: A Train Wreck in the Making

Eric Ghysels

Edward M. Bernstein Distinguished Professor of Economics

Professor of Finance, Kenan-Flagler Business School

UNC Chapel Hill

I strongly believe that public transportation is key to address the ever increasing demand for mobility and the resulting road congestion problems in the Triangle. That's why I oppose the proposed Durham-Orange Light Rail Transit (DO LRT). It is excessively expensive and does NOT connect Chapel Hill or Durham with major commercial, retail, or employment destinations east of the corridor like Southpoint Mall, Research Triangle Park, the RDU Airport or Raleigh. Too many want to debate political affiliations, i.e. Republican versus Democrat. I prefer to stick to data and facts. Durham and Orange voters approved a 1/2 cent sales tax for regional public transportation to support growth in the Triangle. In 2011, Durham voters were presented with plans to augment bus service and explore alternatives including a Light Rail Train (LRT) network linking Chapel Hill, Durham and Raleigh. The fact is that Wake County has decided against LRT and has opted for more flexible and cost-effective rapid transit options. DO LRT has been vastly downgraded from the original plans presented to voters. The travel time along the 17 mile corridor has increased from 34 to 44 minutes to travel from Chapel Hill (UNC Hospitals) to East Durham (Alston Avenue). I am tempted to call it the snail train, given its average speed of 24 miles per hour. It does neither service downtown Chapel Hill nor the campus of NCCU. The projected frequency of service has been reduced from every 5 minutes to every 20 minutes, and every 10 minutes during peak commuting hours. All this for a cost of \$1.6 billion, to be shared 50% Federal funding, 25% local and 25% state. The 25% local funding is comprised of a 0.5% sales tax, \$10 annual vehicle registration fee and 5% tax

surcharge on car rentals. At this point, the state will committed a maximum of 10 % funding. So even if the Federal funding is approved, the project is still short \$240 million. On top of this are annual operating and maintenance costs. In Charlotte light rail is a serious financial burden on the city's budget. Ridership has remained flat – despite a growing population - at 16000 daily boardings (the DO LRT projects 23000 boardings with a smaller population). Low ridership results in local governments taking the hit, or other transportation solutions being curtailed. Advocates of LRT often suggest that non-rider benefits, such as reduced congestion and emissions, justify the huge expense. Without service to communities throughout Durham or to RTP or Wake County, it is hard to imagine a snail train will have any significant traffic benefits at all. LRT advocates argue that the 17 mile track is only the beginning, and speculate that service will be added to RTP and points east. This is difficult to imagine now that Wake County is out of the picture. The Charlotte experience also indicates that expansion plans are shelved once the costs run up. Advocates never discuss how hybrid and fuel cell technology combined with telecommuting, smart cars, and driverless technologies will change the face of commuting in the future. LRT is likely to be obsolete before the first fare is collected. Based on cost arguments alone, the D-O LRT is a financial train wreck and an extreme fiscal burden on growth in the Triangle. More importantly, it doesn't address the transportation issues facing our growing community. Objectively looking at the facts prompted Wake County leaders to walk away from the LRT option. In my opinion they were wise to do so. OpEd Herald Sun, September 5, 2015 Are we building a 1.6 billion dollar public transit museum? Eric Ghysels Edward M. Bernstein Distinguished Professor of Economics Professor of Finance, Kenan-Flagler Business School UNC Chapel Hill Robert Healy Professor Emeritus of Environmental Policy Nicholas School of the Environment Duke University Around the year 2000 a colleague of ours built a brand new house. He was a computer geek and hardwired his entire house with cables so that every room had an outlet. Barely a year later, one of us moved into an existing home. It was the time that wireless routers came on the market. Thanks to the innovations in WiFi technology it was easy to have internet connections anywhere. Our colleague still had wires cluttered on the floor, connecting his laptop to a nearby outlet. No such thing with the new technology. The router came at a fraction of the cost our colleague spent on wiring his house. The pre-wired house is a metaphorical caution for the ongoing discussions about the light rail line (LRT) that is proposed between Durham and Chapel Hill. GoTriangle projects a cost for the 17 mile corridor of \$1.6 billion. What do we get for this enormous amount of public money? A train running at an average speed of 24 miles per hour, driven by a live operator, moving along 17 miles of steel rails in a 30 foot wide corridor. Its route will not come near such important traffic generators as downtown Chapel Hill, North Carolina Central University and Durham Tech. Because Wake County has recently opted out (wisely in our opinion) of the LRT project, the snail train will not go to RTP nor the airport nor to downtown Raleigh. In addition to problems of service and cost, the LRT system could be technologically obsolescent before it's built. Even if all goes well, the earliest opening date for LRT is 2025. Therefore the technology chosen will be 13 years old at the time of opening. We are in the midst of extremely rapid technological improvements affecting all forms of transportation. In 2004, in a Defense Department "challenge" for automatically guided vehicles on a simple 150 mile desert course, the best of 15 vehicles crashed after only 7 miles. Only three years later, six vehicles successfully negotiated a 60 mile "urban" course which had other vehicles, obstacles, and traffic regulations. Since then, and especially in the last five years, development of an "intelligent car," that can essentially drive itself for all or part of the journey has proceeded very rapidly. Already, some models can self-park and avoid many kinds of collision. Recently, Google has been testing a "driverless car" on public streets. (and Google is only one of many firms looking seriously into this concept). A "driverless highway" is also being investigated. For the route we are dealing with, it is irrelevant whether the technology is embedded in the car or the roadway. By the end of a decade, it is very likely that cars (and buses) can travel on 15-501 and other arterial streets at high speed, either in all lanes or a designated lane, with little space between vehicles. This will raise average speed and will also reduce congestion by doubling or trebling the number of vehicles that can be accommodated by the road's current width. It would be ironic — but by no means impossible -- to see vehicles moving along 15-501 more rapidly than the LRT. As economists, we are acutely aware of the perils of technological

forecasting. We believe that the best defense against forecasting errors is preserving flexibility. This is exactly what the GoTriangle plan, firmly committed to a fixed guideway, operator driven train does not do. Far better would be a plan that reserved a corridor that could be used by a variety of vehicles. It need not have tracks and it need not be 30 feet wide. In addition, we would not need to build a 78 million dollar operation and maintenance facility – a rail yard - currently planned in the middle of a residential area, a stone throw away from an elementary school. Let's be very sure our plans for the future of transit do not include billions of dollars for a transit museum.

*Comment Responses*

*DEIS/Errata References*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.*

DEIS chapter 5  
 DEIS chapter 9  
 DEIS section 3.1.1  
 DEIS section 3.2  
 DEIS section 3.6  
 DEIS appendix K1  
 DEIS appendix K2  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17 and 30

*DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments. Under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly. Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact*

*Design zoning through a Compact Neighborhood plan. Further information about the Compact Neighborhood destination is available from the Durham City-County Planning Department.*

*Construction of the D-O LRT Project will be funded through a variety of local, state, and federal sources. The local funding will be paid from a portion of the half-cent sales tax dedicated for transit in Durham and Orange counties, \$10 annual vehicle registration fee dedicated for transit, and 5% tax surcharge on car rentals dedicated for transit. Other local funding sources such as value capture strategies may also be pursued. State funding is allocated to the project through the State Transportation Improvement Program. Federal funding is anticipated through the Federal Transit Administration "New Starts" Capital Investment Grant program. Annual operating and maintenance costs will be paid for with revenue from fares and from the local half-cent sales tax dedicated for transit in Durham and Orange Counties." As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)." Chapter 5 of the DEIS presents detailed analysis of environmental justice and identifies that the NEPA Preferred Alternative would improve accessibility for all communities, including low-income and minority populations. Overall, the potential impacts would be minimal compared with the proposed project's benefits, which would include improvements to connectivity and mobility; access to jobs, services, education, and entertainment; pedestrian and bicycle conditions; access to transit; and reliability in transit service. In those areas where stations are proposed, there is the potential for economic opportunities through associated development. As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the*



requirements of Title VI of the Civil Rights Act of 1964. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>. As discussed in DEIS section 4.16.2, three types of light rail crossings are proposed as part of the proposed D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. The D-O LRT Project would include approximately 25-30 elevated light rail crossings over existing roadways. (section 4.16.2). As described in DEIS section 4.12.3.5, the D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit that would interact with vehicular, bicycle, and pedestrian traffic. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Section 4.12.4.5 describes the proposed mitigation to address safety and security impacts of the introduction of light rail on pedestrians, bicyclists, and motorists. To avoid the potential for incidents at at-grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 to 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.

As stated in chapter 9 of the DEIS, agencies, non-governmental groups, and the public have been engaged throughout the planning process for the proposed Durham-Orange Light Rail Transit (D-O LRT) Project as required by federal and state law. NEPA mandates agency and public participation in defining and evaluating the impacts of project alternatives. The project has also followed U.S.

*Department of Transportation (USDOT) guidelines for public participation, including Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d) and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Fed. Reg. 7,629 (February 11, 1994). Coordination activities required under the regulations to promulgate Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108) have also been implemented during the course of the proposed D-O LRT Project.*

First Name	Last Name	Comment
Eric	Ghysels	I'm [REMOVED NAME]. I live at [REMOVED ADDRESS], which is [REMOVED CITY, ZIP CODE] -- it's part of [REMOVED CITY] [REMOVED COUNTY]. I strongly believe that efficient and cost-effective public transportation is key to any urban development. That is why I oppose LRT. It is excessively expensive and does not serve Southpoint Mall, RTP, RDU Airport, or Raleigh. Any economist will tell you that an environment of rapid technological change, as we are currently witnessing in the transportation sector, it is important to invest in a flexible and adaptable transit system rather than putting huge amounts of public money into a rigid system like LRT that is extremely expensive to build and maintain. Obviously -- Objectively looking at the facts prompted Wake County leaders to walk away from light rail and sign in favor of bus rapid transit. In my opinion, they were wise to do so. In my remaining time, I'd like to talk as a professor and scholar of research methods such as those used by GoTriangle to predict ridership demands. In my opinion, these numbers, such as the 23,000 daily boardings, are vastly inflated. My colleague, Bob Healy, just talked, and I requested early September details about those projections. GoTriangle has refused to deliver using the Civil Rights Act as an excuse. I'm not a legal scholar, but I doubt the validity of that argument. Subsequently, we requested access to the consultants' reports, which are, in our opinion, public domain documents under the North Carolina Public Records Act. They have not been provided. I think the ridership exaggeration and the lack of transparency make this project even more suspect. Thank you.

*Comment Responses* *DEIS/Errata References*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com> As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for*

- DEIS section ES-2
- DEIS section ES-5
- DEIS section 1.3.2
- DEIS section 1.5.1.2
- DEIS section 2.1
- DEIS section 2.2.1
- DEIS section 3.1.1
- DEIS section 3.2
- DEIS appendix K1
- DEIS appendix K2
- FEIS/ROD section 1.4
- FEIS/ROD Table FEIS-2
- DEIS Errata 17 and 30

**D-O LRT FEIS / ROD**

*weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS). The D-O Corridor was identified as a high priority transit corridor as early as the 1990s due to the rapid growth in the corridor. The D-O Corridor includes the University of North Carolina at Chapel Hill (UNC), Duke University, downtown Durham, and North Carolina Central University (ES-2). Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on ourtransitfuture.com.*

*As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)." The full ridership report is provided in DEIS appendix K2. Additional information related to*

details of the ridership modeling has been provided to this commenter.

First Name	Last Name	Comment
Charlie	Gibbs	Thank you. My name is Charlie Gibbs. I live at [REMOVED ADDRESS] in [REMOVED COUNTY]. And there have been a lot of good comments made and there are a lot of things to be considered and what -- and this is -- to the -- to the people who are in charge of designing this -- this light rail system, there are some decisions to be made. I do support the regional rail -- light rail transit. I don't prefer the way it's evolved, but I think that's something that will come eventually, but right now that's not an issue. I'm also a member of the City-County Planning Commission, and I'm not speaking for that commission. I want to make that plain. I'm speaking for myself personally. Being a member of the commission, I have had access to long-range plans for Durham and the downtown area, the Central Park area, the changes in traffic pattern downtown, and I think this light rail is going to affect that. So it needs to be in -- in part -- part of our plans, but if this -- if this LRT is built, and I hope it is, I'm speaking mainly in favor of the new stop at -- the Center City stop. I think this would be a good crossroads between the east-west rail and north-south traffic, and I -- and that's -- I would like to see RTP included at some point and the airport, and I think that will come, 9 but this is a good first step in getting what we need to connect us all regionally. Thank you.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project's design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. As section 1.4 of the combined FEIS/ROD, DEIS Errata 45 clarifies; the NEPA Preferred Alternative would impact the proposed project of grade-separating the existing NCRRCorridor at Blackwell and Mangum Streets. However, this proposed project, which is separate from the D-O LRT Project, has not been funded and is unlikely to be implemented according to the NCDOT Rail Division and the DCHC MPO. Triangle Transit will continue coordination with the NCDOT Rail Division and the DCHC MPO during Engineering. As a result of ongoing coordination with both North Carolina Railroad (NCRRC) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street and removing the grade separations at Blackwell and Mangum Streets (the Great Wall of Durham). In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCRRC as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCRRCorridor along West Main Street (Section 3.4.2.2). Major production*

- DEIS chapter 2
- DEIS chapter 3
- DEIS section 3.1.3.1
- DEIS section 3.4.2.2
- DEIS section 5.3
- DEIS Table 3.1-4
- FEIS/ROD section 1.4
- FEIS/ROD Table FEIS-2
- DEIS Errata 17 and 45

**D-O LRT FEIS / ROD**

stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional station at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell and Mangum Streets would also require the negotiation and approval of an additional property lease with NCCR beyond what is expected to be required for current alignment and may have an impact on the Old Bull Building which is a National Historic Landmark. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in costs that are not offset by increases in ridership could result in a reduction in the project's FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell and Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs. The preliminary design of the Buchanan Boulevard Station will be refined during the subsequent phase of Engineering. Benefits and concerns with different alignment and station placement concepts will be evaluated at that time. One consideration is safety for people crossing the tracks at Buchanan Boulevard. From a safety perspective, it is most desirable for at-grade crossings to be as narrow as possible; in other words, it is safest if the LRT tracks are as close to 14' apart as possible at the crossing rather than widened out to accommodate an adjacent center platform. A narrow crossing design minimizes the risk of people standing or being stuck between trains as they pass, and the risks posed by a wider crossing will be evaluated as the design is refined. The additional cost for side platforms will also be considered in the context of other factors influencing the design process.

Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.



First Name	Last Name	Comment
Charlotte	Gilbert	<p>These are your numbers. HOW can you say that a population of 673K (and will the train even serve any other part of Durham County that you can even begin to include them in this projection) in 2040 will support a train that in Charlotte TODAY has a population of 792,862 and they only average 16K riders a day? The math does not add up. Charlotte is losing money on the light rail and has put on hold plans to add extra lines.STOP the train!! We can find another option. Light Rail is not for Durham!! DON'T WASTE MY TAX MONEY!!</p> <p>Table 1.1-1: Forecasted Population Growth 2010   2040   Percent Change  Durham County   258,000   422,000   64%  Orange County   129,000   197,000   52%  D-O Corridor   27,000   54,000   100%</p>

Comment Responses	DEIS/Errata References
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<p><i>As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. "As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the Proposed Durham-Orange Light Rail Transit Project and clarified in DEIS Errata 19: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT)."</i></p>	<p>DEIS section 1.3.2  DEIS section 1.4  DEIS section 3.1.1  DEIS appendix K1  DEIS appendix K2  FEIS/ROD Table FEIS-2  DEIS Errata 19, 30, 32, and 33</p>
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Charlotte	Gilbert	<p>Good afternoon - as this process for the light rail continues, I have questions and concerns about how the trains cross the many roads along the route. I would appreciate your answers to these questions. 1) Are the trains operated by a conductor? 2) If no how are the signal arms at each of these crossing triggered? 3) How long does it take from the time the switch is pushed for the safety arms to come down, stay down, and then come up again? 4) Do the trains cross the roads at the same time or is crossing completely random? I am trying to figure out how long I will be stuck everyday. 5) How loud are the signal crossing alarms? Not a nice way to wake up each morning or trying to get to sleep at night. 6) Do the trains communicate with local EMS? If so what is the mechanism? 7) Why is the route not raised coming from 15/501 onto Erwin? As the entrance to the Medical Complex that portion of the route makes no sense. 8) How does Go Triangle plan to widen Erwin Rd? 9) What is the cost to park? Daily or monthly? What is the cost of the ride? More for rush hour? 10) What are the plans for the safety of riders in the trains and parking lots, especially early in the morning and late in the evenings? 11) What is the containment system that the maintenance building plans to use to catch the dirty water and other chemicals during the repair and cleaning of these trains? 12) How tall are the wires that the trains attach too? 13) Does weather affect the speed and dependability of the trains? 14) What is Go Triangle's plan if the Federal Government funds do not meet the actual cost of this project? Where is the money going to come from? 15) How much has Go Triangle spent so far? 16) Have you hired any outside companies or groups to study the environmental impact that this project may cause to the surrounding areas? If no, why not? This is a valid question that deserves an answer. 17) Why is there a 990 space parking garage at Alston Ave? This is the site that your own statistics show has a low access to private cars, that is why this station is in this area, so why so many parking spaces? It will not be the locals filling it up, who are you expecting to use this? I am sure I will have more questions in the future in preparation for the upcoming meeting in September. I appreciate your time and look forward to seeing your responses. Charlotte Gilbert</p>
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Comment Responses	DEIS/Errata References
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<p><i>1 &amp; 2. Light Rail Vehicles are controlled by operators. 3, 4, &amp; 6. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 to 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending.</i></p> <p><i>Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. Trains do not communicate with local EMS. 5. Please see DEIS Chapter 4.10 Noise and Vibration, for more information about noise from at-grade crossing safety devices. 7. As discussed in DEIS section 4.16.2, three types of light rail crossings are proposed as part of the proposed D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. The D-O LRT Project would include approximately 25-30 elevated light rail crossings over existing roadways. (See DEIS section 4.16.2). As described in DEIS</i></p>	<p>DEIS chapter 2  DEIS section 2.2.3  DEIS section 2.3.2.1  DEIS section 3.1.2.1  DEIS section 3.2  DEIS section 3.2.3  DEIS section 3.3  DEIS section 3.6  DEIS section 4.10  DEIS section 4.12  DEIS section 4.16.2  DEIS section 7.1  DEIS Table 3.3-2  DEIS appendix L  FEIS/ROD section 1.4  DEIS Errata 17, 34, and 36</p>
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section 4.12.3.5, the D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit that would interact with vehicular, bicycle, and pedestrian traffic. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Section 4.12.4.5 describes the proposed mitigation to address safety and security impacts of the introduction of light rail on pedestrians, bicyclists, and motorists. As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at at-grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. 8. Please see the project description in DEIS chapter 2. Please also refer to the Basis for Engineering drawings in DEIS Appendix L – Volume 2 Segment E.9. As noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 34, the proposed D-O LRT Project's fares will likely be comparable to the bus fares that are in effect at that time. Both parking fees and bus fares will be set by the Triangle Transit Board of Trustees. As noted in DEIS section 2.3.1., transit patrons would purchase rides prior to boarding from ticket vending machines located at each station. Both parking fees and bus fares will be set by the Triangle Transit Board of Trustees. The existing cost to park at transit park and rides as well as the cost to ride the existing transit services are noted in DEIS chapter 3.1.2.1 Transit Providers. 10. DEIS section 4.12.2.2. Triangle Transit's System Security and Emergency Preparedness Plan provides the framework for ensuring passenger and employee safety on Triangle Transit property and leased facilities. The plan details functional entrances/exits for members of the public and employees. In addition, Triangle Transit uses Crime Prevention through Environmental Design (CPTED) concepts to assist in deterring criminal activity in the design of its facilities. The basic principle of CPTED is to increase natural surveillance by providing good sight-lines and avoiding conditions such as tall landscaping that could potentially provide individuals with areas to hide or obstruct mechanical methods of surveillance, such as closed-circuit television (CCTV) cameras. As noted in DEIS section 4.12.3.6, the various security and emergency management issues that a light rail system typically must address through design include: system surveillance, evidence collection, and storage (e.g., CCTV surveillance systems); access controls including credentialing, perimeter fencing, security authorizations, intrusion alarms, and background checks; security design of physical system elements such as facilities, vehicles, aerial structures, pedestrian tunnels, catenary, control centers, etc.; use of security technologies such as facial recognition software and supervisory control and data acquisition (SCADA); security awareness training and security policies; crime; planning for emergency situations; and, providing familiarization training to external police departments and other emergency providers on safely engaging with the system such as how to deal with power systems (e.g., de-energizing power systems) and general equipment (e.g., manually opening vehicle doors and instructions to safety knock out windows). As further detailed in DEIS section 4.12.4.2, the D-O LRT Project Team will consult with local law enforcement and other public agencies to design

*the project's public facilities to maximize the safety and security of light rail patrons and the transit system's employees. As part of this effort, station platforms and park-and-ride facilities will be designed using Crime Prevention through Environmental Design (CPTED) principles to increase natural surveillance opportunities. CCTV cameras will be placed on every platform and in park- and-ride facilities. Blue light emergency phones will be available at regular intervals on station platforms and in park-and-ride locations. The ticket vending machines will contain passenger assistance telephones to link passengers with a central control center. Security will be provided using roving patrols along the corridor, at stations, and at the proposed park-and-ride facilities. Each station platform will be equipped with a public notification system.*<sup>11</sup>. As described in the Executive Summary of the DEIS, the ROMF is an integral part of the proposed D-O LRT Project and would include office space, conference rooms, and areas to store, service, and maintain 17 LRVs with the capacity for up to 26 LRVs without needing to expand the facility. The ROMF would also hold equipment needed to maintain the stations and trackway. The facility would operate 24 hours per day, 7 days per week and accommodate staff that report for work at the facility, such as train operators and mechanics (p. ES-13).As further detailed in DEIS section 2.2.3, the ROMF would include train washing and maintenance buildings, storage tracks, employee parking, and a stormwater pond. The facility would be equipped to perform daily cleaning and repair activities on the light rail vehicles as they enter and leave revenue service. To ensure operational safety and reliability, scheduled service and maintenance inspections would be performed in this facility. The desirable size for a ROMF site is 15 to 25 acres (see DEIS section 2.2.3).<sup>12</sup>. LRT is powered by overhead electrical wires (known as "catenary"), which are supported by poles. The light rail vehicle makes contact with the overhead wire using a mechanism that is located on the roof of the light rail vehicle (known as the "pantograph"). The pantograph makes contact with the catenary to provide the electricity needed to power the light rail vehicle and propel it forward. The height of catenary that will supply power to the light rail vehicles will vary depending upon the specific alignment location and the type of alignment. The specific heights will be determined as part of project engineering. Typical sections illustrating the locations of system features are provided in Appendix L of the DEIS. <sup>13</sup>. Light rail trains can travel up to 55 miles per hour. Speeds vary based on conditions such as the location and curves of the rail tracks, distance between stations, changes in grade and elevation, as well as the number of rail crossings. The D-O LRT Project's average speed will be between 20-35 mph. Typical weather conditions do not affect the speed or reliability of light rail vehicles.<sup>14</sup>. As stated in DEIS section 7.1, when the proposed D-O LRT Project is fully advanced through the New Starts process, it is anticipated that the New Starts program will provide approximately 50 percent of the D-O LRT Project's capital cost. The non-New Starts costs will be covered by a combination of funding sources, including sales tax revenue generated in Durham and Orange counties, funding from North Carolina Department of Transportation (NCDOT), and other local fees and taxes. Triangle Transit will also pursue Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance and possible alternative financing and value capture options. Annual operating and maintenance costs will be paid for with revenue from fares as well as local tax dollars, including sales tax revenue generated in Durham and Orange counties, funding

from North Carolina Department of Transportation (NCDOT), and other local fees and taxes.<sup>15</sup> For more information about expenditures and revenues, please see Triangle Transit's Annual Bus and Rail Investment Reports.<sup>16</sup> Yes. URS/AECOM, a company, consulting with Triangle Transit, prepared the technical information and environmental impact analysis associated with the information presented in the DEIS. The DEIS was prepared in accordance with the National Environmental Policy Act (NEPA), as well as Fixing America's Surface Transportation (FAST) Act, signed into law by President Obama on December 4, 2015 but made retroactively effective to October 1, 2015, which supersedes Moving Ahead for Progress in the 21st Century Act (MAP-21); Environmental Impact and Related Procedures of 1987 [23 Code of Federal Regulations (CFR) § 771]; Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 [49 U.S.C. § 303] and [23 CFR § 774]; and Section 404 of the Clean Water Act of 1977 [33 U.S.C. § 1251], among others.<sup>17</sup> Please see DEIS section 2.3.2.1: "Parking is proposed at several stations as described in DEIS section 3.3. The number of parking spaces proposed varies and are based on forecasted ridership and land availability." (See DEIS section 2.3.2.1 and Table 3.3-2.)

First Name	Last Name	Comment
Charlotte	Gilbert	I have concerns that the ITRE report written by NC State covers "ALL of Wake, Durham, and Orange counties as well as parts Person, Granville, Franklin, Nash, Johnston, Harnett, and Chatham counties." Why are these extra counties included when we are discussing 17 miles of Durham and Orange Counties? There is no discussion of expanding the light rail beyond this. This completely skews the numbers and makes it very hard to get an accurate assessment of the project's goal. Why was State told include these extra areas? Why was a report not generated for this project? Please answer

Comment Responses	DEIS/Errata References
<p><i>It is unclear what report produced by North Carolina State University's Institute for Transportation Research and Education (ITRE) is being referenced as ITRE produces numerous reports, studies, and publications each year. Triangle Transit assumes that is in regards to the documentation supporting the Triangle Regional Model (TRM) which is used for transportation travel forecasting throughout the DCHC MPO and CAMPO planning areas, as referenced in the DEIS. DCHC MPO and CAMPO have decided that due to the interrelationship of travel patterns between the two regions it is important that they conduct joint planning efforts. The TRM was not developed for D-O LRT project, it is used to forecast travel behavior for all federally funded transportation projects (highway and transit) within DCHC MPO and CAMPO planning areas. The model was not specifically tailored to the D-O LRT project to ensure decision makers comparing the benefits and impacts from project to project across the region.</i></p> <p><i>As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147</i></p>	<p>DEIS chapter 1  DEIS section 1.5.2.3  DEIS section 8.1  DEIS section 8.4  DEIS figure 1.1-1  DEIS figure 1.5-3</p>



transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:

- Improve Mobility: Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development
- Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time
- Increase Connectivity: Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system
- Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham
- Promote Future Development: Support local land use plans that foster compact development, Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers

The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:

- Connect residential, educational, and major employment centers throughout the corridor;
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;
- Provide solid anchors needed to shape land use along this critical corridor; and,
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).

As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.

First Name	Last Name	Comment
Charlotte	Gilbert	Your table 7.1 in O&M Cost Methodology Report shows our "peer" light rail systems. How can you think that the population of Durham/Chapel Hill will ever resemble the cities listed? Why did Go Triangle not find a community that does resemble the area being address for this light rail project? Is there a city in this county that has light rail that resembles Durham/Chapel Hill? Please identify a community in the US that has light rail that looks like the Triangle.

*As stated in Section 7.1 of the O&M Cost Methodology Report, the primary criteria used for selecting peer LRT systems included: operating environment, system age, system size, and geographic location. System size is defined as the number of peak vehicles. Peers systems used to estimate operations and maintenance costs were within the range of 10 to 45 peak cars. Therefore, the systems chosen are the best peer representations available for comparison with the D-O LRT Project. Population was not one of the criteria.*

DEIS section 7.1

First Name	Last Name	Comment
Charlotte	Gilbert	Looking at your charts 7-1; 7-2; 7-3 - the Charlotte light rail is the MOST expensive and when you review the breakdown on 7-2 peer systems, Charlotte brings in the least amount of money and has the fewest passengers per system. Go Triangle has base d all of the Durham/Chapel Hill needs on the system in Charlotte. Our population is not even close to what Charlotte's is. So if Charlotte is the most expensive with the least amount of revenue generated, HOW is this line expected to make any money, let alone break even financially? Please answer how this project will not loose money?

*As noted in DEIS section 7.1 the construction of the D-O LRT Project will be funded through a variety of local, state, and federal sources. The local funding will be paid from a portion of the half-cent sales tax dedicated for transit in Durham and Orange counties, \$10 annual vehicle registration fee dedicated for transit, and 5% tax surcharge on car rentals dedicated for transit. Other local funding sources such as value capture strategies may also be pursued. State funding is allocated to the project through the State Transportation Improvement Program. Federal funding is anticipated through the Federal Transit Administration “New Starts” Capital Investment Grant program. Additional information on the project capital and operations and maintenance costs can be found in DEIS chapter 7. More detailed information on capital costs can be found in appendix K27. More detail on operating and maintenance costs can be found in appendix K29.*

DEIS section 7.1  
DEIS appendix K27  
DEIS appendix K29

*As stated in Triangle Transit’s Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: “Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened.” Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

First Name	Last Name	Comment
Charlotte	Gilbert	<p>The answer to my question " how will EMS communicate with the trains" was not answered.Question #10 How do trains communicate with local EMS?Please see DEIS Chapter 4.12 Safety and Security. - that is not an answer. Go Triangle will work with first responders?? How are emergencies handled in Charlotte? You keep referring to your work in Charlotte, there must a plan in place for their rail line? What is the communication between EMS and the trains in Charlotte?This is what I found:4.12.4.6 Police, Security, and Emergency Service OperationsAs the design of the NEPA Preferred and Project Element Alternatives advances, the D-O LRT Project Team will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the potential light rail system on their day-to-day operations. For example, the D-OLRT Project Team will work with fire departments to determine whether implementation of the NEPA Preferred Alternative warrants changing dispatch locations for emergency services.Coordination with departments would also be conducted during the Engineering Phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety.By coordinating with responders early in the risk assessment process, project team members can work with public agencies to develop mitigations, if necessary. Mitigation for restricting or constricting rubber tired vehicular access along an existing roadway includes constructing the guideway in embedded track such that emergency vehicles can bypass other vehicles via use of the embedded track condition. The LRT operation would yield to these infrequent occurrences. Access to emergency and health care facilities would not be compromised by the LRT.In addition, Triangle Transit will work with local law enforcement and emergency medical personnel to develop a training plan that involves responding to incidents at light rail facilities and on light rail vehicles. This plan will include a schedule for training prior to and during revenue operations.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Section 4.12.4.6 states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations. Coordination with departments would also be conducted during the Engineering Phase to get input on the development of a Safety and Security Management Plan (SSMP), and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety.All public transit agencies (including the Charlotte Area Transit System and Triangle Transit) receiving federal funds for transit investments are required to have a safety and security management plan and undergo safety and security certification.Triangle Transit has been and will continue to coordinate with emergency services regarding operation of the light rail. Specific agencies met with include; City of Durham Sheriff, Fire, and Police services, Duke University & Medical Center emergency personnel, NCCU Police, Town of Carrboro Police, Emergency Services and Sheriff's Office for Orange County, Town of Chapel Hill Police and Fire Departments, UNC Chapel Hill & Medical Center Emergency and Police staff, NC Highway Patrol, and the North Carolina Department of Public Safety. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 - 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending,*

DEIS section 4.12.4.6

*gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. Emergency management personnel can communicate with train dispatchers via radio communications.*

First Name	Last Name	Comment
Jim	Green	<p>[removed name and email]10/10/2015 3:53 PMinfo@ourtransitfuture.com[removed name, phone number, email]I am writing to comment on the DEIS for the D-O LRT and to express my support in favor of the NO BUILD OPTION. The project as it is currently conceived is based on fundamentally unsound ridership projections and will not result in any appreciable reduction in automobile congestion in the Chapel Hill-Durham road corridor. In fact, in other urban centers around this country, the introduction of light rail primarily shifts ridership from buses to light rail, without significantly decreasing automobile traffic. Furthermore, the routing of the proposed light rail track is not aligned with the higher density compact neighborhood developments in Orange and Chatham counties, including the Ephesus-Ford, Glenn Lennox and Obey Village communities. Lastly, there is no incentive to take light rail to reduce travel time between Durham and Chapel Hill, with an estimated LRT time of 42-44 minutes end to end, versus a projected automobile commuting time of 27 minutes in 2035. And this does not include automobile commuting time to the station parking lots, parking time and walking time to the platform, and waiting time on the platform for the next train. This is neither convenient nor does it reduce automobile congestion. Academic studies reviewing the cost and feasibility of light rail projects across the USA indicate that most of these projects require an annual 70% taxpayer subsidy, as the ridership farebox collection only supports a small percentage of the annual operating costs. The 1.6 billion dollar capital cost associated with this project is not a responsible use of scarce resources for mass transit development, and can be better allocated in a region of low population density (Chapel Hill-Durham) with increased investment in conventional bus service, which has the flexibility of deployment to actual growth areas, versus projected growth areas. A research working paper from the University of California-Berkeley, which analyzed urban light rail mass transit, indicated that a population density of 30 people per gross acre, or roughly 19,000 people per square mile (ppsm), was necessary in order to support light rail transit. The Chapel Hill-Durham corridor has a population density less than 20% of that threshold, with a current density of approximately 3,000 ppsm, which is predicted to rise to 4000 ppsm in 2035. This is not a recipe for success. The ridership projections for the D-O LRT are wildly optimistic, with estimated daily boardings of 23,000. This is in contrast to the Charlotte LRT system, with daily boardings of 16,000 (which has been static since inception in 2007, while the population has increased 17%, with no measurable decrease in traffic congestion), in an area with a population that is 70% larger than the Triangle area. These ridership projections are further inflated with the working assumption that 40% of households in the Durham-Chapel Hill corridor will not own automobiles in 2040, which flies in the face of current ownership levels and assumes a massive change in public behavior, which is then used to justify an overly optimistic ridership utilization. Just looking at the current utilization of the Robertson Scholars Express Bus between Duke University and UNC indicates a very low level of utilization, serving only 350 boardings per day, with buses running every 30 minutes between campus for 16 hours each weekday. This equates to an average of only 5 riders per bus, which is well below capacity. Why would this magically increase with the introduction of light rail, with a transit time that is longer than the current bus option? For all these reasons and more, I support the NO BUILD OPTION. The projected growth in the Triangle is predominately weighted toward Wake County, and Wake County, with a much larger population</p>

than Orange or Durham Counties has rejected the Light Rail option in favor of Bus Rapid Transit and Diesel Rail Rapid Transit, using established rail corridors and new bus rapid transit lanes, without incurring the unsustainable economic costs associated with light rail. Let's learn from Wake County and make smart choices for Durham and Orange counties when it comes to mass transit resources. The population density is not sufficient to justify an investment in light rail.--

*Comment Responses*

*DEIS/Errata References*

*As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

DEIS chapter 1  
DEIS section ES-3  
DEIS section ES-5  
DEIS section 1.5.1.2  
DEIS section 3.2  
DEIS section 8.1  
DEIS section 8.4

*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways.*

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.*

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- *Improve Mobility*
- *Enhance mobility: provide a competitive, reliable*

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alternative to automobile use that supports compact development o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time• Increase Connectivityo Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham• Promote Future Developmento Support local land use plans that foster compact development, o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).Light rail was chosen for the D-O Corridor because this technology will:• Connect residential, educational, and major employment centers throughout the corridor;• Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;• Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;• Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;• Provide solid anchors needed to shape land use along this critical corridor; and,• Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.

First Name	Last Name	Comment
Jim	Green	DEIS leads to NO on DOLRT[name and contact info removed]10/10/2015 3:36 PMinfo@ourtransitfuture.comWe are concerned citizens of Orange County North Carolina. The DEIS is inaccurate and misleading in many aspects.Specifically from the DEIS section 4(f) p.4-288, the Council on Environmental Quality (CEQ) requires an assessment of indirect and cumulative impacts per 40 C.F.R. §§ 1500–1508. Regulations included in the appendix to the PlanningAssistance and Standards, Title 23 C.F.R. Part 450, indicate that the indirect and cumulative effects analysis should be sufficiently detailed such that consequences of different alternatives can be readily identified, based on current data and reasonable assumptions, and based on reliable and defensible analytical methods. Furthermore, courts have mandated that federal agencies take a reasonably “hard look” at their projects with regard to available information and analysis of appropriate issues (including indirect and cumulative effects).The DEIS is deficient in that the indirect

and cumulative impacts of the project are not fully addressed. These indirect and cumulative impacts include the transformation of what is today, rural and low density residential land use within the project corridor to intense high density, mixed use development approaching 100 units per acre. The proposed rail corridor from US15/501 to US54 sits on a narrow peninsula of land bounded by New Hope Creek on the east, Little Creek to the west and to the south, Jordan Lake. The area is currently low density residential and farm land. The rail ridership numbers assume this area becomes intensely high density residential (60 to 100 units to the acre) with large amounts of impervious surface area (900 car park--and--ride lot at Leigh Village Compact Neighborhood for example, and 26 impervious acres at the proposed ROMF site). The indirect and cumulative impacts on and to the environment (including Leigh Farm Park, an 86 acre nature preserve) due to storm water runoff and silt run off for this area—as transformed by transit driven development – needs to be addressed in specific, quantifiable scientific terms.[names removed]

*Comment Responses*

*DEIS/Errata References*

*Indirect and Cumulative impacts as well as proposed mitigation measures are discussed in Section 4.17. The NEPA legislation directs federal agencies to examine indirect and cumulative effects, but does not prescribe a specific methodology for analyzing these effects. There is a potential for growth and land use change in the study area, and particularly within ½ mile of stations. Most of the study area is urban or suburban in nature, and the proposed project is not likely to cause a substantial change in the type of land use in the corridor; however, future development may occur in a more compact manner along the corridor and at stations, where utilities are in place, and development is already largely occurring. The station areas have been targeted for more compact development, resulting in less impervious surface and a reduction in stormwater runoff when compared to current development trends. While water resources may be indirectly impacted because of the proposed D-O LRT Project, the type of compact development likely to occur would be more beneficial to water resources than the type of dispersed growth that typically occurs with auto-oriented development. Existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans. Stormwater runoff is a key concern when impervious surface is increasing, and the state’s Section 401 water quality certification process includes stormwater management requirements once impervious percentage thresholds are exceeded. There may also be local programs that would further supplement the state and federal programs, especially in those instances where there is not a stream/wetland impact trigger. Water quality concerns would be minimized using these regulations.*

DEIS section 4.1  
DEIS section 4.2  
DEIS section 4.17

*DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over*

*the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments. Under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly. Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan. Further information about the Compact Neighborhood destination is available from the Durham City-County Planning Department.*

First Name	Last Name	Comment
Stacy	Hagerty	Dear Sirs: I am concerned that you want to locate the ROMF industrial site in a purely residential area. I live off Farrington Road and wonder what measures you propose to mitigate the traffic congestion, noise, ground water, and light pollution which will affect us every day? I've attended one of GoTriangle's presentations and was not impressed that they had done their homework nor had they used recent maps, nor had they seriously considered locating the industrial ROMF in an area which is already zoned for industry. Will the ROMF use solar power? My neighborhood is a 55+ community. Right nearby is an elementary school. How will ambulances get to us quickly with Farrington Road being closed 150 times per day for trains to cross it? How will residents be able to drive out of our neighborhood with increased traffic from ROMF employees and frequent road closures for all the trains? Successful light rail operations need a population density of 18,000 people per square acre. Durham County has about 4,000 people per square acre. I agree with the smart folks in Wake County who have already said This will not work here. Trains not going to Raleigh or RDU airport means the proposed rail system is Hospital to Hospital--no Triangle about it. The system would be totally inflexible and very, very expensive to build and maintain. As a Durham County resident since 1984, I believe our county should consider Bus Rapid Transit, which is cheaper, less harmful to the environment, and completely flexible. If you really want ridership, make the buses free.

Comment Responses	DEIS/Errata References
<i>In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. Although the Alston Avenue ROMF</i>	DEIS section 4.1.4.1 DEIS section 4.4.3.1 DEIS section 4.8.3.1 DEIS section 4.12.4 DEIS section 8.2.2.1 DEIS section 8.2.2.2 FEIS/ROD section 1.2.2 FEIS/ROD section 1.4 DEIS Errata 21, 22, 52, 70, 76,

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*alternative would not require rezoning, it would introduce several risks to both the project schedule and budget, associated with the potential of regulated materials remediation and relocation of businesses. It also has the potential to result in net loss of employment within the D-O Corridor if the existing businesses that would be displaced could not be relocated within the D-O Corridor. This alternative has the highest capital cost of all of the alternatives considered in this DEIS (section 8.2.2.2). As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. Furthermore, should noise impacts be determined, mitigative measures such as landscaping, berms, and other design considerations would be explored. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. Section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. Section 4.8.3.1 discusses groundwater quality and states that the 116 privately –owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. In addition, the use of concrete ties avoids the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The source of energy, e.g. renewable or fossil fuels, has not been determined at this time. It will be determined closer to the start of revenue operations and something that could be revisited after revenue operations have begun. For the purposes of the DEIS, it was assumed electricity would be provided by fossil fuels, to provide a conservative assessment of the benefits of D-O LRT Project.*

*As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including*

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*extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU is not warranted or cost effective for the Project. With the exception of a small percentage of regular business travelers, most Triangle residents use RDU between 1 and 10 times per year, but travel to their workplace 250+ days per year. As a region builds its transit system, a consistent model for success has been to link neighborhoods to those “250+ day destinations” with the highest capacity service, while ensuring quality bus links to other important trip generators like the primary regional airport. RDU is critical to our region’s economic prosperity and is our gateway to the world. Triangle Transit recognizes this and recently launched its most significant airport services expansion in over 10 years. Triangle Transit currently serves Terminal 1 and Terminal 2 with buses 7 am – 11 pm Monday – Saturday, and 7 am – 5pm on Sunday. The airport is currently, and will continue to be, serviced by Triangle Transit buses (Route 100). The proposed D-O LRT Project is in the Durham-Orange Corridor. Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.*

*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com). The combined FEIS/ROD will reflect that fares for the D-O LRT will likely be comparable to bus fares in effect at that time.*

First Name	Last Name	Comment
Stephen	Hall	Dear Sir or Madam, Please find attached my comments on the DEIS for the D-O LRT. Thank you for your consideration. [Name and address removed] Copyright © 2003-2015. All rights reserved. Comments on the DEIS for the Durham-Orange Light Rail Transit Project generally support the development of mass transit systems such as the proposed Durham-Orange Light Rail Transit (LRT) system. Region-wide, long-range planning for transportation is needed to reduce the environmental and social burdens associated with our heavy dependence on individual vehicles. But any transportation project – cutting across vast swathes of land – has the potential for creating its own environmental impacts. Thorough review of these projects, however, can lead to decisions that avoid, minimize, or mitigate for these impacts, including not only the direct impacts – i.e., those occurring within the construction footprint of the project – but also the secondary impacts that extend well beyond the project’s footprint, and the overall context of the project. Assessing the broader, longer-term environmental impacts is, in fact, one of the requirements for projects, such as the LRT, that are reviewed under the National Environmental Policy Act (NEPA). Unfortunately in the case of the Draft Environmental Impact Statement (DEIS) for the LRT, an extremely myopic view is taken. The New Hope Creek watershed contains some of the largest expanses of floodplain forests remaining in the Piedmont, with large tracts set aside by the Army Corps of Engineers



as mitigation for the loss of wildlife habitats caused by the creation of Jordan Lake. Together with other large blocks of natural habitats protected within Duke Forest, Triangle Land Conservancy Preserves, and Durham and Orange County parks and open space reserves, these lands represent one of the largest concentrations of wildlife habitat remaining in the Piedmont. As documented in several biological surveys, including ones I helped conduct for the NC Natural Heritage Program, Triangle Land Conservancy, and local governments (Sather et al., 2004 and Hall and Sutter, 1999), this area has a highly diverse fauna, supporting many specialists on floodplain forest habitats or species that are highly sensitive to habitat fragmentation. These species include a large number of forest-interior, neotropical migrant songbirds, such as Wood Thrush, Scarlet Tanager, Yellow-throated Vireo, Red-eyed Vireo, Blue-gray Gnatcatcher, Kentucky Warbler, Hooded Warbler, Yellow-throated Warbler, Prothonotary Warbler, American Redstart, Ovenbird, Northern Parula, Louisiana Waterthrush, Acadian Flycatcher, and Yellow-billed Cuckoo. Other year-round residents of bottomland habitats include Barred Owl, Red-shouldered Hawk, Wood Duck, Spotted Salamander, Marbled Salamander, Four-toed Salamander, Marsh Rabbit, Muskrat, Beaver, Otter, and Mink. Due to loss and fragmentation of their habitats, many of these species have been undergoing a severe decline. One species, the Four-toed Salamander, is listed as Special Concern on the North Carolina Wildlife Commission's list of protected animals. The majority of these species are not mentioned in the DEIS, which instead presents a very different picture of the wildlife of the project area. Under the Section 4.7.2.3, Terrestrial Wildlife, the document states that "wildlife species found in this area are typically opportunistic species that are adapted to disturbed habitat and will inhabit any of the biotic communities discussed in DEIS section 4.7.3.2." (p. 4-300; see also p. 4-140 and p. K.21-21). While that may be true over much of the length of the proposed project, it is highly unlikely within the critical sections that cross the Little Creek and New Hope Creek floodplains. Remarkably, the list of fifteen species observed during surveys conducted by the consultants for this project (p. 4.140 and K.21.22) does not include a single neotropical migratory songbird. (although it does include Wood Frog, a species of northern forests not found within 100 miles of the project area). The absence of these species, if true, would indicate that the area had lost virtually all of its forest cover, which is far from the case. More likely, the absence is due to the time of year that surveys were conducted. No date for the surveys was mentioned, only the fact that they took place sometime between August 2013 and August 2014 (K.21-21). From the species included on the list, the survey(s) may have been made during the late summer, past the mating season of most songbirds, frogs, salamanders, and other species of vertebrates. Records for additional species mentioned in the DEIS for this area may have been obtained from a checklist made for the 15-501 Bottomlands Natural Area included in Hall and Sutter, 1999. That list, however, was made for a site visit conducted in January (see p. K.21-127), when again neotropical migrants are not present and many other summer-active species are dormant. The conclusion reached by the DEIS that the fauna of the New Hope Creek floodplain is dominated by habitat generalists that are highly tolerant of disturbed habitats would be very different if the more complete species lists – obtained during site visits made to various parts of the New Hope Creek watershed during the late spring and early summer – had been included. A different picture of the significance of the impacts would also emerge. Whereas the loss of mature forests and their replacement with open or semi-urbanized habitats would probably not make a huge difference for American Robins or Northern Mockingbirds, it would have major effects on Scarlet Tanagers, Four-toed Salamanders, or Eastern Box Turtles, which, along with the other species listed above, require extensive stands of forest habitat. This is true not only with respect to the direct impacts of the project – i.e., the acres of forested habitats that would be affected by construction or permanently disturbed as a result of the project – but more importantly with respect to its indirect impacts. Creation of open, disturbed habitat even along narrow strips creates avenues for invasive species such as Brown-headed Cowbirds, Red Foxes, and feral House Cats (all present in the area), whose impacts on forest species extend well beyond the boundaries of the disturbed area itself. Estimates given in a report from the Environmental Law Institute (2003, Conservation Thresholds for Land Use Planners) range up to 700 to 900 meters from a habitat edge, with 230 meters representing the majority of such estimates (see p. 16 of that report, available online at <http://www.eli.org/research->

report/conservation-thresholds-land-use-planners). In addition to the increased predation and nest parasitism that are associated with habitat fragmentation, the effects on species' abilities to move across the landscape may be profound. Many forest species are reluctant to move through open habitats and may be especially reluctant to come near areas where there is frequent or constant human activity. These barrier effects, in turn, lead to increased isolation of populations within increasingly small fragments of their natural habitats. This isolation, in turn, leads to greater risks of local extirpation and lowered chances of restoration from populations located elsewhere in the region. These secondary impacts are extremely relevant to the proposed LRT project, which cuts across the floodplain of New Hope Creek at a particularly vulnerable spot, where there is both a gap in protected conservation lands and a convergence of development spreading out from Durham and Chapel Hill along US 15-501. As a result of this development, this area has become a bottleneck for wildlife movements that threatens to isolate the tracts of Duke Forest and other conservation lands on the north side of the highway from the Jordan Lake conservation lands on the south side. Concerns about the impacts on wildlife movements across the 15-501 bottleneck played a major factor in the recent bridge replacement over New Hope Creek, involving local conservation groups, local governments, and several state agencies. This resulted in a decision by the state Department of Transportation to construct a bridge that spans the entire floodplain of the creek and leaving a wide, open passageway meeting the needs for wildlife passage underneath. Despite the noted success of this effort, this project was left off the list of past actions affecting the Durham-Orange Corridor on page 4-295 of the DEIS. In general, concerns about the effects of the LRT project on wildlife movements – which played such a critical role in the US 15-501 bridge replacement – are given scarcely any attention at all in the DEIS. In addressing the secondary impacts of the project, which should include the impacts to wildlife movement, the DEIS gives only the following generic statement: Induced development related to the project may result in general habitat impacts such as loss, fragmentation, and degradation of existing habitat and displacement or removal of native species from the geographic study areas (p. 4-291). No specific mention is made with regard to the need to maintain wildlife connectivity between Duke Forest, Triangle Land Conservancy preserves, and county open space preserves and easements located along New Hope Creek to the north of US 15-501 and the conservation lands at the upper end of the Jordan Lake (owned by the US Army Corps of Engineers) on the downstream side. The analysis of cumulative impacts given in the DEIS is similarly generic. While it does mention that the creation of Jordan Lake resulted in loss of habitat that was subsequently mitigated through habitat acquisition and protection (but not specifically mentioning areas potentially affected by the LRT project – p. 4-300), it includes few other specific actions – past or future – that would combine with the effects of the LRT project to lessen or magnify its impacts on the environment. In addition to the widening of US 15-501 where it crosses New Hope Creek, I would add the construction of I-85 and I-40; all three of these multi-lane highways created nearly impassible barriers (for terrestrial wildlife at least) surrounding the Korstian, Durham, and Eno Divisions of Duke Forest, Oosting Natural Area, the Johnston Mill Nature Preserve, and several other protected open space reserves and conservation easements. For all of these preserves – which contain some of the most important natural areas in the region – the viability of many of their native species populations depends to a significant degree on the slender strand of natural habitats that still remain on either side of the 15-501 corridor along New Hope Creek. This is the last terrestrial lifeline that connects these areas to the outside world but could easily become a choke point if care is not taken to keep it open and functioning for wildlife movements. Giving more consideration to these critical secondary and cumulative impacts is more likely to lead to good decisions with regard to the protection of native species and ecosystems than is consideration solely of the direct impacts of this project. Alignments for the project, for example, should be selected in order to minimize habitat fragmentation. Selection of Alternative C2 where the project crosses Little Creek, and Alternative 1 where it crosses New Hope Creek and Sandy Creek would both accomplish this objective. So would additional commitments, such as to:

- minimize construction impacts within floodplains of these streams as well as on the adjoining slopes
- maintain an open, wide span beneath the bridge crossings in these areas
- use fencing to direct wildlife towards the underpasses and away from the roadways
- allow natural vegetation to

regenerate as closely as possible to the underpasses. Assessing the secondary and cumulative impacts of a project within the framework of an NEPA Environmental Impact Statement provides a limited opportunity to look at the environmental needs across broad areas of the landscape and over long time frames. However, just as long-range, multi-jurisdictional planning is needed to help guide transportation planning, so it is for the protection of our native species and ecosystems. In determining how best to protect the ecosystems located within the New Hope Creek watershed, the governments of Durham, Orange, and Chatham all need to be involved, along with major conservation landowners, such as Duke University, Triangle Land Conservancy, and the US Army Corps of Engineers. Local conservation groups and state agencies also need to take part, but most critically the citizens of the area also need to know what is at stake. Ideally, a regional conservation plan will be developed that is equal in scope and details as the one that has been prepared for the LRT and associated planned developments. Even more ideally, comprehensive plans for environmental protection will be routinely incorporated into plans for transportation and other infrastructure, long before an EIS is required. I hope the large public discussion that has been generated by the Durham-Orange LRT project will stimulate an interest in the development of such a plan. [REMOVED NAME AND ADDRESS]

### Comment Responses

### DEIS/Errata References

*The neotropical migrant songbirds would be covered under the Migratory Bird Treaty Act, which is discussed in DEIS section 4.7 and the Natural Resources Technical Report, Appendix K21. If construction is to take place during nesting season for migratory birds, a nesting survey will be conducted prior to construction. The selected alignment alternatives for the crossings of Little Creek and New Hope Creek were chosen in part because of their limited fragmentation and wildlife movement impacts. At the crossing of Little Creek, the NEPA Preferred C2A alternative follows along the existing NC 54 for much of its length, minimizing additional habitat fragmentation. The C2A alignment only turns north along George King Road, away from NC 54, in an area of upland forest, and avoids the highest quality bottomland forest habitat of the Little Creek corridor. Similarly, the NEPA Preferred NHC 2 alternative avoids cutting through the most sensitive intact inner portions of the New Hope Creek bottomland forest by following along the existing US 15-501. In addition to minimizing forest fragmentation by following along existing roadways, both the Little Creek and New Hope Creek crossings will feature raised rail sections supported by bridge piers. This will allow for terrestrial wildlife to pass easily underneath, maintaining the connectivity of this important wildlife corridor. The opening of forest habitat will also be minimized by only clearing vegetation along the rail corridor to the extent necessary and allowing vegetation to regenerate as close to the rail lines as is safe and practical. Construction impacts could also be minimized by using techniques such as “top down” construction, described in section 4.16 of the DEIS. Additional information regarding the literature reviewed and species anticipated to occur in specific habitats throughout the D-O Corridor is provided in the Natural Resources Technical Report, Appendix K21 of the DEIS. Section 4.17.2 of the DEIS provides information on the cumulative effects analysis including the methodology and other actions assumed for the analysis. As indicated in section 4.17.2.2, these other actions for transportation include all the transportation system improvements that are part of the No Build Alternative, as described in DEIS section 2.4. These include the existing roadway system (which would include I-40 and I-85); projects in the NCDOT State Transportation Improvement Program (STIP); projects in the CAMPO and DCHC MPO 2040 MTP; the existing transit system; planned transit*

DEIS section 4.17.2  
DEIS section 4.17.2.2

*improvements, as modified for the definition of the No Build Alternative; and the pedestrian and bicycle improvements in the plans listed in DEIS section 2.4.*

First Name	Last Name	Comment
David	Hardman	<p>I am writing to comment on the DEIS for the D-O LRT and to express my support in favor of the NO BUILD OPTION. The project as it is currently conceived is based on fundamentally unsound ridership projections and will not result in any appreciable reduction in automobile congestion in the Chapel Hill-Durham road corridor. In fact, in other urban centers around this country, the introduction of light rail primarily shifts ridership from buses to light rail, without significantly decreasing automobile traffic. Furthermore, the routing of the proposed light rail track is not aligned with the higher density compact neighborhood developments in Orange and Chatham counties, including the Ephesus-Ford, Glenn Lennox and Obey Village communities. Lastly, there is no incentive to take light rail to reduce travel time between Durham and Chapel Hill, with an estimated LRT time of 42- 44 minutes end to end, versus a projected automobile commuting time of 27 minutes in 2035. And this does not include automobile commuting time to the station parking lots, parking time and walking time to the platform, and waiting time on the platform for the next train. This is neither convenient nor does it reduce automobile congestion. Academic studies reviewing the cost and feasibility of light rail projects across the USA indicate that most of these projects require an annual 70% taxpayer subsidy, as the ridership farebox collection only supports a small percentage of the annual operating costs. The 1.6 billion dollar capital cost associated with this project is not a responsible use of scarce resources for mass transit development, and can be better allocated in a region of low population density (Chapel Hill-Durham) with increased investment in conventional bus service, which has the flexibility of deployment to actual growth areas, versus projected growth areas. A research working paper from the University of California-Berkeley, which analyzed urban light rail mass transit, indicated that a population density of 30 people per gross acre, or roughly 19,000 people per square mile (ppsm), was necessary in order to support light rail transit. The Chapel Hill-Durham corridor has a population density less than 20% of that threshold, with a current density of approximately 3,000 ppsm, which is predicted to rise to 4000 ppsm in 2035. This is not a recipe for success. The ridership projections for the D-O LRT are wildly optimistic, with estimated daily boardings of 23,000. This is in contrast to the Charlotte LRT system, with daily boardings of 16,000 (which has been static since inception in 2007, while the population has increased 17%, with no measurable decrease in traffic congestion), in a area with a population that is 70% larger than the Triangle area. These ridership projections are further inflated with the working assumption that 40% of households in the Durham-Chapel Hill corridor will not own automobiles in 2040, which flies in the face of current ownership levels and assumes a massive change in public behavior, which is then used to justify an overly optimistic ridership utilization. Just looking at the current utilization of the Robertson Scholars Express Bus between Duke University and UNC indicates a very low level of utilization, serving only 350 boardings per day, with buses running every 30 minutes between campus for 16 hours each weekday. This equates to an average of only 5 riders per bus, which is well below capacity. Why would this magically increase with the introduction of light rail, with a transit time that is longer than the current bus option? For all these reasons and more, I support the NO BUILD OPTION. The projected growth in the Triangle is predominately weighted toward Wake County, and Wake County, with a much larger population than Orange or Durham Counties has rejected the Light Rail option in favor of Bus Rapid Transit and Diesel Rail Rapid Transit, using established rail corridors and new bus rapid transit lanes, without incurring the unsustainable economic costs associated with light rail. Let's learn from Wake County and make smart choices for Durham and Orange counties when it comes to mass transit resources. The population density is not sufficient to justify an investment in light rail. Sincerely, David Hardman 228 Galway Drive Chapel Hill, NC 27517</p>

As stated in section 3.1.1 of the DEIS, “Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP).”In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project, nor always offer a faster travel time. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours.

DEIS chapter 1  
 DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17 and 30

As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:

- Improve Mobilityo Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time•
- Increase Connectivityo Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham•
- Promote Future Developmento Support local land use plans that foster compact development, o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these



key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:

- Connect residential, educational, and major employment centers throughout the corridor;
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;
- Provide solid anchors needed to shape land use along this critical corridor; and,
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).

As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.

First Name	Last Name	Comment
David	Hardman	I am writing to support the NO BUILD option for the D-O LRT proposal, due to significant concerns related to the operating safety of this system. On a national level, we continue to be plagued by tragic reports of vehicular collisions with trains (commuter and inter-city) due to at grade crossings, despite the presence of warning lights and safety gates. Inter-city heavy train travel has a fatality rate of 7.1 deaths per 100 million passenger miles, which is 7 times higher than the 1.1 deaths per 100 million passenger miles when traveling by car. However, what is even more frightening is the much higher fatality rate of 10.8 deaths per 100 million passenger miles with commuter trains, and most frightening, a fatality rate of 22.6 deaths per 100 million passenger miles utilizing light rail. I note that the proposed D-O LRT route includes a total of 43 at-grade crossings, with 38 in Durham County and 5 in Orange County, with a projection of 155 daily train trips. I find it inconceivable that a project of this magnitude in scope

and cost would introduce a mode of transportation in our area to unsuspecting riders that has a 22 times higher risk of being killed associated with its use, as compared to simply driving one's own car. Quite frankly, for this, and a myriad of other reasons, light rail transit has no place in our community. I am fundamentally opposed to this project and that's why I support the NO BUILD option.[removed name and address]

### Comment Responses

### DEIS/Errata References

*As discussed in DEIS section 4.16.2, three types of light rail crossings are proposed as part of the proposed D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. The D-O LRT Project would include approximately 25-30 elevated light rail crossings over existing roadways. (section 4.16.2). As described in DEIS section 4.12.3.5, the D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit that would interact with vehicular, bicycle, and pedestrian traffic. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Section 4.12.4.5 describes the proposed mitigation to address safety and security impacts of the introduction of light rail on pedestrians, bicyclists, and motorists. To avoid the potential for incidents at at-grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines.*

DEIS section 3.2  
DEIS section 3.6  
DEIS appendix L

*In accordance with federal regulations governing control of public streets and the interface of light rail transit systems with those public streets, for light rail crossings in close proximity to traffic signals on NC 54, light rail crossing gate controls will be interconnected with the traffic signal controls. This means that the traffic signal will be synchronized with the light rail train control such that when a light rail train is approaching, the traffic signal will change if necessary to clear vehicles from the crossing. Traffic signal phases that do not conflict with the light rail tracks will be able to run while the train is passing. For example, traffic traveling on NC 54 would have a green light while the light rail train crosses Friday Center Drive and East Barbee Chapel Road under the C2A Alternative. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 to 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.*

*As detailed in DEIS section 4.12.2.5, to the extent practicable, Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles at Triangle Transit facilities. Many safety measures, including crosswalks, signals, lighting, and fencing in certain locations, are used to help reduce the number of conflicts and incidents. In addition, basic design elements are used to enhance safety, including the use of facility siting and parking lot layouts that avoid pedestrian/vehicle and vehicle/vehicle conflicts, as well as the careful use of landscaping to eliminate blind spots and provide openness for security surveillance. Furthermore, Triangle Transit facilities are designed to comply with the Americans with Disabilities Act (ADA) to improve safety and ease of movement for disabled individuals. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L).*

*In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>*

First Name	Last Name	Comment
Kim	Hardman	<p>Good Evening, I am writing to comment on the DEIS for the D-O LRT and to express my support in favor of the NO BUILD OPTION. First and foremost, the project, in its current form, is based on fundamentally unsound ridership projections and will not result in any appreciable reduction in automobile congestion in the Chapel Hill-Durham road corridor. In fact, in other urban centers around this country, the introduction of light rail transportation primarily shifts ridership from buses to light rail, without significantly decreasing automobile traffic. Furthermore, the routing of the proposed light rail track is not aligned with the higher density compact neighborhood developments in Orange and Chatham counties, including the Ephesus-Ford, Glenn Lennox and Obey Village communities. Lastly, there is no incentive to take light rail to reduce travel time between Durham and Chapel Hill, with an estimated LRT time of 42-44 minutes end to end, versus a projected automobile commuting time of 27 minutes in 2035. (And this does not include automobile commuting time to the station parking lots, parking time and walking time to the platform, and waiting time on the platform for the next train. This is neither convenient nor does it reduce automobile congestion.) Academic studies reviewing the cost and feasibility of light rail projects across the USA indicate that most of these projects require an annual 70% taxpayer subsidy, as the ridership farebox collection only supports a small percentage of the annual operating costs. The 1.6 billion dollar capital cost of this project is not a responsible use of scarce resources for mass transit development, and can be better allocated in a region of low population density (Chapel Hill-Durham) with increased investment in conventional bus service, which has the flexibility of deployment to actual growth areas, versus projected growth areas. A research working paper from the University of California-Berkeley, which analyzed urban light rail mass transit, indicated that a population density of 30 people per gross acre, or roughly 19,000 people per square mile (ppsm), was necessary in order to support light rail transit. The Chapel Hill-Durham corridor has a population density less than 20% of that threshold, with a current density of approximately 3,000 ppsm, which is predicted to rise to 4000 ppsm in 2035. The ridership projections for the D-O LRT are wildly optimistic, with estimated daily boardings of 23,000. This is in contrast to the Charlotte LRT system, with daily boardings of 16,000 (which has been static since inception in 2007, while</p>

the population has increased 17%, with no measurable decrease in traffic congestion), in a area with a population that is 70% larger than the Triangle area. These ridership projections are further inflated with the working assumption that 40% of households in the Durham-Chapel Hill corridor will not own automobiles in 2040, which flies in the face of current ownership levels and assumes a massive change in public behavior, which is then used to justify an overly optimistic ridership utilization. Just looking at the current utilization of the Robertson Scholars Express Bus between Duke University and UNC indicates a very low level of utilization, serving only 350 boardings per day, with buses running every 30 minutes between campus for 16 hours each weekday. This equates to an average of only 5 riders per bus, which is well below capacity. Why would this magically increase with the introduction of light rail, with a transit time that is longer than the current bus option? For all these reasons and more, I support the NO BUILD OPTION. The projected growth in the Triangle is predominately weighted toward Wake County, and Wake County, with a much larger population than Orange or Durham Counties has rejected the Light Rail option in favor of Bus Rapid Transit and Diesel Rail Rapid Transit, using established rail corridors and new bus rapid transit lanes, without incurring the unsustainable economic costs associated with light rail. Let's learn from Wake County and make smarter choices for Durham and Orange counties when it comes to mass transit resources. As evidenced above, our population density is not sufficient to justify an investment in light rail. Thank you. [removed name and address]

*Comment Responses*

*DEIS/Errata References*

*As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)." In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project, nor always offer a faster travel time. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours.*

DEIS chapter 1  
 DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17 and 30

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to*

**D-O LRT FEIS / ROD**

attain the following:

- *Improve Mobility* Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development
- o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time
- *Increase Connectivity* Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system
- o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham
- *Promote Future Development* Support local land use plans that foster compact development,
  - o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers

The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).

Light rail was chosen for the D-O Corridor because this technology will:

- Connect residential, educational, and major employment centers throughout the corridor;
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;
- Provide solid anchors needed to shape land use along this critical corridor; and,
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).

As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1



First Name	Last Name	Comment
Christine	Hardman	<p>I am writing to comment on the DEIS for the D-O LRT and to express my support in favor of the NO BUILD OPTION. The project as it is currently conceived is based on fundamentally unsound ridership projections and will not result in any appreciable reduction in automobile congestion in the Chapel Hill-Durham road corridor. In fact, in other urban centers around this country, the introduction of light rail primarily shifts ridership from buses to light rail, without significantly decreasing automobile traffic. Furthermore, the routing of the proposed light rail track is not aligned with the higher density compact neighborhood developments in Orange and Chatham counties, including the Ephesus-Ford, Glenn Lennox and Obey Village communities. Lastly, there is no incentive to take light rail to reduce travel time between Durham and Chapel Hill, with an estimated LRT time of 42-44 minutes end to end, versus a projected automobile commuting time of 27 minutes in 2035. And this does not include automobile commuting time to the station parking lots, parking time and walking time to the platform, and waiting time on the platform for the next train. This is neither convenient nor does it reduce automobile congestion. Academic studies reviewing the cost and feasibility of light rail projects across the USA indicate that most of these projects require an annual 70% taxpayer subsidy, as the ridership farebox collection only supports a small percentage of the annual operating costs. The 1.6 billion dollar capital cost associated with this project is not a responsible use of scarce resources for mass transit development, and can be better allocated in a region of low population density (Chapel Hill-Durham) with increased investment in conventional bus service, which has the flexibility of deployment to actual growth areas, versus projected growth areas. A research working paper from the University of California-Berkeley, which analyzed urban light rail mass transit, indicated that a population density of 30 people per gross acre, or roughly 19,000 people per square mile (ppsm), was necessary in order to support light rail transit. The Chapel Hill-Durham corridor has a population density less than 20% of that threshold, with a current density of approximately 3,000 ppsm, which is predicted to rise to 4000 ppsm in 2035. This is not a recipe for success. The ridership projections for the D-O LRT are wildly optimistic, with estimated daily boardings of 23,000. This is in contrast to the Charlotte LRT system, with daily boardings of 16,000 (which has been static since inception in 2007, while the population has increased 17%, with no measurable decrease in traffic congestion), in a area with a population that is 70% larger than the Triangle area. These ridership projections are further inflated with the working assumption that 40% of households in the Durham-Chapel Hill corridor will not own automobiles in 2040, which flies in the face of current ownership levels and assumes a massive change in public behavior, which is then used to justify an overly optimistic ridership utilization. Just looking at the current utilization of the Robertson Scholars Express Bus between Duke University and UNC indicates a very low level of utilization, serving only 350 boardings per day, with buses running every 30 minutes between campus for 16 hours each weekday. This equates to an average of only 5 riders per bus, which is well below capacity. Why would this magically increase with the introduction of light rail, with a transit time that is longer than the current bus option? For all these reasons and more, I support the NO BUILD OPTION. The projected growth in the Triangle is predominately weighted toward Wake County, and Wake County, with a much larger population than Orange or Durham Counties has rejected the Light Rail option in favor of Bus Rapid Transit and Diesel Rail Rapid Transit, using established rail corridors and new bus rapid transit lanes, without incurring the unsustainable economic costs associated with light rail. Let's learn from Wake County and make smart choices for Durham and Orange counties when it comes to mass transit resources. The population density is not sufficient to justify an investment in light rail. Sincerely, [removed name and address]</p>

As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)." In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project, nor always offer a faster travel time. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours.

DEIS chapter 1  
DEIS appendix K1  
DEIS appendix K2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 17 and 30

As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:

- Improve Mobilityo Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time•
- Increase Connectivityo Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham•
- Promote Future Developmento Support local land use plans that foster compact development, o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to

occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:

- Connect residential, educational, and major employment centers throughout the corridor;
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;
- Provide solid anchors needed to shape land use along this critical corridor; and,
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).

As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.

First Name	Last Name	Comment
David	Hardman	I am writing to express my opposition to the proposed Durham-Orange Light Rail project, and I support the No Build Option due to environmental concerns. The proposed rail route will violate the Farrington Road greenbelt, which is one of the last natural environmental buffers between Durham and Chapel Hill, and the proposed rail line will travel through low density residential neighborhoods such as Farrington Road and Downing Creek, while bypassing planned high density neighborhoods such as Meadowmont, which was planned around a future light rail line. How ironic that after this planned community was populated, the residents of Meadowmont were united against the rail line traveling through their development, and helped steer the line through an alternative route that passed through Downing Creek! What do the residents of Meadowmont know that the rest of the Durham-Orange Community doesn't know? Here's what they know: having this project run through your neighborhood is a blight that degrades the environment with light and noise pollution, and adversely affects the quality of life. The energy expenditure by Duke Power plants using coal and other fossil fuels, combined with the pollution associated with construction of the project results in a net increase in CO2 emissions. In addition to being a "brown" project, the loss of natural CO2 absorbing vegetation and the creation

of a 26 acre impervious surface Farrington ROMF is incompatible in a low-density residential area that is environmentally sensitive, with potential storm-water runoff into Leigh Farm Park and wetlands that flow into New Hope Creek, and ultimately Jordan Lake. Furthermore, the negative impact of artificial light and noise pollution emanating from the Farrington Road ROMF 24 hours a day, 7 days a week, is incompatible in a non-urban and non-industrial park setting. It's time to follow the example of Wake County and hire an outside consultant without vested interests in the project, to analyze the environmental and economic impact of this project. Wake County did this and found that light rail was not a viable option. It is not responsible to continue to fund the planning for this project, as GoTriangle continues to do, without first conducting an impartial analysis. I am not against mass transit or light rail, but I am against the DOLRT due to its negative environmental impact and dubious operational sustainability. Hence, I support the NO BUILD option. Sincerely, [removed name and address]

*Comment Responses*

*DEIS/Errata References*

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobility* *o Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development*
- o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time*
- Increase Connectivity* *o Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system*
- o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*
- Promote Future Development* *o Support local land use plans that foster compact development,*
- o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers*

*The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:*

- Connect residential, educational, and major employment centers throughout the corridor;*
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;*
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;*
- Provide solid anchors needed to shape land use along this critical corridor;*

DEIS chapter 1  
 DEIS section 2.2.3  
 DEIS section 4.4.3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119, 121, and 137

*D-O LRT FEIS / ROD*

and, • Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3). As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.

Section 8.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. For potential visual effects due to the Farrington ROMF, Triangle Transit would use source-shielding in exterior lighting at ROMFs, stations, and auxiliary facilities. See DEIS section 4.4.4. There are no noise or vibration impacts anticipated from the Farrington Road ROMF, or any of the other ROMF alternatives. See Table 8.2-3 on page 8-13. Section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately-owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste



materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Anticipated cumulative impacts to water quality from the NEPA Preferred Alternatives, including the ROMF, would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. This could contribute to further degradation of water quality in the Jordan Lake and Upper Neuse watersheds. However, the project would comply with stormwater management permitting requirements and include DWR stormwater management BMPs.

Efforts have been made to minimize the potential impacts to water resources during the preliminary design phase. Specific mitigation measures that would be implemented to compensate for unavoidable impacts will be refined and presented in the Final EIS. Because of the identified impacts, it is anticipated that a Section 404/401 permit application will be required and that a permit will need to be issued by the USACE and NCDENR DWR before construction activities may begin. The permit application will include the proposed D-O LRT Project's measures taken to avoid and minimize impacts to waters of the United States and includes a compensatory mitigation proposal to offset the unavoidable impacts. Construction activities would be conducted in accordance with local, state, and federal regulations, as well as Best Management Practices, including the NCDENR Stormwater Best Management Practices Manual (2007), the Erosion and Sediment Control Planning and Design Manual (NCDENR 2009), and the Design Standards in Sensitive Watersheds (15A N.C.A.C. § 04B.0124). See DEIS section 4.8.4.

Efforts have been made to minimize the potential impacts to water resources during the preliminary design phase. Specific mitigation measures that would be implemented to compensate for unavoidable impacts will be refined and presented in the Final EIS. Because of the identified impacts, it is anticipated that a Section 404/401 permit application will be required and that a permit will need to be issued by the USACE and NCDENR DWR before construction activities may begin. The permit application will include the proposed D-O LRT Project's measures taken to avoid and minimize

*impacts to waters of the United States and includes a compensatory mitigation proposal to offset the unavoidable impacts. Construction activities would be conducted in accordance with local, state, and federal regulations, as well as Best Management Practices, including the NCDENR Stormwater Best Management Practices Manual (2007), the Erosion and Sediment Control Planning and Design Manual (NCDENR 2009), and the Design Standards in Sensitive Watersheds (15A N.C.A.C. § 04B.0124). See DEIS section 4.8.4.*

First Name	Last Name	Comment
Cheri	Hardman	Oppose Durham Orange light rail - revenues insufficient! strongly support the NO BUILD OPTION re: Durham-Orange Light Rail Transit (DOLRT) in North Carolina. Don't fund the DOLRT for Chapel Hill and Durham, NC. DOLRT is based on faulty economic assumptions regarding farebox revenues. The operating and maintenance budget is estimated at \$16 million. Recovery from farebox payments is planned at 20%. But this is not realistic. DOLRT believes they can collect \$3.2 million in \$2 fares. This would mean 8,000 daily boardings under their estimate of 1.6 million annual boardings. Independent and unbiased studies need to be done on the DOLRT projections. Finally, the balance of \$12.8 million to sustain light rail operation is a serious annual tax liability for Durham and Orange County residents.[removed name, titles, address, and email]

Comment Responses	DEIS/Errata References
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*Annual operating and maintenance costs will be paid for with revenue from fares as well as local tax dollars, including sales tax revenue generated in Durham and Orange counties, funding from North Carolina Department of Transportation (NCDOT), and other local fees and taxes.*

DEIS section 3.1  
 DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30

*As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)."Triangle Transit forecasts an average of 23,000 weekday light rail trips by the year 2035.*

First Name	Last Name	Comment
Cheri	Hardman	Oppose Durham Orange light rail - questionable boarding numbersI strongly support the NO BUILD OPTION re: Durham-Orange Light Rail Transit (DOLRT) in North Carolina.Please vote the NO BUILD OPTION re: Durham Orange Light Rail Transit project for Chapel Hill-Durham, NC. The projected boardings for several of the neighborhood stations are highly questionable. Further investigation is needed. This begs the question: what other inaccurate numbers are in the DOLRT presentations? Please see that the government orders an independent, unbiased economic and logistical study before any funds are released. We see major problems with DOLRT claims. Thank you.

Comment Responses	DEIS/Errata References
<p><i>As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-3, DEIS Errata 30, It should be noted that the travel model is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc) do not always lead to changes in the output (ridership, travel times, etc).</i></p> <p><i>The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP).</i></p> <p><i>Section 1.4 of the combined FEIS/ROD, Table FEIS-3, DEIS Errata 30, 32, and 33 contain clarifications on ridership.</i></p>	<p>DEIS section 3.1.1 DEIS appendix K1 DEIS appendix K2 FEIS/ROD section 1.4 DEIS Errata 30</p>

First Name	Last Name	Comment
Cheri	Hardman	Oppose Durham Orange light rail - pop. density won't workI strongly support the NO BUILD OPTION re: Durham-Orange Light Rail Transit (DOLRT) in North Carolina.Please choose NO BUILD for DOLRT—Durham-Orange Light Rail Transit in North Carolina.Our population density does not support the much too high price tag, \$1.6 billion in capital, for light rail here. A UC California at Berkeley research paper analyzing urban light rail mass transit indicated that a city must have a density of at least 30 people per gross acre or about 19,000 people per square mile (ppsm) to economically support light rail transit. The Chapel Hill-Durham corridor right now only has 3,000 ppsm, and the projection for 2035 at 4,000 ppsm is still way below the recommendation of this key study. Light rail

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobility*
- Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development*
- Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time*
- Increase Connectivity*
- Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system*
- Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*
- Promote Future Development*
- Support local land use plans that foster compact development,*
- Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers*

*The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:*

- Connect residential, educational, and major employment centers throughout the corridor;*
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;*
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;*
- Provide solid anchors needed to shape land use along this critical corridor; and,*
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).*

*As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.*

DEIS chapter 1  
 DEIS section ES-3  
 DEIS section 8.1  
 DEIS section 8.4

First Name	Last Name	Comment
Cheri	Hardman	Oppose Durham Orange light rail - true commuter numbersI strongly support the NO BUILD OPTION re: Durham-Orange Light Rail Transit (DOLRT) in North Carolina.Before funding light rail for Durham-Chapel Hill, do take a look at a study by the University of North Carolina and the actual numbers of mass transit commuters coming and going between Orange and Durham Counties. The 9/3/2015 NC in Focus: Commuting by Public Transportation report states the number at 1,259 daily commuters who cross between counties. This number truly challenges the DOLRT (Durham Orange Light Rail Transit) ridership forecasts for 2040. DOLRT is assumingridership between our counties will climb to 9,220 by 2040. Their overly optimistic daily boardings estimates are based on such figures. Caution: don't fund based on numbers out of line with other studies. As citizens, we can't afford to pay \$1.6billion for rail service without ridership.[REMOVED NAME, TITLES, ADDRESS, EMAIL]

Comment Responses	DEIS/Errata References
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<p><i>Survey data for UNC and Duke student &amp; employee location patterns have been collected and studied in great detail for many years. Years of farebox data have also shown heavy transit use of UNC GoPasses on regional transit services, including the 800 and 805. A large amount of these trips are along the NC 54 corridor. In addition, ridership estimates include choice riders, or those who will elect to discontinue driving and instead use mass transit options, as well as taking into account new riders living and working in new developments along the corridor.</i></p> <p><i>As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in in Section 1.4 of the combined FEIS/ROD, Table FEIS-3, DEIS Errata #30, It should be noted that the travel model is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc) do not always lead to changes in the output (ridership, travel times, etc).</i></p> <p><i>The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)."</i></p> <p><i>Section 1.4 of the combined FEIS/ROD, Table FEIS-3, DEIS Errata #30, 32, and 33 contain clarifications on ridership.</i></p>	<p>DEIS appendix K1 DEIS appendix K2 FEIS/ROD section 1.4 DEIS Errata 30, 32, and 33</p>
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First Name	Last Name	Comment
Cheri	Hardman	Oppose Durham Orange light rail - choose Bus Rapid Transit! strongly support the NO BUILD OPTION re: Durham-Orange Light Rail Transit (DOLRT) in North Carolina. Vote NO BUILD for DOLRT, Durham Orange Light Rail Transit, NC. Already Bus Rapid Transit offers a much more financially viable answer. In Chapel Hill, BRT, is in the works for Martin Luther King Blvd. at a cost of \$25 million. We are asking, why aren't transportation planners looking at BRT for Highway 15-501, the main corridor running from Chapel Hill to Durham, or for NC Highway 54? Or for other thoroughfares? The cost for Bus Rapid Transit is much less than \$1.6 billion. What are the agendas and interests driving the push for light rail? Study based in true economics is needed ASAP before committing such major funds[REMOVED NAME, TITLES, ADDRESS, EMAIL]

Comment Responses	DEIS/Errata References
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*Various transit technologies and route alternatives were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). In addition, corridors, such as those along US 15-501 were evaluated. Through the Alternatives Analysis, light rail was selected as the best transit technology option, while the current corridor was selected as the best alternative, to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on ourtransitfuture.com. As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.*

DEIS chapter 1  
DEIS section 1.5.1.2  
DEIS section 3.2

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobilityo Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time•*
- Increase Connectivityo Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical*

*Centers, Duke East Campus, downtown Durham, and east Durham*• Promote Future Developmento Support local land use plans that foster compact development, o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).Light rail was chosen for the D-O Corridor because this technology will:• Connect residential, educational, and major employment centers throughout the corridor;• Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;• Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;• Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;• Provide solid anchors needed to shape land use along this critical corridor; and,• Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.

First Name	Last Name	Comment
Cheri	Hardman	Oppose Durham Orange light rail - neg. impact affordable housingI strongly support the NO BUILD OPTION re: Durham-Orange Light Rail Transit (DOLRT) in North Carolina. There are better alternatives to DOLRT. Bus Rapid Transit is far less costly. Don't fund the \$1.6 billion light rail in Durham-Chapel Hill without a look at the social consequences for all. Durham Orange Light Rail Transit as planned will not serve UNC Central or Durham Tech. It will cause rents and land prices to climb around its stations and thereby work against affordable housing. The East Alston low income community is not at all served. Vote the NO BUILD OPTION.[REMOVED NAME, TITLES, ADDRESS, EMAIL]

Comment Responses	DEIS/Errata References
<i>The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2).As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the D-O LRT FEIS / ROD</i>	DEIS Table 5.3-1 FEIS/ROD section 1.4 DEIS Errata 64

*development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs. The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.*

*Extensions, such as those to Durham Tech or NCCU, are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5).*

*Extensions, such as those to Durham Tech or NCCU, are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5)*

First Name	Last Name	Comment
Cheri	Hardman	I strongly support the NO BUILD OPTION re: Durham--Orange Light Rail Transit (DOLRT) in North Carolina. Before funding light rail for Durham-Chapel Hill, do take a look at a study by the University of North Carolina and the actual numbers of mass transit commuters coming and going between Orange and Durham Counties. The 9/3/2015 NC in Focus: Commuting by Public Transportation report states the number at 1,259 daily commuters who cross between counties. This number truly challenges the DOLRT (Durham Orange Light Rail Transit) ridership forecasts for 2040. DOLRT is assuming ridership between our counties will climb to 9,220 by 2040. Their overly optimistic daily boardings estimates are based on such figures. Caution: don't fund based on numbers out of line with other studies. As citizens, we can't afford to pay \$1.6 billion for rail service without ridership. [REMOVED PII]

Comment Responses	DEIS/Errata References
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*As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30

*As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred*

and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). See also Figure 1.3-4 from the DEIS which illustrates anticipated 2040 travel patterns within the D-O Corridor.

First Name	Last Name	Comment
Cheri	Hardman	[REMOVED NAME, ADDRESS, CITY, STATE, ZIP, AND COUNTY] I oppose the light rail project because -- because it is not cost-effective. At \$126 million per mile and then approximately 200 million -- 160 to 200 million per year annually, this is very expensive transportation, and the reality is it will probably be more like over 2 billion by the time it's completed. It's so ineffective that Wake County just last year decided to oppose it because newer, more cost-effective strategies are now available. It does not connect key locations to the area. RDU airport, a lot of people think it connects the airport. It doesn't. Southpoint Mall, Wake County, no connections. So basically we have an old technology that's already being looked at to be replaced in cities like Portland, Oregon. Go ahead and Google why get rid of light rail, and we haven't even started. There's no way it's to be used to the extent here in Durham and Orange County because we're not an urban area like Charlotte or Houston or Minneapolis where -- the places where its being used today. We will not have 23,000 round trips between Durham and Chapel Hill. Right now in a population of over a million on Charlotte, there's only 16,000 round trips a day. As a matter of fact, my daughter lives on the light rail, right -- right in front of it, and I said, have you ever used it? She said no -- well once. I did use it once. And I said, why not? She said, well, Uber's so much more effective and easier to get and cheaper. So for the young people, it's not really a positive right -- step, as well it's not safe. Again, Google light rail accidents, some of the worst accidents you'll see in transportation, probably the -- the -- one of the most dangerous. Again, funding is in questions, as well. So I do not support light rail.

Comment Responses	DEIS/Errata References
<p><i>Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to</i></p> <p style="text-align: center;"><b>D-O LRT FEIS / ROD</b></p>	<p>DEIS section 3.1.1  DEIS appendix K1  DEIS appendix K2  FEIS/ROD section 1.4  FEIS/ROD Table FEIS-2  DEIS Errata 17, 30, 32, and 33</p>

*RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

First Name	Last Name	Comment
Scott	Harrington	My name is [name removed]. I own a business in Chapel Hill, and I own and live in a home in the Durham city limits. I am opposed to the C2/C2A alignment. I originally supported the C1/C1A alignment. C1/C1A follows "Corridor A" in the 1998 US 15501 Major Investment Study (MIS), which the DEIS admits "continues to be protected and preserved for transit use by local governments". C1/C1A is also indicated as a transit corridor by the "Southwest Durham County and Southeast Chapel Hill COLLECTOR STREET PLAN"[1] (CSP) adopted and approved in 2007 by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) after extensive public comment and debate. Why does the DEIS not even mention the CSP? Signs prominently displayed in Meadowmont display a map clearly depicting the exact path of the C1/C1A as the "Adopted Fixed Guideway Transit Corridor, For Information Call Chapel Hill Planning Dept. 9199682728". With no more or less certainty than other unfunded road projects documented by the MPO, Meadowmont Lane will eventually be connected to Southwest Durham Drive (SWDD) traversing Upper Little Creek in exactly the same spot as C1A. Despite the fact this road project is a central (though not uncontroversial) feature of the CSP, The DEIS buries it in a table[2] surrounded by 24 pages (M6 through M17, M20 through M31) of



completely irrelevant CAMPO (Capital Area) projects. At significant expense, DHCH MPO undertook a "NC 54 / I40 Corridor Study"(Dec 2011)[3], which displayed route C1 as the Future Light RailAlignment, reinforcing the prior MIS and CSP. But during the NC54/I40 study public comment period, UNC demanded C2 be added to the NC54/I40 Corridor Study maps, resulting in "Microsoft Paint" overlays to the original PDFs to be posted to the final report as an addendum. Since the "Microsoft Paint" overlays adding C2 to the NC54/I40 Corridor Study were the RESULT of the public comment period, that route could not be commented on by those directly impacted by the C2 route!In the NC54/I40 study comment period, UNC stated "C2 is the preferredalignment of both the University and the Health Care Systems, and is favored by others as well."[4] Who are these unnamed "others"? Perhaps thesecretive owner of the land proposed to become Woodmont? Or speculativeinvestors in undeveloped plats around George King road, such as"Meadowmont Farms II LLC"?The US Army Corps of Engineers indicates C1 will not be approved, but C1Acases USACE no more or less concern than C2/C2A. C1A avoids the wetlandsand will not cause any more disruption to Significant Natural HeritageArea than will certainly occur due to development of the "Meadowmont FarmsII LLC" plat. Has anyone studied the impact of the inevitable developmentof these areas adjacent to the SNHA once they are NOT selected for LRT?Perhaps LRT is the lesser of evils for the boundaries of the SNHA.The C2 alignment was also inadequately examined in the DEIS TrafficSimulations[5]. In particular, no traffic counts were performed for theDowning Creek Parkway (DCP) intersection with NC54, an essential ingress/egress point for a sizable neighborhood, and which is not slated for closure like some other intersections are as part of various DOTwidening or superstreet proposals. Nor was this simple unsignalizedintersection input to VISSIM for simulated Level Of Service under NoBuildversus C2A scenarios. Why not? Can the VISSIM outputs even be relied upon? Garbage In = Garbage Out. Page K637 contains erroneous inputs for the Meadowmont Lane and East Barbee Chapel Road intersection (at the Wells Fargo branch). How can NBT (NorthboundThru) Demand be 137 cars in the NoBuild scenario but only 6 cars in the C1/C1A scenario? This is a lightly traveled intersection so the model produces LOS "A" for both Build and NoBuild (despite a 100% difference in resulting queue length yes that light always seems to be red when I get to it but it's a short light and the queue is never more than 1 car, 2 at most), but what other input errors are present that might not be so obviously wrong yet have led to incorrect conclusions?Thus, after examining the DEIS, I now support the No Build option at thistime. There are too many questions, newly raised in, or insufficientlyanswered by, the DEIS. I appreciate the efforts undertaken by many hardworking individuals thus far, and hope the various departments, agencies, and MPOs can work together to find a more appropriate way to solve our upcoming transitneeds without unfair or disproportionate influence from any town,university, or developer interests.Yours,[name and contact info removed][1] <http://www.dhcmpo.org/programs/collector/swdurham/default.asp>[2] Pg 5, DEIS Appendix M 2040Metropolitan Transportation Plan[3] <http://www.nc54i40corridorstudy.com>[4] Pg 31, [http://www.nc54i40corridorstudy.com/pdffiles/Phase%20II%20Draft%20Report\\_Public%20Comments%20with%20Responses\\_FINAL.pdf](http://www.nc54i40corridorstudy.com/pdffiles/Phase%20II%20Draft%20Report_Public%20Comments%20with%20Responses_FINAL.pdf)[5] Appendix K06 NC54 Traffic Simulation Reportcc: Federal Transit Administration, Region IV, stanley.a.mitchell@dot.govDurham County Board of Commissioners, commissioners@dconc.govDurham City Council, council@durhamnc.govDowning Creek Community Association Board of Directors, board@downingcreek.orgDCHC MPO Board, c/o Brian.Rhodes@durhamnc.gov

### Comment Responses

### DEIS/Errata References

*The LRT corridor through Meadowmont has been reserved as a provision of the approved master plan and special use permit. Transfer of that corridor for use to implement LRT would be initiated once the final corridor is approved if applicable. The Chapel Hill Town Council, which regulates land uses at Meadowmont and would exercise the most control over such a decision, has suggested in previous comments and resolutions that they do not feel compelled to build the light rail through Meadowmont despite earlier land use plans that considered that as a possibility.*

DEIS chapter 2  
DEIS chapter 3  
DEIS table 3.2-2  
DEIS appendix G

### D-O LRT FEIS / ROD

*In regard to the US 15-501 MIS (see DEIS chapter 2), Go Triangle determined that Chapel Hill 2020 was a more recent action more currently reflected the intentions of the Town of Chapel Hill. With the City of Durham's desire to have a Light Rail Transit (LRT) Station at the centroid of the Leigh Village area coupled with the preferred LRT alignment along the southern portion of George King Road, the roadway network was modified to suit as coordinated with the City of Durham. The traffic grid pattern movements remain essentially the same. The new traffic roadway layout is also consistent with the NC 54 superstreet study layout consolidating access to Leigh Village at the NS Connector/Falconbridge Road intersection. As stated in meetings with Triangle Transit during the project development phase, the City of Durham will be modifying their planned adopted roadway network accordingly because the current planned roadway network does not take into account the LRT system and the City's desire to have a LRT station at Leigh Village situated as shown in the engineering plans.*

*Go Triangle determined that the Town of Chapel Hill's more recent support of C2/C2A was more relevant than decisions made a decade ago.*

*The Town of Chapel Hill requested that alternatives to the C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the proposed D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill, in addition to UNC and UNC Healthcare, expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning. The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative "would not be authorized considering the availability of other less environmentally damaging alternatives." USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (appendix G). The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way.*

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains.*

*NC 54 will continue to be coordinated in the east/west direction. Under a separate planned NCDOT project, the nearest signal that would impact westbound NC 54 is located over 3,800 feet to the west of Littlejohn Road. The nearest signal that would impact eastbound NC 54 is located approximately 4,500 feet to the east at Falconbridge Road and should not impact vehicles exiting from Downing Creek Parkway or Littlejohn Road. The northbound Littlejohn Road left turn to westbound NC 54 currently has very limited usage with less than 10 vehicles per hour performing this maneuver in both the AM and PM peak hours. Downing Creek Parkway is configured today as an eastbound NC 54 right turn to southbound Downing Creek Parkway and a northbound Downing Creek Parkway right turn to eastbound NC 54. This configuration will be maintained in the LRT build condition. The stop/yield controlled right turns do not operate on a fixed pattern and therefore the 12 or fewer train crossings in a peak hour should not significantly affect these low volume turning movements.*

*The project team has performed vehicle turning movement counts at the intersections of Littlejohn Road/NC 54 and Downing Creek Parkway/ NC 54 to confirm the magnitude of volumes using these roadways. During the next phase of design, a more detailed study may be performed if required and mitigation measures such as an eastbound acceleration lane for the northbound Downing Creek Parkway right turn to eastbound NC 54 could be added.*

First Name	Last Name	Comment
Bonnie	Hauser	I support public transportation which is why I support the no--build alternative for Durham-Orange LRT. I am particularly concerned that the proposed corridor does not align to critical growth centers, and will serve a very small portion of them population.The Triangle area is growing rapidly, with 2--3 million people expected to come to the area over the next 2 decades. Most will be coming to major urban growthcenters Wake County, Research Triangle Park, and Chatham Park which arenowhere near the proposed corridor. According to the DEIS, growth in the study area served by the corridor is estimated at 27,000 people Wake County – where most of the growth will occur has already abandoned LRT in favor of lower cost, more flexible solutions including Bus Rapid Transit. The proposed route does not serve targeted growth in Orange County (Chapel Hill, Carrboro and Hillsborough) at all.The proposed service to two major employers - UNC and Duke - fails to recognize that most employment growth is coming through many employers who are locating in Wake, Chatham and Alamance Counties - again no where near the corridor.Both Duke and UNC have begun decentralizing their large healthcare systemsand transitioning to online education. Therefore, growth of both institutions is not likely along the corridor.With the focus on LRT, Triangle Transit and local transit authorities in Durham andOrange County

have done little to re-engineer and optimize bus routes. In fact the proposed LRT does the opposite. It attempts to concentrate traffic along the corridor through contrived Park n Rides and other techniques. Both local bus systems are primarily hub-and-spoke systems that serve university centers. As a result, transit dependent communities who use the buses are forced to make multiple connections to get to their destinations. Re--engineering routes would do more to alleviate congestion and serve transit dependent communities than the proposed LRT. Rather than build LRT along a corridor that today is primarily a greenfield, no-build would encourage GoTriangle to work more closely with local authorities and with Wake County to create a flexible, point to point regional transportation system to support anticipated growth in the Triangle. Please select the “no--build” alternative for Durham-Orange LRT.

*Comment Responses*

*DEIS/Errata References*

*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on ourtransitfuture.com. Extensions, such as those to Chatham County and Hillsborough, are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5). As noted in the Executive Summary (ES-5), the region’s existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. There is no planned direct link between the proposed D-O LRT Project and RDU International Airport. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU is not warranted or cost effective for the Project. With the exception of a small percentage of regular business travelers, most Triangle residents use RDU between 1 and 10 times per year, but travel to their workplace 250+ days per year. As a region builds its transit system, a consistent model for success has been to link neighborhoods to those “250+ day destinations” with the highest capacity service, while ensuring quality bus links to other important trip generators like the primary regional airport. RDU is critical to our region’s economic prosperity and is our gateway to the world. Triangle Transit recognizes this and recently launched its most*

DEIS section 1.5.1.2  
 DEIS section 3.1.4  
 DEIS section 3.2  
 DEIS Table 5.3-1  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17

**D-O LRT FEIS / ROD**

significant airport services expansion in over 10 years. Triangle Transit currently serves Terminal 1 and Terminal 2 with buses 7 am – 11 pm Monday – Saturday, and 7 am – 5pm on Sunday. The airport is currently, and will continue to be, serviced by Triangle Transit buses (Route 100). Hundreds of commuters to UNC from RTP, Morrisville, Cary, and Raleigh already park and ride today at parking lots at Southpoint Mall, Exit 282 off of I-40 at the Regional Transit Center, and at District Drive in Raleigh. They choose to use these bus services even though they are subjected to traffic on NC 54. The light rail, with a major park-and-ride facility at Leigh Village, will offer a higher level of frequency than these routes and will not be subject to traffic congestion in the future when traffic is worse.

Enhancements to bus service are part of the Durham County and Orange County Bus and Rail Investment Plans (BRIPs). Both BRIPs were developed and approved by county commissioners before the successful sales tax referenda in 2011 and 2012, and both have guided the provision of new bus service in the two counties over the past few years. For more information about provisions for improved bus service under the BRIPs, please see <http://ourtransitfuture.com/durham-county-bus-and-rail-investment-plan/>. As noted in DEIS Table 5.3-1, the revenue from the half-cent sales tax in Durham County for public transportation is being used to fund project development for the proposed D-O LRT Project and to implement improvements to DATA bus services. In addition, the sales tax will be used to support the design and construction of Neighborhood Transit Centers and make improvements to bus stops and pedestrian/bicycle infrastructure along Transit Emphasis Corridors in Durham. When the light rail opens, funds for bus services made redundant by rail operations will also be used to improve connections across Durham to newly opened rail stations. As noted in DEIS section 3.1.4, prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis (section 3.1.4).

Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.

First Name	Last Name	Comment
Bonnie	Hauser	Hi. I'm [REMOVED NAME]. I live at [REMOVED ADDRESS] in [REMOVED CITY], so the light rail will not be in my backyard. I'm here to support public transportation and the no build alternative for LRT. My concerns are about the plan and the DEIS. They include that light rail will not serve accelerating growth and committed land use planned for the Triangle. Of the 2 to 3 million people who are coming to the area, GoTriangle reports that only about 27,000 will be coming to the proposed corridor. The rest will be mostly going into massive new urban centers in Raleigh, RTP, and Chatham Park, which are no where near the Durham-Orange light rail corridor. Wake County, where most of the growth will -- will occur, has already abandoned light rail in favor of lower costs, more flexible solutions, including bus rapid transit. he DEIS unrealistically -- The DEIS has projections that appear to be grossly exaggerated. They



unrealistically assume that 40 percent of households will not have cars, plus students who live off campus artificially inflate the poverty roles and reduce the average income. The report regularly conflates current and future trends and ignores how growth in the Triangle dwarfs employment and population growth along the corridor. Route changes have made the route slower, less frequent, and more dangerous. An alternative, such as bus rapid transit, which were ruled out in the past, are now much more appealing than the current light rail plan. Even with the funding cap lifted, state funding is limited to a maximum of 10 percent, which is woefully short of the funds needed. It's time to stop the project and redirect resources to Triangle-wide transportation.

*Comment Responses*

*DEIS/Errata References*

*RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com> As stated in DEIS Appendix K2, section 5, "Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership." The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the make up of all households within the D-O Corridor. Extensions, such as those to Carrboro, Chatham County, and east Durham, are not part of the Durham-Orange Project. Such extensions are not precluded, and if studied, would be done so under a separate NEPA process.*

DEIS appendix K2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 17

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com).*

First Name	Last Name	Comment
Robert G.	Healy	1. It is impossible to verify ridership projections because DEIS does not include population or employment projections for station catchment areas. 2. DEIS does not analyze additional air pollution (criteria and co2 ) due to cars waiting for trains to pass at the numerous at grade crossings.

*Comment Responses*

*DEIS/Errata References*

*As discussed in DEIS section 3.1 Public Transportation and Appendix K2 Travel Demand Methodology and Results Report. Triangle Transit utilized the Triangle Regional Model (TRM) V5. The TRM is maintained by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders (Durham-Chapel Hill-Carrboro Metropolitan Planning Organization [DCHC MPO],*

DEIS section 3.1  
DEIS appendix K2  
DEIS appendix K23

**D-O LRT FEIS / ROD**

Capital Area Metropolitan Planning Organization (CAMPO), North Carolina Department of Transportation, and Triangle Transit. The TRMSB is housed at the NCSU Institute for Transportation Research and Education. The link below includes documentation on the TRM V5 as it was deployed for the 2040 Metropolitan Transportation Plan (MTP) by the DCHC MPO. <https://sites.google.com/a/ncsu.edu/dchc-mpo/home/trm-v5-data>The population and employment data and projections used in the model are available for download from this link. The population and employment data are included in files "TAZ\_SE2010.ZIP" and "TAZ\_SE2040.ZIP".

Appendix K23 Air Quality Technical Report discusses the methodology used in the air quality analysis for the DEIS. As stated in section 2 of the technical report, the air quality analysis follows the regulations promulgated by the Environmental Protection Agency to implement the Clean Air Act, including the Federal Transportation Conformity Rule. Carbon dioxide is not required by federal air quality regulations to be included in the air quality analysis, and therefore was not analyzed. Several intersections were modeled for carbon monoxide concentrations. These intersections were selected in a process consistent with the EPA Guidelines for Modeling Carbon Monoxide from Roadway Intersections, as discussed in section 3.1 of the technical report. Please refer to Appendix K23 Air Quality Technical Report for more information.

First Name	Last Name	Comment
Robert	Healy	<p>[submitted by Robert Healy on 10-13-2015, healy@duke.edu via info@ourtransitfuture.com]Comments of the New Hope Creek Corridor Advisory Committee on the DRAFT Environmental Impact Statement for the Durham-Orange LRTThe New Hope Creek Corridor Advisory Committee was created in 1995 to advise Durham County, the City of Durham, Orange County and the Town of Chapel Hill on the implementation of the 1994 New Hope Creek Corridor Plan. We offer the following comments on the DEIS:• The Committee expresses relief that the crossing of New Hope Creek recommended in the DEIS does not follow the LPA and that a crossing of the creek parallel to the 15-501 bridge is recommended. The LPA route would have been extremely damaging to what is one of the most important natural areas in the entire New Hope system, the New Hope Bottomlands. This area contains large trees, extensive wetlands and stream meanders, and an important nature and recreational trail. An LRT crossing in this area would create enormous damage during construction. The pylons supporting the tracks would be a noticeable visual intrusion. Noise, vibration and light from trains would disturb wildlife using the corridor and people using the nature trail. These and other impacts have been clearly underlined in letters submitted to GoTriangle by the City of Durham (3/13/15 and 8/26/15) and the County of Durham (5/28/15), which form part of the public record.• The Committee is disappointed that alternative route NHC-2 was recommended, rather than NHC-1. NHC-2 crosses undeveloped (and largely unbuildable) wetlands, between South Square and Garrett Rd., that are associated with Sandy Creek, a tributary of the New Hope. These wetlands and their associated drainages are biologically part of the New Hope Bottomlands complex. Disturbance of these lands, including their fragmentation, would have a significant adverse impact on New Hoperesources. Even if the track were elevated, it would result in land disturbance and tree removal during construction. There would be new light, vibration and noise impacts, especially at night. By contrast, alternative NHC-1 largely follows existing roadways. Along 15-501 it would impact current businesses. However, addition of a station at Garrett Rd. would result both in increased ridership and the potential for station-area redevelopment, with very little damage to the environment. Much of the land within a half mile radius of the Garrett Rd.-15-501 intersection is economically underutilized or even vacant (e.g. the long empty site</p>

of the former Darryl's restaurant) and could be converted to more dense, more profitable, uses with minimal environmental damage. • The Committee notes that NCDOT is requiring a 38 foot setback on both sides from the existing 15-501 roadway for addition of an extra pair of highway lanes next to the LRT in the transit corridor. This seems to the Committee to be bad public policy. It would utilize public funds to build infrastructure that would compete with the LRT and weaken its ridership base. Additionally it will cause the filling of more New Hope corridor wetlands. It will also lengthen the wildlife passage under 15-501. The wider the area occupied by the combination of the highway and the LRT, the lesser the functionality of the wildlife corridor. • Impacts on Trenton Rd./Leigh Farm Park. Leigh Farm Park is one of the gems of the New Hope Corridor, offering both historical and natural values, and currently providing environmental education for hundreds of students. The New Hope Corridor plan stops at I-40 in its Southwest quadrant. Thus the proposed location of the ROMF does not directly impact the planning area. However there are potentially serious indirect impacts. Three unnamed streams cross under I-40 from the ROMF site and drain the ROMF area into Leigh Farm Park and ultimately into the New Hope. Runoff from the ROMF would include the pollutants associated with paved surfaces, as well as chemical associated with maintaining, repairing and washing rail cars. We understand that there is already flooding of Trenton Road after heavy rains. Runoff from the ROMF would exacerbate this problem. There are also potential noise and light impacts that could affect both wildlife and recreational use of Leigh Farm Park, as well as the trail intended to connect Leigh Farm Park northward to the rest of the New Hope system. • The NHCCAC is pleased to see that the Patterson Place location is no longer under consideration as a location for the ROMF. Patterson Place would have been environmentally and structurally unsuitable due to steep slopes. It is also extremely valuable land that can be the site of a dense, compact neighborhood and a major generator of walking traffic for the LRT. • Mitigation. To the extent that construction of the project results in negative impacts on wetlands, wildlife corridors or other natural resources, federal, state or local funds should be made available for suitable mitigation. Any mitigation measures should be similar in kind and in place and in particular located within the New Hope Corridor. Adopted by the NHCCAC at its meeting of October 8, 2015.

*Comment Responses*

*DEIS/Errata References*

*As stated in Section 8.2, NHC 2 Alternative "avoids dividing the US 15-501 and New Hope Creek Bottomlands and has the least overall impact to biotic resources." Furthermore, it would result in fewer visual impacts than the NHC 1 Alternative and fewer property acquisitions and displacements than the NHC 1 Alternative.*

DEIS section 4.17.2.3  
FEIS/ROD section 1.4  
FEIS/ROD Table ROD-2  
DEIS Errata 103

*DEIS section 4.17.2.3 discusses the anticipated cumulative impacts to water quality from the NEPA Preferred Alternative, including the ROMF. These impacts would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. The project will comply with stormwater management permitting requirements and include DWR stormwater management BMPs. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 103 clarifies that the ROMF site plan will manage stormwater runoff in a manner consistent with local and state regulations to avoid and minimize impacts to neighborhoods and community resources in the vicinity such as Leigh Farm Park and the Piedmont Wildlife Center.*

First Name	Last Name	Comment
Robert	Healy	We realize that there is a rationale for having high density near the Patterson Place Station. However, we believe that its current location is farther east than is ideal and hence would have negative impacts on the steep slopes that go to the New Hope Creek Corridor and contribute to its functionality.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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<i>The exact location of stations and other refinements in the Project’s design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. However, the current location as illustrated in DEIS appendix L is not anticipated to have adverse impacts to the New Hope Creek Corridor as detailed in DEIS chapter 4 and summarized in DEIS chapter 8.</i>	DEIS chapter 4 DEIS chapter 8 DEIS appendix L
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First Name	Last Name	Comment
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<b>Robert G</b>	<b>Healy</b>	<p>Comments by [REMOVED NAME AND ADDRESS] on the Draft Environmental Impact Statement for the Durham-Orange LRT13 October 2015In comments previously submitted and in oral testimony, I have referred to a number of serious problems with the LRT aa presently configured. They include:--an almost absurdly high cost per passenger--only one stop of 17 serves a major concentration of low income persons--an antiquated, inflexible fixed rail technology that is almost certain to be made obsolete by rapid developments in “smart vehicles” and “smart highways”--probable overestimates of ridership--failure of the LRT to relieve traffic congestion on highway 15-501--a large number of at grade crossings, which, based on the experience of other cities, presents a significant hazard to automobiles, cyclists and pedestrians--a funding mechanism for the local cost share that relies on regressive sales taxes and automobile registration fees--a decision making process that operated largely in secret, with sham public information sessions and consistent refusal to release information I requested, in clear violation of the North Carolina Public Records ActConsidered as a whole, the economic and social benefits of this project must be considered NEGATIVE.In an Environmental Impact Statement, one must consider the project benefits as they relate to environmental costs. The latter include:--damage to wetlands, particularly in the New Hope Bottomlands, Sandy Creek wetlands, and the area around Meadowmount--additional air pollution caused by traffic backups at the at grade crossings--immense amounts of CO2 and energy embodied in the concrete, steel and other materials needed to construct the LFT--disturbance of wildlife migration, and recreational trail use, associated with the crossing of New Hope Creek at the 15-501 bridge--light, noise and water quality impacts due to the recommended location for the Operations and Maintenance FacilitySince the environmental impacts are positive and the economic and social benefits are negative, the NO BUILD OPTION SHOULD be chosen.There is another environmental consideration not mentioned in the DEIS. Perhaps the principal benefit put forth by GoTriangle as a justification for the use of LRT technology and the choice of this particular corridor is the opportunity to concentrate high density development around the station areas. Much attention is paid in the DEIS of future population and job growth in the Research Triangle region. But is the LRT corridor (1) the place where growth is most likely to occur and (2) the place where growth should be encouraged from a planning and environmental standpoint?I believe the answer to both questions is NO. Two of the principal anchors for the LRT route are Duke Hospital and UNC Hospital. Neither is likely to grow significantly. One already sees both health systems putting new freestanding facilities in locations far from the main hospital. Downtown Durham is attracting growth, but the narrow streets and many historic buildings mean that it does not have unlimited capacity for new buildings (unlike downtown Charlotte in 1990, for example). The LRT proposes new, very high density nodes on the</p>
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edge of Chapel Hill, yet Chapel Hill residents have long been noted for opposition to large scale growth and density. I believe that the best place to accommodate new population and job growth is in the Research Triangle Park and in nearby areas (e.g. Morrisville). These places have abundant building sites, good transportation (especially if supplemented by enhanced transit), and little citizen opposition to growth.

### *Comment Responses*

### *DEIS/Errata References*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>*

DEIS chapter 5  
DEIS chapter 9  
DEIS section 3.1.1  
DEIS section 3.2  
DEIS section 3.6  
DEIS appendix K1, K2, and appendix L  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 17 and 30

*DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments. Under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly. Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan. Further information about the Compact Neighborhood destination is available from the Durham City-County Planning Department.*



*Construction of the D-O LRT Project will be funded through a variety of local, state, and federal sources. The local funding will be paid from a portion of the half-cent sales tax dedicated for transit in Durham and Orange counties, \$10 annual vehicle registration fee dedicated for transit, and 5% tax surcharge on car rentals dedicated for transit. Other local funding sources such as value capture strategies may also be pursued. State funding is allocated to the project through the State Transportation Improvement Program. Federal funding is anticipated through the Federal Transit Administration "New Starts" Capital Investment Grant program. Annual operating and maintenance costs will be paid for with revenue from fares and from the local half-cent sales tax dedicated for transit in Durham and Orange Counties."As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)."Chapter 5 of the DEIS presents detailed analysis of environmental justice and identifies that the NEPA Preferred Alternative would improve accessibility for all communities, including low-income and minority populations. Overall, the potential impacts would be minimal compared with the proposed project's benefits, which would include improvements to connectivity and mobility; access to jobs, services, education, and entertainment; pedestrian and bicycle conditions; access to transit; and reliability in transit service. In those areas where stations are proposed, there is the potential for economic opportunities through associated development. As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented*

development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>. As discussed in DEIS section 4.16.2, three types of light rail crossings are proposed as part of the proposed D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. The D-O LRT Project would include approximately 25-30 elevated light rail crossings over existing roadways. (section 4.16.2). As described in DEIS section 4.12.3.5, the D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit that would interact with vehicular, bicycle, and pedestrian traffic. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Section 4.12.4.5 describes the proposed mitigation to address safety and security impacts of the introduction of light rail on pedestrians, bicyclists, and motorists. To avoid the potential for incidents at at-grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 to 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.

As stated in chapter 9 of the DEIS, agencies, non-governmental groups, and the public have been engaged throughout the planning process for the proposed Durham-Orange Light Rail Transit (D-O LRT) Project as required by federal and state law. NEPA mandates agency and public participation in defining and evaluating the impacts of project alternatives. The project has also followed U.S. Department of Transportation (USDOT) guidelines for public participation, including Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d) and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Fed. Reg. 7,629 (February 11, 1994). Coordination activities required under the regulations to promulgate Section

106 of the National Historic Preservation Act (54 U.S.C. § 306108) have also been implemented during the course of the proposed D-O LRT Project.

First Name	Last Name	Comment
Robert	Healy	<p>Good. My name is [REMOVED NAME]. I live at [REMOVED ADDRSS] in the [REMOVED NEIGHBORHOOD]of [REMOVED CITY]. I've lived in the [REMOVED CITY] for 29 years.I believe strongly that this LRT project is far too costly and is only a partial solution to our actual transportation needs. Even if one accepts GoTriangle's ridership estimates, this LRT will reduce traffic on 15/501 by less than 5 percent.The project does not serve NC Central, nor Durham Tech, nor any of our continuing care communities, nor even downtown Chapel Hill. It serves only a tiny fraction of the large low-income population in northeast and southeast Durham, not the low-income area of Chapel Hill, not the large low-income population in rural Orange County.But can we rely on the ridership estimates? As someone familiar with transportation forecasting, I asked GoTriangle for more than two years for more details on their methods and assumptions. I've been asked to wait for the DEIS, but this information was not in the DEIS.I then made a formal request for the information, citing North Carolina Public Records Act, which clearly entitles me to it. GoTriangle did not even reply. Frankly, I think it quite likely that the ridership estimates are exaggerated by optimistic and hidden assumptions.Let me close with a personal view. I live in [REMOVED NEIGHBORHOOD], about four blocks from the proposed LRT station. I can now take a bus from my street corner to New Hope Commons, the Robertson bus to downtown Chapel Hill, the Bull City Connector to downtown Durham and eastward.The LRT will probably eliminate these routes. Even though I live very close to a station and should be among the people benefitted by it, the LRT service will be inferior to what I now enjoy. Spending \$1.6 billion on the LRT will make me poor as a taxpayer and not one bit more mobile. Thank you.</p>

*Comment Responses* *DEIS/Errata References*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project.The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP).In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours.Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.Additional information requested for ridership has been provided to this*

- DEIS chapter 5
- DEIS section 2.4.3
- DEIS section 3.1.1
- DEIS section 5.3
- DEIS Table 4.2-4
- DEIS appendix K1
- DEIS appendix K2
- FEIS/ROD section 1.4
- FEIS/ROD Table FEIS-2
- DEIS Errata 30, 32, 33, and 124

commenter.

*The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600.*

*As stated in section 2.4.3. of the DEIS and as added to in section 1.4 of the combined FEIS/ROD, DEIS Errata 124, along with the introduction of the proposed D-O LRT Project, Triangle Transit would implement several changes for DATA, and CHT routes in the D-O corridor. (Duke Transit routes also operate in the transit corridor; however, no changes are proposed to Duke Transit routes.) Changes can be categorized as: the introduction of new feeder bus routes; modifications to the background bus network; and the elimination of duplicative bus service. Further information on the proposed changes is provided in the DEIS may be found in Appendix K1. Proposed changes to the bus network for the NEPA Preferred and Project Element Alternatives are listed and described in more detail in appendix K1 of the DEIS. Many existing bus routes would connect to light rail stations with little or no change to route alignments. When the light rail opens, funds for bus services made redundant by rail operations will also be used to improve connections from east Durham to the newly opened rail station. As noted in section 5.3 of the DEIS, based on feedback received from Environmental Justice (EJ) communities in the D-O Corridor, a primary point of interest is providing improved access to proposed stations. In particular in east Durham, Triangle Transit is working with communities to plan improved bus infrastructure in advance of the proposed D-O LRT Project as well as bus connections to the proposed stations.*

First Name	Last Name	Comment
Kathleen	Heer	The current pedestrian access for those living on the east side of HWY 54 is limited to an underground tunnel that goes under HWY 54, and crossing 54 itself- also untenable. Meaningful pedestrian access is important the success of each station. In this instance, a pedestrian bridge crossing HWY 54 would allow meaningful safe access for those who predominantly live in residential areas to access this station

Comment Responses	DEIS/Errata References
<i>As detailed in the Executive Summary of the DEIS, Triangle Transit will work with the Town of Chapel Hill, City of Durham, NCDOT, and local advocates to identify the potential for off-street facilities or on-street facilities on parallel or nearby roadways. Pedestrian crossings of light rail tracks will be designed in accordance with current ADA design requirements to ensure access and mobility for all users. New pedestrian and bicycle infrastructure would be installed in station areas to augment the</i>	DEIS section 3.6 DEIS appendix L

existing network. Station areas would be designed according to best management practices for bicycle and pedestrian safety. Measures would be taken to discourage pedestrians from crossing the tracks outside of designated track crossings and to enhance safety at permitted crossing locations (p. ES-17). Section 3.6 of the DEIS contains additional details on plans for future bicycle and pedestrian access. Sidewalks, crosswalks, curb ramps, and other pedestrian infrastructure that the light rail alignment would affect would be rebuilt or enhanced as depicted in the Basis for Engineering Design (appendix L). A pedestrian bridge over NC 54 has not been warranted as part of the Durham-Orange Project and thus will not be considered as part of the project. Designs would not preclude the development of a pedestrian bridge, but would be studied under a separate project.

First Name	Last Name	Comment
<b>Anthony</b>	<b>Hickey</b>	<p>Subject: Chapel Hill - Durham Light Rail Please find a letter attached respectfully requesting re-evaluation of the planned Chapel Hill - Durham light rail. To whom it may concern: I am resident in Durham near the junction of Chapel Hill and Durham I am opposed to the current plans for the proposed route of the light rail. The NEPA Preferred Alternative C2A alignment as currently planned and recommended in the DEIS raises a number of serious concerns as outlined below. The fact that the NC-54 corridor between Chapel Hill and Durham is highly congested and the perception that a light rail along this route would resolve a significant proportion of this congestion is a flawed correlation. The majority of traffic in this corridor consists of traffic travelling from Chapel Hill to I-40 with the intention of travelling East-West most notably to Research Triangle Park and Raleigh or emerging from I-40 and traveling to Chapel Hill or proximal areas of Durham. A light rail connecting Chapel Hill to Durham on this route would not solve anything but a very small portion of the true congestion and would offer transport to a modest number of individuals who actually travel that route. I respectfully request reevaluation of the current and estimated future travel along the 54 corridor where most of the commuters travel between Chapel Hill and Cary/RTP/Raleigh and NOT Durham. I am particularly concerned that given the enormous expense involved it is unlikely that the ridership along this corridor will approach the numbers reported by Go Triangle. While I understand that different agencies are involved in the plans to conduct changes to the NC54 corridor the proposed C2A route and the lane expansion planned to the highway will impinge on the wildlife protected area which has areas on both the north and south sides of NC-54. This area is part of the Army Corps of Engineers protected water tributary to Jordan Lake. The additional construction of impervious surfaces and the elevated noise pollution will undoubtedly have an impact on the wildlife that have already been pushed into a remarkably small area following the extensive building that has occurred in this area in recent years. I request an independent re-evaluation of the NC 54 congestion and the impact of building the proposed light rail along its proposed route, bearing in mind the additional plan to expand the highway, and the overall effects of the planned construction and other proposed plans on the wildlife protected areas and water table. The proposed at grade crossings clearly pose a serious safety risk particularly in an area which by definition is congested. It is probable, based on the earlier observations, that insufficient relief to the traffic congestion will be afforded since those using the light rail make up a very small proportion of current drivers. Consequently, traffic will be placed in conflict with the light rail with an inevitable increase in accidents. The local traffic patterns already have the potential for serious accidents. Emerging from any side road onto NC-54, where there are no traffic lights, is fraught with danger. NC-54 is congested with commuters anxious to travel as quickly as possible (often driving at 60 mph in a 45 mph speed limit) to I-40 where they join traffic traveling to RTP and Raleigh (NOT Durham) or coming to Chapel Hill primarily from the West and East along the I-40 corridor (NOT Durham). The presence of at grade crossings for drivers approaching from side roads</p>



to navigate will result in them having to judge both train and traffic distances with a significant increase in danger. Collisions in which light rail trains unavoidably hit automobiles whose drivers find themselves with no exit, depending on the courtesy of those already traveling on NC-54 (of which there is little currently), will not be minor with a very high probability of fatalities. The cost to the taxpayer for the light rail cannot be reasonably justified by realistic estimates of the ridership if it takes the route proposed. There is little reason for anyone to travel this route and the fact that there may be future high density housing doesn't give riders a destination? How many will go to a terminus at the Hospital in Chapel Hill and a similar location in Durham, barely within walking distance of any location to justify the route. If it is concluded that Chapel Hill and Durham are logical termini, which I personally contest, the route should at least pass retail outlets and destinations that would be useful to anyone using this resource and in this context NC15-501 would be a more logical approach. A route, which will also be under major residential construction in the coming decade. Finally, the enormous elephant in the room is that if a light rail is to be successful in this area it MUST travel along the I-40 corridor between Chapel Hill/Durham through RTP/RDU Airport to Raleigh to ever have hopes of sufficient ridership or relevance to the local community. In conclusion, I request an objective re-evaluation of the route and purpose of the light rail in the NC-54 corridor. The rationale for ridership is flawed, the impact on local wetlands of importance to the Jordan Lake watershed and surrounding neighborhoods has not been fully assessed, the inevitable likelihood of serious and potentially fatal accidents due to the introduction of another variable in an already congested area and finally the use of public funds to support a resource with questionable demand, as currently envisioned, is worthy of further consideration. Thank you for giving this matter consideration.

Sincerely yours,  
 Anthony J. Hickey, PhD, DSc.  
 cc: Federal Transit Administration, Region IV,  
 stanley.a.mitchell@dot.gov  
 Durham County Board of Commissioners, commissioners@dconc.gov  
 Durham City Council, council@durhamnc.gov  
 DCHC MPO Board, c/o Brian.Rhodes@durhamnc.gov

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development. Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system. In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham. The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers. As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and*

DEIS chapter 1  
 DEIS section 3.1.1  
 DEIS section 8.2.2.2  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17 and 30

**D-O LRT FEIS / ROD**

*minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). "In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project, nor always offer a faster travel time. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the purpose and need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.*

*The NEPA Preferred Alternative includes alignment C2A for the crossing of Little Creek. The Meadowmont Station was included as part of the C1 and C1A alignment alternatives for the crossing of Little Creek. As stated in section 8.2.2.2 of the DEIS, the C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative "would not be authorized considering the availability of other less environmentally damaging alternatives." With regard to the C1A Alternative, DEIS section 8.2.2.2 states, the C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives,*

*the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way.*

*In general, light rail transit is a very safe mode of transportation. Per FTA’s 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 to 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.*

*Federal regulations require re-evaluations if a project changes substantially after the DEIS is published or if three years have lapsed since the DEIS was officially published. As such, a re-evaluation of the Project is not required at this time.*

First Name	Last Name	Comment
Benay	Hicks	[removed name, phone number, email]Message Body: Hello,I am writing regarding the location of the Pettigrew/Alston Ave station. The Boys & Girls Club of Greater Durham is located at Pettigrew & Grant, literally across the street from where you would be creating a park and ride and a station. While it appears as though the building (808 E Pettigrew St) will be left untouched by construction, I would like to know more about steps this project will take to control crime surrounding the station both during and after construction. Several studies have concluded that transit stations do not necessarily increase the level of criminal activity in a community, but they have also concluded that certain actions can be taken to mitigate the concentration of criminal acts. The Boys & Girls Club work s hard to keep the youth of Durham off the streets and away from drugs/gangs, etc. I believe that the light rail could actually make a positive impact on our attendance and daily activities, but I would like to know more about the stations themselves and any precautionary measures being taken to ensure safety of those traveling and of the stations themselves.And if there is any discussion about acquiring the building at 808 E Pettigrew Street, please remember the children and the several hundred youth the Boys & Girls Club serves each year.Thank you!

Comment Responses	DEIS/Errata References
<i>DEIS section 4.12.2.2. Triangle Transit’s System Security and Emergency Preparedness Plan provides the framework for ensuring passenger and employee safety on Triangle Transit property and leased facilities. The plan details functional entrances/exits for members of the public and employees.In addition, Triangle Transit uses Crime Prevention Through Environmental Design (CPTED) concepts to</i>	DEIS section 4.12.2.2 DEIS section 4.12.3.6 DEIS section 4.12.4.2

*assist in deterring criminal activity in the design of its facilities. The basic principle of CPTED is to increase natural surveillance by providing good sight-lines and avoiding conditions such as tall landscaping that could potentially provide individuals with areas to hide or obstruct mechanical methods of surveillance, such as closed-circuit television (CCTV) cameras. As noted in DEIS section 4.12.3.6, the various security and emergency management issues that a light rail system typically must address through design include: system surveillance, evidence collection, and storage (e.g., CCTV surveillance systems); access controls including credentialing, perimeter fencing, security authorizations, intrusion alarms, and background checks; security design of physical system elements such as facilities, vehicles, aerial structures, pedestrian tunnels, catenary, control centers, etc.; use of security technologies such as facial recognition software and supervisory control and data acquisition (SCADA); security awareness training and security policies; crime; planning for emergency situations; and, providing familiarization training to external police departments and other emergency providers on safely engaging with the system such as how to deal with power systems (e.g., de-energizing power systems) and general equipment (e.g., manually opening vehicle doors and instructions to safety knock out windows). As further detailed in DEIS section 4.12.4.2, the D-O LRT Project Team will consult with local law enforcement and other public agencies to design the project's public facilities to maximize the safety and security of light rail patrons and the transit system's employees. As part of this effort, station platforms and park-and-ride facilities will be designed using Crime Prevention Through Environmental Design (CPTED) principles to increase natural surveillance opportunities. CCTV cameras will be placed on every platform and in park- and-ride facilities. Blue light emergency phones will be available at regular intervals on station platforms and in park-and-ride locations. The ticket vending machines will contain passenger assistance telephones to link passengers with a central control center. Security will be provided using roving patrols along the corridor, at stations, and at the proposed park-and-ride facilities. Each station platform will be equipped with a public notification system. In addition, the proposed D-O LRT Project would be designed and operated in accordance with Triangle Transit's current safety and security plans. These plans would be updated to include specific requirements for the NEPA Preferred and Project Element alternatives, reviewed by FTA, and submitted through the NCDOT State Safety Oversight process for approval prior to revenue service. Triangle Transit uses Crime Prevention Through Environmental Design (CPTED) concepts to assist in deterring criminal activity in the design of its facilities. The basic principle of CPTED is to increase natural surveillance by providing good sight-lines and avoiding conditions such as tall landscaping that could potentially provide individuals with areas to hide or obstruct mechanical methods of surveillance, such as closed-circuit television (CCTV) cameras.*

First Name	Last Name	Comment
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Deborah	Hockman	Oppose Light Rail – Safety – no traffic light I oppose the proposed Durham – Orange Light Rail because there will be no traffic light at the
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Downing Creek Parkway and Hwy 54 intersection and it will be an at-grade crossing. Hwy 54 is a very busy highway and cars will run the real risk of the gate coming down behind the car that will have to be stopped on the tracks in order to get onto Hwy 54. The car will be trapped between the gate and cars on Hwy 54 and will get hit by the train. Please flag and investigate this intersection.

To: Federal Transportation Administration Subject: Oppose Light Rail – Safety, at-grade crossings  
I oppose the proposed Durham – Orange Light Rail because there are at-grade crossings and at-grade crossings are extremely dangerous for cars and pedestrians.

*Comment Responses*

*DEIS/Errata References*

*As detailed in DEIS section 4.12.2.5, to the extent practicable, Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles at Triangle Transit facilities. To avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines.*

DEIS section 4.12.2.5  
DEIS Table 3.2-2

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains.*

First Name	Last Name	Comment
Denise	Hoffman	We have carefully researched and weighed the pros and cons of this project and it is abundantly clear that light rail is not the proper solution to the transportation needs of our area. We ask that you to delay any further action on this project so that you and the public can look at better alternatives such as bus rapid transit. Respectfully

*Comment Responses*

*DEIS/Errata References*

*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The*

DEIS section 2.2.1



First Name	Last Name	Comment
Don	Holloway	One of the reasons for this light rail is that now buses can cover less affluent neighborhoods to provide service. Would it not be cheaper to simply buy more buses to service them and NOT confiscate all those properties owned by others and not build all those railways, stations, etc. etc.?

Comment Responses	DEIS/Errata References
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*In order to construct, operate, and maintain the proposed D-O LRT Project, it will be necessary for Triangle Transit to acquire private property. When property is selected to be acquired, all other alternatives will have been considered. That property will have been determined to be the best location for the D-O LRT Project to serve the public. As a result, some citizens may be displaced from their homes or businesses. Local, state, and federal regulations and laws govern the acquisition of private property for public use. These laws ensure that owners of property acquired for public projects are treated fairly and consistently. They are designed to encourage and expedite acquisition by agreements with property owners, to minimize litigation and relieve congestion in the courts, and to promote public confidence in land acquisition programs designed to benefit the public as a whole.*

DEIS section ES-5  
DEIS section 1.5.1.2  
DEIS section 3.2  
DEIS Figure 1.5-2

*As noted in the DEIS Executive Summary (ES-5), the region’s existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS)*

First Name	Last Name	Comment
Dan	Hudgins	DRAFT ENVIRONMENTAL IMPACT DURHAM-ORANGE LIGHT RAIL TRANSIT PROJECT PUBLIC COMMENT I am [name removed] and I live at [address removed] here in Durham. I have lived in Durham for 38 years. A social worker by profession, I have spent most of my career working in public social services and most recently on the faculty at the UNC-CH School of Social Work where I taught

courses in social policy. For 27 years I was the Director of the Durham County Department of Social Services where we struggled to assist low income Durham families with meeting their basic needs. We worked to help them access the education and training for job opportunities that provide a basic living for them and their families. For the vast majority of the thousands of families we served, transportation was a major barrier for access to jobs, education, and medical appointments. I have studied the Draft Environmental Impact Statement and am testifying in full support of the project. The Environmental Justice section of the Impact Statement is clear about the concentration of the low income residents that will be served. While there has been criticism of the time it will take for transit dependent persons to get from Alston Avenue to UNC Hospital, it will be much quicker on the Light Rail than on buses with connections, traffic, and wait times. One other part of the planning that excites me is the commitment our County Commission and City Council have made through the establishment of a goal of at least 15% of housing near transit stops being affordable for low income residents. This commitment by our local elected officials speaks to the issue of Environmental Justice and will help to assure those who are most transit dependent will have access to this critical resource. I am recommending that Go Triangle include the goal of at least 15% affordable housing near transit stops for the Light Rail in our transit plan. Thanks for this opportunity to speak in support of Light-Rail for Durham and Orange counties. I am also speaking on behalf of the Durham People's Alliance and its 700+ members.

*Comment Responses*

*DEIS/Errata References*

*Comment noted.*

DEIS Table 5.3-1

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2). As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income. This will be reflected in the combined FEIS/ROD. The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.*

First Name	Last Name	Comment
Dan	Hudgins	DRAFT ENVIRONMENTAL IMPACT STATEMENT DURHAM-ORANGE LIGHT RAIL TRANSIT PROJECT PUBLIC COMMENT I am [removed name] and I live at [removed address] here in Durham . I have lived Durham for 38 years. A social worker by profession, I have spent most of my career working in public social services and most recently on the faculty at the UNC-CH School of Social Work where I taught courses in social policy. For 27 years I was the Director of the Durham County Department of Social Services where we struggled to assist low income Durham families with meeting their basic needs. We worked to help them access the education

and training for job opportunities that provide a basic living for them and their families. For the vast majority of the thousands of families we served, transportation was a major barrier for access to jobs, education, and medical appointments. I have studied the Draft Environmental Impact Statement and am testifying here today in full support of the project. The Environmental Justice section of the Impact Statement is clear about the concentration of low income residents that will be served. While there has been criticism of the time it will take for the transit dependent persons to get from Alston Avenue to UNC Hospital, it will be much quicker on the Light Rail than on buses with connections, traffic, and wait times. One other part of the planning that excites me is the commitment our County Commission and City Council have made through the establishment of a goal of at least 15% of housing near transit stops being affordable for low income residents. The commitment by our local elected officials speaks to the issue of Environmental Justice and will help to assure those who are most transit dependent will have access to this critical resource. I am recommending that Go Triangle include the goal of at least 15% affordable housing near transit stops for the Light Rail in our transit plan. Thank for the opportunity to speak in support of Light -Rail for Durham and Orange counties. I am also speaking on behalf of the Durham People's Alliance and its 700+ members.

*Comment Responses*

*DEIS/Errata References*

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2). As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income. The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.*

DEIS section 4.1.2.2  
DEIS chapter 5  
DEIS Table 5.3-1  
DEIS Errata 58 and 64

First Name	Last Name	Comment
Dale	Huff	Reasonable alternatives are required to be practical or feasible from both a technical and economic standpoint. It is prudent to focus on economic factors, since all technologies seem feasible. However, the light rail option is roughly twice as expensive as the other options considered in the DEIS. Also, if the average speed, as estimated by the upper and lower ranges of speed shown in Fig. 2.2-1 are used for comparison, Bus Rapid Transit (BRT) has a distinct cost and speed advantage over Light Rail Transit (LRT). Furthermore, BRT is considerably more flexible than LRT, particularly with stop locations and traffic interference with at-grade crossings. Since "... a specific transit technology was not identified ...." and the study of the best technology alternative was not done, please explain why LRT was deemed the best alternative among transit options? For example, in view of the selection of BRT by Wake County as their preferred option, why wasn't there a weighing of all transit alternatives included in the DEIS? The voters did not explicitly approve LRT as the chosen option. Why don't they deserve an analysis of all the transit alternatives?

Light rail was chosen for the D-O Corridor because this technology will: • Connect residential, educational, and major employment centers throughout the corridor; • Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options; • Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region; • Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly; • Provide solid anchors needed to shape land use along this critical corridor; and, • Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3). As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.

DEIS Executive Summary ES-3  
DEIS section 8.4

Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis." Technologies considered during the Alternatives Analysis included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on the ourtransitfuture.com website, under a separate cover. Bus routes that currently service the D-O LRT Corridor alone carry an average of 9,700 passengers every weekday. Overall, Chapel Hill Transit, GoDurham, and Triangle Transit's services within Durham and Orange Counties carry 71,300 passengers per weekday. Transit ridership in Durham and Orange Counties has grown over the last few years, and is projected to grow in the future as the communities encourage the growth of walkable, pedestrian-friendly communities and the universities continue to grow and encourage transit use to their campuses by restricting parking.

First Name	Last Name	Comment
Robert	Humphreys	How is Woodmont (C2A) station justified vis a vis C1A, or alternative alignments on the north side of NC54 or median running on NC54, when it has minor buildable acreage with no surety of development, is landlocked by protected wetlands that cannot be further developed and is easily walkable to the Friday Center station (~ ½ mile)?

The Town of Chapel Hill requested that alternatives to the C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan

DEIS section 9.2.5

*Planning Organization (DCHC MPO) adopted the proposed D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning. The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (appendix G). The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the DEIS and are summarized in DEIS chapter 8, Evaluation of Alternatives. As noted in DEIS section 9.2.5, this alignment concept was evaluated, but was determined that it would not complement future land use plans of the Town of Chapel Hill adjacent to the Woodmont Station. This topic is further described in DEIS table 9.3-16. The future land use plans of the Town of Chapel Hill support the Purpose and Need. Since this alignment concept does not meet the Purpose and Need (further described in Section 1.5.3), the need to promote future development, this alignment concept was not carried forward. As noted in DEIS section 9.2.5, the concept of a grade separation of C2A Alternative in the vicinity of Downing Creek Parkway was evaluated. However, traffic and site characteristics do not warrant grade separation at this location.*

First Name	Last Name	Comment
Robert	Humphreys	Were local emergency response organizations, fire/ambulance/police, surveyed to determine the response time impact of the more than 30 planned at grade crossings, particularly those that obstruct neighborhood safe access to main roads? If so, what were the impacts? If not, why not and when will this critical safety information be requested and published?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As the design of the NEPA Preferred and Project Element Alternatives advances, the D-O LRT Project Team will coordinate with law enforcement, emergency and medical personnel, and other public*

DEIS section 4.12.4



agencies to investigate impacts of the potential light rail system on their day-to-day operations. For example, the D-O LRT Project Team will work with fire departments to determine whether implementation of the NEPA Preferred Alternative warrants changing dispatch locations for emergency services. Coordination with departments would also be conducted during the Engineering phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety. By coordinating with responders early in the risk assessment process, project team members can work with public agencies to develop mitigations, if necessary. Mitigation for restricting or constricting rubber tired vehicular access along an existing roadway includes constructing the guideway in embedded track such that emergency vehicles can bypass other vehicles via use of the embedded track condition. The LRT operation would yield to these infrequent occurrences. Access to emergency and health care facilities would not be compromised by the LRT. In addition, Triangle Transit will work with local law enforcement and emergency medical personnel to develop a training plan that involves responding to incidents at light rail facilities and on light rail vehicles. This plan will include a schedule for training prior to and during revenue operations. See DEIS section 4.12.4 for more information.

First Name	Last Name	Comment
Robert	Humphreys	Since there are no travel time savings for commuters when the D-O-LRT is compared to auto and bus, how can the expenditure of \$1.6B to build this fixed rail system be an economically justified use of taxpayer money?

Comment Responses	DEIS/Errata References
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*As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development. Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system. In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham. The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.*

DEIS chapter 1  
DEIS section 8.1

First Name	Last Name	Comment
Robert	Humphreys	Since there are no travel time savings for commuters when the D-O-LRT is compared to auto and bus, how can the expenditure of \$1.6B to build this fixed rail system be an economically justified use of taxpayer money?

Comment Responses		DEIS/Errata References
<p><i>As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development. Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system. In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham. The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.</i></p>		<p>DEIS chapter 1 DEIS section 8.1</p>

First Name	Last Name	Comment
Robert	Humphreys	Existing and Future Transit Supportive Land Use Plans Not Supported Why doesn't the D-O-LRT corridor align with existing and future land use plans particularly in Chapel Hill where the highest concentration of density development is planned along the west side of US15/501 (over 3 million square feet mixed use currently planned) along with high density complexes located just south of US15/501 and NC54 intersection (Southern Village, Obey Creek)?

Comment Responses		DEIS/Errata References
<p><i>The Town of Chapel Hill requested that alternatives to the C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the proposed D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and</i></p>		<p>DEIS section 4.1 DEIS section 4.2 DEIS section 9.2.5</p>

consistent with local planning.

*Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments.*

*Extensions, such as those to Southern Village or Obey Creek are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5)*

First Name	Last Name	Comment
Robert	Humphreys	Existing and Future Transit Supportive Land Use Plans Not Supported Why doesn't the D-O-LRT corridor align with existing and future land use plans particularly in Chapel Hill where the highest concentration of density development is planned along the west side of US15/501 (over 3 million square feet mixed use currently planned) along with high density complexes located just south of US15/501 and NC54 intersection(Southern Village, Obey Creek)?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic*

DEIS section 4.1  
DEIS section 4.2  
DEIS section 9.2.5

*growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments.*

*The town of Chapel Hill requested that alternatives to the Meadowmont/C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning.*

*Extensions, such as those to Southern Village or Obey Creek are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5)*

First Name	Last Name	Comment
<b>Makiko</b>	<b>Humphreys</b>	Subject: Oppose Light Rail - no parking at stationsl oppose the proposed Durham - Orange Light Rail because there will be little additional parking at most of the stations and several stations will have no parking at all, including the Woodmont station. Duke is not adding parking and neither is UNC. Most stations will be walk-up only and this will further minimize ridership, which, by the way, is extremely overstated by GoTriangle.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Parking is proposed at several stations as described in DEIS section 3.3. As described in Table 2.3-2 and further detailed in Table 3.3-2, park-and-ride facilities are currently planned at the following stations:•Friday Center•Leigh Village•Gateway•MLK Jr. Parkway•South Square•Durham•Dillard Street•Alston AvenueThe number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and “kiss-and-ride” spaces for passenger pick-up and drop-off.Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (section 2.3.2.1). See also typical images on p.2-23 and conceptual designs in appendix L. Parking fees, if any, will be determined by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners.A total of 5,100 park-and-ride spaces will be added at station locations as part of the project.*

DEIS section 2.3.2.1  
 DEIS section 3.3  
 DEIS Table 2.3-2  
 DEIS Table 3.3-2  
 DEIS appendix L

First Name	Last Name	Comment
Frank	Hurley	Ladies/Gentlemen:I believe that the fiscal and environmental projections regarding the proposed light rail system are completely bogus in that they greatly overestimate the ridership that will actually occur. Observing the actual (vice projectedand claimed) ridership of the (free!) Chapel Hill bus system supports this view.[removed name]

Comment Responses	DEIS/Errata References
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*As stated in Triangle Transit’s Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project and clarified in DEIS Errata 19: “Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened.” Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT). The link below includes documentation on the Triangle Regional Model (TRM) V5 as it was deployed for the 2040 Metropolitan Transportation Plan (MTP) by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO). <https://sites.google.com/a/ncsu.edu/dchc-mpo/home/trm-v5-data> This model serves as the basis for the travel demand modeling performed for the DEIS as explained in DEIS section 3.1, Public Transportation, and DEIS appendix K2, Travel Demand Methodology and Results Report. In the documentation, particularly pertaining to items such as Alternative-Specific Effects, the methodology differs from the modeling work described in the DEIS for the Durham-Orange Light Rail Transit Project. This is because the TRM is only capable of applying one set of Alternative-Specific Effects for all individual fixed guideway transit projects in the model at a time. As the DCHC MPO MTP has two fixed guideway transit projects (Durham-Orange Light Rail; Durham-Wake Commuter Rail) in their adopted MTP, the MPO decided to use a hybrid of the recommended Alternative Specific Effects for Commuter Rail and Light Rail in the 2040 MTP, knowing that this approach would not be what would ultimately be accepted for FTA purposes if either project advanced. For a detailed description of the methodology and assumptions used to develop the ridership estimates, refer to Appendix K2 of the DEIS. The work in the DEIS builds upon the work in the 2040 MTP, using the TRM V5 as a tool, but then deviates from the MTP approach by applying Alternative Specific Effects for light-rail-only (excluding commuter rail) in the DEIS, which was done according to FTA best practice recommendations. Additional questions about the Jobs and Housing inputs should be directed to the DCHC MPO.*

DEIS section 3.1  
DEIS appendix K2  
DEIS Errata 19



Mark	Iwinski	<p>Dear Go Triangle,I strongly support the Light Rail Project and commend Go triangle and the municipalities for taking Durham and Orange County into the 21 century in such a bold way. But I also feel that Go triangle needs to address certain flaws in the current plan. Therefore, I support the following changes based on the October 5th 2015 Durham City Council's vote to unanimously support not only the DOLRT but the recommendations of Durham Area Designers' positions regarding station locations in downtown Durham. I echo these recommendations and add my own concern regarding public art. First, I ask that Go Triangle modify the station locations to better serve Durham downtown. These recommendations include better station spacing and access to downtown by:</p> <ol style="list-style-type: none"> <li>1. Adding a City Center Station in front of DPAC to better serve and provide convenient access for Durham’s government buildings including the County Courthouse, Detention Center and City Hall, and to better serve Main Street retail and offices and to anchor the Ballpark to Ballpark arts corridor. The arts corridor makes such a better gateway. This is a no brainer and I think not including it is a fatal flaw in the current Go Triangle plan. Please make this change as it makes so much sense!</li> <li>2. Move the Transit station back up to the original Go Triangle site across from the Amtrak Station! This is a true intermodal connection and better serves the community. Build a pedestrian bridge to walk over to the bus station like the one that has been proposed years ago! Besides if you get off the LRT in front of the bus station you have to walk a long distance under this nasty rail underpass! This is not the kind of gateway to downtown that Durham needs or wants! Whereas getting off in front of DPAC and being able to walk easily to Main Street provides way better connectivity to downtown and the ballpark. Also getting off at a station next to the Amtrak and and being able to readily access the intercity rail to Raleigh or Greensboro make so much more sense! Besides I even found an old image on the web where Go Triangle had plans to do exactly this! Switch it back to that plan, it is so much better! Come on we are talking historic, long term decisions here don't screw it up!</li> <li>3. Save the old warehouse at Buchanan by taking this old brick building, cutting it in two and making it the station! It will provide space for cafes, and more, as well as add historic architectural continuity and character to the neighborhood.</li> <li>4. Put the Alston Station on the east side of Alston, like you were originally going to do! It will provide for future expansion and connections to East Durham and you can link it by rapid bus shuttle to the colleges. East Durham has been disenfranchised too many times this would go a long way to serving this community and connecting it to the downtown.</li> <li>5. Lastly and close to my heart, as a visual artist I would like to address the roll that public art will play in enhancing the character of the transit infrastructure, specifically the stations. In looking at examples of public transportation infrastructure around the country it can be seen that public art has historically been a major aesthetic and economic element of all of them, from the grand old rail stations of another era to the Raleigh Durham Airport. We even have precedence here for public art in some of our bus shelters. But this is a much larger and consequently more involved and expensive project. Therefore I would like to ask that Go Triangle begin addressing this issue in two ways. First, for go Triangle to consider public art as an integral part of the process early on by engaging the involvement of appropriate entities both public and private now and not as an afterthought to be considered somewhere down the line. Secondly, because of the scale and to insure funding for such projects I would ask Go Triangle to seek the full one percent for the arts as it applies to the light rail and related CIP projects within the appropriate jurisdictions This great project deserves great art to enhance it and making these changes would not only ensure adequate resources for high quality public arts projects in the city’s light rail stations but would showcase Durham as a leader integrating excellent urban planning, public transportation and public art. Thank you,[removed PII]</li> </ol>
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*The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-*

DEIS chapter 2  
DEIS chapter 3

quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project's design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. As a result of ongoing coordination with both North Carolina Railroad (NCR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street. In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCR Corridor along West Main Street (Section 3.4.2.2). Major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional location at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell & Mangum Streets would also require the negotiation and approval of an additional property lease with NCR beyond what is expected to be required for current alignment. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in cost that are not offset by increases in ridership could result in a reduction in the project's FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell & Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.

The preliminary design of the Buchanan Boulevard Station will be refined during the subsequent phase of Engineering. Benefits and concerns with different alignment and station placement concepts will be evaluated at that time. One consideration is safety for people crossing the tracks at Buchanan Boulevard. From a safety perspective, it is most desirable for at-grade crossings to be as narrow as possible; in other words, it is safest if the LRT tracks are as close to 14' apart as possible at the crossing rather than widened out to accommodate an adjacent center platform. A narrow crossing design minimizes the risk of people standing or being stuck between trains as they pass, and the risks posed by a wider crossing will be evaluated as the design is refined. The additional cost for

DEIS section 2.3.2.2  
DEIS section 3.1.3.1  
DEIS section 3.4.2.2  
DEIS section 4.4.4.1  
DEIS Table 3.1-4  
DEIS Table 5.3-1

*side platforms will also be considered in the context of other factors influencing the design process.*

*In the Alternatives Analysis, the proposed location for the Alston Avenue terminus station was just east of Alston Avenue. Triangle Transit determined that a station on the east side of Alston Avenue is infeasible due to the required 40-foot spacing between the light rail track and nearest future railroad track and space constraints imposed by the Pettigrew Street bridge over Alston Avenue, and the City of Durham water tower east of Alston Avenue. Therefore, the proposed location for the Alston Avenue Station was moved to just west of Alston Avenue approximately 1,200 feet from the location described in the AA. On May 21, 2015, the NCR Board of Directors agreed to permit NCR management to enter into lease negotiations with Triangle Transit based on this refined alignment (section 2.3.2.2). As further detailed in DEIS Table 5.3-1, the proposed Alston Avenue Station was relocated to the west side of Alston Avenue, as a result of coordination with the NCR as described in DEIS chapter 2. Revisions were due to NCR's horizontal track clearance requirements and constraints in relocating Pettigrew Street east of Alston Avenue. Triangle Transit held numerous outreach meetings with the communities in downtown and east Durham to gather their input on the proposed alignment and station locations. See DEIS section 9.3.6 for more information. A conceptual alignment east of Alston Avenue, south of the NCR Corridor, and adjacent to NC 147 was evaluated. This concept was determined to be technically infeasible, primarily due to constraints associated with the NCDOT right-of-way for NC 147, City of Durham historic water tower, and NCDOT's Alston Avenue widening project. Based on the results of preliminary engineering analysis of conceptual stations and alignments east of Alston Avenue, there are no reasonable, feasible station alternatives east of Alston Ave., primarily due to the constraints created by the North Carolina Railroad (NCR) right-of-way, the North Carolina Department of Transportation (NCDOT) right-of-way and roadway facilities, and the City of Durham Water Tower infrastructure.*

*As stated in DEIS section 4.4.4.1, arts in transit is being considered as a mitigation measure to minimize visual impacts of the project.*

First Name	Last Name	Comment
Mark	Iwinski	IDear Go Triangle, I strongly support the Light Rail Project and commend Go triangle and the municipalities for taking Durham and Orange County into the 21st century in such a bold way. But I also feel that Go triangle needs to address certain flaws in the current plan. Therefore, I support the following changes based on the October 5th 2015 Durham City Council's vote to unanimously support not only the DOLRT but the recommendations of Durham Area Designers' positions regarding station locations in downtown Durham. I echo these recommendations and add my own concern regarding public art. First, I ask that Go Triangle modify the station locations to better serve Durham downtown. These recommendations include better station spacing and access to downtown by: 1. Adding a City Center Station in front of DPAC to better serve and provide convenient access for Durham's government buildings including the County Courthouse, Detention Center and City Hall, and to better serve Main Street retail and offices and to anchor the Ballpark to Ballpark arts corridor. The arts corridor makes such a better gateway. This is a no brainer and I think not including it is a fatal flaw in the current Go Triangle plan. Please make this change as it makes so much sense! 2. Move the Transit station back up to the original Go Triangle site across from the Amtrak Station! This is a true intermodal connection and better serves the community. Build a pedestrian bridge to walk over to the bus station like the one that has been proposed years ago! Besides if you

get off the LRT in front of the bus station you have to walk a long distance under this nasty rail underpass! This is not the kind of gateway to downtown that Durham needs or wants! Whereas getting off in front of DPAC and being able to walk easily to Main Street provides way better connectivity to downtown and the ballpark. Also getting off at a station next to the Amtrak and being able to readily access the intercity rail to Raleigh or Greensboro make so much more sense! Besides I even found an old image on the web where Go Triangle had plans to do exactly this! Switch it back to that plan, it is so much better! Come on we are talking historic, long term decisions here don't screw it up! 3. Save the old warehouse at Buchanan by taking this old brick building, cutting it in two and making it the station! It will provide space for cafes, and more, as well as add historic architectural continuity and character to the neighborhood. 4. Put the Alston Station on the east side of Alston, like you were originally going to do! It will provide for future expansion and connections to East Durham and you can link it by rapid bus shuttle to the colleges. East Durham has been disenfranchised too many times this would go a long way to serving this community and connecting it to the downtown. 5. Lastly and close to my heart, as a visual artist I would like to address the roll that public art will play in enhancing the character of the transit infrastructure, specifically the stations. In looking at examples of public transportation infrastructure around the country it can be seen that public art has historically been a major aesthetic and economic element of all of them, from the grand old rail stations of another era to the Raleigh Durham Airport. We even have precedence here for public art in some of our bus shelters. But this is a much larger and consequently more involved and expensive project. Therefore I would like to ask that Go Triangle begin addressing this issue in two ways. First, for go Triangle to consider public art as an integral part of the process early on by engaging the involvement of appropriate entities both public and private now and not as an afterthought to be considered somewhere down the line. Secondly, because of the scale and to insure funding for such projects I would ask Go Triangle to seek the full one percent for the arts as it applies to the light rail and related CIP projects within the appropriate jurisdictions This great project deserves great art to enhance it and making these changes would not only ensure adequate resources for high quality public arts projects in the city's light rail stations but would showcase Durham as a leader integrating excellent urban planning, public transportation and public art. [REMOVED NAME]

*Comment Responses*

*DEIS/Errata References*

*The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project's design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. As a result of ongoing coordination with both North Carolina Railroad (NCR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street. In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is*

DEIS chapter 2  
 DEIS chapter 3  
 DEIS section 3.1.3.1  
 DEIS section 3.4.2.2  
 DEIS section 5.3  
 DEIS Table 3.1-4

located within the NCRR Corridor along West Main Street (Section 3.4.2.2). Major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional location at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell & Mangum Streets would also require the negotiation and approval of an additional property lease with NCRR beyond what is expected to be required for current alignment. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in cost that are not offset by increases in ridership could result in a reduction in the project's FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell & Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.

The preliminary design of the Buchanan Boulevard Station will be refined during the subsequent phase of Engineering. Benefits and concerns with different alignment and station placement concepts will be evaluated at that time. One consideration is safety for people crossing the tracks at Buchanan Boulevard. From a safety perspective, it is most desirable for at-grade crossings to be as narrow as possible; in other words, it is safest if the LRT tracks are as close to 14' apart as possible at the crossing rather than widened out to accommodate an adjacent center platform. A narrow crossing design minimizes the risk of people standing or being stuck between trains as they pass, and the risks posed by a wider crossing will be evaluated as the design is refined. The additional cost for side platforms will also be considered in the context of other factors influencing the design process.

As stated in DEIS section 4.4.4.1, arts in transit is being considered as a mitigation measure to minimize visual impacts of the project.

First Name	Last Name	Comment
Katie	Jamieson	Dear GoTriangle: Please find attached a letter that was submitted to GoTriangle in February of this year, on behalf of the residents' association of the Highland Woods Road neighborhood in Chapel Hill. We would like it to resubmit it as part of the public comment process on the DEIS. I will be writing an additional letter momentarily that comes on my own individual behalf. Thanks for your consideration. Attachments: 201503041114266382.pdf February 17, 2015 Dear Ms Murdock, We are writing on behalf of a number of residents, all named below, of the Highland Woods Road neighborhood in Chapel Hill, to request that TTA provide a protective sound and sight barrier for the section of the proposed Durham-Orange Light Rail Transit Project line that will run parallel to Fordham Boulevard, between Glenwood Elementary School and Old Mason Farm Road. This conservation area, under the Management of the NC Botanical Gardens, and also partially maintained by UNC, directly abut our quiet, historic neighborhood. The



UNC running track, and the trails through the woods, are heavily used - by local and University runners, by child/youth running groups, by dog walkers and bikers. The area is much loved by those of us in our neighborhood, by our neighbors in Morgan Creek, and by the local Elementary school. It is a quiet oasis near two very busy roads, and wildlife is flourishing here, both in the protected wetland area and all through the woods. The noise and the visual disruption, that will be caused by the light railway is an extremely concerning prospect - to all of us who live here, and to the many others who love and use the track and trails. That disruption could be mitigated substantially by a wooden barrier, designed to screen out the sight and sound of the trains. Modeling such a barrier on the highly effective fence already in place between Old Mason Farm Road and Morgan Creek Road along the edge of the adjoining Botanical Gardens would provide visual continuity from the highway. It would be a greatly appreciated - and highly visible - demonstration that TTA is a responsible community partner, and would add only a marginal amount to the cost of this project. Many of us in this neighborhood are supportive in principle of the need for a light rail system in the Triangle. We have not collectively devoted our efforts to trying to change the route of the line - instead we want to ensure that the TTA does its best to build its line in a way that is minimally invasive to those in its path. Protecting the woods at the back of our neighborhood would be the right and responsible decision. A sight and sound barrier such as the one we suggest would also value to our small, historic neighborhood, by screening out the existing noise of traffic on the highway at the same time. The whole community that uses the woods would benefit from such a far-sighted decision, which would be to TTA's great credit. Such an effort would reflect very positively on the TTA, which doubtless faces concern over reduced property values along the route of the light rail. Thanks for your consideration of this proposal. Please be so kind as to let us know where in the TTA organization this suggestion will be forwarded, and whether we can expect a response, as we would like to keep my friends and neighbors in the loop. Correspondence can be sent care of [removed name], at the street address above or at the following email address: [removed email]

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 4.4.4.1, for locations where visual impacts occur, in addition to coordination with the Town of Chapel Hill and the City of Durham, planting appropriate vegetation in and adjoining the project right-of-way, replanting remainder parcels, and providing landscaping and aesthetic treatments when in close proximity to residences with aerial structures are three of the potential mitigation options that are proposed for affected areas.*

DEIS section 4.4.4.1  
DEIS section 4.10.4  
DEIS appendix K24

*DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts.*

*Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24.*

*As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and*

*compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF.*

*In accordance with the FTA Guidance Manual, a detailed vibration analysis will be conducted during the Engineering phase to further evaluate geotechnical conditions and more precisely predict the vibration effects of the proposed light rail system on area receptors. When the vibration assessment indicates that vibration levels will be excessive, it is usually the track support system that is changed to reduce the vibration levels. Floating slabs, resiliently supported ties, high-resilience fasteners, and ballast mats have all been used to reduce the levels of ground-borne vibration. To be effective, all of these measures must be optimized for the frequency spectrum of the vibration. Most of these relatively standard procedures have been successfully used on transit projects.*

First Name	Last Name	Comment
Dan	Jewell	Good afternoon. My name is [REMOVED NAME]. I reside at [REMOVED ADDRESS], just about a five-minute walk from the proposed Buchanan Avenue station, so thank you for that. I'm here tonight though representing a group of concerned Durham citizens called Durham Area Designers. Again, [REMOVED NAME] with Durham Area Designers. I'm here representing Durham Area Designers, which is a group of 75 Durham-based design professionals, architects, landscape architects, urban planners, engineers, and we have been -- they've asked me to go on record saying Durham Area Designers strongly supports building the LRT. In addition, we support the four key decisions recommended by the Triangle in the DEIS, the Duke VA Station, the New Hope Creek Crossing, the Little Creek Crossing, and the Rail Operations and Maintenance Facility. In addition, we would like to go on record saying that there are some design tweaks that we would strongly suggest that GoTriangle try and incorporate into this plan: Modifying station locations and designs as part of the FEIS to better serve a project purpose and need. Those include better station spacing and access for downtown Durham by shifting the Buchanan station closer to Buchanan Boulevard to increase visibility and access to Birch Avenue, West End, Trinity Park, and East Campus; restore the downtown transit center station to the original GoTriangle proposed location at Duke Street; to add a city center station, as recommended by all three Durham Area Designer charrette teams in October 2014 to provide convenient access to Durham's government buildings, including the courthouse, detention center, and city hall and better serve the Main Street retail and offices to anchor the ballpark; and, finally, we would also be supportive of restoring the Alston Avenue station to the original GoTriangle's own site east of Alston Avenue to extend the reach of Light Rail into east Durham and support that community, as promised in years past. That concludes my remarks. Thank you.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*The preliminary design of the Buchanan Boulevard Station will be refined during the subsequent phase of Engineering. Benefits and concerns with different alignment and station placement concepts will be evaluated at that time. One consideration is safety for people crossing the tracks at*

DEIS chapter 2  
DEIS chapter 3  
DEIS section 2.3.2.2

*Buchanan Boulevard. From a safety perspective, it is most desirable for at-grade crossings to be as narrow as possible; in other words, it is safest if the LRT tracks are as close to 14' apart as possible at the crossing rather than widened out to accommodate an adjacent center platform. A narrow crossing design minimizes the risk of people standing or being stuck between trains as they pass, and the risks posed by a wider crossing will be evaluated as the design is refined. The additional cost for side platforms will also be considered in the context of other factors influencing the design process.*

DEIS section 3.1.3.1  
DEIS section 3.4.2.2  
DEIS section 5.3  
DEIS Table 3.1-4  
DEIS Table 5.3-1

*The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project's design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. As a result of ongoing coordination with both North Carolina Railroad (NCR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street. In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCR Corridor along West Main Street (Section 3.4.2.2). Major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional location at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell & Mangum Streets would also require the negotiation and approval of an additional property lease with NCR beyond what is expected to be required for current alignment. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in cost that are not offset by increases in ridership could result in a reduction in the project's FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell & Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.*

*In the Alternatives Analysis, the proposed location for the Alston Avenue terminus station was just east of Alston Avenue. Triangle Transit determined that a station on the east side of Alston Avenue is infeasible due to the required 40-foot spacing between the light rail track and nearest future railroad track and space constraints imposed by the Pettigrew Street bridge over Alston Avenue, and the City of Durham water tower east of Alston Avenue. Therefore, the proposed location for the Alston Avenue Station was moved to just west of Alston Avenue approximately 1,200 feet from the location described in the AA. On May 21, 2015, the NCRB Board of Directors agreed to permit NCRB management to enter into lease negotiations with Triangle Transit based on this refined alignment (section 2.3.2.2). As further detailed in DEIS Table 5.3-1, the proposed Alston Avenue Station was relocated to the west side of Alston Avenue, as a result of coordination with the NCRB as described in DEIS chapter 2. Revisions were due to NCRB's horizontal track clearance requirements and constraints in relocating Pettigrew Street east of Alston Avenue. Triangle Transit held numerous outreach meetings with the communities in downtown and east Durham to gather their input on the proposed alignment and station locations. See DEIS section 9.3.6 for more information. A conceptual alignment east of Alston Avenue, south of the NCRB Corridor, and adjacent to NC 147 was evaluated. This concept was determined to be technically infeasible, primarily due to constraints associated with the NCDOT right-of-way for NC 147, City of Durham historic water tower, and NCDOT's Alston Avenue widening project. Based on the results of preliminary engineering analysis of conceptual stations and alignments east of Alston Avenue, there are no reasonable, feasible station alternatives east of Alston Ave., primarily due to the constraints created by the North Carolina Railroad (NCRB) right-of-way, the North Carolina Department of Transportation (NCDOT) right-of-way and roadway facilities, and the City of Durham Water Tower infrastructure.*

First Name	Last Name	Comment
Amanda	Joan	Greetings. Thanks for taking public comments. The thing that worries me most is that I hear very little about preparing an excellent and far-reaching bus system. I think Triangle Commuters are unlikely to drive to a train station and leave their car there. Once they are in their car, they will be more likely to just keep going. We need a bus system that reaches far enough into neighborhoods that people can leave their cars at home. A bus system like this will be useful for the trains, but also useful before we ever get the trains built. Thus, an excellent bus system is a necessity either way. Is there any way to put this up front in the conversation?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Enhancements to bus service are part of the Durham County and Orange County Bus and Rail Investment Plans (BRIPs). Both BRIPs were developed and approved by county commissioners before the successful sales tax referenda in 2011 and 2012, and both have guided the provision of new bus service in the two counties over the past few years. For more information about provisions for improved bus service under the BRIPs, please see <http://ourtransitfuture.com/durham-county-bus-and-rail-investment-plan/>. As noted in DEIS Table 5.3-1, the revenue from the half-cent sales tax in Durham County for public transportation is being used to fund project development for the proposed D-O LRT Project and to implement improvements to DATA bus services. In addition, the sales tax will*

DEIS section 3.1.4  
DEIS Table 5.3-1

*be used to support the design and construction of Neighborhood Transit Centers and make improvements to bus stops and pedestrian/bicycle infrastructure along Transit Emphasis Corridors in Durham. When the light rail opens, funds for bus services made redundant by rail operations will also be used to improve connections across Durham to newly opened rail stations. As noted in DEIS section 3.1.4, prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis (section 3.1.4).*

First Name	Last Name	Comment
James R.	Johnson	I oppose the proposed location of the maintenance facility along the Farrington Road corridor. Some significant amounts of degreasers, lubricants and other potentially hazardous chemicals will be transported to and from and handled and stored within the facility, a few hundred yards from an elementary school under the current proposal. While I am sure that measures will be adopted designed to insure safety of operations at the maintenance facility, the fact is that accidents happen and people—even the best intentioned people—make mistakes. It may be that the risks of a serious incident would be small but the consequences could be catastrophic. The only reason suggested for preferring the Farrington Road site, currently a bucolic greenspace, zoned residential, over the alternative existing industrial site, already appropriately zoned for maintenance activity of such a scale is cost. It would be callous to choose to run the risk, even if small, of a serious accident in close proximity to an elementary school because of the added expense. As an attorney, I would suggest to you that the liability consequences of such a choice in the event of an accident could dwarf any initial cost saving. Thank you for your consideration.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Section 8.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 4.1.4.1  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119, 121, and 137

*Before revenue service begins, the D-O LRT Project Team will develop transit system safety*



management procedures. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP will include the Farrington Road ROMF. See DEIS section 4.12 Safety and Security, page 4-241. Further, section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials. The SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or large quantities of other regulated materials.

As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process.

First Name	Last Name	Comment
Nina	Kamberos	Dear Friends, Please consider a station at City Center. It would provide wonderful access to both a cultural and sporting center, not to mention the City Hall . . This would be a perfect integration point . . Thank you for your attention.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project’s design may be evaluated during the Engineering phase of the project, which is slated for 2016-2019. As a result of ongoing coordination with both North Carolina Railroad (NCR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street. In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more

- DEIS chapter 2
- DEIS chapter 3
- DEIS section 3.1.3.1
- DEIS section 3.4.2.2
- DEIS section 5.3
- DEIS Table 3.1-4

information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCR Corridor along West Main Street (Section 3.4.2.2). Major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional location at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell & Mangum Streets would also require the negotiation and approval of an additional property lease with NCR beyond what is expected to be required for current alignment. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in cost that are not offset by increases in ridership could result in a reduction in the project's FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell & Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.

First Name	Last Name	Comment
Laurence M	Katz	Dear committee, I am a citizen of the City of Durham. I am concerned about the safety of the proposed Durham Orange Light Rail Plan. It creates an unacceptable risk of collisions with vehicles and pedestrians and will impede response times for Police, Fire and Emergency Medical Services. Delays in response times (even as little as 1-2 minutes) created by the light rail will have devastating consequences to patient survival and safety. Please do not move forward with this project as it is too high of a risk to individuals and the community.

Comment Responses	DEIS/Errata References
<p>All LRT systems in the US have grade crossings or run within public streets. Light Rail Transit (LRT) technology is designed to facilitate safe at-grade crossings of public streets. Other types of rail transit technology, such as heavy rail transit that uses an electrified third rail as opposed to overhead electric wires for propulsion (such as MARTA in Atlanta or Metro in DC), must be installed in fully grade separated exclusive guideway since the electrified rail must be kept away from the public. LRT, on the other hand, is designed with overhead electric wires with sufficient clearance to allow vehicular traffic to pass safely underneath where roadways cross the tracks. All at-grade crossings of the light rail tracks across public roadways will be designed in accordance with state and federal safety regulations pertaining to such crossing. As discussed in section 4.16.2, three types of light</p>	<p>DEIS chapter 9 DEIS section 3.6 DEIS appendix L</p>

*rail crossings are proposed as part of the D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Approximately 30 to 35 at-grade crossings are proposed for the D-O LRT alignment. Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. The D-O LRT would include approximately 25-30 elevated light rail crossings over existing roadways, including crossings over US 15-501 (Fordham Boulevard), Business US 15-501 (Durham-Chapel Hill Boulevard), NC 54, I-40, Garrett Road (NHC 1 and NHC 2 only), NC 147, Erwin Road, Swift Avenue, and Campus Drive (4.16.2). As described in 4.12.3.5, the proposed D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit, a 17-mile transit alignment, and light rail transit vehicles that would interact with vehicular, bicycle, and pedestrian traffic. The safety implications are particularly important for higher volume areas where multiple modes of transportation coexist like the UNC campus, University Drive, Erwin Road, and in downtown Durham. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Potential impacts from the development of light rail systems with exclusive and/or semi-exclusive rights-of-way include risks of injury or fatalities to pedestrians, bicyclists, vehicle occupants, light rail passengers, and employees due to light rail operations, collisions between light rail and road vehicles, increased street and alignment crossings, and incidents on/or around light rail facilities. Members of the public expressed concern for some of these risks through comments submitted as part of the Scoping meetings and subsequent public involvement as summarized in chapter 9, Public Involvement and Agency Coordination. The design of the project acknowledges these concerns and includes provisions for safe operation and appropriate connectivity for pedestrians, bicyclists, and motorists. To avoid the potential for incidents at at-grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines. Section 4.12.4.5 describes the proposed mitigation to address safety and security impacts of the introduction of light rail on pedestrians, bicyclists, and motorists.*

First Name	Last Name	Comment
Laurence M	Katz	Dear committee, I am a citizen of the City of Durham. I am concerned about the accuracy of the calculations for ridership being used to justify moving forward with the Durham Orange Light Rail Plan. The calculations are reportedly based on current ridership of the bus system along this line. I live along the corridor and the buses are grossly underutilized. There is no compelling evidence that a light rail system will have a significant increase in utilization compared to the bus system. Poor ridership plus the decision by the state to withdraw funds for the project will result in an increased tax burden to both communities. The substantial rise in taxes that will be required to sustain an underutilized and antiquated system will deplete funds that are needed for improvement in transportation infrastructure. Please do not allow this project to move forward.

*The ridership calculations are based on more detailed information than just the existing ridership of the current bus system. As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

DEIS section 3.1.1  
 DEIS section 7.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

*A provision was added to the final version of the 2015 state budget that limits the use of state funds for light rail projects to \$500,000, in direct contravention to the Strategic Transportation Investments legislation. Triangle Transit remains confident that the funding cap can be addressed in the future and will continue to seek state funding for the D-O LRT Project. Potential impacts of the funding cap are still being assessed. As noted in DEIS section 7.1 the construction of the D-O LRT Project will be funded through a variety of local, state, and federal sources. The local funding will be paid from a portion of the half-cent sales tax dedicated for transit in Durham and Orange counties, \$10 annual vehicle registration fee dedicated for transit, and 5% tax surcharge on car rentals dedicated for transit. Additional information can be found in the Bus and Rail Investment Plan; <http://ourtransitfuture.com/durham-county-bus-and-rail-investment-plan/>. Other local funding sources such as value capture strategies may also be pursued. State funding is allocated to the project through the State Transportation Improvement Program. Federal funding is anticipated through the Federal Transit Administration “New Starts” Capital Investment Grant program.*

First Name	Last Name	Comment
Ann and Michael	Koerber	We wish to oppose the proposed NEPA preferred alternative Farrington Road Rail Operations and Maintenance Facility (ROMF). As nearby residents of this proposed location, we believe the Farrington Road ROMF will adversely affect the quality of life in our community. This location is currently zoned suburban residential consistent with the housing and vegetative characteristics of the

area- it is not light industrial which would be more appropriate for a ROMF, such as the Charlotte ROMF and the proposed Alston Avenue location. A significant concern is proximity of the Farrington Road ROMF to nearby Creekside Elementary School. There is no mention in the DEIS of the preferred alternative site being so close to an elementary school with over 900 children. The Farrington Road ROMF would add traffic (especially problematic would be the extra traffic associated with shift changes at the facility during the already very busy school morning arrival and afternoon departure times). Also, it would introduce the handling and usage of potentially dangerous and hazardous cleaning/maintenance chemicals, as well as add noise and air pollution to this currently quiet, clean neighborhood. The DEIS notes that this location is "the least environmentally damaging practicable alternative, and has the most stakeholder support...". Concerning it being the least environmentally damaging, the DEIS clearly notes that the Farrington Road location "has the largest impact to streams, stream buffers, wetland and riparian zones." In addition, the DEIS notes that this location would pose visual impacts to residences. As for having the most stakeholder support, aside from the support by the largest land owner (Curtis Booker), there is NOT support from the vast majority of other residents in nearby subdivisions, as evident from the large turnout a couple months ago at the meeting held at Creekside Elementary. Those in attendance were overwhelming opposed to the Farrington Road ROMF. Other reasons cited for preferring the Farrington Road location are larger available land area (although there is no explanation why a 25-acre site is needed when the Charlotte ROMF is only 14 acres), and no lower costs (although the Farrington Road costs were identified as being comparable to those for the Leigh Village and the Alston Avenue sites in a November 2-14 handout from Our Transit Future). Finally, the DEIS fails to identify any significant remediation steps for siting the ROMF in this clearly quiet, suburban light residential area, such as elimination of on-site parking for the many ROMF employees, minimization of lighting (eg. no elevated light towers), and providing sufficiently high (and dense) vegetative buffers and sound barriers.

*Comment Responses*

*DEIS/Errata References*

*Land use/zoning As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process. Lighting Section 4.4.3.1 and section 1.4 of the combined FEIS/ROD, DEIS Errata 76, notes that lighting would be aimed towards the ROMF to minimize the impacts of light on surrounding neighbors and wildlife. In addition, source-shielding would be used in exterior lighting at the ROMF. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

DEIS section 2.2.3  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.10.4  
 DEIS section 4.11.3  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 21, 52, 76, 94, 95,  
 104, and 119

*Water wells and stormwater contamination DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately-owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs,*

***D-O LRT FEIS / ROD***



including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.

A clarification will be made to the combined FEIS/ROD to state that a number of comments received throughout the DEIS public involvement encourage the selection of another alternative. The public comment period has also shown some opposition to the Farrington Road ROMF site selection based on several localized common comment threads. There are perceived effects to local community character, noise, safety and security, hazardous materials handling, surface waters and groundwater, as well as land use changes that would be required based on its current zoning classification of suburban residential. Through errata Triangle Transit has emphasized the continued coordination with the Farrington Road ROMF neighborhoods during the Engineering phase, and clarified the mitigation for the ROMF.

As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site.

First Name Last Name

Comment

D-O LRT FEIS / ROD

I am a citizen of Durham County North Carolina, commenting on the DEIS for the Durham-Orange Light Rail Transit Project (DOLRT). My concerns about the environmental impact of DOLRT fall into three categories: 1) Increased (yes!) traffic congestion 2) “Indirect and cumulative effects” on southwestern Durham county 3) Siting of the ROMF 1) Increased traffic congestion Usually one expects mass transit to reduce traffic congestion and associated pollution. But DOLRT creates 43 at-grade crossings in 17 miles, many on already overcrowded NC54 and other busy commuter routes. By stopping traffic every 10 minutes for 18 hours a day on these busy roads, it will likely increase traffic congestion, gasoline use, and pollution. GoTriangle assumes a high percentage of residents will use the light rail instead of their cars on these routes, but since the proposed DOLRT route serves neither RDU airport nor the major RTP commuter destination, this is highly unlikely. An examination of ridership rates for existing bus services along the proposed route does not support GoTriangle’s ridership figures. 2) “Indirect and cumulative effects” on southwestern Durham county From DEIS section 4(f) p.4-288, the Council on Environmental Quality (CEQ) requires an assessment of indirect and cumulative impacts per 40 C.F.R. §§ 1500–1508. Regulations included in the appendix to the Planning Assistance and Standards, Title 23 C.F.R. Part 450, indicate that the indirect and cumulative effects analysis should be sufficiently detailed such that consequences of different alternatives can be readily identified, based on current data and reasonable assumptions, and based on reliable and defensible analytical methods. Furthermore, courts have mandated that federal agencies take a reasonably “hard look” at their projects with regard to available information and analysis of appropriate issues (including indirect and cumulative effects). The indirect and cumulative impacts of the project are not fully addressed, specifically in regard to the Farrington Road section of the project corridor (from US15/501 to NC54), which the DOLRT would transform from present-day farm land and low density residential land use, to intense high density, mixed use development approaching 100 units per acre. The rail ridership numbers assume this high density residential development (60 to 100 units to the acre); in fact, the project requires that level of development to justify itself. Such development includes large amounts of impervious surface area, for example, a 900+ car park-and-ride lot at Leigh Village Compact Neighborhood near NC54 and Farrington Road, and 26 impervious acres at the proposed ROMF site on Farrington Road. But that section of the proposed rail corridor sits on a narrow peninsula of land bounded by New Hope Creek to the east, Little Creek to the west, and Jordan Lake to the south -- which would be severely impacted by the addition of so much impervious surface. The DEIS should address -- in specific, quantifiable, scientific terms -- the indirect and cumulative impacts to the environment in this area due to storm water runoff and silt run off vastly increased by transit-driven development, including the likelihood that storm water runoff would be laced with grease, solvents, and detergents from the Farrington ROMF. In particular, the DEIS should address the impact on Leigh Farm Park, an 86-acre nature preserve with wetlands, bottomland hardwood forest, steep slopes, and alluvial soil that filters water flowing into the New Hope River Waterfowl Impoundment and ultimately, into Jordan Lake. Leigh Farm Park is also the home of the Piedmont Wildlife Center and nature camps for children. 3) Siting of the ROMF Five alternatives were considered before selecting the Farrington ROMF site. (One of them, the Leigh Village site, substantially overlaps the Farrington site.) According to the DEIS, the Farrington site is the worst option environmentally, with the highest total of estimated stream impacts (638 linear feet), the greatest impact on wetlands, and the largest riparian buffer impacts, requiring 193,790 riparian buffer credits. (See Appendix K-22, Water Resources Technical Report, Sections 5.2.2.1, 5.2.2.2 and 5.2.2.3 and Tables 4, 5, and 6). This ROMF site negatively impacts Leigh Farm Park, described in the previous paragraph. The Farrington ROMF site will impact Trenton Road and the approximately 60 homes for which Trenton is the only access. Currently, in heavy rains, storm water runoff causes the stream designated NN (in the DEIS Water Resources Appendix K-22) to overflow its banks and cover Trenton Road, making the road impassable. This occurs with the current low-density development, where the main impervious surface is from 6 lanes of I-40 pavement alone. With the addition of 26 acres of impervious surface at the ROMF – not to mention additional high-density development nearby – Trenton Road would have to be rebuilt with a larger culvert underneath, an expense not considered as part of the ROMF site comparisons. In addition, there is serious risk of well water contamination for

Trenton Road residents from polluted runoff from the Farrington ROMF. City water would need to be provided to these residents – another expense not taken into account. And what if this pollution reaches Jordan Lake, which is fed by watershed all around the Farrington ROMF? The EPCON / Culp Arbor sewer easement traverses the entire Farrington ROMF site. That easement is supposed to remain undisturbed and fully accessible for long-term maintenance – not likely if the ROMF is built. Also, Creekside Elementary School, with over 900 children, is right across the street from the Farrington ROMF. With all the hazardous chemicals, what if there is an accident and a need to evacuate? (When asked this question at a neighborhood meeting, GoTriangle representatives had not even thought about a plan.) Even without an accident, Creekside’s young children, as well as various neighborhoods, would be negatively impacted by light and noise 24 hours a day, 7 days a week. In addition to my environmental concerns stated above, the DEIS contains untrue statements about transparency and communication of its planning process, which calls into question the accuracy and thoroughness of the entire report. In section 9.3.2, GoTriangle states that in 2013 and 2014, it assembled a list of 300 agencies (including neighborhood associations) in and around the D-O corridor, contacted each and offered to participate in meetings with them. In DEIS Table 9.3.3 (pages 9-16 through 9-24), the “Small Group, Neighborhoods, Agency and Stakeholder Meeting List” does not include Creekside school nor ANY of the following neighborhoods within ½ mile of the Farrington Road (or nearly identical Leigh Village) ROMF sites: Culp Arbor, Glenview Park, The Enclave, Five Oaks, Chicopee Trail, Prescott Place, Trenton, Weston Downs, Maida Vale, Marena Place, Blenheim Woods, and The Oaks III. But this is not just an omission in a list in a DEIS table. My Trenton neighborhood is part of the Farrington Homeowners Allied for Residential Preservation (HARP), founded in 1987 and registered with the Durham Planning Dept. It has had the same president that whole time, who has received numerous notifications over the years and alerted the neighborhood to them. (I have lived here since 1993, so I have been involved in many such alerts.) But she – and heads of other neighborhood associations – knew NOTHING about the Farrington Road ROMF site until June 18, 2015, the date GoTriangle CLOSED the scoping period for the DOLRT project. Despite the DEIS statement that all stakeholders had been heavily involved, during the scoping period there were no phone calls, no direct mailings, no emails received by any representatives of the affected neighborhoods (or the school) surrounding the Farrington ROMF site. It appears the Farrington ROMF was unveiled to those directly affected only when GoTriangle knew it was too late for them to participate in the selection process. This includes NOT notifying families whose homes would be leveled for the Farrington ROMF, including an African-American family living on land they owned since 1888, and another family consisting of a woman with breast cancer, a disabled veteran spouse, and a live-in adult child with full care special needs. (This woman spoke movingly at a meeting I attended on June 24, where she was quickly escorted out of the room by GoTriangle representatives.) Perhaps as a result of the “coincidental” timing I just referred to, the GoTriangle website and the DEIS public comment and media sections fail to mention the intense opposition to the Farrington ROMF site that has erupted since the site became known to residents on June 18. During July, August and September, a large number of residents responded, including some well-researched arguments against the Farrington site. Many of those arguments were shared in writing at a meeting at Creekside School on Aug. 18, attended by more than 200 residents. GoTriangle collected those comments, but where are they today? Not on the website or in the DEIS. Were they shared with the FTA and with local elected officials? GoTriangle also resisted for months sharing information such as how it determined ridership figures, despite several expert citizens trying to get those figures for an impartial outside analysis. GoTriangle finally released a great deal of technical detail about the DOLRT project, less than a week before the end of the DEIS comment period. This is another interesting coincidence of late timing which suggests that – far from what GoTriangle claims about its desire for “education, inclusion, transparency, accountability and responsiveness” – GoTriangle is making every effort to respond slowly, hide information, block our education, and exclude our voices. I believe many citizens and leaders support DOLRT from a commendable desire to foster the area’s healthy long-term growth. I also want a healthy and vibrant area, but I do not believe this DOLRT proposal will move us in that direction. Annette Kronmiller 4614 Trenton Road Chapel Hill, NC 27517

*In accordance with federal regulations governing control of public streets and the interface of light rail transit systems with those public streets, for light rail crossings in close proximity to traffic signals on NC 54, light rail crossing gate controls will be interconnected with the traffic signal controls. This means that the traffic signal will be synchronized with the light rail train control such that when a light rail train is approaching, the traffic signal will change if necessary to clear vehicles from the crossing. Traffic signal phases that do not conflict with the light rail tracks will be able to run while the train is passing. For example, traffic traveling on NC 54 would have a green light while the light rail train crosses Friday Center Drive and East Barbee Chapel Road under the C2A Alternative. As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway projects planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance.*

DEIS chapter 9  
 DEIS section 2.2.3  
 DEIS section 2.4  
 DEIS section 3.2.2  
 DEIS section 3.2.4  
 DEIS section 4.4.4.1  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3  
 DEIS section 4.17  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS Table 2.4-1  
 DEIS Table 3.2-3  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD section 2.6  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119, 121, and 137

*As stated in Triangle Transit’s Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: “Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened.” Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT). The methodology and results for the ridership analysis is documented in detail in Appendix K2 of the DEIS, which was released for public review at the same time as the DEIS Notice of Availability.*

*In June 2015, additional data eliminated the Cornwallis ROMF location from consideration and indicated that the Farrington Road ROMF was the most appropriate alternative. GoTriangle invited more than 1500 property owners within 1 mile of the Farrington Road ROMF site to solicit additional community input on ways to better integrate the Farrington Road ROMF site into the community. More than 200 people attended the meeting held at Creekside Elementary School on August 18,*

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2015. DEIS Errata #137 provides clarification on the details of this meeting and community concerns registered. Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6. For Triangle Transit, education, inclusion, transparency, accountability, and responsiveness have been key principles of the planning process for transit service in the Durham-Orange (D-O) Corridor, from before the Alternatives Analysis (AA) was completed in 2012 through the ongoing National Environmental Policy Act (NEPA) and Project Development process. Agencies, non-governmental groups, and the public have been engaged throughout the planning process for the proposed Durham-Orange Light Rail Transit (D-O LRT) Project as required by federal and state law. NEPA mandates agency and public participation in defining and evaluating the impacts of project alternatives. The project has also followed U.S. Department of Transportation (USDOT) guidelines for public participation, including Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d) and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Fed. Reg. 7,629 (February 11, 1994). All meetings were advertised in local newspapers and on the project website. In addition, the project team utilized several different methods to collect public comments, including: public meetings, smaller group meetings, postal mail, email through [info@ourtransitfuture.com](mailto:info@ourtransitfuture.com), web forms, and surveys, and a telephone hotline with English and Spanish options. In 2014, Triangle Transit began engaging property owners and tenants along the entire D-O Corridor to discuss the proposed D-O LRT Project, alternatives under consideration, and the DEIS process. The method of outreach, location, dates of the public open houses for property owners, and the number of attendees are shown in Table 9.3-4 of DEIS Chapter 9. The list of potentially impacted owners, meeting invitations, and slides presented to them are available in DEIS appendix J.4. An Indirect and Cumulative effects assessment is provided in DEIS section 4.17. The affected environment for the cumulative effects analysis includes conditions that would be present based on expectations related to the other past, present, and reasonably foreseeable future actions. The DWR has developed stormwater programs to protect waters of the state. The primary goal of these programs is to minimize impervious surface and treat runoff using BMPs. Durham and Orange counties and the cities of Durham and Chapel Hill have stormwater management plans and policies in place to regulate the amount of impervious surface added by development and minimize pollutants from stormwater runoff. In addition, Orange and Durham counties are both classified by NCDENR as Phase II Tipped Counties (meaning urbanizing areas around larger municipalities with minimum standards and post-construction requirements). The North Carolina Division of Energy, Mineral and Land Resources must issue state stormwater permits for development in these areas. Anticipated cumulative impacts to water quality from the NEPA Preferred Alternatives, including the ROMF, would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. This could contribute to further degradation of water quality in the Jordan Lake and Upper Neuse watersheds. However, the project would comply with stormwater management



permitting requirements and include DWR stormwater management BMPs.

Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 4.4.4.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and stands in the design of project elements and provide landscaping and aesthetic treatments within close proximity to residences. As clarified in section 1.4 of the combined FEIS/ROD, DEIS Errata 78, visual and aesthetic impacts associated with the Farrington Road ROMF will be mitigated through coordination with the surrounding landowners and the City of Durham during Engineering. Potential treatments

include landscaping, architectural treatments, visual barriers, and building height maximums. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.

First Name	Last Name	Comment
Annette	Kronmiller	<p>My name is [REMOVED NAME]. I live at [REMOVED ADDRESS]. So as an alternative to light rail, we think that bus rapid transit on existing roads is more flexible and less expensive than a new fixed right-of-way for new tracks. Also, you know, we've seen how technology changes with the rising Uber, driverless vehicles, and people working from home. The extreme traffic congestion so feared by elected officials is not likely to materialize, and, in fact, this light rail, as it's been stated, will be made worse by all these at-grade crossings where every vehicle will have to hit its brakes umpteen times a transit to -- to make way. Also now that Raleigh has opted out of light rail, this problematic, costly mode of transportation doesn't even provide access to RDU and RTP. Some of us would like to offer an alternative to the Farrington ROMF site, not the Lee Village option in the DES [sic] which simply slides the Farrington site a few yards south, but the yet-to-be created Lee Village compact neighborhood surrounding the proposed Lee Village Transit Station near NC-54 and Farrington. There the expected land use, the sell-out plan for the property owners, the quantity of impervious surface and the density of proposed development make an industrial facility appropriate. The Leigh Village Transit Station area is going to become the paved dumping ground, literally a parking lot, for over 900 vehicles for Chapel Hill, specifically for UNC Hospital. Why Durham's elected officials embrace this second-class treatment, we don't know, nor do we know why they allowed Chapel Hill's Meadowmont to dump the rail line into Durham's Downing Creek, but residents from the portion of Farrington Road in southwest would like to preserve this as the North Carolina we came to and that we love. And we do know that it makes sense to include an industrial ROMF somewhere else where it will become southwest Durham's New Jersey jungle of asphalt and rail lines and high-density apartments.</p>

Comment Responses	DEIS/Errata References
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*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com> Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also*

- DEIS section 3.2
- DEIS section 3.2.3
- DEIS section 3.6
- DEIS section 4.1.4.1
- DEIS section 8.2.2
- DEIS appendix L
- FEIS/ROD section 1.2.2
- FEIS/ROD section 1.4
- FEIS/ROD Table FEIS-2
- DEIS Errata 17, 21, 22, 36, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119, 121, and 137

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planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>

Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. The Leigh Village Station area has been identified by the City and County of Durham as a primary area in the City to receive both jobs and housing growth in the next 20-30 years. A ROMF location in this area would be inconsistent with local transit oriented development planning. Furthermore, Triangle Transit did an evaluation of the area around Leigh Village for possible ROMF. In order for a ROMF to function properly it requires a runaround track within the site itself with lead tracks tying into the mainline in each direction. The lead tracks require a cross-over beyond the turnout in order to get the trainset from one track to another. Both turnout and cross-over require a tangent within the LRT alignment. The problem is that although a site might be available to situate the ROMF the nearest tangent to it is 3500' north and 1500' to the south. In both directions at-grade crossings exist and in the southern direction the USACE property would be involved.

As discussed in DEIS section 4.16.2, three types of light rail crossings are proposed as part of the proposed D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Table 3.2-4 lists

#### **D-O LRT FEIS / ROD**

*the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. The D-O LRT Project would include approximately 25-30 elevated light rail crossings over existing roadways. (section 4.16.2). As described in DEIS section 4.12.3.5, the D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit that would interact with vehicular, bicycle, and pedestrian traffic. . Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Section 4.12.4.5 describes the proposed mitigation to address safety and security impacts of the introduction of light rail on pedestrians, bicyclists, and motorists. As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings.*

First Name	Last Name	Comment
Sylvia	Leaver	<p>I am a resident of Blenheim Woods, in Durham City, which is located very near Creekside Elementary School and the proposed Farrington Road Rail Operations and Maintenance Facility. 1. I first want to object to the disrespectful and unjust treatment by the Our Transit Future planners towards our community and other neighbors in the Farrington Road vicinity by the extraordinarily late and casual notice we were accorded regarding the planners' choice, after the fact, in late June of 2015, of the Farrington Road site for the ROMF. I wish to call attention to this poor treatment and communication as it has bearing on the environmental justice consideration that should be given to less affluent communities, as compared, say, to the much wealthier Meadowmont development, which had earlier committed to a light rail station, that was not accorded our larger, more mixed, and less affluent extended community. 2. I will also note that from comments made by the OTF representatives at a meeting at Culp Arbor on June 24, 2015, that it was clear that parties that would be affected at other potential ROMF sites were given earlier notice of such, which provided them time to erect legal and cost barriers to the choice of those locations. This is patently unjust. 3. Placement of the ROMF at the Farrington Road site and forced rezoning to industrial of a section of Durham County that was to date residential is an effective imposition of hardships and loss of property value on a population group who will not be benefiting from their proximity to the rail system. OTF should do everything possible to reconsider ROMF locations already zoned industrial, as their argument that the Farrington Road site is the most economical choice is only representative of their willingness to externalize the costs of environmental, health, safety, and quality of life degradation resulting from their choice on our neighborhoods. I have been studying the DEIS published online for this project and would like to note the following: 4. With regard to noise and noise abatement, the noise impact on Culp Arbor, which is located opposite the proposed entrance to the Farrington Road ROMF, is not adequately addressed. The SEL for a light rail ROMF, as stated in your report, is 111 dBA. I question whether the distances reported in your Appendix K2 Table 7 for Farrington Road receptors could be accurate for that development, and thus I question the DEIS's conclusion that they would not suffer a substantial noise impact from the operation of the ROMF. 5. I will also note that the Creekside Elementary School campus boundary is within 1000 feet of a boundary of the Farrington Road ROMF. There are semi-permanent temporary classroom structures located on the school grounds which, by their structural characteristics, would be more</p>

susceptible to noise from the ROMF, as well as from train and bell noises from at-grade crossings on Farrington Road. Neither these, nor the additional noise that school children playing outside would be exposed to were noted at all in the DEIS.6. At the June 24 meeting we were informed that there will be at-grade crossings of Farrington Road at two locations to provide access to the ROMF. Farrington Road is a major commuter artery to NC 54 and 140. Commuter traffic on Farrington Road is not likely to abate with the placement of the ROMF or even the Leigh Village Station, as the planned LRT is limited in its scope and will not meet many commuters' needs. Frequent at-grade train crossings on Farrington Road will result in lengthy traffic backups with attendant auto and noise pollution, affecting homes and schools in close proximity. This was not noted in the EIS, and when these concerns were raised at the June 24 Culp Arbor meeting, the OTF staff in attendance were surprised, as if they had not considered this likely outcome.6. Blenheim Woods will also suffer additional auto air and noise pollution from automobiles streaming through our community, more than likely at excessive speeds, to park at the station at Leigh Village. These will likely be substantial and were not appropriately noted in the EIS.7. Section 4.11 discusses hazardous contaminated and regulated materials, but concentrates on those that might already exist on properties acquired or near LRT tracks or stations. Concerns of our community area a) what specific hazardous materials might be generated, or used at the Farrington ROMF and b) what specific measures would be in place to protect, and in the case of an accident, shield from harm the surrounding residential neighborhoods, and in particular the vulnerable young student population at Creekside Elementary School and the residents of Culp Arbor, whose only route of exit is Farrington Road. These concerns, which are environmental, are not adequately addressed in the EIS. In conclusion, I do not feel this DEIS appropriately or adequately addresses the environmental issues surrounding the D-O LRT that will impact my general neighborhood, which is more imperiled by the placement of the ROMF in close proximity to established homes.

*Comment Responses*

*DEIS/Errata References*

*Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6. Triangle Transit provided numerous opportunities and venues for public comment on the development of the project. In fact, as stated in section 9.3.2 of the DEIS, through June 2015, Triangle Transit staff participated in more than 300 separate meetings, reaching more than 5,000 people. In addition to small group and neighborhood meetings, Triangle Transit met with various stakeholders (including educational institutions, property owners, railroad companies, hospitals, utilities, professional organizations, and federal, state, and local agencies) throughout the development of the DEIS to ensure that stakeholders are aware of impacts (or perceived impacts) and project developments.*

DEIS chapter 9  
 DEIS section 4.1.4.1  
 DEIS section 4.12.4  
 DEIS section 4.12.4.6  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS Table 3.2-3  
 DEIS appendix J  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD section 2.6  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119, 121, and 137

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined*



*FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations and to get input during the development of the SSMP. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.*

*Please note that FTA noise and vibration assessment guidance stipulates that screening distance for maintenance facility sites should be measured from the center of the maintenance facility, not from the property boundaries. The distances provided in Table 7 of Appendix K24 and the associated predicted future noise and vibration levels are accurate based on the anticipated layout of the*

*Farrington Road ROMF. Screening and other features that may be incorporated into the design of the ROMF could effectively reduce forecast noise levels at surrounding receptors.*

*No traffic impacts are anticipated as a result of the implementation of the Farrington Road ROMF. Section 3.2.3.2 states with the NEPA Preferred Alternative, traffic operations at the intersections along Farrington Road would be similar to operations under the No Build Alternative, as listed in Table 3.2-3.*

First Name	Last Name	Comment
Winston	Liao	<p>We live in the Rocky Ridge/Laurel Hill Historic District in Chapel Hill, which has a major entrance at the intersection of Old Mason Farm Rd/Fern Lane/Carmichael St, in front of Aldersgate Church. Having the light rail run at that location, along Fern Lane and the Pinetum/Meeting of the Waters, will cause the following harm, damage, and disruption to a major historic neighborhood in Chapel Hill:-The intersection at 15/501, Old Mason Farm Rd., Fern Lane, and Carmichael St., is one of the most dangerous intersections in Chapel Hill, with pedestrian and vehicular accidents throughout the years. Having the light rail cross there will further increase the pedestrian and vehicular traffic congestion and accident occurrences.-Noise from the train will negatively impact activities at two churches, St. Thomas More Catholic Church and Aldersgate Methodist Church, as well as at Aldersgate preschool, St. Thomas More preschool, elementary, and middle schools, and UNC Family Medicine Center.-Running the track across the Pinetum/Meeting of the Waters will destroy many species of plants, including rare, endangered species and those that still need to be identified, as well as existing flora unique to Chapel Hill and the Piedmont area of North Carolina.-Running the track along Fern Lane towards Manning Drive will substantially increase the noise level in that part of the Historical District.We ask that the light rail tracks from the Friday Center and Hamilton Road stations run on the east side of 15501 along the NC Botanical Garden, crossing Manning Dr. This will:-Avoid the negative impacts to the Pinetum/Meeting of the Waters, churches, schools, and Rocky Ridge/Laurel Hill Historical District, as listed above.-Provide a much safer pedestrian and vehicular environment at the 15501/Mason Farm Rd/Fern Lane/Carmichael St. intersection/area by not having tracks cross there.-Decrease the cost for the light rail to cross 15501 to run along Mason Farm Rd.-Allow ridership on the light rail to see and appreciate the views offered by the NC Botanical Garden, thus increasing the potential for visitors to that facility.-Decrease the noise level and any associated disruption to the UNC Family Medicine Center at the northwest corner of Manning Dr. and 15501.We support the light rail, but are extremely upset by the change in the original plan (which had the tracks running on the east side of 15501 from Old Mason Farm Rd., across Manning Dr., and up Mason Farm Rd. to UNC Hospitals). We ask that you seriously consider having the tracks run as proposed in the original plan. Thank you.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*DEIS section 4.5.3 describes the effects of the project on historic resources. FTA, in coordination with the SHPO, has made a determination that the NEPA Preferred Alternative would have No Effect on 13 of the 25 architectural historic properties located within the Architectural APE as compared to the No Build. It would have No Adverse Effect upon the other 12 properties. SHPO concurred with the FTA determination in their September 10, 2015 letter (see combined FEIS/ROD Appendix B.However, Triangle Transit is committed to provide a landscape visual buffer for the following historic resources due to their non-urban settings: the Rocky Ridge Farm Historic District (HD), the Highland Woods HD, the Walter Curtis Hudson Farm, and the Ruth-Sizemore Store (Table 4.5-1). This*

DEIS section 3.2  
 DEIS section 3.2.3  
 DEIS section 3.6  
 DEIS section 4.10.4  
 DEIS appendix K21  
 DEIS appendix K24  
 DEIS appendix L  
 FEIS/ROD section 1.4

*visual buffer would provide a blooming of at least two seasons of each year. Triangle Transit will consult with property owners, historic district representatives, and the SHPO on the appearance of this buffer.*

*The NEPA Preferred Alternative is elevated near the intersection at 15/501, Old Mason Farm Rd., Fern Lane, and Carmichael Street. Therefore it would not affect traffic flow or pedestrian movements. As detailed in DEIS section 4.12.2.5, to the extent practicable, Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles at Triangle Transit facilities. Many safety measures, including crosswalks, signals, lighting, and fencing in certain locations, are used to help reduce the number of conflicts and incidents. In addition, basic design elements are used to enhance safety, including the use of facility siting and parking lot layouts that avoid pedestrian/vehicle and vehicle/vehicle conflicts, as well as the careful use of landscaping to eliminate blind spots and provide openness for security surveillance. Furthermore, Triangle Transit facilities are designed to comply with the Americans with Disabilities Act (ADA) to improve safety and ease of movement for disabled individuals. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signaled or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings.*

*DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts. Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24. No noise or vibration impacts are anticipated for receptor 18 at this location. Mitigation measures proposed for potential noise effects are described in DEIS section 4.10.4. Triangle Transit will coordinate design and policies related to audible warning devices with NCDOT and local jurisdictions in accordance with applicable regulations, guidance, municipal policies, and best management practices.*

*Effects to the NC Botanical Gardens are discussed in DEIS sections 4.3 (Neighborhood and*

Community Resources); section 4.4 (Visual and Aesthetic Conditions), section 4.6 (Parklands and Recreational Areas, Draft Section 4(f) Evaluation), section 4.10 (Noise and Vibration), and section 6.3 (Section 4(f) Properties). The NC Botanical Gardens are considered a community resource; however, no direct impacts to access, mobility, the community resource, or community cohesion are anticipated (section 4.3.2.2). Visitors would be highly sensitive to visual changes. Locations where impacts occur (identified in Table 4.4-6) and the degree and nature of the impacts are noted in the previous sections. In the vicinity of the NC Botanical Gardens (located on the south side of the NC 54 highway); the NEPA Preferred Alternative would be located on the north side of the NC 54 highway. On the north side of NC 54, 0.1 acre of permanent easement would be required from the Coker Pinetum. Due to the proximity of both the NC Botanical Gardens and associated trails to existing transportation infrastructure (NC 54) potential impacts to the character and context of the gardens and trails would be negligible in this location. The proposed East 54 Trail/NC Botanical Gardens Trail would maintain its functional utility where intersecting with the proposed NEPA Preferred Alternative because the light rail alignment would be elevated in these locations. As such, direct impacts to the proposed East 54 Trail/NC Botanical Gardens Trail would be negligible. As noted in Table 4.10-3, the NC Botanical Gardens are considered a noise-sensitive receptor, classified as Land Use Category 1. No noise-related impacts are anticipated to the NC Botanic Gardens. DEIS section 4.7 discusses the natural resources located within the D-O Corridor, including wildlife and habitats, with a focus on ecologically-sensitive areas and contiguous expanses of undisturbed lands. It documents federal and state-listed threatened and endangered species (fauna, flora, aquatic, and terrestrial). This section also identifies the potential effects to natural resources that would result from implementation of the alternatives under study in this DEIS. Where potential adverse effects are identified, efforts to avoid, minimize, or mitigate these effects through design modifications are also discussed. Additional detail regarding the natural resources located within the D-O Corridor is contained in appendix K21. Table 4.7-3 indicates the acreage of each biotic community that falls within the NEPA Preferred Alternative. Under the NEPA Preferred and Project Element Alternatives, no significant adverse impacts to terrestrial or aquatic habitat are anticipated. Under the NEPA Preferred Alternative, significant adverse impacts to terrestrial or aquatic wildlife are not anticipated. Limited wildlife disturbance would occur for the duration of the construction activities (DEIS section 4.16). Impacts to wildlife are expected to be limited after construction is completed. The NEPA Preferred Alternative is not anticipated to result in significant impacts to federal or state-listed threatened or endangered species, or their habitats.

First Name	Last Name	Comment
Henry	Lister	Good afternoon. My name is [REMOVED NAME]. I live at [REMOVED ADDRESS] in [REMOVED CITY, ZIP], right down the street here. When I came back from Italy last year, I was completely all in for light rail, having experienced it there. However, the more I learned about this project, the less enthused I became. As stated previously, I agree that the proposed light rail plan does not serve the most desirable destinations. So who is it serving and why? I'm still not convinced. I'd be interested in knowing what the ridership is on any and all buses that mirror the proposed light rail line and if those ridership numbers justify the cost. With regard to the Southern Environmental Law Center's support, I don't deny that light rail overall is environmentally sound and beneficial, but I believe that

different routes would produce larger benefits than the proposed route. And just as the Jewish Federation believes that light rail would disturb the peaceful use of their property, I believe the proximity of the line to Glenwood Elementary and St. Thomas More schools would have similar detriment. Thank you.

### *Comment Responses*

### *DEIS/Errata References*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>*

DEIS section 1.5.1.2  
DEIS section 3.2  
DEIS section 3.3  
DEIS section 4.17  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 17

*As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.*

*The Draft Environmental Impact Statement (DEIS) evaluates and documents the potential environmental impacts of the proposed D-O LRT Project. Where impacts are identified, the DEIS proposes mitigation measures. Specific sections of the DEIS discuss impacts to neighborhoods such as roadway modifications (section, 3.2) parking (section 3.3), access, mobility, and community cohesion*



(section 4.3), visual and aesthetic impacts (section 4.4), noise and vibration impacts (section 4.10), acquisitions, relocations and displacements (section 4.14), utility impacts (section 4.15), anticipated construction impacts (section 4.16), and any potential indirect and cumulative impacts (section 4.17).

First Name	Last Name	Comment
Gina	Longo	With all due respect, this project is so porky that you lot should throw a barbeque! You want to reduce traffic congestion and get people out of their cars? Then might I suggest that you coordinate Raleigh, Durham, Chapel Hill, RTP, and most importantly, RDU, and set up a light rail, subway, or other mass-transit system connecting the three cities with the Park and the airport. It is shameful that RDU, a former hub with, I'd like to think, aspirations to reach that lofty goal again one day, has NO convenient mass transit available. Scrap this waste of hard-earned taxpayer money and put your planners to work on figuring out how to get inexpensive, reliable, convenient mass transit (and I don't mean buses!) to the entire Triangle.

Comment Responses	DEIS/Errata References
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*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobility*
- o Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development*
- o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time*
- Increase Connectivity*
- o Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system*
- o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*
- Promote Future Development*
- o Support local land use plans that foster compact development,*
- o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers*

*The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:*

- Connect residential, educational, and major employment centers throughout the corridor;*
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*

DEIS chapter 1  
 DEIS section 2.2.1  
 DEIS section 8.1  
 DEIS section 8.4  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17

*Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;• Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;• Provide solid anchors needed to shape land use along this critical corridor; and,• Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project.RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail.Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>*

First Name	Last Name	Comment
Allen	Lum	A lot of the stations are serving nothing but parking lots -- how does that provide ridership for your stations if there are no destinations for passengers to head to? Doesn't that necessarily defeat the purpose of reducing car dependence and congestion around the Triangle? Why build this at all if all you're including are parking lots? (i.e. Leigh Village, Gateway station). Why not negotiate public-private-partnerships with developers that would not only finance the construction of stations while providing passengers with destinations to embark and disembark?

As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.

DEIS section 2.3.2.1  
 DEIS section 3.1.1  
 DEIS section 3.3  
 DEIS Table 2.3-2  
 DEIS Table 3.3-2  
 DEIS appendix K1  
 DEIS appendix K2  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, 33 and 75

The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Parking is proposed at several stations as described in DEIS section 3.3. As described in DEIS Table 2.3-2 and further detailed in DEIS Table 3.3-2, park-and-ride facilities are currently planned at the following stations: \$Friday Center\$Leigh Village\$Gateway\$MLK Jr. Parkway\$South Square\$Durham\$Dillard Street\$Alston Avenue. The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and “kiss-and-ride” spaces for passenger pick-up and drop-off. Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (DEIS section 2.3.2.1). Typical images can be found in DEIS section 2.3.2.1 and conceptual designs in DEIS appendix L. Section 1.4 of the combined FEIS/ROD, DEIS Errata 75 further adds clarification that Triangle Transit will coordinate with municipalities and

neighborhoods on the aesthetic treatments for stations. Parking fees, if any, will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners.

First Name	Last Name	Comment
Bonita	Marks	Dear Sirs, The LRT ridership estimatons are projections based on inaccurate, inflated, FABRICATED current ridership. I NEVER have seen any bus on the NC 54 corridor overfilled,packed, or even slightly/modestly filled at ANY time. At peak times, at most I have seen 5-10 riders on these buses. The ONLY time ridership is good is during the NC State fair and those buses are heading to NC State Fairgrounds from the Friday Center. Light rail route planned does NOT go to the most traversed areas - to/from Cary, to NC state, to Southpoint Mall, to the Airport, to downtown Raleigh. Durham and Orange County residents do not want to be saddled with increased taxes for an antiquated rail system that is being built to serve UNCDuke Medicine under the guise of helping the poor and disabled get around town better. This entire process was a bait and switch scheme, where we were polled years ago about a better transit system to get to RTP, Raliegh, and the Airport NOT to commute between 2 University medical systems! [removed name]

Comment Responses	DEIS/Errata References
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*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17, 30, 32, and 33

*Hundreds of commuters to UNC from RTP, Morrisville, Cary, and Raleigh already park and ride today at parking lots at Southpoint Mall, Exit 282 off of I-40 at the Regional Transit Center, and at District Drive in Raleigh. They choose to use these bus services even though they are subjected to traffic on NC 54. The light rail, with a major park-and-ride facility at Leigh Village, will offer a higher level of*

**D-O LRT FEIS / ROD**

frequency than these routes and will not be subject to traffic congestion in the future when traffic is worse. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the purpose and need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>

First Name	Last Name	Comment
Bonita	Marks	Hello. This LRT plan is not flexible, nor adaptable. It is based on old information and will be antiquated by the time it is up and running. It does not service the community at large as proposed as the stations are too far to walk to and will still require the majority of users to park and ride or get rides to the stops, transfer at stations. Students who support this has not vested long term financial/safetey issues to consider. Why were HOV lanes for buses and car pools not seriously explored or supported? They work for conjested roads into Washington DC, Pittsburgh, and other large metro areas. Certainly they would work better for the RDU roadway system, costing less than LRT, taking same/less time as LRT, and not cause the safety concerns with more trains intersecting with cars!

Comment Responses	DEIS/Errata References
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Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>

DEIS ES-5  
 DEIS section 1.3.2  
 DEIS section 1.5.1.2  
 DEIS section 3.2

The Triangle region has experienced extraordinary growth in recent years. Growth forecasts show population in the region increasing by 80 percent between 2010 and 2040, from 1.6 to 2.9 million. Within the D-O Corridor, the population is projected to double and the highest expected travel intensity (number of trips per acre) in the Triangle region is predominately located in this corridor. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel



times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (ES-5). The D-O Corridor was identified as a high priority transit corridor as early as the 1990s due to the rapid growth in the corridor. The D-O Corridor includes the University of North Carolina at Chapel Hill (UNC), Duke University, downtown Durham, and North Carolina Central University (ES-2).

First Name	Last Name	Comment
Bonita	Marks	<p>Dear Committee I am against the current light rail plans for Durham/Orange due to lack of appropriate inquiry regarding safety issues of at grade-crossings as well as no consideration for EMS impact. No information has been provided that mitigates these concerns adequately. Interference with EMS, fire, police response times have not been addressed/explained to the communities impacted directly by the light rail system. With crime rising and fires due to draught, plus aged individuals/families with potential EMS calls, these issues must be addressed and the communities assured that response times won't be slowed, thereby worsening outcomes for emergency responses. I live in the Downing Creek subdivision and routinely travel to not only UNC &amp; Duke, but also Cary, RTP, Raleigh, and RDU, all places where the light rail will have little impact on reducing traffic jams. Yes, this corridor needs a solution to the traffic congestion, but this proposed light rail system is not it. Sincerely,</p>

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signaled or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations. Coordination with departments would also be conducted during the Engineering Phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

*Hundreds of commuters to UNC from RTP, Morrisville, Cary, and Raleigh already park and ride today at parking lots at Southpoint Mall, Exit 282 off of I-40 at the Regional Transit Center, and at District Drive in Raleigh. They choose to use these bus services even though they are subjected to traffic on NC 54. The light rail, with a major park-and-ride facility at Leigh Village, will offer a higher level of frequency than these routes and will not be subject to traffic congestion in the future when traffic is worse. The proposed D-O LRT Project is in the Durham-Orange Corridor. The Wake County Transit Plan is currently evaluating future potential transit corridors, which could be studied if a funding source is secured for transit in Wake County. . For more information, please see WakeTransit.com*

DEIS section 3.2  
 DEIS section 3.2.3  
 DEIS section 3.6 DEIS section  
 4.12.4.6  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 36 and 108

First Name	Last Name	Comment
Bonita	Marks	It is baffling to me that Meadowmont was able to politic and get the LRT route removed from their property because it would ruin their property values, not be good for their children, not good for retirees in The Cedars, planned \$\$\$ housing not yet built, etc. DESPITE the fact that Meadowmont was built with the intention of the LRT to run through it and their contracts stipulate this! Instead, they managed to get Chapel Hill Town Council to politic for moving the route in front of Downing Creek Durham without a care about numerous safety issues to those surrounding communities, blocking Downing Creek and Little John residents in, basically preventing access to NC54 due to the nearly continuous LRT traffic and no controlling stop lights.. Further disruptions are planned

due to proposed of roundabouts and bridges on Barbee Chapel Road. NO thought was given re: Barbee Chapel Hill Road current construction of expensive homes, a huge church, and at the top of Stagecoach, which intersects Barbee Chapel, another huge expensive housing development. All of these developments will place extraordinary traffic onto Barbee Chapel... a two lane road which is already at it's during rush hours am and pm. The added traffic from these new developments will be horrific on Barbee Chapel – everyone will be forced to NC 54/Farrington intersection since won't be able to cross onto NC 54 from Barbee Chapel at Downing Creek entrances. And for this all Durham has to pay increased taxes??? Go Triangle needs to stop this light rail project and consider traffic impact for Durham's existing construction projects on/near Barbee Chapel. LRT is not going to alleviate traffic form these new developments. A better solution to NC 54 E traffic is expanded with lanes dedicated HOV lanes to feed into I40. The buses running along the NC 54 corridor heading into Durham are NEVER full, not even during peak rush hour times. The “built it and people will ride it” dream is just that, a dream. The REAL traffic parking lot is I40, of which NC54E is a major feeder. If you really have your heart set on LRT, put the LRT in the middle of I40... and then have it go to Cary, Raleigh, RTP, and the airport for at least to bus depot transfer stations to these areas. The current fortify 40 project will not be sufficient to ease traffic congestion

*Comment Responses*

*DEIS/Errata References*

*The Town of Chapel Hill requested that alternatives to the Meadowmont alignments be studied as part of the Alternatives Analysis of the project. As a result, the Project team developed the C2/C2A alignments. The Chapel Hill Town Council, which regulates land uses at Meadowmont and would exercise the most control over such a decision, has suggested in previous comments and resolutions that they do not feel compelled to build the light rail through Meadowmont despite earlier land use plans that considered that as a possibility. The Meadowmont Station was included as part of the C1 and C1A alignment alternatives for the crossing of Little Creek. As stated in section 8.2.2.2 of the DEIS, the C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” With regard to the C1A Alternative, DEIS section 8.2.2.2 states, the C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way.*

DEIS section 1.5.1.2  
 DEIS section 3.2  
 DEIS section 3.6  
 DEIS section 8.2.2.2  
 DEIS appendix L

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for*

*Engineering Design (appendix L). To avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, NCDOT safety guidelines, and where applicable, FRA safety guidelines. In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>.*

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase during off-peak hours when there are fewer trains. NC 54 will continue to be coordinated in the east/west direction. Under a separate planned NCDOT project, the nearest signal that would impact westbound NC 54 is located over 3,800 feet to the west of Littlejohn Road. The nearest signal that would impact eastbound NC 54 is located approximately 4,500 feet to the east at Falconbridge Road and should not impact vehicles exiting from Downing Creek Parkway or Littlejohn Road. The northbound Littlejohn Road left turn to westbound NC 54 currently has very limited usage with less than 10 vehicles per hour performing this maneuver in both the AM and PM peak hours. Downing Creek Parkway is configured today as an eastbound NC 54 right turn to southbound Downing Creek Parkway and a northbound Downing Creek Parkway right turn to eastbound NC 54. This configuration will be maintained in the LRT build condition. The stop/yield controlled right turns do not operate on a fixed pattern and therefore the 12 or fewer train crossings in a peak hour should not significantly affect these low volume turning movements.*

*NCDOT is planning to expand NC 54, complete capacity improvements at NC 54/I-40 interchange, and add managed lanes to I-40 (HOV is a type of managed lane). These capacity expansion projects are planned for and incorporated into the design of the D-O LRT. While expansion of the highway network may treat a symptom, congestion providing transportation alternatives, through improved transit, will allow Chapel Hill and Durham to continue to grow while maintaining the high quality of life in the region. In addition, the D-O LRT project provides numerous other benefits not accomplished by expanding NC 54, such as supporting the local land use plans and compact development goals. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel*

times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill (including along NC 54) and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. The Wake County Transit Plan is currently evaluating future potential transit corridors, which could be studied if a funding source is secured for transit in Wake County. For more information, please see WakeTransit.com

First Name	Last Name	Comment
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John	Marshall	The proposed project will be hardly worth the trouble if it does not actually connect downtown to downtown. Going only as far as the UNC Hospital prevents any casual and pleasure trips for most of Chapel Hill and Carrboro. Fighting the political, NIMBY and monetary fight to extend the line up the hill from the UNC Hospital, through the steam line, past the power plant, and all the way to downtown Carrboro would allow seamless transport from downtown to downtown. Otherwise it is just for hospital workers.
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Comment Responses	DEIS/Errata References
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As stated in Section 9.2.5 of the DEIS, an alignment extension, such as one to Carrboro, could be studied at a later date at the request of the local government, but any project extension would be a separate project, not part of the current D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process.	DEIS section 9.2.5
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First Name	Last Name	Comment
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John	Marshall	Carrboro and Chapel Hill have a vast pedestrian community that would relish having a one seat ride to downtown
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Durham. Stopping at UNC Hospitals and not continuing to Carrboro precludes all those residents from using this new service.

*Comment Responses*

*DEIS/Errata References*

*As explained in Section 9.2.5, an alignment extension, such as one to Carrboro, could be studied at a later date at the request of the local government, but any project extension would be a separate project, not part of the current D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process.*

DEIS section 9.2.5

First Name	Last Name	Comment
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<b>Leslie</b>	<b>Marson</b>	RE: DEIS Comments submitted via info@ourtransitfuture.com for inclusion in the official project file for the Federal Transit Administration (FTA)
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As a Durham resident living in the border regions of Chapel Hill and Durham I send this letter in strong opposition to the current plans for the proposed route of the light rail, in particular the NEPA Preferred Alternative C2A alignment as currently planned and recommended in the DEIS.

I request reevaluation of the current and estimated future travel along the 54 corridor where most of the commuters travel between Chapel Hill and Cary/RTP/Raleigh and NOT Durham. So the proposed route of the light rail does not service our community and will not decrease the congestion along 54 which is already the most congested traffic area in our local region. It is unlikely that the ridership along this corridor will come anywhere close to the reported numbers put out by Go Triangle.

The proposed C2A route, combined with the fact that there are plans to add an extra lane on each side of 54, will cut into the wildlife protected area along both the north and south sides of 54. There is a continuous and cutting down tree areas near wildlife areas and building of more and more apartment/housing in areas that should come under the protection of our wildlife and wet lands, such as that proposed along 54 and that taking place on Barbee Chapel Road and Stagecoach road. Where are the wildlife supposed to go? In addition, removing trees and taking away low lying flood areas, and building permanent roads and train lines along these corridor will affect the water runoff table for existing properties as well as the proposed new developments.

I request an independent un-biased re-evaluation of the 54 congestion and the impact of many years of disruption due to building the proposed light rail along its proposed route and reevaluation of the effect on the current building and proposed plans and on the wildlife protected areas and water table. The proposed plans to build an additional lane along 54 in addition to the light rail will cause unwarranted disruption and reduce the protected wildlife area and water table not only in this area around 54 Chapel Hill-Durham route to I40, but also Jordan Lake.

When the light rail plan was originally proposed to the Chapel Hill/Durham residents the train was going along 15-501 and many of the locals believed it was going to Raleigh and serve RDU airport/RTP as well. Many people whom I spoke to still think this is the case!!

The proposed 'at grade' route along the south side of 54 is UNSAFE. There is little space for filtering onto 54 from neighborhoods along the 54 region let alone the proposed commuters who are postulated to use the Woodmont station. In addition, the traffic on this section of 54 regularly goes a speed of 60mph well over the posted 45mph!! There were no traffic studies done for impacts at the grade crossings for either Downing Creek Parkway or Little John and for access to NC54. This should be completed before moving forward.

Requests to address the safety concerns of the impacted community have been ignored. The C2A and C2 alignment has in its plans three at-grade light rail crossings within a half mile stretch of road at Barbee Chapel Hill Road, Little John & Downing Creek Parkway. This scheme will no doubt have a detrimental effect on ingress and egress to the neighborhoods lying south of NC54 by obstructing roads and impeding access for the residents, school buses, as well delaying any emergency response vehicles.

The present of the proposed route of the light rail and stations with the multiple crossings from existing and proposed neighborhoods, with its consistent train stops, noise pollution will also reduce the safety of the pedestrians and bikers that regularly use this area to commute to the Friday center and Meadow mount and Chapel Hill.

In summary, concerns about safety, effects on wildlife, water table, changes made since the original plans and lack of appropriate assessment, strongly suggest that a reevaluation of the whole project is required. In addition, I doubt that the ridership in a community that drives everywhere, will come close to the estimates that are being reported. Add this to the unknown eventual total costs to the tax payers for this project, the unknown price of a ticket to ride the train and the actual time it's going to take to get from A to B (when driving takes much less time to reach your destination) makes an alternative, such as additional smaller buses that can be much more flexible and serve the community more cost effectively and efficiently.

Please take a critical look at this project before proceeding and make sure any project that is approved is safe and has a minimal effect on the environment, the local community and the commuters.

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development. Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system. In addition, increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham. The proposed D-O LRT Project will promote future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity*

DEIS section 2.1  
 DEIS Figure 2.1-1  
 DEIS section 3.2  
 DEIS section 3.2.2  
 DEIS section 3.2.3  
 DEIS section 3.2.4  
 DEIS Table 3.2-3, 3.2-5  
 DEIS section 3.6  
 DEIS section 4.12.3.5  
 DEIS section 4.12.4.6  
 DEIS section 8.2.2.2  
 DEIS appendix L  
 DEIS appendix K4, K11  
 FEIS/ROD section 1.4

**D-O LRT FEIS / ROD**

centers. As stated in section 3.1.1 of the DEIS, "Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in appendix K1, consistent with appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP)." In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project, nor always offer a faster travel time. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours.

The NEPA Preferred Alternative includes alignment C2A for the crossing of Little Creek. The Meadowmont Station was included as part of the C1 and C1A alignment alternatives for the crossing of Little Creek. As stated in section 8.2.2.2 of the DEIS, the C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative "would not be authorized considering the availability of other less environmentally damaging alternatives." With regard to the C1A Alternative, DEIS section 8.2.2.2 states, the C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. Federal regulations require re-evaluations if a project changes substantially after the DEIS is published or if three years have lapsed since the DEIS was officially published. As such, a re-evaluation of the Project is not required at this time.

Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including

**D-O LRT FEIS / ROD**

*extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>*

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations. Coordination with departments would also be conducted during the Engineering Phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K.4 through K.11 of the DEIS. DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3 of the DEIS. In addition, as described in DEIS section 3.2.2, there are numerous roadway projects planned by the NCDOT in the vicinity of the proposed D-O*

*LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5 of the DEIS, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).*

First Name	Last Name	Comment
Kelly	Massengale	[REMOVED NAME, ADDRESS, CITY ZIP]. I have lived in the Triangle for nearly 30 years. In that time, the area has grown in many wonderful ways but so has traffic. We need alternate forms of transportation in our community. I live within walking distance of the Farrington Road Rail Operations and Maintenance Facility. There is currently no planned station at that location. If my neighborhood is to bear the burden of increased traffic, noise, and any environmental impact of the light rail and its maintenance facility, please allow us to also benefit from light rail in increased economic development that will surround each station. Please add a station to the Farrington Road ROMF so that people who can walk to the facility can also walk onto a train.

<i>Comment Responses</i>		<i>DEIS/Errata References</i>
<p><i>As discussed in chapter 2 of the DEIS, throughout the pre-planning and AA phase of the project, the D-O LRT Project team conducted a station area planning process. Through a series of workshops, meetings, and round table discussions, partners including Triangle Transit, local officials, and project team members developed, analyzed, and refined a number of station locations based on the alternatives considered. A station at the Farrington Road ROMF location is not included in the NEPA Preferred Alternative.</i></p>		DEIS chapter 2

First Name	Last Name	Comment
Diane	Masters	I support the light rail and am excited to see it connect Durham and Chapel Hill in such a progressive way. I do think that you need to put a station in front of the DPAC though. This is the center of the city and as this area continues to grow as the business and governmental hub this stop a direct stop at this location is essential.

<i>Comment Responses</i>		<i>DEIS/Errata References</i>
<p><i>The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project's design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. As a result of ongoing coordination with both North Carolina Railroad (NCRR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street. In addition, the proposed Durham Station shifted to the east of Chapel Hill Street,</i></p>		DEIS chapter 2 DEIS chapter 3 DEIS section 3.1.3.1 DEIS section 3.4.2.2 DEIS section 5.3 DEIS Table 3.1-4

**D-O LRT FEIS / ROD**



as a result of coordination with the NCCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCCR Corridor along West Main Street (Section 3.4.2.2). Major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional location at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell & Mangum Streets would also require the negotiation and approval of an additional property lease with NCCR beyond what is expected to be required for current alignment. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in cost that are not offset by increases in ridership could result in a reduction in the project's FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell & Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.

First Name	Last Name	Comment
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Marianna and Eric	Matinean and Ghysels	*ridership numbers on page k-2-12 is hard to understand*financial budget has many uncertainties
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Comment Responses	DEIS/Errata References
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Table 3.1-3 of the DEIS presents the 2040 ridership forecasts for the NEPA Preferred Alternative compared to the No Build Alternative, as well as the Project Element Alternatives. The NEPA Preferred Alternative is expected to carry just over 23,000 trips on the project per average weekday in 2040. Ridership forecasts also predict that bus service would remain an important component of the transit service's approximately 17,000 boardings per average weekday in 2040, a reduction of approximately 3,000 boardings from the No Build Alternative.

DEIS Table 3.1-3

First Name	Last Name	Comment
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**Mary Matthews** The proposal does not adequately address neighborhood impacts or visual, aesthetic impacts on the Pope's Crossing neighborhood, located in a wedge-shaped tract of land bounded by I-40 and Pope Road in Durham County. The light rail construction would remove a significant portion of the trees that provide a visual barrier to I-40 and that significantly reduce traffic noise from the highway. It is doubtful that any replanting of vegetation would replace the benefits of the natural vegetation as it currently exists. In addition, the plan does not address adverse impacts on the two houses on Olde Coach Road in Pope's Crossing located closest to Old Chapel Hill Road. These two houses would have the light rail tracks essentially in their back yards because of the narrowness of the neighborhood tract of land at that point. While close to the proposed Gateway Station might be attractive for future residents of Pope's Crossing, it is not safe to walk along Pope Road or Old Chapel Hill Road at present, since the shoulders are narrow and there are no sidewalks. Pedestrian safety measures will have to be addressed. As a resident of Pope's Crossing, I believe that construction of the light rail on the proposed route along the west side of I-40 will make my neighborhood a noisy and unpleasant place to live. I prefer the "No Build" option.

*Comment Responses*

*DEIS/Errata References*

*As described in DEIS section 4.4.4.1 and table 4.4-6, some residents along Pope Road would have high visual sensitivity due to proximity to the NEPA Preferred Alternative and for locations where visual impacts occur, in addition to coordination with the Town of Chapel Hill and the City of Durham, planting appropriate vegetation in and adjoining the project right-of-way, replanting remainder parcels, and providing landscaping and aesthetic treatments when in close proximity to residences with aerial structures are three of the potential mitigation options that are proposed for affected areas.*

DEIS section 3.6  
DEIS section 4.4.4.1  
DEIS appendix L

*As detailed in the Executive Summary of the DEIS, Triangle Transit will work with the Town of Chapel Hill, City of Durham, NCDOT, and local advocates to identify the potential for off-street facilities or on-street facilities on parallel or nearby roadways. Pedestrian crossings of light rail tracks will be designed in accordance with current ADA design requirements to ensure access and mobility for all users. New pedestrian and bicycle infrastructure would be installed in station areas to augment the existing network. Station areas would be designed according to best management practices for bicycle and pedestrian safety. Measures would be taken to discourage pedestrians from crossing the tracks outside of designated track crossings and to enhance safety at permitted crossing locations (p. ES-17). Section 3.6 of the DEIS contains additional details on plans for future bicycle and pedestrian access. Sidewalks, crosswalks, curb ramps, and other pedestrian infrastructure that the light rail alignment would affect would be rebuilt or enhanced as depicted in the Basis for Engineering Design (appendix L).*

First Name	Last Name	Comment
Debbie and David	McCarthy	Dear Mr. Ridings and Ms. Vanderwiele, I am writing to thank you for responding to my August email outlining concerns about the proposed Farrington ROMF site for the Durham-Orange Light Rail Project. I was grateful to read your statements that "selection of the preferred alternative is based on the least environmentally damaging practical alternative" and "We will be looking for the alternatives that are practical with the least possible environmental impacts to streams, wetlands and riparian buffers." The DEIS

Water Resources Technical Report (Appendix K-22), indicates:1) in section 5.2.2.1 that the Farrington ROMF site would have (at 638 linear feet) the highest total of estimated stream impacts (See Table 4: Summary of Estimated Stream Impacts)2) in section 5.2.2.2 the greatest impact on wetlands (See Table 5: Summary of Estimated Wetland Impacts)3) in section 5.2.3, the largest riparian buffer impacts (Please note Streams N and NN which flow beneath I-40), requiring 193,790 riparian buffer credits (See Table 6: Summary of Estimated Riparian Buffer Impacts)I would also like to draw your attention to Figure 2-D on p. K22-63. I assume the study area included only the actual footprint of the ROMF, but please cast your eye to the right of the purple footprint, directly across the Interstate where the stormwater runoff from 26 acres of impervious surface (stormwater laced with grease, solvents, detergents and other chemicals) will flow via streams N and NN. That abundance of greenspace adjacent to I-40 and the Farrington ROMF is Leigh Farm Park, an 86 acre preserve including wetlands (identified by the Army Corps in the 1980's), bottomland hardwood forest, alluvial soil, hiking trails, Piedmont Wildlife animal rehab. center and nature camps for children and a National Historic Register 1834 farmhouse with its outbuildings. The park was created after years of effort through a public - private partnership including the Jr. League of Durham and Orange Counties, Durham Parks and Rec., Triangle Land Conservancy, Durham Historic Preservation, the New Hope Creek Corridor Advisory Committee, New Hope Audubon and Preservation North Carolina. Go Triangle's charts indicate zero impacts on recreational areas, parklands, hiking trails, alluvial soils, wetlands, and bottomland hardwood forest at the Farrington ROMF site. From my perspective this is misleading and inaccurate given the dramatically negative impact that Leigh Farm Park and ultimately the New Hope River Waterfowl Impoundment and Jordan Lake will suffer as a direct result of runoff from the Farrington ROMF. We know about runoff from first hand experience. For 30 years we have lived on Trenton Rd. (visible at the top of p. K.22-63) and in heavy rain, Trenton Rd. overflows from the runoff generated solely by the interstate pavement. The idea of 26 additional acres of impervious surface is hard to fathom. We will be inundated, along with the park's wetlands and forests, the wildlife that follows the corridor from Duke Forest to Jordan Lake, the hundreds of children (and the animals) who enjoy Piedmont Wildlife's nature camps, even the ducks in the waterfowl impoundment. Furthermore, we, like other Trenton Rd. residents, drink from a well, and the idea of the ROMF polluting our drinking water is disturbing. The DEIS does not address this concern adequately saying only "Wells would not be affected by the operation of light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater." WHAT ABOUT SPILLS AT THE ROMF SITE with its concentration of pollutants? The DEIS simply states that runoff measures would mitigate the problem. We are not convinced, particularly in light of the geology beneath the ROMF site. The solid rock located there would require expensive and extensive blasting. We experienced this first hand when the sewer line for the Culp Arbor neighborhood was installed and it can be verified by speaking with Epcor Associates, the developer of Culp Arbor. We would also like to point out that the public involvement / comment section of the DEIS is misleading. Although I have been "registered" with the City/County Planning Department for 30 years as founder and president of Farrington HARP neighborhood association, as God is my witness, my neighbors and I (including those whose houses will be obliterated by the Farrington ROMF) knew nothing about its existence until June 18, 2015 when it was presented at an event at Creekside Elementary as a fait accompli. I was there after receiving a notice in the mail from the Planning Dept. to discuss land use densities and boundaries for Leigh Village Compact Neighborhood. Also present that night was a representative of Go Triangle asking about mitigation suggestions for the "done deal" of a Farrington ROMF. I left that meeting in a state of shock. Several weeks later, on Aug. 18 another meeting was held at Creekside School and approximately 200 upset residents (invited by emails, phone calls and visits from residents of the affected neighborhoods) came to express their concern and dismay about the Farrington ROMF. As I circulated among the crowd, I saw comments posted on ubiquitous flip charts objecting to the ROMF on grounds of incompatibility of land use in a low density residential area, contradiction of the Future Land Use Map, concerns about falling property values, concerns about impervious surface and stormwater runoff, about the Major Transportation Corridor overlay zone, Leigh Farm Park, New Hope Creek Corridor, Piedmont Wildlife camps and habitat

rehabilitation, well water, evacuation plans for Creekside School, chemicals to be used on site, 24/7 noise and light from a facility that would employ more than 100 people and never close, and failure to communicate on the part of GoTriangle. There were people strongly calling for the no build option. Newspaper articles and op-ed pieces have been written highlighting our objections. But the website and DEIS do not reflect this opposition in their media coverage and public comment sections. One Go Triangle powerpoint even stated that the Farrington ROMF site has the "most stakeholder support." That may have seemed true back in June before the affected residents knew about it. Where are the myriad objections raised in July and August and continuing to the present moment? The DEIS states "NEPA regs. require that transportation projects provide a transparent, inclusive mechanism for identifying and engaging stakeholders meaningfully as well as documenting feedback." Go Triangle has failed remarkably in that area. Finally, if the light rail project proceeds, I would suggest an alternative to the Farrington ROMF. Look within the Leigh Village Compact Neighborhood (preferably after the light rail tracks cross Farrington Rd. heading toward Chapel Hill...in the vicinity of the Leigh Village Transit Station.) Dozens of landowners in this area have banded together to "sell out" and densities akin to Manhattan or as we call it, New Jersey, are envisioned there. Since that location is going to be paved over and all semblance of low density residential land use abandoned, why not consider putting the industrial facility there? Thank you for your time and attention and thank you especially for your stewardship of North Carolina's environmentally sensitive lands and water courses. These comments are being copied to Go Triangle (info@ourtransitfuture.com) to be incorporated into the public record of response to the DEIS.

*Comment Responses*

*DEIS/Errata References*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for clarifications made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the*

DEIS chapter 5  
 DEIS section 1.2.2  
 DEIS section 2.2.3  
 DEIS section 3.2.3.2  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.10.4  
 DEIS section 4.11.3  
 DEIS section 4.17.2.3  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS Table 3.2-3  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD section 2.6  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 FEIS/ROD Table ROD-2  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119, 121, 130, and 137

opportunity to participate in the design as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the “Farrington Road ROMF Alternative” subsection or DEIS section 1.2.2 under the “Farrington ROMF Alternative” subsection. DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately-owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. DEIS section 4.17.2.3 discusses the anticipated cumulative impacts to water quality from the NEPA Preferred Alternative, including the ROMF. These impacts would be additional impervious surface and modification of stream channels as a direct result of the project. These would



combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. The project will comply with stormwater management permitting requirements and include DWR stormwater management BMPs. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 103 clarifies that the ROMF site plan will manage stormwater runoff in a manner consistent with local and state regulations to avoid and minimize impacts to neighborhoods and community resources in the vicinity such as Leigh Farm Park and the Piedmont Wildlife Center. No traffic impacts are anticipated as a result of the implementation of the Farrington Road ROMF. DEIS section 3.2.3.2 states with the NEPA Preferred Alternative, traffic operations at the intersections along Farrington Road would be similar to operations under the No Build Alternative, as listed in DEIS Table 3.2-3.

Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6. DEIS Errata #130 added clarification to recognize mixed public support and localized opposition.

First Name	Last Name	Comment
David	McCarthy	Please address the impact of how the proposed transit path through Durham County between US 15/501 to US 54 promotes suburban sprawl. The reports continuously refers to Leigh Village as if it is an entity. Government officials and decision makers outside of Durham and Chapel Hill do not realize how misleading the use of Leigh Village truly is. Leigh Village is a low density residential and farm community. Other light rail systems around the country are using light rail to prevent suburban sprawl. The DOLRT promotes suburban sprawl and the impact needs to be specifically addressed.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As stated in Section 4.1.3 of the DEIS: "The No Build Alternative is not consistent with adopted land use controls, policies, and guidelines, which have light rail in the D-O Corridor identified in those plans, and therefore the resulting land uses would not be consistent with the compact development that is planned in these areas. Existing infrastructure is already in place to support growth within the corridor, as it is fully located within the area that receives public services from the Town of Chapel Hill or the City of Durham. Both municipalities have capacity for growth in terms of planned infill and redevelopment in the corridor, and many residents support transit-oriented growth. In addition, extensive policies are in place to help guide that development, and market forces for future development are positive. The NEPA Preferred and each of the alignment alternatives are consistent with the municipalities' and counties' preference that development should be encouraged to occur in a compact, sustainable, and transit-oriented manner. The comprehensive plans for both municipalities are designed around the NEPA Preferred and Project Element Alternatives. The Chapel Hill 2020 Comprehensive Plan and the Durham Comprehensive Plan have focused growth and*

DEIS section 4.1.3

*development around stations. The comprehensive plans for both municipalities are designed around the NEPA Preferred and Project Element Alternatives. The Chapel Hill 2020 comprehensive plan and the Durham Comprehensive Plan have focused growth and development around stations."*

First Name	Last Name	Comment
Deb	McCarthy	<p>Ms. Natalie Murdock's presentation of the DOLRT project at Durham City Council's work session on Sept. 10, 2015 included numerous omissions and inaccuracies, particularly with respect to the Farrington Rd. ROMF site. Examples:1. Ms. Murdock failed to mention that the Farrington ROMF site would require the highest number of residential relocations (6) of any site considered2. Ms. Murdock failed to mention that according to the DEIS, the Farrington site is the worst option environmentally with the highest total of estimated stream impacts (638 linear feet), the greatest impact on wetlands and the largest riparian buffer impacts, requiring 193,790 riparian buffer credits. (See Appendix K-22, Water Resources Technical Report, Sections 5.2.2.1, 5.2.2.2 and 5.2.2.3 and Tables 4,5, and 6)2. Ms. Murdock omitted from her chart of impacted parks and recreational sites Leigh Farm Park with its alluvial soil, bottomland hardwood forest, wetlands, slops and hiking trails. Leigh Farm Park is an 86 acre nature preserve, home of the Piedmont Wildlife Center and anchor the New Hope Creek Corridor Trail system that will ultimately link Duke Forest with Jordan Lake. Leigh Farm Park was the result of a public private partnership between the Jr. League of Durham, and Orange Counties, Durham Historic Preservation, Triangle Land Conservancy, Durham Parks and Rec, New Hope Audubon and Preservation North Carolina. The park would suffer serious consequences from the stormwater runoff associated with 26 acres of impervious surface at the Farrington ROMF site, runoff draining directly into the park (under I-40) via 2 streams (designated N and NN in the DEIS Water Resources Appendix K-22, see Figure 2D, p. K22-63) 4. Ms. Murdock and the DEIS failed to mention impact of a polluted runoff from a Farrington ROMF on the wells which provide drinking water for residents of old Trenton Rd. City water and sewer would need to be provided to those residents.5. Mapping errors were evident in Ms. Murdock's powerpoint. The footprints for the Farrington ROMF and the Leigh Village ROMF looked identical. On another slide, the label for Leigh Village (which one assumes was meant to designate the transit station area within the proposed Compact Neighborhood zone) was on the wrong side of I-40. I have offered and reiterate the offer to take GoTriangle and/or elected officials on a walking or driving tour of the Farrington Rd. corridor to clarify the difference between Leigh Village ROMF, Leigh Village Transit Station/ Compact Neighborhood, and Leigh Farm Park. All are separate and distinct entities with vastly different future land uses.6. Ms. Murdock indicated state funding for the project would be 25%; the more likely number is 10%7. Ms. Murdock failed to mention the proximity of Creekside Elementary School (more than 950 public school children), which is closer to the Farrington ROMF than is the Levin School or Moreene Joy Charter School to the proposed Cornwallis ROMF site. Those 2 schools were cited as reasons not to select the Cornwallis site. Why the discrepancy? Incidentally, Chapel Hill cited Rashkis Elementary as a reason to move the light rail completely out of Meadowmont. Why the double standard?8. Ms. Murdock made no mention of the Major Transportation Corridor overlay zone which calls for a 100ft. undistributed buffer beyond the interstate right-of way as well as 50 ft. stream buffers. Streams N and NN (Figure 2D, p. K22-63) and wetland NNN on the Farrington ROMF site lie within the MTC overlay.9. Ms. Murdock failed to mention that Durham Planning Director Steve Medlin wrote of the Farrington site, (quoting from a letter to Mr. Gregg Northcutt dated March 13, 2015) "PLanning Staff would be unable to support the Plan Amendment" needed to allow the ROMF to proceed. "We find and industrial use to be incompatible with the existing land use pattern"... (low density residential)... "and/or designated future land uses." Mr. Medlin also points out potential 100 ft. stream buffer requirements about and beyond the MTC overlay zone that "would significantly alter the proposed footprint of the ROMF."10.Ms. Murdock made no mention of the EPCON/Culp Arbor sewer easement which traverses the</p>

entire Farrington ROMF site. That easement is supposed to remain undisturbed and fully accessible for long term maintenance. 11. Ms. Murdock made no mention of the underlying geology beneath the Farrington ROMF site which EPCON can readily provide from its soil borings from the sewer line. The rock located underground would create technical difficulties and considerable costs with respect to the digging of cisterns for stormwater retention.12. Ms. Murdock failed to point out that currently, in heavy rains, stormwater unoff from 6 lanes of Interstate pavement alone cause Stream NN to overflow its banks and cover Trenton Rd., making road impassable. Additional runoff from 26 impervious acres is mind-boggling.13. With respect to the Cornwallis ROMF alternative, Councilman Schewel asked if a document purporting to be a complicating deed was indeed legal. Go Triangle representatives shrugged and answered, "We're not lawyers." Perhaps they should consult one.14. Regarding the Leigh Village ROMF option, Ms. Murdock stated there was a potentially eligible historic site there. Any property owner can say that they are contemplating filing for a historic designation; that does not mean that such a designation; that does not mean that such a designation has been or will be granted.15. Ms. Murdock (and the Go Triangle website and the DEIS public comment and media sections) fail to mention the intense opposition to the Farrington ROMF site that has erupted since the site became known to residents on June 18 (when a public meeting was held to discuss the Leigh Village Compact Neighborhood with invitations mailed by the Durham Planning Dept) Can it be a coincidence that the DEIS states that the comment period on scoping for the DOLRT concluded on June 18? It appears the Farrington ROMF was unveiled to those directly affected only when GO Triangle knew it was too late for them to participate in the selection process. During July, August and September, reactions from residents ranged from initial disbelief and hysteria to well researched arguments against the Farrington site. Many of those arguments were shared in writing at a meeting at Creekside School on Aug. 18, attended by more than 200 residents. Go Triangle collected those comments but where are they today? Not on the website or in the DEIS. Were they shared with the FTA and with local elected officials?Speaking of elected officials, is it appropriate for them to serve on the board of GoTriangle and still take part in discussions, much less to vote, on DOLRT plans? Should they not rescue themselves under a conflict of interest policy?Some additional truths about the DOLRT project, obscured by GoTriangle's inaccurate maps and models:1. Durham citizens will be left with a tremendous tax burden to pay \$1.6 billions, inflexible, slow and antiquated system of trolleys (Google maps says a car can drive from Duke to UNC in 17 minutes; rail route will take 44 minutes)2. DOLRT will actually add to traffic congestion because 43 at grade crossings along with its 17 mile path. Be prepared to hit your brakes not just at stop lights but for train crossings stopping traffic every 10 minutes for 18 hours a day.3. Environmentally sensitive areas like Leigh Farm Park's wetlands, New Hope Creek corridor, and The New Hope River Waterfowl Impoundment and ultimately Jordan Lake would be inundated with stormwater runoff laced with grease, solvents, and detergents from a Farrington ROMF. 4. Property values will fall and quality of life will suffer in SW Durham residential neighborhoods sadly impacted by the 24/7 presence of noise and light pollution (much less the unappealing aesthetic) of an industrial rail yard.5. Ridership numbers have been seriously overestimated. Charlotte has a population 70% larger than that of the DOLRT area; their light rail system has never in 7 years had more than 16,000 daily boardings; DOLRT projects 23,0006. Go Triangle's ridership projections would require 20,000 people per square mile along the rail route; the reality for our area in 2035 is 4,052 people per square mile.7. Fatality rates for light rail accidents across America are second only to motorcycles. Portland reports on average one accident per week. 8. The DOLRT route leaves out minority, low-income populations who are more transit dependent. Duke and UNC make the grade; Historically Black NC Central University does not9. The Go Triangle model presumes 40% zero vehicles households; the reality is 10% in Durham and 7.4% in Orange10. As an alternative to light rail, Bus Rapid Transit on established road corridors is more flexible and less expensive than a new fixed 50 ft right of way for steel tracks11. With the rise of Uber transportation, autonomous vehicles and "work from home" the Armageddon of traffic congestion so feared by our elected officials is not likely to materialize12. Now that Raleigh has wisely opted out of light rail, there is not Triangle-wide plan for this problematic, costly mode of transportation; no service to the airport or to jobs in RTP. Ms. Murdock her and colleagues need to find a new name for their

company. Finally as an alternative to the Farrington ROMF site. Not the "Leigh Village" option offered in the DEIS which simply slides the Farrington site a few yards to the south. We refer to the yet-to-be created Leigh Village Compact Neighborhood surrounding the proposed Leigh Village Transit Station near the intersection of NC 54 and Farrington Rd. There the expected land use, the "sell-out" plans of the property owners, the quantity of impervious surface and the density of proposed development make an industrial facility appropriate. Leigh Village Transit Station area is going to become the paved dumping ground-- literally the 900+ vehicle parking lot -- for Chapel Hill, specifically for UNC Hospital. Why Durham's elected officials embrace this second class stepchild treatment, we do not know. (Allowing Chapel Hill's Meadowmont to dump the rail line into Durham's Downing Creek is another example) But residents from Culp Arbor to Old Chapel Hill Rd. (the portion of Farrington Rd. we want to preserve as North Carolina) do know that it makes sense to include an industrial ROMF in the vicinity of Leigh Village Transit Station: the area destined to become Southwest Durham's New Jersey-esque jungle of asphalt, rail lines and high density apartmnets (60 to 100 units per acre).

Joni Mitchell summed it all up: "Don't it always seem to go, you don't know what you've got till it's gone. Pave paradise; put up a parking lot."

*Comment Responses*

*DEIS/Errata References*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational*

DEIS chapter 5  
 DEIS chapter 9  
 DEIS section 3.1.1  
 DEIS section 4.8.3.1  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS section 8.2.2.2  
 DEIS Table 4.2-4  
 DEIS appendix K1  
 DEIS appendix K2  
 DEIS appendix J  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD section 2.6  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17, 21, 22, 30, 32,  
 33, 52, 64, 70, 76, 78, 93, 94,  
 95 103, 104, 110, 119 121 and  
 137

*perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS).*

*The selected alignment alternatives for the crossings of Little Creek and New Hope Creek were chosen in part because of their limited fragmentation and wildlife impacts. At the crossing of Little Creek, the NEPA Preferred C2A alternative follows along the existing NC 54 for much of its length, minimizing additional habitat fragmentation. The C2A alignment only turns north along George King Road, away from NC 54, in an area of upland forest, and avoids the highest quality bottomland forest habitat of the Little Creek corridor, including across I-40 near the Leigh Farm Park. Similarly, the NEPA Preferred NHC 2 alternative avoids cutting through the intact inner portions of the New Hope Creek bottomland forest by following along the existing US 15-501 through the most sensitive portions of the New Hope Creek bottomlands. In addition to minimizing forest fragmentation by following along existing roadways, both the Little Creek and New Hope Creek crossings will feature raised rail sections supported by bridge piers. This will allow for terrestrial wildlife to pass easily underneath, maintaining the connectivity of this important wildlife corridor. The opening of forest habitat will also be minimized by only clearing vegetation along the rail corridor to the extent necessary and allowing vegetation to regenerate as close to the rail lines as is safe and practical. Construction impacts could also be minimized by using techniques such as “top down” construction, described in section 4.16 of the DEIS. Section 4.8.3.1 discusses groundwater quality and states that the 116 privately –owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. In addition, the use of concrete ties avoids the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents and other waste materials), used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Anticipated cumulative impacts to water quality from the NEPA Preferred Alternatives, including the ROMF, would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. This could contribute to further degradation of water quality in the Jordan Lake and Upper Neuse*



watersheds. However, the project would comply with stormwater management permitting requirements and include DWR stormwater management BMPs.

Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6. The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs. The area surrounding the proposed Leigh Village development was considered for a possible ROMF. The area was determined not viable due to track design requirements, potential new at-grade crossings, and USACE property located south of the site.

As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic

hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. As stated in DEIS Appendix K2, section 5, “Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership.” The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor. Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com). Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.

First Name	Last Name	Comment
David	McCarthy	I am a concerned citizen of Durham County North Carolina. The DEIS is inaccurate and misleading in many aspects. Specifically from the DEIS section 4(f) p.4-288, the Council on Environmental Quality (CEQ) requires an assessment of indirect and cumulative impacts per 40 C.F.R. §§ 1500–1508. Regulations included in the appendix to the Planning Assistance and Standards, Title 23 C.F.R. Part 450, indicate that the indirect and cumulative effects analysis should be sufficiently detailed such that consequences of different alternatives can be readily identified, based on current data and reasonable assumptions, and based on reliable and defensible analytical methods. Furthermore, courts have mandated that federal agencies take a reasonably “hard look” at their projects with regard to available information and analysis of appropriate issues (including indirect and cumulative effects). The direct, indirect and cumulative impacts of Electromagnetic Fields (EMF); and Radio Frequency Interference (RFI) is not addressed in the DEIS. Both EMF and RFI can interfere with television reception and cause garage doors and other electronics to malfunction in near-by neighborhoods. This needs to be studied and corrected using best available technology and impacts addressed in the DEIS. Sincerely, David McCarthy

*Section 4.17 of the DEIS includes an assessment of the indirect and cumulative impacts of the proposed D-O LRT Project. Discussion of potential mitigation measures are also included in this section. As described in DEIS section 4.17. As described in DEIS section 4.17.1.1, the analysis of indirect effects of the NEPA Preferred and Project Element Alternatives as compared to the No Build Alternative took a four-pronged approach:*

*Identification of the potential for increased accessibility, such as improvements in travel time, more direct access, and more transportation options, as these can have a catalytic effect on economic growth and development.*

*Assessment of the potential for induced growth because of the potential for increased accessibility. Induced growth could include not only more growth, but also changes in the type, location, and pace of growth.*

*Assessment of the potential for impacts on sensitive resources because of induced growth.*

*Identification of potential minimization and mitigation strategies for induced growth effects.*

*Indirect and cumulative effects have been assessed and are discussed in section 4.17 of the DEIS. This assessment includes EMF. As stated in DEIS section 4.17, the project would result in new sources of EMF generation and exposure of passengers and individuals working on the systems or passing in the vicinity. The main sources of EMF generation would include train power distribution systems; traction power substations with connecting lines to the major utility lines; passenger facilities, with their various electrical systems for lighting, communications, utilities, fare machines, among other systems, and their proximity to power distribution networks; and electrically-powered rail passenger vehicles. Contributions from the project to the existing magnetic field levels would be negligible.*

*The combined FEIS/ROD will reflect that all equipment used will comply with FCC standards for radio frequency interference (RFI) as well as exposure to electromagnetic fields (EMF).*

First Name	Last Name	Comment
Debbie	McCarthy	A sad and seriously detrimental aspect of the proposed DOLRT system is the effect it is having on land use planning along the Farrington Road corridor in SW Durham. Farrington Rd. has been for generations a low density residential, historic, environmentally sensitive greenbelt separating Durham and Chapel Hill. The DOLRT route and especially the Leigh Village Transit Station have led landowners, developers and planners (and their lobbyists) to join together and push for the creation of the Leigh Village Compact Neighborhood. This 336 acre area site (from Culp Arbor south to NC 54) will include a massive 900+ car park-and-ride

lot (to serve Chapel Hill...because Chapel Hill officials say land at the Friday Center is too valuable for this use) and development density ranging from 60 to 100 units PER ACRE. Taking the low end of that spectrum would allow for 20,000 dwelling units on the south end of Farrington Rd. TWENTY THOUSAND UNITS...a density unique in the state of North Carolina. Imagine the impact on schools, roads, water usage, sewer treatment etc. The infrastructure demands are mind-boggling and the environmental impacts staggering (Runoff would impact both New Hope Creek and Little Creek). These numbers mean a huge payoff for the landowners, developers and lobbyists and they mean manna from heaven for Go Triangle. The transit company desperately needs to manufacture riders for their trolley cars since actual numbers fall so far short of what is required to justify the project. Even with the Leigh Village hypothetical riders factored in, the numbers fall short by a factor of 5 according to 2035 population projections within the transit area. Incredible density serves the rail line; the rail line demands incredible density: which came first, the diseased chicken or the rotten egg?

The rezoning process on Farrington Rd. is about to begin. The Durham City County Planning Commission is holding a hearing on Oct. 13 at 5:30 pm at City Hall to consider the first domino to fall: 19.9 acres on Farrington Rd. from NC 54 to Rutgers Pl.

One final note: the Leigh Village Compact Neighborhood should be considered as the ideal location for the ROMF. All of the current landowners are selling out so there would be no displacement or homeowner objection, and industrial use seems entirely appropriate in an area designated to become an impervious jungle. Debbie and David McCarthy

*Comment Responses*

*DEIS/Errata References*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

**D-O LRT FEIS / ROD**

First Name	Last Name	Comment
David	McCarthy	<p>I am a concerned citizen of Durham County North Carolina. The DEIS is inaccurate and misleading in many aspects. Federal guidelines require the EIS contain certain requirements and analyses and require the analyses to be accurate and based on science. The DEIS is deficient in that the indirect and cumulative impacts of the project are not technically addressed for rural and suburban areas. The proposed rail corridor from US15/501 to US54 sits on a narrow peninsula of land bounded by New Hope Creek, Little Creek and Jordan Lake. The area is currently low density residential and farm land. The indirect and cumulative impact of noise and vibration caused by replacing trees with hard walled buildings, concrete and asphalt needs to be specifically studied. High density development in this area is being called for to support the unsubstantiated ridership numbers. The construction of solid, multi-story buildings at the proposed ROMF site and in Leigh Village Compact Neighborhood will certainly impact the entire area. Bounce back of sound and vibration will cause an adverse impact on the residential neighborhoods and parks on the east side of the corridor. The entire noise and vibration analysis is deficient in not accounting for impacts due to indirect and cumulative effects of the project in rural and suburban areas. We are very aware of poor science used in EIS. The 1979 FEIS for the building of I-40 through this corridor substantially underestimated the noise from the interstate traffic. Subsequently the DOT allowed the speed limit to be increased from 55 to 65 mph without studying the impact on increased noise levels. When residents complained we were told "sorry there was no money for barriers or even the planting of hedges, bushes or trees". The analysis needs to include noise conduits into low lying areas through valleys and gulleys and sound and vibration bouncing off of overhead signs and hard multi story structures. An uncertainty on the accuracy of the analysis should be added for conservatism. This needs to be correct the first time –as we have learned from the DOT –there are no do overs and no money for remediation once approved. Thank you for your consideration. Sincerely, [removed name]</p>

Comment Responses	DEIS/Errata References
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*Section 4.17 of the DEIS includes an assessment of the indirect and cumulative impacts of the proposed D-O LRT Project. Discussion of potential mitigation measures are also included in this section. As described in DEIS section 4.17. As described in DEIS section 4.17.1.1, the analysis of indirect effects of the NEPA Preferred and Project Element Alternatives as compared to the No Build Alternative took a four-pronged approach: § Identification of the potential for increased accessibility, such as improvements in travel time, more direct access, and more transportation options, as these can have a catalytic effect on economic growth and development. § Assessment of the potential for induced growth because of the potential for increased accessibility. Induced growth could include not only more growth, but also changes in the type, location, and pace of growth. § Assessment of the potential for impacts on sensitive resources because of induced growth. § Identification of potential minimization and mitigation strategies for induced growth effects. DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and*

DEIS section 4.10.4  
 DEIS section 4.17  
 DEIS section 4.17.1.1  
 DEIS appendix K24



capacity for growth and supportive public investments both with and without the project. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments. Under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly. Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan. Further information about the Compact Neighborhood destination is available from the Durham City-County Planning Department. As this development is expected to occur with or without the project, future Noise and Vibration impacts would be determined on a project-by-project basis, while adverse cumulative impacts would not be anticipated as a result of the Durham-Orange Light Rail Project.

DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts.

Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24.

As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions. Other sources included in the projections are noise from park-

*and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF.*

*In its guidance manual, the FTA establishes criteria for assessing vibration impacts related to light rail transit projects. The extent of ground-borne noise and vibration from light rail operations depends substantially on local geology and structural details of associated buildings. When light rail vehicle (LRV) speeds are moderate (less than 30 mph), vibration impacts are usually limited to buildings within 50 feet of light rail. When LRV speeds are higher, the zone of ground-borne noise and vibration impacts may extend farther. A significant proportion of complaints about both ground-borne vibration and noise can be attributed to the proximity of track switches where LRVs can cross from one track to another, rough or corrugated track, or wheel flats.*

*In accordance with the FTA Guidance Manual, a detailed vibration analysis will be conducted during the Engineering phase to further evaluate geotechnical conditions and more precisely predict the vibration effects of the proposed light rail system on area receptors. When the vibration assessment indicates that vibration levels will be excessive, it is usually the track support system that is changed to reduce the vibration levels. Floating slabs, resiliently supported ties, high-resilience fasteners, and ballast mats have all been used to reduce the levels of ground-borne vibration. To be effective, all of these measures must be optimized for the frequency spectrum of the vibration. Most of these relatively standard procedures have been successfully used on transit projects.*

First Name	Last Name	Comment
David	McCarthy	I am a concerned citizen of Durham County North Carolina. The DEIS is inaccurate and misleading in many aspects. Specifically from the DEIS section 4(f) p.4-288, the Council on Environmental Quality (CEQ) requires an assessment of indirect and cumulative impacts per 40 C.F.R. §§ 1500-1508. Regulations included in the appendix to the Planning Assistance and Standards, Title 23 C.F.R. Part 450, indicate that the indirect and cumulative effects analysis should be sufficiently detailed such that consequences of different alternatives can be readily identified, based on current data and reasonable assumptions, and based on reliable and defensible analytical methods. Furthermore, courts have mandated that federal agencies take a reasonably “hard look” at their projects with regard to available information and analysis of appropriate issues (including indirect and cumulative effects).The DEIS is deficient in that the indirect and cumulative impacts of the project are not fully addressed. These indirect and cumulative impacts include the transformation of what is today, rural and low density residential land use within the project corridor to intense high density, mixed use development approaching 100 units per acre. The proposed rail corridor from US15/501 to US54 sits on a narrow peninsula of land bounded by New Hope Creek on the east, Little Creek to the west and to the south, Jordan Lake. The area is currently low density residential and farm land. The rail ridership numbers assume this area becomes intensely high density residential (60 to 100 units to the acre) with large amounts of impervious surface area (900 car park-and-ride lot at Leigh Village Compact Neighborhood for example, and 26 impervious acres at the proposed ROMF site). The indirect and cumulative impacts on and to the environment due to storm water runoff and silt run off for this area-as transformed by transit driven development - needs to be addressed in specific, quantifiable scientific terms.Thank you for your consideration.Sincerely,[removed name]

*Section 4.17 of the DEIS includes an assessment of the indirect and cumulative impacts of the proposed D-O LRT Project. Discussion of potential mitigation measures are also included in this section. As described in DEIS section 4.17.1.1, the analysis of indirect effects of the NEPA Preferred and Project Element Alternatives as compared to the No Build Alternative took a four-pronged approach: Identification of the potential for increased accessibility, such as improvements in travel time, more direct access, and more transportation options, as these can have a catalytic effect on economic growth and development. Assessment of the potential for induced growth because of the potential for increased accessibility. Induced growth could include not only more growth, but also changes in the type, location, and pace of growth. Assessment of the potential for impacts on sensitive resources because of induced growth. Identification of potential minimization and mitigation strategies for induced growth effects. DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments both with and without the project. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments. Under the Durham City/County Unified Development Ordinance (UDO), the Compact Neighborhood tier was developed to facilitate transit-oriented development and establishes the policy foundation for a compact district that includes a mix of uses and is pedestrian friendly. Currently, Compact Neighborhoods have been designed around the Duke Medical Center, Ninth Street, and Alston Avenue Stations. The comprehensive plan directs the Durham City-County Planning Department to convert the other light rail station areas (LaSalle, South Square/MLK, Patterson Place, and Leigh Village) into Compact Neighborhoods and apply Compact Design zoning through a Compact Neighborhood plan. Further information about the Compact Neighborhood destination is available from the Durham City-County Planning Department. As this development is expected to occur with or without the project, future Noise and Vibration impacts would be determined on a project-by-project basis, while adverse cumulative impacts would not be anticipated as a result of the Durham-Orange Light Rail Project.*

*Section 4.17 of the DEIS includes an assessment of the indirect and cumulative impacts of the proposed D-O LRT Project alternatives. This section also includes a discussion of the potential mitigation measures. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects*

First Name	Last Name	Comment
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David	McCarthy	The DEIS is deficient in that there is no analysis of the rail line impact on the Trenton Road neighborhood. Direct, indirect and cumulative impacts on water runoff, quality of well water, noise, vibration, visual, traffic, air pollution and emergency responder response time will certainly occur.
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Comment Responses	DEIS/Errata References
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*As illustrated in Appendix L – Basis of Engineering Plans of the DEIS, the NEPA Preferred Alternative will be located across I-40 from all homes present adjacent to Trenton Road. Study areas for direct impacts associated with each resource topic are identified in the methodology sections presented in chapters 3 and 4 of the DEIS. In cases where the neighborhood is within the study area for a resource, direct effects are addressed in the DEIS. No direct effects with regard to water runoff, quality of well water, noise, vibration, visual, traffic, air pollution and emergency responder response time are anticipated for the Trenton Road neighborhood. As described in DEIS section 4.4.4.1, for locations where visual impacts occur, in addition to coordination with the Town of Chapel Hill and the City of Durham, planting appropriate vegetation in and adjoining the project right-of-way, replanting remainder parcels, and providing landscaping and aesthetic treatments when in close proximity to residences with aerial structures are three of the potential mitigation options that are proposed for affected areas. Section 4.12.4.6 states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations.*

DEIS section 3.2.2  
 DEIS section 3.2.4  
 DEIS section 4.4.4.1  
 DEIS section 4.12.4.6  
 DEIS Table 3.2-3  
 DEIS Table 3.2-5  
 DEIS appendix L

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and re-striping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).*

First Name	Last Name	Comment
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David	McCarthy	The DEIS is deficient in that there is no analysis of the rail line impact on the Trenton Road neighborhood. Direct, indirect and cumulative impacts on water runoff, quality of well water, noise, vibration, visual, traffic, air pollution and emergency responder response time will certainly occur.
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DEIS section 3.2.2  
 DEIS section 3.2.4  
 DEIS section 4.4.4.1  
 DEIS section 4.12.4.6  
 DEIS Table 3.2-3  
 DEIS Table 3.2-5  
 DEIS appendix L

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).*

First Name	Last Name	Comment
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David	McCarthy	From the DEIS section 4(f) p.4-288, the Council on Environmental Quality (CEQ) requires an assessment of indirect and cumulative impacts per 40 C.F.R. §§ 1500–1508. Regulations included in the appendix to the Planning Assistance and Standards, Title 23 C.F.R. Part 450, indicate that the indirect and cumulative effects analysis should be sufficiently detailed such that consequences of different alternatives can be readily identified, based on current data and reasonable assumptions, and based on reliable and defensible analytical methods. Furthermore, courts have mandated that federal agencies take a reasonably “hard look” at their projects with regard to available information and analysis of appropriate issues (including indirect and cumulative effects). Traffic studies have not been performed to analyze and address the direct, indirect and cumulative impacts of adding high density housing along the proposed rail corridor from US15/501 to US54. High density housing is required to justify the ridership in this residential/farm corridor. Even if ridership is 20% within this new high density development zone, 80% of a large number of people will be on the roads going to their jobs in the RTP and Raleigh. Currently the 2 worst intersections in the area are I40 and US 54 and I40 and US 15/501. The DEIS needs to address the environmental and traffic indirect and cumulative impact of high density development
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needed, proposed and to be caused by the rail line in what is now a rural/low density neighborhood. Thank you for your consideration.

*Comment Responses*

*DEIS/Errata References*

*Section 4.17 of the DEIS includes an assessment of the indirect and cumulative impacts of the proposed D-O LRT Project. Discussion of potential mitigation measures are also included in this section. As described in DEIS section 4.17. As described in DEIS section 4.17.1.1, the analysis of indirect effects of the NEPA Preferred and Project Element Alternatives as compared to the No Build Alternative took a four-pronged approach: § Identification of the potential for increased accessibility, such as improvements in travel time, more direct access, and more transportation options, as these can have a catalytic effect on economic growth and development. § Assessment of the potential for induced growth because of the potential for increased accessibility. Induced growth could include not only more growth, but also changes in the type, location, and pace of growth. § Assessment of the potential for impacts on sensitive resources because of induced growth. § Identification of potential minimization and mitigation strategies for induced growth effects.*

DEIS section 3.2  
 DEIS section 3.3  
 DEIS section 4.17  
 DEIS section 4.17.1.1  
 DEIS appendix K4 through K11

*DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS.*

*Specifically, as per Section 3.1 of Appendix K03, Growth rates and projected link volumes were reviewed in light of planned improvements in the area including projected development and changes to parking and transit operations. Additionally, as per section 3.3 of Appendix K03, routing information will be updated as needed to reflect changes in the roadway network based on proposed changes.*

First Name	Last Name	Comment
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<b>Debbie</b>	<b>McCarthy</b>	<p>Winston Churchill, while gathering intelligence during World War II, said, “The most important thing in the world is the truth. It is so important that it is often defended by a bodyguard of lies.”</p> <p>Let us visit one such bodyguard of lies, quoted directly from Chapter 9 of the DEIS for the DurhamOrange Light Rail Transit System: “For Triangle Transit, education, inclusion, transparency, accountability and responsiveness have been key principles of the planning process in the Durham Orange Corridor from before the AA was compiled in 2012 through the ongoing NEPA and Project Development Process.” Promising to engage the public as required by state and federal law, Chapter 9 also states that Triangle Transit’s PIP would “provide opportunities for stakeholders to have early and continuous participation in the decision making process”... including “an interactive and iterative process to develop and refine the alternatives considered in the DEIS.” Scoping meetings were initiated in April 2012 and ended June 18, 2015. Their purpose was to allow stakeholders to learn about proposed alignments and provide technical comments, thereby participating in “defining</p>
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alternatives and identifying potential social, economic or environmental issues.”

Furthermore, in section 9.3.2, Go Triangle states that in 2013 and 2014, it assembled a list of 300 agencies (including neighborhood associations) in and around the D-O corridor, contacted each and offered to participate in meetings with them.

The names of the neighborhoods and the school within ½ mile of the Farrington Rd. / Leigh Village ROMF sites are: Culp Arbor, Glenview Park, The Enclave, Five Oaks, Chicopee Trail, Prescott Place, Trenton, Weston Downs, Maida Vale, Marena Place, Blenheim Woods, The Oaks III and Creekside Elementary School. In 1987 I founded and registered with the Durham Planning Dept. an overarching neighborhood association covering the entire Farrington corridor from Old Chapel Hill Rd. to NC 54. It is called Farrington Homeowners Allied for Residential Preservation (HARP) and as president of that organization for 29 years, I receive scores of notifications about land use and transportation matters. But my neighbors and I knew NOTHING about the Farrington Rd. ROMF site (or even what a ROMF was) until June 18, 2015, the date upon which Go Triangle CLOSED the scoping period for the DOLRT project.

To confirm that we were totally (and we believe, purposefully) left out of the communication process, read pages 9-16 through 9-24 of Table 9.3.3 of the DEIS: “Small Group, Neighborhoods, Agency and Stakeholder Meeting List.” There you will find listed NOT ONE of the neighborhoods (nor the school) mentioned above. Yet these are the people who would be most directly and devastatingly affected by 26 acres of impervious surface in the form of an industrial rail yard, a land use that is decidedly incompatible with the low-density, residential, historic, environmentally sensitive Farrington corridor. Six homes would be demolished; hundreds of other residents would have to live with the consequences of 24 / 7 light and noise from a facility that never closes; with toxic stormwater runoff flooding their streets and yards and polluting their wells; with the damage to recreational and educational and historic resources at Leigh Farm Park with its New Hope Creek hiking trails and its Piedmont Wildlife Nature Camps enjoyed by hundreds of children; with the most severe impact on wetlands, streams and riparian buffers of any ROMF site considered; with serious disruptions at Creekside Elementary School where more than 950 children are enrolled in grades K-5. Having encountered opposition to all the other ROMF sites whenever those living, learning or worshipping in the vicinity were involved, (this is evident from the list of meetings in Table 9.3.3), it seems clear that Go Triangle made the decision late in the game to choose the Farrington ROMF alternative without alerting anyone who could speak out against it. Despite the “bodyguard of lies” statement that all stakeholders had been heavily involved, there were during the Scoping period, no phone calls, no direct mailings, no emails received by any representatives of the affected neighborhoods (or the school) surrounding the Farrington site.

Incidentally, by layering on top of each other two almost identical ROMF sites (Farrington Rd. & Leigh Village footprints are nearly indistinguishable), Go Triangle attempted to stack the deck in their ROMF Alternatives Preferences Survey, combining the votes from 2 named locations into one result. Separately, Farrington Rd. was preferred by 17% of respondents; Leigh Village by 9%, the 2 lowest scores of all the choices offered. (See Table 9.3-12)

Having been invited by Durham City/County Planning to a meeting at Creekside School to discuss the

Leigh Village Compact Neighborhood on June 18, I learned of the Farrington ROMF. Stunned, I encountered the ever smiling Mr. McDonough, a Go Triangle employee who wondered how we might like to mitigate the ROMF which was, he assured us at this point in the process, a fait accompli. A nice noise abatement wall perhaps? Some downward facing light fixtures? Cisterns to collect runoff? But a multi-story office building will bounce sound across the Interstate directly into Trenton, Prescott Place and Leigh Farm Park. Can that noise abatement wall on the East side of I-40 be four stories high? And it will cost a fortune to dynamite those cisterns into the hard rock that lies beneath the Farrington ROMF site. The 24 hour light, noise and runoff will be devastating to wildlife traversing the New Hope Corridor. Suppose there is an accident and a need to evacuate 900+ children from Creekside Elementary School. How about the need to rebuild Trenton Rd. to prevent flooding from 26 impervious acres? And the need to provide city water and sewer for those with wells and septic systems. How does one un-poison the groundwater or un-pollute Leigh Farm Park or New Hope Waterfowl Impoundment or Jordan Lake? How does one relocate a family dealing with life threatening illnesses and a full care, special needs adult child? Some monsters are simply too big and too costly to mitigate. The Farrington Rd. ROMF is such a monster.

There were 2 additional neighborhood meetings. One was held at Culp Arbor on June 24, with residents' reactions ranging from hysteria to rabid anger at having been left out of the decision-making process. Then, at the prompting of elected officials who were getting an earful from Farrington area residents, Go Triangle scheduled another meeting: Aug. 18 at Creekside School. More than 200 residents showed up this time. Go Triangle provided forms with mitigation choices; residents refused to comply and instead wrote "No Build" and listed litanies of other objections like those already mentioned...incompatible land use, falling property values, noise, light, stormwater runoff, damage to Leigh Farm Park, to the New Hope Creek, to Jordan Lake, to Piedmont Wildlife's Nature Camps, to Creekside School etc. People wrote letters to the Editor and neighborhood listserves buzzed with antirail and anti-ROMF sentiments. But by reading the "bodyguard of lies" that constitutes the DEIS, one would have little or no idea that anyone objected to the Farrington ROMF. The outcry was neatly sandwiched by Go Triangle between the end of the Scoping Period and the beginning of the Comment Period for the DEIS...a limbo land, an invisible black hole into which Farrington residents poured their seemingly ineffectual anguish, energy and effort.

And yet...remember Mr. Churchill's statement and the outcome of his determined quest. Those who live near the Farrington ROMF have no intention of giving up, and we rest assured that ultimately, in the words of another famous Englishman, "Truth will out." [removed name and address]

*Comment Responses*

*DEIS/Errata References*

*Public involvement associated with the environmental review of the D-O LRT Project initiated with project Scoping on April 3, 2012 and continued through the public circulation of the Draft Environmental Impact Statement (DEIS) and associated 45-day public comment period, which concluded October 13, 2015. During the 45-day public comment period, oral remarks were received during the two public hearings and transcribed by court reporters. Written comments were accepted by email, mail, and on the project website using an electronic comment form. Comment cards were provided and accepted at the Public Hearings and Public Workshops. Public involvement conducted*

DEIS chapter 9  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.10.4  
 DEIS section 4.11.3

**D-O LRT FEIS / ROD**

through the release of the DEIS is documented in Chapter 9 of the DEIS. Additional public involvement conducted during the DEIS comment period will be documented in the combined FEIS/ROD. As stated in DEIS section 9.1, Triangle Transit drafted a Public Involvement and Agency Coordination Plan (PIP) at the onset of the environmental review process (appendix K30). The PIP for the proposed D-O LRT Project includes goals, community profiles, a variety of tools for ongoing dissemination of information and community outreach, and several continuously open channels for accepting public and agency comments. The Federal Transit Administration (FTA), Triangle Transit, and the project's cooperating and participating agencies aim to ensure that the proposed D-O LRT Project responds appropriately to community needs and participation, while satisfying local, state, and federal environmental requirements. No group or individual has been purposefully or deliberately left out of public involvement. The selection of the NEPA Preferred Alternative of the D-O LRT is not final until a Record of Decision is published by the FTA. Residents in the D-O Corridor are diverse in terms of the length of time living and working in the region, income levels, languages spoken in the home, race and national origin, and English proficiency. Given this diversity, Triangle Transit uses multiple channels for releasing outgoing messages, project progress, and requests for public input. After the Scoping and through development of the DEIS (from 2012 through 2015), the D-O LRT Project staff has worked diligently to keep channels of communication open with the public.

DEIS section 4.12.4  
DEIS section 8.2.2  
DEIS section 8.2.2.1  
DEIS appendix K30  
FEIS/ROD section 1.2.2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 21, 22, 52, 70, 76,  
78, 93, 94, 95 103, 104,  
110,119, 121, and 137

The project team utilizes several different methods to collect public comments, including: public meetings, smaller group meetings, postal mail, email through [info@ourtransitfuture.com](mailto:info@ourtransitfuture.com), web forms, and surveys, and a telephone hotline with English and Spanish options. Table 9.4-3 includes a summary of the comment topics, and the full collection of public comments can be found in appendix J.7. Since 2010, the project team has employed a variety of notification techniques for the outreach meetings, events, and presentations. While no method of notification is all-encompassing, several methods were used in an attempt to make the public aware of the project and related project meetings hosted by Triangle Transit, including, but not limited to: news releases, newspaper articles, bus ads, municipal television stations, and radio announcements. As detailed in DEIS section 9.3.9, project mailers were created and distributed by postal mail as listed in DEIS Table 9.3-17. The postal mailings were used to specifically invite the public to project-related meetings and to contact potentially impacted property owners. Targeted outreach included members of the public who live within the project area, and mass outreach in water bills included the City of Durham and Town of Chapel Hill residents who may be interested in the proposed project but who do not necessarily live within the project corridor. In addition to traditional mailers, a poster distribution service was engaged to post flyers on bulletin boards in Chapel Hill, Carrboro, and Durham in approximately 100 separate locations, including: § Chapel Hill: UNC campus, UNC Hospitals, poster kiosks on Franklin and Rosemary Streets, shops, restaurants and cafes, Farmers Market, Whole Foods, Weaver Street Market, and Chapel Hill Public Library § Carrboro: Weaver Street Market, Art Center, Cat's Cradle, and Elmo's § Durham: Duke University East and West campuses, Duke Medical Center, 9th Street, Broad Street, Whole Foods, Brightleaf Square, North Carolina Central University (NCCU) and Durham Technical Community College (DTCC) DEIS Appendix J.2 provides a compilation of flyers, letters, and

*comment forms that were distributed. Also, at the request of residents, yard signs were developed and posted for the ROMF meetings, to notify potentially affected residents and residents in the communities surrounding the ROMF sites. Similar yard signs were used during the 45-day public comment period of the DEIS and placed at major roadways and thoroughfares along the 17 mile project alignment to notify residents of the public information sessions and public hearings associated with the public comment period of the DEIS. A website, [ourtransitfuture.com](http://ourtransitfuture.com), was launched in May 2010 to provide the community with a consistent place on the internet to access project information and to provide input and comments. The [ourtransitfuture.com](http://ourtransitfuture.com) website offers the public access to project updates and activities, public meeting announcements, public documents, presentation materials, and an interactive map that allows the public to input their address and see the relationship of their property to the proposed D-O LRT Project. Regular weekly updates to the project website included web banners of upcoming meetings, surveys, project information, comment forms, and project meeting materials were provided on the [ourtransitfuture.com](http://ourtransitfuture.com) website. In addition, electronic notifications included regular monthly e-mails to members of the public who signed up either at a Triangle Transit meeting or online to receive project updates via an e-newsletter. The e-newsletter is distributed to over 3,000 participants; monthly updates are provided about the proposed D-O LRT Project. Triangle Transit also used several social media channels under the Our Transit Future™ name. Social media resources include a Facebook page, [facebook.com/OurTransitFuture](https://facebook.com/OurTransitFuture); Twitter account, [twitter.com/triangleotf](https://twitter.com/triangleotf); and Instagram account, [instagram.com/triangleotf](https://instagram.com/triangleotf). As with the website, the project's Facebook, Twitter, and Instagram accounts were used to provide public meeting announcements, project updates, and as channels for the public to interact with the proposed D-O LRT Project process (Table 9.3-18). A project hotline (1-800-816-7817) was established in 2010 for the AA and continues to be used for the proposed D-O LRT Project through Project Development. A recording in English and Spanish instructs callers to select an option to speak to a member of the D-O LRT Project staff or leave a message and receive a return call. Phone calls are generally returned within 48 hours. There were a total of 30 calls received since the start of Scoping in 2012. After the AA and the selection of the LPA for further study, Triangle Transit coordinated with the FTA to begin the NEPA process for the proposed D-O LRT Project. During this phase of public involvement, Triangle Transit took into account extensive feedback from the public, stakeholders, elected officials, and local, state, and federal agencies. As a result, the D-O LRT Project has undergone several substantive changes. In some cases, new alternatives were (or are being) studied, while in others the alignment was modified in response to particular concerns. These changes are further discussed in DEIS section 9.2.4. A Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) was published on April 3, 2012, in the Federal Register (appendix H [Scoping Report appendix A part 1]). Scoping, which is required by NEPA as part of the EIS process, assists with defining alternatives and identifying potential social, economic, or environmental issues related to a proposed project that should be further evaluated (DEIS appendix H). Through Scoping, the D-O LRT Project team established goals and objectives to guide the evaluation of alternatives. This process was conducted in consultation with the DCHC MPO; the City and County of Durham; the Town of Chapel Hill; Orange County; affected local, regional, and*



*federal agencies; interest groups; businesses; and the public. There were four Scoping meetings—two for invited stakeholders and two meetings for the public. The first meeting for invited stakeholders convened staff from federal, state, and local agencies with jurisdiction and/or interest in the project area. The list of meetings, dates, locations, and attendance are included in DEIS Table 9.2-1. In November 2013, Triangle Transit hosted a series of public meetings as part of the NEPA process. Triangle Transit assembled a list of nearly 300 agencies, community-based organizations, and neighborhood associations in and around the D-O Corridor with particular interest in the proposed D-O LRT Project. Triangle Transit then contacted each agency, organization, or group and offered to participate in formal meetings, attend events, or create opportunities for residents or group members to learn more about the proposed D-O LRT Project. Triangle Transit staff also presented to homeowner-owner and community-hosted groups upon invitation by these groups. Through June 2015, Triangle Transit staff participated in more than 300 separate meetings, reaching more than 5,000 people. In addition to small group and neighborhood meetings, Triangle Transit met with various stakeholders (including educational institutions, property owners, railroad companies, hospitals, utilities, professional organizations, and federal, state, and local agencies) throughout the development of the DEIS to ensure that stakeholders are aware of impacts (or perceived impacts) and project developments. A list of these meetings is provided in DEIS Table 9.3-3. Meeting summaries, notifications, handouts, presentations, and other materials made available during these meetings can be found in DEIS appendix J.4. In 2014, Triangle Transit began engaging property owners and tenants along the entire D-O Corridor to discuss the proposed D-O LRT Project, alternatives under consideration, and the DEIS process. The method of outreach, location, dates of the public open houses for property owners, and the number of attendees are shown in DEIS Table 9.3-4. The list of potentially impacted owners, meeting invitations, and slides presented to them are available in DEIS appendix J.4. The second series of public meetings held in November 2014, focused on five key decisions that would be made as part of the NEPA process, and provided draft station area plans and information about the ongoing environmental studies. The five key decisions are shown on DEIS Figure 9.3-1. The key decisions are the decisions needed to ultimately determine the project to be built, and include the selection of the Little Creek and New Hope Creek crossings, Duke/VA Medical Centers Station, and ROMF location. The exhibits, handouts, comment forms, survey cards, and sign-in forms available at the 2014 public meetings are shown in DEIS appendix J.2. The survey cards included a list of DEIS criteria that identify potentially distinguishing characteristics for each as well as a choice of alternatives. A total of 479 individuals attended at least one of the four public meetings in November 2014. More than 48,000 postcards were mailed to homes within a 1-mile buffer of the project corridor. Attendance at each public meeting is provided in DEIS Table 9.3-5. In March 2015, Triangle Transit held two public open houses where D-O LRT Project staff gave a series of presentations about the project updates. The purpose of these presentations was to provide information to the public about data that would be used in the DEIS to analyze the different alternatives and to make a determination for the NEPA Preferred Alternative. Following the presentations, attendees were given an opportunity to engage with project staff in an open house format, ask questions, and express concerns. Materials made available to the public included display*

boards, printed materials such as Next Steps information and the evaluation data, and interactive digital mapping tools. Materials made available to the public can be found in DEIS appendix J.3. In June 2015, Triangle Transit held three additional public open houses to discuss the refinements to the alignment through downtown Durham into east Durham. Updates regarding the entire D-O LRT alignment were also provided. More information about the March and June 2015 meetings is found in DEIS Table 9.3-7. Members of the public were asked to provide their preferences on the alternatives and to rank criteria which were most important to them. Between August 2014 and June 2015, Triangle Transit received 646 survey responses about Little Creek Alternatives, 395 responses about New Hope Creek Alternatives, 454 responses about Duke/VA Medical Centers Station Alternatives, and 487 responses about the ROMF alternatives. Surveys were available online and in paper-copy handouts. Reproductions of the surveys can be found in DEIS appendix J.6. In June 2015, additional data eliminated Cornwallis ROMF location from consideration and indicated that the Farrington Road ROMF was the most appropriate alternative. GoTriangle invited more than 1500 property owners within 1 mile of the Farrington Road ROMF site to solicit additional community input on ways to better integrate the Farrington Road ROMF site into the community. More than 200 people attended the meeting (Creekside Elementary School on August 18, 2015) Project staff circulated surveys and led a work session designed to determine the community's main concerns with the Farrington Road ROMF and mitigation that they would like considered. Overall attendees were not in favor of the ROMF being located on Farrington Road. Top concerns and the corresponding desired mitigation considerations were increase in traffic congestion (optimize traffic signal timing near the ROMF), decrease in surrounding property values (No Build option or don't build the ROMF on Farrington Road), increase in noise due to the facility (include a noise barrier [wall or vegetation] in design), and danger from chemicals used at the site (use a containment system or develop safe storage). As a result of the decision making process, the Farrington Road ROMF was selected as part of the NEPA Preferred Alternative. Due to site considerations at Cornwallis Road ROMF site and Farrington Road ROMF site, project staff hosted two public meetings to specifically engage affected property owners at these two sites. Mailing lists of contacted property owners as well as presentations and handouts provided at these meetings are shown in DEIS appendix J.3 To supplement and support the meetings, events, and presentations about the proposed D-O LRT Project, all public meeting materials were posted to the project website, [ourtranstifuture.com](http://ourtranstifuture.com). Members of the public were invited to submit their contact information (e.g., email address) in order to receive and review project details before/after public meetings, receive event invitations, and express their comments about the proposed D-O LRT Project. DEIS appendices J.1, J.2, and J.3 provide a compilation of materials presented at the public meetings organized by year – 2013, 2014, and 2015. The combined FEIS/ROD section 1.3 provides an update on outreach efforts since publishing of the DEIS, and section 2.7 provides an overview of public outreach and opportunities to comment.

While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted

*in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials. Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. Section 4.8.3.1 discusses groundwater quality and states that the 116 privately-owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation*

*of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. In addition, the use of concrete ties avoids the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents and other waste materials), used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Anticipated cumulative impacts to water quality from the NEPA Preferred Alternatives, including the ROMF, would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. This could contribute to further degradation of water quality in the Jordan Lake and Upper Neuse watersheds. However, the project would comply with stormwater management permitting requirements and include DWR stormwater management BMPs. As described in DEIS section 4.10.4, no noise impacts are anticipated at the Farrington ROMF. Section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF.*

First Name	Last Name	Comment
David	McCarthy	<p>Good afternoon. My name is [REMOVED NAME]. I live on [REMOVED ROAD NAME AND COUNTY NAME]. There are some additional items in the light rail report that GoTriangle misrepresented that I'd like to cover. Tax burdens, we've heard about them. The tax burden on Durham is going to be significant. This is going to be an inflexible, slow, antiquated system of trolleys, and the drive now, according to Google, from Duke to UNC is a 17-minute drive. The light rail system makes it a 44-minute, all-day adventure. The light rail will actually add traffic congestion because of the at-grade crossings. Property values will certainly fall, and the quality of life would suffer in southwest Durham in the residential neighborhoods sadly impacted by the 24/7 presence of noise and light pollution coming from an industrial rail yard. The ridership numbers have been seriously overestimated. Charlotte has a population greater than our area but yet their numbers of boardings are significantly less than what the light rail people project. GoTriangle's ridership projections will require 20,000 people per square mile along the rail line, but the reality is the projection for 2035 is a little bit over 4,000 people per square mile in this area. The fatality rates for light rail accidents across the country are second only to motorcycles. The light rail leaves out minority and low-income populations. Historically black NC Central University doesn't make the cut. Duke and UNC do. The GoTriangle model presumes 40 percent zero vehicle households.</p>

Comment Responses

DEIS/Errata References

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. As stated in DEIS Appendix K2, section 5, “Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership.” The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor.*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

First Name	Last Name	Comment
Patricia M	McDonald	Section 106To Members of Our Transit Future:Please find attached our comments from Duke Memorial UMC regarding the Durham-Orange Light Rail Transit Project.If you have additional questions, please contact the individuals listed on the letter.[REMOVED PII]Attachments: Duke Memorial UMC_Light Rail Letter.pdf(Letter typed below):October 12, 2015OurTransitFutureP O Box 530Morrisville, NC 27560And via email: info@ourtransitfuture.comRe: Comments regarding Durham-Orange Light Rail Transit ProjectThe trustees of Duke Memorial United Methodist Church would like to thank Ms. Juanita Shearer-Swink for meeting with a group of church representatives in July and giving us an overview of the proposed Durham-Orange Light Rail Transit Project. From a community perspective, our Church is supportive of light rail that will provide affordable transportation for the citizens of Durham, Chapel Hill and the surrounding communities.As a vibrant and growing downtown Durham congregation, our church has an active preschool program (Duke Memorial Weekday School est. 1950), a Parents Morning Out program, and multiple missional activities and connections that support and engage the historical West End neighborhood and



downtown Durham. In addition to our outreach and mission programs, we feel extremely fortunate to be housed in a property listed on the National Registry of Historic Places. Our congregation was founded over 125 years ago and has witnessed and adapted to the many changes of the downtown landscape. We have significant concerns about the land that will be taken by the Light Rail path and the impact on the safety of our children's programs and parking availability. Our limited available parking that we own does not always meet our needs, and as such we could not be in favor of a plan that would reduce the number of parking spaces adjacent to the church. We have been told that the Light Rail will encroach into our parking area by approximately 50 feet. We have also been told that during construction - estimated at six months for our section - that an additional 100 feet into our parking area would be needed for construction activities. Currently, the only adjacent property where we are permitted overflow parking on Sundays is the small parking lot beside the Olive and Olive building and across the street at the Police Department. The police department will be moving in the next few years and it is reasonable to assume that property may no longer be available to us for overflow parking on Sundays. During construction, the Olive and Olive building would be demolished and that parking also would not be available. As a church with almost 24-hour activity, Sundays are not the only time when parking is a challenge. We also have serious concerns of how parking will be coordinated during the construction period because our parking lot is currently filled to capacity on weekdays with Church staff, visitors, and parents and teachers of our preschool programs. Our preschool parents need parking in very close proximity to the Church. Crossing busy streets can be difficult with young children in tow. Therefore we believe strongly that the construction phase of the project with the lack of parking would create a significant hardship to our preschool programs as parents drop off and pick up children on weekdays. DMWS is able to operate a carpool line that helps lessen the parking burden somewhat but the PMO program necessitates that parents park and walk the children into the Church. Traffic is heavy around 9 am (drop off time) and many cars use Memorial Drive as a cut through between Duke and Gregson streets. Because of these concerns, we believe adequate parking in very close proximity to the Church is a safety consideration and not just a matter of convenience. If the light rail project is to move forward, we must be permitted access to reasonable parking accommodations within close proximity of the Church as well as safe, adjacent areas during the construction period. It is our desire that our church be assisted in acquiring all of the remaining land in our city block so that after the Light Rail is completed we can replace, at minimum, our current footprint of parking. Once the Light Rail is completed and operating, we also have concerns that our members coming from the west Durham and north Durham would not have convenient park and ride locations if they wanted to come to church (and downtown) by light rail. We very much appreciate your efforts in bringing light rail to our community. We understand that there will be challenges along the way and hope that Duke Memorial can be a productive partner in this endeavor. We are confident that if GoTriangle understands our parking and safety requirements that we can structure a plan that would work for all stakeholders. Please feel free to contact me directly or our [REMOVED NAME AND TITLE], with any questions. Sincerely, (Signature) [REMOVED NAME AND TITLE] (Signature) [REMOVED NAME AND TITLE]

*Comment Responses*

*DEIS/Errata References*

*Mitigation measures to address parking impacts were considered during the proposed D-O LRT Project development. Table 3.3-4 in DEIS section 3.3.4 summarizes the new or reconfigured parking spaces that are proposed as mitigation based on the level of engineering completed to date. Clarification was added to the combined FEIS/ROD, Table FEIS-2, DEIS Errata 42 to state "Triangle Transit will coordinate with all entities, including UNC, Duke/VA Medical Centers, Aldersgate Methodist Church, and other affected property owners, regarding temporary or permanent loss of parking and to provide assistance with the identification of potential replacement parking where viable."*

DEIS section 3.3.4  
 DEIS Table 3.3-4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 42

*Proposed mitigation strategies for effects to parking are described in DEIS section 4.16.3.1. It is important that pedestrian and vehicular access to businesses, universities, medical facilities and residences be maintained with a priority placed on emergency facilities. Work zone traffic control plans will be prepared and approved by the appropriate agency during the Engineering and Construction phases. These plans will be coordinated with the City of Durham, Town of Chapel Hill, NCRR, universities, emergency services and the NCDOT. The plans will identify requirements for maintaining access to businesses, university, medical and emergency facilities. GoTransit will coordinate with affected hospitals, universities, and businesses in order to make reasonable efforts to mitigate concerns regarding reduction of parking through education of patrons and employees about parking alternatives, such as carpooling, park and rides, and transit options.*

First Name	Last Name	Comment
Steve	McDowell	I have two questions for the project:1. Will the Light Rail system financially support itself through ridership? What will the expected ridership be once fully operational?2. In view of the costs of the project, could the money be spent in other ways to help support population growth and the community that may be more beneficial and be able to be implemented sooner?Thank you in advance for your answers.

Comment Responses	DEIS/Errata References
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*Chapter 7 of the DEIS discusses the two major cost components associated with the proposed Durham-Orange Light Rail Transit (D-O LRT) Project. These components are (1) capital costs and (2) operating and maintenance (O&M) costs (chapter 7). The D-O LRT would cost between approximately \$1.47 and \$1.62 billion to build and \$17.9 million per year to operate and maintain. Projected ridership is discussed in section 3.1 of the DEIS. Forecasted average weekday light rail boardings for 2040 are 23,020.*

DEIS chapter 1  
 DEIS chapter 7  
 DEIS section 8.1  
 DEIS appendix K27  
 DEIS appendix K29

*Annual operating and maintenance costs will be paid for with revenue from fares as well as local tax dollars, including sales tax revenue generated in Durham and Orange counties, funding from North Carolina Department of Transportation (NCDOT), and other local fees and taxes. Information on the project capital and operations and maintenance costs can be found in DEIS chapter 7. More detailed information on capital costs can be found in appendix K27. More detail on operating and maintenance costs can be found in appendix K29.*

*As described in section 8.1 and further explained in DEIS chapter 1, the investment benefits of a project like the D-O LRT include: improved mobility, increased connectivity through expanded transit options, and support of future development plans. Enhanced mobility will provide a competitive, reliable alternative to automobile use that supports compact development. Enhanced mobility will also increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time. Increased connectivity will expand transit options between Durham and Chapel Hill by enhancing and seamlessly connecting with the existing transit system. In addition,*

*increased connectivity will serve major activity and employment centers between Durham and Chapel Hill: the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham. Promoting future development by supporting local land use plans that foster compact development by providing a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers.*

First Name	Last Name	Comment
Ramona H.	McGee	<p>To Whom It May Concern:Please find attached comments on the Draft Environmental Impact Statement for the Durham-Orange Light Rail Transit Project, submitted by the Southern Environmental Law Center on behalf of Clean Air Carolina, Medical Advocates for Healthy Air, and the Orange-Chatham Group of the North Carolina Chapter of the Sierra Club.Sincerely,Ramona H. McGeeAssociate Attorney   Southern Environmental Law Center601 West Rosemary Street, Suite 220   Chapel Hill, NC 27516-2356T: 919-967-1450   F: 919-929-9421   Email: rmcgee@selcnc.orgOctober 13, 2015VIA E- MAILD-O LRT Project – DEIS/o GoTrianglePost Office Box 530Morrisville, NC 27560info@ourtransitfuture.comRe: Comments on Durham-Orange Light Rail Transit Project Draft EnvironmentalImpact StatementThese comments on the Draft Environmental Impact Statement (“DEIS”) for theDurham-Orange Light Rail Transit (“D-O LRT”) project are submitted by the Southern Environmental Law Center on behalf of Clean Air Carolina, Medical Advocates for Healthy Air, and the Orange-Chatham Group of the North Carolina Chapter of the Sierra Club. SELC is a 501(c)(3) non-profit organization dedicated to protecting the natural resources of the Southeast. In particular, SELC works with groups throughout North Carolina to promote transportation and land use decisions that strengthen our communities, protect our natural resources, and improve our quality of life. Clean Air Carolina is a non-profit committed to improving North Carolina’s air quality through education and advocacy efforts to reduce pollution in our state. Medical Advocates for Healthy Air is an initiative of Clear Air Carolina comprised of health professionals dedicated to educating others about the health impacts of poor air quality and advocating for stronger policies that will promote clean and healthy air for North Carolinians. The Orange-Chatham Sierra Club Group is a local division of the national nonprofit Sierra Club, which promotes protection of wild places and responsible use of natural resources through education and advocacy. Orange-Chatham Sierra Club Group’s members live in Orange, Chatham, Alamance, and Caswell Counties.We are pleased to indicate our enthusiastic support for the D-O LRT project and the National Environmental Protection Act (“NEPA”) Preferred Alternative identified in the DEIS. We see this project generating many benefits to the region, and we appreciate that GoTriangle has identified light rail as the best-fit solution for the growth demands of the Durham-Orange Corridor (“D-O Corridor” or “the Corridor”). In addition to our strong support for the project, we submit the following specific comments regarding the DEIS.I. Light Rail Creates Significant Benefits Beyond Public Transportation ImprovementWe are thrilled by the prospect of a light rail system within the Triangle Region. Light rail lines have been successfully implemented in cities across the country to enhance publictransportation options while generating a variety of corresponding benefits. We are encouraged that a light rail system will finally be constructed within the Triangle, and we hope that the system will continue to expand as its promised benefits become a reality. In particular, we wish to highlight the environmental, human health, economic, and community benefits a light railsystem will bring to the D-O Corridor and the greater Triangle area. A. Light Rail Yields Significant Environmental Benefits The environmental benefits of light rail are myriad. Most obvious, light rail reduces the number of vehicle trips that are made each day and correspondingly reduces tail pipe pollution. Pollutants from cars contain a variety of toxic and carcinogenic compounds.1 Such pollutionincludes harmful carbon monoxide (“CO”), nitrogen oxides (“NOx”), and volatile organic compounds (“VOCs”).2 NOx</p>

and VOCs emissions are precursors to ozone, which is associated with a variety of detrimental human health and ecological effects.<sup>3</sup> Car emissions also contain greenhouse gases (“GHGs”) like carbon dioxide (“CO<sub>2</sub>”), which contribute to global climate change. In addition, urban light rail systems such as this one encourage concentrated growth in already disturbed environments, rather than the sprawling development into undeveloped, natural areas that is often enabled by new-location highway projects.<sup>4</sup> Light rail facilitates these concentrated growth patterns primarily because it is a “fixed-guideway” system. Once the light rail line is constructed and its various stations are fixed in place, the D-OLRT project will allow investors and developers to confidently invest in an area that will thrive due to the transportation options in place. Light rail will effectively anchor development within a predictable corridor along the light rail route. Such guided, planned land use with built-in public transportation options is environmentally beneficial on many levels. By containing development within a specific, planned, high-density area, the light rail system will help stall sprawling, unplanned growth patterns into suburban and exurban areas. This type of unplanned growth can lead to long commute times and an associated increase in vehicle miles travelled (“VMT”). With more cars on the road driving for longer periods there is an associated increase in local air pollution and greenhouse gas emissions, as discussed above. Likewise, as growth sprawls out of urban areas.

Footnotes Page 2: 1 E.g. HEALTH EFFECTS INST., SPECIAL REPORT 17: A CRITICAL REVIEW OF THE LITERATURE ON EMISSIONS, EXPOSURE, AND HEALTH EFFECTS OF TRAFFIC-RELATED AIR POLLUTION 2-17–2-18 (2010), available at <http://pubs.healtheffects.org/getfile.php?u=5532>. E.g. id.; EPA, AUTOMOBILE EMISSIONS: AN OVERVIEW 2 (1994), available at <http://www3.epa.gov/otaq/consumer/05-autos.pdf>; Greenhouse Gas Emissions: Transportation Sector Emissions, EPA, <http://www3.epa.gov/climatechange/ghgemissions/sources/transportation.html> (last updated September 11, 2015).<sup>3</sup> Ground-Level Ozone, EPA, <http://www3.epa.gov/ozonepollution/> (last updated October 1, 2015).<sup>4</sup> DEIS at 4-291 (noting that “[t]he proposed D-O LRT Project and associated land use policies are expected to encourage more compact development, which has a smaller footprint than the auto-oriented development likely to occur without the transit investment”).

into less disturbed, rural areas, there can be significant impacts on other aspects of the natural environment. Forests may be cleared, farmland developed, and wetlands and streams paved over. The increase in impervious surfaces from this development can have an extremely detrimental effect on water quality as run-off increases. In contrast, compact, planned land use enables developers to use space more efficiently, requiring less new development into rural areas. Moreover, compact, mixed-use communities mean residents can walk, bike, or use public transportation to reach destinations. In turn, fewer people rely on cars in their daily lives, which equates to fewer harmful pollutants being emitted into our air and water on a daily basis. Moreover, the D-O LRT will serve as a keystone piece of a long-term vision for an improved Triangle-wide public transit system. As explained in the DEIS, the D-O LRT has not been proposed or developed in isolation; instead, it is part of a broader regional plan to invest in fixed-guideway transportation solutions.<sup>5</sup> As such, the D-O LRT is an important regional investment in an environmentally-sound public transit solution which will facilitate compact, less environmentally damaging transit-oriented development. Indeed, the affected municipalities have premised their public transportation plans on this light rail project being implemented.<sup>6</sup> Local governments’ land-use visions “call for more compact, walkable, higher-density, mixed-use development within the D-O Corridor,” and a light rail system will accordingly “channel future growth by providing a transportation option that supports compact, high-density developments.”<sup>7</sup> B. Light Rail Improves Physical and Mental Health By driving mixed-use, compact development near public transportation options, light rail encourages more active lifestyles. Walking and bicycling to destinations, or to the closest light rail station, will be feasible and easier than driving and finding parking. Transit-oriented development, and the corresponding greater use of public transportation, increases physical activity and improves physical health.<sup>8</sup> For example, mixed-use neighborhoods with public transportation access correspond to lower rates of obesity, while sprawling neighborhoods correspond to higher rates of hypertension, diabetes, asthma, and cancer.<sup>9</sup> One study of individuals living near the Charlotte Lynx light rail system showed significant increases in physical health, including that light rail users lost weight and substantially reduced their likelihood of becoming obese.<sup>10</sup> Public transportation access

andFootnotes Page 3:5 Id. at 2-2-2-8.6 E.g. id. at 8-7.7 Id. at 1-22; see id.at 4-291, 4-298.8 See TODD LITMAN, VICTORIA TRANSPORT POLICY INSTITUTE, EVALUATING PUBLIC TRANSPORTATION HEALTH BENEFITS 13-15 (2015), available at [http://www.vtpi.org/tran\\_health.pdf](http://www.vtpi.org/tran_health.pdf).9 Id. at 15.10 John M. MacDonald, et al., The Effect of Light Rail Transit on Body Mass Index and Physical Activity, 39 AM. J. PREVENTIVE MED. 105, 108 (2010). The study concluded that “[t]he findings from the current study suggest thatwalkable communities are also associated with numerous mental health benefits, such as reducing emotional stress and symptoms of depression.11 Moreover, in terms of general public health, public transit use is safer than private automobile use, with a much lower fatality rate than automobile travels.12 As one researcher has observed, “[p]eople who live or work in transit oriented communities tend to drive fewer annual miles, drive at lower speeds, and have better travel options that allow them to avoid high risk driving, such as after drinking alcohol or when ill.”13 Light rail, as a fixed public transportation system, will lay the foundation for such healthier and safer transit-oriented communities in the D-O Corridor.Additionally, light rail’s resulting reduction in tailpipe emissions corresponds tosignificant human health effects. As noted above, driving individual automobiles creates toxic particulate matter pollution and ozone-producing chemicals that can have a wide range of adverse health effects. A recent study published in the journal Nature suggests that air pollution was responsible for 3.3 million premature deaths worldwide in 2010.14 Air pollution exacerbates asthma, which was the leading medical cause for school absences in North Carolina during the 2009-2010 school year.15 It is also linked to low birth weight, premature birth, miscarriage, autism, ADHD, obesity, diabetes, compromised immune response, increased susceptibility to allergies, stroke, liver disease, dementia, anxiety, and depression.16 Particulate matter pollution is created not only by burning fossil fuels, but also by road wear, brake wear, and tire wear. The cleanest electric car will still cause particulate matter pollution because it cannot avoid friction with the petroleum-based asphalt comprising our roads. However, light rail avoids these friction-based sources of pollution by not using the petroleum-based asphalt. Moreover, light rail can avoid or mitigate these many adverse health impacts by providing a high-capacity public transit alternative to driving private vehicles. Fewer cars on the road equates to cleaner air for North Carolinians.Footnotes Page 4: increasing the access to LRT transit for individuals to commute to work may help overcome some of the barriers to engaging in daily utilitarian exercise.” Id. at 110.11 LITMAN, supra note 9, at 17.12 Id. at 8-9.13 Id. at 8.14 J. Lelieveld et al. The Contribution of Outdoor Air Pollution Sources to Premature Mortality on a Global Scale, 525 NATURE, 367 -371 (2015).15 N.C. DEPT. OF HEALTH & HUMAN SERVS., ASTHMA IN NORTH CAROLINA FACT SHEET 1 (2011), available at <http://www.asthma.ncdhhs.gov/docs/factsheets/2011/AsthmaInNorthCarolina.pdf>; N.C. DEPT. OF HEALTH & HUMAN SERVS., THE NORTH CAROLINA ASTHMA PLAN 2013-2018 2 (2013), available at <http://www.asthma.ncdhhs.gov/docs/NorthCarolinaAsthmaPlan-2013-2018.pdf> (identifying Reducing school absences due to asthma as one of four priorities of the North Carolina Asthma Plan).16 E.g. Ambient (Outdoor) Air Quality and Health, WORLD HEALTH ORG.,<http://www.who.int/mediacentre/factsheets/fs313/en/> (last updated Mar. 2014); ARB Fact Sheet: Air Pollution and Health, AIR RES. BD., <http://www.arb.ca.gov/research/health/fs/fs1/fs1.htm> (last updated Dec. 2, 2009); Bradley S. Peterson, et al., Effects of Prenatal Exposure to Air Pollutants (Polycyclic Aromatic Hydrocarbons) on the Development of Brain White Matter, Cognition, and Behavior in Later Childhood, 72 JAMA PSYCHIATRY 531 (2015); W. James Gauderman, et al. Association of Improved Air Quality with Lung Development in Children, 372N. ENG. J.MED. 905 (2015).C. Light Rail Brings Business and Boosts Economic DevelopmentAs alluded to above, the proposed light rail system will draw concentrated economic development.17 Large companies are deliberately investing in and developing areas connected to permanent public transit systems like light rail. Mercedes-Benz relocated to downtown Atlanta,18 and Kaiser-Permanente decided on Georgia over Colorado because of the public transit options available, specifically the rail system in the Midtown area.19 Indeed, The Charlotte Lynx System has proven to be an enormous economic success for the area: “From 2005 to-date, the Blue Line has generated approximately \$900M in development projects completed within a ½ mile of the Blue Line Stations.”20 This has “transformed portions of the community from vacant or underutilized parcels to vibrant, pedestrian friendly communities including



housing, restaurants, retail and small businesses.”<sup>21</sup> Charlotte Area Transit System staff project an additional \$500 million-worth of development in the coming years.<sup>22</sup> The Blue Line Extension, which is set to begin operations in 2017, has already attracted more than \$200 million in new, private development projects along the future route.<sup>23</sup> Clean Air Carolina, which is based in Charlotte, has witnessed first-hand these positive community—not to mention environmental and health— benefits of the Lynx system. While this success story from within our State is particularly impressive, it is not an isolated instance. Light rail systems across the country, in metropolitan regions similar to the D-O corridor, have likewise experienced substantial economic benefits. These include systems in Portland, Oregon; Dallas, Texas; Denver, Colorado; Santa Clara County, California; and St. Paul-Minneapolis, Minnesota.<sup>24</sup> Notably, bus service, including bus rapid transit (“BRT”), has not and cannot spur such economic benefits precisely because of its unpredictable, ever-changing routes.<sup>25</sup> A BRT system includes fixed guideways for buses, thus removing segments of bus service from mixed-use traffic to enable quicker travel times. However, BRT is still characterized by flexibility in route.<sup>Footnotes Page 5: 17</sup> See DEIS at 1-22; id. at Table 8.1-1: Project Need Performance Summary for No Build, NEPA Preferred, and Project Element Alternatives.<sup>18</sup> Matt Kempner and J. Scott Trubey, MARTA A Sudden Factor in Company Moves, THE ATLANTA JOURNALCONSTITUTION, Jan. 16, 2015, <http://www.myajc.com/news/business/marta-a-sudden-factor-in-companymoves/njpnF/>.<sup>19</sup> Maria Saporta, Transit and Walkability Key Factors in Kaiser Permanente’s Decision to Put 900 New Jobs in Midtown, SAPORTAREPORT, Apr. 17, 2015, <http://saportareport.com/transit-and-walkability-key-factors-in-kaiserpermanentes-decision-to-put-900-new-jobs-in-midtown/>.<sup>20</sup> E-mail from Tina Votaw, Transit Oriented Dev. Specialist, Charlotte Area Transit Sys., to Kym Hunter, Staff Attorney, S. Envtl Law Ctr. (April 22, 2015); see also Alternatives Analysis at 5-86 (“North Carolina’s first LRT line, the Blue Line, has been a catalyst for almost \$1.5 billion of new or planned development along Charlotte’s South Corridor, a formerly underutilized railroad corridor.”).<sup>21</sup> E-mail from Tina Votaw, supra note 20.<sup>22</sup> Id.<sup>23</sup> Id.<sup>24</sup> Alternatives Analysis, at 5-86–5-87 (listing the significant economic benefits which have accrued to the areas surrounding the respective light rail systems).<sup>25</sup> Alternatives Analysis, at 5-88 (citing limited available studies on BRT and noting that potential economic benefits of BRT are unproven and speculative, unlike light rail’s demonstrated positive effects).and still relies on mixed-use traffic for portions of its trip. Businesses cannot plan on bus service, but businesses can and will plan on a fixed light rail system.

D. Light Rail Creates Desirable Mixed-Use Communities Private citizens are also increasingly choosing to live near established public transportation options. Indeed, a recent Chapel Hill poll indicated that the D-O LRT project is “overwhelmingly popular” with 69% of voters supporting the project.<sup>26</sup> This is in line with national trends showing that people, particularly the Millennial generation, are consciously driving less and prefer to use alternate modes of transportation.<sup>27</sup> The vast majority of Millennials express a preference for living in more urbanized, mixed-use, walkable communities with public transportation access.<sup>28</sup> Existing compact, mixed-use development along public transportation routes have shown that such less automobile-dependent communities are a reality with corresponding real benefits: “[r]esidents of communities with high-quality, well integrated public transit . . . own half as many vehicles, drive half as many annual miles, walk and bicycle four times more, and use public transit ten times more than residents of more automobile-dependent communities.”<sup>29</sup> Light rail will also assist less mobile populations, such as the elderly, 0- or low-car households, and lower-income families. These populations will be able to depend on light rail for their transportation needs, while also making long-term housing and employment decisions knowing that light rail will remain, fixed in route, for the future. Indeed, the D-O LRT system will connect large employment and education centers with its end points near the institutions of the University of North Carolina and Duke University, respectively.<sup>30</sup> Public transportation to such employment hubs will provide a low-cost, reliable means of transportation to jobs for low-income and 0-car households. These same individuals will also have greater access to the educational opportunities at both universities on the D-O LRT project route. Light rail and its corresponding transit-oriented development “provide basic mobility and accessibility, particularly for physically and economically disadvantaged people, such as people with disabilities and lower-income seniors.”<sup>31</sup> Public transportation and more compact, mixed-use communities can provide

a means of greater access to necessary medical services for the elderly and disabled.<sup>32</sup> The D-O LRT project exemplifies this attribute by connecting to both the UNC

Footnotes Page 6: 26 Memorandum from Tom Jensen, Dir. of Pub. Policy Polling, State of the Chapel Hill Election 2 (Sept. 23, 2015), available at <http://chapelboro.com/wp-content/uploads/2015/09/ChapelHillPoll2015.pdf>.<sup>27</sup> TONY DUTZIK & PHINEAS BAXANDALL, U.S. PIRG FUND & FRONTIER GRP., A NEW DIRECTION: OUR CHANGING RELATIONSHIP WITH DRIVING AND THE IMPLICATIONS FOR AMERICA'S FUTURE 21-25 (2013), available at <http://www.uspirg.org/sites/pirg/files/reports/A%20New%20Direction%20vUS.pdf>.<sup>28</sup> Id. at 23; Millennials Prefer Cities to Suburbs, Subways to Driveways, NIELSON (Mar. 4, 2014), <http://www.nielsen.com/us/en/insights/news/2014/millennials-prefer-cities-to-suburbs-subways-to-driveways.html>.<sup>29</sup> LITMAN, supra note 9, at 3.30 E.g. DEIS, at 1-3–1-4.31 LITMAN, supra note 9, at 16.32 E.g. WENDY FOX-GRAGE & JANA LYNOTT, AARP PUB. POLICY INST., EXPANDING SPECIALIZED TRANSPORTATION: NEW OPPORTUNITIES UNDER THE AFFORDABLE CARE ACT 1 (Jan. 2015), available at <http://www.aarp.org/content/dam/aarp/ppi/2015/AARP-New-ACA-Transportation-Opportunities.pdf> (identifying access to transportation as a critical need for elderly individuals).<sup>33</sup> E.g. TRANSP. FOR AM., AGING IN PLACE, STUCK WITHOUT OPTIONS 3, 35 (2011), available at <http://www.t4america.org/docs/SeniorsMobilityCrisis.pdf>.<sup>34</sup> FED. HIGHWAY ADMIN., NATIONAL HOUSEHOLD TRAVEL SURVEY BRIEF: MOBILITY CHALLENGES FOR HOUSEHOLDS IN POVERTY 3 (2014), available at <http://nhts.ornl.gov/briefs/PovertyBrief.pdf>.<sup>35</sup> DEIS at 1-22–1-23; see also Alternatives Analysis at 3-1.36 DEIS at 1-16.37 Alternative Analysis at 3-1. The other three needs were: “to enhance mobility,” “to expand transit options between Durham and Chapel Hill,” and “to serve populations with high propensity for transit use.” Id. Durham and Orange Counties is exploding; indeed, “[b]etween 2010 and 2040, the population of each county is expected to grow by 64 percent and 52 percent, respectively.”<sup>38</sup> We agree with and applaud the DEIS’s acknowledgment that “[t]he existing built and natural environments limit the ability to widen the roadways to accommodate additional travel lanes,” and that “[i]f left unmanaged, this rapid growth will not only continue to constrain corridor mobility, but will also result in sprawling

development patterns, which would lead to the reduction of open space and farmlands.” 39 Building more roads is not the answer to population growth and increased transportation demands, and expanding such roads would result in environmentally harmful development patterns and further exacerbate dependence on automobile travel. We further agree with the DEIS’s conclusion that “[e]ven with implementation of all roadway projects programmed in the 2040 MTP, the capacity of the roadway system will not keep pace with the increase in traffic volumes.”40 Importantly, building new roads can sometimes paradoxically cause an increase in congestion. Travelers who previously avoided congested roads by foregoing discretionary trips or by traveling at non-peak hours might now opt to take more trips at different times. Moreover, development might expand along the new road, creating new communities and new travel demands. As such, building roads entices new vehicle trips, creating what is known as “induced demand” and in turn causing more, not less, congestion. Light rail is uniquely suited to meet the transportation needs in the D-O Corridor. GoTriangle analyzed a variety of different transit system options in the Alternatives Analysis phase, and correctly concluded that they would not meet the identified Purpose and Need of the project.41 As identified in the earlier Alternatives Analysis, “the flexibility in the delivery of conventional bus services fails to provide the permanency in routing and stop placement necessary to shift current development patterns.”42 Furthermore, adding additional buses on already congested roadways will not address increased travel demands.43 As observed by the DEIS, “[t]he number of buses serving each of these areas [near UNC hospitals and /Durham VA Medical Center/Duke University Medical Center] has surpassed or is approaching the feasible limit of the number of buses that can be accommodated on the roadways.”44 We have been pleased by the increased bus ridership in the region, as identified by the DEIS, and believe this is indicative of the shift in the public’s desire and willingness to utilize public transportation options. However, the DEIS correctly identifies that the current bus system at our present-day population levels is increasingly inconsistent and unreliable in adhering to bus schedules.45Footnotes Page 8: 38 DEIS at 1-5.39 Id. at 1-6.40 Id. at 1-17.41 Alternatives Analysis, ES-4–ES-8, 5-113–5-118, (2012); see 42 U.S.C. § 4332 (C), (E) (requiring evaluation of “appropriate alternatives” when preparing EIS); 40 C.F.R. § 1502.14 (limiting EIS review of alternatives to those that are “reasonable”).42 Alternatives Analysis at 3-8.43 DEIS at 1-18–1-19.44 Id. at 3-9; see Clogged roadways already prevent efficient travel times of both private cars and buses, and this will only worsen with an increased population in the area.46 Like increased bus service, BRT falls far short of meeting the Purpose and Need of the project. Triangle Transit ruled out BRT largely because of its inability to meet the economic development and compact growth elements of the project’s Purpose and Need.47 While proponents of BRT tout its flexibility and ability to respond to growth and development, this characteristic is precisely why BRT is less effective in driving compact land use patterns. Light rail outcompetes BRT in passenger capacity, partially because cars can be added to trains, and additional trains can be added to the entire light rail system with minimal impact so as to easily passenger capacity. Finally, commuter rail or heavy rail was appropriately rejected as a feasible option for the D-O corridor. Such vehicles are incapable of stopping quickly enough between closely-spaced stations, such as are needed on Duke and UNC campuses and in downtown Durham. In contrast to other options, the D-O LRT project is a fixed transportation system which will drive smart, compact development while decreasing the numbers of cars on the road and enhancing public transportation accessibility. As the Alternatives Analysis succinctly summarized, after extensive evaluation of other modes of transportation, “the [light rail alternative] alone can fully address the stated Purpose and Need for a fixed-guideway investment in the Durham-Orange Corridor.”48 Ridership forecasts of the NEPA Preferred Alternative demonstrate that light rail will provide a substantial reduction in automobile trips; by 2040, the preferred alternative will account for more than 23,000 trips per average weekday.49 These forecasts are supported by the ridership rates of the Charlotte Lynx system where daily ridership exceeded 2020 forecast levels within three years of its initial operations “and now averages about 15,000 trips per day.”50 The DEIS also projects that the light rail system will yield 23 million fewer vehicle miles traveled annually by year 2040.51 We agree with and support GoTriangle’s determination that light rail is the best mode of public transportation for meeting the transportation and development needs of the D-O Corridor. B. The NEPA Preferred Alternative is the

Superior Alignment for the D-OLRT ProjectWe urge GoTriangle to proceed with the currently identified NEPA Preferred Alternative. We agree with and applaud the DEIS’s observation that “[t]he NEPA Preferred Alternative would cause the least damage to the biological and physical environment and best protect, Footnotes Page 9: 46 Id. at 1-18.47 E.g. Alternatives Analysis at 5-88, 5-113 ; DEIS at 1-16.48 Alternatives Analysis at 5-113.49 DEIS at 3-14.50 Alternatives Analysis at 5-86.51 DEIS at 4-252; id. at Table 4.13-1: Comparison of Estimated Annual VMT for the Triangle Region (2040) (in millions of miles).preserve, and enhance historic, cultural, and natural resources.”<sup>52</sup> The NEPA Preferred Alternative represents the Least Environmentally Damaging Practicable Alternative (“LEDPA”), as determined by the U.S. Environmental Protection Agency (“EPA”).<sup>53</sup> The United States Army Corps of Engineers (“USACE”) likewise supports the NEPA Preferred Alternative.<sup>54</sup>In completing its thorough review of alternatives, GoTriangle carefully considered whether certain sections of the proposed D-OLRT route could be aligned differently. These Project Element Alternatives constitute different possible routes in the New Hope Creek and Little Creek areas of the project’s route. As determined by the DEIS after careful evaluation, the other Project Element Alternatives have greater environmental impacts, particularly to undisturbed natural habitats, than the NEPA Preferred Alternative.For example, the C2 Alternative impacts 23 more acres of biotic resources than the NEPA Preferred Alternative.<sup>55</sup> The C1 and C1A Alternatives would impact undisturbed natural areas, such as the Little Creek Bottomlands and Slopes Significant Natural Heritage Area.<sup>56</sup> Importantly, the USACE informed GoTriangle that given the existence of a less-environmentally damaging alternative, the USACE would not authorize the C1 alternative with its corresponding significant adverse impacts to natural resources and public use of the Jordan Lake Game Lands.<sup>57</sup> Although the DEIS nonetheless carefully studied this alternative, the USACE’s unwillingness to grant GoTriangle use of the Jordan Lake Game Lands for the C1 Alternative effectively eliminates it as an option.<sup>58</sup>The NEPA Preferred Alternative also outperforms the New Hope Creek Alternatives in terms of impacts to the natural environment. The New Hope Creek LPA (“NHC LPA”) Alternative would result in fragmentation of undisturbed forested areas and wetlands, and would create a new transportation corridor in the New Hope Creek Bottomlands. <sup>59</sup> The New Hope Creek 1 (“NHC 1”) Alternative fares slightly better than the NHC LPA Alternative, but would impact 7 more acres of hardwood forests than the NEPA Preferred Alternative. We are pleased that the selected NEPA Preferred Alternative impacts the fewest acres of biotic resources as compared to the other element alternatives, and we support GoTriangle in advancing this route for further evaluation and implementation.<sup>60</sup>Footnotes Page 10: 52 Id. at 8-26.53 See id. at 8-14.54 See id. at 8-14.55 Id. at 8-18.56 Id. at 8-17.57 Id. at 8-17, G-99.58 See 16 U.S.C. § 460d (authorizing USACE to “grant leases of lands . . . at water resource development projects . . . for such purposes as [the Secretary] may deem reasonable in the public interest”).<sup>59</sup> Id. at 8-18–8-19.<sup>60</sup> See DEIS at Table 8.2-1: D-O LRT Alternatives Benefits and Consequences Matrix.

C. Fewer Harmful Effects Correspond to the Farrington Road Rail Operations and Maintenance FacilityIn addition to studying different alignment routes, the DEIS reviewed different possible locations for a rail operations and maintenance facility (“ROMF”), where trains will be serviced and stored, and where the technical operations for the system will be based. The Farrington Road ROMF included in the NEPA Preferred Alternative surpasses each of the alternative ROMF locations. Leigh Village would permanently impair use of the historic Walter Curtis Hudson Farm, and the Patterson Place ROMF is incompatible with the Preferred Alternative New Hope Creek Element (“NHC 2”), as well as the perhaps “second best” New Hope Creek route possibility of NHC 1.<sup>61</sup> Because the Patterson Place ROMF would rule out these two environmentally-preferable routes, we oppose the Patterson Place ROMF and strongly concur with the NEPA Preferred Alternative’s selection of the Farrington ROMF. While the Cornwallis and Alston Avenue ROMF locations may result in fewer impacts to water resources, and natural resources in the case of the Alston Avenue ROMF, the resulting operational difficulties, higher costs, and community impacts render these locations less desirable to the NEPA Preferred Alternative location.<sup>62</sup> Specifically, the Cornwallis Road location would have significant impacts on the Judea Reform Congregation, Levin Jewish Community Center, and the Lerner Jewish Community Day

School.63 The Alston Avenue Location would be located in an area with high low-income and minority populations, result in a net loss of jobs, and displace multiple businesses.64 Such significant community impacts would undermine the community support and longevity of the D-O LRT project. In sum, the NEPA Preferred Alternative utilizes existing transportation right-of-ways and follows a route that minimizes new impacts to sensitive environmental resources. By sticking close to established transportation corridors, most of the NEPA Preferred Alternative’s environmental impacts are to already disturbed environments. As such, we are pleased with the identified NEPA Preferred Alternative and strongly support GoTriangle’s continued selection of this route and ROMF location as the NEPA Preferred Alternative.III. GoTriangle Should Continue to Analyze Certain Environmental Impacts and Develop Further Mitigation MeasuresOn the whole, the DEIS carefully and thoroughly documents the possible impacts to natural resources, streams and wetlands, water quality, and air quality within the project area. We are pleased with the consistent recommendation of best management practices to avoid and reduce certain environmental impacts. The below comments applaud some of the specific aspects of the DEIS’s discussion of the affected environment and environmental consequences,Footnotes Page 11: 61 Id. at 8-20.62 Id. at 8-21–8-22.63 Id. at 8-21.64 Id. at 8-22–8-23.

while also noting areas in which the Final Environmental Impact Statement (“FEIS”) should be improved.A. Natural ResourcesOverall, we are content with how the DEIS addresses potential impacts to natural resources, including wildlife and broader ecosystem impacts. The DEIS recognizes that the indirect impacts—largely compact development in the affected area—“would be more beneficial to natural resources than the type of dispersed growth that typically occurs with auto-oriented development.”65 We believe such acknowledgments and comparisons are important when considering a project such as this, where some minimal environmental harm may result in the construction and implementation phases, but where the long-term environmental effects are substantial. Even then, the natural resource impacts will largely be limited to already disturbed habitats.66 However, the DEIS provides an incomplete picture regarding endangered and threatened species. We are pleased that GoTriangle carefully analyzed the occurrence of federally listed species in the project area, and that the DEIS includes preliminary measures to be taken in the event the species are observed in the area. Nonetheless, the DEIS lists many North Carolina state-listed endangered and threatened species, but does not include any information about their abundance in the project area or how to mitigate possible harm to the species. We understand that studies and coordination with North Carolina agencies are ongoing, and we encourage careful evaluation of possible harm to these species and implementation of necessary mitigation measures. The FEIS should include a more thorough discussion regarding these state-listed species.B. Water Resources While the NEPA Preferred route will have impacts to water resources in the project area—particularly wetlands, streams, and floodplains—the impacts are relatively minor when considered in comparison with the sprawling, car-oriented development that would occur under a No Build scenario.67 Nonetheless, we note that the NEPA Preferred Alternative will impact approximately .558 acres of wetlands,68 and that the Little Creek project elements alternatives would actually impact .05 acres fewer than the NEPA Preferred Little Creek route (C2A).69 We have limited concerns about this as the acreage impact is so slight. Moreover, we understand that while the Little Creek alternatives may impact a smaller acreage of wetlands, these alternatives “would impact one or two more [discrete] wetlands.”70 Nonetheless, GoTriangleFootnotes Page 12: 65 Id. at 4-92.66 Id. at 4-138, 4-142.67 E.g. id. at 4-290, 4-292.68 Id. at 4-156.69 Id. at 4-159.70 Id. at 4-159.

should continue to evaluate the possible wetlands impacts associated with the NEPA Preferred Alternative and identify specific mitigation measures to ensure the least impact possible to these special water resources.C. Air QualityThe DEIS’s cursory examination of air quality impacts does a disservice to the project by failing to document the significant positive effects the D-O LRT will have on air quality. While “[m]odeling analyses are only required for areas that are in nonattainment or maintenance



for a particular pollutant” in terms of National Ambient Air Quality Standards (“NAAQS”) under the Clean Air Act, the FEIS should discuss more of the air quality impacts than are discussed in the DEIS.<sup>71</sup> The DEIS identifies that Durham County is a maintenance area for carbon monoxide and then limits air quality discussion to this sole pollutant and area. Even if modeling analyses are not required, the FEIS should document and consider the possible air quality impacts that will result from this project. For example, the FEIS should note that by reducing the numbers of cars on the road, there will be a corresponding reduction in multiple harmful pollutants. Moreover, even if additional modeling analyses are not required, they certainly are not prohibited, and we would support GoTriangle conducting further modeling analyses to document the positive effects this system will have on air quality.

**D. Greenhouse Gas Emissions** One of the prime environmental benefits of the D-O LRT is the potential for reductions in tailpipe emissions of GHGs. In December 2014, the Council of Environmental Quality (“CEQ”) issued a draft guidance on “Consideration of Greenhouse Gas Emissions and the Effects of Climate Change,” under NEPA.<sup>72</sup> The draft guidance instructs agencies to consider impacts on GHGs when conducting a NEPA analysis. The DEIS failed to conduct such an analysis, citing a lack of a “national strategy to address greenhouse gas emissions from transportation,” and asserting that “[i]t is technically unfeasible to accurately model how negligible increases or decreases of CO<sub>2</sub> emissions at a project scale would add or subtract to the carbon emissions from around the world.”<sup>73</sup> We disagree with this sentiment. As recognized by the CEQ’s draft guidance, while “climate impacts are not attributable to any single action,” they are “exacerbated by a series of smaller decisions, including decisions made by the government” and should be analyzed as such.<sup>74</sup> Here, the D-O LRT’s impact would almost certainly have the positive environmental effect of reducing GHGs. Documenting such a positive effect is important for future transportation planning and to establish the precedent of conducting such evaluations.

Footnotes Page 13: <sup>71</sup> The FEIS should also clarify that 40 C.F.R. 93, subpart A, requires modeling analyses for only nonattainment or maintenance areas for a given pollutant. While reference is made in Appendix K23, the source of this requirement should be clarified within the text of the FEIS. <sup>72</sup> Revised Draft Guidance on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change, 79 Fed. Reg. 77801 (Dec. 24, 2014). <sup>73</sup> DEIS at 4-201. <sup>74</sup> Revised Draft Guidance, 79 Fed. Reg. at 77825.

IV.

**GoTriangle Should Continue to Collaborate with Low-Income and Minority Communities Who May be Impacted** Although there is wide community support for enhanced public transit options in the D-O Corridor and for light rail in particular,<sup>75</sup> the D-O LRT project has the potential to disproportionately burden certain low-income and minority communities in Durham. While the Durham-Chapel Hill Metropolitan Statistical area is economically robust, the DEIS notes that the census tracts within the D-O Corridor have a 19 percent lower median household income than the combined median household income in Durham and Orange counties on the whole.<sup>76</sup> More than thirteen percent of households within the Corridor do not have an available vehicle, and 42.6 percent of households in the Corridor have only one vehicle.<sup>77</sup> Moreover, Durham has a history of proposed transportation projects having a disproportionate impact on people of color and low-income communities.<sup>78</sup> GoTriangle must be mindful of these disparities and the historical backdrop in continuing to proactively engage communities that will be affected by the D-O LRT project. We are pleased by GoTriangle’s thoughtful efforts to date in informing and collaborating with affected communities. The DEIS identifies access to proposed stations is a primary concern voiced by low-income and racial minority communities in the area.<sup>79</sup> The DEIS also highlights concerns about affordable housing, business displacements, and inequitable distribution of sales tax revenues from the area.<sup>80</sup> While the DEIS identifies responses to each of these concerns, we hope GoTriangle continues to collaborate and develop additional means of mitigating these concerns, as required by Executive Order 12898.<sup>81</sup> We are pleased that Durham County and the City of Durham have set goals of having “15 percent housing within a ½ mile of each station be affordable to people at or below 60 percent of the median area income.”<sup>82</sup> However, we encourage GoTriangle to work with local leaders to develop more hard-and-fast policies and mechanisms to keep housing affordable. Such measures should include methods to help current residents in the affected areas remain in their homes and not be priced-out of their residences. Additionally, the DEIS should be clearer and more

consistent about the potential problem ofFootnotes Page 14: 75 E.g. Jensen, supra note 26, at 2.76 DEIS at 1-8.77 Id. at 1-5.78 See id. at 5-30; Removal of Los Primos Supermarket – Analyzing and Identifying Alternatives, FED. HIGHWAY ADMIN. (last updated Feb. 4, 2013), [https://www.fhwa.dot.gov/environment/environmental\\_justice/ej\\_and\\_nepa/case\\_studies/case04.cfm](https://www.fhwa.dot.gov/environment/environmental_justice/ej_and_nepa/case_studies/case04.cfm); Case Studies: East-West Expressway Environmental Impact Study, FED. HIGHWAY ADMIN. (last updated Aug. 29, 2011). [http://www.fhwa.dot.gov/environment/environmental\\_justice/case\\_studies/case3.cfm](http://www.fhwa.dot.gov/environment/environmental_justice/case_studies/case3.cfm).79 DEIS at 5-18.80 Id. at Table 5.3-1: EJ Community Concerns Expressed and Triangle Transit Actions/Response.81 Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 11, 1994).82 DEIS at Table 5.3-1: EJ Community Concerns Expressed and Triangle Transit Actions/Response; id. at 5-31; see N.C. GEN. STAT. § 136-252(b)(3)(d) (requiring recipients of state public transportation grant money to develop strategies “to provide replacement housing for low-income residents displaced by transit development . . . for the purpose of increasing the stock of affordable housing to at least fifteen percent (15%) [near the transit development] to be affordable to families with income less than sixty percent (60%) of area median income.”).

affordable housing; a few pages after identifying this problem, the DEIS includes “[a]ffordable housing near transit” as one of the offsetting beneficial impacts the project will have on lowincome and minority populations.83 Affordable housing should be eliminated from this list of benefits in the FEIS, unless concrete and enforceable policies are instituted that guarantee access to affordable housing proximate to light rail stops.The DEIS observes that acquisitions and displacements required by the D-O LRT project might “be perceived as a disproportionately high and adverse effect on the east Durham community in particular.”84 The DEIS lacks documentation or analysis of the businesses and community resources that may be displaced due to the project. This missing information creates an incomplete picture of the nature and extent of the adverse effects such displacements and acquisitions will have on affected people of color and low- income communities. As such, we urge GoTriangle to devote detailed discussion in the FEIS to the precise businesses and resources to be displaced in the affected areas. Further, as much as possible, GoTriangle should select routes that will require as few business, community resource, and residential displacements as possible. Retaining community pillars is key for community cohesion.We are mindful that community members have expressed concerns that the current D-O LRT project does not reach East Durham, where low-income and minority populations are in dire need of better access to public transportation. Instead, light rail will reach these communities only during a possible later phase of light rail expansion. In the transportation mitigation section, the FEIS should address coordinating connecting bus service from East Durham communities to the nearest D-O LRT stop as well as provide realistic numbers on the ridership projections for D-O LRT from East Durham. Because community members have expressed that the D-O LRT will not serve the East Durham community due to the local nature of community travel, these additional actions would work toward establishing how East Durham residents would get to the D-O LRT, assessing the level of current East Durham community transportation need, and firmly determining how this project can actually provide transit to those lower-income, less mobile households. Indeed, since a prime part of the Purpose and Need for the project is providing public transit access to lower-income, less mobile households, connecting East Durham communities to this light rail project should be prioritized.Finally, we urge GoTriangle to study and include in the FEIS information about the estimated fares for light rail passengers. We note that the DEIS stated Go Triangle will work with public transportation staff to “engage the public and complete a Transit Service and Fare Equity Analysis” prior to initiating revenue service.85 If the light rail service is cost-prohibitive for low-income populations, the project will not satisfy its stated Purpose and Need, and may not yield as many positive benefits for target populations as forecast by the DEIS.Footnotes Page 15: 83 DEIS at 5-35.84 Id. at 5-30.85 Id. at 3-14.As noted throughout the DEIS’s section on impacts to low-income and minoritypopulations, despite the possible negative impacts, many positive impacts will accrue to the affected communities. These include new employment prospects and greater mobility and connectivity with other communities through the greater access to reliable public transportation.86 We agree that in many ways, low income and people of color communities stand to benefit from the D-O LRT project, but we nonetheless encourage GoTriangle

to continue to carefully analyze and avoid potential impacts to these communities.V. ConclusionWe are thrilled to offer our support for the D-O LRT project and to submit theseoverwhelmingly positive comments regarding the project. As discussed above, the D-O LRT system represents an opportunity to improve the public transportation network in the region, while driving compact, prosperous growth and development in the face of future population growth in the D-O Corridor. In turn, the D-O LRT project corresponds to environmental, health,and community benefits. We urge GoTriangle to enhance its analysis and address our limited concerns regarding the project. We look forward to continuing to work with GoTriangle in advancing this exciting public transit investment.Sincerely, Kym Hunter, Staff Attorney Ramona McGee, Associate Attorney KH/lvcc (via email):Stanley A Mitchell, FTAS. Kenneth Jolly, USACEJohn Sullivan, FHWACHris Militscher, USEPAPete Benjamin, USFWSJoey Hopkins, NCDOTRenee Gledhill-Earley, NC SHPOJay Zimmerman, NCDENR - DWQFelix Nwoko, DCHC MPOJune Blotnick, CACLaura Wenzel, MAHATerry Lansdell, MAHAMax Felsher, Orange-Chatham Group of the North Carolina Chapter of the Sierra ClubOlga Grllic, Orange-Chatham Group of the Sierra ClubMay Becker, Orange-Chatham Group of the Sierra ClubRoger Diedrich, North Carolina Chapter of the Sierra Club

*Comment Responses*

*DEIS/Errata References*

*Comments on the many benefits of the Project outlined in the letter are noted. Triangle Transit is mindful of the history of the effects of past transportation projects on people of color. To address this, Triangle Transit has a public outreach program with an emphasis on interaction and communication with EJ populations as a key element of the proposed D-O LRT Project. The engagement of local residents, business owners, and other stakeholders began with scoping (2012) and is on-going. The outreach program was conducted in accordance with the D-O LRT Project Public Involvement Plan, EO 12898, and guiding principles contained in FTA Circular 4703.1. Triangle Transit will continue to coordinate with the EJ communities throughout the duration of the project. At this time, Triangle Transit does not have information on minority-owned businesses. However, Triangle Transit will continue outreach as part of the Uniform Act regarding any minority business relocations/acquisitions. As described in DEIS sections 4.3 and 4.14, the only community resources that would be acquired are associated with Duke University. No community resources would be acquired in areas with high concentrations of EJ populations. Clarification was added to section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS errata 122. Additionally, "Affordable housing near transit" was removed from the bulleted list of benefits as listed in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS errata 126. As stated in DEIS chapter 2, along with the introduction of the proposed D-O LRT Project, Triangle Transit would implement several changes for DATA, and CHT routes in the corridor. (Duke Transit routes also operate in the transit corridor; however, no changes are proposed to Duke Transit routes.) Changes can be categorized as follows: Introduction of new feeder bus routes; Modifications to the background bus network; and Elimination of duplicative bus service. Further information on the proposed changes is provided in DEIS appendix K1. Clarification was added to section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS errata 124. The fares will be determined by the Triangle Transit board of trustees and should be similar to bus fares. Once the fares are determined, an equity analysis will be conducted according to FTA Title VI guidelines. The proposed D-O LRT Project's fares will likely be comparable to the bus fares that are in effect at that time. Clarification was added to section 1.4 of the combined FEIS/ROD,*

DEIS chapter 2  
DEIS appendix K1  
DEIS appendix K21  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 34 and 124

**D-O LRT FEIS / ROD**

DEIS section 4.7 discusses the natural resources located within the D-O Corridor, including wildlife and habitats, with a focus on ecologically-sensitive areas and contiguous expanses of undisturbed lands. It documents federal and state-listed threatened and endangered species (fauna, flora, aquatic, and terrestrial). This section also identifies the potential effects to natural resources that would result from implementation of the alternatives under study in this DEIS. Where potential adverse effects are identified, efforts to avoid, minimize, or mitigate these effects through design modifications are also discussed. Additional detail regarding the natural resources located within the D-O Corridor is contained in appendix K21. Table 4.7-3 indicates the acreage of each biotic community that falls within the NEPA Preferred Alternative. Under the NEPA Preferred and Project Element Alternatives, no significant adverse impacts to terrestrial or aquatic habitat are anticipated. Under the NEPA Preferred Alternative, significant adverse impacts to terrestrial or aquatic wildlife are not anticipated. Limited wildlife disturbance would occur for the duration of the construction activities (DEIS section 4.16). Impacts to wildlife are expected to be limited after construction is completed. The NEPA Preferred Alternative is not anticipated to result in significant impacts to federal or state-listed threatened or endangered species, or their habitats. Adverse effects to aquatic wildlife would be minimized by bridging wetland and stream areas, and employing sediment and erosion control BMPs. Efforts to avoid, minimize, or mitigate impacts to wildlife and their habitats will continue during final design and construction. Coordination with the NCWRC and the NCDCA were initiated during the planning of the DOLRT. The NCWRC provided comments that reflected in the identification of preferred alternatives as well as the specific mitigation measures documented in the DEIS. Additional mitigation measures, such as nesting surveys or plant relocation, if required, will be developed in consultation with these agencies (see DEIS section 4.7.4).

Throughout the Project Development and preliminary engineering design process, efforts have been made to avoid and minimize impacts to wildlife habitat, including streams and wetlands. This is exemplified by the development of several alternative alignments in the vicinity of Little Creek and New Hope Creek that follow existing travel corridors, and the shifting of sections of alternative alignments to avoid wetland impacts. Further, several measures were incorporated in the design to avoid and minimize impacts to wetlands and streams, such as using aerial structures on piers to cross larger wetland areas. See DEIS section 4.8.4 for more information. Triangle Transit will continue to investigate ways to avoid impacts to wetlands during the FEIS and engineering phases of the project. As discussed in DEIS section 4.8.4.2, Triangle Transit will develop specific compensatory mitigation measures in consultation with the USACE and NCDWR as part of the Section 404/401 permitting process during the Engineering phase.

Information is included in the FEIS/ROD indicating corresponding reductions in multiple harmful pollutants. Triangle Transit also revised DEIS table 4.13-2 to include the change in transportation related greenhouse gas emissions (CO<sub>2</sub>e) to better reflect the anticipated air quality benefits of the project and the reduction of greenhouse gas emissions. This calculation is based on the change in

Vehicle Miles Traveled by mode (e.g. automobile, diesel bus, light rail vehicle) using the methodology and values included in the Final Interim Policy Guidance Federal Transit Administration Capital Investment Grant Program, Aug. 2015,  
[http://www.fta.dot.gov/documents/Final\\_CIG\\_interim\\_policy\\_guidance\\_August\\_2015.docx](http://www.fta.dot.gov/documents/Final_CIG_interim_policy_guidance_August_2015.docx)

First Name	Last Name	Comment
Judith	Mellyn	D-O-LRT Plan has Significant Adverse Safety and Environmental Impacts specifically in the placement of the ROMF -How can putting a large industrial building with its 24/7 noise and lights, and worker traffic resulting from no LRT access for ROMF employees, considered appropriate for this semi-rural residential swath of Southwest Durham?How can the location of an at grade crossing on Farrington Road be safe when it is sited in a heavily treed area and bounded on each side by sizeable sight line blocking curves that will obscure gates or lights at the crossing giving motorists little to no warning time to react to the presence of a crossing train?How will industrial contaminants, noise, lights, and other significant negative impacts from the presence of a ROMF in a residential neighborhood be managed and the safety of the residents and school children/school personnel be ensured?In the event of a ROMF industrial incident have evacuation plans been developed and their effectiveness evaluated for the senior complex residents and elementary school students and personnel? It is for this unresolved issue and many others that I support NO BUILDs there any backup plan for placement of the ROMF if this location (Farrington) is found unsuitable?It is because of the inappropriate, unsafe, neighborhood disruptive, zoning precluded choice of ROMF location on Farrington Rd. that I support a NO BUILD option.

Comment Responses	DEIS/Errata References
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 2.2.3  
 DEIS section 3.2.3.2  
 DEIS section 4.1.4.1  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3  
 DEIS section 4.12.4  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS Table 3.2-3  
 DEIS appendix K4 through K11  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 107, 110, 119, 121 and 137

*As noted in DEIS section 4.11.3 and section 1.4 of the combined FEIS/ROD, DEIS Errata 121, the proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials because of*



*associated maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While light rail vehicles, as noted in section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents, and other waste materials), used at the ROMF will be captured and stored in tanks (inside buildings), where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.*

*No traffic impacts are anticipated as a result of the implementation of the Farrington Road ROMF. DEIS section 3.2.3.2 states with the NEPA Preferred Alternative, traffic operations at the intersections along Farrington Road would be similar to operations under the No Build Alternative, as listed in DEIS Table 3.2-3. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS.*

*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process.*

First Name	Last Name	Comment
Judith	Mellyn	D-O-LRT Plan downside financial risk is excessive and uncontainable - Since there are no travel time savings for commuters when the D-O-LRT is compared to auto and bus, how can the expenditure of \$1.6B to build this fixed rail system be an economically justified use of taxpayer money? Why isn't BRT, an alternative that is demonstrably more competitive as to cost, scalability and travel time being pursued as a region wide solution instead of this limited rail corridor, a slower, costlier inflexible LRT project? It is for this reason and many others that I support NO BUILD.

<i>Comment Responses</i>		<i>DEIS/Errata References</i>
<p><i>Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <a href="http://www.ourtransitfuture.com">http://www.ourtransitfuture.com</a>.</i></p>		DEIS section 2.2.1

First Name	Last Name	Comment
Judith	Mellyn	D-O-LRT C2A Alignment has Significant Adverse Safety impacts due to location of at grade tracks and these safety issues are not mitigated -How were the logistical and safety challenges the C2A alignment posed to users of Little John Road and Downing Creek Parkway, both roads sustaining serious adverse safety impacts, understood and evaluated by planners and decision makers when neither road was included in any of the project's traffic studies despite every other road abutting NC54 from US 15/501 to I40, as well as similar use roads internal to C1A Meadowmont, being included in these studies?What is GoTriangle's solution to the C2A Little John/Downing Creek severe safety issues beyond the lights, gates and the allusion made to having cameras, elements that will in no way provide safe access to/from the main highway for cars, school buses, and emergency vehicles? Please provide this answer in light of the fact that the highway, referred to by transportation people as an expressway, must be turned onto from a dead stop without benefit of any traffic signal or other traffic control device, where the motorist's wait to access the highway will be behind the rail tracks and the motorist is left to hope they can navigate across the tracks and turn onto the highway before oncoming traffic forces them to stop and traps them on the tracks.Why are merge/acceleration lanes proffered as mitigation for the unsafe conditions motorists will face trying to navigate the unsignalized, at grade crossings at Little John Road and Downing Creek Parkway when it is known that NCDOT will be building an additional travel lane on NC54 along the C2A alignment resulting in insufficient roadway space for them?It is because significant safety issues were not addressed, despite years of requests for recognition of the severity of the issue and appropriate mitigation, that I support NO BUILD

<i>Comment Responses</i>		<i>DEIS/Errata References</i>
<p><i>Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.</i></p>		DEIS section 3.2 DEIS section 3.2.2

Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. Furthermore, Triangle Transit facilities are designed to comply with the Americans with Disabilities Act (ADA) to improve safety and ease of movement for disabled individuals. Detailed information regarding the roadways (including Little John Road and Downing Creek Parkway), sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>.

DEIS section 3.2.4  
 DEIS section 3.2.4.1  
 DEIS section 3.2.4.2  
 DEIS section 3.2.4.3  
 DEIS section 3.2.4.4  
 DEIS section 3.6  
 DEIS Table 3.2-2  
 DEIS Table 3.2-3  
 DEIS Table 3.2-5  
 DEIS appendix K4 through K11  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 36 and 108

DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS. DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3 of the DEIS. In addition, as described in DEIS section 3.2.2, there are numerous roadway projects planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5 of the DEIS, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues). Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not

*complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in DEIS Table 3.2-5. In coordination with stakeholders and the public during the development of this DEIS, the areas detailed in DEIS section 3.2.4.1 (NC 54), 3.2.4.2 (US 15-501), 3.2.4.3 (Erwin Road) and 3.2.4.4 (Downtown Durham) were identified for further study and potential refinement during the Engineering phase.*

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains. The project team has performed vehicle turning movement counts at the intersections of Littlejohn Road/NC 54 and Downing Creek Parkway/ NC 54 to confirm the magnitude of volumes using these roadways. During the next phase of design, a more detailed study may be performed if required and mitigation measures such as an eastbound acceleration lane for the northbound Downing Creek Parkway right turn to eastbound NC 54 could be added.*

First Name	Last Name	Comment
Judith	Mellyn	D-O-LRT Plan is a Social Justice Failure -In reference to a letter in Appendix G, Dr. Saunders-White, Chancellor NCCU to Mr. D. King, TTA dated April 13, 2014, why is there a mutual understanding that a light rail stop on the NCCU campus will be included in Phase Two when doing so now is held out as infeasible; this is particularly poignant in light of the Alston Avenue alignment having been for the past five years the advertised plan that drove local residents' support of the regressive transit sales tax that they are so adversely affected by?Is there recognition that a GoTriangle representative offering a 'Phase Two inclusion' implies this historically African-American university and its surrounding community, where the greatest concentration of minorities and low income persons reside ( 94% and 64% respectively), are the citizens who can continue to take the bus while LRT spending for engineering and service is centered on enriching UNC/Duke and land developer communities?How can the mutual understanding to incorporate a stop on the NCCU campus be relied on if statements are being made a just year later that 'extending the line west of Alston Avenue would make future extension easier either to the east or south to N.C. Central University'(May 2015, GoTriangle Planning Manager Patrick McDonough, News and Observer, J Wise article)?It is because our most transit dependent communities should be included equally in the benefits provided by a LRT system that I support a NO BUILD option.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would*

*DEIS section 8.3.1*

*improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project. If the proposed D-O LRT Project is built, it is expected that it would be funded by a combination of federal, state, and local funds. Dedicated local funding for bus and rail transit investments was identified when citizens of both Durham and Orange counties passed referenda to increase sales taxes to support transit improvements. (Effective April 1, 2013, Durham and Orange counties adopted resolutions to levy an additional one-half cent local sales tax to be used only for public transportation systems.) Established federal and regional funding sources means no one group in the D-O Corridor or the region would receive a disproportionate share of the financial burden of the capital and operating and maintenance costs relative to the benefits received. No financial equity considerations would be raised by the project, either in terms of the source of subsidy or the level of fare payments required of passengers (DEIS section 8.3.2). Pursuant to the Orange County and Durham County Bus-Rail Integration Plans, an adequate share of local sales tax funds is being dedicated to the cost of the LRT system.*

*The DCHC MPO identifies transportation planning priorities for the region including the DO LRT Project. Triangle Transit studies and works to implement those planning priorities. At this time LRT service to NCCU is not in the 2040 MTP, however, the DCHC MPO is exploring the possibility of including the an extension to NCCU in its 2045 MTP. Extensions to NCCU or Durham Tech are not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (DEIS section 9.2.5). Additionally, combined FEIS/ROD section 1.4, Table FEIS-2, DEIS errata 25 clarifies the DEIS Alignment of the NEPA Preferred Alternative section "The alignment of the NEPA Preferred Alternative would not preclude future extensions; however, extensions are not a part of this project." The DCHC MPO identifies transportation planning priorities for the region including the DO LRT Project. Triangle Transit studies and works to implement those planning priorities. At this time LRT service to NCCU is not in the 2040 MTP, however, the DCHC MPO is exploring the possibility of including the an extension to NCCU in its 2045 MTP.*

First Name	Last Name	Comment
Judith	Mellyn	D-O-LRT DEIS Comment[removed email]10/1/2015 2:46 PM"GoTriangle" <info@ourtransitfuture.com>D-O-LRT Alternatives Analysis is skewed to result in LRT despite its lack of competitiveness -If the DEIS referenced Final AA (April 2012) reflects daily



projected LRT riders at 12K and BRT route/interlined riders at 17.6K (high)/16.3K (low) with transit times of 35, 39 and 44 minutes respectively, how did LRT ridership nearly double (12K to 23K) when there was a 20% degradation of LRT travel time (35 to 42 minutes)? This is of particular interest since alignment C2A was chosen for its 1 minute faster transit time over C1A with a claimed result of 1000 additional riders, can you reconcile the incongruent outcome? Why is there no updated analysis of Bus Rapid Transit (BRT) cost/benefit including updated ridership when the rationale for its elimination was predicated on 'low ridership' (made by DEIS reference to the 2012 Final AA 2035 population) given the 2012 LRT ridership of 12K was subsequently reassessed based on the 2040 population with the result of a nearly twofold increase to 23K? How can LRT transit time be claimed as the incentive for commuters to abandon their cars when the DCHC Metropolitan Planning Organization's 2040 MPO MTP and CTP Alternatives –Travel Times analysis reflects a 27 minute Chapel Hill to Durham travel time in 2040 based solely on existing and committed road improvements (E&C)? Isn't the D-O-LRT's transit time of 42/44 minutes woefully inadequate in comparison? It is for the lack of competitiveness and superior value of BRT as a regional solution that I support NO BUILD of the LRT. [removed name] Chapel Hill, NC

*Comment Responses*

*DEIS/Errata References*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. The run time is only one of many variables that affect projected ridership. There are differences between AA and DEIS in terms of the modeling methodology and planning assumptions used in the ridership forecasting, as detailed below: Methodology Difference • AA used the TRM Version 4 Enhanced (TRM4E.2) model • DEIS used the TRM Version 5 Inputs and Planning Assumptions Differences • AA and DEIS used different planning assumptions: - AA used socioeconomic/land use forecasts and networks associated with TRM Version 4, which was used for the development of the 2035 Long-Range Transportation Plans adopted in 2009-DEIS used the socioeconomic/land use forecasts and networks associated with*

DEIS appendix K1  
DEIS appendix K2  
DEIS section 3.1.1  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 30, 32, and 33

**D-O LRT FEIS / ROD**

TRM Version 5, which was used for development of the MTP 2040 adopted in 2013•Fare assumptions-AA did not account for the discounted and pre-paid fare phenomenon-DEIS accounted for the discounted and pre-paid fare phenomenon •Refinements to the design of the alternatives -Station locations-Park and ride locations-Supporting transit services•Horizon year-2035 for AA-2040 for DEISIn addition, the differences in ridership between AA and DEIS can be attributed to the differences in the modeling methodology and planning assumptions used in the ridership forecasting, as detailed above. For example, the DEIS accounted for the discounted and pre-paid fare phenomenon, which was not included in the AA. In January of 2002 Chapel Hill Transit began providing transit service in a manner that allowed anyone to ride Chapel Hill Transit without paying a fare for the trip. This resulted in a 76 percent increase in ridership from 2001 to 2003. UNC later expanded the pre-paid transit program to faculty, staff, and students who live beyond the transit service area of Chapel Hill Transit. The pre-paid annual transit pass became what is now commonly referred to as GoPass. Since 2006 the GoPass program has expanded to other large regional employers and institutions, most notably for the D-O Light Rail Corridor was Duke University in August 2011. The GoPass program is one of several factors, which has led to an 85 percent increase in transit ridership on Triangle Transit buses in the D-O Light Rail corridor, from FY 2006 to FY 2012.Furthermore, the factors contributing to the higher ridership forecast for the LRT in the DEIS as compared to that for the AA would likely not exert as a big an effect on forecast BRT ridership as on forecast LRT ridership, due to differences in the characteristics between LRT and BRT. LRT has a smoother ride and other attractive vehicle characteristics, including passenger amenities, that make it more attractive to passengers than BRT. Station amenities and priority guideway treatment are more universally recognized by passengers and more readily available for LRT vehicles than for BRT vehicles. As a result, higher ridership would be expected for LRT than for BRT all things being equal.

Mean commute times are not an accurate measure when comparing end-to-end travel time. Many individuals do not live at UNC and work at Alston, or vice-versa. There are many destinations, employment centers, and residential areas along the corridor that would be reached in shorter times, especially during congested peak periods. The activity centers within walking distance of the D-O LRT Project include:• Major Universities: UNC Chapel Hill (UNC) and Duke University• Major Medical Facilities: UNC Hospitals, Durham Veterans Affairs (VA) Medical Center, and Duke University Medical Center• Employment Centers: area hospitals and universities, mixed-use office and retail, including Patterson Place, South Square, the American Tobacco Campus, and downtown Durham• Athletic Facilities: Dean E. Smith Center, Kenan Memorial Stadium, Finley Golf Course, and Durham Bulls Athletic Park (AAA baseball)• Major Arts and Cultural Facilities: the William and Ida Friday Center for Continuing Education (Friday Center), Sarah P. Duke Memorial Gardens, Carolina Theatre, Hayti Heritage Center and the Durham Performing Arts Center• Major Transportation Hubs: Durham Station (intercity, local, and regional bus service) and the Durham Amtrak Station.

First Name Last Name

Comment

D-O LRT FEIS / ROD

Judith

Mellyn

D-O-LRT DEIS Comment[removed email]10/1/2015 3:03 PM"GoTriangle" <info@ourtransitfuture.com>D-O-LRT Alternatives Analysis is skewed to result in LRT despite its lack of competitiveness -Why, if the Charlotte metro population results in a static 16,000 Lynx riders, despite its 17% population growth and 33% increase in Uptown workers across the 7.5 years it's been operational, does the D-O-LRT DEIS predict 23,000+ daily riders for Durham/Orange's far lower population, a population that will not grow by 2040 to equal Charlotte today?Is GoTriangle aware that Charlotte has the distinction of having the worst traffic congestion in NC in 2015 notwithstanding its Lynx LRT, and has that knowledge combined with the static 16,000 riders been incorporated into the D-O-LRT ridership and traffic mitigation analysis?It is because the high level of ridership predicted is so suspect, particularly when viewed in light of the Charlotte reality that I support NO BUILD.[removed name]Chapel Hill, NC

Comment Responses

DEIS/Errata References

*FEIS/ROD section 1.4, Table FEIS-2, DEIS errata 19 clarifies "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened."Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).The link below includes documentation on the Triangle Regional Model (TRM) V5 as it was deployed for the 2040 Metropolitan Transportation Plan (MTP) by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO).https://sites.google.com/a/ncsu.edu/dchc-mpo/home/trm-v5-dataThis model serves as the basis for the travel demand modeling performed for the DEIS as explained in DEIS section 3.1, Public Transportation, and DEIS appendix K2, Travel Demand Methodology and Results Report.In the documentation, particularly pertaining to items such as Alternative-Specific Effects, the methodology differs from the modeling work described in the DEIS for the Durham-Orange Light Rail Transit Project. This is because the TRM is only capable of applying one set of Alternative-Specific Effects for all individual fixed guideway transit projects in the model at a time. As the DCHC MPO MTP has two fixed guideway transit projects (Durham-Orange Light Rail; Durham-Wake Commuter Rail) in their adopted MTP, the MPO decided to use a hybrid of the recommended Alternative Specific Effects for Commuter Rail and Light Rail in the 2040 MTP, knowing that this approach would not be what would ultimately be accepted for FTA purposes if either project advanced.The work in the DEIS builds upon the work in the 2040 MTP, using the TRM V5 as a tool, but then deviates from the MTP approach by applying Alternative Specific Effects for light-rail-only (excluding commuter rail) in the DEIS, which was done according to FTA best practice recommendations.Additional questions about the Jobs and Housing inputs should be directed to the DCHC MPO.*

DEIS section 3.1  
DEIS appendix K2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 19

First Name

Last Name

Comment

<b>Judith</b>	<b>Mellyn</b>	D-O-LRT DEIS Comments[removed email]10/1/2015 3:17 PM"GoTriangle" <info@ourtransitfuture.com>D-O-LRT Alternatives Analysis parameters and assumptions are skewed to result in LRT as the chosen alternative -Why was a bus rider survey used to support using a 40% zero car ownership population as a parameter underlying LRT ridership estimates when bus riders alone are not a statistically representative population to determine area residents' vehicle ownership, particularly when census data reflects no more than 10% zero car ownership in the counties?How does this LRT plan provide the critical future flexibility of transit solutions that will be needed as our counties continue to experience changing population growth locations, employment center relocations and rapidly emerging technology advances that may easily result in the obsolesce light rail and its fixed route?Why, particularly in this academic/technology/research centric area, were known emerging transit technology options ignored making this a circa 2015 not 2040 system and the ability of BRT to provide interim transit improvements and both cost minimization (as to LRT) and routing flexibility for the future not included in the analysis?It is because the parameters and assumptions employed in DEIS analysis were tailored to force the result of an LRT solution that I support NO BUILD[removed name]Chapel Hill, NC
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*Comment Responses*

*DEIS/Errata References*

*As per DEIS appendix K2, section 5, "Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership." The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the make up of all households within the D-O Corridor.*

DEIS section 2.2.1  
DEIS appendix K2

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>*

First Name	Last Name	Comment
<b>Judith</b>	<b>Mellyn</b>	D-O-LRT DEIS Comments[removed email]10/1/2015 3:22 PM"GoTriangle" <info@ourtransitfuture.com>D-O-LRT Alternatives Analysis in the DEIS does not provided underlying information that would demonstrate competitiveness - How many 'new riders' per year (year of operational start through 2040) are expected for LRT and what is total ridership per year (year of operational start through 2040)? This information is critical to a taxpayer being able to understand cost/benefit and funding risks from 2026 –2040 and is not provided in the DEIS. It is for this lack of transparency in publicly available information that I support NO BUILD[removed name and city]

*Comment Responses*

*DEIS/Errata References*

*The ridership modeling prepared for the D-O LRT Project utilizes the Triangle Regional Model (TRM) V5 as it was deployed for the 2040 Metropolitan Transportation Plan (MTP) by the Durham-Chapel*

DEIS section 3.1  
DEIS appendix K2

**D-O LRT FEIS / ROD**

Hill-Carrboro Metropolitan Planning Organization (DCHC MPO).<https://sites.google.com/a/ncsu.edu/dchc-mpo/home/trm-v5-data>This model serves as the basis for the travel demand modeling performed for the DEIS as explained in DEIS section 3.1, Public Transportation, and DEIS appendix K2, Travel Demand Methodology and Results Report. In the documentation, particularly pertaining to items such as Alternative-Specific Effects, the methodology differs from the modeling work described in the DEIS for the Durham-Orange Light Rail Transit Project. This is because the TRM is only capable of applying one set of Alternative-Specific Effects for all individual fixed guideway transit projects in the model at a time. As the DCHC MPO MTP has two fixed guideway transit projects (Durham-Orange Light Rail; Durham-Wake Commuter Rail) in their adopted MTP, the MPO decided to use a hybrid of the recommended Alternative Specific Effects for Commuter Rail and Light Rail in the 2040 MTP, knowing that this approach would not be what would ultimately be accepted for FTA purposes if either project advanced. The work in the DEIS builds upon the work in the 2040 MTP, using the TRM V5 as a tool, but then deviates from the MTP approach by applying Alternative Specific Effects for light-rail-only (excluding commuter rail) in the DEIS, which was done according to FTA best practice recommendations. The model analysis does not forecast new riders for each year of operation. It focuses on the forecast of ridership in the year 2040. Additional questions about the Jobs and Housing inputs should be directed to the DCHC MPO. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.

FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 30, 32, and 33

First Name	Last Name	Comment
Judith	Mellyn	D-O-LRT DEIS[removed email]10/1/2015 3:31 PM"GoTriangle" <info@ourtransitfuture.com>Existing and Future Transit Supportive Land Use Plans Not Supported -Why doesn't the D-O-LRT corridor align with existing and future land use plans particularly in Chapel Hill where the highest concentration of density development is planned along the west side of US15/501 (over 3 million square feet mixed use currently planned) along with high density complexes located just south of US15/501 and NC54 intersection( Southern Village, Obey Creek)?If the goal is to support transit oriented developments, why does the preferred alignment C2A have two stations less than ½ mile apart on the same side of a major highway bypassing a 435 acre, residential/retail/commercial/medical TOD on the opposite side of the highway that has a reserved 50' wide transit guideway, whose density build approval was based on its transitroute, and can be served by C1A, an alignment the Corps of Engineers stated they could support?How is Woodmont (C2A) station justified vis a vis C1A, or alternative alignments on the north side of NC54 or median running on NC54, when it has minor buildable acreage with no surety of development, is landlocked by protected wetlands that cannot be further developed and is easily walkable to the Friday Center station (~ ½ mile)?Why does GoTriangle rely on the blanket statement 'does not complement' land use plan when expedient to justify rejection of an alignment but does not equally apply this logic to its choice of preferred alignments? (See C2B, NHC and Farrington ROMF and Chapel Hill land use plans)It is because the LRT alignment does not support existing and planned land use for density build developments, even though this is a stated goal, that I support a NO BUILD option.[removed name and city]



*Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas (DEIS section 4.1). Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments.*

*The Town of Chapel Hill requested that alternatives to the C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the proposed D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning. The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (DEIS appendix G). The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-*

way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the DEIS and are summarized in DEIS chapter 8, Evaluation of Alternatives. The LRT corridor through Meadowmont has been reserved as a provision of the approved master plan and special use permit. Transfer of that corridor for use to implement LRT would be initiated once the final corridor is approved if applicable. The Chapel Hill Town Council, which regulates land uses at Meadowmont and would exercise the most control over such a decision, has suggested in previous comments and resolutions that they do not feel compelled to build the light rail through Meadowmont despite earlier land use plans that considered that as a possibility.

First Name	Last Name	Comment
Roger	Messier	I am opposed to the light rail as it is designed today. Light rail is extremely costly and will service a small portion of the population. It does not connect research triangle Park. It does not connect Raleigh. It does not connect to the airport. These are the highest traffic areas that need to be addressed. Not a train system that runs from Chapel Hill hospital to Duke hospital. The summary report put out by go triangle is misleading. The pictures they show are pictures of I 40 not pictures in the area of the light rail. Their figures for the cost of the light rail are under what it would actually cost. I am for improved public transportation but the light rail is a bridge to nowhere. It will not service enough of the population to make it worth it's cost. All you have to do is look at charlottes light rail and see that it has cost more and more every year and does not serve any more people since it has been initiated. A rapid transit bus service would be more flexible and would serve the area just as well without all the pollution and the cost. It seems to me that a rapid transit bus should be tried to see what the rider population would be in this corridor. With The train making 150 stops every day it seems that the noise pollution and traffic congestion will just increase not decrease. They have not even provided enough parking for people who wish to take the train. Walking traffic is not really going to happen that's a myth. Please stop this useless waste of taxpayer dollars. Thank you

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<p><i>Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (DEIS Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in DEIS section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <a href="http://www.WakeTransit.com">http://www.WakeTransit.com</a></i></p>	<p>DEIS section 2.1 FEIS/ROD section 1.4 FEIS/ROD Table FEIS-2 DEIS Errata 17</p>
<p><i>Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional</i></p>	

**D-O LRT FEIS / ROD**

*bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>.*

First Name	Last Name	Comment
Roger	Messier	I am opposed to the light rail as it is designed today. Light rail is extremely costly and will service a small portion of the population. It does not connect research triangle Park. It does not connect Raleigh. It does not connect to the airport. These are the highest traffic areas that need to be addressed. Not a train system that runs from Chapel Hill hospital to Duke hospital. The summary report put out by go triangle is misleading. The pictures they show are pictures of I 40 not pictures in the area of the light rail. Their figures for the cost of the light rail are under what it would actually cost. I am for improved public transportation but the light rail is a bridge to nowhere. It will not service enough of the population to make it worth it's cost. All you have to do is look at charlottes light rail and see that it has cost more and more every year and does not serve any more people since it has been initiated. A rapid transit bus service would be more flexible and would serve the area just as well without all the pollution and the cost. It seems to me that a rapid transit bus should be tried to see what the rider population would be in this corridor. With The train making 150 stops every day it seems that the noise pollution and traffic congestion will just increase not decrease. They have not provided enough parking for people who wish to take the train. Walking traffic is not really going to happen that's a myth. Please stop this useless waste of taxpayer dollars. Thank you

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**D-O LRT FEIS / ROD**

serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>.

First Name	Last Name	Comment
Ellen	Michelson	<p>Dear Mr. Mitchell, I am writing you to submit officially my strong opposition to the proposed site for the light rail and maintenance facility in Durham County, ncl have lived within 2 miles from this location for over 30 years. To be honest I wish that the planners had done a better more complete job. There is not a bigger tree hugger among us. I would love to see a solution for the congestionat the intersection of 54 and fearrington rd and 40. This in fact contributes instead of solve the current issues. it is extremely sad that in evaluating this site thecomplete environmental impact was not considered. While it is true that there are very few people living on the "footprint" of the proposed asphalted location, the impact extends beyond this proposed asphalt site. if one were to visit the neighborhood you would see very quickly that this is a VERY low density RESidential area and not a commercial one. I currently live east of the project and have a pond. I have called Durham to report runoff and they don't even call back. a few years back when our gravel street was paved I called because the excess yellow paint from the center line had been dumped on the side of the road. I was told that it would cause more damage to clean it up than to leave it there. It is very scary that we are even considering putting such an important project into thehands of such completely incompetant workers. I have been living here because of the low density. There is a non-profit animal sanctuary just south east of the location. It is called Piedmont Wildlife. perhaps someone could take a look at the impact on this. in my own yard i have witnessed Bald Eagles, Fox, coyote, racoon and even Bob cats. it would be very sad if this facility was built, The noisealone would definitely scare them off, let alone the increase in impermeable surface would definitely cause more run off than you can imagine. The Clay nature of the soil inthis area is unable to handle any added moisture. In addition, when the GoTransit folks gave presentations to caring citizens they admitted that they had not considered the mess at the Farrington Rd and 54 intersection. I understand that in addition there is a proposal for a parking lot to accomadate 900 cars. This is adsurd. I strongly encourage you to take a look and walk or bikethe vicinity and you will see why this is wrong. There is a sign designating the current bus stop at this intersection. If you observe other more frequently usedbus stops in Durham you would witness a very active situation...shopping carts used as benches, solar power, signage, etc. I urge you to consider a different location. Thank you, [name removed]</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF*

- DEIS section 1.2.2
- DEIS section 4.1.4.1
- DEIS section 4.4.3.1
- DEIS section 4.8.3.1
- DEIS section 4.10.4
- DEIS section 4.17
- DEIS section 4.17.1.3
- DEIS section 4.17.2.3
- DEIS section 8.2.2

**D-O LRT FEIS / ROD**

*Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMFAs stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the “Farrington Road ROMF Alternative” subsection or DEIS section 1.2.2 under the “Farrington ROMF Alternative” subsection. DEIS section 4.17.2.3 discusses the anticipated cumulative impacts to water quality from the NEPA Preferred Alternative, including the ROMF. These impacts would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. The project will comply with stormwater management permitting requirements and include DWR stormwater management BMPs. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 103 clarifies that the ROMF site plan will manage stormwater runoff in a manner consistent with local and state regulations to avoid and minimize impacts to neighborhoods and community resources in the vicinity such as Leigh Farm Park and the Piedmont Wildlife Center.*

DEIS section 8.2.2.1  
DEIS appendix K21  
FEIS/ROD section 1.2.2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
FEIS/ROD Table ROD-2  
DEIS Errata 21, 22, 52, 70, 76,  
78, 93, 94, 95, 102, 103, 104,  
110, 119, 121 and 137

*DEIS section 4.7 discusses the natural resources located within the D-O Corridor, including wildlife and habitats, with a focus on ecologically-sensitive areas and contiguous expanses of undisturbed lands. It documents federal and state-listed threatened and endangered species (fauna, flora, aquatic, and terrestrial). This section also identifies the potential effects to natural resources that would result from implementation of the alternatives under study in this DEIS. Where potential adverse effects are identified, efforts to avoid, minimize, or mitigate these effects through design*



*modifications are also discussed. Additional detail regarding the natural resources located within the D-O Corridor is contained in appendix K21. Table 4.7-3 indicates the acreage of each biotic community that falls within the NEPA Preferred Alternative. Under the NEPA Preferred and Project Element Alternatives, no significant adverse impacts to terrestrial or aquatic habitat are anticipated. Under the NEPA Preferred Alternative, significant adverse impacts to terrestrial or aquatic wildlife are not anticipated. Limited wildlife disturbance would occur for the duration of the construction activities (DEIS section 4.16). Impacts to wildlife are expected to be limited after construction is completed. The NEPA Preferred Alternative is not anticipated to result in significant impacts to federal or state-listed threatened or endangered species, or their habitats.*

*Water resources are discussed in DEIS section 4.8. DEIS section 4.8.3.1 summarizes the potential impacts the NEPA Preferred Alternative (which includes the Farrington ROMF). Indirect Effects to Water Resources are described in DEIS section 4.17. As stated in DEIS section 4.17.1.3 under the Water Resources sub-heading, existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 92 clarifies that as the design progresses, construction related impacts, including temporary impacts or otherwise, will be identified and will be included as part of the 401 Water Quality Certification application. Section 1.4 of the combined FEIS/ROD, DEIS Errata 102 provides language that if hydraulic studies during Engineering determine that the NEPA Preferred Alternative would cause an increase in flood levels during the base flood discharge, then a No-Rise Certification would be obtained from the NC Department of Public Safety Division of Emergency Management. If studies indicate that there would be an increase in flood levels, then a Conditional Letter of Map Revision would be requested. Section 1.4 of the combined FEIS/ROD, DEIS Errata 97 further indicates that a floodplain development permit will be obtained from the local jurisdiction for all construction, grading, development, or the storage of equipment or materials within the Special Flood Hazard Area (SFHA).*

First Name	Last Name	Comment
Norbert	Mildner	<p>I am a resident of Downing Creek an I am very concerned regards the light rail project and I am proposing a NO BUILD option for the following reasons:Having 4 " at grade level Crossing along Highway 54 will have an severe impact on the Resident of F inley Forrest , Alta Spring , Downing Creek and the surrounding resident.</p> <p>Highway 54 is backed up during rush hour and the 4 at grade level crossing will make it almost impossible to leave our resident.Vehicle will have to stop ON the track while try to enter Highway 54 which will increase travel time. ( 1 train every 10 minutes in EACH direction)The is no parking at proposed Woodmont station and not enough at Friday center location.The Woodm ont station should be eliminate (To close to Friday center)</p> <p>and LRT, if built, should be moved to the North side of 54.Barbee Chapel Rd. is already over capacity and is unsafe for pedestrian / cyclist. A train crossing at grade level will make it worse.At peak time Emergency vehicle will have NO access to Downing Creek ,</p>

Which could cause someone's Life.UNC and Duke outsourcing its facility so the demand between the 2 Hospital is not as important as it was several years ago.UNC and Duke outsourced its facility to Meadowmount in lieu of the planned light rail project. Traffic congestion will not be reduced because people still have to either use park and ride or use their own car to get to the station. Projection of ridership is overly optimistic. The average freeway lane in US metropolitan areas that have built new light rail systems (since 1980) carries four times as many people per mile as light rail. Even signalized surface streets average twice as many people per mile as light rail. The modern metropolitan area is far too dispersed in residential and employment locations for any mass transit facility to be able to remove a significant percentage of drivers from automobiles. Light rail has a particular disadvantage in travel time. On average, during peak travel periods, light rail operates only slightly faster than buses but much more expensive to operate and barely one-half as fast as automobiles. BRT (Bus Rapid Transit) has been reported to be less expensive and an environmentally sound way of handling transportation. The Durham-Orange LRT does not provide service to Wake County, the largest and fastest growing segment of the Triangle and neither to the Airport, RTP. The Light Rail (LTR) is not safe because it takes the LTR 400 feet to come to a complete stop vs. a Bus. Also a simple Google search will reveal many LRT related fatalities. Once the tracks and stations are built, it takes years and lots of money to change the route vs. the BRT, which should take only a few days. I believe the LTR project is meant to pull for profit and not for the improvement of our environment. The LTR costs are escalating, and under new laws, the project will be short \$270 million from the state. Federal funding is even more uncertain.

*Comment Responses*

*DEIS/Errata References*

*The impacts of proposed D-O LRT Project on US 15-501 and NC 54 are discussed in DEIS section 3.2. In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. The Woodmont station is included in the NEPA Preferred Alternative as described in Section 2.3.2 of the DEIS. The station fits within typical spacing characteristics for LRT facilities (between one-quarter mile and two miles) and as a walk-up station it would provide access for pedestrians, bicyclists and passengers transferring from bus service. As described in section 4.1.2.3 of the DEIS, the Woodmont station area has been approved for a mixed-use project that includes 300,000 square feet of office, 70 multi-family apartments, and 60,000 square feet of retail.*

DEIS section 2.4  
 DEIS section 3.2  
 DEIS section 4.12.4.6  
 DEIS Table 2.4-1  
 DEIS Table 3.2-5  
 FEIS/ROD Table ROD-1

*As described in 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches*

*to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues). Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in Table 3.2-5. Further, the impacts of D-O LRT on US 15-501 and NC 54 are discussed in section 3.2 of the DEIS. In general, the project is not expected to have a significant affect on traffic on those roadways where it is close to D-O LRT. However, the D-O LRT will provide a competitive and reliable travel alternative to the congestion on these roadways.*

*The NEPA Preferred Alternative is expected to carry just over 23,000 trips on the project per average weekday in 2040, as shown in Table 3.1-3 of the DEIS. In general a freeway lane can carry about 2,000 vehicles per hour. A three car light rail train can carry about 600 people, including standees. Using 15-minute frequencies, light rail can carry 2,400 people compared to the 2,000 vehicles per hour. Additionally, light rail can be expanded by adding a fourth vehicle, or operating more frequent service to greatly increase capacity.*

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on ourtransitfuture.com. Wake County: The Wake County Transit Plan is currently evaluating future potential transit corridors, which could be studied if a funding source is secured for transit in Wake County. . For more information, please see WakeTransit.com.*

*EMS: Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations and to get input during the development of the SSMP. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

First Name	Last Name	Comment
Margaret	Miller	The DEIS says there is little opposition to the Farrington Rd. site for the ROMF location. This is contradicted by the 200 plus angry residents converging on GO Triangle's representatives at the August 18 meeting at Creekside Elementary School (100 yards from this ROMF site). The stated purpose of the meeting was to get input on how to build the ROMF to alleviate a nearly page-long list of concerns Go Triangle had heard of once they actually notified area residents of their "done deal". The emphatic message to Go

Triangle, spoken loud and clear: NO industrial rail yard in our residential neighborhood. Of course this meeting was scheduled before the 45-day public comment period began so the overwhelming message from these local citizens does not appear in any official record. I hope this e-mail will change that omission. Margaret Miller

*Comment Responses*

*DEIS/Errata References*

*Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6. The FEIS/ROD includes recognition of localized opposition to the NEPA Preferred ROMF site at Farrington Road. DEIS Errata 137 for Chapter 9 added clarification regarding public open houses completed and the top concerns and corresponding desired mitigation measures.*

DEIS chapter 9  
DEIS appendix J  
FEIS/ROD section 1.4  
FEIS/ROD section 2.6

First Name	Last Name	Comment
Jeff	Miller	<p>October 12, 2015 Downtown Durham, Inc. (DDI) supports the future Durham Orange Light Rail system, and is grateful for the hard work GoTriangle has done on this project to get the process to this point. DDI is a private, non-profit organization dedicated to the long-term economic health of Downtown Durham. We do have concerns about station placement in Downtown and how that will effect ridership. Recent studies of light rail systems have proven that proximity to jobs is the most important factor effecting transit ridership. These two recommendations are small changes that will make the transit stops more accessible to existing and planned office developments in Downtown Durham:</p> <ol style="list-style-type: none"> <li>1. Create a new "Center City" Station between Mangum St. and Blackwell St. This location is the epicenter of the revitalization of Downtown Durham, and makes several large job centers less than a ¼ mile "short walk" from the station. These sites include: The Durham County Courthouse, American Tobacco, Durham Bulls Athletic Park, the Durham County Main Library, and many other job sites.</li> <li>2. The Transit Center Station should be moved back to the Duke Street property where it was initially planned. This property also has opportunity for development of retail and other commercial spaces on land already owned by GoTriangle. Its adjacency to the Amtrak, bus and future Commuter Rail Station will facilitate intermodal transfers. Durham Area Designers have done a series of scaled drawings for this proposal which demonstrate it meets engineering constraints. Light Rail is a proven strategy for economic development, and this project will help Durham and Chapel Hill become more sustainable urban centers by connecting people to jobs, providing alternatives to car commuting, and reduce our reliance on parking. We need to ensure this Light Rail plan has the greatest opportunity for success and connecting people to jobs. Thank you for your consideration of these concerns.</li> </ol> <p>Jeff Miller (Signature) Chair, Board of Directors Geoff Durham (Signature) DDI President &amp; CEO</p>

*Comment Responses*

*DEIS/Errata References*

*The lease agreement with NCRRC has not been finalized. The NCRRC Board of Directors authorized NCRRC management to enter into lease negotiations with Triangle Transit in May 2015 based on the preliminary design at that time. A letter from NCRRC President Scott Saylor describing this is available on the Triangle Transit website at the following link:  
[http://ourtransitfuture.com/wp-content/uploads/2015/02/NCRRC-Letter\\_Board-Resolution\\_DOLRT\\_052820151.pdf](http://ourtransitfuture.com/wp-content/uploads/2015/02/NCRRC-Letter_Board-Resolution_DOLRT_052820151.pdf). Changes to the preliminary alignment and station locations with respect to the NCRRC*

DEIS chapter 2  
DEIS chapter 3  
DEIS section 2.3.2.2  
DEIS section 3.1.3.1  
DEIS section 3.4.2.2  
DEIS section 5.3

**D-O LRT FEIS / ROD**

*right-of-way will re-open this initial agreement with NCR. NCR will have final review and approval authority over all D-O LRT engineering plans within the NCR right-of-way in Durham.*

DEIS section 9.3.5  
DEIS Table 3.1-4  
DEIS Table 5.3-1  
FEIS/ROD section 1.4  
DEIS Errata 45 and 48

*A proposed station between Blackwell and Mangum Streets was eliminated from consideration based on qualitative assessment, preliminary ridership modeling, environmental justice considerations, and discussions with the City of Durham. As such, a quantitative comparison to the NEPA Preferred Alternative was not conducted.*

*The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project's design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. As section 1.4 of the combined FEIS/ROD, DEIS Errata 45 clarifies; the NEPA Preferred Alternative would impact the proposed project of grade-separating the existing NCR corridor at Blackwell and Mangum Streets. However, this proposed project, which is separate from the D-O LRT Project, has not been funded and is unlikely to be implemented according to the NCDOT Rail Division and the DCHC MPO. Triangle Transit will continue coordination with the NCDOT Rail Division and the DCHC MPO during Engineering. As a result of this ongoing coordination with both North Carolina Railroad (NCR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street and removing the grade separations at Blackwell and Mangum Streets (the Great Wall of Durham). In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS sections, 2.3.2.2, section 5.3 (Table 5.3-1), and 9.3.5 for more information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCR Corridor along West Main Street (DEIS section 3.4.2.2). In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 48 indicates that the existing pedestrian connection between the Durham Station and Amtrak Station will be maintained. As described in DEIS section 3.1.3.1, major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (see DEIS Table 3.1-4 for additional detail on 2040 daily ridership forecasts by station). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional station*

**D-O LRT FEIS / ROD**



at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell and Mangum Streets would also require the negotiation and approval of an additional property operating and maintenance agreement with NCRRC beyond what is expected to be required for current alignment and may have an impact on the Old Bull Building which is a National Historic Landmark. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in costs that are not offset by increases in ridership could result in a reduction in the project's FTA Cost Effectiveness rating, which is how the project is evaluated for Federal funding. Operational concerns of adding a station between Blackwell and Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.

First Name	Last Name	Comment
Margaret	Miller	My name is [REMOVED NAME]. I live at [REMOVED ADDRESS, CITY, STATE, ZIP, COUNTY, CITY]. The Farrington, Trenton, Prescott Place, and Culp Arbor neighborhood associations strongly oppose the Farrington Road ROMF location as wrong on every level; most notably, the incompatibility of land use in a low-density residential area and environmental concerns with storm water runoff. If the ROMF comes to pass, the following mitigation steps are essential: One, storm water retention pumps to maximize -- to minimize toxic runoff via streams, and an NN in the DIS Appendix K22. This runoff goes beneath I-40 into Leigh Farm Park, New Hope River Waterfowl Impoundment, and Jordan Lake. Two, reconstruct Trenton Road with a new larger culvert beneath it to handle increased flow from storm water runoff associated with the 26 acres of impervious surface. Currently, Trenton Road overflows and can become impassable with only I-40 impervious surface. Three, provide a noise and visual abatement wall on the Farrington Road side of the ROMF in consultation with Culp Arbor. If the entire ROMF is wall, make certain a wall is also constructed on the other side of I-40, the entire length of the ROMF, to mitigate noise projection into Trenton and Prescott neighborhoods, minimize light pollution from the nighttime operation of the ROMF, and provide city water to the homes on Trenton Road that utilize wells. ROMF runoff is toxic. Connection to sanitary sewer is essential because putting chlorinated city water into septic systems causes them to fail. GoTriangle should pay.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in*

- DEIS section 1.2.2
- DEIS section 2.2.3
- DEIS section 4.1.4.1
- DEIS section 4.4.3.1
- DEIS section 4.8.3.1
- DEIS section 4.10.4
- DEIS section 4.11.3
- DEIS section 8.2.2.1

*DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the “Farrington Road ROMF Alternative” subsection or DEIS section 1.2.2 under the “Farrington ROMF Alternative” subsection.*

FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 21, 52, 94, 104,  
and 119

*DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately –owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.*

First Name Last Name

Comment

D-O LRT FEIS / ROD

My name is [REMOVED NAME]. I live at [REMOVED ADDRESS, CITY, NAME], but it's in [REMOVED COUNTY AND CITY]. In her presentation to the council, Ms. Murdock failed to mention the proximity of Creekside Elementary School, which is closer to the Farrington ROMF site than the Levin School [sic] and the Maureen Joy Charter School to the proposed Cornwallis ROMF, both cited as reasons not to select Cornwallis. Why the discrepancy? Chapel Hill cited Rashkis Elementary as a reason to move the light rail completely out of Meadowmont. Why the double standard? Ms. Murdock made no mention of the major transportation corridor which calls for a 100-foot undisturbed buffer beyond the interstate right-of-way as well as 50-foot stream buffers. DEIS shows streams band and -- and wetland triple band on the Farrington ROMF site to lie within the MTC overlay. Ms. Murdock failed to mention the Durham planning director Steve Medlin, that his writings about the Farrington site are as follows: Planning staff would be unable to support the planned amendment needed to allow the ROMF to proceed. We find an industrial use to be incompatible with the existing land-use pattern, low residential, and/or designated future land uses. Potential 100-foot stream buffer requirements would significantly alter the proposed footprint of the ROMF. No mention of the Epcon – Epcon Culp Arbor sewer easement, which traverses the entire Farrington ROMF and is supposed to remain undisturbed and fully accessible for long-term maintenance. Also, no mention of the underlying geology, the need for the Farrington site, which Epcon can readily provide from its soil borings for the sewer. Underlying rock would create technical difficulties and considerable costs with respect to digging cisterns for stormwater retention. Already heavy stormwater runoff from six lanes of interstate pavement causes stream to overflow its banks and at times cover Trenton Road. Additional runoff from 26 impervious acres is mind boggling. Thank you.

### Comment Responses

### DEIS/Errata References

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 1.2.2  
 DEIS section 2.2.3  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.10.4  
 DEIS section 4.11.3  
 DEIS section 4.17.2.3  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS section 8.2.2.2  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-2  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119, 121, and 137

*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is*

expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the "Farrington Road ROMF Alternative" subsection or DEIS section 1.2.2 under the "Farrington ROMF Alternative" subsection.

DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately-owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be

*captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. DEIS section 4.17.2.3 discusses the anticipated cumulative impacts to water quality from the NEPA Preferred Alternative, including the ROMF. These impacts would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. The project will comply with stormwater management permitting requirements and include DWR stormwater management BMPs. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 103 clarifies that the ROMF site plan will manage stormwater runoff in a manner consistent with local and state regulations to avoid and minimize impacts to neighborhoods and community resources in the vicinity such as Leigh Farm Park and the Piedmont Wildlife Center. Soils present in the vicinity of the ROMF are identified in Appendix K21. Underlying geologic conditions at the proposed ROMF site will be further assessed during project engineering.*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS).*

First Name	Last Name	Comment
Ellen	Moul	I am writing to comment on the DEIS for the D-O LRT and to express my support in favor of the NO BUILD OPTION. My reasons for not supporting it are as follows: 1. The project is based on fundamentally unsound ridership projections and will not result in any appreciable reduction in automobile congestion in the Chapel Hill-Durham road corridor. 2. The routing of the proposed light rail track is not aligned with the higher density compact neighborhood developments in Orange and Chatham counties nor does it offer connections to RDU Airport, RTP, or Wake County. 3. There is no incentive to take light rail to reduce travel time between Durham and Chapel Hill, with an estimated LRT time of 42-44 minutes end to end, versus a projected automobile commuting time of 27 minutes in 2035. LRT projections DO NOT include automobile commuting time to the station parking lots or wait time at the platform. This is neither convenient nor does it reduce automobile congestion. 4. The maintenance facility proposed for Farrington Road will require rezoning of approximately 20 acres. This is an incompatible use of land to build a maintenance facility in a residential and environmentally sensitive area. There will be a negative impact of light and noise disturbing surrounding



neighborhoods 24 hours a day, 7 days a week.5. The 1.6 billion dollar capital cost associated with this project is not a responsible use of scarce resources for mass transit development. Funds can be better allocated to conventional bus service, which offers flexibility as areas grow. For all these reasons and more, I support the NO BUILD OPTION. Let's learn from Wake County (the fastest growing county) who voted against light rail. The population density is not sufficient to justify this huge investment in light rail.

*Comment Responses*

*DEIS/Errata References*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

DEIS section 1.2.2  
 DEIS section 3.1.1  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.10.4  
 DEIS section 8.2.2.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17, 30, 32, 33, 52,  
 and 104

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.*

As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the “Farrington Road ROMF Alternative” subsection or DEIS section 1.2.2 under the “Farrington ROMF Alternative” subsection.

First Name	Last Name	Comment
Felicia	Mundy	1 First concern is poor land use. Many areas that will be impacted that will require current historic and environmentally sensitive areas to be developed. ROMF site is an industrial use that is planned in a residential area.2 What studies have been completed to determine ground water contamination. I am very concerned about that impact3 The cost of this project is exhorbiant and other options for mass transit should be explored. There is a reason Wake County in not going through with a similar project. Look at charlotte’s ridership numbers.4 The light rail will negatively impact our traffic & there hasn’t been coordination with the NC department of transportation.

Comment Responses	DEIS/Errata References
<p><i>DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately –owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of</i></p>	<p>DEIS section 2.2.3  DEIS section 3.2.2  DEIS section 3.2.4  DEIS section 3.3.4  DEIS section 4.8.3.1  DEIS section 4.11.3  DEIS Table 3.2-3  DEIS Table 3.2-5  FEIS/ROD section 1.4  FEIS/ROD Table FEIS-2  DEIS Errata 21, 94, 95, and 119</p>

*maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.*

*NCDOT is a participating agency for the DEIS and has been coordinated with throughout the project development process. DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues). Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in Table 3.2-5.*

First Name	Last Name	Comment
Giang	Nguyen	I object the light rail project because it is too expensive while beneficial to only a small portion of our population. Unlike densely populated cities, the Chapel Hill - Durham area is spread out. In order to serve the transportation needs of the majority of our population, a public transit system needs wide coverage, something that the light rail project can not address. In particular, the light

rail does not go to RTP, where there is a huge demand for public transit for commuters and where I expect future population growth to come from. Instead, it only connects the two universities (UNC and Duke). The population related to these universities is expected to be stable over time. I don't see the need to address "future populston growth" for the population related to these universities. Also, for transportation needs between the two campuses, we already have the Robertson bus.I still see the bus system as superior,cheaper,and yet capable of serving more people in our area than this light rail project. I prefer my tax dollars being invested in improving bus services (increase freaquency,expand routes etc...)

*Comment Responses*

*DEIS/Errata References*

*Chapter 1 of the DEIS provides detailed information on the population growth forecasted for the Triangle region and the rationale for a fixed guideway transit system to address future travel patterns and promote future development consistent with local land use plans. Section 1.5 of the DEIS addresses the need for the D-O LRT Project.Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project.RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail.Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.*

DEIS chapter 1  
FEIS/ROD section 1.4  
DEIS Errata 17

*Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com).*

First Name	Last Name	Comment
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Nathan	Nicely	I was told I should email these again so that they become part of the written record, sohere they are.1.At the homeowner's association meeting at the Pope's Crossing neighborhood July 30, 2015 a representative from GoTriangle stated clearly that studies showed homes near light rail stationsaveraged a 3 to 25% increase in property value. I have reviewed a fair number of studies and have never seen one that would justify this statement - the effect she spoke of, when it appears,is generally modest, is not well described by percentage, and if it were forced into percentage would be an average of 3 to 5 percent. It is possible that the
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representative found one very specific instance of a home going up 25%, but we could easily find one that goes down the same percentage if that is the case. Please supply the references that show homes are likely to go up in value as high as 25% and include links to these studies so we can review them.2.At the homeowner's association meeting at the Pope's Crossing neighborhood July 30, 2015 a representative from GoTriangle described the horn used by a light rail train to warn of its approach to a complex railroad crossing as being between 100 and 105 decibels and being four blasts, 2 long, 1 short and 1 long. Given that the crossing at the intersection of Pope Road and Old Durham Chapel Hill Road includes a roundabout with four roadway connections and is intersected diagonally by the light rail, the likelihood of the horn being required for safety is extremely high. The horn blasts starting 15 seconds before the train meets the intersection, as the requirements state, would put homes nearby, one only 80' from the tracks right where the horn would sound, at great risk of a severe drop in value due to extreme noise and vibration. Please send links to the guidelines for how the horn decision is made and explain what Triangle Transit would do to protect these homes.3.After an informative presentation by Go Triangle on 7/30 by [names removed] my biggest concerns are the removal of trees and the effect of erosion, pollution and noise from I40 until the new landscaping has a chance to mature. I don't think my property will be as severely affected as the owners further down and I sure feel bad for them but I am fearful of the unknown problems that could arise from removing so many mature trees with their massive root system and also the impact on our drainage systems. Progress is good and for that I am not opposed to the general idea of getting ahead of transportation issues we are sure to face 20 yrs from now. I want to hear the bad with the good. No need to sugar coat it. I personally prefer to be prepared for the worse and pleased in the end when it "wasn't that bad". There are certainly cons and I want to hear FACTS on those along with the obvious sales pitch we heard last night. I do appreciate the time and efforts on both sides.4.I am concerned about several issues:Noise abatement – the trees proposed to be removed and replaced won't do the job. The noise of trains running every 10 min. means possibly two trains every 10 minutes, since trains go both directions. Noise of accelerating and decelerating due to station: Measure of decibels reported at our HOA meeting was of train going smoothly and consistently at 40mph? (Not the case here.) Train horns, bells and flashing lights at crossing 18 hours/day. Vehicles idling, starting to move again. Traffic WILL increase on Pope Road (no, Olde Coach is unlikely to be affected, as stated at meeting), but Pope Rd WILL be, and numerous houses back up to Pope Rd. Overall if I phrase this as a question, it would be if you have really considered all the factors contributing to noise and unease in the Pope's Crossing neighborhood, because it seems you have only considered each contribution on its own merits?Also, construction noise – and for how long...a year?I am general unhappy with the transit company for the lack of information provided to our neighborhood. Even though the website stated that all affected homes would be notified, it appears they meant only those that would be able to reach out and touch the train (I don't know if even those people at the north end of Pope's Crossing were contacted). I was literally told via email that, since my home is 750 feet from the rails, I won't be affected!That is ridiculous.5.Where the light rail comes closest to a house in the neighborhood - a distance of 80' is awfully close. Is there no way to make the arc greater so that the train can swing farther away from that house? Maybe extend the distance to 100' or 120'?6.Can we get a sidewalk running from Gateway station down the west side of Pope Rd to Fountain Ridge Rd? Would there be a pedestrian bridge over Old Durham/Old CH Rd connecting PopeRd sidewalk to Gateway Station, 50 yds south of the traffic circle?7.The neighborhood without a doubt is noisier than when I arrived in 1988. When I moved in, you could not tell there was a highway there at all. Since then I-40 has been extended and widened.The traffic and noise have gone way up as the trees have come down. Lane construction some years ago created powerful thumping noises and vibration at night, enough to wake me from sleep.I'm very concerned about the noise level. You claim the addition of the train will not increase what is already there. But as I said, noise has gone up dramatically over the years. I worry your evaluation is akin to the frog in the pot. Turn the heat up gradually and the frog will never jump out. In the same way, I worry that you consider only incremental changes at a given time and not the cumulative effect over the years.Will you accept a third party noise evaluation by the neighborhood before and after the rail project, and if that evaluation determines noise has increased, will you



then be bound to remediate that noise back to the pre-rail level? How will you manage construction noise so that it does not disturb the neighborhood? The thought of a horn and/or barrier bells every 10 minutes as the trains run worries me too. What are your plans to eliminate this noise from the neighborhood. Remember, you claim the train will not add to the existing noise level because noise does not combine. I worry this will prove false. The benefit of a local rail station to me will depend largely on my ability to walk to it. Pope Road is not pedestrian friendly. What will you do to make a safe walking route from Pope's Crossing to the rail station? What is the type, initial size, growth rate, adult height, lifespan, and replacement schedule for the trees you said you'd plant to replace the ones you remove? How long will the construction of the Gateway station and the rail line near Pope's Crossing take? Will you monitor traffic on Pope Road and what measures will you take if traffic goes up? I don't have any questions. I just hate this whole plan. It won't solve the problem of increasing traffic on 15-501, and it's painfully obvious you haven't thought through and modeled every aspect - the noise, the cost, the long-term financial support. If you really want to provide a viable public transit option, you need to stop looking at congested corridors (54, 15-501), and START looking at where people are trying to go. The RDU airport. The hospitals. Downtown Durham. Franklin St. Existing park-and-rides and garages. Build a route linking those focal points cleanly and efficiently. As it is you're linking just a few key locations with this one circuitous route. Then instead of tracking through easements, woods, and watersheds, use eminent domain to devise a sane, efficient route. Specifically with regards to Pope's Crossing, it'd be the greater justice to simply buy and demolish all the homes than try to convince us of the lies that the noise won't be noticeable, that the property values will increase, traffic will be the same, and other such rubbish.

*Comment Responses*

*DEIS/Errata References*

*Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail. Triangle Transit has looked at several studies regarding property values nationwide. Links to the summaries for those issues are available on [ourtransitfuture.com/faq/](http://ourtransitfuture.com/faq/). More information can be found at <https://www.stlouisfed.org/publications/bridges/winter-20032004/lightrail-transit-myths-and-realities> and at <http://uli.org/infrastructure-initiative/uli-research-roundup-the-impact-of-transit-on-property-values/>. A study published in the Journal of Transport and Land Use found an overall positive impact on the value of single-family homes along Charlotte first light rail line; see <https://www.jtlu.org/index.php/jtlu/article/download/261/242>.*

DEIS section 3.2  
 DEIS section 3.2.4  
 DEIS section 3.2.2  
 DEIS section 3.6.4  
 DEIS Table 3.2-3  
 DEIS Table 3.2-5  
 DEIS appendix K4 through K11  
 DEIS appendix K24

*A noise and vibration analysis was completed in accordance with the FTA Noise and Vibration Guidance Manual, as described in section 4.10.2 of the DEIS. The methodology considers all sources of noise and vibration related to the operation of light rail in the D-O Corridor. No noise impacts are identified for the Pope's Crossing area, however, vibration and ground-borne noise would affect one receptor location in Pope's Crossing. As identified in section 4.10.5.2 of the DEIS, detailed vibration analysis will be conducted during the Engineering phase to further evaluate geotechnical conditions*

*and more precisely predict the vibration effects of the proposed light rail system on area receptors. Upon completion of the detailed geotechnical evaluation, vibration sensitive receptors that remain impacted by project vibration will be mitigated through one or more of the special track support systems as identified in the DEIS.*

*The Federal Railroad Administration is responsible for train horn rules at at-grade railroad crossings. More information on train horn rules is available at the following website:  
<https://www.fra.dot.gov/Page/PO104>.*

*As described in section 4.16.3.10 of the DEIS, during the Engineering phase of the project when sufficient engineering detail is available, a detailed construction noise assessment will be completed which will provide property specific details to develop mitigation plans to keep the noise levels at or below acceptable levels during construction. Construction equipment will be required to be properly muffled and maintained. Construction activities will be conducted in accordance with applicable state and local requirements. Appendix K24 outlines these restrictions and the contract specifications will be in accordance with such restrictions. Certain construction activities may be limited to weekday daytime hours (typically from 7 a.m. to 6 p.m.). Noise will be monitored on a regular basis during construction near potentially affected sensitive receptors. Construction duration in any specific location within the D-O Corridor would be up to three years in duration.*

*A landscape plan that includes the type and size of proposed vegetation to be included as part of project construction along with erosion control features to be implemented during construction will be developed during the Engineering phase of the project.*

*Anticipated cumulative impacts to water quality from the NEPA Preferred Alternatives, including the ROMF, would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. This could contribute to further degradation of water quality in the Jordan Lake and Upper Neuse watersheds. However, the project would comply with stormwater management permitting requirements and include DWR stormwater management BMPs. As stated in DEIS section 4.16.2.9, construction activities would disturb soils and could cause runoff that could potentially erode slopes and drainage ways, form gullies, and deposit sediment in adjacent water bodies. This could destabilize slopes and affect water quality if temporary Best Management Practices such as silt fencing, fiber matting, straw bales, sediment traps, desilting basins, and other methods required through the permitting process are not in place prior to a storm event. Short-term, temporary impacts to surface waters could occur during the construction period due to storm water runoff from the site. To reduce potential impacts related to water quality, appropriate BMPs will be implemented during construction, such as installing fabric barriers at storm drain inlets.*

DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS.

DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance.

As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).

As stated in section 3.6.4 of the DEIS, during Engineering, Triangle Transit will work with the City of Durham, Town of Chapel Hill and NCDOT, the Durham Bicycle and Pedestrian Advisory Commission, the Chapel Hill Transportation and Connectivity Board, and representatives from station area neighborhoods to identify ways to improve pedestrian and bicycle connections to stations.

First Name	Last Name	Comment
Norbert	Niedner	-light rail is to esensitive-[ditto marks] [light rail] is the most esensitive way of transportation.-[ditto marks] [light rail] is not save (takes 400 ft to stop by 35 mph) -[ditto marks] [light rail] takes only busrider into light rail- there is not enough parking  - economical it does not make sense- light rail commute only to and from 2 hospital it does not pick up other riders at other places- no connection to airport- light rail does not stop at hospital directly so ride still has to walk a fair distancethe cost per ridership does not add up. Minnesota dropped ridership to from 1900-1500- Charlotte is the worst in traffic in the nation with light rail- light rail as of today is on outdated system. Alternatives already exist such as car-less vehicles, smart bus system- once light rail is build you cannot change it's route, ?? busline can be changed in days

Comment Responses	DEIS/Errata References
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As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, [along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors], that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:

- Improve Mobilityo Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time• Increase Connectivityo Expand transit options between Durham and Chapel Hill: enhance and

DEIS chapter 1  
DEIS sections 2.1  
DEIS section 8.1  
DEIS section 8.4

seamlessly connect with the existing transit system o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham• Promote Future Developmento Support local land use plans that foster compact development, o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).Light rail was chosen for the D-O Corridor because this technology will:• Connect residential, educational, and major employment centers throughout the corridor;• Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;• Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;• Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;• Provide solid anchors needed to shape land use along this critical corridor; and,• Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.

There is no planned direct link between the proposed D-O LRT Project and RDU International Airport.Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU is not warranted or cost effective for the Project.With the exception of a small percentage of regular business travelers, most Triangle residents use RDU between 1 and 10 times per year, but travel to their workplace 250+ days per year. As a region builds its transit system, a consistent model for success has been to link neighborhoods to those “250+ day destinations” with the highest capacity service, while ensuring quality bus links to other important trip generators like

*the primary regional airport. RDU is critical to our region's economic prosperity and is our gateway to the world. Triangle Transit recognizes this and recently launched its most significant airport services expansion in over 10 years. Triangle Transit currently serves Terminal 1 and Terminal 2 with buses 7 am – 11 pm Monday – Saturday, and 7 am – 5pm on Sunday. The airport is currently, and will continue to be, serviced by Triangle Transit buses (Route 100).*

First Name	Last Name	Comment
<b>Candace</b>	<b>Noel</b>	<p>The route is not along densely-populated areas and does not serve low-income population in downtown Durham (less likely to have a car). UNC station will not serve Chapel Hill nor be convenient to most of UNC.s campus: Station will be at distant edge of southwestern corner of campus (see attached map) Must transfer to bus or shuttle to get anywhere on campus, even to the hospitals PLEASE SEE THE ATTACHED MAP OF THE UNC CAMPUS and comments on it. At-grade crossings: Number of at-grade crossings in 17 miles of track = 39 in Durham County alone. Each gate will have about 150 crossings every work day, Mon.-Fri.</p> <p>There will be an at-grade crossing that goes through a new traffic circle at Old Durham Chapel Hill Road and Pope Road, right next to my neighborhood – 1/4 mile from my house. Increased traffic on both roads due to the park-and-ride at the station Increased noise from train horns and crossing's warning bells Increased noise and air pollution of cars lined up and idling while waiting for trains to pass. Accidents: Fatality rates across all modes of transportation are significantly higher for light rail (22.6 fatalities per 100 million miles); only motorcycles have a higher fatality rate. Light rail has 22 more accidents per passenger mile traveled than cars do. A motorist is almost 20 times more likely to die in a crash involving a light rail train than involving another motor vehicle.</p> <p>50% of all car crashes occur within 5 miles of home. Light rail crossings are not synchronized with traffic lights, which will cause back-ups and increased auto accidents. Emergency Vehicles: As an emergency room doctor stated at the Sept. 29, 2015 public hearing, the at-grade crossings pose significant time delays in reaching accidents/homes, and even a one-minute delay can mean the difference between life and death. RECOMMENDATION: Do NOT build light rail. Implement an improved bus system, which is</p> <p>considerably less expensive and more flexible. Information about this process was largely unknown to most of the local people, even though it's been in the works for about 20 years. Not until plans and the route were fairly firm was information provided and input requested. GoTriangle's communication about this process was poor until about a year ago. Their website promised they would contact every homeowner "directly affected" by the light rail, but at that time contact appeared to be dependent on the homeowner first making contact to request alerts to meetings. While on their website there now is a letter to homeowners dated 8/6/14 with an alert of the first informational meeting on 8/20/14, I first learned of that meeting on 8/20/14 via an email forwarded at my work, not via any communication from GoTriangle. Later, after I had given GoTriangle my contact information, I received no alerts via email, and every communication sent via USPS arrived after the announced meeting. GoTriangle told me in an email that my house is not affected because it.s 750 feet from I-40. Apparently they mean my property will not physically be touched. However, added noise for at least 18 hours/day WILL affect the livability of my property. RECOMMENDATION: Do NOT build light rail. Implement an improved bus system, which is considerably less expensive and more flexible. Travel times have increased from 34 to 42-44 minutes (plus 10 min. at terminus and plus waiting and travel time for buses to get to ultimate destination). Costs have increased significantly: Anticipated to cost \$1.6 BILLION (up from \$100 MILLION in 1992) and will undoubtedly far exceed that amount. Even if the State of North Carolina and the federal government fund this project, taxpayers</p>



will carry an ever-increasing share of the load. Every purchase funds it, and homeowners will likely see an increase in property tax to fund it. This puts an undue burden on local people who may never ride the light rail (or still be alive when it's completed).

Taxpayers who ride must also pay a fare. Given the experience of peer systems, fare box collections account for less than 20% of operation costs. Projected ridership appears to be inflated: In 2011, ridership was estimated at 12,000. In 2015, ridership was inexplicably increased to 23,000 (first projected to be in 2035 and then in 2040). To meet the projected ridership, our area would require a population density akin to that of Barcelona, Spain (40,870 people/square mile). The DOLRT corridor study reported 2,071ppsm in 2005 and projects 4,052ppsm by 2035. RECOMMENDATION: Do NOT build light rail. Implement an improved bus system, which is considerably less expensive and more flexible. High temperatures require trains to slow down: GoTriangle has made no mention of heat-related findings in significantly-cooler Portland, Oregon: At temperatures above 90 degrees, trains must slow down due to sagging power lines and "sun kinked" rails. Above 100 degrees, trains cannot exceed 35mph. How many days/year do Durham/Chapel Hill have that are above 90 degrees? 1995: 24 consecutive days of 90 degrees 2007: 83 days above 90 2010: 84 days above 90 2015: 12 consecutive days (in June) above 95 With global warming, these numbers will likely only increase. Train travel times will increase significantly. RECOMMENDATION: Do NOT build light rail. Implement an improved bus system, which is considerably less expensive and more flexible.

*Comment Responses*

*DEIS/Errata References*

*Station locations were chosen based upon the access to economic, educational, cultural, and medical facilities, and in areas designated for future development along the Durham-Orange Corridor. As described in DEIS section 2.1.5, the station locations were proposed and evaluated during the Alternatives Analysis (AA). The station alternatives were evaluated based on their ability to meet the project's Purpose and Need. For specific concerns regarding equity and station location, see also chapter 5. As noted in DEIS section 3.1.4, prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis (section 3.1.4).*

DEIS chapter 1  
 DEIS chapter 5  
 DEIS section 1.4.1.1  
 DEIS section 1.5.1.2  
 DEIS section 2.1.5  
 DEIS section 3.1.3.1  
 DEIS section 3.1.4  
 DEIS section 3.2  
 DEIS section 3.2.3  
 DEIS section 3.6  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 36 and 108

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be*

activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. Additionally, Triangle Transit has been and will continue to coordinate with Emergency Services to address safety concerns for all users along the corridor. In accordance with federal regulations governing control of public streets and the interface of light rail transit systems with those public streets, for light rail crossings in close proximity to traffic signals on NC 54, light rail crossing gate controls will be interconnected with the traffic signal controls. This means that the traffic signal will be synchronized with the light rail train control such that when a light rail train is approaching, the traffic signal will change if necessary to clear vehicles from the crossing. Traffic signal phases that do not conflict with the light rail tracks will be able to run while the train is passing. The LRT vehicle will operate at speeds of up to 55 mph under normal operating conditions. Based on the forecast station to station travel time described in section 3.1.3.1 of the DEIS, the average operating speed of the LRT would be less than 35 mph. Operating speeds of the trains would only be adjusted in extreme weather conditions if necessary.

The Triangle region has experienced extraordinary growth in recent years. Growth forecasts show population in the region increasing by 80 percent between 2010 and 2040, from 1.6 to 2.9 million. Within the D-O Corridor, the population is projected to double and the highest expected travel intensity (number of trips per acre) in the Triangle region is predominately located in this corridor. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (see ES-5 of the DEIS). Additional information regarding the expansion of roadway capacity can be found in DEIS section 1.4.1.1 and further in section 3.2 of the DEIS. As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the

*D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (ES-5). The D-O Corridor was identified as a high priority transit corridor as early as the 1990s due to the rapid growth in the corridor. The D-O Corridor includes the University of North Carolina at Chapel Hill (UNC), Duke University, downtown Durham, and North Carolina Central University (ES-2).*

*Bus routes that currently service the D-O LRT Corridor alone carry an average of 9,700 passengers every weekday. Overall, Chapel Hill Transit, GoDurham, and Triangle Transit's services within Durham and Orange Counties carry 71,300 passengers per weekday. Transit ridership in Durham and Orange Counties has grown over the last few years, and is projected to grow in the future as the communities encourage the growth of walkable, pedestrian-friendly communities and the universities continue to grow and encourage transit use to their campuses by restricting parking. As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobility*
- o Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development*
- o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time*
- Increase Connectivity*
- o Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system*
- o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*
- Promote Future Development*
- o Support local land use plans that foster compact development,*
- o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centers*

*The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to*

occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:

- Connect residential, educational, and major employment centers throughout the corridor;
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;
- Provide solid anchors needed to shape land use along this critical corridor; and,
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).

As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment. During engineering design features will be considered to address high temperature light rail operation. Light rail systems throughout the world operate efficiently and effectively in areas where temperatures routinely exceed 90 degrees.

First Name	Last Name	Comment
Candace	Noel	[removed name and address] Due to a station located right next to my neighborhood, trains will always accelerate and decelerate in front of our neighborhood. Noise levels quoted by GoTriangle were for a train moving steadily at 40mph, not accelerating or decelerating, which will increase decibel levels. Trains are planned to run 18.5 hours/day, 5:30am-12:00 midnight: Every 20 min. during non-rush hours Every 10 min. during rush hours (6:00-9:30am and 3:30-6:30pm) Trains running both directions effectively means every 5 minutes for 6.5 hours of every day and every 10 minutes for the remainder, with reprieve only for 5.5 hours of sleep time between 12:00 midnight and 5:30am. Per GoTriangle, every time a train approaches the at-grade crossing: Trains will blow horn. Crossing's warning bells will ring. Crossing's lights will flash. There will be increased traffic and noise on Pope Road (immediately behind my house) due to the park-and-ride at the station. GoTriangle maintains that noise of trains is not additive to existing noise of I-40: They will not erect a noise barrier. They will cut down many trees between I-40 and houses in our neighborhood. They have stated they will plant trees that will muffle noise, but those will take years to reach sufficient size to be at all effective. Construction will be along the entire length of my neighborhood - about 1 mile: How long will construction go on, and during what hours? Construction noise and traffic and driving delays will certainly affect all those who dwell in the neighborhood. RECOMMENDATION: Do NOT build light rail. Implement an improved bus system, which is considerably less expensive and more flexible.

Comment Responses	DEIS/Errata References
DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would	DEIS section 4.10.4 DEIS appendix K24

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*result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts.*

*Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24.*

*As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF.*

*Sound levels are measured in decibels (dBA). At fifty feet away from a person, the sound of a city bus would measure 84 dBA and a heavy truck would measure 90 dBA. The sound of light rail vehicles would be 66 dBA at that same distance. Comparatively, conversational speech is about 60 dBA.*

*Although temporary in nature, construction phase impacts may affect neighborhoods and community facilities. Traffic detours may increase traffic through residential neighborhoods or change access to community facilities. Similarly, sidewalk closures and detours may affect pedestrian traffic patterns. Construction impacts such as increased levels of noise and dust may temporarily affect neighborhood character, primarily in relatively quiet areas. The presence of large construction equipment may be perceived as visually disruptive and cause temporary effects to community character, particularly in residential settings. Residences and community resources may also experience short-term disruptions of utility services during construction activities, as utilities need to be moved or replaced. Measures to avoid and/or minimize adverse impacts to residences during project construction will include efforts to maintain traffic, parking, and access during construction, modify business signage to maintain business visibility, use marketing campaigns to advise patrons of required construction in areas with multiple businesses, install temporary directional signage, and provide advance communication of construction activities. Local property owners will be informed of roadway disruptions and other construction-related activities and consequences by using construction education and outreach plans. The D-O LRT Project team will coordinate with emergency response personnel to maintain continuous access for emergency vehicles throughout the duration of construction. Prior to construction, coordination with Chapel Hill-Carrboro City Schools and Durham Public Schools will be implemented to identify potential impacts on school bus routes and appropriate temporary detour routes during construction. Measures to avoid and/or minimize adverse impacts to businesses during project construction will include efforts to maintain traffic,*



*parking, and access during construction, modify business signage to maintain business visibility, use marketing campaigns to advise patrons of required construction in areas with multiple businesses, install temporary directional signage, and provide advance communication of construction activities. Temporary arrangements for safe pedestrian access will be addressed in the construction documents. Site specific business and access management plans will also be developed by the contractor. Prior to and during construction of the D-O LRT Project, representatives of Triangle Transit will meet with property owners that may be impacted to review construction sequencing, staging, access, visibility and related issues that may impact their businesses.*

First Name	Last Name	Comment
Brian	Norris	Hello...There was a recent article in Wired magazine title "The World Could Save Trillions With Buses and Bikes." This is a relatively short article, generic in it's scope (the entire world), but I believe it is especially relevant in this discussion. The major takeaway for me was this line: "The report cites a study that found a BRT (Bus Rapid Transit) system costs about \$10 million per mile to establish, one tenth the price of a metro rail system." In my opinion, it is this major statistic above all else that merits a serious reconsideration of BRT instead of LRT for Chapel Hill / Durham. Beyond that there are many, many reasons I believe BRT is the better solution in both the short term and the long term. My hope is that there is an immediate pause on the LRT solution and a serious reconsideration of the BRT solution, as I believe the return on investment of our tax dollars will be much, much higher with BRT.Here is a link to the Wired article: <a href="http://www.wired.com/2015/09/worldsavetrillionsbusesbikes/">http://www.wired.com/2015/09/worldsavetrillionsbusesbikes/</a> .Thank you for listening!

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<i>Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on <a href="http://ourtransitfuture.com">ourtransitfuture.com</a>.</i>	DEIS section 2.2.1

First Name	Last Name	Comment
Heather	Payne	Please accept these comments on the Durham-Orange Light Rail Transit Project.I do not believe this project should go forward, and favor the "no build" alterative. First, I am skeptical of the ridership projections. As the Town of Chapel Hill has not yet finished updated projections of population growth, any numbers put forward as part of the DEIS are completely speculative, and seem to indicate far more growth than Chapel Hill has considered in the past. I, along with likely many others in Chapel Hill, think too much sprawl is already occurring, and the light rail line would simply continue the destruction of our town. Additionally, the projections assume that the ridership currently enjoyed by Chapel Hill Transit that overlaps the proposed route would automatically shift. I disagree with this assumption, especially as Chapel Hill Transit is free, and no one has committed that the light rail would be free within Chapel Hill Transit's current area of service. Second, this project does not solve the majority of traffic congestion which

currently exists for residents of Chapel Hill: the corridors from downtown to I40, with people continuing not north into Durham (as the light rail would suggest), but rather east. There are more trips out of Orange County to southwest Durham, RTP, Morrisville, Cary, Raleigh and beyond than there are to where the light rail is planned to go. As this would not solve the most pressing current traffic problem, it is a fiscal waste. It should have been designed to meet the traffic problems that we have currently, not fanciful potential future ones. If this fiscally irresponsible project – especially with the cut in state funding – is to go forward, there are other mitigation measures which I feel are necessary and which have been inadequately addressed in the plan. They include vibration, noise, lighting, wildlife, and landscaping, which I will address in turn.

**Vibration:** While the consultants did look at potential vibration impacts and while the methodology theoretically looks at all building types viable pre-2008, it does not appear that an analysis was done of how, with specific soil and rock conditions, the vibrations could impact homes with plaster construction. Living in a home originally constructed in 1947, I am concerned that the vibration will cause the plaster in my home to crack, leading to costly maintenance and repairs. The study seems too general to adequately satisfy this concern.

**Noise:** As someone who suffers regularly from excruciating migraines, both noise and light are of obvious concern to me, as they can exacerbate the pain. The studies performed did not look at nor acknowledge sensitive populations, such as those with health conditions that would make them more susceptible to the adverse impacts from additional noise and lighting. Living in a quiet residential area, we will be subjected to loud clanging bells until at least midnight. Rather than subject sensitive populations living in a residential area to this type of debilitating disturbance, all crossings from where the light rail turns to follow Mason Farm Road, up to and including on UNC campus, should be mandatory “quiet zones” with other forms of hazard mitigation than bells. This is necessary for both sensitive populations and the high percentage of families with small children, as the project, if built, will directly abut family housing, and the clanging will still be easily heard in our neighborhood, which has been designated a Neighborhood Conservation District by the Town of Chapel Hill. Therefore, no trains should be using bells for any road crossings or incoming station signals after leaving Hwy. 54/Fordham Boulevard. Allowing the use of bells and other noise – like exterior announcements at stations – will directly and significantly negatively impact the quality of life for sensitive populations and families. The DEIS is seriously deficient in that it did not already propose quiet zones for this area.

**Lights:** Additional light pollution for neighborhoods around stations wasn’t even studied in the DEIS. Light can also have impact on sensitive populations, such as those who suffer from migraines. There will, obviously, be additional light pollution, yet another reason this project should not be built. Especially as it wasn’t even studied, much less appropriate mitigation measures developed, until there can be a determination of no net increase in light pollution at a very localized level, the project should not be allowed to go forward. An assurance of not increasing general ambient light is insufficient.

**Wildlife:** The proposed DEIS indicates a fence will be installed to disallow access over much of the track from Hwy. 54 though UNC to the (currently) final station. However, while perhaps making it safer for people, the DEIS does not even address wildlife concerns. Many of the lots on the south side of Mason Farm are larger, with extensive wildlife habitat. Those wildlife populations connect and move through the UNC campus – and across the proposed light rail line – with other lands which provide suitable habitat. Therefore, any fence system needs to be attentive to the needs of our local wildlife populations, including: chipmunks, squirrels, fox, deer, raccoons, groundhogs, birds, rabbits, possum, and the occasional black bear. The project should not go forward until the wildlife impacts in this area, which have not even been looked at, have been addressed, and sufficient mitigation measures identified.

**Landscaping:** According to the National Climate Assessment, the Southeast is likely to experience more hot days and longer droughts. The plan calls for landscaping to “beautify” both stations and the entire proposed route. However, if done poorly, this will only increase to the amount of water used for nonhuman consumption. Therefore, the plan should require that: 1) all landscaping be with native North Carolina plants; 2) that these plants should be chosen specifically to provide habitat, including food, for wildlife; and 3) that any irrigation within the OWASA service boundaries must utilize the OWASA reclaimed water system, which Triangle Transit would need to pay to extend to serve their needs, should it not already exist in those

locations. Using reclaimed water, at least within Orange County, is the only way that such a plan can adequately address the concern of wasting potable water. The plan should also require deceased plantings to be replaced quickly, so the stations and corridor do not become a public eyesore, something which could easily happen. While not directly impacting our neighborhood, I also feel it necessary to mention what a grave disservice I believe the DurhamOrange Light Rail Transit Project has heaved upon the residents of Downing Creek and Falconbridge. Rather than attempt to placate some with an “updated” route, the original route through Meadowmont should have been adhered to. That corridor was plotted and everyone who purchased in Meadowmont did so with the knowledge that a public transit corridor existed there. That was certainly not the case for the current “preferred” alignment, as the houses were built longbefore any idea of this project started. I believe the current “preferred” alignment – running alongside Hwy. 54 and bypassing Meadowmont but significantly impacting the residents of Downing Creek and Falconbridge – may be found to be a taking under the Constitution, as it will likely significantly impact investmentbacked expectations which were in existence before the light rail “realignment” was proposed. Adding takings expenditures – and the lawsuits, assessors, surveys, etc., to assess the value the takings – make this fiscally irresponsible project even more so. Unless an alignment through Meadowmont is chosen, the litigation potential alone makes this project unworthwhile. Finally, I object to the two minute time limit during the public hearings on this matter. Two minutes is insufficient for interested citizens to sufficiently outline concerns. By so strictly limiting the time available or oral comment, it seems clear Triangle Transit is looking to stifle disagreement rather than foster conversation. New public hearings – without time limits – should be scheduled, so citizens can actually have their thoughts and opinions heard and addressed. As currently envisioned with the time limit, the public hearings are just a sham. Rather than spending the money on this ill-conceived light rail project, the money should be used to provide upgraded bus service, which can cover far more territory than the proposed light rail. The proponents of the project like to show a picture of a bus stuck in traffic on I40 as what they are trying to solve; but, indeed, that bus will still be in the same situation if thisproject goes through. Rather than this ill-conceived and, based on the comments above, poorly thought-through project, the money should be spent on dedicated bus lanes or other measures which would aid the citizens of Chapel Hill and Orange County to go where they currently go and where they will be going in the future: east on I40. The money could be much better spent than the currently proposed light rail project.

*Comment Responses*

*DEIS/Errata References*

*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways*

DEIS chapter 9  
 DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 DEIS appendix J  
 FEIS/ROD section 1.4  
 FEIS/ROD section 2.6  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17, 30, 32, and 33

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where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>. Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com).

As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF. It would be up to local jurisdictions to designate any future quiet zone locations. In accordance with the FTA Noise and Vibration Guidance Manual, a detailed vibration analysis will be conducted during the Engineering phase to further evaluate geotechnical conditions and more precisely predict the vibration effects of the proposed light rail system on area receptors. Upon completion of the detailed geotechnical evaluation, vibration sensitive receptors that would be affected by project vibration will be mitigated. See DEIS section 4.10.5.2 for more information. Locations where visual impacts would occur (identified in Table 4.4-6 and Table 4.4-7) and the degree and nature of the impacts are noted in the previous sections. In addition to coordination with the Town of Chapel Hill and the City of Durham, Triangle Transit has proposed several mitigation measures to address negative visual

*impacts, including using source-shielding in exterior lighting at ROMFs, stations, and auxiliary facilities. See DEIS section 4.4.1.*

*Under the NEPA Preferred Alternative, significant adverse impacts to terrestrial or aquatic wildlife are not anticipated. Limited wildlife disturbance would occur for the duration of the construction activities (DEIS section 4.16). Wildlife typical of the maintained/disturbed communities adapt to human disturbances. Throughout the project development and preliminary engineering design process, efforts have been made to avoid and minimize impacts to wildlife habitat, including streams and wetlands as described in DEIS section 4.8.4.2. Adverse effects to aquatic wildlife would be minimized by bridging wetland and stream areas, and employing sediment and erosion control BMPs. As stated in DEIS section 4.7.3.2, operations for the NEPA Preferred Alternative would utilize existing roadway corridors in the portions of the study area that pass through large areas of wildlife habitat. Because of this, impacts to wildlife are expected to be limited after construction is completed. Mitigation in the form of wildlife over- and under-passes is not included as part of the NEPA Preferred Alternative, nor has it been requested from the US Fish & Wildlife Service or the North Carolina Wildlife Resources Commission (NCWRC). Efforts to avoid, minimize, or mitigate impacts to wildlife and their habitats will continue during final design and construction.*

*The town of Chapel Hill requested that alternatives to the Meadowmont/C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning. The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (appendix G). The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the*

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DEIS and are summarized in DEIS section 8, Evaluation of Alternatives. Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS chapter 9, DEIS appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6. In addition to providing citizens the opportunity to comment on the D-O LRT project, citizens were provided a 45-day comment period in which comments on the project could be submitted via the project website, email, mail, or comment cards.

First Name	Last Name	Comment
Susan	Pierce	Planners, Locating the light rail ROMF off of Farrington Road in a residential zone ((R-20 and PDR-10) is incompatible with zoning principles, unsafe, and will create unnecessary environmental pollution. Though your process of ROMF-location evaluated 4 sites and chose Farrington Road as the best of these 4, it is inexcusable that you did not consider the north side of 15/501 Business, east of the Durham Rescue Mission. That area is already a commercial zone; is flat; is on the Light Rail route; and has many abandoned buildings and empty lots. That is where a ROMF belongs -- not in one of Durham county's few rural, residential areas. If light rail is to succeed (& it should), it has to be smarter than what you have proposed for the ROMF site.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*During the Alternatives Analysis and scoping more than 20 potential ROMF sites were considered. A total of five ROMF sites were included for analysis in the DEIS. Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. Several sites were reviewed during the Alternatives Analysis and DEIS. A ROMF site on the north side of 15/501 Business, east of the Durham Rescue Mission, as mentioned in the comment, would not be possible due to the size requirements for the ROMF. Additionally, the alignment is on aerial structure at this location so the addition of aerial track and switches to access the facility would likely be cost prohibitive.*

DEIS section 4.1.4.1  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137

*As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site*

*will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process.*

First Name	Last Name	Comment
Susan	Pierce	I oppose the proposed location of the ROMF for the following reasons: It would create a safety hazard.-The 134 residents of the Village at Culp Arbor would be 100 feet from the ROMF; Creekside Elementary School's 906 children would be 500 feet from the ROMF: timely evacuation of small children and disabled elderly in the face of any HAZMAT accident or fire at the ROMF will be near impossible.- Increased traffic both from the ROMF employees and the at-grade Farrington Crossing will hamper the emergency vehicle access to vulnerable populations from Duham Fire Station 16, which is on the south side of the at-grade crossing.- An area of 1/4-1/2 mile from the ROMF also encompasses Maida Vale, Weston Downs, Marena Place, The Enclave, Preston Place, Glenview Park, and many single dwelling properties.. Environmental pollution would result.- Noise, light and vibration from ROMF operations * "substained squeal may occur throughout curve negotiations", per TCRP Report 155 (Track Design Handbook for Light Rail Transit). ROMF plans show tight curves in and out of the rail yard.*TCRP 155 also states "Ground-borne noise is heard as a low level rumble and may adversely impact residences, hospitals, and concert halls"- The ROMF will have "stadium type lighting" 24 hours/day, 7 days/week- Tree removal and leveling of 25 acres of land to provide the necessary 0.5% grade for yard runs and 0.0% grade for storage tracks at the ROMF- Increase in impervious surface destroying wetlands and creating caustic runoff into "downhill" neighborhoods and New Hope creek- An Industrial zone in the midst of residential zoning violates both zoning and planning principals.*The land is currently zoned R-20 and PDR-10; jumping to Industrial destroys the nature of communities.*The future comprehensive land use designation is commercial & office zoning; not Industrial.*One 25-acre rezoning to industrial contributes additional industrial development which has been deemed incompatible when it is immediately adjacent to low density and medium density residential land use.*Industrial zoning is incompatible when near a school.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*DEIS Table 8.2-3, beginning on page 8-12 summarizes the evaluation of the alternative ROMF sites.*

*Where adverse effects of the NEPA Preferred Alternative remain, FTA and Triangle Transit have identified mitigation measures intended to offset those remaining effects to the natural and human environment. Mitigation measures are described in the DEIS and are finalized in the combined Final EIS/Record of Decision (ROD). Direct impacts to Creekside Elementary School are not anticipated due to the distance from the Farrington Road ROMF and existing vegetation. Lighting: Section 4.4.3.1 and section 1.4 of the combined FEIS/ROD, DEIS Errata 76, notes that lighting would be aimed towards the ROMF to minimize the impacts of light on surrounding neighbors and wildlife. In addition, source-shielding would be used in exterior lighting at the ROMF. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. Emergency*

- DEIS section 2.2.3
- DEIS section 4.1.4.1
- DEIS section 4.4.3.1
- DEIS section 4.8.4.3
- DEIS section 4.11.3
- DEIS section 4.12.4
- DEIS section 4.12.4.6
- DEIS section 4.17
- DEIS section 8.2.2.1
- DEIS Table 8.2-3
- FEIS/ROD section 1.4

**D-O LRT FEIS / ROD**

*response times: As the design of the NEPA Preferred and Project Element Alternatives advances, the D-O LRT Project Team will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the potential light rail system on their day-to-day operations. For example, the D-O LRT Project Team will work with fire departments to determine whether implementation of the NEPA Preferred Alternative warrants changing dispatch locations for emergency services. See DEIS section 4.12.4.6. Indirect effects to wetlands: While water resources may be indirectly impacted because of the proposed D-O LRT Project, the type of compact development likely to occur would be more beneficial to water resources than the type of dispersed growth that typically occurs with auto-oriented development. Existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans. Stormwater runoff is a key concern when impervious surface is increasing, and the state's Section 401 water quality certification process includes stormwater management requirements once impervious percentage thresholds are exceeded. There may also be local programs that would further supplement the state and federal programs, especially in those instances where there is not a stream/wetland impact trigger. Water quality concerns would be minimized using these regulations. See DEIS section 4.17 for more information. There are no noise or vibration impacts anticipated from the Farrington Road ROMF, or any of the other ROMF alternatives. See Table 8.2-3 on page 8-13. There are no traffic impacts anticipated due to the Farrington Rd ROMF location. The ROMF site will have a site specific stormwater management plan that will be developed as the design progresses. Stormwater management plans will provide information on the specific Best Management Practice's to be used to treat impervious surface stormwater runoff prior to discharge. The project will require a 401 Water Quality Certification and the application will include information on stormwater treatment.*

*As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials. The materials to be used at the ROMF will be determined as the project is developed during the Engineering phase. As noted in DEIS section 4.11.3, the proposed D-O LRT Project would include a Rail Operations and Maintenance Facility where light rail vehicles would be stored and maintained. This facility would have the indirect*

*effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. As mentioned in DEIS section 4.8.4.3, all regulated materials generated as part of maintenance would be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.*

*Section 1.4 of the combined FEIS/ROD, DEIS Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed.*

*As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. Information rezoning, can be found on page 8-16.*

First Name	Last Name	Comment
Susan	Pierce	The DEIS states: Impacts to the Patterson's Mill Country Store and surrounding residential development by the Farrington ROMF will be mitigated through landscaping, vegetative screening, and modifying access to the store. This in no way mitigates for the impact on an R-20 and PR-10 residential area that would need to be rezoned. It is not only a safety hazard but it also affects property values and quality of life with its inherent noise, and vibration pollution. "Landscaping" does not cure: "sustained squeal may occur throughout curve negotiation", per TCRP Report 155 (Track Design Handbook for Light Rail Transit). ROMF plans show tight curves in and out of the rail yard. *TCRP 155 also states "Ground-borne noise is heard as a low level rumble and may adversely impact residences, hospitals, and concert hall" *The ROMF will have "stadium type lighting" 24 hours/day, 7 days/week. leveling of 25 acres of land to provide the necessary 0.5% grade for yard runs and 0.0% grade for storage tracks at the ROMF creates significant storm water runoff both into lower-lying neighborhoods and New Hope creek.

Comment Responses	DEIS/Errata References
<i>As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering,</i>	DEIS section 4.1.4.1 DEIS section 4.4.3.1 DEIS section 4.10.4 DEIS section 4.17.1.3 DEIS section 8.2.2.1

*Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. This will be reflected in the combined FEIS/ROD. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. Information rezoning, can be found on page 8-16.*

*As stated in DEIS section 4.10.4, according to the FTA Noise and Vibration Guidance Manual, mitigation for noise impacts should be considered if the project falls within an "impact" range and should be implemented if the project would result in a severe impact. There are no noise or vibration impacts anticipated from the Farrington Road ROMF, or any of the other ROMF alternatives.*

*Table 4.10-13 identifies proposed mitigation measures for the NEPA Preferred Alternative and the Project Element Alternatives. Sites 2, 7, and 8 (Odum Village) are part of a larger redevelopment area sponsored by UNC. The remaining residential buildings that would be impacted, depending upon the selected alternative, are within the right-of-way for the project elements and would be acquired as part of the project. The remaining noise impact is the New Hope Creek Trail, under the NHC LPA Alternative. The alignment would pass directly over the trail in two locations. As a result, mitigation measures would be limited to noise barriers on the elevated track. The NEPA Preferred Alternative would result in no noise impacts beyond the properties to be acquired for the project. Triangle Transit will coordinate design and policies related to audible warning devices with NCDOT and local jurisdictions in accordance with applicable regulations, guidance, municipal policies, and best management practices.*

*As discussed in section 4.8 of the DEIS, BMPs would be implemented as engineering controls along the NEPA Preferred and Project Element Alternatives, station park-and-ride facilities, and ROMF for stormwater runoff collection and treatment. BMPs that are installed would help to minimize water quality impacts resulting from pollutants carried by stormwater runoff. Continued maintenance of these stormwater BMPs would ensure that these controls are functioning properly for the protection of area water quality. While water resources may be indirectly impacted because of the proposed D-O LRT Project, the type of compact development likely to occur would be more beneficial to water resources than the type of dispersed growth that typically occurs with auto-oriented development. Existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans. Stormwater runoff is a key concern when impervious surface is increasing, and the state's Section 401 water quality certification process includes stormwater management requirements once impervious percentage thresholds are exceeded. There may also be local programs that would further supplement the state and federal programs, especially in those instances where there is not a stream/wetland impact trigger. Water quality concerns would be minimized using these regulations. See DEIS section 4.17.1.3 for more information.*



Section 4.4.3.1 and section 1.4 of the combined FEIS/ROD, DEIS Errata 76, notes that lighting would be aimed towards the ROMF to minimize the impacts of light on surrounding neighbors and wildlife. In addition, source-shielding would be used in exterior lighting at the ROMF. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.

First Name	Last Name	Comment
Susan	Pierce	This section is simply not true. The proposed ROMF location is in an area zoned R-20 and PDR-10. The ROMF would necessitate a zoning change to industrial, which is incompatible with being 200 ft from an elementary school and 500 ft from a retirement community. The untrue section of the DEIS: Land Use and Zoning Section 4.1* No impacts anticipated: consistent with Local Planning Efforts. The D-O LRT Project would result in a conversion of lower density land uses to higher density and mixed-use land uses.*NHC LPA Alternative would be more consistent with transportation plans, but less consistent with plans to protect bottomlands in the area. NEPA Preferred and Project Element Alternatives Mitigation* Impacts are considered beneficial and as such, no mitigation would be required.

Comment Responses	DEIS/Errata References
As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. Information rezoning, can be found on page 8-16.	DEIS section 4.1.4.1 DEIS section 8.2.2.1 DEIS page 8-16

First Name	Last Name	Comment
Susan	Pierce	Safety of At-Grade Crossings I believe in smart light rail. With the route changes, the proposed 17 miles of light rail will have more than 20 vehicle at-grade crossings and 80 pedestrian/bicycle at grade crossings. Given that at-grade crossings are inherently unsafe, our proposed light rail route is no longer smart. (Supporting safety data attached), but, Nationwide, the # of light rail collision fatalities is 3 X the fatalities of automobiles. A motorist is almost 20 times more likely to die in a crash involving a train than in a collision with another vehicle. I would like to focus on just one of our 100 crossings . . . though I suspect that this is not the only one with safety concerns beyond Farrington Road at-grade crossing: Vulnerable populations live on the north side of that at-grade crossing (134 elderly at Villas at Culp Arbor; nearly 1000 elementary school students). First responders (from District 3) are on the south side of that at-grade crossing. At peak times, trains will cross every 5-10 minutes, backing up traffic on the 2-lane road, making it impossible for emergency vehicles to get through. To make matters worse, the NEPA preferred ROMF sight is also north of the crossing; delaying first responders, fire and police, (all of whom attending to any HAZMAT, fire or criminal activity). In conclusion: It is difficult to understand how we can endorse a light rail plan with over 100 at-grade crossings. This is not smart. *Data on At-Grade Crossing Safety. 1. *The Transportation Research Board of the National Academies of Science, Engineering and Medicine surveyed 27 light

rail authority 40% had 25 or less at-grade crossings - 0 with 55% of crossings having both lights and gating, 100% of had pedestrian or motorist incidents! Though 70% had 10 or less/year: 15% had between 25-50/year - nearly 1/week. 2. Nationally, accidents at light-rail crossings range from 10/year to nearly 1 accident every week. 3. In the first 4 years of LA county's light-rail blue-line, with ONLY 22 at-grade crossings, there were 250 collisions resulting in 28 fatalities. 4. In the first year Houston's light rail line, there were 11 collisions/month. 5. Nationwide, the # of light rail fatalities is 3 X the fatalities of automobiles when normalized for miles traveled. 6. A motorist is almost 20 times more likely to die in a crash involving a train than in a collision with another vehicle. <http://www.trb.org/Main/Blurbs/170903.aspx>. \*Transit Cooperative Research Program, sponsored by Federal Transit Administration. examined the 22 at-grade crossings on streets with speed limits of 35 mph or less in LA county's light-rail, blue-line. i. In the first 4 years: 1. 250 train-vehicle and/or train pedestrian collisions 2. Resulting in 28 fatalities b. Some report cites Houston's "Rite of Passage": i. 11 collisions/month in 2004 <https://books.google.com/books?id=IMyHkZaNx28C&pg=PA38&lpg=PA38&dq=safety+of+at+grade+light+rail+crossing&source=bl&ots=iXBFzOBAo14WcxH2MJI04910ApO&hl=en&sa=X&sqi=2&ved=0CFYQ6AEwCWoVChMImpTcj6fbxwIVg4wNCh0xlgDx#v=onepage&q=safety%20of%20at%20grade%20light%20rail%20crossing&f=false>

*Comment Responses*

*DEIS/Errata References*

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

DEIS section 3.2  
DEIS section 3.2.3  
DEIS section 3.6  
DEIS appendix L

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signaled or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 to 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours.*

FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 36 and 108

**D-O LRT FEIS / ROD**

*During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures including vehicle detection technology at certain crossings where appropriate.*

*As discussed in 4.12, the proposed transit technology is modern, low-floor, light rail vehicles, operating on dedicated tracks with electrical power supplied from an overhead catenary system. The light rail vehicles are designed such that they may operate in mixed traffic or in an exclusive right-of-way, either at grade or on an elevated structure, and would have safety and security implications due to potential derailments or conflicts with other modes (4.12.3.3). The light rail system would introduce a new technology and new set of policies and regulations for passenger safety. Personnel would be required to understand and adopt new policies and procedures to increase awareness for personal safety in addition to that of passengers. Passengers' initial lack of familiarity with the design and operational aspects of the system would pose a potential minor safety hazard (4.12.3.1). The light rail vehicles will be compliant with a number of requirements, codes, and other design criteria. These include, but are not limited to, tamper-resistant equipment, dependable/redundant communication networks, CCTV monitoring, intrusion alarm systems, and relevant fire, life, and safety requirements (4.12.4.3). Safety of passengers and the public are of the highest priority for Triangle Transit. The proposed D-O LRT Project will be designed in accordance with all applicable federal, state, and local safety laws, regulations, and guidance. A detailed safety study will be performed during the Engineering phase for each at-grade light rail crossing locations in consultation with NCDOT and the applicable local jurisdictions.*

*As the design of the NEPA Preferred and Project Element Alternatives advances, the D-O LRT Project Team will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the potential light rail system on their day-to-day operations. For example, the D-O LRT Project Team will work with fire departments to determine whether implementation of the NEPA Preferred Alternative warrants changing dispatch locations for emergency services. Coordination with departments would also be conducted during the Engineering phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety. By coordinating with responders early in the risk assessment process, project team members can work with public agencies to develop mitigations, if necessary. Mitigation for restricting or constricting rubber tired vehicular access along an existing roadway includes constructing the guideway in embedded track such that emergency vehicles can bypass other vehicles via use of the embedded track condition. The LRT operation would yield to these infrequent occurrences. Access to emergency and health care facilities would not be compromised by the LRT. In addition, Triangle Transit will work with local law enforcement and emergency medical personnel to develop a training plan that involves responding to incidents at light rail facilities and on light rail vehicles. This plan will*

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include a schedule for training prior to and during revenue operations. See DEIS section 4.12 for more information.

First Name	Last Name	Comment
Susan	Pierce	<p>As a resident of the Villas at Culp Arbor, Farrington Road, Durham County, oppose the location of the ROMF on Farrington Road, I oppose this ROMF location for the following reasons: This location of the ROMF would create a heightened safety hazard. *Environmental pollution would result. *Creating the necessary Industrial zone in the midst of residential zoning would violate the traditional framework of both zoning and planning. **See appendix for documentation supporting these three reasons. I earnestly request that you ask Go Triangle to find another ROMF location. Please preserve Durham County as a desirable place to live. Appendix: ROMF Relocation A Heightened Safety Hazard: The 134 residents of the Villas at Culp Arbor, who are over the age of 55 would be located only 100 feet from the ROMF. The 906 young children at Creekside Elementary would be 1000 feet from the proposed Industrial site. If an emergency fire or HAZMAT accident would occur, timely notification and evacuation of small children and some disabled elderly would be nearly impossible. The ROMF would sit north of the At-Grade Farrington Road crossing. Durham Fire Station 16 is south of the at-grade crossing. With trains crossing every 5 minutes, delayed response to fire and/or HAZMAT spill is inevitable. Six residential neighborhoods and many single-dwelling properties are within a half mile of the ROMF - Maida Vale, Weston Downs, Marena Place, The Enclave, Preston Place, and Glenview Park. Environmental pollution will result from: Noise, light and vibration from ROMF operations. "Sustained squeal may occur throughout curve negotiation," according to TCRP Report 155 (Track Design Handbook for Light Rail Transit). ROMF plans show tight curves in and out of the rail yard. TCRP 155 also states "Ground-borne noise is heard as a low level rumble and may adversely impact residences, hospitals, and concert halls." The ROMF will have "stadium type lighting" 24 hours/day, 7 days/week. Tree removal and leveling of 25 acres of land to provide the necessary 0.5% grade for yard runs and 0.0% grade for storage tracks at the ROMF. Increased impervious surface would destroy extensive wetlands and create caustic runoff into nearby neighborhoods, New Hope Creek, and the Critically Protected Watershed of the Cape Fear River Basin. Violating the traditional framework of zoning and planning principles: Neighborhoods on Farrington Road and Ephesus Road are currently zoned Residential, R-20, with PDR 4.5 being the most dense land use. The Future Land Use Map indicates that the area on the east side of Farrington Road could be rezoned to Office or Commercial, retaining the Residential and Green Space context of the area; not ROMF Industrial. There are no other Industrial land use zones for miles around the proposed ROMF. There is no transition land use zoning between the proposed Industrial site and the current Residential land use. One 25-acre rezoning to Industrial would encourage additional Industrial rezoning efforts. Industrial land use zones are incompatible with low and medium density Residential land use zones or Institutional land use zones. Zoning and planning principles "avoid patterns of leapfrog, non-contiguous, and scattered development." (<a href="http://durhamnc.gov/414/Unified-Development-Ordinance-UDO">http://durhamnc.gov/414/Unified-Development-Ordinance-UDO</a>)--Cheers, Susan</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the*

DEIS section 2.2.3  
 DEIS section 4.8.4.3  
 DEIS section 4.11.3  
 DEIS section 4.12.4  
 DEIS section 4.12.4.6  
 DEIS section 8.2.2

alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.

DEIS section 8.2.2.1  
FEIS/ROD section 1.2.2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 21, 22, 52, 70, 76,  
78, 93, 94, 95 103, 104, 107,  
110, 119 121 and 137

All LRT systems in the US have grade crossings or run within public streets. Light Rail Transit (LRT) technology is designed to facilitate safe at-grade crossings of public streets. Other types of rail transit technology, such as heavy rail transit that uses an electrified third rail as opposed to overhead electric wires for propulsion (such as MARTA in Atlanta or Metro in DC), must be installed in fully grade separated exclusive guideway since the electrified rail must be kept away from the public. LRT, on the other hand, is designed with overhead electric wires with sufficient clearance to allow vehicular traffic to pass safely underneath where roadways cross the tracks. All at-grade crossings of the light rail tracks across public roadways will be designed in accordance with state and federal safety regulations pertaining to such crossing. As discussed in section 4.16.2, three types of light rail crossings are proposed as part of the D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. DEIS Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 to 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. Section 4.12.4.6 states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations and to get input during the development of the SSMP.

As described in 4.10, noise and vibration levels are estimated for the D-O LRT and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature,

#### **D-O LRT FEIS / ROD**



*adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF. Projected noise and vibration levels at receptors in the vicinity of the Farrington Road ROMF will not exceed FTA impact criteria. LRT operations at the ROMF site would occur at very low speeds and are not anticipated to result in rumble or wheel squeal on tight curves.*

*The materials to be used at the ROMF will be determined as the project is developed during the Engineering phase. As noted in DEIS section 4.11.3, the proposed D-O LRT Project would include a Rail Operations and Maintenance Facility where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. As mentioned in DEIS section 4.8.4.3, all regulated materials generated as part of maintenance would be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, DEIS Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.*

First Name	Last Name	Comment
Susan	Pierce	D-O LRT DEIS Comment This comment is limited to concerns raised only in Chapter 8 of Go Triangle's DEIS. As stated in the DEIS, the intent of Chapter 8 is to demonstrate the relative effectiveness of the NEPA Preferred Alternative and Project Element Alternatives compared with the No Build Alternative in meeting the project's Purpose and Need statement. My major concern: There is NO data to substantiate what Go Triangle claims. Seven (7) specific counterpoints to their claims follow. 1. Go Triangle's Table 8.1-1 claims enhanced mobility as noted below: "Would substantially improve and expand transit access for transit-dependent persons by increasing transit frequency and coverage, and by providing a new high-capacity transit alternative." Counterpoint: Transit-dependent persons are NOT served by the preferred route which eliminated stops/stations east

of Alston Avenue – a historically black and minority community. Further, the projected cost of \$2.50 puts rail travel out of financial feasibility for both students (who now have free buses on both UNC and Duke campuses) and minimum-wage workers.<sup>2</sup> Table 8.1-1 further claims decreased travel time, as noted below: “Would maintain or improve transit travel times between existing and planned activity centers; not affected by increases in congestion” Counterpoint: Travel times via light rail have now been revised to 44 minutes eachway such that a bus trip is faster.<sup>3</sup> Table 8.1-1 claims that connectivity exists to major transit is unfounded. GoTriangle claims: “• Would substantially increase convenience and accessibility of transit service for employment and nonemployment trips • Would serve regional trips as well as trips between and within major activity centers; service would be unconstrained by traffic conditions and geographical considerations” Counterpoints: a. A substantial number of Durham and Orange county residents work in what is known as “Research Triangle Park”. When Wake County abandoned this light rail project, all connectivity to a major group of employers was lost. Travel on interstate 40 between Orange, Durham and Wake counties is the major source of congestion. b. There is no connectivity to three major destination sites: • the Raleigh-Durham airport • downtown Chapel Hill • downtown Hillsborough<sup>4</sup> Table 8.1-1 claims that the NEPA preferred alternative is consistent with local zoning plans is simply false. • Is consistent with regional and local plans and policies” Counterpoint: The NEPA preferred ROMF location violates zoning and planning principles in the following ways: • Neighborhoods on Farrington Road and Ephesus Road are currently zoned Residential, R-

20, with PDR 4.5 being the most dense land use. • The Future Land Use Map indicates that the area on the east side of Farrington Road could be rezoned to Office or Commercial, retaining the Residential and Green Space context of the area; not ROMF Industrial. • There are no other Industrial land use zones for miles around the proposed ROMF. There is no transition land use zoning between the proposed Industrial site and the current Residential land use. • One 25-acre rezoning to Industrial would encourage additional Industrial rezoning efforts. • Industrial land use zones are incompatible with low and medium density Residential land use zones or Institutional land use zones. Zoning and planning principles “avoid patterns of leapfrog, non-contiguous, and scattered development.” (<http://durhamnc.gov/414/Unified-Development-Ordinance-UDO>)<sup>5</sup> Table 8.2-1 addresses visual and aesthetic considerations WITHOUT including the NEPA preferred ROMF site and its visual and aesthetic considerations. Counterpoint: Further, Table 8.2-3 claims “0” noise and vibration impacts which is contrary to TCRP report 155, noted below. Hence, the NEPA preferred ROMF site will be a blight on a residential neighborhood due to: • Noise, light and vibration from ROMF operations. a. “Sustained squeal may occur throughout curve negotiation,” according to TCRP Report 155 (Track Design Handbook for Light Rail Transit). b. ROMF plans show tight curves in and out of the rail yard. c. TCRP 155 also states “Ground-borne noise is heard as a low level rumble and may adversely impact residences, hospitals, and concert halls.” d. The ROMF will have “stadium type lighting” 24 hours/day, 7 days/week. • Tree removal and leveling of 25 acres of land to provide the necessary 0.5% grade for yard runs and 0.0% grade for storage tracks at the ROMF.<sup>6</sup> The DEIS 8.2.2.1 states that Durham County supports the NEPA preferred alternative Counterpoint: In fact, the Durham-Chapel Hill-Carrboro MPO will not vote on the plan until November 11, 2015. Further, take note that support from Durham City Council is absent, as they too are withholding their letter of support.<sup>7</sup> The DEIS on page 816, notes that the Farrington Road ROMF “is the least environmentally damaging practicable alternative, and has the most stakeholder support as compared with the Project Element Alternatives considered in this DEIS. “Counterpoints: a. There were more than 5 ROMF alternatives originally reviewed by GoTriangle (though the communications director will not provide any information on what those early eliminated sites were.) Go Triangle simply stopped reviewing sites when the Farrington Road land became readily available to them. Though it may be the best of the 5 in the DEIS, it is NOT a suitable site and Go Triangle needs to explain why they did not share or examine the original list of sites. b. There is NO stakeholder support for the Farrington Road location other than the individual who owns the 25 acre plot that he desires to sell to

his first very willing buyer. Numerous letters and signed petitions have been submitted to Go Triangle to that effect. c. Go Triangle ruled out the Patterson ROMF site through circular reasoning as follows: "The Patterson Place ROMF Alternative is a 16-acre site (the smallest of the five alternatives considered) adjacent to US 15501 and SW Durham Drive. The Patterson Place ROMF is not compatible with the NHC 1 and NHC 2 Alternatives because its location conflicts with the existing track alignment of these two alternatives." There is ample room to change the existing track alignment to create a "spur" that would enter the ROMF at-grade. This is but one example of inadequate study of alternatives. --[removed name, address, and phone number]

*Comment Responses*

*DEIS/Errata References*

*As illustrated in figures provided in section 4.2 of the DEIS, transit dependent populations are located throughout the D-O Corridor and mobility for those populations would be enhanced by the NEPA Preferred Alternative. The proposed D-O LRT Project's fares will likely be comparable to the bus fares that are in effect at that time. Both parking fees and bus fares will be set by the Triangle Transit Board of Trustees. Future extension of light rail beyond the proposed Alston Avenue station is not precluded by the NEPA Preferred Alternative, but would be the subject of a separate future NEPA evaluation effort.*

DEIS section 1.5.1.2  
 DEIS section 3.2  
 DEIS section 4.1.4.1  
 DEIS section 4.10.4  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95, 103, 104, 110,  
 119, 121 and 137

*In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways. As stated in DEIS section 1.3.2, over the past 10 years, Triangle Transit increased bus ridership by more than 140 percent adding more than a million additional trips from 2005 to 2014 (Figure 1.3-2). Due to the growing levels of congestion within the D-O Corridor, it is becoming difficult to maintain schedule adherence and consistency in travel times for bus routes in the corridor. On-time performance for weekday regional routes operating within the D-O Corridor is equal to or worse than the overall Triangle Transit system average (Table 1.3-1 and Figure 1.3-3). As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including*

*extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU is not warranted or cost effective for the Project. With the exception of a small percentage of regular business travelers, most Triangle residents use RDU between 1 and 10 times per year, but travel to their workplace 250+ days per year. As a region builds its transit system, a consistent model for success has been to link neighborhoods to those “250+ day destinations” with the highest capacity service, while ensuring quality bus links to other important trip generators like the primary regional airport. Hundreds of commuters to UNC from RTP, Morrisville, Cary, and Raleigh already park and ride today at parking lots at Southpoint Mall, Exit 282 off of I-40 at the Regional Transit Center, and at District Drive in Raleigh. They choose to use these bus services even though they are subjected to traffic on NC 54. The light rail, with a major park-and-ride facility at Leigh Village, will offer a higher level of frequency than these routes and will not be subject to traffic congestion in the future when traffic is worse. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.*

*As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. The determination is based on the noise and vibration analysis conducted in accordance with FTA guidance. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the*

*Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

First Name	Last Name	Comment
Dr. Susan	Pierce	<p>Get Involved Contact Form[removed name, email phone number] DOLRT DEIS CommentThis comment is limited to concerns raised only in Chapter 8 of Go Triangle’s DEIS. As stated in the DEIS, the intent ofChapter 8 is to demonstrate the relative effectiveness of the NEPA Preferred Alternative and Project Element Alternativescompared with the No Build Alternative in meeting the project’s Purpose and Need statement.My major concern: there is NO data to substantiate what Go Triangle claims. Seven (7) specific counterpoints to theirclaims follow.1. Go Triangle’s Table 8.11 claims enhanced mobility as noted below:“Would substantially improve and expand transit access for transitdependentpersons by increasing transit frequency and coverage, and by providing a new high capacity transit alternative.”Counterpoint: Transit dependent persons are NOT served by the preferred route which eliminated stops/stations east of Alston Avenue – a historically black and minority community. Further, the projected cost of \$2.50 puts rail travel out offinancial feasibility for both students (who how have free buses on both UNC and Duke campuses) and minimumwage workers.2. Table 8.11further claims decreased travel time, as noted below:“Would maintain or improve transit travel times between existing and planned activity centers; not affected by increases incongestion”Counterpoint: Travel times via light rail have now been revised to 44 minutes each way such that a bus trip is faster.3. Table 8.11claims that connectivity exists to major transit is unfounded. Go Triangle claims:“• Would substantially increase convenience and accessibility of transit service for employment and nonemploymenttrips• Would serve regional trips as well as trips between and within major activity centers; service would be unconstrained bytraffic conditions and geographical considerations”Counterpoints:a. A substantial number of Durham and Orange county residents work in what is known as “Research Triangle Park”.When Wake County abandoned this light rail project, all connectivity to a major group of employers was lost. Travel oninterstate 40 between Orange, Durham and Wake counties is the major source of congestion.b. There is no connectivity to three major destination sites:• the RaleighDurhamairport• downtown Chapel Hill• downtown Hillsborough4. Table 8.11claims that the NEPA preferred alternative is consistent with local zoning plans is simply false.• Is consistent with regional and local plans and policies”Counterpoint: The NEPA preferred ROMF location violates zoning and planning principles in the following ways:• Neighborhoods on Farrington Road and Ephesus Road are currently zoned Residential, R20,with PDR 4.5 being themost dense land use.• The Future Land Use Map indicates that the area on the east side of Farrington Road could be rezoned to Office orCommercial, retaining the Residential and Green Space context of the area; not ROMF Industrial.• There are no other Industrial land use zones for miles around the proposed ROMF. There is no transition land use zoningbetween the proposed Industrial site and the current Residential land use.• One 25acrere zoning to Industrial would encourage additional Industrial rezoning efforts.• Industrial land use zones are incompatible with low and medium density Residential land use zones or Institutional landuse zones. Zoning and planning principles “avoid patterns of leapfrog, noncontiguous,and scattered development.”(<a href="http://durhamnc.gov/414/UnifiedDevelopmentOrdinanceUDO">http://durhamnc.gov/414/UnifiedDevelopmentOrdinanceUDO</a>)5. Table 8.21addresses visual and aesthetic considerations WITHOUT including the NEPA preferred ROMF site and itsvisual and aesthetic considerations.Counterpoint: Further, Table 8.23claims “0” noise and vibration impacts which is contrary to TCRP report 155, notedbelow. Hence, the NEPA preferred ROMF site will be a blight on a residential neighborhood due to:• Noise, light and vibration from ROMF operations.a.</p>



“Sustained squeal may occur throughout curve negotiation,” according to TCRP Report 155 (Track Design Handbook for Light Rail Transit).b. ROMF plans show tight curves in and out of the rail yard.c. TCRP 155 also states “Groundborne noise is heard as a low level rumble and may adversely impact residences, hospitals, and concert halls.”d. The ROMF will have “stadium type lighting” 24 hours/day, 7 days/week. • Tree removal and leveling of 25 acres of land to provide the necessary 0.5% grade for yard runs and 0.0% grade for storage tracks at the ROMF.6. The DEIS 8.2.2.1 states that Durham County supports the NEPA preferred alternative. Counterpoint: In fact, the Durham Chapel Hill Carrboro MPO will not vote on the plan until November 11, 2015. Further, take note that support from Durham City Council is absent, as they too are withholding their letter of support.7. The DEIS on page 816, notes that the Farrington Road ROMF “is the least environmentally damaging practicable alternative, and has the most stakeholder support as compared with the Project Element Alternatives considered in this DEIS. “Counterpoints: a. There were more than 5 ROMF alternatives originally reviewed by Go Triangle (though the communications director will not provide any information on what those early eliminated sites were.) Go Triangle simply stopped reviewing sites when the Farrington Road land became readily available to them. Though it may be the best of the 5 in the DEIS, it is NOT a suitable site and Go Triangle needs to explain why they did not share or examine the original list of sites. b. There is NO stakeholder support for the Farrington Road location other than the individual who owns the 25 acre plot that he desires to sell to his first very willing buyer. Numerous letters and signed petitions have been submitted to Go Triangle to that effect. c. Go Triangle ruled out the Patterson ROMF site through circular reasoning as follows: “The Patterson Place ROMF Alternative is a 16 acre site (the smallest of the five alternatives considered) adjacent to US 15501 and SW Durham Drive. The Patterson Place ROMF is not compatible with the NHC 1 and NHC 2 Alternatives because its location conflicts with the existing track alignment of these two alternatives” There is ample room to change the existing track alignment to create a “spur” that would enter the ROMF at grade. This is but one example of inadequate study of alternatives.

*Comment Responses*

*DEIS/Errata References*

*As illustrated in figures provided in section 4.2 of the DEIS, transit dependent populations are located throughout the D-O Corridor and mobility for those populations would be enhanced by the NEPA Preferred Alternative. The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs. Both parking fees and bus fares will be set by the Triangle Transit Board of Trustees. As noted in DEIS section 2.3.1., transit patrons would purchase rides prior to boarding from ticket vending machines*

DEIS chapter 5  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.4.4.1  
 DEIS section 4.10.4  
 DEIS section 8.2.2.1  
 DEIS Table 4.2-4  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-1  
 DEIS Errata 21, 22, 52, 64, 70,  
 76, 78, 93, 94, 95 103, 104,  
 110, 119 121 and 137

**D-O LRT FEIS / ROD**

located at each station. Both parking fees and bus fares will be set by the Triangle Transit Board of Trustees. Future extension of light rail beyond the proposed Alston Avenue station is not precluded by the NEPA Preferred Alternative, but would be the subject of a separate future NEPA evaluation effort. Even under current demands, the region's transportation system is beginning to strain. Levels of congestion are increasing and are anticipated to worsen, which will lead to increased travel times and the continuation of automobile-oriented development patterns. The region's explosive growth is also outpacing the ability to repair, replace and expand the existing roadway network. Considering financial and environmental issues, simply increasing highway capacity to meet these demands is no longer a viable option (ES-5). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.

Table 8.2-1 indicates that the NEPA Preferred Alternative is "consistent with local planning efforts", not that it is consistent with all local zoning. As stated in DEIS section 8.2.2.1, in earlier transportation planning studies, portions of the NEPA Preferred Alternative were identified as the preferred corridor for high capacity transit and the areas around the proposed Friday Center, Woodmont, Leigh Village, Patterson Place, MLK Jr. Parkway, South Square, Duke/VA Medical Centers Trent/Flowers, Ninth Street, and Alston Stations were identified for future growth. Footnote "a" to Table 8.2-1 identifies that "The NEPA Preferred Alternative includes C2A, NHC 2, Trent/Flowers Drive Station, and the Farrington Road ROMF (A comparison of the ROMF Alternatives is shown in Table 8.2-3)." Table 8.2-3 identifies that the Farrington Road ROMF is not consistent with current local zoning. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the

site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process.

As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. The determination is based on the noise and vibration analysis conducted in accordance with FTA guidance. LRT speeds within and near the ROMF site would be limited for safety purposes. Tight turns on track within the ROMF site will be at very low speed and are not anticipated to generate rumble or wheel squeal. Section 4.4.3.1 and section 1.4 of the combined FEIS/ROD, DEIS Errata 76, notes that lighting would be aimed towards the ROMF to minimize the impacts of light on surrounding neighbors and wildlife. In addition, source-shielding would be used in exterior lighting at the ROMF. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. Section 4.4.4.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and standards in the design of project elements and provide landscaping and aesthetic treatments within close proximity to residences. As clarified in section 1.4 of the combined FEIS/ROD, DEIS Errata 78, visual and aesthetic impacts associated with the Farrington Road ROMF will be mitigated through coordination with the surrounding landowners and the City of Durham during Engineering. Potential treatments include landscaping, architectural treatments, visual barriers, and building height maximums. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. Additional ROMF sites were evaluated in early study efforts that included Wake County. A draft technical report was prepared in 2011 that included two potential ROMF sites located in Wake County. This report also included the Leigh Village, Farrington Road, and Patterson Place sites. As part of the D-O Corridor Alternatives Analysis, the Leigh Village, Farrington Road, Patterson Place, and Cornwallis Road ROMF alternatives were identified based on sufficient acreage and length to accommodate the required functions, grading that could accommodate a ROMF, and other issues related to operations and functionality. The Alston Avenue ROMF Alternative was not initially considered as a potential ROMF site by Triangle Transit. However, due to a request from the City of Durham and after initial evaluation by Triangle Transit to ascertain the reasonableness of this site, the Alston Avenue ROMF Alternative was carried forward for further study in the DEIS. Section 8.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which

accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.

Durham County submitted comments on the DEIS in a letter dated October 8, 2015 that include a statement of support for the DEIS and the NEPA Preferred Alternative. The Durham City Council endorsed the NEPA Preferred Alternative at their October 5, 2015 meeting and submitted a letter to document their support on October 6, 2015.

First Name	Last Name	Comment
Susan	Pierce	The proposed placement of the ROMF at the Farrington location is counter to this DEIS statement and intent, and will compromise the the very water supplies that DOLRT is supposedly trying to preserve. The introduction of impervious surface area with the 90 acre Leigh Village proposed development, the introduction of 12 acres of parking spaces and the ROMF (and associated parking) at Farrington will further compound the adverse environmental impact to local water resources. GoTriangle must address this intentional water pollution.

Comment Responses	DEIS/Errata References
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Water resources are discussed in DEIS section 4.8. DEIS section 4.8.3.1 summarizes the potential impacts the NEPA Preferred Alternative (which includes the Farrington ROMF). Indirect Effects to Water Resources are described in DEIS section 4.17. As stated in DEIS section 4.17.1.3 under the Water Resources sub-heading, existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 92 clarifies that as the design progresses, construction related impacts, including temporary impacts or otherwise, will be identified and will be included as part of the 401 Water Quality Certification application. Section 1.4 of the combine FEIS/ROD, DEIS Errata 102 provides language that if hydraulic studies during Engineering determine that the NEPA Preferred Alternative would cause an increase in flood levels during the base flood discharge, then a No-Rise Certification would be obtained from the NC Department of Public Safety Division of Emergency Management. If studies indicate that there would be an increase in flood levels, then a Conditional Letter of Map Revision would be requested. Section 1.4 of the combined FEIS/ROD, DEIS Errata 97 further indicates that a floodplain development permit will be obtained from the local jurisdiction for all construction, grading, development, or the storage of equipment or

DEIS section 4.8.3.1  
 DEIS section 4.17  
 DEIS section 4.17.1.3  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-2  
 DEIS Errata 92, 97, and 102

First Name	Last Name	Comment
Susan	Pierce	Mitigation for ROMF location in a residential area:If Go Triangle insists on placing the ROMF in a residential zone, it must include these 6 things:1. a 50 foot buffers of trees,both on the residential side and on the Interstate 40 side in order to both replace standing trees and mitigate not only the ROMF noise but also the interstate noise.2. Since trees are not an adequate buffer for low-pitched noise, construct a 20 foot, attractive brick wall on the Farrington Road side.3. State of the art protection from crime and theft,4. light shielding for the surrounding neighbors from the "stadium type lighting on the rail yards".5. schedule deliveries to the ROMF only from 10am-2pm so that it will not add to the already heavy congestion of the peak traffic hours of the day and the opening and closing of the 1000-pupil elementary school which is just 500 ft from theROMF entrance.6. Have solar power panels so as not to drain the City power grid

Comment Responses	DEIS/Errata References
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*Section 4.4.3.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and stands in the design of project elements and provide landscaping and aesthetic treatments with in close proximity to residences. The ROMF site will be secured around the perimeter.As noted in DEIS section 4.12.3.6, the various security and emergency management issues that a light rail system typically must address through design include: system surveillance, evidence collection, and storage (e.g., CCTV surveillance systems); access controls including credentialing, perimeter fencing, security authorizations, intrusion alarms, and background checks; security design of physical system elements such as facilities, vehicles, aerial structures, pedestrian tunnels, catenary, control centers, etc.; use of security technologies such as facial recognition software and supervisory control and data acquisition (SCADA); security awareness training and security policies; crime; planning for emergency situations; and, providing familiarization training to external police departments and other emergency providers on safely engaging with the system such as how to deal with power systems (e.g., de-energizing power systems) and general equipment (e.g., manually opening vehicle doors and instructions to safety knock out windows).Section 4.4.3.1 and section 1.4 of the combined FEIS/ROD, DEIS Errata 76, notes that lighting would be aimed towards the ROMF to minimize the impacts of light on surrounding neighbors and wildlife. In addition, source-shielding would be used in exterior lighting at the ROMF. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. Deliveries to the ROMF will be for operational efficiencies, taking into account elements such as staff availability, traffic congestion on the local roadway network, and delivery service availability. It is worth noting that Creekside Elementary is more than 700 ft. from the ROMF.The source of energy, e.g. renewable or fossil fuels, has not been determined at this time. It will be determined closer to the start of revenue operations and something that could be revisited after revenue operations have begun. For the purposes of the DEIS, it was assumed electricity would be provided by fossil fuels, to provide a conservative assessment of the benefits of D-O LRT Project.*

DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.10.4  
 DEIS appendix K24  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-1  
 DEIS Errata 76



DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts. Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24. As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process.

First Name	Last Name	Comment
William	Pitts	There are many reasons why building the ROMF on Farrington Road is not workable. There are also many reasons why the DOLRT is also not workable. Only some of which are listed here.1.It will require the seizing by eminent domain of at least 6 properties. One of which has been in the same black family since 1888.2.It will require the rezoning of an area which is currently low density residential to industrial. This would totally alter the entire area for the worse. That would be incompatible with any and all future land use plans for the area.3.It would create an environmental hazard for the New Hope Creek area. A number of the homes in this area are dependent on wells for their drinking water. It will also produce significant storm water runoff into the surrounding area. The ROMF would operate 24 hours a day 7 days a week 365 days a year. Not to mention the noise from the rail trains. This would have considerable impact on our area.4.The ROMF and DOLRT tracks would create a potential safety hazard for Creekside Elementary School.5.It will decrease all of the property values in the area. Especially for the homeowners at the Villas at Culp Arbor which is a retirement community that is almost across from the ROMF proposed site.6.Traffic on Farrington road during rush hour is bad enough as it is. The grade level train crossing on Farrington Road planned by GoTriangle will cause traffic to come to a standstill. This will make it much harder and take longer to get to and from NC 54 and I40. This would be only one of 42 grade level

crossings in the GoTriangle plane for the 17 mile route.7.A BRT (Bus Rapid Transit) system will serve the area much better and at far less cost to the taxpayers who will have to support this project. It will be flexible and be able to provide service where it is needed as conditions change over time.8.Research has shown that GoTriangle’s estimates of DOLRT ridership are vastly overestimated. Public transit usage in Durham and Orange counties is only 4.5 percent. I don’t think a light rail system that does not go where people want to go will increase this number. Currently the State is only willing to contribute \$500K to DOLRT instead of \$138M GoTriangle is expecting. In addition the ½ cent sales tax passed in Durham and Orange counties is for all transportation and not just the light rail. GoTriangle states that they estimate that it will cost \$18M to operate and maintain the light rail system per year. Given these numbers GoTriangle does not have the funding to build and operate a light rail system in Durham and Orange counties. It will not be sustainable at the cost/benefit levels projected.9.The rail system will not provide the congestion relief predicted. Automobile traffic will probably increase in the 54/40 corridor in order for riders to get to and from the stations in that area. I also do not believe that people will drive to a rail station, take the train, and then possibly a bus to get to their destination given the relatively short distances as well as long travel times now estimated. 10.The proposed route does not now serve several important destinations. These would be the DPAC, the DBAP, central downtown Durham and downtown Chapel Hill. In my opinion these destinations would provide a good deal of ridership but they are not part of any proposed route. It also does not serve downtown Raleigh and all of the State Capital buildings and offices, the PNC Arena/Carter Finley/State Fair Grounds area, RDU International Airport, and the Research Triangle Park (RTP) because Wake3 County dropped out of the light rail plan. It also does not directly connect the UNC, Duke, and NCCU campuses. Riders wanting to go the main parts of each campus would have to walk or take buses from the stations.11.The Charlotte Light Rail (LYNX), to which the DOLRT has been compared, has not had the ridership they expected even though it actually does go where people want to go, that is downtown Charlotte. I have been told that LYNX does not now plan to extend their lines at this time. This should be a warning that a system that does not go where people want to go is doomed to failure.I urge you not support the DOLRT in any form or the Rail Operations and Maintenance Facility (ROMF). The Federal, State, and Local governments have much more pressing needs for our tax dollars than this project.Respectfully,

*Comment Responses*

*DEIS/Errata References*

*Any relocation of a displaced use would also be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 C.F.R. 24). Ample notice would be given to those being relocated to allow for any planning contingencies that may arise. In accordance with Title VI of the Civil Rights Act of 1964, Triangle Transit would provide relocation advisory assistance to all eligible persons without discrimination. Property Values: Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail.*

DEIS chapter 3  
 DEIS section 2.2.3  
 DEIS section 3.2  
 DEIS section 3.2.3  
 DEIS section 3.6  
 DEIS section 4.1.4.1  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3  
 DEIS section 4.17  
 DEIS section 4.17.3.1  
 DEIS section 8.2.2.1  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 FEIS/ROD Table ROD-2

*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process.*

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*D-O LRT FEIS / ROD*

stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.

Under FTA grant rules and safety regulations, the D-O LRT Project Team and the proposed NEPA Preferred and Project Element Alternatives are subject to rigorous review requirements – from light rail design conceptualization through operations and maintenance – to ensure the safety of the public and the D-O LRT personnel. Design and operational system elements must first be evaluated for safety risks. Any such risks must then be accepted, mitigated, or eliminated through design and/or operational changes. Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signaled or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million

Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>.<sup>5</sup> Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail. Triangle Transit has looked at several studies regarding property values nationwide. Our summaries for those issues are here:

- Property Value Studies Summary [2 pages | PDF | 283 KB]
- Property Values around the Charlotte Vehicle Maintenance Facility [5 pages | PDF | 988 KB]

More information can be found at <https://www.stlouisfed.org/publications/bridges/winter-20032004/lightrail-transit-myths-and-realities> and at <http://uli.org/infrastructure-initiative/uli-research-roundup-the-impact-of-transit-on-property-values/>. A study published in the *Journal of Transport and Land Use* found an overall positive impact on the value of single-family homes along Charlotte first light rail line; see <https://www.jtlu.org/index.php/jtlu/article/download/261/242.6> and 9: In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. DEIS Chapter 3 provides information on the potential traffic effects of the D-O LRT Project.

7. Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>

10: Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to



*rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>. 11. As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

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William	Pitts	<p>There are many reasons why building the ROMF on Farrington Road is not workable. There are also many reasons why the DOLRT is also not workable. Only some of which are listed here. 1. It will require the seizing by eminent domain of at least 6 properties. One of which has been in the same black family since 1888. 2. It will require the rezoning of an area which is currently low density residential to industrial. This would totally alter the entire area for the worse. That would be incompatible with any and all future land use plans for the area. 3. It would create an environmental hazard for the New Hope Creek area. A number of the homes in this area are dependent on wells for their drinking water. It will also produce significant storm water runoff into the surrounding area. It would also create substantial noise in what is now a residential area. The ROMF would operate 24 hours a day 7 days a week 365 days a year. Not to mention the noise from the light rail trains. This would have a considerable impact on our area. 4. The ROMF and DOLRT tracks would create a potential safety hazard for Creekside Elementary School. 5. It will decrease all of the property values in the area. Especially for the homeowners at The Villas at Culp Arbor which is a retirement community that is almost across from the ROMF proposed site. 6. Traffic on Farrington road during rush hour is bad enough as it is. The grade level train crossing on Farrington Road planned by GoTriangle will cause traffic to come to a standstill. This will make it much harder and take longer to get to and from NC 54 and I40. This would be only one of 42 grade level crossings in the GoTriangle plan for the 17 mile route. 7. A BRT (Bus Rapid Transit) system will serve the area much better and at far less cost to the taxpayers who will have to support this project. It will be flexible and be able to provide service where it is needed as conditions change over time. 8. Research has shown that GoTriangle's estimates of DOLRT ridership are vastly overestimated. Public transit usage in Durham and Orange counties is only 4.5 percent. I don't think a light rail system that does not go where people want to go will increase this number. Currently the State is only willing to contribute \$500K to DOLRT instead of the \$138M GoTriangle is expecting. In addition the 1/2 cent sales tax passed in Durham and Orange counties is for all transportation and not just the light rail. GoTriangle states that they estimate that it will cost \$18M to operate and maintain the light rail system per year. Given these numbers GoTriangle does not have the funding to build and operate a light rail system in Durham and Orange counties. It will not be sustainable at the cost/benefit levels projected. 9. This rail system will not provide the congestion relief predicted. Automobile traffic will probably increase in the 54/I40 corridor in order for riders to get to and from the stations in that area. I also do not believe that people will drive to a rail station, take the train, and then possibly a bus to get to their destination given the relatively short distances as well as long travel times now estimated. 10. The proposed route does not now serve several important destinations. These would be the</p>

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• [Property Values around the Charlotte Vehicle Maintenance Facility \[5 pages | PDF | 988 KB\]](#) More information can be found at <https://www.stlouisfed.org/publications/bridges/winter-20032004/ligtrail-transit-myths-and-realities> and at <http://uli.org/infrastructure-initiative/uli-research-roundup-the-impact-of-transit-on-property-values/>. A study published in the *Journal of Transport and Land Use* found an overall positive impact on the value of single-family homes along Charlotte first light rail line; see <https://www.jtlu.org/index.php/jtlu/article/download/261/242.6> and 9: In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. DEIS Chapter 3 provides information on the potential traffic effects of the D-O LRT Project. 7. Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com> 10: Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (Figure 2.1-1). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in Section 2.1. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>. 11. As stated in Triangle Transit’s Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: “Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened.” Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of



First Name	Last Name	Comment
William	Pitts	<p>My name is [REMOVED NAME], and I live at [REMOVED ADDRESS, CITY AND AREA]. There are many reasons why building the ROMF on Farrington Road is not workable. There are also many reasons why the DOLRT is also not workable, only some of which will be listed here. It will require the seizing by eminent domain of at least six properties, one of which has been in the same black family since 1888. It will require the rezoning of an area, which is currently low-density residential, to industrial. This will totally alter the entire area for the worse. This would be incompatible with any and all future land-use plans for the area. It will create an environmental hazard for the New Hope Creek area. A number of homes in this area are dependent on wells for their drinking water. It will also produce significant storm water runoff into the surrounding area. It will also create substantial noise in what is now a residential area. The ROMF will operate 24 hours a day 7-days a week 365 days a year, not to mention the noise from the trains themselves. This would have a considerable impact on the area. The ROMF and the DOLRT tracks will create a potential safety hazard for Creekside Elementary School. It will decrease the property values in the area, especially for the homeowners in the Villas of Culp Arbor, which is a -- a retirement community that is almost across from the ROMF-proposed site. Traffic on Farrington Road during rush hour is bad enough as it is. The grade-level crossing on Farrington Road planned by GoTriangle will cause traffic to come to a standstill. It will make it much harder and take longer to get to and from NC 54. This will be only 1 of 42 grade-level crossings in the GoTriangle plan of the 17-mile route. A BRT, bus rapid transit, system will serve the area much better with far less cost to tax payers who will have to support the project and will be flexible and be able to provide service where it is needed as conditions change over time. I strongly urge not to support the DOLRT or the ROMF. Federal and state and local governments have much more pressing needs for their tax dollars than this project.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the*

- DEIS section 3.2.2
- DEIS section 3.2.4
- DEIS section 4.1.4.1
- DEIS section 4.4.3.1
- DEIS section 4.10.4
- DEIS section 8.2.2
- DEIS section 8.2.2.1
- DEIS Table 3.2-3
- FEIS/ROD section 1.2.2
- FEIS/ROD section 1.4
- FEIS/ROD Table FEIS-2
- FEIS/ROD Table ROD-1
- DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119, 121, and 137

approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4, no noise impacts are anticipated at the Farrington ROMF. Section 4.4.3.1 and section 1.4 of the combined FEIS/ROD, DEIS Errata 76, notes that lighting would be aimed towards the ROMF to minimize the impacts of light on surrounding neighbors and wildlife. In addition, source-shielding would be used in exterior lighting at the ROMF. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.

Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail. Triangle Transit has looked at several studies regarding property values nationwide. Our summaries for those issues are here: • [Property Value Studies Summary \[2 pages | PDF | 283 KB\]](#) • [Property Values around the Charlotte Vehicle Maintenance Facility \[5 pages | PDF | 988 KB\]](#) More information can be found at <https://www.stlouisfed.org/publications/bridges/winter-20032004/lightrail-transit-myths-and-realities> and at <http://uli.org/infrastructure-initiative/uli-research-roundup-the-impact-of-transit-on-property-values/>. A study published in the *Journal of Transport and Land Use* found an overall positive impact on the value of single-family homes along Charlotte first light rail line; see <https://www.jtlu.org/index.php/jtlu/article/download/261/242>.

In accordance with federal regulations governing control of public streets and the interface of light rail transit systems with those public streets, for light rail crossings in close proximity to traffic signals on NC 54, light rail crossing gate controls will be interconnected with the traffic signal controls. This means that the traffic signal will be synchronized with the light rail train control such that when a light rail train is approaching, the traffic signal will change if necessary to clear vehicles from the crossing. Traffic signal phases that do not conflict with the light rail tracks will be able to run while the train is passing. For example, traffic traveling on NC 54 would have a green light while the light rail train crosses Friday Center Drive and East Barbee Chapel Road under the C2A Alternative. There will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 to 45 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately

**D-O LRT FEIS / ROD**

90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway projects planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance.

Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com).

First Name	Last Name	Comment
William	Pitts	<p>I am writing to ask that you do not support the proposed Light Rail Project in Durham and Orange counties (DOLRT) and the associated ROMF (Rail Operations Maintenance Facility), now to be located on Farrington Road. There are many reasons why building the ROMF in this location not workable. Only some of which are listed here. It will require the seizing by eminent domain of at least 6 properties. One of which has been in the same black family since 1888. It will require the rezoning of an area which is currently low density residential to industrial. This would totally alter the entire area for the worse. That would be incompatible with any and all future land use plans for the area. It would create an environmental hazard for the New Hope Creek area. A number of the homes in this area are dependent on wells for their drinking water. It will also produce significant storm water runoff into the surrounding area. It would also create substantial noise in what is now a residential area. The ROMF would operate 24 hours a day 7 days a week 365 days a year. Not to mention the noise from the light rail trains. This would have a considerable impact on our area. The ROMF and DOLRT tracks would create a potential safety hazard for Creekside Elementary School. It would decrease all of the property values in the area. Especially for the homeowners at The Villas at Culp Arbor which is a retirement community and is almost across from the ROMF. Research has shown that GoTriangle's estimates of DOLRT ridership are vastly overestimated. This rail system will not provide the congestion relief predicted. Automobile traffic will actually increase in the 54/I40 corridor in order for riders to get to and from the stations in that area. I do not believe that people will drive to a rail station, take the train, and then possibly a bus to get to their destination given the relatively short distances as well as long travel times now estimated. It will not be sustainable at the cost/benefit levels projected. Public transit usage in Durham and Orange counties is only 4.5 percent. I don't think a light rail system that does not go where people want to go (e.g. RDU Intl. Airport) will increase this number. This would be another "Bridge to Nowhere". The original projected cost of The Gravina Island Bridge was \$398M. The projected cost of the DOLRT is \$1.8B. More than 4 times the projected cost of the "Bridge to Nowhere". It also does not directly connect the UNC, Duke, and NCCU. Riders wanting to go the main parts of each campus would have to walk or take buses from the stations. The proposed route does not now nor did it ever as far as I know serve several important destinations in the Triangle area. These would be the RBC Center/Carter Finley/State Fair Grounds, RDU International Airport, and The Research Triangle Park (RTP). In my opinion these</p>

destinations would provide a good deal of ridership but they are not part of any proposed route. Neither are downtown Raleigh and all of the State Capital buildings and offices. It also does not serve central downtown Durham, the DPAC, and the DBAP. Traffic on Farrington road during rush hour is bad enough as it is. The grade level train crossing on Farrington Road planned by GoTriangle will cause traffic to come to a standstill. This will make it much harder and take longer to get to and from NC 54 and I40. It will also make it difficult for first responders to get to residents of the Farrington Road area in a timely manner. The Charlotte Light Rail (LYNX), to which the DOLRT has been compared, has not had the ridership they expected even though it actually does go where people want to go, that is downtown Charlotte. I have been told that LYNX does not now plan to extend their lines at this time. This should be a warning that a system that does not go where people want to go is doomed to failure. A BRT (Bus Rapid Transit) system will serve the area much better and at far less cost to the taxpayers who will have to support this project. It will be flexible and be able to provide service where it is needed as conditions change over time. I urge you to not support the DOLRT in any form or the Rail Operations and Maintenance Facility (ROMF) on Farrington Road. The Federal, State, and Local governments have much more pressing needs for our tax dollars than this project.

*Comment Responses*

*DEIS/Errata References*

*Any relocation of a displaced use would also be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 C.F.R. 24). Ample notice would be given to those being relocated to allow for any planning contingencies that may arise. In accordance with Title VI of the Civil Rights Act of 1964, Triangle Transit would provide relocation advisory assistance to all eligible persons without discrimination. Property Values: Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail*

DEIS chapter 3  
 DEIS section 2.2.3  
 DEIS section 3.2  
 DEIS section 3.2.3  
 DEIS section 3.6  
 DEIS section 4.1.4.1  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3  
 DEIS section 4.17  
 DEIS section 4.17.1.3  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 FEIS/ROD Table ROD-2  
 DEIS Errata 21, 36, 92, 94, 97, 102, 108, and 119

*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to*

*develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process.*

*Water resources are discussed in DEIS section 4.8. DEIS section 4.8.3.1 summarizes the potential impacts the NEPA Preferred Alternative (which includes the Farrington ROMF). Indirect Effects to Water Resources are described in DEIS section 4.17. As stated in DEIS section 4.17.1.3 under the Water Resources sub-heading, existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 92 clarifies that as the design progresses, construction related impacts, including temporary impacts or otherwise, will be identified and will be included as part of the 401 Water Quality Certification application. Section 1.4 of the combined FEIS/ROD, DEIS Errata 102 provides language that if hydraulic studies during Engineering determine that the NEPA Preferred Alternative would cause an increase in flood levels during the base flood discharge, then a No-Rise Certification would be obtained from the NC Department of Public Safety Division of Emergency Management. If studies indicate that there would be an increase in flood levels, then a Conditional Letter of Map Revision would be requested. Section 1.4 of the combined FEIS/ROD, DEIS Errata 97 further indicates that a floodplain development permit will be obtained from the local jurisdiction for all construction, grading, development, or the storage of equipment or materials within the Special Flood Hazard Area (SFHA). DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately-owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development*



*design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated.*

*Under FTA grant rules and safety regulations, the D-O LRT Project Team and the proposed NEPA Preferred and Project Element Alternatives are subject to rigorous review requirements – from light rail design conceptualization through operations and maintenance – to ensure the safety of the public and the D-O LRT personnel. Design and operational system elements must first be evaluated for safety risks. Any such risks must then be accepted, mitigated, or eliminated through design and/or operational changes. Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>. Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station*

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daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened."Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).

First Name	Last Name	Comment
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Barbara K	Post	Light Rail Maintenance Facility maintenance facility along Farrington Road, near Creekside Elementary School. I am strongly opposed to sitting the rail
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Farrington Road is a semi-rural, residential neighborhood that has existed for 50 years or more, Farrington Road is zoned residential, and all those who live nearby have relied on the Comprehensive Plan and zoning to preserve residential uses. Creekside Elementary, which is and will be a growing campus, is almost immediately adjacent to the proposed rail maintenance facility. The rail maintenance facility will be a 24/7 operation, with much of the cleaning, repair, noise, lights, employee traffic, commotion, and chance for some sort of spill or accident occurring at nights and on weekends. The rail maintenance facility is not compatible with the quiet, residential character of Farrington Road. The facility is not compatible with existing zoning or with the adopted Comprehensive Plan for this part of Durham County. On the other hand, East Durham has industrial zoning. East Durham has rail yards and has workforce housing nearby, within walking distance. East Durham, needs jobs. If a rail maintenance facility has to be built, and I do not support the light rail system whatsoever, then the maintenance facility must not and cannot be built on Farrington Road. It should be built on industrially zoned land in East Durham.

Comment Responses	DEIS/Errata References
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 1.2.2  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.10.4  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS section 8.2.2.2  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137

*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is*

*expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the “Farrington Road ROMF Alternative” subsection or DEIS section 1.2.2 under the “Farrington ROMF Alternative” subsection.*

*Although the Alston Avenue ROMF alternative would not require rezoning, it would introduce several risks to both the project schedule and budget, associated with the potential of regulated materials remediation and relocation of businesses. It also has the potential to result in net loss of employment within the D-O Corridor if the existing businesses that would be displaced could not be relocated within the D-O Corridor. This alternative has the highest capital cost of all of the alternatives considered in this DEIS (section 8.2.2.2).*

First Name	Last Name	Comment
Barbara	Post	<p>Bus Rapid TransitThe Chapel Hill/Durham area needs a long-term public transit strategy, but the correct strategy is not light rail. The correct strategy is Bus Rapid Transit (BRT).The light rail DEIS contains information that strongly supports BRT. The light rail DEIS does not provide a thorough, accurate, or honest comparison of light rail with BRT. This deficiency is a tremendous flaw in the DEIS.BRT is less expensive. According to information in the DEIS, BRT could cost one-tenth as much, per mile, as light rail.BRT is faster. The DEIS projects a full length trip for light rail at 42-44 minutes (average 43) and 30 minutes estimated for BRT. This means, BRT, on average, may be 10% faster.BRT is flexible. The DEIS does not do an honest job of describing light rail will be affixed corridor. BRT is highly flexible. Our street system is highly adaptable and has changed and will change over the coming years. As population/employment centers evolve, BRT is flexible enough to move where the people are and where they want to go. A fixed rail system is not flexible.BRT is scalable. BRT could be set up as a “spine” system, as a “hub of spoke” system, or any combination thereof. The number and size of buses is flexible and can be changed to reflect ridership. Routes can be scaled up or scaled back to respond to ridership. BRT routes can be relocated and then changed again if needed at a much lower cost than fixed rail.In summary, using facts from the DEIS, BRT is much, much cheaper, slightly faster, more flexible, and more scalable. The DEIS is deficient in not fully comparing light rail with a cheaper, faster, better alternative. The DEIS is flawed, and therefore the DEIS for light rail should be rejected.</p>

*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>.*

First Name	Last Name	Comment
Philip	Post	<p>Bus Rapid TransitThe Chapel Hill/Durham area needs a long-term public transit strategy, but the correct strategy is not light rail. The correct strategy is Bus Rapid Transit (BRT).The light rail DEIS contains information that strongly supports BRT. The light rail DEIS does not provide a thorough, accurate, or honest comparison of light rail with BRT. This deficiency is a tremendous flaw in the DEIS.BRT is less expensive. According to information in the DEIS, BRT could cost one-tenth as much, per mile, as light rail.BRT is faster. The DEIS projects a full length trip for light rail at 42-44 minutes (average 43) and 30 minutes estimated for BRT. This means, BRT, on average, may be 10% faster.BRT is flexible. The DEIS does not do an honest job of describing light rail will be affixed corridor. BRT is highly flexible. Our street system is highly adaptable and has changed and will change over the coming years. As population/employment centers evolve, BRT is flexible enough to move where the people are and where they want to go. A fixed rail system is not flexible.BRT is scalable. BRT could be set up as a “spine” system, as a “hub of spoke” system, or any combination thereof. The number and size of buses is flexible and can be changed to reflect ridership. Routes can be scaled up or scaled back to respond to ridership. BRT routes can be relocated and then changed again if needed at a much lower cost than fixed rail.In summary, using facts from the DEIS, BRT is much, much cheaper, slightly faster, more flexible, and more scalable. The DEIS is deficient in not fully comparing light rail with a cheaper, faster, better alternative. The DEIS is flawed, and therefore the DEIS for light rail should be rejected.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Various transit technologies were previously studied and evaluated in an extensive public process called the “Alternatives Analysis” (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS, while details of the technologies analysis can be found in Chapter 5 of the Alternatives Analysis. The Alternatives Analysis is available on <http://www.ourtransitfuture.com>.*

DEIS section 1.5.1.2 DEIS section 3.2

*As noted in the Executive Summary (ES-5), the region’s existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further*



*detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.*

*In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS).*

First Name	Last Name	Comment
Andrew	Procter	Comments from [name removed], a biologist and long time Durham resident Thank you for preparing the draft EIS-this surely took a lot of work. Here are a few comments on the energy impact. Good luck!-Executive Summary, page 5 lower left please define the Triangle region. Is this the combined Durham, Chapel Hill, and Raleigh metropolitan areas? Later in the EIS, impacts (on VMT, energy, etc.) are calculated for the Triangle region, so it is important to be clear on its geographic boundary.-Executive Summary, page 16. It would be interesting to include data on travel times. How have they changed over the past 5-10 years? This would help make a case for rail. Then if the rail gets built, it would be great to collect annual data to see what effect it has.-Table ES-1 again, please define the geographic area for the energy savings. The table states rail will reduce energy use by 83 billion BTUs. It would also help to say that this is energy savings in the transportation system specifically (doesn't include buildings).-Section 4.13 (Energy) I'm impressed that the EIS is taking a lifecycle approach on the energy impact, including energy used to build the rail system. Again please define the study area-is it the DCHC MPO?-Section 4.13.3.2 Indirect Energy note that it would take about 36 years for the annual energy savings of rail (83 billion BTUs) to break even with the energy used to build the rail system (about 3000 billion BTUs). Maybe explore ways to up theregional energy game? Are there ways to power the rail, or rail stations, using renewables?-Section 4.13.2 Affected Environment notethat Durham county's GHG reduction targets are relative to a 2005 baseline

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*The Triangle Region study area consists of both the Durham-Chapel Hill-Carrboro MPO (DCHC MPO) as well as the Capital Area MPO (CAMPO).The source of energy, e.g. renewable or fossil fuels, has not been determined at this time. It will be determined closer to the start of revenue operations and something that could be revisited after revenue operations have begun. For the purposes of the DEIS, it was assumed electricity would be provided by fossil fuels, to provide a conservative assessment of the benefits of D-O LRT Project. Triangle Transit will continue to consider energy sources for the project and sustainable design during the Engineering Phase.*

DEIS Errata 14

*Comments noted. Clarifications included in the combined FEIS/ROD in errata #14.*

First Name	Last Name	Comment
Ervin	Rea	Dear SirWe oppose the light rail (DOLRT) because of the environmental impact to the planned 17 mile route, especially the Leigh Village and Farrington Road areas.We are concerned about the many parking lots and especially the proposed 990 flat parking spaces that, when it rains, will cause runoff tainted with car oils, coolant and anti-freeze, etc that will make its way into the public source of drinking water and contaminate the local wetlands that are in close proximity (less than 1/2 mile away)Please tell us your plans with this and the sources that you have based these plans on as well as the costs you are expecting associated with this.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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<p><i>Triangle Transit will follow applicable federal and state regulations to protect water resources, including Jordan Lake. Section 4.8.4 Mitigation Measures (Water Resources) discusses our proposed mitigation measures for potential impacts to water resources, including Groundwater (section 4.8.4.1), Surface Waters and Wetlands (section 4.8.4.2), and Water Quality (section 4.8.4.3). As stated on page DEIS page 4-292, "Existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans."The cost of implementing the environment mitigation, including water resources are discussed on in appendix K 27 Basis of Estimate and opinion of Probable Project Cost, page A-18 (K27-25) the detailed cost breakdown for NEPA Preferred Alternative is presented on page K27-44, it identifies just under \$5 million for environmental mitigation, including water resources, in 2015 dollars.</i></p>	<p>DEIS section 4.8.4.3 DEIS section 4.17.1.3 FEIS/ROD section 1.4 DEIS Errata 92, 97, and 102</p>
<p><i>As stated in DEIS section 4.17.1.3, the station areas have been targeted for more compact development, which would in less impervious surface and a reduction in stormwater runoff when compared to current development trends.While water resources may be indirectly impacted because of the proposed D-O LRT Project, the type of compact development likely to occur would be more beneficial to water resources than the type of dispersed growth that typically occurs with auto-oriented development. Existing federal and state regulations (as described previously) would protect water resources from future indirect or development related impacts. These regulations include Section 404, with its avoidance, minimization, and mitigation hierarchy, FEMA regulations, Section 401 and the Jordan Lake buffer rules, as well as state approvals of sediment and erosion control plans.Stormwater runoff is a key concern when impervious surface is increasing, and the state's Section 401 water quality certification process includes stormwater management requirements once impervious percentage thresholds are exceeded. There may also be local programs that would further supplement the state and federal programs, especially in those instances where there is not a stream/wetland impact trigger. Water quality concerns would be minimized using these regulations.Section 1.4 of the combined FEIS/ROD, DEIS Errata 92 clarifies that as the design progresses, construction related impacts, including temporary impacts or otherwise, will be identified and will be included as part of the 401 Water Quality Certification application.Section 1.4 of the</i></p>	

combine FEIS/ROD, DEIS Errata 102 provides language that if hydraulic studies during Engineering determine that the NEPA Preferred Alternative would cause an increase in flood levels during the base flood discharge, then a No-Rise Certification would be obtained from the NC Department of Public Safety Division of Emergency Management. If studies indicate that there would be an increase in flood levels, then a Conditional Letter of Map Revision would be requested. Section 1.4 of the combined FEIS/ROD, DEIS Errata 97 further indicates that a floodplain development permit will be obtained from the local jurisdiction for all construction, grading, development, or the storage of equipment or materials within the Special Flood Hazard Area (SFHA).

First Name	Last Name	Comment
Marcia	Rea	Dear SirWe oppose the light rail because because of safety concerns at the many grade crossings. Please tell us how you plan to minimize accidents at these crossings.Exactly how often and how long will these crossings be closed to automobile traffic each and every time a train crosses these highways and give us an estimate as to total number per day for each crossing and total system.Having researched light rail accident frequency, it appears to be second in accidents only to motorcycle accidents. Even the Portland system has accidents weekly, the likelihood of someone winning against a 45 ton light rail in an accident does not exist. I don't think it is a chance we need to take in our area.Anxiously awaiting your reply,

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L).As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings.Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to*

- DEIS section 2.4
- DEIS section 3.2
- DEIS section 3.2.3
- DEIS section 3.6
- DEIS Table 2.4-1
- DEIS appendix L
- FEIS/ROD section 1.4
- FEIS/ROD Table FEIS-2
- DEIS Errata 36 and 108

**D-O LRT FEIS / ROD**

midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>"

First Name	Last Name	Comment
Marcia	Rea	Dear Sir:I am interested in how and why you estimated the numbers for ridership of the light rail at UNC Hospital and Duke University Medical Center. I realize they do have a large employee base, however, as a former of both of these institutions, I question whether this will cause the ridership you will predict. If one has to drive or walk to an outlying station, wait for a train and add that to a 10 or 12 hour shift, making an already long day even longer, I doubt professionals will be anxious to ride. If you consider; 1. Either having to pay to park in a secure lot. 2. Park in a lot without security; neither makes light rail that attractive, especially if you still need to drive to the lot and find a space to park. The student population of either school simply will not support ridership to the other University. The transit plan and routing needs to be reworked to accommodate more of the county population that is being taxed to pay for it. Sincerely,

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

DEIS section 3.1.1  
 DEIS appendix K1  
 DEIS appendix K2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 30, 32, and 33

See response above. Comment noted.

See response above.

First Name	Last Name	Comment
Marcia	Rea	Dear Sir/Madam I am writing you to express my concerns about the proposed Durham-Orange Light Rail Project. I, and my family, are long time residents and citizens of North Carolina and actually returned here from another state in order to continue to experience the freedom and rural living of this State. I am very disappointed in the lack of concern for the citizens directly affected by this proposed plan and routes. All efforts by these so-called planners is geared to get us to accept their ideas regardless of feasibility. The Town Council held a 3 hour meeting where they expressed their ideas and restricted the public to 3 minutes to express ours, this is the type farce we have had to deal with in all meetings. They seem to forget that their salaries and all subsidies for this project are paid for by this state. This population is not sufficient to support a project of this nature with either finances or ridership. Larger metropolitan areas are nowhere near able to support a light rail. An example is Charlotte where 90% of support is dumped back on the taxpayers of the area that do not use the system for transportation. The current local transit system is more than adequate for this area. The cost of \$3-4 million dollars for "planning" is a complete waste of money and does nothing but line the pockets of, so-called board members brought in from out of state locations. Each of these "board members" live in areas where current light rail projects are failures.

*Comment Responses*

*DEIS/Errata References*

*Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6.A description of the public involvement program was provided in DEIS section 9.3, NEPA Public Involvement Program, starting on page 9-13. As noted in that section, "through June 2015, Triangle Transit staff participated in more than 300 separate meetings, reaching more than 5,000 people" (DEIS page 9-13). As required by federal regulations, a notice of availability of the DEIS was published in the Federal Register on August 28, 2015. The DEIS was also published online at that time, and a press release was distributed. Notices were also mailed the week of September 7, 2015 to over 48,000 households and businesses within one mile of the project (Zip Codes Included: 27510, 27514, 27516, 27517, 27701, 27703, 27705, 27707). The public has several methods to comment on the project, including speaking at one of two public hearings. All comments will be given equal consideration. More information on ways to comment on the DEIS can be found at [www.ourtransitfuture.com/deis](http://www.ourtransitfuture.com/deis).*

DEIS chapter 9  
DEIS section 1.4  
DEIS appendix J  
FEIS/ROD section 2.6

*Section 1.5 of the DEIS addresses the reasons why bus service alone cannot satisfy the travel demand forecasted in the future for the D-O Corridor. Triangle Transit will continue to operate buses with accommodation for LRT as discussed in Section 3.1 of the DEIS. As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke*



*University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened."Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

First Name	Last Name	Comment
Marcia	Rea	<p>Dear SirWe oppose light rail because we believe you have not done due diligence in researching and presenting information from all the mass transit options. The presentation of only one option is narrow minded and tunnel vision. The public and publically elected officials are being fed light rail only by the people that worked on Charlotte's Lynx and whose salaries depend on it going through and at great cost to the Durham/Orange citizens. When a professor from New Jersey, on sabbatical at UNC voiced opinions (supported by data and experience) that were opposed to the information you were disseminating - his sabbatical was abruptly terminated rather than examining the data he presented. We ask that you present all the possible data on mass transit options to the public before there is a final decision funding. If you have such information on hand, I request copies of it and if you have held public meetings, I want to see the proof that the public was invited in a timely and openly manner. I further need to see proof that the public was allowed to speak on the topic. Your meetings are often last minute with little advance notification. Your signs in the community are printed too small to read without stopping traffic and getting out of the car to read them. The contrast is such that I was unable to see the date and time until I picked up a sign to read it. I don't think this is unintentional as is the time of 6:00-7:00 PM when people are just arriving in the neighborhood from work with families making it inconvenient and more likely not be able to attend the meeting. Granted this may cause some inconvenience to you and make it more convenient for the people that your plan to coerce. We request more intense analysis of this and other mass transit projects that would be more financially and rationally feasible. Sincerely, Marcia Rea</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<p><i>Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on ourtransitfuture.com.</i></p>	<p>DEIS chapter 9 DEIS section 2.2.1 DEIS appendix J FEIS/ROD section 1.4 FEIS/ROD section 2.6</p>
<p><i>Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6.A full description of the public involvement program can be found in DEIS section 9.3, NEPA Public Involvement Program, starting on page 9-13. As noted in that section, ""through June 2015, Triangle Transit staff participated in more than 300 separate meetings, reaching more than 5,000 people""</i></p>	

**D-O LRT FEIS / ROD**

(DEIS page 9-13). As required by federal regulations, a notice of availability of the DEIS was published in the Federal Register on August 28, 2015. The DEIS was also published online at that time, and a press release was distributed. Notices were also mailed the week of September 7, 2015 to over 48,000 households and businesses within one mile of the project (Zip Codes Included: 27510, 27514, 27516, 27517, 27701, 27703, 27705, 27707). The public has several methods to comment on the project, including speaking at one of two public hearings. All comments will be given equal consideration. More information on ways to comment on the DEIS can be found at [www.ourtransitfuture.com/deis](http://www.ourtransitfuture.com/deis).

First Name	Last Name	Comment
Ervin and Marcia	Rea	Dear Sir We feel that building the ROMF on Farrington Road will be a safety and environmentally hazardous decision. We suggest that you take another look at the already commercially zoned Patterson Place site. It would meet much less resistance, disrupt fewer neighborhoods and accomplish another of your goals (having fewer cars sold and thus on the road) because it is now slated to become, yet another, auto dealership in a glut of car dealerships already in this area. This might also allow the route of light rail to be modified to run down 15-501 (Fordham Blvd) and be closer to the Chapel Hill Franklin Street, benefiting their commercial center. That route would lessen the dangers on highway 54 and the very heavy traveled entrance to I-40. If the route came down 15-501 and there was parking provided, the traffic for the many, high traffic, sports events at UNC and Duke University could exit 270, a much less used exit I-40 than exit 273 on highway 54, board lite rail eliminating some of the traffic around the sports venues. Additionally that route could be the start of a link to Hillsborough, the airport and Raleigh if that eventually becomes a plan. We recommend that you investigate this alternative.

Comment Responses	DEIS/Errata References
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 17, 21, 22, 52, 70,  
 76, 78, 93, 94, 95 103, 104,  
 110, 119, 121 and 137

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project.*

*RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>*

First Name	Last Name	Comment
Marcia	Rea	<p>SirWe wish to dispute the calculation for ridership of the D-O LRT that you are publishing to the Durham and Orange County residents. By your own calculation each car will seat 40-60 passengers and in a rush period can hold 180 sardines. If you figure a 3 hour rush period in the morning and a 3 hour end of day rush period, and have a train car every 10 minutes (36 trips X 180 sardines equals 6,480 rush hour riders). If the remaining 10 hours you have every seat filled and 3 cars per hour equaling 1,800 riders. Now if you figure a car going from South Alston Avenue to UNC Chapel Hill and one in the opposite direction, you will still only arrive at a total 14,760 riders per day. If you are depending on each of these riders using LRT as their sole means of transportation to and from these destinations we are talking 7,380 persons being served daily. We know from bus ridership, that the numbers that I suggest are inflated, as our current bus system often has 1-5 riders per route per day. Just because it is a fancy new, expensive toy doesn't mean it will receive the kind of ridership that I have outlined above. The people that currently have free bus service will resist in paying even a portion of the ridership for LRT even if it were to deliver them close to their destination. An effort to project population growth 25 years in the future would require a crystal ball. By looking at current LRT and mass transit usage we find a 3-5 percent usage. If Charlotte, with a population of nearly 700,000 has a daily ridership of 16,000 it is not likely that this area would exceed that. I would challenge the 16,000 daily ridership since there is not supporting data offered to back this up. Please re-evaluate this project from a purely fiscal aspect to determine feasibility.</p>

Comment Responses	DEIS/Errata References
<p><i>As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O</i></p> <p style="text-align: center;"><b>D-O LRT FEIS / ROD</b></p>	<p>DEIS section 3.1.1  DEIS appendix K1  DEIS appendix K2  FEIS/ROD section 1.4  FEIS/ROD Table FEIS-2  DEIS Errata 30, 32, and 33</p>

*LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership. As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT).*

First Name	Last Name	Comment
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Kelly	Reilly	I am opposed to the Durham Orange Light Rail. Many of the reasons I am opposed are the same reasons that Wake County articulated when they backed out of the project. I don't feel the cost is worth the 17 miles that will actually be built, since I don't believe it will alleviate as much traffic as proposed, and I don't think there are enough stops to make it worthwhile. I also live near the proposed Maintenance Facility site on Farrington Road, and am adamantly opposed to that location. I have heard that Go Triangle is trying to change the status of the location to "industrial," when it is clearly a neighborhood area. It makes no sense to have it in that location. The only reason that Go Triangle could give for not having the maintenance facility in the Meadowmont neighborhood is because of a "possible historical site," which is laughable. Everyone knows that Meadowmont is a wealthy, white neighborhood, and Go Triangle would never dare to try and put a maintenance facility in that neighborhood. The neighborhoods surrounding Farrington Road should be revered as highly as Meadowmont. A professor from UNC wrote a great article outlining reasons against having a light rail in this area, and I support that article. My vote is NO for light rail.
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Comment Responses	DEIS/Errata References
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined*

DEIS section 8.2.2  
DEIS section 8.2.2.1  
FEIS/ROD section 1.2.2

*FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 21, 22, 52, 70, 76,  
78, 93, 94, 95 103, 104, 110,  
119, 121 and 137

First Name	Last Name	Comment
Terry	Rekeweg	<p>DEIS Comments for the Durham-Orange Light Rail Project October 11, 2015 by [removed name] INDRODUCTION: I begin with recognition of the many years spent by GO Triangle staff, by consultants and by public officials all working together towards a Rail Project with the best of intentions to bring transit service to the citizens of the Triangle Region. I was also one of those engineers with 15 years of experience on Triangle rail transit projects. I anticipate the negative reaction and gnashing of teeth towards me by stating that the Durham-Orange Project has lost its way and veered from its real purpose -which was to be the best transit service possible for its riders, maybe even a model for the rest of country to follow. Instead I predict that this rail project will die a slow death because it is based upon a flawed route concept and it is being choked by numerous problems and has accepted below-standard solutions. It is not accomplishing its original goals. Dissent is needed in society in order to bring about necessary changes and best results. In no way do I expect change to happen at once. It is quite understandable that my papers, data and presentations up to this point have been ignored. My purpose here is to bring forward the problems found with the Durham-Orange LRT project. I predict that it will be impossible to stop the process from going forward. Much more tax money will be spent on more design work that ultimately may not matter. The NCDOT has withdrawn funding for the project. Maybe the FTA will provide partial funding to keep design work progressing, or maybe not. However, in the end, the project will eventually stop because of unacceptable poor results. There will be a re-design effort to cut costs and increase ridership -which is the point where I was in 2011. In 2011 I realized that the project was heading towards failure. Therefore I dedicated much free time to exploring various alternatives. It was a 2 year effort and the results were surprising. Good solutions were found to dramatically cut costs, increase ridership, avoid New Hope Creek and more. My studies also revealed much deeper problems with the current D-O LRT project. My second purpose is to make my studies available for when the D-O LRT project stops and goes into re-design years from now. If the project could be scrutinized sooner by an independent transit consultant then maybe the re-design process will not have to take place years from now. It all depends on when the decision is made to call for a second professional evaluation of the project and alternative ideas. It also depends if sufficient tax money is left over to begin the re-design process. SUMMARY OF COMMENTS: For several years I have submitted a good amount of data to GO Triangle which described the major problems and questionable viability of the light rail project. This data has largely gone ignored with no debate and no meetings with GO Triangle senior staff or other</p>



staff who could answer my questions -and I have really tried! This rail project has the earmarks of being a 'political project' rather than a project based on data and reality. A major issue is that this rail project only benefits transit riders between the small cities of Chapel Hill and Durham and ignores any sense of reasonable connectivity to the rest of the greater Triangle Region. No one will want to ride a transit system that takes them 13 miles out of the way from Chapel Hill to Research Triangle Park and eastern destinations towards Raleigh. This adds up to 26 extra miles and about one hour added to a daily commute. No one would consistently do this but rather drive or take a direct bus. This is very short sighted and will assuredly lead to project failure.

Another major issue is the extreme slowness of the D-O LRT system. Early in the project planning stage it was calculated that the light rail would take 34 minutes to travel from UNC/Chapel Hill to Downtown Durham. The DEIS reports that travel time is now about 40 minutes. It is reported by Go Triangle (and I confirmed the findings with my own travel studies) that it takes an automobile about 23 minutes to travel this same corridor, allowing for some traffic conditions. The D-O LRT is not even close to being competitive with the automobile. GO Triangle's Alternative Analysis Report states: "The total travel time from one end of the LRT route to the other should be competitive with automobile travel." In stark contrast, an Alternative Light Rail plan which connects to the west side of RTP would take 29 minutes to travel from Chapel Hill to Downtown Durham. 29 minutes demonstrates a successful well planned high-tech transit system. 40 minutes is an excruciatingly slow moving transit system that may eventually bring about project failure. Many citizens also see the limitations of the D-O LRT plan and have expressed comments better than putting it in my own words. I picked a few random comments from the public record that are representative of many: Ellen DeFlora: "This project as proposed does not help with the traffic problems in the Triangle area. We need help getting to and from the airport, Research Triangle Park and Raleigh, not between Duke and UNC. This project is ill conceived ... Please stop this disaster before the first rail is laid." Mary Eubanks: "The whole project is too costly and impractical for the proposed route. Light Rail service to RTP, Southpoint Mall, and RDU Airport and Raleigh might make more sense..." Clyde & Ilene Stewart: "I wish to address my concerns to the FTA that would be responsible for providing funding for the proposed GO Triangle light rail transit... Considering the destinations that the transit would cover, the expense would be nothing but a waste of government tax money. If a light rail transit would be proposed to reach RTP where 1-40 congestion continues to mount, then the money will be well spent. GO Triangle's absurd route selection for the light rail transit with the current congestion on Hwy. 54 through Durham and Orange Counties should be sufficient to challenge their credibility ..." Joey Pointer: "Would like to see it go to RTP/Raleigh to see real value" Phillip Lyone: "There are far too many on-grade crossings! Silly to have no (direct) route to RDU." Heather Payne: "In its current form, I do not believe we should spend the money to build the D-O LRT for the reason that ridership patterns do not indicate the proposed routing will significantly reduce car trips into or out of Chapel Hill. The majority of car trips into or out of Chapel Hill do not start or end in north Durham, but rather in southwest Durham, RTP, RDU, Cary and downtown Raleigh. This is a transit project looking for ridership need. Rather than building something and hoping growth will come to the transit line, it should instead go where traffic already exists from Chapel Hill to the Park (RTP), airport, and points further east. Even with further expansions, this will not occur with such a long, circuitous route which takes longer than driving." Paul Strutton: "There seems to be some major flaws with the route proposed ... There is no connection to south Durham or RTP. Given that I live in south Durham and work in RTP, the light rail plan as presently proposed won't help me with any commuting needs at all. And it won't help me get to or from the airport for longer trips. I think it should be re-thought." Alex Cabanes: "The proposed D-O LRT line does NOT connect Chapel Hill or Durham to major commercial, retail, or employment destinations east of the corridor like Southpoint Mall, RTP or RDU." Allen Botnick: "The system isn't linked to Raleigh so it doesn't benefit me for longer trips. If Durham is going to spend money on this project it needs to be linked to Raleigh so drivers wouldn't need their cars. Drivers don't benefit enough from the plan. I don't think this rail system meets the needs of the community and justifies the cost. I don't think it is a realistic plan for the future. I would like

to know how this system will be useful as a realistic car replacement." Mike Shiflett: "I've heard of an alternative route that takes the rail project east along 1-40 paralleling Hwy. 54 towards Hwy. 55 and coming up thru RTP, to downtown/approaching downtown from the south, west thru to Duke from the east. I'd like to learn more about it as it was being promoted as costing less, have fewer elevated (bridges) miles and avoid sensitive wetlands ... Please consider extending LRT further south to Durham Tech and Triangle Metro Center (RTP). It should be in 1st phase connecting RTP and Duke (and Chapel Hill).GO Triangle has acknowledged at a public meeting that an Alternative Light Rail plan will not be studied because it would set the project back a long time. End of story -and they would not discuss it further. Meeting a schedule is their most important issue while increasing safety, ridership, dramatically reducing cost, and other significant issues have been off the table for discussion these past 2 years during the NEPA process. Ironically NEPA's main purpose was to explore reasonable alternatives.The Federal Transit Agency (FTA) states that they "would rather a light rail project be done right than be done quickly. " AMEN!WHY AN ALTERNATIVE LRT PLAN?In 2011 the Durham-Orange LRT Project ranked among the lowest of proposed light rail projects in the country. I began to explore alternative ideas of how to solve many project problem issues such as how to avoid sensitive wetlands at New Hope Creek, reduce cost, increase transit connectivity in the Triangle and increase ridership and overall effectiveness. This search for alternatives was not undertaken by GO Triangle nor their consultants,but by my own intense efforts over a two year period. I wanted rail to work in the Triangle.Also, over 30 different route scenarios were evaluated for connections to rail transit in Wake County. The commuter rail and light rail plans developed by GO Triangle for Wake County did not make sense for several reasons. Commuter rail on shared freight tracks would forever have reliability and frequency issues that would turn riders away from this service. Light rail connecting Raleigh to Durham was basically infeasible. GO Triangle gave officials and the public the impression that it was assumed the light rail systems would one day connect, however, light rail vehicles were never practical for such a long distance and would not be permitted by the Federal Railroad Administration (FRA). I shared the new route scenarios with CAMPO (Capital Area MPO) and gave speeches to several government bodies about why Wake County needed to re-think its railtransit plan. As you know, Wake County hired independent transit consultants which gave the same findings as myself - that Wake County transit plans by GO Triangle were unfeasible and would not give reliable transit service. A new transit plan emerged and now Wake County is on a good path because they choose to get independent advice. They also saved 10's of millions of tax dollars because they did not further develop GO Triangle's earlier plans which proved to be wrong.ACTION: Durham and Orange Counties have spent over \$30 million on consultants for their light rail plan. This is a very big expenditure which is expected to produce good results otherwise it will be called a foolish gamble. Many public comments already express citizen's views that this project is a waste of tax dollars.Durham and Orange County officials now have the choice to allow an independent transit consultant to scrutinize the current light rail project focusing on the major problems I am bringing forward for serious discussion. A new independent consultant would also evaluate all of the improvements an Alternative Light Rail plan would offer which might possibly save the light rail project. It is a hard thing to change direction once gaining momentum down a path. However, I am requesting that county officials step back and take a wide angle look outside the tunnel vision that this light rail project has become. The DEIS Report states this tunnel vision many times: "The purpose of the proposed project is to provide a high-capacity transit service (SPECIFICALLY) within the D-O corridor." The proposed project is not a reasonable transit service with connections to the rest of the Triangle. Passengers will not use the D-O LRT for future trips to Research Triangle Park or to Raleigh. The DEIS Report is not forward thinking and is very silent for particulars on how this transit system fits into the bigger picture. GO Triangle did not provide data on this.I am not saying that I am always right. What I am saying is that I have done a lot of digging and studies into this rail project and I know that the facts I found are real and significant. GO Triangle and their consultants do not go the extra effort to dig for overall big-picture problems because they are in the business of selling a railproject within a schedule. They are not rewarded for finding more problems, but rather they would be blamed if more problems were to come to light. Backing up and making a major change is not what they can do at this point, so they

continue to gloss over problems which others try to bring to light. They are experts at placing band-aids on problems. The numerous tight curves all along the D-O LRT corridor displays numerous band-aids applied. The corridor has become ridiculously curvy which means the train will move especially slow and may be uncomfortable due to numerous curves and too much speeding up and braking. A very big reason for riders to avoid using this transit system. PUBLIC INVOLVEMENT PLAN: GO Triangle's Public Involvement Plan (PIP) has been a disaster from my experience. My purpose for bringing this up is not disrespect, but to simply state the facts for transparency, discussion and to bring change to how GO Triangle handles public involvement. GO Triangle's PIP: "Education, inclusion, transparency, accountability and responsiveness have been key principles of the planning process for transit service in the D-O corridor from before the AA was completed in 2012 through the ongoing NEPA and project development process." "Three sets of public workshops were held during the AA phase in localities throughout the Triangle region. More than 1100 people attended 19 public workshops, and more than 500 comments were received." My experience: I submitted comments at the March 30th, 2011 public meeting at the McKimmon Center. I was later told by GO Triangle and consultant senior staff members that even though I was a citizen, I could not comment on the rail projects. My comments were deliberately left off of the public record and confirmed by GO Triangle senior staff. I know of other (similar) comments which were also hidden and kept off the public record. After writing letters to GO Triangle Board Members, the Board Chairman finally got my comments added to the public record more than 2 years later in 2013. The only explanation for why this took place is that the consultant was protecting his own design ideas and did not want them changed. The result: My comments brought major design changes to the Raleigh side of the rail project with City of Raleigh's support. Having my comments removed brought on intimidation and fear for my job which prevented me from submitting many comments about the D-O LRT project at other public workshops from 2011 to 2013. GO Triangle's PIP Responsiveness Goals: "Respond to public inquiries in a timely manner and demonstrate through documentation that the public comments received were considered, responded to, and addressed in the DEIS... The D-O LRT project staff has worked diligently to keep channels of communication open with the public. Project staff addresses comments with specific questions or requests through mail. The PIP helps open multiple channels through which agency and community perspectives, technical issues, and questions may be raised and addressed in the planning, engineering, and environmental analysis. Response to comments will be tracked individually and as transparently as possible." "NEPA regulations require that transportation projects provide a transparent, inclusive mechanism for identifying and engaging stakeholders meaningfully, as well as documenting feedback... between GO Triangle, interested residents, stakeholders, and government agencies regarding issues raised by the proposed D-O LRT project..." My experience: I have submitted numerous factual information sheets and questions to GO Triangle for over two years before and during the NEPA process. However, only a handful of these documents are recorded in the public comments section. Missing are approximately 30 maps, 10 detailed documents with factual data & questions, and about 5 GO Triangle Board meeting transcripts with referenced maps. Also, 2 newspaper articles and 10 transcripts from citizen presentations concerning the D-O LRT project made at other government public meetings should also be considered for inclusion in the public comments record. I asked GO Triangle to respond to almost 70 questions during this two year time. However, they only responded to a couple of questions and these answers were vague and not meaningful. About 60 questions went ignored. GO Triangle dismissed this large amount of data and claims submitted to them with simple answers like: "You pulled numbers out of the air", or "We are unable to substantiate this claim." GO Triangle has simply ignored any duty on their part to provide proofs or research to substantiate or disprove the data I have sent them. It is not in their scope of work to check someone else's information for accuracy, so they continue to ignore and be unresponsive. A QUESTION FOR COUNTY OFFICIALS: Do County and MPO officials have confidence in GO Triangle's project -given the occurrences listed below? 1. Wake County transit consultants rejected GO Triangle's commuter and light rail projects for Wake County because they were found to be unreliable, inefficient and unfeasible. Wake County saved a lot of tax money by starting over on a new transit plan. The D-O LRT plan appears to be a very inefficient

project based on my studies and by a glaring absence of similar information contained in the DEIS Report. An independent consultant's professional look at this project would be very eye-opening by establishing unbiased facts before continuing with such an expensive transit project. 2. Questions to GO Triangle have gone unanswered over a two-year period and citizen comments were intentionally removed from the public record. 3. Data demonstrating major problems for the D-O LRT project have gone ignored. No real public debate has been allowed on these issues. There is no good reason to hide the tough questions. 4. GO Triangle senior staff and consultants have refused to hear a full presentation about the problem issues up to this point. PURPOSE AND NEED: GO Triangle makes one brief dismissive reference in the DEIS in response to the overwhelming correspondence submitted to them about problem issues. Sec. 9.2.5 from the DEIS, Other Public Comments: "Conceptual alignment following NC54, 1-40, NC55, CSX Corridor, and NCR Corridor. Alignment concept evaluated. It is not within the D-O Corridor, does not meet the Purpose and Need of the D-O LRT Project, and was not carried forward for detailed study." The Purpose and Need for the D-O LRT project favors the Alternative LRT corridor, not the D-O LRT corridor. In summary, the Alternative plan would change four station locations in the middle of the corridor and adjust one station location. The Alternative LRT corridor gains several of the largest growth destinations in the Triangle such as Southpoint, and two stations on the west side of Research Triangle Park (an area with the greatest amount of employment growth in 2040). All major destinations at UNC/Chapel Hill and Duke/Durham remain the same. The Alternative LRT is a much faster and straighter transit system in an existing transportation corridor (avoiding numerous property takes) which connects directly and efficiently to the rest of the Triangle. GO Triangle's statement that the Alternative LRT corridor does not meet the Purpose and Need for the project because it does not stay within arbitrarily drawn boundary lines has no real operational/technical significance. The Purpose and Need cannot be defined so narrowly as to prevent a reasonable and possibly superior alternative from being considered. GO Triangle has in the past adjusted their drawn boundary lines when they saw a need for change. The following statement by NEPA confirms that GO Triangle may be wrong when they attempt to judge the worth of any alternatives based upon boundary lines established decades ago - while failing to study transit corridors through major destinations where passengers really want to go and would derive the most benefits. NEPA calls for a Purpose and Need statement: "To briefly specify the underlying purpose and need to which the agency is responding in proposing the alternatives. The Purpose and Need Statement must not be so specific as to 'Reverse Engineer' a solution" ... "Consistent with NEPA, the purpose and need statement should be a statement of a transportation problem, not a specific solution. However, the purpose and need statement should be specific enough to generate alternatives that may potentially yield real solutions to the problem at-hand" (FHWA/FTA Feb. 2005). Examples of court challenges involving Purpose and Need have come about because the Purpose and Need was defined too narrowly and foreclosed a reasonable consideration of alternatives. Insisting that specific neighborhoods along US 15-501 has to be served with transit (such as Patterson Place) could be considered "Reverse Engineering." Purpose and Need should not be stated with the end project already in mind. The Purpose and Need is about how to solve the transportation problem regionally! The DEIS Purpose and Need Statement says: "To address the transportation challenge faced by the region - more specifically within the D-O Corridor. To cultivate a more sustainable cycle of growth for the future the transportation solution must address the needs of the D-O Corridor: Enhancing mobility, increasing connectivity through expanding transit options, serving major activity and employment centers, and increasing transit operating efficiency. Solution must also support local land use plans that call for compact development to manage and channel future growth along transportation corridors that can sustainably support growth, promote economic development, and preserve the region's high quality of life." The first statement of the DEIS Purpose and Need Statement is good: "To address the transportation challenge faced by the region." The second statement is too narrowly defined. Rather than "-more specifically within the D-O Corridor," It should state a more inclusive purpose such as: "-more specifically along a corridor that addresses transportation challenges for effective transit connectivity both to the region and also between the major destinations of UNC/Chapel Hill, Duke University/downtown Durham which would serve the most passengers

effectively."The D-O LRT project fails their Purpose and Need Statement because the project does not increase meaningful connectivity through expanding transit options. Passengers will simply take a bus or drive to get from Chapel Hill to Research Triangle Park or all other destinations on the east side of the Triangle. The project does not enhance mobility because the automobile could complete the same trip and make it more than halfway back in the same time it takes the train to wind along an extremely curvy and hilly track alignment which may become a joke because of its very slow travel speed. The project does not increase transit operating efficiency. Maintenance costs will be highest of all rail alternates. The project fails to effectively channel future growth along its transportation corridor because a great amount of developable land along US 15/501 is already mostly developed and most of the remaining land are large parcels of undevelopable wetlands, forests, golf courses and natural preserves. These large parcels will also create large gaps and block continuous urban development connectivity along the rail corridor. The project fails to effectively promote economic development. The US 15/501 corridor has some of the highest household incomes in the area and this area is already developed. Economic development is not a priority in this part of Durham. However, the Alternative LRT corridor along Hwy. 55 and Hwy. 54 is exactly where economic development should be focused according to Durham planning and planning maps. The D-O LRT corridor misses the mark on where the most growth will occur by the year 2040. NOTES: I do not know of any intentional misleading statements in this paper. I am a professional engineer and strive for accuracy. I recognize the reality that I have limited time to go back and double check or triple check some calculations. I recognize the fact that the D-O LRT project has undergone some design changes since I first started collecting information more than 2 years ago. Therefore some numbers may be off but it shouldn't be by much. The magnitude of the numbers should still apply which show a stark contrast between the D-O LRT plan and the Alternative LRT plan. In many instances the numbers have become worse for the D-O LRT project, such as the end to end travel time increasing from 35 minutes to 42 minutes. I request that GO Triangle please prepare a meaningful response to the claims made in my comments. It would also be good to hear any explanations as to what went wrong with the Public Involvement Plan and why it was not followed. A List of Issues and Statistics comparing the current Durham-Orange LRT project to an Alternative LRT plan for the part of the corridor where the two rail plans differ: I request that GO Triangle please prepare an adequate response to each of the following 22 major issues: Please state why it is, or why it is not a significant issue for GO Triangle to consider. Please state whether GO Triangle considers it a generally factual statement, or GO Triangle will not dispute the claim and is not going to take time to study it, or GO Triangle will provide proofs and data to the contrary if in disagreement.

1. The D-O LRT (with future rail extension to east Durham) would be 13 miles and 30 minutes longer (or 26 miles, 1 hour longer for round trips) as compared to the more direct Alternative LRT for trips from Chapel Hill/Carrboro/Chatham Park to RTP/Cary/Raleigh. This fact alone greatly limits potential ridership for a connected rail transit system in the greater Triangle area.
2. The Alternative LRT system serves the western edge of RTP. The D-O LRT is far away from RTP.
3. The Alternative LRT is about 11 minutes faster from Chapel Hill to downtown Durham.
4. The Alternative LRT is significantly safer. It has 27 fewer railroad grade crossings and about 30 fewer sharp track curves which reduces the chance of human error for vehicle collisions and derailments. There have been many news stories recently of human error derailments and vehicle collisions. With the high use of smart phones while driving and walking, more people will be prone to danger at light rail grade crossings. Approximately 30 to 35 at-grade crossings are proposed for the D-O LRT track alignment. As several citizens commented at public meetings, THIS IS TOO MANY! This will almost DOUBLE the number of at-grade crossings in the whole City of Durham. This does not have to happen since a better Alternative is waiting. As GO Triangle stated at a public meeting, "It will set us back a long time to study an alternative". Schedule is apparently much more important to GO Triangle than the public's health, safety and welfare. Sec. 4.12 of the DEIS confirms the increase in danger: "To the extent practicable, Triangle Transit seeks to reduce or eliminate pedestrian and motorists conflicts with transit vehicles at Triangle Transit facilities. However, conflicts can occur, particularly in locations where the light rail tracks cross or run adjacent to roadways, and locations where a pedestrian must cross streets to access light rail stations... The light rail vehicles



may operate in mixed traffic or in an exclusive right-of-way, either at-grade or on an elevated structure, and would have safety and security implications due to potential derailments or conflicts with other modes." "The proposed D-O LRT project would have safety implications for the D-O Corridor as they would introduce a new mode of transit vehicles that would interact with vehicular bicycle and pedestrian traffic. The safety implications are particularly important for higher volume areas where multiple modes of transportation exist... Potential impacts from the development of light rail systems include risks of injury or fatalities to pedestrians, bicyclists, vehicle occupants, light rail passengers ... due to collisions between light rail and road vehicles, increased street and alignment crossings... Design of the project acknowledges these concerns and includes provisions for safe operation." I am again asking for GO Triangle to recognize the fact that an Alternative LRT plan exists which would dramatically reduce the statistical risks for injury or fatalities for pedestrians, bicyclists, road and rail vehicle occupants. I am also asking for GO Triangle to give their rationale for disregarding this information.

5. The Alternative LRT would cost about \$400 million less to construct, as well as be more sustainable in the future (less wear/tear and ongoing maintenance costs) as compared to the D-O LRT. This is a significant amount of savings given that North Carolina Department of Transportation has recently withdrawn its \$138 million of support for the project.

6. The Alternative LRT provides 4.5 sq. miles more land available for Transit Oriented Development (TOD) within walking distance (3/4 mile) of train stations. This would also allow the possibility for significantly more affordable housing near train stations. 4.5 square miles is a very large area and would allow for significant TOD opportunities in the future and expands the tax base for Durham.

7. The D-O LRT has significantly less developable land along its corridor because the 15-501 corridor includes large areas of golf courses, wetlands and natural areas such as Duke Forest.

8. The Alternative LRT would bring economic growth to the east side of Durham - an economically held back area. Planners want to focus high growth development towards the center of the region which is adjacent to the east side of Durham. The D-O LRT corridor is already mostly developed and planning maps predict fewer growth areas along the far western edge of the Triangle.

9. The D-O LRT has significantly more environmental impacts than the Alternative LRT. This includes impacting more of the existing built environments, higher noise and energy loss associated with more rail vehicle braking and accelerating around tight curves, more undesirable view interruptions with more elevated bridges, and increased impacts to streams such as Sandy Creek. Sec. 4.4.3 of the DEIS confirms Environmental Consequences: "The proposed D-O LRT project would introduce new visual elements to the view shed. These elements could negatively affect visually sensitive resources by altering the view to and/or from the resource, or by adding an element that would be out-of-scale or character of the existing visual context such as bridges and retaining walls."

10. The D-O LRT will construct 1.5 miles more elevated bridges as compared to the Alternative LRT. An unintended consequence is that these extra bridges will be places to attract graffiti and will require additional maintenance. It is always better to avoid building bridges if possible.

11. The D-O LRT will impact or take about 70 more private properties as compared to the Alternative LRT. This includes approx. 10 more homes and 6 more businesses. It will also locate tracks in close proximity (within 100 feet) of 18 more homes and 13 apartment buildings as compared to the Alternative LRT. Sec. 4.14 of the DEIS confirms that the D-O LRT impacts will include, "92 potential full acquisitions, 145 potential partial acquisitions and 65 displacements. The acquisition of private property is anticipated to result in a decrease in the property tax base for both Durham and Orange Counties." Sec. 5.6.10 states, "There would be commercial, institutional, and residential displacements along the entire D-O Corridor, most of which would occur in the US 15-501... evaluation areas." The D-O LRT carves-up existing properties in order to create a new transportation corridor. The Alternative LRT is already mostly located in an existing transportation corridor, therefore it has much fewer acquisitions and would keep more properties on the county tax base.

12. The Alternative LRT passes through a corridor with significantly higher bus ridership than the D-O LRT corridor. I gave this study data to GO Triangle but again there has been no response.

13. The Alternative LRT has a greater potential to take more traffic off of more highly congested highways, such as the most congested road segment in the Triangle: I-40 between Highway 54 and the Durham Freeway. The Alternative LRT would relieve traffic from 15/501, I-40, Hwy 55, Hwy 54 and the Durham Freeway.

The D-O LRT service corridor cannot make these claims and will definitely not relieve any traffic on I-40. I have given these traffic count numbers to GO Triangle. GO Triangle has their own set of highway traffic counts if they wanted to confirm this, but they haven't responded. Sec. 1.1 of the DEIS confirms that additional highway segments served by the Alternate LRT corridor have high congestion: "Rapid growth is outpacing the Triangle's ability to repair, replace and expand its highways and bridges. The key highways under the purview of the DCHC MPO include Interstate 40, Interstate 85, US Hwy. 15/501, US Hwy. 70, NC Hwy. 54, NC Hwy. 55, and NC Hwy. 147 (eastern section), all of which experience congestion during morning and evening commute times. As a result, average travel speeds within the region are expected to decrease." 14. The D-O LRT project is not competitive with the auto -NOT EVEN CLOSE! A major justification for a light rail project is that the total travel time from one end of the LRT route to the other should be competitive with automobile travel. Consider that the D-O LRT takes 40 minutes from Chapel Hill to downtown Durham. The Alternative LRT takes about 29 minutes. This is a big difference between having an old dinosaur D-O LRT system and a quick & effective Alternative LRT system. Sec. 1.5 and Sec. 8 of the DEIS talks about improved mobility, efficiency and auto competitiveness: "Maintain or improve transit travel times between existing and planned activity centers. Enhance mobility- provide a competitive reliable alternative to automobile use that supports compact development." "Provide a competitive and reliable option to automobile use. Increase transit operating efficiency by offering a competitive, reliable transportation solution that will reduce travel time." GO Triangle must have thought they could slip this major issue by us without giving any facts on whether the D-O LRT project really is competitive to the automobile. The STAC Report along with my own 6 page study of actual auto travel times during different times of the day confirms a clear conclusion. End to end, the auto takes 23 to 26 minutes. The D-O LRT takes 42 minutes. Auto wins by a wide margin. This issue alone should stop the light rail project. 15. The Alternative LRT serves a much greater percentage of minority and low-income households which is an important Title VI issue. Census data shows significantly greater minority and non-minority populations which are more likely to use transit along the Alternative LRT corridor, rather than the D-O LRT corridor. Sec. 1.5.2.2 of the DEIS confirms Transit Dependent Populations: "In Durham, the highest concentrations of transit-dependent persons are located primarily around downtown Durham, along the NC 55 Corridor, in the area surrounding Duke, Duke Medical Center, between US 501 & US 501 Business, and the areas south of NCCU ..." "There are significantly greater numbers of transit-dependent persons located along the NC 55 Corridor in contrast to the 15/501 corridor according to Census data. This area is in great need of economic development and the Alternative LRT system would do this effectively. Durham planning officials have expressed a wish for focused economic development in east Durham -and citizens also, as stated in Table 5.3.1 of the DEIS: "Residents do not feel that the Alston Avenue Station location is consistent with the Mayor's Poverty Initiative...and do not feel that it properly serves east Durham...there is concern over not reaping benefits of sales tax revenues since light rail line is not going farther east...In those areas where stations are proposed, there is the potential for economic opportunities through associated development." 16. The STAC Report shows that there may be higher ridership along the Alternative LRT corridor. The STAC Report appears to have a miscalculation which shows a key ridership number used to justify the D-O LRT project as being 100% greater as it should be. After repeated attempts asking Go Triangle to explain this, they remain unresponsive. An independent transit consultant needs to confirm what is going on. 17. Figure 4.2-2 in the DEIS shows a large study area west of 15-501 with zero vehicle populations. This land is mostly vacant or is occupied by shopping centers. This area also is identified in the census report as having some of the highest incomes in this entire area, \$73,000 to \$90,000 household income. This information appears to be mistaken. Zero vehicle populations was identified as a major reason to locate the D-O LRT along the 15-501 corridor. In contrast, the Alternative LRT travels through the lowest household income areas on the east side of Durham (south of NCCU) where zero vehicle populations would be expected to be highest. An independent transit consultant needs to confirm these findings. Sec. 4.2.2.1 of the DEIS confirms that the east Durham evaluation area had the lowest median household income at \$24,019, and the US 15-501 Corridor had the highest household income at \$87,902. 18. The DEIS Report says, "East Durham is the only evaluation area

projected to experience a decline in employment by over 50% by 2040." This information is not specific and therefore misleading. The corridor of the Alternative LRT which travels through part of East Durham/West RTP will have the highest 2040 employment growth and quantity of jobs of the entire Triangle region, as shown on future planning maps. The D-O LRT corridor will have less job growth.<sup>19</sup> The Alternative LRT corridor is predicted to serve the highest number of new developments in the future. The combination of large open land parcels, lowest median household incomes, the greatest job growth in the region, and higher residential growth projected than in the D-O LRT corridor. With the proposed RTP Center development nearby, this corridor will become the true crossroads to the center of the Triangle. Sec. 4.1.2.2 of the DEIS confirms that the Alternative LRT is right-on with Land Use Plans and Policies: "Transit supportive growth and development... Current growth, as well as predicted future growth in Durham and Orange Counties is mostly due to the area's strong economic base driven by the two large research universities and affiliated medical centers, the private firms in Research Triangle Park, and proximity to Raleigh-Durham International Airport."<sup>20</sup> The Alternative LRT would greatly benefit the proposed Chatham Park mixed-use development with a direct rail connection to RTP and straight on to Raleigh in the future. Without the Alternative LRT, the 55,000 new residents and Technology Park employees would either drive or take a bus. The D-O LRT would be of no help for transit trips from Chatham Park (the largest mixed-use development in NC) towards RTP and Raleigh.<sup>21</sup> Figure 1.5-3 in the DEIS, Projected 2040 Travel Intensity (30) Trips/Sq.Mile has many inaccuracies and is highly misleading. I have commented to GO Triangle that this public display should be corrected so that the public can get an accurate overall picture. No response or curiosity from GO Triangle to try to understand why I believe this map display to be inaccurate (by the way, the Leigh Village label is in the wrong place). This map is heavily biased towards the D-O LRT corridor and appears to be a reflection of what would happen after light rail is already built. But even given that leeway, it is highly inaccurate because it places high Trips/Sq.Mile on top of wetlands and natural lands that are never projected to be developed. An independent transit consultant needs to re-make this map to reflect existing conditions, not future wishes after the rail has already been built.<sup>22</sup> The Alternative LRT corridor provides at least 5 sites for the Rail & Operations Maintenance Facility (ROMF) in an appropriate existing zoned industrial area near the Expressway Commerce Center. The D-O LRT would require the rezoning of an existing residential area in the Leigh Village area. This is unacceptable to citizens in the affected neighborhood when a better alternative appears to be available. Appendix A: Re-Submission of Questions not Responded to by Go Triangle DEIS Comments for the Durham-Orange Light Rail Project October 11, 2015 by Terry Rekeweg, PE, R. Arch. This is a re-submission of questions for which GO Triangle has not responded to previously. I have attempted to remove questions that were outdated or no longer applicable based on DEIS design changes. I have left in some questions that may repeat similar information given in my main DEIS Comments Paper because I believe them to be especially relevant. I request that GO Triangle please prepare an adequate and meaningful response to each of the following questions: August 27, 2014 List of Questions to GO Triangle<sup>1</sup>. I found many of the statements in the TTNMPO Nov. 12th, 2013 letter to be inaccurate. I sent a letter to TTA on December 12th, 2013 stating the inaccuracies. TTA has not responded. This letter should not be displayed on a website until it has correct information. A. Will TTA either make corrections to the TTNMPO Nov. 12th letter concerning the Alternative plan, or remove the TTNMPO Nov. 12th letter from the Durham County website?<sup>2</sup> The conclusion of the TTNMPO Nov. 12th letter states that "An agency is not required to consider alternatives which are infeasible, ineffective or inconsistent with the basic policy objectives." Maps and data submitted to TTA about the Alternative plan demonstrate that it is not infeasible, ineffective or inconsistent with the purpose and need, but is significantly more effective than the current rail plan. On three occasions TTA officials made public statements of, "The Alternative plan may make an excellent future (rail) extension." This occurred on May 13th, 2014 at the Durham Planning Commission meeting, at the May 14th DCHC (Durham Chapel Hill Carrboro) MPO meeting, and at the June 18th DOST (Durham Open Space and Trails) meeting. A. Why does TTA believe that the Alternative plan would make an excellent future rail extension? B. Or does TTA have evidence that the Alternative plan is infeasible? C. Will TTA respond to previously submitted maps, data and reports

which gives reasons why the Alternative rail plan may be more effective than the current rail plan? This includes the December 12, 2013 NEPA Alternative reports, my response to the TTA/MPO Nov. 12th letter, and the report and maps submitted at the June 25th, 2014 Board of Trustees meeting. 3. TTA officials said publically that the Alternative plan's corridor has already been studied during the STAC (Special Transit Advisory Committee) in 2008. This was stated in the TTA/MPO Nov. 12th letter, at the May 13th Durham Planning Commission meeting, and at the DOST June 18th meeting. However, I have not found this information to be true in the STAC Report. The truth is that the Alternative rail alignment is new information not previously studied, which is precisely why it is required to be studied during the NEPA process. A. Does TTA recognize that the Alternative plan is a new route not previously studied in the STAC Report? 4. At the May 13th, 2014 Durham Planning Commission meeting, a commissioner stated, "A focus on new development, jobs and affordable housing are needed on the eastern portion of Durham, which is where the Alternative rail plan would do the most good. Maybe it's time that we consider this Alternative plan. The current rail plan is heading into land that is already going to be developed in the western portion of Durham County, where it is not going to provide affordable housing, where it's putting people outside of their transportation needs and housing. Housing will be expensive out there." Census data maps clearly show that a greater minority percentage population and low-income households live along the Alternative rail alignment, rather than along the current rail alignment. It is evident that most of the western portion of Durham County along the current rail alignment is already developed and populated by higher income households. It is evident that the eastern portion of Durham County along the Alternative alignment has much less development and that Durham city leaders have called for redevelopment of this area. This area is also adjacent to RTP which will have the greatest amount of job growth, followed by the greatest population change in the future. City of Durham Transportation GIS 2005-2035 maps clearly show this data. A. Will TTA consider an Alternative rail plan which would serve a greater percentage of minority and low-income passengers which are much more likely to be dependent upon transit? Or does TTA dispute this claim and on what basis? B. Will TTA consider an Alternative plan which locates rail stations closer to high population growth and job growth areas as shown on planning maps? C. Why wouldn't TTA study an Alternative rail alignment which has several square miles more developable land located within 1/2 mile of rail stations and is an area ripe for new development? 5. The current rail plan will not provide a direct rail transit connection from Chapel Hill to RTP & Raleigh. When all rail lines are completed, it would take 41.5 miles and 70.4 minutes to travel by rail from Chapel Hill to Raleigh. Very few passengers would endure this overly long and winding transit route. Commuters would simply choose a different option for travel. In contrast, the Alternative rail alignment would allow rail travel from Chapel Hill to Raleigh in 29.2 miles and 41.7 minutes. This direct time-competitive route would attract many transit passengers. A. Does TTA recognize the fact that the currently planned rail route from Chapel Hill to RTP, Cary or Raleigh is too long and time consuming and that very few passengers would use it? B. Does TTA realize that the Alternative rail plan shortens travel from Chapel Hill to RTP? Cary or Raleigh by 13 miles and about 30 minutes. making it a very attractive travel option for passengers? Why doesn't TTA consider the Alternative rail plan on this fact alone? 7. The Alternative Analysis 2035 Peak Hour map, Figure 2-14, shows higher traffic congestion (at capacity) for the Alternative rail alignment along 1-40, Highway 55 and Highway 147. Whereas, there is less traffic congestion (under capacity) along the current rail alignment along 1-40 and Highway 15/501. A. Is TTA willing to discuss transportation data that suggests the Alternative rail plan has a greater potential to relieve traffic or provide a travel alternative where traffic will be most congested? B. Does TTA recognize the fact that the Alternative plan has a much greater potential to relieve traffic and provide a travel alternative along Interstate 40 where highest traffic congestion occurs? 8. At the DOST June 18th, 2014 meeting, TTA responded to a committee member, "We are not going to study another alternative. This would set the project back a long time." The policy of TTA to resist studying other alternatives was made very clear at this meeting. Another DOST committee member asked, "Why not allow a study of the Alternative rail plan for NEPA, and if you (ITA) think you have the best project, they why would you oppose this? The best project could then go forward and it's a win-win situation." TTA replied that they are not going to study another alternative, and

that they will not discuss the particular details of the Alternative rail plan. TTA has made it clear to the public that they are not going to study another alternative because it is too late, and that it really doesn't matter how much better the Alternative rail plan may prove to be. As a Durham Planning Commissioner stated at the May 13th meeting, "Maybe it's time that we consider this (Alternative rail plan), but what I'm hearing from you is that it is already decided?"

A. Does TTA agree with the message they are giving to the public that their minds are made up. therefore getting the current rail project completed in the least amount of time is all that matters at this point?

B. The Alternative rail plan eliminates the construction of 27 railroad grade crossings, which is a big public safety issue. If 27 is not enough. then how many grade crossings would need to be eliminated before TTA would consider studying an Alternative rail plan?

C. The Alternative rail plan would cost approx. \$400 million less. If this savings amount is not enough. then how high would the savings need to be before TTA would consider studying an Alternative plan?

D. The Alternative rail plan may take 8-11 minutes less time to travel from Chapel Hill to downtown Durham. It also has less chance to be further delayed by traffic because of street running sections on congested roads. If a time savings of approx. 11 minutes is not enough. then how great should the time savings be before TIA would consider studying an Alternative rail plan?

E. The Alternative rail plan avoids the construction of 1.5 miles of aerial structures. If 1.5 miles is not enough. how much bridge structure would need to be eliminated to make it worthwhile to consider?

F. If several organizations and citizen groups support a study of an Alternative rail plan. would this give TTA an incentive to do it?

G. Why wouldn't TTA want to include study of an Alternative plan that claims so many public benefits? Does TTA want to research all facts in order for best decisions to be made on this large public project?

9. The Alternative rail plan meets the Purpose and Need of the project more so than the current rail plan. Its benefits are; a more efficient route between major destinations in Chapel Hill and Durham, it establishes a significantly more efficient rail route connection towards Raleigh, costs less, safer, fewer environmental impacts, provides more affordable housing and TOD, it focuses economic development in an area that needs it most, it reaches a higher percentage minority and low-income population, and can be reasonably argued that it will encourage higher ridership by including the major employment destination of RTP.

A. Given that the above benefits could be shown true if the Alternative is allowed to be studied during NEPA. how can TTA justify that the Alternative rail plan does not meet the Purpose and Need for the project?

B. Why Does TTA believe that the Purpose and Need for the rail project is that it must serve Patterson Place and South Square? NEPA says, "The Purpose and Need Statement must not be so specific as to 'reverse engineer' a solution. It should be a statement of a transportation problem, not a specific solution. "TTA's insistence that South Square must be served because Duke students live there is not the purpose and need for the rail project. Buses provide effective service to these areas. University students are in greater numbers moving away from apartment complexes around South Square and choosing to live in new apartment and condominium projects built near downtown Durham and Southpoint. The primary retail center of Durham County has shifted dramatically south to the area around Southpoint, while strip shopping centers have proliferated along highway 15/501. Patterson Place and South Square are not major destinations that define the rail project. These areas are mostly already fully developed and are limited in size for future growth because they are surrounded by large undevelopable natural areas. The desired outcome for a high-density continuous urban corridor is more likely to develop along 1-40 towards the west side of RTP -near the center of the region where the Alternative rail corridor is. This would make the most sense for building and locating an expensive transportation system.

10. TTA has had incidents of withholding a citizen's written (and drawn) comments submitted at public meetings. For example, my own citizen comments concerning improvement changes were submitted at a TIA public meeting in March, 2011. I was told by a TTA official that my comments would not be included in the public record. Before the next public meetings in April, 2012, I was given a memo by a TTA official which said I could not make any public comments in opposition to the plans of TTA. It took 2.5 years until I left employment at TTA when my citizen comments could finally be included into the public record. The purpose of TTA withholding citizens comments was evident to me. They wanted to eliminate proposals for changes that may improve the rail project because they were committed to their own plans



and wanted to see them succeed.A. I would like to know in TTA's own words. why did they attempt to eliminate public comments that were made in good faith by a citizen for improving the rail project?December 17, 2015 List of Questions to GO Triangle1. The Federal Transit Administration (FTA) states; "If during the NEPA process, new reasonable alternatives not considered during the planning Alternatives Analysis are identified or new information about eliminated alternatives comes to light, those alternatives must be evaluated during the NEPA process."Half of the Alternative's proposed changes to the route would relocate its alignment along Interstate 40. Much development has occurred along this corridor recently, therefore, any past studies along this corridor are very outdated and a new study is needed with up-to-date information. The other half of the Alternative's proposed route along Hwy. 55 & the CSX RR corridor has never been studied. Triangle Transit's claim that the Alternative corridor has been adequately studied is simply not supported with factual information.A. Since the Alternative route is new information not previously studied. and it is a reasonable alternative. why is Triangle Transit not including a study of this Alternative to satisfy NEPA requirements?B. The Alternative meets the Purpose and Need for the project with significantly more service benefits than the current rail project. so why does Triangle Transit say that the Alternative rail route does not meet the Purpose and Need of the project? January 28, 2015 List of Questions to GO Triangle1. One way to compare existing automobile travel patterns and the effectiveness of the light rail project is to add up Annual Average Daily Traffic (AADT) counts along the route. Two different methods were used to make AADT counts along the current LPA light rail route and the Alternative light rail route where they differ.METHOD 'A' uses AADT traffic counts adjacent to station locations, parallel to the rail corridor option, and along a highway connecting at least two rail stations. All roads that are comparable in time or distance are included. The Alternative rail corridor includes an added 15/501 factor for stations from LaSalle St. to Alston Ave. because it gains traffic counts from both the LPA route (along 15/501) as well as the Alternative route.METHOD 'B' uses AADT traffic counts that are adjacent to station locations, are parallel to the particular rail corridor, and are averaged for the segments. The average AADT is then multiplied by the distance of the particular segment as a percentage of the total rail route being compared.METHOD A -Traffic counts using auto competitive highway routes through the light rail station options. LPA corridor stations score: 945,100Alternative corridor stations score: 1,494,400Summary: The Alternative corridor serves 549,300 (58%) additional AADT.METHOD B -Traffic counts using auto competitive highway routes along the light rail corridor options. LPA corridor score: 77,785Alternative corridor score: 118,102Summary: The Alternative corridor serves 40,317 (52%) additional AADT.A. Will Triangle Transit include a study of the Alternative rail corridor in the NEPA report in order to compare it to the current LPA rail corridor based on AADT counts similar to above methods?B. Based on AADT counts in which there are significant differences between two rail plan options. will Triangle Transit use the Triangle Regional Model to confirm travel statistics between the two railplan options? If not. please explain why the Triangle Regional Model will not be used as confirmation.The AADT counts are a reinforcement to predictions of where the most traffic and development will be located in the future. Durham County planning maps clearly demonstrate that the highest growth areas will also be along the Alternative rail corridor, rather than the current LPA rail corridor.C. Would recent proposed developments. such as Chatham Park with 55,000 future residents. influence travel projections in the Triangle Regional Model?D. Since the Chatham Park development would add much more transit ridership along the Alternative corridor. as compared to the current LPA corridor. doesn't it make sense to recalculate the Triangle Regional Model to see how this mega development changes outdated travel assumptions? 2. Comparing ridership numbers for bus routes serving similar routes to the D-O LRT project is another good way to get a quick look at the effectiveness of light-rail route alternatives. A study was done (with more data given at the end of this letter) in which partial bus ridership counts (estimated guesses) are tabulated for bus routes that follow a somewhat similar route as the light rail alignment. Triangle Transit could use the most recent passenger boarding counts at each bus stop in order to give a more accurate picture of ridership counts.Bus ridership estimate for the current LPA rail route: 445,565/yearBus ridership estimate for an Alternative rail route: 1,370,000/year (307% more)In summary, this quick method shows that the Alternative rail corridor

follows bus routes that may attract 307% higher ridership than the current LPA rail corridor. This very significant ridership difference calls for the use of the Triangle Regional Model for confirmation. A. Will Triangle Transit conduct further studies and use the Triangle Regional Model to confirm if an Alternative corridor for rail transit would gain more ridership based on existing and future bus ridership projections? If not, is Triangle Transit able to demonstrate that bus ridership numbers derived from either my method or your method demonstrate a different conclusion and therefore are not worthwhile to study further in the NEPA report? 3. Duke University officials have not had the opportunity to see and comment on the Alternative light rail plan. This plan would have much less impact to Erwin Street, which is Duke University's most traffic congested street with a high number of pedestrian accidents. The Alternative would also not impact Duke's natural forest areas, nature trails and golf course. I believe that Duke officials would welcome a rail transit plan with less negative impacts and cost. At least they should have the opportunity to comment on it. A. Will Triangle Transit allow Duke University planning officials to comment on an alternative light rail plan which has significantly less impacts on the campus environment? If not, what is Triangle Transit's justification for Duke officials to be kept uninformed about this alternative plan? 4. Triangle Transit's 2012 Alternative Analysis (AA) Report states; "The total travel time from one end of the high-capacity transit route to the other should be competitive with automobile travel. The greater the travel time savings, the greater the benefit to passengers and the more riders the transit system is likely to attract. Ultimately, longer travel times will likely continue to deter choice riders from using transit, particularly for non-work trips in the study area.... (without competitive transit) the automobile is and will continue to be the only available or convenient mode of travel for most trips, particularly between Chapel Hill and Durham." The AA Report states that an auto would take 23 minutes to travel from UNC to downtown Durham. My own automobile travel studies confirm similar results. Triangle Transit states that light rail would take approx. 36 minutes to travel from UNC to downtown Durham. In summary, the current LPA rail plan is not even close to being competitive with the automobile. A. Since Triangle Transit's AA report confirms that the current LPA rail plan is not close to being competitive with the automobile, what changes will be made, if any, to the current project? B. My study shows that the proposed Alternative rail route was very competitive with the automobile. Will Triangle Transit include their own study of automobile competitiveness for the current rail plan? February 27, 2015 List of Questions to GO Triangle 1. Thank you for providing an e-mail from Ms. Anna Wu, Asst. Vice Chancellor of Facilities at UNC. The effort to bring this UNC Station alternative location before UNC planning officials for their comments has taken a very long path. As you know, for about 3 years the engineer at Triangle Transit tried to get this alternative shown to UNC officials, but was refused. At a TTA board meeting this request was made again. Triangle Transit's response was that it was too late and it would not be shown to UNC. Citizen petitions were also made to DCHC MPO officials to allow UNC planning officials to see this alternative. This is the first acknowledgement I have received from Triangle Transit that they finally released this information to UNC. I don't understand why there was such opposition at Triangle Transit to the sharing of information to a project stakeholder. It is very important to have open and unfettered discussion and debate of large public issues. I did not receive any information as to what was actually sent to Ms. Wu. Her e-mail response gives me reason to doubt that she was given my written information about the safety

*Comment Responses*

*DEIS/Errata References*

*The DCHC MPO selected the LPA that the DEIS further refined. The alternative proposed in the comment is not within this LPA, therefore it is outside of the scope of the DEIS. The DCHC MPO subsequent to the DEIS has endorsed the NEPA Preferred Alternative. Over multiple public studies including the Special Transit Advisory Commission (STAC), the DCHC MPO 2035 Long Range Transportation Plan (2035 LRTP), and the DCHC MPO 2040 Metropolitan Transportation Plan (2040 MTP), GoTriangle and other local transportation experts have evaluated whether or not the corridor*

DEIS chapter 1  
DEIS chapter 2

**D-O LRT FEIS / ROD**

along the D&S rail line from the North Carolina Railroad (NCRR) Corridor to I-40 (and even to places further south) should be a priority in high-capacity transit planning. In every one of these studies, present-day transit ridership data and trends, and the forecasts of the Triangle Regional Model indicate that the D&S Corridor is not a leading candidate for this type of investment, but a corridor that would only be invested in after significant investments had been made in other corridors. Simultaneously, in every one of these studies, the Durham-Orange (D-O) Corridor has emerged as the most promising corridor for high-capacity transit investment in the three-county Triangle region comprised of Orange, Durham, and Wake Counties. This data can be seen in the full-corridor level data in STAC Table A-9 in the STAC Report. The Durham to Chapel Hill corridor had the highest trip intensity in the entire region at 20 in-corridor trips per acre. The D&S Corridor proposal does not meet the Purpose of the proposed D-O LRT Project or the Project's demonstrated Need. The purpose of the D-O LRT Project "is to provide a high-capacity transit service within the D-O Corridor, between Chapel Hill and Durham, along the NC 54, I-40, US 15-501, Erwin Road, and NC 147 transportation corridors, that improves mobility, expands transit options, and supports future development plans." The D-O Corridor was identified through the Special Transit Advisory Committee process described in DEIS appendix 2 as one of the most promising corridors for a high-quality transit investment. A rail connection to Raleigh is not a purpose of the project and does not meet an identified need. The D-O LRT Project meets the identified Need by improving mobility in the region, providing a competitive, reliable alternative to auto use that supports compact development. It does so in conjunction with local land use plans that seek to foster compact development. The City and County of Durham's adopted land plans have identified several activity centers within the D-O Corridor and along the D-O LRT alignment as compact, transit-oriented neighborhoods which leverage the accessibility improvements provided by high-quality transit into compact, sustainable economic development. These neighborhoods include Leigh Village, and the Patterson Place and South Square areas along the US 15-501 corridor. The City and County continue to move forward with their plans in these areas. The D&S Corridor proposal completely avoids these destinations and instead serves areas that, pursuant to Durham City and County plans, have been developed in more traditional suburban styles, such as the area surrounding Streets at Southpoint and NC 55, as well as industrial and low-density residential areas along the west side of Research Triangle Park that have not been identified as future growth centers by Durham City and County. The D-O LRT Project enhances transit-operating efficiency within the most heavily traveled transit corridor in the region, connecting to numerous bus routes which currently stop at most of the proposed LRT stations within the D-O Corridor and accommodating increased demand for transit near heavily congested roadways. As DEIS Table 1.3-1 indicates, on-time performance for GoTriangle routes in the D-O Corridor —particularly, those routes which ply US 15-501 —are the worst in the corridor, and significantly worse than the overall GoTriangle system. These routes, such as Routes 400 and 405, serve important destinations along the US 15-501 corridor which will also be served by the D-O LRT Project.

First Name	Last Name	Comment
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Phil	Remmers	<p>Hi Go Triangle Transit, Today I reviewed the D-O LRT Flythrough video on your website. Thank you for making the excellent video as it gave me a very good idea of what you hope to do. First, let me say I am very supportive of light rail I think in the US we need to put a much greater emphasis on transportation alternatives. It is embarrassing and shameful to see how little emphasis we put on mass transit here in the U.S. (I travel frequently overseas and see what a quality mass transit system can do.) But after reviewing the D-O LRT Flythrough video I was very disappointed with the design of the rail line. When designing a rail line you want to put stations in places where people currently live and in places where they to go (strip malls, grocery stores, etc.) In the Flythrough video you have placed a number of stations in area where few people currently live and completely by-pass major shopping centers/apartment complexes. It makes no sense at all. I think the current design is setting yourself up for failure. Another problem is that the design is far too reliant upon commuter lots. If a person is willing to drive two or three miles from their house to the commuter lot, why would they then wait for ten or fifteen minutes for a train when they only need to go another five or ten miles to their final destination? It seems that parking in commuter lots will be far less convenient than simply driving. However, if you eliminate the commuter lots and focus on major living areas or destinations I think you will have a lot more riders.... And it will be much faster. Again, I think the current design is setting yourself up for poor ridership. But if it is designed well, then I think it can be a very successful rail project. If you wish I would be happy to sit down with you and point out the design problems. Please feel free to contact me. Thank you</p>
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Comment Responses	DEIS/Errata References
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*Comments noted. As stated in the Executive Summary, 17 stations are proposed as part of the proposed D-O LRT Project. DEIS section 2.3.2 includes a description of the station locations. Proposed station locations are shown on Figures 2.3-2 to 2.3-5. A summary of station characteristics is provided on Table 2.3-2. The precise locations and final names for the stations will be decided during future phases of the project.*

DEIS chapter 1  
 DEIS section 8.1  
 DEIS section 8.4  
 DEIS Table 2.3-2

*As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans. The need for the proposed D-O LRT Project is to attain the following:*

- Improve Mobility*
- o Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development*
- o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time*
- Increase Connectivity*
- o Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system*
- o Serve major activity and employment centers between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*
- Promote Future Development*
- o Support local land use plans that foster compact development,*
- o Provide a transportation solution that supports compact development, promotes environmental stewardship,*

*helps manage future growth, and maximizes the potential for economic development near activity centers. The D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3). Light rail was chosen for the D-O Corridor because this technology will:*

- Connect residential, educational, and major employment centers throughout the corridor;*
- Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;*
- Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;*
- Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;*
- Provide solid anchors needed to shape land use along this critical corridor; and,*
- Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).*

*As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.*

*Hundreds of commuters to UNC from RTP, Morrisville, Cary, and Raleigh already park and ride today at parking lots at Southpoint Mall, Exit 282 off of I-40 at the Regional Transit Center, and at District Drive in Raleigh. They choose to use these bus services even though they are subjected to traffic on NC 54. The light rail, with a major park-and-ride facility at Leigh Village, will offer a higher level of frequency than these routes and will not be subject to traffic congestion in the future when traffic is worse.*

First Name	Last Name	Comment
Gary	Richman	Several Comments 1) If the line is built, we appreciate the inclusion in the DEIS of a sound and visual barrier - landscape and/or fencing - between the RoW and the Highland Woods neighborhood. 2) The DEIS appears to use both Highland Woods and The Highlands as the designation for the neighborhood between Glenwood Elementary School and the NC Botanical Garden. Only the former is correct. 3. Having said the above, the route as designed is not adequate or acceptable. A route which includes shopping destinations like South Pt and downtown Chapel Hill, major employment centers like RTP, the RDU airport and Raleigh would be a true regional mass transit system. The current route structure is primarily park and ride transport for only 2 major employers and fails to spread benefits more broadly while extending cost to the entire community. We recommend the NO BUILD option [removed name] VP Highland Woods Residents Assoc.



*Section 4.4.3.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and stands in the design of project elements and provide landscaping and aesthetic treatments within close proximity to residences. Triangle Transit is committed to provide a landscape visual buffer for Highland Woods (see DEIS Table 4.5-1). This visual buffer would provide a blooming of at least two seasons of each year. Triangle Transit will consult with property owners, historic district representatives, and the SHPO on the appearance of this buffer.*

DEIS section 4.4.3.1  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 17

*Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #65 contains clarification on Highland Woods.*

*Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <http://www.WakeTransit.com>.*

First Name	Last Name	Comment
Charles	Roser	After considering five sites for the ROMF, Go-Triangle chose the Farrington Rd. site. They stated that their choice was primarily based on cost and ease of development of the site. I do not agree with this choice since it converts one of the few rural corridors between Durham and Chapel Hill into an industrial site. Farrington Rd. is already challenged by car traffic and the ROMF will make that worse. While it might take more money to use the Cornwallis Rd. site, that site is already commercial and Hwy 15-501 can handle the increase in traffic. While it might take more money to use the Alston Ave. site, that site is already an industrial site and Hwy 147 can handle the increase in traffic. The Alston Ave. site is also at the current end of the route. It would make better sense to have the ROMF at the end of the route than in the middle of the route at Farrington Rd. If Go-Triangle wants a ROMF in the middle of the route, it could be placed at the proposed Leigh Village Compact Neighborhood where a very large number of the predicted riders will live. I think that Go-Triangle should reconsider the Cornwallis Rd. and Alston Ave. sites. Why has Go-Triangle not considered Leigh Village for the ROMF since a park-and-ride site already be there?

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*During the Alternatives Analysis and scoping more than 20 potential ROMF sites were considered. A total of five ROMF sites were included for analysis in the DEIS. Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and*

DEIS section 8.2.2  
DEIS section 8.2.2.1  
DEIS section 8.2.2.2

*why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119 121 and 137

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS).*

*Although the Alston Avenue ROMF alternative would not require rezoning, it would introduce several risks to both the project schedule and budget, associated with the potential of regulated materials remediation and relocation of businesses. It also has the potential to result in net loss of employment within the D-O Corridor if the existing businesses that would be displaced could not be relocated within the D-O Corridor. This alternative has the highest capital cost of all of the alternatives considered in this DEIS (section 8.2.2.2).*

*The Patterson Place ROMF Alternative is not recommended for further consideration as the NEPA Preferred Alternative. The selection of NHC 2 as a component of the NEPA Preferred Alternative precludes the selection of this ROMF alternative. See DEIS section 8.2.*

First Name	Last Name	Comment
Charles	Roser	Go-Triangle has not sufficiently addressed the management of the water runoff from the proposed ROMF at Farrington Rd except to

say that it will be collected in catch basins. There seems to be no plan in place to treat this run-off. The ROMF will use industrial lubricants and cleaning solvent some of which will part of the run-off. Go-Triangle has not released a list of these chemicals. Any overflow from the catch basins will end up in New Hope Creek watershed, New Hope Creek, and Jordan Lake, which provides drinking water for Raleigh, Durham, and Cary. I think that Go-Triangle should release a complete list of all chemicals with complete MSDS sheets used at the ROMF. They should also address how they will treat the run-off to prevent contamination of New Hope Creek.

### *Comment Responses*

### *DEIS/Errata References*

*DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately –owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. As noted in DEIS section 4.11.3 and section 1.4 of the combined FEIS/ROD, DEIS Errata 121, the proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials because of associated maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While light rail vehicles, as noted in section 4.8.3.1, do not operate on*

*DEIS section 2.2.3  
DEIS section 4.8.3.1  
DEIS section 4.8.4.3  
DEIS section 4.11.3  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 21, 94, 95,  
107,119, and 121*

### *D-O LRT FEIS / ROD*

gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents, and other waste materials), used at the ROMF will be captured and stored in tanks (inside buildings), where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed.

The materials to be used at the ROMF will be determined as the project is developed during the Engineering phase. As noted in DEIS section 4.11.3, the proposed D-O LRT Project would include a Rail Operations and Maintenance Facility where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. As mentioned in DEIS section 4.8.4.3, all regulated materials generated as part of maintenance would be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, DEIS Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed.

First Name	Last Name	Comment
Charles	Roser	In evaluating possible routes from UNC Hospital to Duke Hospital, Go-Triangle seems to have overruled the direct route using Hwy 15-501 and Hwy 15-501 Bypass and chosen the indirect route that crosses environmentally sensitive Little Creek and New Hope Creek watersheds. This direct route could be easily accessed by bus rapid transit. I think that Go-Triangle should reconsider the route and the use of bus rapid in place of the light rail route.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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Through the Alternatives Analysis, the corridor along NC 54 was selected as the best alternative to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The

DEIS section 2.2.1

Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com).

Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com).

First Name	Last Name	Comment
Elisabeth	Schweins	I live in the Highland Woods Road Historic District. I have been looking forward to light rail as a public transportation system of the future that would benefit the entire region. Unfortunately, I do not think the current plan will serve the community's needs sufficiently. Thus I hope that if it is implemented as envisioned, the scope and reach will soon be expanded to connect other vital areas and destinations in the Triangle, such as the Raleigh--Durham airport, areas in the Research Triangle Park, Raleigh, etc. to truly make a difference. However, as a neighboring resident to the first stage of the project, I appreciate the commitment to plant a visual landscape buffer to help protect our wooded neighborhood from the full impact of the system in such close vicinity, should it proceed as planned. Best regards, [removed name]

Comment Responses	DEIS/Errata References
<p><i>The D-O LRT Project is one element of the overall transit vision for the Triangle region. Planning for high-capacity transit in the Triangle region began more than 20 years ago, and a number of studies have been conducted to advance major transit investments in the area, including extensive coordination with stakeholders and members of the public to develop, evaluate, and refine the range of alternatives (see Figure 2.1-1 of the DEIS). The key studies, white papers, and reports that identified the need for high-capacity transit in the region and defined the D-O Corridor are summarized in section 2.1 of the DEIS. These past studies indicate that the estimated demand for a continuously connected rail line to RDU and RTP is not warranted or cost effective for the Project. RTP has a significant number of jobs, but they are widely distributed and dispersed compared to Chapel Hill and Durham. This dispersed development pattern is not as conducive to rail. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 17 provides the following clarification for section 1.1 of the DEIS: Wake County is also planning for transit by evaluating future potential transit corridors in the Wake County Transit Plan. For more information, please see <a href="http://www.WakeTransit.com">http://www.WakeTransit.com</a>.</i></p> <p><i>Section 4.4.3.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and standards in the design of project elements and provide landscaping and aesthetic treatments with in close proximity to residences.</i></p>	<p>DEIS section 4.4.3.1            FEIS/ROD section 1.4            FEIS/ROD Table FEIS-2            DEIS Errata 17</p>



First Name	Last Name	Comment
Lorisa	Seibel	Include Economic and Race Equity Impact on TransitWe want GoTriangle to include economic impact and racial equity in the Environmental Impact Statement (EIS) for the Durham-Orange Light Rail transit Project. We expect the EIS to contain a substantive and thorough analysis of the economic impact and racial equity on residents. The EIS should address economic impact and racial equity, including gentrification and displacement affecting local residents, small businesses, housing and transportation costs.Total Signatures: 115[removed names and PII]

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As listed in DEIS table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600.As noted in DEIS section 4.2.4., the redistribution of growth in population, households, and employment that could be generated by the proposed D-O LRT Project is consistent with local plans and policies. The D-O LRT Project is not expected to result in negative effects to economic output, job creation, or income.*

DEIS chapter 5  
DEIS section 4.2.4  
DEIS Table 4.2-4  
FEIS/ROD section 1.4  
DEIS Errata 64

*As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964.Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project. If the proposed D-O LRT Project is built, it is expected that it would be funded by a combination of federal, state, and local funds. Dedicated local funding for bus and rail transit investments was identified when citizens of both Durham and Orange counties passed referenda to increase sales taxes to support transit improvements. (Effective April 1, 2013, Durham and Orange counties adopted resolutions to levy an additional one-half cent local sales tax to be used only for public transportation systems.)Established federal and regional funding sources means no one group in the D-O Corridor or the region would receive a disproportionate share of the financial burden of the capital and operating and maintenance costs relative to the benefits received. No financial equity considerations would be raised by the project, either in terms of the source of subsidy or the level of fare payments required of passengers (section 8.3.2).*

*The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the*

residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs.

First Name	Last Name	Comment
Lorisa	Seibel	<p>[REMOVED NAME]: Hello. My name is [REMOVED NAME]. I live at [REMOVED ADDRESS, CITY, STATE, ZIP]. And I'm a member of the Durham People's Alliance and also of Durham CAN, two local groups that supported the referendum for funding the light rail and improvements to our bus system. We are in support of improving transit for all residents of Durham, and we're also in support of making sure that that transit is accessible and that housing is affordable around each transit station so that everyone in Durham, no matter what their income, can benefit from transit improvements to be able to get to work, to school, to the doctors, and other places. As we move forward with the Environmental Impact Statement and other plans for the transit system, we ask that GoTriangle include economic impact and racial equity in the Environmental Impact Statement for the Light Rail Transit Project. We expect the EIS to contain a substantive and thorough analysis of the economic impact and racial equity on all residents, particularly residents who live near the stations. The EIS should address economic impact and racial equity such as gentrification and displacement that may affect local residents, small businesses, affordable housing, and transportation costs. And this is the wording of a petition that was signed by 115 People's Alliance supporters. I want to read a couple of the comments. There's one that's about sustainability of this and the -- that we want in all of your plans to look at vulnerable communities to guarantee the overall success of this project. Let's do it right in Durham. Another person says she lives near a proposed station and wants to make sure there's affordable housing for all current residents to keep the unique mix of our neighborhood community. And I will submit the petition with the 115 signatures.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis (section 3.1.4).*

DEIS chapter 5  
 DEIS Table 4.2-4  
 FEIS/ROD section 1.4  
 DEIS Errata 64

*The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential*

*impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs.*

*Chapter 5 of the DEIS presents detailed analysis of environmental justice and identifies that the NEPA Preferred Alternative would improve accessibility for all communities, including low-income and minority populations. Overall, the potential impacts would be minimal compared with the proposed project's benefits, which would include improvements to connectivity and mobility; access to jobs, services, education, and entertainment; pedestrian and bicycle conditions; access to transit; and reliability in transit service. In those areas where stations are proposed, there is the potential for economic opportunities through associated development. As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project. If the proposed D-O LRT Project is built, it is expected that it would be funded by a combination of federal, state, and local funds. Dedicated local funding for bus and rail transit investments was identified when citizens of both Durham and Orange counties passed referenda to increase sales taxes to support transit improvements. (Effective April 1, 2013, Durham and Orange counties adopted resolutions to levy an additional one-half cent local sales tax to be used only for public transportation systems.) Established federal and regional funding sources means no one group in the D-O Corridor or the region would receive a disproportionate share of the financial burden of the capital and operating and maintenance costs relative to the benefits received. No financial equity considerations would be raised by the project, either in terms of the source of subsidy or the level of fare payments required of passengers (section 8.3.2). Pursuant to the Orange County and Durham County Bus-Rail Integration Plans, an adequate share of local sales tax funds is being dedicated to the cost of the LRT system.*

First Name	Last Name	Comment
Stephen	Simon	I have some comments / concerns specifically about the backup ROMF site near Cornwallis Dr. These comments are in the context of things that would need to be addressed if this site was chosen:1) The noise study already conducted does not include several important factors: a) Relocation of Western Bypass, b) The very tight turning radius of the north turn around loop is a concern for wheel squeal. An increase in noise over the existing study could potentially move the site to be classified unacceptable. Therefore I would request the noise study be redone.2) The option the JCC has to expand on current Pepsi Plant property needs to be addressed.3) The right of way for JRC needs to be addressed4) Safety and noise introduced by the moving of Western Bypass close to the campus needs to be addressed.5) Lighting at night interfering with evening religious servicesI am concerned that there is not another alternative being discussed beyond the two Farrington Rd and Cornwallis for the ROMF site. This should also be addressed.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS). Section 4.4.3.1 and section 1.4 of the combined FEIS/ROD, DEIS Errata 82, notes that lighting would be aimed towards the ROMF to minimize the impacts of light on surrounding neighbors and wildlife. In addition, source-shielding would be used in exterior lighting at the ROMF. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

DEIS section 4.4.3.1  
 DEIS section 4.10.4  
 DEIS section 8.2.2  
 DEIS section 8.2.2.2  
 DEIS appendix K24  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 22

*DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. The noise and vibration assessment was conducted in accordance with FTA guidelines and includes evaluation of all relevant project features, including the relocation of any roads. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Other alternative alignments would result in some additional impacts at receptors, but the number of additional impact locations is not substantial. None of the ROMF sites would result in noise or vibration impacts. Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project*

*Element Alternatives. Additional detail on the impacted receptors is provided in appendix K24. As described in 4.10, noise and vibration levels are estimated for the proposed D-O LRT Project and compared to the thresholds defined in the FTA Transit Noise and Vibration Impact Assessment (2006) manual. Noise and vibration projections take into account the operations of the proposed light rail including the speed of the trains, headways, train consists, the use of audible warning devices, and the track design including at-grade crossings, special track work (crossovers and turnouts), track curvature, adjustments for elevated guideways, terrain, building rows, and other features that may affect sound propagation conditions. Other sources included in the projections are noise from park-and-ride facilities, traction power sub-stations, and noise and vibration from the ROMF (including wheel squeal). Potential measures to mitigate noise and vibration impacts are described in DEIS section 4.10.5.*

*DEIS section 4.4.4 describes potential mitigation measures for adverse visual and aesthetic impacts identified during the evaluation process and in coordination with other disciplines, including natural and built environment. In addition to coordination with the Town of Chapel Hill and the City of Durham, the following potential mitigation options are proposed for the affected areas:§ Using interdisciplinary design teams to create aesthetic guidelines and standards in the design of project elements§ Integrating facilities with area redevelopment plans§ Planting appropriate vegetation in and adjoining the project right-of-way§ Replanting remainder parcels§ Using source-shielding in exterior lighting at ROMFs, stations, and auxiliary facilities§ Art-in-Transit opportunities§ Provide landscaping and aesthetic treatments when in close proximity to residences with aerial structures*

*If rezoning of the Farrington site could not be accomplished, Triangle Transit would need to re-evaluate all potential ROMF locations to make a determination of the most appropriate alternative site. Additional coordination with adjacent property owners would be conducted as part of any re-evaluation.*

First Name	Last Name	Comment
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Lila	Singh	If negative impact of power lines as you said are inconclusive how can you say there is no problem? It's an unknown.* You should list here cons on Cornwallis site School, Temple, JCC
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Comment Responses	DEIS/Errata References
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter*

*DEIS section 4.17  
DEIS section 8.2.2  
DEIS section 8.2.2.2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 22*



School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS).

Contributions from the project to the existing magnetic field levels would be negligible. As stated in DEIS section 4.17, the project would result in new sources of EMF generation and exposure of passengers and individuals working on the systems or passing in the vicinity. The main sources of EMF generation would include train power distribution systems; traction power substations with connecting lines to the major utility lines; passenger facilities, with their various electrical systems for lighting, communications, utilities, fare machines, among other systems, and their proximity to power distribution networks; and electrically-powered rail passenger vehicles.

First Name	Last Name	Comment
Linda	Smith	To whom it may concern:I am a realtor in Prescott Place Subdivision and since the light rail system locations has been finalized to move forward with the new locations, there has been major impact on sales around 10-12 homes on the market and sold of 30,000-50,000 less than market value because of fear of the impact of the light rail system.I have went to several meetings and it seems that there is no concern to you, it s what it is attitude.I would like to know what choices do we as homeowners have?

Comment Responses	DEIS/Errata References
<p>As described in DEIS chapter 1, many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail. Several studies have shown that light rail has a positive impact on property values. More information can be found at <a href="https://www.stlouisfed.org/publications/bridges/winter-20032004/lightrail-transit-myths-and-realities">https://www.stlouisfed.org/publications/bridges/winter-20032004/lightrail-transit-myths-and-realities</a> and at <a href="http://uli.org/infrastructure-initiative/uli-research-roundup-the-impact-of-transit-on-property-values/">http://uli.org/infrastructure-initiative/uli-research-roundup-the-impact-of-transit-on-property-values/</a>. A study published in the Journal of Transport and Land Use found an overall positive impact on the value of single-family homes along Charlotte's first light rail line; see <a href="https://www.jtlu.org/index.php/jtlu/article/download/261/242">https://www.jtlu.org/index.php/jtlu/article/download/261/242</a></p>	<p>DEIS chapter 1 DEIS Errata 63</p>

First Name	Last Name	Comment
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Susan

Sonberg

On behalf of the Directors for the Downing Creek Community Association, I am submitting these comments to Go Triangle with copies to our elected officials and DCHC MPO. A pdf copy of content below is attached . Downing Creek Community Association 30151 Walser Chapel Hill, NC 27517 (919) 968-1303 October 2, 2015 D-O LRT Project DEIS, c/o Triangle Transit, P.O. Box 530, Morrisville, NC 27560

DEIS Comments submitted via info@ourtransitfuture.com for inclusion in the official project file for the Federal Transit Administration (FTA)

We, the Directors for the Downing Creek Community Association, representing approximately 900 residents, including 235 single family

homes and 175 condominiums submit this letter in strong opposition to the NEPA Preferred Alternative C2A alignment as currently planned and recommended in the DEIS.

Downing Creek is a well-established Durham community located along south side of NC54 in the area defined as "Little Creek" in the proposed Durham-Orange light rail project. This area is a quilt of confusing city and county boundary lines. While the site proposed for the

Woodmont station is in Durham County, it falls within the Town of Chapel Hill planning jurisdiction. As a result, our neighborhood is disenfranchised from development planning decisions that directly affect us. Our Durham elected officials have no planning control over

this geographical area, and our neighborhood voice carries little weight with Town of Chapel Hill, as we are not their voting constituents.

Despite years of repeated comments to Go Triangle and elected officials to provide an alternative placement (in the road median or on north

side of NC54) or appropriate mitigation (such as elevated station and tracks), Downing Creek Residents' safety concerns and traffic impacts have been ignored and marginalized in order reduce project costs.

At-grade - Safety Concerns: The Meadowmont development was originally designed and planned to accommodate a future transit corridor for light rail. The DEIS contains detailed traffic studies for all those potential intersections C1 & C1A alignments. The C2A & C2 alignments did not receive the

same type of analysis or thorough consideration. There were no traffic studies done for impacts at the grade crossings for either Downing Creek Parkway or Little John and for access to NC54. This information was repeatedly requested from GoTriangle.

The only reference to our specific concerns in the DEIS is in Section 3.2.4.1 NC 54, pg. 3-51 which states:

"Residents of the Downing Creek neighborhood expressed concern regarding impacts to traffic and safety at the intersections of NC 54 with East Barbee Chapel Road, Littlejohn Road, and Downing Creek Parkway under the C2 and C2A alternatives. Per the request of City of Durham staff, Triangle Transit, in coordination with NCDOT, will refine traffic analysis and mitigation recommendations in this area during the Engineering phase if the C2 or C2A Alternative is selected. Environmental consequences and mitigation related to safety at intersections and at-grade crossings."

The C2A (as well as C2) alignment will establish three at-grade light rail crossings within a half mile stretch of road at Barbee Chapel Hill

Road, Little John & Downing Creek Parkway. This will have a detrimental effect on ingress and egress to the neighborhoods lying south of

NC54 by obstructing roads and impeding access for our residents, school buses, as well delaying any emergency response vehicles. There are planned train crossings 140 times a day. At peak times with trains traveling over the at-grade crossings every 10 minutes, it is

expected that gates will obstruct one or more of the crossings and drivers will be forced to merge onto NC54 into heavy traffic without benefit of traffic signals or merge lanes. Even with gates and signals, light rail safety statistics continue to show that at-grade crossings are inherently dangerous.

DEIS Appendix K-06- NC 54 Traffic Simulation Report, p 1-3 clearly, states' Due to the proximity of the LRT at-grade alignment to NC 54 under the C2A Alternative, this alternative will affect more intersections along the NC 54 corridor than the other two Build LRT Alternatives. NC 54 signal coordination would be disrupted by LRT preemption events, and therefore, several movements along the corridor may experience moderate increases in delay and queuing.

Appendix-L-VOL-1-REV-5-Basis-for-Engineering-February-2015, sheet C2A-03 shows a planned addition of a median on Downing Creek Parkway. This median will restrict our resident's ability to turn left onto Stancell Drive and we will no longer be able to exit via Little John or Barbee Chapel. GoTriangle has indicated that the Stancell drive access will be modified or closed due to the proposed grade separated ramp when NC54 is widened. This means any traffic envisioned dropping off all the "forecasted riders" at Woodmont station & ride will have little choice when they exit but to attempt to get on NC54 by crossing the tracks at Little John, or by cutting through the Downing Creek neighborhood.

Our neighborhoods are home to many families with young children. Bicyclists and pedestrians from Downing Creek use Stancell Road to travel to trails in Meadowmont and Chapel Hill. There is concern about how they can safely take these routes. There will be increased traffic congestion on these roads and the DEIS does not address any plans to extend the bike and pedestrian trails shown on in the DEIS Woodmont station down to Downing Creek Parkway.

We do not feel that our community should bear the negative safety and traffic impacts that will further stress and not relieve an already congested area. The proposed C2/C2A route does nothing to mitigate traffic congestion on NC54. The proposed light rail tracks and station, in conjunction with the NCDOT including the planned widening of NC54, the proposed superstreet and a grade separated ramp at Barbee Chapel interchange will dramatically reduce our ability to access and exit our neighborhood. There will be no room left to include merge lanes and there is no planned traffic signal at Downing Creek Parkway. Access points on C2/C2A obstructed roads will not be wide enough to provide motorists, particularly school buses and emergency vehicles, adequate 'wait to merge' areas. This situation will render our access roads to NC54 simply too hazardous to consider using, effectively isolating us. Noise Concerns

In addition to traffic and safety concerns, the DEIS states that the Little Creek Alternatives would have more noise, vibration, and groundborne noise impacts than other areas. Downing Creek is identified as "category 2, residential" for both noise and vibration. Our neighborhood was not included in the DEIS data, Table 4.10-5: Monitored Existing Noise Levels (dBA).which provided existing noise level data for locations in the alignment area.This is a very quiet residential neighborhood and the residents located in close proximity to the entrance and three at-grade crossings will be subjected to the noise of the train horns, gate bells clanging every 10 minutes during rush hour (1 train in each direction) - about 140

crossings a day. The residences in closest proximity to the proposed route were not designed or built with any sound mitigation strategy. There seems to be a rush to obtain funding and not to take the time to plan this right. It has been suggested our issues can be worked out down the road, but if the DEIS is approved it is unlikely the route will be changed or there will be any mitigation efforts. It appears that at NCDOT, GoTriangle projects and local municipality development planning projects are all working at cross-purposes with competing interests. No one is at looking at NC54 "Little Creek" area cohesively. We are seeking a comprehensive independent review of the LRT project assumptions and the development of an overall transportation and development strategy for the NC54, I40 & US15501 corridors by NCDOT, DCHCMPO, Durham and Chapel Hill. Please ensure that the DEIS does not go forward until this has been completed and the Little Creek alignment is revised. We strongly encourage you to take into account our serious concerns regarding safety of light rail, especially in regards to at-grade crossings. We have a lack of confidence in the overall ridership projections and associated assumptions. As taxpayers, we do not want to bear the burden of underwriting billions of dollars for a light rail system when there are more cost effective and flexible transit solutions such as BRT or the No Build Alternative. Downing Creek Community Association Board of Directors, Ted Bohlin, President Susan Sonberg, Secretary Brian Burke, Treasurer Attachments: DCCA DEIS 2015 1002.pdf Eric Butler, Director David Paul, Director

*Comment Responses*

*DEIS/Errata References*

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains. NC 54 will continue to be coordinated in the east/west direction. Under a separate planned NCDOT project, the nearest signal that would impact westbound NC 54 is located over 3,800 feet to the west of Littlejohn Road. The nearest signal that would impact eastbound NC 54 is located approximately 4,500 feet to the east at Falconbridge Road and should not impact vehicles exiting from Downing Creek Parkway or Littlejohn Road. The northbound Littlejohn Road left turn to westbound NC 54 currently has very limited usage with less than 10 vehicles per hour performing this maneuver in both the AM and PM peak hours. Downing Creek Parkway is configured today as an eastbound NC 54 right turn to southbound Downing Creek Parkway and a northbound Downing Creek Parkway right turn to eastbound NC 54. This configuration will be maintained in the LRT build condition. The stop/yield controlled right turns do not operate on a fixed pattern and therefore the 12 or fewer train crossings in a peak hour should not significantly affect these low volume turning movements. The project aims to improve transportation for the entire region by offering fixed light rail transit, which will result in improved travel time reliability compared to bus transit services. The project is also expected to shift thousands*

DEIS section 2.4  
 DEIS section 3.2  
 DEIS section 3.2.2  
 DEIS section 3.2.3  
 DEIS section 3.2.4  
 DEIS section 3.6  
 DEIS Table 2.4-1  
 DEIS Table 3.2-2  
 DEIS Table 3.2-3  
 DEIS Table 3.2-5  
 DEIS appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 36 and 108

of daily users from private vehicles to the LRT. The project team has performed vehicle turning movement counts at the intersections of Littlejohn Road/NC 54 and Downing Creek Parkway/ NC 54 to confirm the magnitude of volumes using these roadways. During the next phase of design, a more detailed study may be performed if required and mitigation measures such as an eastbound acceleration lane for the northbound Downing Creek Parkway right turn to eastbound NC 54 could be added. As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. Triangle Transit has considered alternative alignments utilizing the median and north side of NC 54. In the AA the C2 alignment included a two staged crossing of NC 54 in which the alignment travel remained in the median to the east of Downing Creek Parkway. However, NCDOT expressed concerns regarding the limitations for future expansion of NC 54 that would be introduced. In addition, placing the Woodmont Station in the median would limit access to the station. All of the existing and planned future development in the area is located on the south side of the NC 54.

Triangle Transit also looked at transitioning to the north side of NC 54. However, this would require additional aerial structure. In addition, the Town of Chapel Hill has targeted the area south of NC 54 near the Woodmont station for development. While the Town has rejected development proposals for the area north of NC 54 due to the proximity to the Little Creek Bottomlands and Slopes Natural Heritage Area. Locating the station on the south side of NC 54 will be more supportive of the Town of Chapel Hill's development plans.

Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.

Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to



*coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.*

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway projects planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues). Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in Table 3.2-5. As detailed in the Executive Summary of the DEIS, Triangle Transit will work with the Town of Chapel Hill, City of Durham, NCDOT, and local advocates to identify the potential for off-street facilities or on-street facilities on parallel or nearby roadways. Pedestrian crossings of light rail tracks will be designed in accordance with current ADA design requirements to ensure access and mobility for all users. New pedestrian and bicycle infrastructure would be installed in station areas to augment the existing network. Station areas would be designed according to best management practices for bicycle and pedestrian safety. Measures would be taken to discourage pedestrians from crossing the tracks outside of designated track crossings and to enhance safety at permitted crossing locations (p. ES-17). Section 3.6 of the DEIS contains additional details on plans for future bicycle and pedestrian access. Sidewalks, crosswalks, curb ramps, and other pedestrian infrastructure that the light rail alignment would affect would be rebuilt or enhanced as depicted in the Basis for Engineering Design (appendix L).*

*As discussed in DEIS section 4.10, the noise and vibration assessment was conducted in accordance with FTA guidelines for transit noise and vibration assessment. Representative monitoring, of existing noise conditions, in accordance with transit noise assessment guidelines, occurred at site M9 at the intersection of Stancell Drive & Little John Road. As indicated in Table 4.10-6, other Little Creek Alternatives would add additional noise and vibration impacts in addition to those identified for the NEPA Preferred Alternative. No noise or vibration impacts are anticipated within the Downing Creek neighborhood with the NEPA Preferred Alternative. Light rail vehicles are powered by overhead electric catenary wires and are powered using electric motors that are self-contained within each vehicle. DEIS table 4.10-1 identifies some of the most common noises generated by light rail*

operations. Sound levels are measured in decibels (dBA). At fifty feet away from a person, the sound of a city bus would measure 84 dBA and a heavy truck would measure 90 dBA. The sound of light rail vehicles would be 66 dBA at that same distance. Comparatively, conversational speech is about 60 dBA.

First Name	Last Name	Comment
Susan	Sonberg	<p>Visual and Aesthetics concerns No consideration given to the substantial visual and aesthetic changes that will occur as a result of C2/C2A just past the Woodmont station. Where as Meadowmont Village, Meadowmont park and even Sherwood Forest neighborhood* were all flagged as visually sensitive resources in chart K.15-28, found in Appendix K-15, Visual and Aesthetics Technical Report. The Downing Creek entrance and Durham sign have been flagged as well. The proposed D-O LRT Project would introduce new visual elements to the viewshed including the at light rail vehicles and trackway, signal gates and lights, and the overhead catenary system. The open greenway area by entrance to Downing Creek Neighborhood on the south side of NC54 and the Durham sign area will all be dramatically visually impacted by proposed light rail at grade crossing and the signal crossing. Other than mentioning their existence the DEIS fails to provide any potential location for the Traction Power Substations (TPSS) &amp; communications cabinets. There station plans do not include this information. These are substantial visual elements that will dramatically change and impact the spaces. The DEIS notes that these electric substations would need to be located within the rail right-of-way or at station locations; substations would be one-story, corrugated metal, approximately 40 feet wide by 60 feet long and that Signal houses would be approximately 10 feet wide by 30 feet long by 10 feet high and located close to tracks. Crossing cases would be at each at-grade crossing to operate lights and switches. Where are these TPSS proposed to be located specifically in relation to the Woodmont station and any of the other proposed station? How much noise will they generate?</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*A full analysis of the visual impact of the proposed D-O LRT Project can be found in DEIS section 4.4. DEIS section 4.4.3 discusses how the D-O LRT Project would introduce new visual elements to the viewshed. New visual elements would include: the light rail vehicles and trackway; station platforms; sidewalks, ramps or pedestrian bridges; the overhead catenary system that powers the electric light rail vehicles; Traction Power Substations (TPSS), communications cabinets, signal houses, and crossing cases; existing right-of-way modifications; bridges and retaining walls; park-and-ride lots; parking deck; and the ROMF. Examples of these elements are shown in DEIS table 4.4-1. Areas with significant visual impacts resulting from the NEPA Preferred and Project Element Alternatives are summarized in DEIS table 4.4-6, while ROMF visual impacts are summarized in DEIS table 4.4-7. A full discussion of the visual and aesthetic impacts is included in appendix K15.*

DEIS appendix K15  
DEIS appendix L

*The proposed D-O LRT Project requires traction power substations (TPSS) at approximately one-mile intervals along the light rail alignment to supply electrical power to the traction power networks. TPSSs do not generate electricity; rather, they change the electrical current to an appropriate level to power light rail vehicles. The proposed locations of the TPSSs are included in DEIS appendix L. As engineering continues, Triangle Transit will refine their locations. TPSSs can be co-located at stations where feasible and at the ROMF. Each TPSS would be in an enclosed structure and require approximately 0.03 acre of land.*

The FTA Manual on Noise and Vibration Assessment notes that Traction Power Sub Stations (TPSS) have an SEL of 99 dBA and an Lmax of 63 dBA. The actual noise generated from the TPSS is a factor of the number of times per hour that trains pass by the substation and the duration of each pass by. Looking at the attached excel table under the TPSS and Switch tab, you will see that the greatest noise generated from the TSPP is when the trains are travelling slowly, which produces noise levels of 48 dBA at 50 feet. The farther away receptors are than 50 feet, the lower the noise level.

First Name	Last Name	Comment
Susan	Sonberg	<p>DOLRT DEIS 1–23: Preservation of Environmental Resources 1.5.3.2 Existing Transit Infrastructure Does Not Support Preservation of Environmental Resources Orange County is the headwaters for a number of rivers and streams in the Piedmont region. Water resources in Orange County flow into the Cape Fear, Neuse, and Roanoke River basins. Durham County lies on a ridgeline that separates the Cape Fear River Basin and the Neuse River Basin. When development began to sprawl outward in the late 1990s, development regulations in Durham were revised to better address environmentally significant features. More stringent measures were imposed in the 2000s through new Unified Development Ordinances from the city and county. In Durham and Orange counties, several rivers have been dammed and several streams drain into drinking water reservoirs for the surrounding cities and towns. Ten of the fifteen watersheds in Orange County serve as water supply watersheds and, as such, Orange County was the first county in North Carolina to adopt watershed protection zoning. Adding a high capacity transit system will allow for a denser and less sprawling development pattern in areas slated for development and protect areas that are not. The proposed placement of the ROMF at the Farrington location is counter to this DEIS statement and intent, and will compromise the very water supplies that DOLRT is supposedly trying to preserve. The introduction of impervious surface area with the 90 acre Leigh Village proposed development, the introduction of 12 acres of parking spaces and the ROMF (and associated parking) at Farrington will further compound the adverse environmental impact to local water resources. A massive office/industrial plant, rail yard and parking lot (accommodating more than 100 workers) would create a flow of toxic stormwater running first beneath I–40, then beneath Trenton Rd. then into the Trenton wetlands adjoining New Hope Creek and the New Hope River Wildfowl Impoundment and ultimately into Jordan Lake. In heavy rain, the pipe beneath Trenton Rd. currently cannot handle the volume of runoff from the 6 lanes of interstate highway alone, and Trenton overflows with water, so factor in the cost of a new Trenton culvert and NCDOT interface. Runoff from IRMY would fill Trenton wetlands, overflow into Trenton residents’ yards and nature camps offered by Piedmont Wildlife in Leigh Farm Park. It would negatively impact the Army Corps’ Waterfowl Impoundment and water quality in Jordan Lake. What studies have been done to determine the risks of groundwater contamination or chemical leaks from a ROMF? The proposed area for the ROMF is near an Creekside elementary school and residential area of senior citizens [name removed]</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<p><i>As noted in DEIS section 4.11.3 and section 1.4 of the combined FEIS/ROD, DEIS Errata 121, the proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials because of associated maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While light rail vehicles, as noted in section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As</i></p>	<p>DEIS section 2.2.3  DEIS section 4.8.3.1  DEIS section 4.11.3  DEIS section 4.12.4  DEIS section 4.17.2.3  FEIS/ROD section 1.4  FEIS/ROD Table FEIS-2</p>

*such, all regulated materials, including fluids (e.g., oils, greases, solvents, and other waste materials), used at the ROMF will be captured and stored in tanks (inside buildings), where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. The SEPP will include an evacuation plan for the ROMF.*

*DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately –owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as*

*noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. DEIS section 4.17.2.3 discusses the anticipated cumulative impacts to water quality from the NEPA Preferred Alternative, including the ROMF. These impacts would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. The project will comply with stormwater management permitting requirements and include DWR stormwater management BMPs. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 103 clarifies that the ROMF site plan will manage stormwater runoff in a manner consistent with local and state regulations to avoid and minimize impacts to neighborhoods and community resources in the vicinity such as Leigh Farm Park and the Piedmont Wildlife Center.*

First Name	Last Name	Comment
Susan	Sonberg	<p>At-grade - Safety Concerns:As a resident of Downing Creek located by the proposed “Little Creek” Woodmont station. I have many concerns regarding the 3 at grade crossing designated in our vicinity.The Meadowmont development was originally designed and planned to accommodate a future transit corridor for light rail. The DEIS contains detailed traffic studies for all those potential intersections C1 &amp; C1A alignments. The C2A &amp; C2 alignments did not receive the same type of analysis or thorough consideration. There were no traffic studies done for impacts at the grade crossings for either Downing Creek Parkway or Little John and for access to NC54. Go Triangle was unable to provide this information.The only reference to our specific concerns in the DEIS is in Section 3.2.4.1 NC 54, pg. 3-51 which states:“Residents of the Downing Creek neighborhood expressed concern regarding impacts to traffic and safety at the intersections of NC 54 with East Barbee Chapel Road, Littlejohn Road, and Downing Creek Parkway under the C2 and C2A alternatives. Per the request of City of Durham staff, Triangle Transit, in coordination with NCDOT, will refine traffic analysis and mitigation recommendations in this area during the Engineering phase if the C2 or C2A Alternative is selected. Environmental consequences and mitigation related to safety at intersections and at-grade crossings.”The C2A (as well as C2) alignment will establish three at-grade light rail crossings within a half mile stretch of road at Barbee Chapel Hill Road, Little John &amp; Downing Creek Parkway. This will have a detrimental effect on ingress and egress to the neighborhoods lying south of NC54 by obstructing roads and impeding access for our residents, school buses, as well delaying any emergency response vehicles.There are planned train crossings 140 times a day. At peak times with trains traveling over the at-grade crossings every 10 minutes, it is expected that gates will obstruct one or more of the crossings and drivers will be forced to merge onto NC54 into heavy traffic without benefit of traffic signals or merge lanes. Even with gates and signals, light rail safety statistics continue to show that at-grade crossings are inherently dangerous. One can merely view recent incidents and fatalities in other Light RAIL Transit projects across the nation. Light RAIL Transit with at-grade crossings are NOT SAFE. Just GOOGLE “Light Rail Accident” or review this list or this list. - WATCH: Onboard trolley video released in streetcar crashWere local emergency responders even asked how each at grade crossing affects their response time. If so what are the impacts? If not why not and when will this be done.DEIS Appendix K-06-NC</p>



54 Traffic Simulation Report, p 1-3 clearly, states' Due to the proximity of the LRT at-grade alignment to NC 54 under the C2A Alternative, this alternative will affect more intersections along the NC 54 corridor than the other two Build LRT Alternatives. NC 54 signal coordination would be disrupted by LRT preemption events, and therefore, several movements along the corridor may experience moderate increases in delay and queuing. Appendix-L-VOL-1-REV-5-Basis-for-Engineering-February-2015, sheet C2A-03 shows a planned addition of a median on Downing Creek Parkway. This median will restrict our resident's ability to turn left onto Stancell Drive and we will no longer be able to exit via Little John or Barbee Chapel. GoTriangle has indicated that the Stancell drive access will be modified or closed due to the proposed grade separated ramp when NC54 is widened. This means any traffic envisioned dropping off all the "forecasted riders" at Woodmont station kiss & ride will have little choice when they exit but to attempt to get on NC54 by crossing the tracks at Little John, or by cutting through the Downing Creek neighborhood. Our neighborhoods are home to many families with young children. Bicyclists and pedestrians from Downing Creek use Stancell Road to travel to trails in Meadowmont and Chapel Hill. There is concern about how they can safely take these routes. There will be increased traffic congestion on these roads and the DEIS does not address any plans to extend the bike and pedestrian trails shown on in the DEIS Woodmont station down to Downing Creek Parkway. Our community should not bear the negative safety and traffic impacts that will further stress and not relieve an already congested area. The proposed C2/C2A route does nothing to mitigate traffic congestion on NC54. The proposed light rail tracks and station, in conjunction with the NCDOT including the planned widening of NC54, the proposed superstreet and a grade separated ramp at Barbee Chapel interchange will dramatically reduce our ability to access and exit our neighborhood. There will be no room left to include merge lanes and there is no planned traffic signal at Downing Creek Parkway. Access points on C2/C2A obstructed roads will not be wide enough to provide motorists, particularly school buses and emergency vehicles, adequate 'wait to merge' areas. This situation will render our access roads to NC54 simply too hazardous to consider using, effectively isolating our neighborhood. Susan Sonberg

*Comment Responses*

*DEIS/Errata References*

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

DEIS section 2.4  
DEIS section 3.2

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signaled or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCRR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.*

DEIS section 3.2.3  
DEIS section 3.6  
DEIS Table 2.4-1  
DEIS Table 3.2-2  
DEIS Table 3.2-3  
DEIS Table 3.2-5  
DEIS appendix K4 through K11 and appendix L  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 36 and 108

*Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with*

turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains. NC 54 will continue to be coordinated in the east/west direction. Under a separate planned NCDOT project, the nearest signal that would impact westbound NC 54 is located over 3,800 feet to the west of Littlejohn Road. The nearest signal that would impact eastbound NC 54 is located approximately 4,500 feet to the east at Falconbridge Road and should not impact vehicles exiting from Downing Creek Parkway or Littlejohn Road. The northbound Littlejohn Road left turn to westbound NC 54 currently has very limited usage with less than 10 vehicles per hour performing this maneuver in both the AM and PM peak hours. Downing Creek Parkway is configured today as an eastbound NC 54 right turn to southbound Downing Creek Parkway and a northbound Downing Creek Parkway right turn to eastbound NC 54. This configuration will be maintained in the LRT build condition. The stop/yield controlled right turns do not operate on a fixed pattern and therefore the 12 or fewer train crossings in a peak hour should not significantly affect these low volume turning movements. The project aims to improve transportation for the entire region by offering fixed light rail transit, which will result in improved travel time reliability compared to bus transit services. The project is also expected to shift thousands of daily users from private vehicles to the LRT. The project team has performed vehicle turning movement counts at the intersections of Littlejohn Road/NC 54 and Downing Creek Parkway/NC 54 to confirm the magnitude of volumes using these roadways. During the next phase of design, a more detailed study may be performed if required and mitigation measures such as an eastbound acceleration lane for the northbound Downing Creek Parkway right turn to eastbound NC 54 could be added. As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times.

DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS. DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3 of the DEIS. In addition, as described in

DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5 of the DEIS, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).

Triangle Transit has and will continue to coordinate with Emergency Services (EMS, Fire, and Police) during Project Development, Construction, and during Operation to provide for the safety of all users (bicycle, pedestrian, automobile, bus, and light rail).

First Name	Last Name	Comment
Susan	Sonberg	Noise ConcernsAs a resident of Downing Creek located by the proposed “Little Creek” Woodmont station. I have many concerns regarding noise impact that will affect our neighborhood. In addition to traffic and safety concerns, the DEIS states that the Little Creek Alternatives would have more noise, vibration, and ground-borne noise impacts than other areas. Downing Creek is identified as “category 2, residential” for both noise and vibration. Our neighborhood was not included in the DEIS data, Table 4.10-5: Monitored Existing Noise Levels (dBA). which provided existing noise level data for locations in the alignment area. This is a very quiet residential neighborhood and the residents located in close proximity to the entrance and three at-grade crossings will be subjected to the noise of the train horns, gate bells clanging every 10 minutes during rush hour (1 train in each direction) - about 140 crossings a day. The residences in closest proximity to the proposed route were not designed or built with any sound mitigation strategy. [removed name]

Comment Responses	DEIS/Errata References
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*In its Noise and Vibration Guidance Manual, the FTA establishes criteria for assessing vibration impacts related to light rail transit projects. The extent of ground-borne noise and vibration from light rail operations depends substantially on local geology and structural details of associated buildings. When light rail vehicle (LRV) speeds are moderate (less than 30 mph), vibration impacts are usually limited to buildings within 50 feet of light rail. When LRV speeds are higher, the zone of ground-borne noise and vibration impacts may extend farther. A significant proportion of complaints about both ground-borne vibration and noise can be attributed to the proximity of track switches where LRVs can cross from one track to another, rough or corrugated track, or wheel flats. In accordance with the FTA Guidance Manual, a detailed vibration analysis will be conducted during the Engineering phase to further evaluate geotechnical conditions and more precisely predict the vibration effects of the proposed light rail system on area receptors. When the vibration assessment indicates that vibration levels will be excessive, it is usually the track support system that is changed to reduce the vibration levels. Floating slabs, resiliently supported ties, high-resilience fasteners, and ballast mats have all been used to reduce the levels of ground-borne vibration. To be effective, all of these measures must be optimized for the frequency spectrum of the vibration. Most of these relatively standard procedures have been successfully used on transit projects.*

DEIS section 4.10  
DEIS appendix K24

*As per Chapter 4 of the DEIS, Table 4.10-5, there was an existing noise level monitor M9 at the corner of Stancell Drive and Little John Road at the frontage of the Downing Creek Community (see also DEIS appendix K24). As part of the analysis, it was determined that there would be no moderate or severe impacts to the area and as per the FTA Guidance Manual, mitigation for noise impacts would be considered if the project falls within an "impact" range and should be implemented if the project would result in a severe impact.*

First Name	Last Name	Comment
Susan	Sonberg	Ridership projections inflated, travel times not competitiveWe find flaw with the ridership projections and assumptions, the projection period was extended 2035 to 2040, and it includes an unrealistic assumption that 40% of households in the study district will not have cars.How can 23,000 riders be possible when we know that Charlotte with its far larger population and centralized employment center has only attracted a flat 16,000 rider over 7 years? The corridor population density does not now, nor will it in the future, be sufficient to warrant light rail and the costs it entails. In Charlotte a population ~ 800K results in a static 16,000 Lynx riders despite 17% population growth across the 7 years it's been operational. Charlotte has the distinction of having the worst traffic congestion in NC in 2015 notwithstanding its LRT.GoTriangle estimates 20,000 DOLRT riders by 2040. It is inconceivable, even if Chapel Hill's and Durham's municipal population of ~ 301K (59.7K / 241.2K respectively MPO Muni 2013 Estimates) more than doubles by 2040, given the narrow route of e that this project will service attract the 20,000 plus daily riders.If you look at the detail of the ridership by station, you will see there are so many unrealistic inflated ridership assumptions made for in the model for C2 & C2A projecting/forecasting extremely high walk up traffic from stations located at potential future developments that have not yet been planned or designed. These models need to be reviewed by independent professionals.GoTriangle's contention that the LRT will be faster is simply not true. Transit times for DOLRT are in most instances, even during peak periods, twice as long as auto travel and would be equal to or greater than bus travel time if proposed new streets and BRT routes were included in alternative analyses. Why didn't Go Triangle test the route and demand by implementing a bus route which follows the proposed light rail route? This project will run along a small and very specific area and serve a very small percentage of the population. As folks in the area are crying for transit to take them to RTP and the airport, we are spending \$1.8 billion to help people commute between UNC and Duke. If you look at traffic numbers, there is a much greater need in many areas along I40 then in thissmall and less traveled corridor along NC 54 and 15/501. There is rapid growth going towards Burlington and Carrboro as well.The incentive to use LRT to optimize travel time and convenience is lacking and will neither promote new riders nor mitigate traffic congestion. Corridor population growth will not support 20K ridership.[REMOVED NAME]

Comment Responses	DEIS/Errata References
<i>As stated in DEIS Appendix K02, section 5, "Zero-vehicle households were estimated to take 40 percent of the total daily ridership, while low-income households with any vehicle will share a quarter of the total daily ridership." The 40 percent pertains to the percentage of individuals riding the light rail that would come from zero car households; to clarify, the 40 percent does not represent the makeup of all households within the D-O Corridor.As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on</i>	DEIS section 1.5.1.2 DEIS setion 3.1.1 DEIS section 3.2 DEIS appendix K1 DEIS appendix K2 FEIS/ROD section 1.4 FEIS/ROD Table FEIS-2 DEIS Errata 30, 32, and 33

*the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region’s transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

*Bus routes that currently service the D-O LRT Corridor alone carry an average of 9,700 passengers every weekday. Overall, Chapel Hill Transit, GoDurham, and Triangle Transit’s services within Durham and Orange Counties carry 71,300 passengers per weekday. Transit ridership in Durham and Orange Counties has grown over the last few years, and is projected to grow in the future as the communities encourage the growth of walkable, pedestrian-friendly communities and the universities continue to grow and encourage transit use to their campuses by restricting parking. As noted in the Executive Summary (ES-5), the region’s existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.*

First Name	Last Name	Comment
Linda	Spallone	To all individuals with an interest in locating the ROMF across from the Villas at Culp Arbor The financial viability of Culp Arbor 55 plus Senior Community will be jeopardized if the ROMF is built in the preferred location. The Culp Arbor Community developer Epcon Company is now finally able to develop phase 2, building 60 plus homes selling for over \$350,000 each in the County and City of Durham. Why do you want to endanger the success of this community? • Although Epcon was ready to build, they have not been able to proceed with phase 2 as previously planned because of the following facts and I believe if GoTriangle had done their due diligence on investigating this site for the ROMF they would have been able to discover these facts for themselves. • Four years



ago when the community was being built, phase two was supposed to begin as soon as phase one was completed BUT because Mr. Thomas Tilley for his entire life refused to pay any federal taxes due, the Epcon Corp found itself in the middle of a federal lawsuit against him. When they attempted to purchase the land for phase two, they found the IRS had placed a lien on the property for non-payment of taxes. Epcon was forced to file a civil lawsuit against Mr Tilley. These facts are public record available to be researched. (SEE Attachment2)• For the past 5 years the builders have not been able to complete the second half of the planned community, as a resultthe HOA reserve fund has gone underfunded and only by assuring that phase 2 sells out will Culp Arbor finally have thefinancial resources and size the community was always supposed to have. • Epcon had made many attempts to find a way to proceed even offering the IRS the payment for phase 2 land but thefederal lawsuit languished on the desk of a Judge. Now phase two is final able to begin building and Mr Tilley has been fined over seven million dollars and sentenced to prison term of 32 months for deliberately submitting false documentation (See Attachment 3)• As Epcon begins to advertise these units for sale, they may find one of the major un-selling points may be having an industrial site, namely, a Rail Operation and Maintenance Facility sited less than 50 yards away from these homes and years of construction and dirt and noise facing them• Prospective buyers have many other choices in this area to buy a home. • Epcon Corporation has done everything asked of them by Durham City and County to get the approval to develop this communityo Agreed to develop this as designated 55 plus community with an occupancy rate of 90% over 55, rather than using federal guidelines of 80% occupancy over 55. Thus Durham City planning officials knew a community of 55 plus at a 90% rate were going to be occupying the 134 units that they had approved to be built.o Running the pipes for sewer and water under Route 40o Durham City has also benefited from the increased tax revenue as the acreage for the land of Culp Arbor was annexed shortly after I bought my condo 6 years ago ( I had specifically asked my realtor to find out if land was county and city or just county and it was just county for a little bit)The rezoning would break the planned development rules• The zoning for our area as you all well know is dense residential(R-20)with a 20 year plan to go to commercial only.Now the Go Triangle Association will try to say the zoning needed for this site is commercial because it has used hazardous waste similar to a Jiffy Lube. The use of this site is totally industrial. Jiffy Lube does not have a rail yard largeenough to store 17 to 25 rail cars on site every night, does not run its site 24 hours a day, seven days a week, and does not put industrial fencing around its facility and also industrial lighting around its site. Nor does Jiffy Lube have a 3 story facility with a separate observation tower. Additionally, Jiffy Lube does not provide parking for 110 to 175 employees .According to zoning rules to be an industrial site you would need a 100 foot buffer and the site cannot meet that requirement. An industrial site is totally out of context with this area of over 11,000 homes with no industrial zones near it. (See Attachment 1)Patterson Place should be selected and the route made to work• Patterson Place should be the site for the ROMF as it has the desired mix of many commercial sites and no residential sites directly across the street or near it• It is close to I-40 and close to 15-501 for employee ease of access , ease of deliveries , places for the employees to have their meals• This would allow our community to be completed and flourish and provide Durham City with taxable income from over 60 homes valued at 350,000 or more. • Federal instructions when selecting a ROMF site say that the building should be located with like facilities. Go Triangle has completely ignored that detail in pushing for this site.Thank you[removed name and address]Attachment 1From the DEIS Website posted in MarchFarrington Rd• The Durham Comprehensive Plan designates this site for Commercial and Office development on the Future Land Use Map. In order to build the ROMF at this location, a plan amendment to the Industrial would be required. Plan amendments are legislative decisions rendered by the Board of Commissioners or the City Council at public hearings. The Planning Department issues recommendations to the elected boards based on four criteria outlined in Section 3.4.7 of the Unified Development Ordinance. Based on initial interpretation of those criteria, Planning Staff would be unable to support the Plan Amendment. We find an Industrial use to be incompatible with the existing land use pattern and/or designated future land uses. • This site is within Durham County's jurisdiction. In order to receive City of Durham services, including water and sewer,Go Triangle would need to petition the City Council to annex the properties. • In order to construct the ROMF at

this location, the site would need to be rezoned from RS 20(Residential Suburban-2) IL (Industrial Light). While not required, rezoning with a development plan that shows graphic and text commitments that are above and beyond UDO standards is recommended. A minimum buffer of 50 feet is required along Farrington Road Frontage if the width of Farrington Road is less than 60 feet. It appears there may be a stream crossing parcel 0709-03-32-5392. If it is determined to be a perennial stream, a buffer of 100 feet would be required. An intermittent stream would require 50 feet... This would significantly alter the proposed footprint of the ROMF. A Major Special Use Permit to allow the activity or to reduce the buffer width would be required for sections of track crossing the Major Transportation Corridor (MTC) Overlay District. It also appears that sections of track and road in the northern portion of the site would impact the 100 foot MTC buffer. Criteria of Approval for Major Special Use Permits are outlined in Section 3.9.8 of the Unified Development Ordinance Attachment 2 EPCON COMMUNITIES CAROLINAS, LLC et al v. TILLEY, et al Plaintiff: EPCON COMMUNITIES CAROLINAS, LLC and EPCON FARRINGTON LLC Defendant: IRIS M. TILLEY, THOMAS E. TILLEY, MELBA GEORGE, BARBARA WRIGHT and UNITED STATES OF AMERICA Case Number: 1:2011cv00643 Filed: August 16, 2011 Court: North Carolina Middle District Court Office: NCMD Office County: Durham Presiding Judge: UNASSIGNED Referring Judge: WALLACE W. DIXON Nature of Suit: Taxes (US Plaintiff or Defendant) Cause of Action: 28:1441 Jury Demanded By: Plaintiff \_\_\_\_\_ Available Case Documents The following documents for this case are available for you to view or download: Date Filed # Document Text May 1, 2012 31 MEMORANDUM OPINION AND ORDER signed by MAG/JUDGE JOI ELIZABETH PEAKE on 5/1/2012, that Defendants Thomas Tilley, Iris Tilley, and Melba George are given 21 days from the entry of this Order, to and including May 22, 2012, to file an Answer, Motion to Dismiss, or other responsive pleading with respect to Plaintiffs' Amended Complaint. Any filing must be clearly labeled and must be filed in compliance with the Federal Rules of Civil Procedure and the Local Rules of this Court. FURTHER, that the Clerk is directed to set this case for an Initial Pretrial Conference on Thursday, May 24, 2012 at 9:30 a.m. (Daniel, J) March 28, 2013 74 ORDER signed by JUDGE N. C. TILLEY, JR on 3/28/2013 adopting the Magistrate Judge's Recommendation [Doc. # 58 ]; that Plaintiffs' Motions to Dismiss [Doc. # 41 , # 47 ] are therefore GRANTED, and the Tilley Defendants' Counterclaims [Doc. # 39 , # 44 ] are DISMISSED. (Sheets, Jamie) July 29, 2015 96 ORDER signed by JUDGE N. C. TILLEY, JR on 7/29/2015 adopting the Magistrate Judge's Recommendation 94 ; that the United States' Motion for Judgment that Epcon Farm Trust is Nominee of Iris and Thomas Tilley (Doc # 60 ) is DENIED without prejudice to refile during the subsequent proceedings to resolve the competing claims; that the Epcon Plaintiffs' Motion for Judgment on the Pleadings and for Summary Judgment (Doc. # 87 ) is DENIED as moot; that the Epcon Plaintiffs' Motion for Relief in the Nature of Interpleader (Doc. # 83 ) and Consent Motion for Interpleader Order Pursuant to Settlement Agreements (Doc. # 93 ) are GRANTED as set out herein. Further that the Epcon Plaintiffs' Motion for Rule 54(b) Certification (Doc. # 89) is GRANTED and the Court specifically certifies that, given that all claims by and against the Epcon Plaintiffs have been resolved and the Epcon Plaintiffs have no further interest in this action, there is no just reason for delay. A final judgment as to the Epcon Plaintiffs will be entered contemporaneously with this Order. (Sheets, Jamie) Attachment 3 Federal prosecutors say a North Carolina landowner will spend 32 months in prison for his involvement in a scheme to evade paying his federal income taxes. A statement from the U.S. Department of Justice says Thomas Tilley was sentenced Monday. The 80- year old businessman also was ordered to pay more than \$7 million in restitution to the Internal Revenue Service. Tilley pleaded guilty in November 2014 to one count of corruptly endeavoring to impede and obstruct the administration of the Internal Revenue Code. Court documents show that from 1993 to at least 2010, Tilley sent the IRS fraudulent financial instruments in an attempt to discharge his tax debt. Court documents also show Tilley failed to file federal and state income tax returns from 1994 through 2013, despite earning a substantial income.

*Comment Responses*

*DEIS/Errata References*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA*

*DEIS section 4.1.4.1*

***D-O LRT FEIS / ROD***

*Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-1  
 DEIS Errata 21, 22, 52, 70, 76,  
 78, 93, 94, 95 103, 104, 110,  
 119 121 and 137

*Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail.*

*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process.*

First Name	Last Name	Comment
Linda	Spallone	In the event that we are left we no alternative other than to be a neighbor of the Farrington Rd ROMF, we the residents of the Villas of Culp Arbor request that ALL the following mitigations be made to the ROMF site:1- A 15 foot high berm topped with mature trees along the entire length of the site on Farrington Road as well as the southern end of the ROMF.2- A sound barrier wall

running along the eastern side of the ROMF (the I-40side) running the entire length of the ROMF. This barrier wall (like those used on major highways like the Washington, DC Beltway, 495) should be tall enough to block out the stadium lighting and as much sound as possible from the ROMF to the neighborhoods of Trenton, Preston Place and Glenview Park as well as shield the neighborhood of The Villas of Culp Arbor from the sound of I-40.3- A building which is low enough not to be seen from Farrington Rd. A three-story building like the one in Charlotte would be totally out of place in our Residential zoned neighborhood. The berm and mature trees are to shield this low building from sight when traveling along Farrington Rd. If, in order to shield it from view a barrier wall becomes necessary then it should be erected behind the 15 foot berm of mature trees.4- The main building should utilize solar panels on the roof to produce its own power and not drain the grid and/or tax dollars of Durham. Should said solar panels produce any excess energy the surplus should be donated to worthy Durham organizations such as a Homeless Shelter or Soup Kitchen.5- Farrington Road should be raised over the at grade tracks leading to and from Leigh Village Station (instead of an at-grade crossing on Farrington Rd) to prevent delays in travel for Emergency services from Durham Fire Station #16 located on Farrington Rd headed north on Farrington Rd towards Creekside Elementary or the Villas of Culp Arbor or any of the other neighborhoods and residences located north of the currently planned at-grade crossing on Farrington Rd.6- Deliveries to the ROMF should ONLY be scheduled between the hours of 9 am - 3 pm to prevent additional traffic hazards and back ups on Farrington Rd.7- Either a traffic circle or traffic light (timed to be in sync with the existing light at Ephesus Church Rd) on Farrington Rd at the main entrance of The Villas of Culp Arbor. This is the intersection of Culp Hill Dr. and Farrington Rd and is the only egress, at this time for the residents of the Villas of Culp Arbor. Once our community is finished we will have another entrance on Farrington Rd, however it will be too close in proximity to the Ephesus Church road intersection for another traffic light or circle.8- An evacuation plan created and put into place for Creekside Elementary and the Villas of Culp Arbor as well as other single dwelling homes or neighborhoods within a .5 mile radius of the ROMF should an industrial accident occur.9 Completely bury the ROMF underground 10 The 60 plus houses currently being built across the street do not even want to buy near the road image what will happen when they this the debacle constructed. .

### *Comment Responses*

### *DEIS/Errata References*

*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process. Section 4.4.4.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and stands in the design of project elements and provide landscaping and aesthetic treatments within close proximity to residences. As clarified in section 1.4 of the combined FEIS/ROD, DEIS Errata 78, visual and aesthetic impacts associated with the Farrington Road ROMF will be mitigated through coordination with the surrounding landowners and the City of Durham during Engineering. Potential treatments include landscaping, architectural treatments, visual barriers, and building height maximums. This and all other mitigation requirements are outlined in the Record of Decision (ROD),*

DEIS section 4.1.4.1  
 DEIS section 4.4.4.1  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-1  
 DEIS Errata 78

Table ROD-1.

First Name	Last Name	Comment
George	Stuart	<p>The NEPA preferred alternative for the rail operations and maintenance facility (ROMF) on Farrington Road is based on faulty logic. An ROMF is completely inconsistent with current and planned uses of the land. It would have significant impact on sensitive natural resources, including water resources. It would also dramatically change the character of the land, which is primarily rural residential.</p> <p>The Cornwallis Road and Alston Avenue alternatives are much more consistent with land use plans. Both these alternatives, particularly Alston Avenue, are closer to pools of labor likely to work at the ROMF. Both are also conveniently located on bus routes that could deliver workers to the ROMF. In contrast, the Farrington Road site is not accessible by public transit and won't be close to a planned light rail stop. Siting the ROMF at Farrington Road would have the perverse consequence of increasing motor vehicle traffic rather than reducing it.[REMOVED NAME AND ADDRESS]</p>

Comment Responses	DEIS/Errata References
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF. As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS*

DEIS section 1.2.2  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.10.4  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS section 8.2.2.2  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119, 121, and 137



*Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the “Farrington Road ROMF Alternative” subsection or DEIS section 1.2.2 under the “Farrington ROMF Alternative” subsection.*

*Although the Alston Avenue ROMF alternative would not require rezoning, it would introduce several risks to both the project schedule and budget, associated with the potential of regulated materials remediation and relocation of businesses. It also has the potential to result in net loss of employment within the D-O Corridor if the existing businesses that would be displaced could not be relocated within the D-O Corridor. This alternative has the highest capital cost of all of the alternatives considered in this DEIS (section 8.2.2.2).*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. While the Cornwallis Road ROMF alternative would result in fewer overall impacts to water resources as compared to the NEPA Preferred Alternative site (Farrington Road), the Cornwallis Road ROMF Alternative may result in adverse impacts to community resources (The Levin Jewish Community Center, Lerner Community Day School, Carter Community Charter School, and Judea Reform Congregation) and a higher constructability cost. In addition, the NEPA Preferred Alternative would allow for a superior yard layout from an operational perspective, whereas the Cornwallis Road ROMF site would require operational compromises, which would result in higher operational and maintenance costs (section 8.2.2.2 of the DEIS).*

First Name	Last Name	Comment
Thomas	Swasey	The C2 alternative route is not a good option due to:1. unsafe at-grade crossings2. limiting access to the main entrance to the Downing Creek community with an at-grade crossing creating traffic backups and interfering with residents, emergency vehicles and school buses3. increasing traffic congestion due to trains intermittently closing major commuting roads4. creating an unnecessary Woodmont station with no parking resulting in unwanted neighborhood parkingWhy can't the C2A alternative be moved to the north side of NC 54 from the Friday Center to the King George area. This option would use totally undeveloped land mitigating all the problems listed above.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*All LRT systems in the US have grade crossings or run within public streets. Light Rail Transit (LRT)*

*DEIS section 4.1.2.2*

*technology is designed to facilitate safe at-grade crossings of public streets. Other types of rail transit technology, such as heavy rail transit that uses an electrified third rail as opposed to overhead electric wires for propulsion (such as MARTA in Atlanta or Metro in DC), must be installed in fully grade separated exclusive guideway since the electrified rail must be kept away from the public. LRT, on the other hand, is designed with overhead electric wires with sufficient clearance to allow vehicular traffic to pass safely underneath where roadways cross the tracks. All at-grade crossings of the light rail tracks across public roadways will be designed in accordance with state and federal safety regulations pertaining to such crossing. As discussed in section 4.16.2, three types of light rail crossings are proposed as part of the D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Approximately 30 to 35 at-grade crossings are proposed for the D-O LRT alignment. Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. During the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology. Clarification will be added to the combined FEIS/ROD.*

*As noted in DEIS section 9.2.5, the concept of a grade separation of C2A Alternative in the vicinity of Downing Creek Parkway was evaluated. However, traffic and site characteristics do not warrant grade separation at this location.*

*The Woodmont Station is a significant portion of the Town of Chapel Hill's Future Focus area for growth along NC 54. The Chapel Hill 2020 Comprehensive Plan includes references to the proposed light rail project station areas, TOD, and form-based code elements, which will be part of the short-term implementation strategy. Chapel Hill's first form-based code district was adopted in 2014 and it is adjacent to the half-mile radius around the proposed Gateway light rail station. Twenty potential TOD sites were identified, including one in the proposed Woodmont Station area, for which a conceptual plan was developed. Focus areas include the NC 54 and North U.S. 15-501 areas that are near the NEPA Preferred and Project Element Alternatives and proposed station areas. The plan calls for focusing development around transit stations, with density decreasing further from the stations where existing residential areas are dominated by single-family homes (section 4.1.2.2).*

*As noted in DEIS section 9.2.5, an alignment concept on the north side of NC 54 was evaluated, but was determined that it would not complement future land use plans of the Town of Chapel Hill adjacent to the Woodmont Station. This topic is further described in DEIS table 9.3-16. The future land use plans of the Town of Chapel Hill support the Purpose and Need. Since this alignment concept does not meet the Purpose and Need (further described in Section 1.5.3), the need to promote future development, this alignment concept was not carried forward.*

First Name	Last Name	Comment
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Judith	Swasey	Concern: Lack of Local Public Support Why is This a Concern? Over the past four years The Downing Creek neighborhood and multiple surrounding neighborhoods who will be directly impacted by the DOLRT project have voiced their opposition, developed
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websites, organized community efforts, attended and spoke at public meetings, sent written comments regarding concerns, met with elected officials in their neighborhoods and yet, GoTriangle has not changed one thing to address the very real and specific concerns of safety, access, traffic congestion, and impact on the environment and on property values. In fact, the DEIS has been developed without including these concerns and on offering the “preferred alternative route” of C2A even though there is broad opposition to this route. Specific concerns of the residents in the Cedars & Meadowmont community were detailed in the DEIS but those of Downing Creek and surrounding neighborhoods were not included in the DEIS even though they were identical. In fact, in response to those concerns from the community of the Cedars & Meadowmont, the alternative C2/C2A routes were developed and then shifted across the street to our neighborhoods. There have been numerous letters to the editor, public commentaries in newspapers and articles supporting a no build option or opposing the C2A route, yet these are also not included in the DEIS as seen in Chapter 9, Table 9.22 where no specific concerns of Downing Creek and surrounding neighborhoods can be found. In Chapter 8 of the DEIS under visual and aesthetics, Downing Creek is not even mentioned. In this same section only 2838% preferred C2/C2A route but this was decided on as the preferred alternative. GoTriangle’s own website, which posts public comments, has August 2015 comments that are almost 100% in opposition yet these also are not included in the DEIS. I feel that GoTriangle has not demonstrated transparency or responsiveness throughout the process. What Do I Want Done About It? 1. I request an independent consultant to review all past & present public input including what is currently in the DEIS and issue an unbiased status of the real public opinion, not the GoTriangle assessment that there is “broad acceptance” of this project. 2. I request that GoTriangle include in the DEIS all public comments to date, not just those to be issued at Public Hearings. Not doing so is yet another way to limit negative comments as many citizens will not take the time to reissue past negative comments that are already available on the GoTriangle website. 3. Since previous planning appears to have been based on misinformation, omission of information and ignoring public opinion, I urge the Federal Transit Administration to support the No Build option and not commit federal money to this project that will benefit few and potentially harm many.

*Comment Responses*

*DEIS/Errata References*

*URS/AECOM, a company consulting with Triangle Transit, prepared the technical information and environmental impact analysis for the Project on behalf of the Federal Transit Administration as well as Triangle Transit. The DEIS was prepared in accordance with the National Environmental Policy Act (NEPA), as well as Moving Ahead for Progress in the 21st Century Act (MAP-21); Environmental Impact and Related Procedures of 1987 [23 Code of Federal Regulations (CFR) § 771]; Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 [49 U.S.C. § 303] and [23 CFR § 774]; and Section 404 of the Clean Water Act of 1977 [33 U.S.C. § 1251], among others. A legal sufficiency review of the DEIS was also conducted by the FTA and Triangle Transit. The combined FEIS/ROD that will be completed by FTA and Triangle Transit will be developed in consideration of all comments received on the DEIS and will include all comments received on the DEIS along with responses to substantive comments.*

DEIS chapter 9  
 DEIS section 3.2  
 DEIS section 3.2.3  
 DEIS section 3.6  
 DEIS appendix J and appendix L  
 FEIS/ROD section 1.4  
 FEIS/ROD section 2.6  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 36 and 108

*Triangle Transit has a robust public outreach approach for the D-O LRT Project, the details of which are included in DEIS Chapter 9, DEIS Appendix J, and combined FEIS/ROD section 1.4. Additional information regarding Public Outreach is also detailed in the combined FEIS/ROD in section 2.6.*

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. Furthermore, Triangle Transit facilities are designed to comply with the Americans with Disabilities Act (ADA) to improve safety and ease of movement for disabled individuals. In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>.

First Name	Last Name	Comment
Judith	Swasey	Concern: Social Justice & Equity Why Is It a Concern? The East Alston low income, minority, transit dependent community is not served by the LRT route nor are NC Central University or Durham Tech. Any proposed low income housing will have to compete with the inevitable station increased rents and land prices with the real beneficiaries builders, contractors and land developers. Shifting the previous planned light rail corridor from the affluent Meadowmont community (which was planned with specific light rail corridors) to lower income areas where there are many renters as well as home owners is another example of social inequity and certainly at least classism. The concerns of the Meadowmont community were identical to those of the neighborhoods to be impacted by the light rail preferred alternative route yet these concerns were not included in the DEIS (see table 9.22) and have not produced any changes to address those concerns despite multiple community meetings and written comments over a 4 year period. What Do I Want Done About It? Require an independent consultant to review the DO LRT project to ensure social justice and equity. Do Not Build the D-OLRT Project as planned. [removed name and address]

Comment Responses	DEIS/Errata References
As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's	DEIS Table 5.3-1 FEIS/ROD section 1.4 DEIS Errata 58 and 64

*employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. Regarding funding and service equity, DEIS section 8.3.2 describes financial equity considerations for the project. If the proposed D-O LRT Project is built, it is expected that it would be funded by a combination of federal, state, and local funds. Dedicated local funding for bus and rail transit investments was identified when citizens of both Durham and Orange counties passed referenda to increase sales taxes to support transit improvements. (Effective April 1, 2013, Durham and Orange counties adopted resolutions to levy an additional one-half cent local sales tax to be used only for public transportation systems.) Established federal and regional funding sources means no one group in the D-O Corridor or the region would receive a disproportionate share of the financial burden of the capital and operating and maintenance costs relative to the benefits received. No financial equity considerations would be raised by the project, either in terms of the source of subsidy or the level of fare payments required of passengers (section 8.3.2). Pursuant to the Orange County and Durham County Bus-Rail Integration Plans, an adequate share of local sales tax funds is being dedicated to the cost of the LRT system.*

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2). As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income. The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs.*

First Name	Last Name	Comment
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*D-O LRT FEIS / ROD*



DEIS Comments: Safety[removed name and email]10/12/2015 7:14 PMinfo@ourtransitfuture.comConcern: SafetyWhy is It a ConcernAt Grade Crossings are unsafe and are being eliminated in many parts of the country yet there are 42 such crossings along the 17 mile route with four such crossings from the Friday Center to the front entrance of Downing Creek/Little Creek area—all within less than a half mile. These will be a hazard to the residents of those areas and to all vehicles including emergency responders and school buses. It takes a 100 ton train car 428 feet to stop when traveling at 35 mph. Light rail has 22 times more accidents per passenger mile traveled than cars. These accidents occur daily across the country despite gates, horns and warning signs and lights.Downing Creek and its access roads were not part of a previous traffic analysis so decision for the preferred alternative route was not based on complete traffic and safety data. In the DEIS table 3.2.3 in the LOS for No Build and NEPApreferred alignment did not include assessment of intersections for Little John Rd or Downing Creek Parkway. It is not stated in DEIS that any safety survey/evaluation of impacted neighborhoods was done with local emergency responders which again demonstrates decision making based on inadequate safety information.What Do I Want Done About It?Review the Oct 2, 2015 letter submitted by the Downing Creek Community Association for additional details related to safety and traffic.Eliminate the preferred alternative C2A route and the associated at grade crossings by moving route to the north side of Highway 54 or to the C1A alternative route OR Do Not Build project as planned.[removed name and address]

### Comment Responses

### DEIS/Errata References

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L).As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings.Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate.Section 4.12.4.6 of the DEIS states that Triangle Transit will coordinate with law enforcement, emergency and medical personnel, and other public agencies to investigate impacts of the light rail system on their day-to-day operations. Coordination with departments would also be conducted during the Engineering Phase to get input on the development of a SSMP, and to develop plans and materials useful for training of police, security, and emergency service personnel. The training would include methods by which these personnel can assist in informing and educating the public about system safety. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.In general, light rail transit is a very safe mode of transportation. Per FTA's 2009 Rail Safety Statistics Report*

DEIS section 3.2  
DEIS section 3.2.3  
DEIS section 3.6  
DEIS section 4.12.4.6  
DEIS Table 3.2-2  
DEIS appendix L  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
FEIS/ROD Table ROD-1  
DEIS Errata 36 and 108

available on the site referenced above, crash rates for rail transit in the US ranged from 2.16 accidents per 100 million Passenger Miles to 5.35 accidents per 100 million Passenger Miles for the six-year study period in that report. For comparison, statistics on motor vehicle crash rates are available from NCDOT at the following link: <https://connect.ncdot.gov/resources/safety/pages/crash-data.aspx>

Littlejohn Road and Downing Creek Parkway were not included in the original microsimulation traffic analysis (as detailed in DEIS Table 3.2-2) as they are three-legged unsignalized intersections with turning volumes below 115 vehicles per hour for all movements from or to these roadways during the weekday AM and PM peak hours. The majority of volumes turning onto or exiting these roadways are below 60 vehicles per hour. The highest turning volumes at these locations are right turns that are stop controlled. These intersections do not meet the minimum volume conditions for a signal warrant, which would be required to install signals. The intersections will operate with the gates up or open Littlejohn Road and Downing Creek for 90% of the peak hours and this percentage will increase to 95% during off-peak hours when there are fewer trains.

As noted in DEIS section 9.2.5, the alignment concept running on the north side of NC 54 was evaluated, but was determined that it would not complement future land use plans of the Town of Chapel Hill adjacent to the Woodmont Station. This topic is further described in DEIS table 9.3-16. The future land use plans of the Town of Chapel Hill support the Purpose and Need. Since this alignment concept does not meet the Purpose and Need (further described in Section 1.5.3), the need to promote future development, this alignment concept was not carried forward. The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way.

First Name	Last Name	Comment
Tom-Judy	Swasey (5)	DEIS Comment: Lack of Public Support Concern: Lack of Local Public Support Why is This a Concern? Over the past four years The Downing Creek neighborhood and multiple surrounding neighborhoods who will be directly impacted by the D-O LRT project have voiced their opposition, developed websites, organized community efforts, attended and spoke at public meetings, sent written comments regarding concerns, met with elected officials in their neighborhoods and yet, GoTriangle has not changed one thing to address the very real and specific concerns of safety, access, traffic congestion, and impact on the environment and on property values. In fact, the DEIS has been developed without including these concerns and persisted on offering the “preferred alternative route” of C2A even though there is broad opposition to this route. Specific concerns of the residents in the Cedars & Meadowmont community were detailed in the DEIS but those of Downing Creek and surrounding neighborhoods were not included in the DEIS

even though they were identical. In fact, in response to those concerns from the community of the Cedars & Meadowmont, the alternative C2/C2A routes were developed and then shifted across the street to our neighborhoods. There have been numerous letters to the editor, public commentaries in newspapers and articles supporting a no build option or opposing the C2A route, yet these are also not included in the DEIS as seen in Chapter 9, Table 9.2-2 where no specific concerns of Downing Creek and surrounding neighborhoods can be found. In Chapter 8 of the DEIS under visual and aesthetics, Downing Creek is not even mentioned. In this same section only 28-38% preferred C2/C2A route but this was decided on as the preferred alternative. GoTriangle's own website, which posts public comments, has August 2015 comments that are almost 100% in opposition yet these also are not included in the DEIS. I feel that GoTriangle has not demonstrated transparency or responsiveness throughout the process. What Do I Want Done About It? 1. I request an independent consultant to review all past & present public input including what is currently in the DEIS and issue an unbiased status of the real public opinion, not the GoTriangle assessment that there is "broad acceptance" of this project. 2. I request that GoTriangle include in the DEIS all public comments to date, not just those to be issued at Public Hearings. Not doing so is yet another way to limit negative comments as many citizens will not take the time to re-issue past negative comments that are already available on the GoTriangle website. 3. Since previous planning appears to have been based on misinformation, omission of information and ignoring public opinion, I urge the Federal Transit Administration to support the No Build option and not commit federal money to this project that will benefit few and potentially harm many.

*Comment Responses*

*DEIS/Errata References*

*URS/AECOM, a company consulting with Triangle Transit, prepared the technical information and environmental impact analysis for the Project on behalf of the Federal Transit Administration as well as Triangle Transit. The DEIS was prepared in accordance with the National Environmental Policy Act (NEPA), as well as Moving Ahead for Progress in the 21st Century Act (MAP-21); Environmental Impact and Related Procedures of 1987 [23 Code of Federal Regulations (CFR) § 771]; Section 4(f) of the US Department of Transportation (USDOT) Act of 1966 [49 U.S.C. § 303] and [23 CFR § 774]; and Section 404 of the Clean Water Act of 1977 [33 U.S.C. § 1251], among others. A legal sufficiency review of the DEIS was also conducted by the FTA and Triangle Transit.*

DEIS chapter 9  
DEIS section 4.4.3.1

*All comments received during the DEIS public comment period will be considered and included in the combined FEIS/ROD. Details of the all public meetings held as part of the DEIS process are described in DEIS chapter 9 and DEIS Appendix J. Further information on the public involvement process and comments received is provided at <http://ourtransitfuture.com/library/>. As required by the National Environmental Policy Act, all public comments were considered when completing the analysis required to complete the DEIS.*

*The Town of Chapel Hill requested that alternatives to the C1 alignments be studied as part of the Alternatives Analysis for the Project. As a result, the Project team developed the C2 alignments as part of the Alternatives Analysis. In February 2012, the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) adopted the proposed D-O LRT Project, including both the C1 and C2 alignment corridors. The Town of Chapel Hill expressed its preference for an alignment running south of NC 54 (C2, C2A Alternatives) that would be more supportive of planned future growth than C1 and C1A Alternatives. These alternatives would result in a conversion of less dense*

land uses into higher density uses near stations. These impacts are considered beneficial and consistent with local planning. The C1 Alternative would impact undisturbed natural areas including the Little Creek Bottomlands and Slopes Significant Natural Heritage Area, and the Upper Little Creek Waterfowl Impoundment. The C1 Alternative introduces a new transportation corridor on USACE land. In a letter from USACE dated January 7, 2015, the USACE stated that a request to use government property for the C1 Alternative “would not be authorized considering the availability of other less environmentally damaging alternatives.” USACE reaffirmed that it would not authorize the C1 Alternative in a letter dated May 20, 2015 (appendix G). The C1A Alternative has the longest length of the Little Creek Alternatives. As a result, it has the longest travel times and least ridership of the Little Creek Alternatives. In terms of impacts to the natural environment, the C1A Alternative would impact undisturbed forested areas and wetlands associated with Little Creek, in particular, the Little Creek Bottomlands and Slopes Significant Natural Heritage Area on the periphery of the USACE-owned property. Therefore, as compared to the NEPA Preferred Alternative (C2A) and the other alternatives, the C1A Alternative would not minimize adverse impacts to the natural environment or use and enhance existing and underutilized transportation rights-of-way. The evaluation of the NEPA Preferred Alternative and all Project Element Alternatives are included in the DEIS and are summarized in DEIS chapter 8, Evaluation of Alternatives. As noted in DEIS section 9.2.5, the concept of a grade separation of C2A Alternative in the vicinity of Downing Creek Parkway was evaluated. However, traffic and site characteristics do not warrant grade separation at this location. Section 4.4.3.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and standards in the design of project elements and provide landscaping and aesthetic treatments within close proximity to residences.

First Name	Last Name	Comment
Ron	Tell	Message Body: The East Alston low income, minority transit dependent community is not served by the proposed route of here light rail project. Also, Durham Tech and NC Central University are not served by the proposed routing. The current proposed route alignment will put affordable housing in position to compete with the inevitable station area increased rents, housing prices and land prices. Therefore this project does not serve social justice.

Comment Responses	DEIS/Errata References
<i>The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban</i>	DEIS chapter 5 DEIS Table 4.2-4 DEIS Table 5.3-1

*sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2).As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income.The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.Extension to NCCU or Durham Tech is not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process. (section 9.2.5)*

First Name	Last Name	Comment
Allen	Torrey	Unlike many of those commenting on the Chapel-Hill Durham light rail plan, I have no animosity to mass transit in general or to light rail in particular. Nor would my neighborhood be adversely affected by the plan; to the contrary, residents here could walk to the UNC Hospitals station and I imagine that some us would use the system at least occasionally for trips to Durham.I can't however, endorse the plan. There just isn't enough workday commuter traffic between Chapel Hill and Durham to justify the very considerable expense of a fixed-route transit system, and I would guess that only a small percentage of these commuters would give up their cars to ride regularly.Despite all the work that has gone into light rail planning, I think the Triangle Transit should shift instead to full support of enhanced bus service. This would include on-the-bus amenities (wifi, and effective bike holders) and essentials for riders (nearly every stop should have a comfortable shelter with electronic signboards) and, where useful, designated bus lanes and even separated lanes. Such a system would be more flexible – and incremental –than fixed rail and it could focus on the 15-501 route and not 54 south- no one here goes to downtown Durham that way. Think of what just a portion of \$1.8 billion could do to create a truly great transit system, and in far less time than the light rail plan.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<p><i>As summarized in DEIS section 8.1, and further explained in DEIS chapter 1, the purpose of the proposed D-O LRT Project is to provide a high-capacity transit service within the D-O Corridor, (along the North Carolina (NC) 54, Interstate 40 (I-40), United States (US) 15-501, Erwin Road, and NC 147 transportation corridors), that improves mobility, increases connectivity through expanding transit options, and supports future development plans.The need for the proposed D-O LRT Project is to attain the following:</i></p> <ul style="list-style-type: none"> <li><i>• Improve Mobility</i></li> <li><i>o Enhance mobility: provide a competitive, reliable alternative to automobile use that supports compact development</i></li> <li><i>o Increase transit operating efficiency: offer a competitive, reliable transportation solution that will reduce travel time</i></li> <li><i>• Increase Connectivity</i></li> <li><i>o Expand transit options between Durham and Chapel Hill: enhance and seamlessly connect with the existing transit system</i></li> <li><i>o Serve major activity and employment centers</i></li> </ul>	<p>DEIS Executive Summary (ES-5)</p> <p>DEIS chapter 1</p> <p>DEIS section 1.5.1.2</p> <p>DEIS section 3.2</p> <p>DEIS section 8.1</p> <p>DEIS Figure 1.5-2</p> <p>DEIS Figure 1.5-3</p>



*between Durham and Chapel Hill: serve the University of North Carolina at Chapel Hill (UNC), east Chapel Hill, US 15-501 Corridor, Duke West Campus, Duke and Durham Veterans Affairs (VA) Medical Centers, Duke East Campus, downtown Durham, and east Durham*• Promote Future Developmento Support local land use plans that foster compact development, o Provide a transportation solution that supports compact development, promotes environmental stewardship, helps manage future growth, and maximizes the potential for economic development near activity centersThe D-O Corridor supports the travel of residents, visitors, and employees to major activity and employment centers within the corridor (Figure 1.1-1). These key activity centers generate a large number of trips each day. Population and employment projections for 2040 predict that these key activity centers will continue to generate a high number of trips. As shown on Figure 1.5-3, which illustrates the predicted number of trips per square mile, the highest number of trips is predicted to occur in the areas of UNC, UNC Hospitals, Leigh Village, Patterson Place, South Square, Duke University, Duke University Medical Center, Ninth Street, downtown Durham, and Alston Avenue (1.5.2.3).Light rail was chosen for the D-O Corridor because this technology will:• Connect residential, educational, and major employment centers throughout the corridor;• Serve the people in the D-O Corridor more cost-effectively in the long term than other transportation options;• Efficiently serve a corridor with some of the highest projected trips per acre in the Triangle region;• Support land use patterns that require closely spaced stops, best served by vehicles that are able to accelerate quickly;• Provide solid anchors needed to shape land use along this critical corridor; and,• Provide high-frequency rail service shown to support transit-oriented development (TOD) (ES-3).As described in 8.4, the NEPA Preferred Alternative (C2A, NHC 2, Trent/Flowers Drive Station, and Farrington Road ROMF) would achieve each element of the Purpose and Need of the proposed D-O LRT Project and is a highly effective performer in terms of the project goals and objectives for improving mobility, increasing transit efficiency, improving transit connections, supporting economic development and plans, fostering environmental stewardship, and providing a cost-effective transit investment.

*As noted in the DEIS Executive Summary (ES-5), the region’s existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact development, and economic development along a high-capacity transportation network (see ES-5 of*

the DEIS).

First Name	Last Name	Comment
Ingrid	Toth	If the Farrington Rd site is selected for the ROMF, please protect the existing and future residents at The Villas at Culp Arbor and nearby school and neighborhoods by adding large buffers of trees between the facility and the road, by building shields for the stadium lights shining down onto the rail yard, by adding sound absorbers to protect residents from the trains coming into the rail yard during the night, by providing increased protection from crime for the residents of the surrounding neighborhoods, protecting as much green space as possible around the ROMF, building a brick or stone wall around the ROMF, and making the buildings no more than 2 stories high. Thank you.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As stated in DEIS sections 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to participate in the design as part of the City and/or County approval process. Section 4.4.4.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and stands in the design of project elements and provide landscaping and aesthetic treatments within close proximity to residences. As clarified in section 1.4 of the combined FEIS/ROD, DEIS Errata 78, visual and aesthetic impacts associated with the Farrington Road ROMF will be mitigated through coordination with the surrounding landowners and the City of Durham during Engineering. Potential treatments include landscaping, architectural treatments, visual barriers, and building height maximums. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

DEIS section 4.1.4.1  
 DEIS section 4.4.4.1  
 DEIS section 8.2.2.1  
 FEIS/ROD section 1.4  
 FEIS/ROD Table ROD-1  
 DEIS Errata 78

First Name	Last Name	Comment
Ingrid	Toth	Having been driven to the degree possible along the path of the proposed light rail system, I am opposed to it on the grounds that I can't quite figure where the ridership that would justify such an immense price tag would come from. The terminus at either the UNC or Duke campuses is not anywhere near the central campus of either. Much of the rest of the route would mainly serve the already more privileged citizens of the two counties and not the poor and underserved who could truly stand to benefit from it.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As stated in section 3.1.1 of the DEIS, Ridership forecasts were developed for the NEPA Preferred and*

DEIS chapter 5

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*Project Element Alternatives and No Build Alternative for forecast year 2040 using the Triangle Regional Model (TRM), Version 5 based on the operating plans included in DEIS appendix K1, consistent with DEIS appendix K2. As clarified in in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 30, It should be noted that the regional model was utilized and is regional in nature, and minor changes to inputs (travel speeds or times, number of residents or employees, etc.) do not always lead to changes in the output (ridership, travel times, etc.) for specific projects like the D-O LRT Project. The TRM was developed by the Triangle Regional Model Service Bureau (TRMSB), in cooperation with regional stakeholders Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO), Capital Area Metropolitan Planning Organization (CAMPO), NCDOT, and Triangle Transit. The TRMSB is housed at the North Carolina State University Institute for Transportation Research and Education (ITRE). The model is designed to forecast travel throughout the Triangle region's transit and roadway system. As such, it contains a network of existing and planned future transit services consistent with the 2040 Metropolitan Transportation Plan (2040 MTP). In general, the project is not expected to have a significant effect on traffic on those roadways where it is close to D-O LRT Project. However, the D-O LRT Project will provide a competitive and reliable travel alternative to the congestion on these roadways, particularly during the peak traffic hours. Section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #30, 32, and 33 contain clarifications on ridership.*

DEIS section 3.1.1  
DEIS Table 4.2-4  
DEIS appendix K1  
DEIS appendix K2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 22, 30, 33, and 64

*As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600. In addition, section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle*

Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs.

First Name	Last Name	Comment
Yuri	Trembath	Letter opposing the Durham Orange County Light RailTo: Federal Transportation AdministrationSubject: Oppose Light Rail – maintenance facilityI oppose the proposed Durham – Orange Light Rail and support a “no-build” option for numerous reasons. The site for the proposed maintenance facility on Farrington Road is in a rural but populated area with a school close by. The originally proposed facility was to be in an area of Durham where most of the workers would reside and could walk to work and was close to the end of the line. This area is in the middle of the line so empty trains will have to come to it from either end of the line which means trains will be running empty deliberately and frequently. This is additional expense, and has the potential to create more pollution and noise. It is my understanding the original site for the facility was dropped because the land there is contaminated with chemical waste from a prior chemical plant and this would have to be cleaned-up in order to build the maintenance facility and GoTriangle did not want to spend that money. As a note, the residents in this poorer area of town still have to live with the toxicity and will not have the jobs they were promised.I also oppose the proposed Durham – Orange Light Rail because there will be little additional parking at most of the stations and several stations will have no parking at all, including the Woodmont station. Duke is not adding parking andneither is UNC. Most stations will be walkup only and this will further minimize ridership, which, by the way, is extremely overstated by GoTriangle.The at-grade level crossings on the C2A route will create dangerous situations as people try to access NC54 without the benefit of traffic lights. Please either scrap the project and investigate alternative options, move C2A route to the north side of NC54 or elevate it to eliminate these dangerous intersections.Thank you,[REMOVED NAME AND ADDRESS]

Comment Responses	DEIS/Errata References
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative.In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.Although the Alston Avenue ROMF alternative would not require rezoning, it would introduce several risks to both the project schedule and budget, associated with the potential of*

DEIS chapter 9  
 DEIS section 2.3.2.1  
 DEIS section 3.2  
 DEIS section 3.3  
 DEIS section 3.6  
 DEIS section 8.2.2  
 DEIS section 8.2.2.2  
 DEIS Table 2.3-2  
 DEIS Table 3.3-2  
 DEIS appendix L  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119, 121, and 137

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*regulated materials remediation and relocation of businesses. It also has the potential to result in net loss of employment within the D-O Corridor if the existing businesses that would be displaced could not be relocated within the D-O Corridor. This alternative has the highest capital cost of all of the alternatives considered in this DEIS (section 8.2.2.2).*

*Parking is proposed at several stations as described in DEIS section 3.3. As described in DEIS Table 2.3-2 and further detailed in DEIS Table 3.3-2, park-and-ride facilities are currently planned at the following stations: Friday Center, Leigh Village, Gateway, MLK Jr. Parkway, South Square, Durham, Dillard Street, Alston Avenue. The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and “kiss-and-ride” spaces for passenger pick-up and drop-off. Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (DEIS section 2.3.2.1). Typical images can be found in DEIS section 2.3.2.1 and conceptual designs in DEIS Appendix L. Section 1.4 of the combined FEIS/ROD, DEIS Errata 75 further adds clarification that Triangle Transit will coordinate with municipalities and neighborhoods on the aesthetic treatments for stations. Parking fees, if any, will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners. A total of 5,100 park-and-ride spaces will be added at station locations as part of the project.*

*All LRT systems in the US have grade crossings or run within public streets. Light Rail Transit (LRT) technology is designed to facilitate safe at-grade crossings of public streets. Other types of rail transit technology, such as heavy rail transit that uses an electrified third rail as opposed to overhead electric wires for propulsion (such as MARTA in Atlanta or Metro in DC), must be installed in fully grade separated exclusive guideway since the electrified rail must be kept away from the public. LRT, on the other hand, is designed with overhead electric wires with sufficient clearance to allow vehicular traffic to pass safely underneath where roadways cross the tracks. All at-grade crossings of the light rail tracks across public roadways will be designed in accordance with state and federal safety regulations pertaining to such crossing. As discussed in section 4.16.2, three types of light rail crossings are proposed as part of the D-O LRT Project: at-grade crossings, crossings of the light rail alignment on a bridge over a roadway, and crossing of the light rail alignment under an existing roadway bridge. Approximately 30 to 35 at-grade crossings are proposed for the D-O LRT alignment. Table 3.2-4 lists the types of interface of the light rail alignment with the existing roadway network, when the light rail crossing is at-grade with the road. The D-O LRT would include approximately 25-30 elevated light rail crossings over existing roadways, including crossings over US 15-501 (Ferdham Boulevard), Business US 15-501 (Durham-Chapel Hill Boulevard), NC 54, I-40, Garrett Road (NHC 1 and NHC 2 only), NC 147, Erwin Road, Swift Avenue, and Campus Drive (4.16.2). As described in 4.12.3.5, the proposed D-O LRT Project would have safety implications for the D-O Corridor as they would introduce a new mode of transit, a 17-mile transit alignment, and light rail transit vehicles that would interact with vehicular, bicycle, and pedestrian traffic. The safety implications are particularly important for higher volume areas where multiple modes of transportation coexist like*

***D-O LRT FEIS / ROD***



*the UNC campus, University Drive, Erwin Road, and in downtown Durham. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the D-O LRT is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L). Potential impacts from the development of light rail systems with exclusive and/or semi-exclusive rights-of-way include risks of injury or fatalities to pedestrians, bicyclists, vehicle occupants, light rail passengers, and employees due to light rail operations, collisions between light rail and road vehicles, increased street and alignment crossings, and incidents on/or around light rail facilities. Members of the public expressed concern for some of these risks through comments submitted as part of the Scoping meetings and subsequent public involvement as summarized in chapter 9, Public Involvement and Agency Coordination. The design of the project acknowledges these concerns and includes provisions for safe operation and appropriate connectivity for pedestrians, bicyclists, and motorists. To avoid the potential for incidents at at-grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines. Section 4.12.4.5 describes the proposed mitigation to address safety and security impacts of the introduction of light rail on pedestrians, bicyclists, and motorists.*

First Name	Last Name	Comment
Dina	Trobbiani	<p>I am a citizen of Durham, and I live off of Farrington Road, very near the proposed site of the ROMF. These are the questions I have regarding the light rail proposal that I would like answered.1. I have been told that traffic coming off of I-40 to 54 is a huge concern and that the light rail will help with this traffic. I see no way for that to occur in reality or that the light rail will have anything to do with altering traffic density on 40 or at the 54/40 interchange. The traffic that flows from Jordan Lake and Raleigh enters onto 54 south of any proposed light rail stop. Traffic flowing northward to 54 from Farrington Rd/Farrington Mills Rd is also not near a light rail stop. Traffic still has to go either across 54 to the proposed Leigh Village station, or west to the proposed Woodmont station at Downing Creek. If anything traffic will increase if people attempt to turn and park in these areas, as we see similar congestion/backup when commuters attempt to turn into Friday Center Drive. How does the Light Rail in general or the Leigh Village Station proposal in particular alleviate or ameliorate traffic density at the 54/I40 interchange?What are other non-light rail ideas for calming or safely directing the flow of traffic at this intersection and have any been investigated?2. Farrington Road is a main artery/cut through to 54 from points north (University, Chapel Hill Road, even 15/501 from Southwest Durham Drive and Ephesus Church). Construction here of the ROMF causes two crossings on this road, which will cause chaos during construction and traffic jams afterwards. During construction, neighborhoods north of the bridge over I 40 will be cut off from emergency services/ambulances from UNC with potential disastrous consequences. There is no more direct route from 54 than Farrington, all others are more circuitous. How will the safety of the citizens who live here be guaranteed when they are cut off from emergency services (ambulance to and from the area to UNC) while the light rail crossings for the ROMF are constructed?3. The engineers seemed very surprised that at grade crossings would impact traffic negatively on Farrington. Why hasn't a traffic study been done regarding the LR crossings, the ROMF with respect to the unique role of Farrington road in the flow of traffic in South Durham?4. Regarding the Farrington Road ROMF site - rezoning to industrial and building the ROMF here will hugely disrupt the surrounding communities with noise, chemicals, light, and 24 activity causing a decrease in quality of life for the neighborhoods adjacent to the proposed site, and a decrease in home value/resale value. This ROMF does not just effect 6 houses which will be demolished but all</p>

the very nearby communities. The community of Culp Arbor, for example, which consists mostly of retirees with little ability to move, will be located directly across from the ROMF. Their homes will lose value, and the proposed construction of their phase II development will also be hit hard, as no one will want to live directly across the street from the ROMF either during construction or while operational. Many millions of dollars are estimated to be potentially lost in all of the neighborhoods on Farrington. Why does Durham not appear to hear the concerns of so many of its citizens who are negatively impacted and do not want the Light Rail? EXAMPLES: Meadowmont was constructed with the Light Rail in mind, and they fought to change the route away from their community. DowningCreek does not want the Woodmont station at its doorstep. The JCC petitioned not to have the ROMF on Cornwallis. Why is Durham ignoring her citizens? We who actually live here with the facts on the ground do not want this Light Rail, why are we not heard?5. The Light Rail proposal for our area is not appropriately comparable to DC's metro or other metropolitan LR systems. Aside from our much smaller population, the route appears to be basically conveniently transporting people from Duke to UNC. The plan dropped expansion beyond Alston to neighborhoods that could have used walkable access to public transportation. This plan benefits a very few notably Duke and UNC, who will contribute no monies to the construction or maintenance of the light rail while penalizing the entire city of Durham to fund the project with taxes, and with the very real disruption of lives and livelihoods for many who are negatively impacted by construction. We already have a bus system which is much more flexible and for much less cost that more efficiently and appropriately serves our population density. And which could be upgraded and improved for far less cost. Wake county, with a higher population density, has declined light rail after an independent study. Why hasn't Durham arranged for an independent study to see if the light rail is truly a good solution for our area? Before sinking 1.8 billion dollars of taxpayer monies into an idea that will be outdated before it is completed and is not desired by the very citizens who live in the areas of construction, we the citizens of Durham need substantive answers to our questions.

*Comment Responses*

*DEIS/Errata References*

*DEIS section 3.2 discusses the impact of the proposed D-O LRT Project on the existing roadway network and any measures recommended to mitigate such impacts. Technical reports that report the results of traffic simulations are included as Appendix K4 through K11 of the DEIS.*

*DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3 of the DEIS. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance.*

*As described in DEIS section 3.2.4 and as shown in Table 3.2-5 of the DEIS, substantial modifications to the roadway are incorporated into the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues).*

*As described in Section 4.12, During the Engineering and Construction phases, prior to operations, the project will be guided by a Project Management Plan (PMP). The PMP will set forth requirements*

DEIS Executive Summary (ES-5)  
 DEIS section 1.5.1.2  
 DEIS section 3.2  
 DEIS section 3.2.2  
 DEIS section 3.2.4  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS Table 3.2-3  
 DEIS Table 3.2-5  
 DEIS Figure 1.5-2  
 DEIS appendix K4 through K11  
 FEIS/ROD section 1.2.2  
 DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137

to be met for the design and construction process and results. The PMP will be supported by a Safety and Security Management Plan (SSMP) prepared specifically for the project. The SSMP will detail the steps to be taken during design and construction to ensure safety and security concerns are addressed adequately through proper design and operational planning. This will include the development of safety and security design criteria, and a subsequent certification process to confirm the criteria are met. Triangle Transit will work with FTA to provide regular updates to the PMP, project safety and security activities, organizational updates, work scope changes, and changes to the assignments of responsibilities among project participants based on FTA feedback. Triangle Transit will continue to assess whether adequate provisions have been made for safe and secure operations and what design features would be included to avoid, minimize, or mitigate vehicular, transit, and pedestrian accidents.

Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.

As noted in the DEIS Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (see DEIS Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2. In order to maintain the high quality of life and attract new residents and businesses, the region needs a multi-modal transportation system, including improved high-quality transit service. The D-O Corridor needs a long term solution that provides accessible transit service, and a competitive and reliable alternative to congested roadways; that seamlessly serves many popular destinations in Durham and Chapel Hill, and that fosters growth, compact

development, and economic development along a high-capacity transportation network (see ES-5 of the DEIS).

First Name	Last Name	Comment
Gilbert	Turner	DEIS/Draft Population Notes Challenge 1The following statistics are to challenge the population numbers used by GoTriangle in their DEIS/Draft Table 1.11.Your numbers are incorrect.Table 1.11:Forecasted Population Notes (Source DCHC MPO 2012)2010 2040 Percent ChangeDurham County 258,000 422,000 64%Orange County 129,000 197,000 52%DOCorridor 27,000 54,000 100%Problems:Actual Durham County Population 2010 (latest census) is 267,587. Not 258,000. Actual Orange County Population2010 (latest census) is 133,801 The Percent Changes would be 57.7% (Durham) and 47% (Orange). That is onlyif the 2040 numbers are real. I can find no 2040 Forecasted Population numbers in any State or FederalGovernment population documentation that match the 422,000 (Durham) or the 197,000 (Orange) stated in theabove table. Also, there is no State or Federal Government documentation for the DOCorridor numbers.My Table 1 Using 2015 rather than 2010 (as it is now 2015)2015 numbers and the 65+ age group numbers are from The NC Office of State Budget and Management: SASOutput Population Growth2015 2040 Percent ChangeDurham County 297,811 422,000 41.7%Orange County 141,596 197,000 39%Again, this is only if the 2040 numbers are real.We must also take into consideration that these population numbers do not take into account that the 65+ agegroup in these numbers (at least 50% Orange county and 30% Durham county in 2035) will substantially reducethe actual “people riding to work numbers”

Comment Responses	DEIS/Errata References
<p><i>Standard transit industry practice for population and ridership projections for rail projects seeking federal funding includes utilizing population data from the adopted locally for transportation planning purposes, highway or transit. Table 1.1-1 utilizes the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO) population and employment numbers adopted as part the 2040 Metropolitan Transportation Plan. Information on the DCHC MPO population employment numbers can be found on the following website (<a href="http://www.dchcmo.org/publications/maps/data/default.asp">http://www.dchcmo.org/publications/maps/data/default.asp</a>).</i></p> <p><i>The percentage of the population under the age of 18 and 65 and over is discussed in DEIS section 4.2, in particular it is presented in Table 4.2-2 by evaluation areas, study area, and the two counties. As shown in Table 4.2-2 the percentage of the population under 18 or 65 and over is lower in the study are then either of the counties.</i></p>	<p>DEIS section 4.2 DEIS Table 1.1-1 DEIS Table 4.2-2</p>

First Name	Last Name	Comment
Gilbert	Turner	DEIS/Draft Population Notes Challenge 2The following statistics are to challenge the information in the paragraph below from page 15 used by GoTriangle in their DEIS/Draft. Your numbers are incorrect.Existing and forecasted populations illustrate transit ridership potential in the densely populated locations along the DO Corridor. Growth is projected to be concentrated within Chapel Hill and the westernmost sections of Durham, which are closest to Chapel Hill and I40.Much of this growth can be attributed to increased residential development for employees and students at UNC to keep pace with rising student enrollment. In 2007,UNC had

just over 28,000 students and by 2017 total enrollment is projected to reach 33,000 students, a net increase of 18 percent. The following enrollment numbers are from University of North Carolina at Chapel Hill Office of the University Registrar Historical Enrollment Statistics UNCC enrollment for Spring 2007 was 26,510. Not over 28,000 as stated by Go Triangle. Enrollment Spring 2015 is 28,223. This is less than a 7% growth over 8 years. There are no 2017 projections reported by UNCC. Because of budget decreases over the past 4 years at UNCC, there will probably be little or no growth in student enrollment, staff hiring, or new faculty for a very long time.

*Comment Responses*

*DEIS/Errata References*

*According to the UNC Office of Institutional Research & Assessment, as of the official fall reporting date of October 15, 2007, the grand total enrollment for the University was 28,136, while the latest information from October 15, 2014 indicated the grand total enrollment for the University was 29,135. Details of the enrollment can be found:  
[http://oira.unc.edu/files/2012/03/cds\\_2007\\_2008\\_final.pdf](http://oira.unc.edu/files/2012/03/cds_2007_2008_final.pdf)*

DEIS section 1.1.1  
DEIS Errata 18

*[http://oira.unc.edu/files/2015/05/cds\\_2014\\_2015.pdf](http://oira.unc.edu/files/2015/05/cds_2014_2015.pdf)In addition, as per the Chapel Hill 2020 Plan, "By the Fall of 2018, the University of North Carolina at Chapel Hill student enrollment is projected to be 33,000. This number includes undergraduate and graduate students".*

First Name	Last Name	Comment
Gilbert	Turner	DEIS/Draft Population Notes Challenge 3GoTriangle's population and jobs growth that may occur over the next 25 years are based on growth of Chapel Hill's largest employers, UNC Health Care and UNC Chapel Hill. I believe their projections highly overstated. Growth in Population and Jobs at UNC Health Care: From UNC Health Care Web Page: In the past few years, UNC Health Care has experienced significant growth and change. UNC Health Care has grown to include eight hospitals and more than 22,000 employees. When we say UNC Health Care, we are referencing our statewide system of hospitals, research and education entities, practices and employees. Note that over 90% of that growth appears to be outside of Chapel Hill Campus. Of the 2,903 hospital beds available in the UNC System, 2,103 (74.4%) are at these eight hospitals that will NOT be served by DOLight Rail. Caldwell Memorial Hospital Chatham Hospital High Point Regional Health Pardee Hospital Nash Health Care Regional Physicians Rex Healthcare Hillsboro Campus UNC Physicians Network partners are also a part of this growth. Note that 37 of the 41 Practices are NOT served by D-O Light Rail. See list below. Boylan Healthcare Carolina Advanced Health Carolina Primary Care Chatham Medical Specialists Chatham Primary Care Clinton Medical Clinic Executive Health Carolina Clinic Garner Family Practice Gibbons Family Medicine Highgate Family Medical Center Johnston Medical Associates Clayton Johnston Medical Associates Kenly Johnston Medical Associates Internal Medicine Johnston Medical Associates Urgent Care Johnston Medical Associates Specialty Clinic Knightdale Family Medicine Mebane Primary Care Nash Neurosurgery North Chatham Pediatrics and Internal Medicine Orange Family Medical Group Pinehurst Medical Clinic Cardiology Pittsboro Family Medicine Rex Family Practice of Knightdale Rex Family Practice of Wakefield Rex Pediatrics Rex Primary Care of Cary Rex Primary Care of Holly Springs Rex/UNC Family Practice of Panther Creek Riverbend Family Medicine Sanford Specialty Clinics Southpoint Medicine and Women's Health Associates UNC Cardiology at Lumberton UNC Cardiology at Roxboro UNC Family Medicine at Apex UNC Family Medicine at Hillsborough UNC Family Medicine at North Raleigh UNC Urology at Burlington University Pediatrics at



HighgateMajor Projects:UNC Hospitals is expected to be the first tenant to begin construction at Chatham Park. The ChapelHillbasedhospital system will be building a 25,000squarefootmedical building at the intersection ofU.S. 64 Bypass and U.S. 15501with construction set to begin in August. UNC Hospitals has alsoexpressed interest in expanding with a "major" facility at Chatham Park in the future. These projectswill NOT be serviced by DOLight RailThe only other project planned for 2018 is to add 42 additional acute care beds at the Chapel Hill campus. UNCHospitals filed a petition with state regulators seeking the ability to add 42 acutecarebeds at its Chapel Hillcampus. Note: This project has not been approved.Growth in Population and Jobs at UNC Chapel Hill:Because of budget decreases over the past 4 years at UNCCH,there will probably be little or nogrowth in student enrollment, staff hiring, or new faculty for a very long time.Letter from UNC CH PresidentThe following information and statistics are to challenge the purpose and need for Chapel Hill to be a part of thethe DOLight Rail system. Your information concerning growth in this area are incorrect. Since the globaleconomic crisis began in the fall of 2008, the campus community has been informed about the impact of statebudget cuts.During four consecutive years of state budget cuts, UNC campuses including Carolina have faced significantreductions in state funding, the impact of which has been felt in classrooms and libraries as well as throughoutuniversity operations. Carolina has taken approximately \$235 million in total state cuts since 2008.That total does not account for additional funding including tuition revenue or enrollment growth funding.Throughout the economic crisis, the University has made protecting core academic and teaching programs thepriority. Until fiscal 201112,reductions were focused primarily on administrative cuts and measures to improveefficiency. However, the cumulative impact of repeated reductions in state funding has been felt acutely in theclassroom.Although state appropriations currently account for slightly less than 20 percent of Carolina’s totaloperating budget, it is critically important revenue that supports instruction and key academicoperations.By necessity, budgets passed by the General Assembly during the economic crisis were austere. As a result,Carolina like every campus in the UNC system has faced dramatic cuts threatening the ability to educate the nextgeneration of leaders.

*Comment Responses*

*DEIS/Errata References*

*The employment estimates in both 2010 and 2040 are provided by adopted DCHC MPO 2040 Metropolitan Transportation Plan. This plan includes employment by transportation analysis zone (TAZ). Because the employment estimates are based on the geographic location, at the TAZ level. As a result, the growth of employment at facilities referenced that are not within the TAZs associated with the D-O Corridor Study Area were not included in employment numbers included in the DEIS.*

DEIS section 1.1.1

First Name	Last Name	Comment
Gilbert	Turner	DEIS/Draft Notes Challenge 4Car Body Repair and Paint Shop In a meeting at the Villas of Culp Arbor community on Farrington Road, we were shown slides with drawings of the ROMF. The drawing of the Farrington Road ROMF displayed a “Future Car Body Repair and Paint Shop”. We were told that the drawing was incorrect and decision on a “paint shop” had not been made.In their response (08/08/2015) to the meeting question, When will the body repair and paint shop be built? Their reply was:“Light rail vehicle body repairs and painting will be contracted to an off-site business that does body and paint work. This type of work will not be done at the ROMF. There are no plans to construct a paint and body shop on site”.In the Draft Environmental Impact Statement (DEIS), I can find no reference to a “Body Repair and Paint Facility. Because of the following information, it is my opinion that no environmental statement should be released, much less approved, without identifying the location of this facility,

providing studies on the impact of this facility and letting us know exactly how they intend to protect our environment and people from the pollutants generated. From the EPA: What kinds of pollutants are emitted from body shops? Body shops emit pollutants such as hazardous air pollutants (HAPs), particle pollution (dust), and volatile organic compounds (VOC). These pollutants can contribute to health problems that may affect shop employees and the community. While Federal, state, local, and Tribal regulations limit the amount of emissions from body shops, dangerous releases of HAPs can occur if a shop does not operate in compliance with regulations. •Paints, cleaners, and paint strippers can release some HAPs and VOC. Chemicals in these substances can also react in the air to form ground-level ozone, which has been linked to a number of respiratory effects. EPA has developed a Web site on ground-level ozone. From the EPA Ground-Level Ozone Web Site: Breathing ground-level ozone can trigger a variety of health problems, particularly for children, the elderly, and people of all ages who have lung diseases such as asthma. Ground level ozone can also have harmful effects on sensitive vegetation and ecosystems. Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. •Lead, chromium, and cadmium are metals that form particle pollution during sanding and welding. EPA's Air Toxics Health Effects Notebook has more information on lead, chromium, and cadmium. •Breathing particle pollution can cause respiratory problems and other harmful health effects. EPA has developed a Web site on particle pollution. From the EPA Particle Pollution Web Site: People with heart or lung diseases, children and older adults are the most likely to be affected by particle pollution exposure. However, even if you are healthy, you may experience temporary symptoms from exposure to elevated levels of particle pollution. Particle pollution - especially fine particles - contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Numerous scientific studies have linked particle pollution exposure to a variety of problems, including: premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing. •Diisocyanates are hazardous air pollutants emitted during painting operations. These compounds are a leading cause of occupational asthma.

*Comment Responses*

*DEIS/Errata References*

*As described in the Executive Summary of the DEIS, the ROMF is an integral part of the proposed D-O LRT Project and would include office space, conference rooms, and areas to store, service, and maintain 17 LRVs with the capacity for up to 26 LRVs without needing to expand the facility. The ROMF would also hold equipment needed to maintain the stations and trackway. The facility would operate 24 hours per day, 7 days per week and accommodate staff that report for work at the facility, such as train operators and mechanics (p. ES-13). As further detailed in DEIS section 2.2.3, the ROMF would include train washing and maintenance buildings, storage tracks, employee parking, and a stormwater pond. The facility would be equipped to perform daily cleaning and repair activities on the light rail vehicles as they enter and leave revenue service. To ensure operational safety and reliability, scheduled service and maintenance inspections would be performed in this facility. The desirable size for a ROMF site is 15 to 25 acres (section 2.2.3).*

DEIS section 2.2.3  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3  
 DEIS section 4.12.4  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 DEIS Errata 21, 107, 110, and 121

*As noted in DEIS section 4.11.3 and section 1.4 of the combined FEIS/ROD, DEIS Errata 121, the proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials because of associated maintenance activities. These materials would include oils, greases, solvents, and other*

waste materials. While light rail vehicles, as noted in section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents, and other waste materials), used at the ROMF will be captured and stored in tanks (inside buildings), where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. Section 1.4 of the combined FEIS/ROD, Errata 107 indicates that if recycled, used oil generated from operations or maintenance will be managed in accordance with the standards for the management of used oil described in 40 CFR Part 279. If the used oil is disposed, then a hazardous waste determination will be made on the used oil. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21, clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.

First Name	Last Name	Comment
Gaby	Valdivia	PLEASE DO NOT DISCLOSE MY PERSONAL INFORMATION. I have a number of questions about this project, particularly about a Railroad Operations Facility on Farrington Rd in southwest Durham: Neighbors will be negatively affected by installing this industrial facility in what is a mostly rural/suburban zoned area, with fragile watersheds, and difficult geology. We are told that this is necessary because locating a train repair facility in this particular location is the least expensive alternative. That in other areas the natural environment and local populations will be affected. Question 1: how much more expensive is to locate this INDUSTRIAL facility in the Alston location, which is ALREADY zoned as industrial? If this project is estimated to cost AT LEAST US 18 million, what is the estimated cost difference between the Farrington Rd location and other alternatives? Question 2: on what grounds is it justifiable to rezone the Farrington Rd area into INDUSTRIAL use, when there are at least 3 elementary schools within a 2-mile radius of the intended facility? When the traffic patterns to get to these schools are already heavy? Have any traffic studies been conducted in this area, beyond touring the area in off-peak times? These kids are not taking the train to school; they walk to school and they take the dozens of school buses that bring kids from diverse parts of Durham. Are environmental costs and burdens factored into the equation, or it is mainly how much it will cost the state and taxpayers (not those who have to live with the facility in their front and backyards)? Question 3: have studies been conducted on the feasibility of the underground structure and the

underground water sources that will be affected by placing an INDUSTRIAL site on Farrington Rd? Some of our neighborhoods use well water. We already have impervious surface problems, where the county of Durham has prohibited anymore IMPERVIOUS SURFACE allocations (e.g., you can't put a pool in most of the 14 different neighborhoods affected by this project). How can an INDUSTRIAL maintenance facility be put here, which requires so much impervious surface and risks for water contamination? How will underground water charge and surcharge be affected by placing this facility here? What are the risks of placing an INDUSTRIAL waste facility in areas that use underground water? Question 4: the facility is expected to generate increased noise and light pollution, day and night. How is this a "preferred" option in a residential area? How often will trains be going through, night and day? Is that "normal" for residential use? Seems to me too many burdens have not been taken into account into this "economical" routing.

*Comment Responses*

*DEIS/Errata References*

*Costs differences between the different ROMF facilities are provided in table 7.1-3 of the DEIS. The Alston Avenue site is estimated to cost more than \$43 million more to develop for a ROMF than the Farrington Road site. Key issues related to costs at the Alston Avenue site include the cost to relocate businesses to locations that maintain rail access, the cost for additional lead track, and the cost for hazardous materials remediation at the site. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process. As described in DEIS section 4.10.4 and clarified in the combined FEIS/ROD, DEIS Errata 52, no noise and vibration impacts are identified at the NEPA Preferred (Farrington Road) ROMF site or at other Project Element ROMF sites. As such, section 1.4 of the combined FEIS/ROD, DEIS Errata 104 clarifies that a noise wall for the Farrington Road ROMF would not be required due to the anticipated levels of noise at the site. DEIS section 4.4.3.1 states lighting would be aimed towards the ROMF to reduce spillage onto neighboring properties and adjacent roadways. In addition, source-shielding would be used in exterior lighting at the ROMF. For additional detail on the differing impacts and benefits of the NEPA Preferred Alternative for the ROMF, see DEIS section 8.2.2.1 under the "Farrington Road ROMF Alternative" subsection or DEIS section 1.2.2 under the "Farrington ROMF Alternative" subsection. No traffic impacts are anticipated as a result of the implementation of the Farrington Road ROMF. DEIS section 3.2.3.2 states with the NEPA Preferred Alternative, traffic operations at the intersections along Farrington Road would be similar to operations under the No Build Alternative, as listed in DEIS Table 3.2-3.*

DEIS section 1.2.2  
 DEIS section 2.2.3  
 DEIS section 3.2.3.2  
 DEIS section 4.1.4.1  
 DEIS section 4.4.3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.10.4  
 DEIS section 4.11.3  
 DEIS section 4.17.2.3  
 DEIS section 8.2.2  
 DEIS section 8.2.2.1  
 DEIS Table 3.2-3  
 FEIS/ROD section 1.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2  
 FEIS/ROD Table ROD-2  
 DEIS Errata 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined*

*FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95, 103, 104, 110, 119, 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

*DEIS section 4.8.3.1 discusses groundwater quality and states that the 116 privately –owned wells that are within 1,500 feet of the D-O Corridor would not be affected by the operation of the light rail vehicles because the vehicles do not have gasoline or oils that could spill and contaminate the groundwater. Furthermore, as noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 119 explains that because of the mitigation through BMPs, including on-site storage and detention of stormwater, no indirect effect to wells from regulated materials generated at the ROMF are anticipated to occur. DEIS section 4.8.3.1 mentions the use of concrete ties to avoid the environmental issue of leaching creosote from wood ties. The addition of impervious surfaces, particularly at the park-and-rides lots, ROMF, and stations, would require the implementation of best management practices for the collection and treatment of stormwater runoff. The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of*



*in accordance with state and local guidelines and no substantial indirect impacts are anticipated. DEIS section 4.17.2.3 discusses the anticipated cumulative impacts to water quality from the NEPA Preferred Alternative, including the ROMF. These impacts would be additional impervious surface and modification of stream channels as a direct result of the project. These would combine with other new impervious surface area and modification of stream channels resulting from other urban development in the watersheds. The project will comply with stormwater management permitting requirements and include DWR stormwater management BMPs. All required permits are also outlined in the Record of Decision (ROD), Table ROD-2. Section 1.4 of the combined FEIS/ROD, DEIS Errata 103 clarifies that the ROMF site plan will manage stormwater runoff in a manner consistent with local and state regulations to avoid and minimize impacts to neighborhoods and community resources in the vicinity such as Leigh Farm Park and the Piedmont Wildlife Center.*

First Name	Last Name	Comment
Colin	Verrilli	I have a great concern with the proposed route along Stancell Drive and the proposed Woodmont Station. This would cause noise and increased activity to the Bradford Place community. Our condominium is on Kingswood drive near Stancell Drive. The proximity of our condo to the elevated rail would result in extreme disturbance. This is a quiet community and we don't want the disturbance of a railway or station.

Comment Responses	DEIS/Errata References
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*DEIS section 4.10.4 and table 4.10-6 provides a summary of the noise and vibration impacts for the alternatives. For the proposed D-O LRT Project, it is anticipated that severe noise impacts would occur at one location and moderate noise impacts would occur at four locations with the NEPA Preferred Alternative. Vibration impacts would occur at 8 receptors and ground-borne noise impacts would occur at 13 receptors with the NEPA Preferred Alternative. Figures 4.10-6 through 4.10-9 illustrate the locations of receptors that would be impacted by the NEPA Preferred and Project Element Alternatives. No noise or vibration impacts are predicted for the condominiums located on Kingswood Drive.*

DEIS section 4.10.4  
DEIS appendix K24

*Additional detail on the impacted receptors is provided in appendix K24. According to the FTA Noise and Vibration Guidance Manual, mitigation for noise impacts should be considered if the project falls within an "impact" range and should be implemented if the project would result in a severe impact. Table 4.10-13 identifies proposed mitigation measures for the NEPA Preferred Alternative and the Project Element Alternatives. Sites 2, 7, and 8 (Odum Village) are part of a larger redevelopment area sponsored by UNC. The remaining residential buildings that would be impacted, depending upon the selected alternative, are within the right-of-way for the project elements and would be acquired as part of the project. The remaining noise impact is the New Hope Creek Trail, under the NHC LPA Alternative. The alignment would pass directly over the trail in two locations. As a result, mitigation measures would be limited to noise barriers on the elevated track. The NEPA Preferred Alternative would result in no noise impacts beyond the properties to be*

acquired for the project.

Triangle Transit will coordinate design and policies related to audible warning devices with NCDOT and local jurisdictions in accordance with applicable regulations, guidance, municipal policies, and best management practices.

First Name	Last Name	Comment
Jackie	Wagstaff	<p>[REMOVED NAME]: Good evening. My name's [REMOVED NAME]. I guess that's my sister right there.[REMOVED NAME]: Separated at birth.[REMOVED NAME]: I'm here in opposition of this light rail, been in opposition of this light rail proposal since the day of its conception, but I'm going to bring a new twist to this.Let's talk about the fares. I've been sitting in these meetings for over a couple of years either informal or formal, and the one question that I've asked at every meeting that has never been answered is, what will be the price of the ride of this fare? When I look around this room, how many people in this room ride a DATA bus or Go Durham? How often do you ride it? I mean, are you riding it now because now we're trying to get the light rail, or do you ride it out of a sense of necessity? That's what we need to look at. This is the price of a fare -- I called Charlotte just before I got here because I remember meeting with you and you never could answer it. So I called Charlotte to find out what the -- and I've ridden the light rail in Charlotte and it run through all the high rent districts. It doesn't run in the hood. It runs in the high rent districts. So let's be clear where it will be going. Meadowmont didn't want it and several other people in Chapel Hill didn't want it. So we know it's not going to go through the hood, so the price of it is going to more than that \$2 that it costs you to get on a DATA bus or Go Durham and ride all day long. One way on the light rail in Charlotte, \$2.20, one way, versus the \$1 we pay now to get on DATA bus. For a round trip, \$4.40. That's just to get from here to here to Southpoint and then come back. Now, if you ride all day where it costs us \$2 to ride all day on DATA bus or Go Durham, that will be \$6.60. We know that poor people ride those light rails and those buses. For seven days -- If you want to get a pass for seven days, that's \$22. How can we afford it? I don't see the population even in this room that are going to be affected by that light rail. That light rail is not going to be put there to accommodate the poorest of our residents. Our residents struggle to find \$2 to ride DATA bus every day, and they're never in the conversation. So even though Mr. Huggins said that that quick a ride from Durham to Chapel Hill for poor people to the hospital, it's going to be quicker, it won't be cheaper, so they still won't be getting on it. So we have to understand the cost that's going to be associated, that's going to even stress our people that are already stressed to the max. So while we're sitting here talking about all this other stuff, we need to think about the cost of light rail and do -- and bring that survey back of other cities that have it and what they charge for you to ride light rail. So adamantly oppose.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<p><i>As noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 34, the proposed D-O LRT Project's fares will likely be comparable to the bus fares that are in effect at that time. Both parking fees and bus fares will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners. As noted in DEIS section 2.3.2.1., transit patrons would purchase rides prior to boarding from ticket vending machines located at each station. The existing cost to park at transit park and rides as well as the cost to ride the existing transit services are noted in DEIS chapter 3.1.2.1 Transit Providers.</i></p>	<p>DEIS chapter 5 DEIS section 2.3.2.1 DEIS section 3.1.2.1 DEIS Table 4.2-4 FEIS/ROD section 1.4 DEIS Errata 34</p>

*As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights Act of 1964. The D-O LRT Project would benefit transit-dependent populations by providing increased mobility and improved access and connectivity. The Light Rail Alternative would serve as a spine to link the residential growth with new employment opportunities in the D-O Corridor. A discussion of potential impacts to minority and low-income populations is provided in detail in DEIS chapter 5. As listed in Table 4.2-4, the proposed station areas of the NEPA Preferred Alternative would serve approximately 53,000 residents, 25,800 households, and employment of 119,100, in 2040. The NEPA Preferred Alternative would also serve over 13,000 transit dependent persons living within ½-mile of the stations, as well as a LEP population of over 2,600.*

First Name	Last Name	Comment
Catherina and Bob	Weaver	Concerning on-grade crossing on Farrington Road. Farrington Road is the alternate road to 15-501 to avoid going through Chapel Hill. Farrington Road connect Hwy 54-Farrington Road-Southwest Blvd to 15-501 east of Chapel Hill. Farrington Road is the main thoroughfare for all emergency vehicles. Farrington Road carry a very heavy load of traffic, 10,000-15,000 cars/24 hours. At rush hours cars are lined up past Rutgers Road, to reach Hwy 40 at the Hwy 54 intersection. In the early evening hours there is a constant stream of cars coming off Hwy 40 to reach for Ephesus Church Road to Chapel Hill. According to plans there is going to be an on-grade crossing over Farrington road right where the road curves. The crossing is less 1/2 mile from the entry into Villas at Culp Arbor, a +55 community, where it is at present being extended to 134 units. Imagine the following picture, trains passing every 10 minutes in either direction. Gates going down, lights flashing and alarm sounding. Cars lining up in either direction. The lines could easily reach past Culp Arbor and to Ephesus Church Road. As the train has past the cars are catching up with the line of cars heading for Hwy 40. Then there is the ambulance with sirens blasting trying to pass. In spite of communication, there will be difficulty for the emergency vehicle with a critical sick patient to reach a hospital. You get the picture? How is this going to work in real life? This is absolute one crazy on-grade crossing, just asking for accidents to happen.

Comment Responses	DEIS/Errata References
<i>DEIS section 3.2.4 describes the proposed mitigation measures that are planned to mitigate for project-related roadway effects. These effects are summarized in Table 3.2-3. In addition, as described in DEIS section 3.2.2, there are numerous roadway project planned by the NCDOT in the vicinity of the proposed D-O LRT Project. During Engineering, Triangle Transit will continue to coordinate with the NCDOT as the designs of these projects advance. As described in DEIS section 3.2.4 and as shown in Table 3.2-5, substantial modifications to the roadway are incorporated into</i>	DEIS section 2.4 DEIS section 3.2.2 DEIS section 3.2.4 DEIS section 4.12.4 DEIS Table 2.4-1 DEIS Table 3.2-3

**D-O LRT FEIS / ROD**

*the design including additional turn bays and restriping of intersection approaches to accommodate additional receiving lanes in order to minimize impacts to vehicular traffic operations (excessive delays and queues). Additional roadway expansion is not recommended. Additional traffic analysis will be performed during the Engineering phase of the project and the proposed roadway modifications may be refined. It should be noted that several communities in the region are focusing their development efforts on the principles of compact neighborhoods and complete streets. While design criteria, exemptions, and revisions to comprehensive plans zoning associated with these initiatives are not complete at this time, Triangle Transit will continue to work with the local agencies to determine adjustments to project elements, including inclusion of non-geometric mitigation strategies, if such policies are enacted prior to construction. These roadway modifications are further detailed in Table 3.2-5. In coordination with stakeholders and the public during the development of this DEIS, the areas detailed in section 3.2.4.1 (NC 54), 3.2.4.2 (US 15-501), 3.2.4.3 (Erwin Road) and 3.2.4.4 (Downtown Durham) were identified for further study and potential refinement during the Engineering phase.*

*As noted in DEIS section 2.4 and DEIS Table 2.4-1, there will be 12 trains per hour during peak service (six per direction, 5:30 to 9:00am and 3:30 to 7:00 pm). Traffic is anticipated to be disrupted/blocked due to gate activation for approximately 30 seconds per crossing. This includes the time for the following stages of the gate activation: gates descending, gates fully down ahead of the arrival of the train, gates fully down during passage of the train, gates ascending. Traffic would be unobstructed during approximately 90% of an hour during peak hours. During non-peak times (9:00am to 3:30pm and 7:00pm to midnight), there will be six trains per hour (three per direction). Accordingly, traffic would be unobstructed during approximately 95% of an hour during non-peak times. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.*

First Name	Last Name	Comment
Elizabeth	Wilcox	Dear GoTriangle; On October 5, 2015 the Durham City Council voted unanimously to include in their letter of support of the DOLRT language echoing Durham Area Designers position regarding the station locations in Downtown Durham. We strongly encourage GoTriangle to revisit the Durham Station locations as follows: Modify station locations and designs as part of the FEIS adoption to

better serve project purpose and need: Better station spacing and access for Downtown Shift the Buchanan station closer to Buchanan Blvd to increase visibility and access to Burch Ave, West End, Trinity Park and W. Chapel Hill Street businesses. Restore the Downtown Transit Center station to the original GoTriangle-owned site to improve intermodal connections. Add the City Center station as recommended by all 3 DAD charrette teams in October 2014 to provide convenient access to Durham's government buildings including the County Courthouse, Detention Center and City Hall, to better serve Main Street retail and offices and to anchor the Ballpark to Ballpark arts corridor. In addition, The Council further included language to keep open the pursuit of a way to serve the east side of Alston Avenue with the Light Rail Durham Area Designers also encourages GoTriangle to restore the Alston station to the original GoTriangle-owned site east of Alston Avenue in order to extend the reach of the light rail into East Durham, reach more people and preserve future expansion for East Durham. The attached document further illustrates the requested proposed changes. We have also provided engineering drawings demonstrating that the Transit Center Station can be relocated to the GoTriangle owned property at Chapel Hill and Duke Streets and meet the engineering constraints. We appreciate your review of this document. As always the Durham Area Designers members of Durham Area Designers are ready to meet with you to discuss this matter. Durham Area Designers continues to support the DO LRT. Durham Area Designers\*Text references attached document: Downtown Transit Station PP 9.28.15.pdf

*Comment Responses*

*DEIS/Errata References*

*The preliminary design of the Buchanan Boulevard Station will be refined during the subsequent phase of Engineering. Benefits and concerns with different alignment and station placement concepts will be evaluated at that time. One consideration is safety for people crossing the tracks at Buchanan Boulevard. From a safety perspective, it is most desirable for at-grade crossings to be as narrow as possible; in other words, it is safest if the LRT tracks are as close to 14' apart as possible at the crossing rather than widened out to accommodate an adjacent center platform. A narrow crossing design minimizes the risk of people standing or being stuck between trains as they pass, and the risks posed by a wider crossing will be evaluated as the design is refined. The additional cost for side platforms will also be considered in the context of other factors influencing the design process.*

DEIS chapter 2  
 DEIS chapter 3  
 DEIS section 2.3.2.2  
 DEIS section 3.1.3.1  
 DEIS section 3.4.2.2  
 DEIS section 5.3  
 DEIS Table 3.1-4  
 DEIS Table 5.3-1

*The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project's design may be evaluated during the Engineering phase of the project, which is slated for 2016-2019. As a result of ongoing coordination with both North Carolina Railroad (NCR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street. In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more*



information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCR Corridor along West Main Street (Section 3.4.2.2). Major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional location at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell & Mangum Streets would also require the negotiation and approval of an additional property lease with NCR beyond what is expected to be required for current alignment. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in cost that are not offset by increases in ridership could result in a reduction in the project's FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell & Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.

In the Alternatives Analysis, the proposed location for the Alston Avenue terminus station was just east of Alston Avenue. Triangle Transit determined that a station on the east side of Alston Avenue is infeasible due to the required 40-foot spacing between the light rail track and nearest future railroad track and space constraints imposed by the Pettigrew Street bridge over Alston Avenue, and the City of Durham water tower east of Alston Avenue. Therefore, the proposed location for the Alston Avenue Station was moved to just west of Alston Avenue approximately 1,200 feet from the location described in the AA. On May 21, 2015, the NCR Board of Directors agreed to permit NCR management to enter into lease negotiations with Triangle Transit based on this refined alignment (section 2.3.2.2). As further detailed in DEIS Table 5.3-1, the proposed Alston Avenue Station was relocated to the west side of Alston Avenue, as a result of coordination with the NCR as described in DEIS chapter 2. Revisions were due to NCR's horizontal track clearance requirements and constraints in relocating Pettigrew Street east of Alston Avenue. Triangle Transit held numerous outreach meetings with the communities in downtown and east Durham to gather their input on the proposed alignment and station locations. See DEIS section 9.3.6 for more information. A conceptual alignment east of Alston Avenue, south of the NCR Corridor, and adjacent to NC 147 was evaluated. This concept was determined to be technically infeasible, primarily due to constraints associated with the NCDOT right-of-way for NC 147, City of Durham historic water tower, and NCDOT's Alston Avenue widening project. Based on the results of preliminary engineering analysis of conceptual stations and alignments east of Alston Avenue, there are no reasonable, feasible

station alternatives east of Alston Ave., primarily due to the constraints created by the North Carolina Railroad (NCRR) right-of-way, the North Carolina Department of Transportation (NCDOT) right-of-way and roadway facilities, and the City of Durham Water Tower infrastructure.

First Name	Last Name	Comment
Elizabeth	Wilcox	<p>I am writing to voice my concern over the proposed location of the downtown Durham Stations. The deletion of station in the heart of downtown is not acceptable. Once the stations were relocated by GoTriangle after it learned that it could no longer be in the NCRR right of way, the stations were distributed in manner that ignores how the light rail will integrate into Downtown and its current and future land use. The gap between the Dillard Station as proposed and the Transit Center Station as proposed by GoTriangle misses over 1 million sf of existing office space, the Durham Performing Arts Center, and the ballpark, not to mention that this spacing does not provide citizens convenient access to government buildings including the Durham Courthouse, Detention Center and City Hall Plaza, which frankly should be considered a matter of social justice. The Durham City Council has written a letter encouraging GoTriangle to try and accommodate the Durham Area Designers plan for station locations, attached. I feel strongly getting LRT right in Durham requires that GoTriangle relocate the Buchanan and Transit Center Stations to the west-- including working to save portions of the existing warehouse along Buchanan to create a unique neighborhood transit center and using GoTriangle land at Chapel Hill and Duke Street to create true intermodal center that connects the bus, light rail, commuter trains and Amtrak—and, most importantly, revert to it original plan to having Center City Station in front of DPAC. Durham Area Designers has provided an engineering plan showing how this can be done and meet all of GoTriangles engineering parameters. This system is being planned for the long-term future and consideration of the City’s best interests over GoTriangle’s engineering expediency is critical to both the functionality of the light rail and future of Durham. Please feel free to contact me with any questions, [removed PII] Attachments: 151008_DAD_Durham-Orange Light Rail Transit Project-2.pdf Downtown Transit Station Plan Detail 9.30.15.pdf Downtown Transit Station PP 9.28.15.pdf</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
<p><i>The preliminary design of the Buchanan Boulevard Station will be refined during the subsequent phase of Engineering. Benefits and concerns with different alignment and station placement concepts will be evaluated at that time. One consideration is safety for people crossing the tracks at Buchanan Boulevard. From a safety perspective, it is most desirable for at grade crossings to be as narrow as possible; in other words, it is safest if the LRT tracks are as close to 14’ apart as possible at the crossing rather than widened out to accommodate an adjacent center platform. A narrow crossing design minimizes the risk of people standing or being stuck between trains as they pass, and the risks posed by a wider crossing will be evaluated as the design is refined. The additional cost for side platforms will also be considered in the context of other factors influencing the design process.</i></p>	<p>DEIS chapter 2  DEIS chapter 3  DEIS section 3.1.3.1  DEIS section 3.4.2.2  DEIS section 5.3  DEIS Table 3.1-4</p>
<p><i>The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost</i></p>	

*and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project’s design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. As a result of ongoing coordination with both North Carolina Railroad (NCR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street. In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCR Corridor along West Main Street (Section 3.4.2.2). Major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional location at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell & Mangum Streets would also require the negotiation and approval of an additional property lease with NCR beyond what is expected to be required for current alignment. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in cost that are not offset by increases in ridership could result in a reduction in the project’s FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell & Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.*

First Name	Last Name	Comment
Elizabeth	Wilcox	September 8, 2015 To: The Honorable Mayor and Durham City Council From: Durham Area Designers RE: Agenda Item 5 Council Work Session September 10, 2015 (Durham Orange Light Rail Transit Project letter of endorsement to GoTriangle) Durham Area Designers is committed to supporting the proposed Light Rail Transit system between Durham and Chapel Hill, and commends GoTriangle (GT) on their continuing efforts to make this a reality. However, we continue to have major concerns with the changes to the proposed light rail configuration through downtown Durham that occurred once the LRT was required to have greater separation from the freight/passenger rail track. Durham Area Designers is supportive of the DEIS’s “5 key decisions” that were identified at the entry to the Project Development Phase: 1. Build the LRT system 2. Choose the NHC2 alignment over New Hope Creek 3. Choose the Trent/Flowers station location near the Duke and VA hospitals 4. Locate the ROMF at the Farrington site 5. Use the C2A

alignment near Little Creek Our concerns center on 4 issues that are not part of the 5 key decisions because they arose well after entry of the LRT project into the project development phase when the LRT alignment was shifted much farther away from the existing freight/passenger rail track through central and east Durham. We strongly believe this critical investment will be noticeably better while not jeopardizing project performance or cost-effectiveness by incorporating the following four station locations and design changes into the Final EIS and Record of Decision:

1. Include a City Center station that was recommended by all three design teams at the October 2014 community charrette in the block between Blackwell and Mangum Streets in order to enable short walk access to City Hall, key County offices, and the heart of downtown, in addition to shorter and more visible access for patrons at downtown entertainment venues.
2. Restore the Transit Center station site (now termed "Durham" in the DEIS) to the triangular parcel already owned by GoTriangle, in order to still serve the Bus Station but also serve Amtrak passengers (10 trains per day as part of the High Speed Rail stimulus funding agreement) and the future commuter rail service to Raleigh and the RTP (at least 28 trains per day as in both the adopted 2040 Metropolitan Transportation Plan and the adopted Durham County Bus and Rail Investment Plan).
3. Restore the Alston Avenue station to the site on the east side of Alston Avenue already owned by GoTriangle in order to better serve East Durham and provide a realistic possibility for future extension of the line.
4. Locate the Buchanan Station as close to Buchanan Boulevard as possible in order to better serve the Burch Avenue and Trinity Park neighborhoods along with East Campus, while maximizing Transit Oriented Development opportunities on the remainder of the station site.

We are attaching the letter we previously sent to GoTriangle in July and shared with you that provides additional detail. Note that none of these four recommendations would result in LRT tracks being placed closer to the existing freight/passenger rail track than the DEIS envisions and the Buchanan, Transit Center and City Center station recommendations would result in relatively minor, if any, cost impacts. We ask that in your endorsement letter you add these four points to the list of things you want to work on with GoTriangle as the project proceeds into engineering:

1. Include a City Center station in the block between Blackwell and Mangum Streets.
2. Restore the Transit Center station site to the triangular parcel already owned by GoTriangle.
3. Restore the Alston Avenue station to the site on the east side of Alston Avenue already owned by GoTriangle.
4. Locate the Buchanan Station as close to Buchanan Boulevard as possible.

Based on our understanding of the process as presented by GoTriangle, the agency must adhere to a strict schedule in order to meet federal funding requirements. We understand that for certain changes, once the Record of Decision process is complete, GT will be able to reexamine and incorporate changes to the downtown Durham portion of the light rail transit line, but the dollar amount of federal funding will be "locked down." It is imperative that deficiencies in the plan as currently drawn be addressed so that the tremendous investment in Light Rail does not conflict with Durham's current and future land use transportation plans and community goals. We want to ensure that there is sufficient funding and a clear commitment to do so as final design documents are prepared.

The Durham Area Designers\*\*\* Attachment: Durham Area Designers DO LRT Downtown Section Comments.pdf  
GoTriangle: Durham Area Designers is committed to supporting the proposed Light Rail system between Durham and Chapel Hill, and commends GoTriangle (GT) on their continuing efforts to make this a reality. However, we have major concerns with the proposed light rail configuration through downtown Durham. The current GT staff-preferred alternative contemplates a stop on the west side of Alston Ave, a stop at the Durham Transit Center, and a Buchanan Boulevard stop that would be located well east of the street instead of immediately adjacent to Buchanan. We instead support a "preferred alternative" that modifies these stations to create an investment that is in keeping with Durham's long-term plans, social justice goals, and good urban planning principles.

Based on our understanding of the process as presented by GT, the agency must adhere to a strict schedule in order to meet Federal funding requirements, and because of these schedule constraints, GT does not have time prior to the release of the draft EIS to incorporate all of the changes to the proposed station locations that we believe are needed. We understand that for certain changes, once the Record of Decision process is complete, GT will be able to reexamine and incorporate changes to the downtown Durham portion of the light rail transit line. It is imperative that deficiencies in the plan as

currently drawn be addressed so that the tremendous investment in Light Rail does not conflict with Durham's current and future land use plans. We, therefore, request that GT make the following revisions to the alternative either prior to the adoption of the Final Environmental Impact Statement (FEIS) or, if they are able to be addressed during Final Design, once the Record of Decision is complete.

1. The Alston Avenue station should be located on the east side of Alston Avenue, as in all prior plans. While there are design challenges to the eastern location, with shifts in the alignment similar to those now proposed west of downtown, the proper design approach and commitment from GT, NCDOT and local elected officials, a solution that meets the needs of important neighborhoods and insures future viability of a more extensive transit system can be achieved. The long-underserved Durham neighborhoods east of Alston Avenue have for many years been led to believe that the station would be east of Alston and would serve as the gateway to their neighborhoods and provide a direct connection to Downtown and job centers at Duke and UNC. There is abundant opportunity for station-related economic development in this location, which would spark a renaissance of the neighborhoods. Locating the station on the west side of Alston Avenue results in a physical and psychological barrier that would be detrimental to East Durham. Stopping short of Alston Avenue cannot serve the Durham Housing Authority's "Choice Neighborhoods Initiative" at McDougald Terrace or show a path to serve Briggs Avenue/Durham Tech or the Driver Street Corridor – a key economic corridor in Durham's poverty initiative. Only light rail that crosses Alston Avenue in this initial phase has a realistic opportunity to fulfill the planned extension to Briggs Avenue/Durham Tech and towards the Research Triangle Park.
2. It is imperative that if light rail is to occur in Downtown Durham that a City Center Station be created adjacent to Mangum Street. A station at this central location embodies the principles of good urban design, and was the one common recommendation of all three DAD design teams that participated in the Fall 2014 light rail charrette. A city center station would be within a "short walk" (1/4 mile) of the current and future center of economic activity and key downtown destinations such as City Hall, the County Courthouse, the Durham Bulls Athletic Park, and the Durham Performing Arts Center, all of which are more than a quarter mile along the street grid from the Dillard/Fayetteville or Durham Transit Center stations. Other key community destinations, such as the Durham Public Schools headquarters, the main library and the YMCA, are at the edge of a quarter mile walk from a City Center station, but are several hundred feet farther away from the Dillard/Fayetteville or Transit Center stops. An opportunity would be missed to align the light rail system with the geographic and symbolic heart of downtown Durham. This location is the epicenter of Downtown and is the focus of current and future development activities. Without a center city station, the GT would be ignoring Durham's long held plans for creating a dense walkable downtown, and would subdivide the center of development to the east and west. In short, it would miss the mark. Further, this location provides effortless access for visitors to DPAC and the Government Center District and would create a highly visible gateway, unlike the proposed location at the bus station, which is far from the center and far from walkable. It has been argued that a station at this location would be too close to the latest proposed location at Durham Transit Station, which is why we would propose to move that station back where it has been proposed for years, as described below.
3. The Transit Center Station should be moved back to Duke Street on the the property already owned by GoTriangle, as it serves as a critical gateway to the Durham Innovation District and the bustling West Main Street Neighborhood. This property also has opportunity for development of retail and other commercial spaces on land already owned by GT. Its adjacency to the Amtrak, bus and future Commuter Rail Station will facilitate intermodal transfers. We have done a series of scaled drawings for this proposal which we are happy to share.
4. The Buchanan Station should be moved adjacent to Buchanan Boulevard to serve as an effective gateway to Duke's East Campus, Trinity Park and the resurgent Burch Avenue and West Chapel Hill Street neighborhoods. It is important that the station be a visible and inviting gateway that links to neighborhoods to the north and south along Buchanan, overcoming the barriers of the Durham Freeway overpass to the south and the wide NCRR corridor to the north. A station immediately adjacent to Buchanan would encourage ridership and pedestrian access. The current proposed location is isolated from pedestrians from the surrounding neighborhoods, which would seriously diminish the opportunity to encourage walking to the station. There also is a



tremendous opportunity to incorporate the existing Duke Warehouse Building into the station design and preserve as much of the site for transit-oriented development as possible. Our proposed changes work together to strengthen a system that aligns with Durham's long-held plans for its future, promotes ridership by providing more visible and accessible transit stations that meet the needs of existing neighborhoods, and will serve the region as it grows. We want to ensure that even if some of the above revisions are not incorporated prior to the Record of Decision that there is a clear commitment to do so as final design documents are prepared. The Durham Area Designers: Durham Mayor and City Council, GoTriangle Board, Durham-Chapel Hill-Carrboro MPO Board

*Comment Responses*

*DEIS/Errata References*

*The Durham Station serves the American Tobacco area and the revised station location is closer to the DPAC, DBAP, and other attractions. The Durham and Dillard Stations are approximately three-quarters of a mile apart; as such, any new station between those two stations would draw from half-mile walk-sheds already directly served by the line. Therefore, it is difficult to justify additional cost and operational compromises and add a station at this location. The addition of station locations and other refinements in the Project's design may be evaluated during the Engineering Phase of the project, which is slated for 2016-2019. As a result of ongoing coordination with both North Carolina Railroad (NCR) and the City of Durham and comments received, the alignment through downtown Durham was revised. These changes included converting a portion of Pettigrew Street to a one-way street and removing the grade separations at Blackwell and Mangum Streets (the Great Wall of Durham). In addition, the proposed Durham Station shifted to the east of Chapel Hill Street, as a result of coordination with the NCR as described in DEIS chapter 2. Triangle Transit held numerous outreach meetings with the communities in downtown to gather their input on the proposed alignment and station location. See DEIS section 9.3.6 and section 5.3, for more information. As noted in DEIS chapter 3, the Durham Station is proposed to be located near the Durham Transit Station, a multi-modal transportation facility for local and regional bus service and intercity buses (e.g., Greyhound, Megabus). This is also near the Durham Amtrak station, which is located within the NCR Corridor along West Main Street (Section 3.4.2.2). Major production stations (where people would board the light rail in the morning and return in the afternoon/evening) would include Alston, Leigh Village, Friday Center, and Durham Stations, with the largest number of boardings in the morning peak period (Table 3.1-4) (section 3.1.3.1). During the development of the DEIS, in response to comments received, Triangle Transit evaluated the feasibility of an additional station at DPAC. Preliminary cost estimates for the Project indicate that the capital cost of a typical at-grade station is approximately \$1.6 million. The addition of a station at DPAC would be associated with approximately \$150,000 per year in additional operating and maintenance costs. Widening the tracks to accommodate a station platform between Blackwell and Mangum Streets would also require the negotiation and approval of an additional property lease with NCR beyond what is expected to be required for current alignment and may have an impact on the Old Bull Building which is a National Historic Landmark. Preliminary ridership model output based on an earlier iteration of the Pettigrew Street alignment indicated that the addition of a station at DPAC would not result in significant ridership gains. Increases in costs that are not offset by increases in ridership*

DEIS chapter 2  
 DEIS chapter 3  
 DEIS section 2.3.2.2  
 DEIS section 3.1.3.1  
 DEIS section 3.4.2.2  
 DEIS section 5.3  
 DEIS Table 3.1-4  
 DEIS Table 5.3-1

could result in a reduction in the project’s FTA Cost Effectiveness rating. Operational concerns of adding a station between Blackwell and Mangum Streets include increases in overall run time (more than a minute) which would result in decreases in schedule recovery time and additional operating and maintenance costs.

The preliminary design of the Buchanan Boulevard Station will be refined during the subsequent phase of Engineering. Benefits and concerns with different alignment and station placement concepts will be evaluated at that time. One consideration is safety for people crossing the tracks at Buchanan Boulevard. From a safety perspective, it is most desirable for atgrade crossings to be as narrow as possible; in other words, it is safest if the LRT tracks are as close to 14’ apart as possible at the crossing rather than widened out to accommodate an adjacent center platform. A narrow crossing design minimizes the risk of people standing or being stuck between trains as they pass, and the risks posed by a wider crossing will be evaluated as the design is refined. The additional cost for side platforms will also be considered in the context of other factors influencing the design process.

In the Alternatives Analysis, the proposed location for the Alston Avenue terminus station was just east of Alston Avenue. Triangle Transit determined that a station on the east side of Alston Avenue is infeasible due to the required 40-foot spacing between the light rail track and nearest future railroad track and space constraints imposed by the Pettigrew Street bridge over Alston Avenue, and the City of Durham water tower east of Alston Avenue. Therefore, the proposed location for the Alston Avenue Station was moved to just west of Alston Avenue approximately 1,200 feet from the location described in the AA. On May 21, 2015, the NCR Board of Directors agreed to permit NCR management to enter into lease negotiations with Triangle Transit based on this refined alignment (section 2.3.2.2). As further detailed in DEIS Table 5.3-1, the proposed Alston Avenue Station was relocated to the west side of Alston Avenue, as a result of coordination with the NCR as described in DEIS chapter 2. Revisions were due to NCR’s horizontal track clearance requirements and constraints in relocating Pettigrew Street east of Alston Avenue. Triangle Transit held numerous outreach meetings with the communities in downtown and east Durham to gather their input on the proposed alignment and station locations. See DEIS section 9.3.6 for more information. A conceptual alignment east of Alston Avenue, south of the NCR Corridor, and adjacent to NC 147 was evaluated. This concept was determined to be technically infeasible, primarily due to constraints associated with the NCDOT right-of-way for NC 147, City of Durham historic water tower, and NCDOT’s Alston Avenue widening project. Based on the results of preliminary engineering analysis of conceptual stations and alignments east of Alston Avenue, there are no reasonable, feasible station alternatives east of Alston Ave., primarily due to the constraints created by the North Carolina Railroad (NCR) right-of-way, the North Carolina Department of Transportation (NCDOT) right-of-way and roadway facilities, and the City of Durham Water Tower infrastructure.

First Name	Last Name	Comment
Hope	Wilder	I am in support of the light rail project and really excited about the options of going to Chapel Hill from Durham car-free and more

conveniently than by bus. Is there still an option to locate the Alston terminus station further to the east of Alston Ave? Many residents in my neighborhood are car-free and walking blocks to get to bus stops. Alston Ave is a major thoroughfare, and unpleasant to walk on with poor sidewalks and narrow underpasses at the train tracks that are very hazardous. Bringing a station closer to the Angier/ Driver intersection would help to boost business and residential commuter activity in the newly revitalized streetscape at Driver St. It is also a more pedestrian and bicycle friendly transit point than the extremely high traffic highway 55 at 147 of Alston Ave. It would also be convenient to the Durham Green Flea Market on Pettigrew. Thank you and I can't wait to have a light rail option.

### *Comment Responses*

### *DEIS/Errata References*

*Sidewalks, crosswalks, curb ramps, and other pedestrian infrastructure that the light rail alignment would impact would be rebuilt or enhanced as depicted in the Basis for Engineering Design (appendix L). Examples of enhancements that would be anticipated as part of project-related roadway reconstruction include installing wider replacement sidewalks along some segments, and installing new sidewalks where there are currently gaps. During Engineering, Triangle Transit will work with the City of Durham, Town of Chapel Hill and NCDOT, the Durham Bicycle and Pedestrian Advisory Commission, the Chapel Hill Transportation and Connectivity Board, and representatives from station area neighborhoods to identify ways to improve pedestrian and bicycle connections to stations.*

DEIS chapter 2  
DEIS section 2.3.2.2  
DEIS Table 5.3-1  
DEIS appendix L

*In the Alternatives Analysis, the proposed location for the Alston Avenue terminus station was just east of Alston Avenue. Triangle Transit determined that a station on the east side of Alston Avenue is infeasible due to the required 40-foot spacing between the light rail track and nearest future railroad track and space constraints imposed by the Pettigrew Street bridge over Alston Avenue, and the City of Durham water tower east of Alston Avenue. Therefore, the proposed location for the Alston Avenue Station was moved to just west of Alston Avenue approximately 1,200 feet from the location described in the AA. On May 21, 2015, the NCR Board of Directors agreed to permit NCR management to enter into lease negotiations with Triangle Transit based on this refined alignment (section 2.3.2.2). As further detailed in DEIS Table 5.3-1, the proposed Alston Avenue Station was relocated to the west side of Alston Avenue, as a result of coordination with the NCR as described in DEIS chapter 2. Revisions were due to NCR's horizontal track clearance requirements and constraints in relocating Pettigrew Street east of Alston Avenue. Triangle Transit held numerous outreach meetings with the communities in downtown and east Durham to gather their input on the proposed alignment and station locations. See DEIS section 9.3.6 for more information. A conceptual alignment east of Alston Avenue, south of the NCR Corridor, and adjacent to NC 147 was evaluated. This concept was determined to be technically infeasible, primarily due to constraints associated with the NCDOT right-of-way for NC 147, City of Durham historic water tower, and NCDOT's Alston Avenue widening project. Based on the results of preliminary engineering analysis of conceptual stations and alignments east of Alston Avenue, there are no reasonable, feasible station alternatives east of Alston Ave., primarily due to the constraints created by the North Carolina Railroad (NCR) right-of-way, the North Carolina Department of Transportation (NCDOT) right-of-way and roadway facilities, and the City of Durham Water Tower infrastructure. The*

*extension is not part of the scope of proposed D-O LRT Project. Future extensions are not precluded and, if studied, would be analyzed in a separate NEPA process (section 9.2.5).*

*Prior to revenue service Triangle Transit will work with service planning staff from CHT, DATA, and Duke Transit to develop and implement a plan to integrate bus and rail service within the D-O Corridor. As part of the process the transit providers will engage the public and complete a Transit Service and Fare Equity Analysis. The combined FEIS/ROD will reflect that the alignment of the NEPA Preferred Alternative would not preclude future extensions, however extensions are not a part of this project*

First Name	Last Name	Comment
Hardy	Williams	I think the D-O LRT Project should move. or go forward now. even if it not ready for this generation, it will be in place for future generations: who knows what the exact figure of the Triangle population will be in the future years? and D-O LRT Maintenance Project, it should be built in East Durham, near, or in the area of Ellas Road and Briggs. Ave, Or Plum Street.

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Through the Alternatives Analysis process, a number of corridors through the Triangle were analyzed, evaluated, and subsequently, the best performing corridor was identified to be advanced to the DEIS phase. This corridor was determined to be from UNC Hospitals to Alston Avenue. As a result, the Rail Operation and Maintenance Facility (ROMF) locations evaluated were located between these two areas. The construction of a ROMF further towards Briggs Avenue or Ellis Road would add additional cost, deadhead track, and potential additional environmental impacts without providing any extra service to riders of the system. Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. Although the Alston Avenue ROMF alternative would not require rezoning, it would introduce several risks to both the project schedule and budget, associated with the potential of regulated materials remediation and relocation of businesses. It also has the potential to result in net loss of employment within the D-O Corridor if the existing businesses that would be displaced could not be relocated within the D-O Corridor. This alternative has the highest capital cost of all of the alternatives considered in this DEIS (section 8.2.2.2).*

DEIS section 8.2.2  
 DEIS section 8.2.2.2  
 FEIS/ROD section 1.4  
 FEIS/ROD Table FEIS-2

First Name	Last Name	Comment
Dottie	Williford	From Dottie williford [removed and address]----- I would like to know exactly with a map and plans how the bridge on Fearington rd that crosses I-40 will be altered ---- I know it has to be raised and widened to accommodate the rail but what exactly will the plan be and the specific and exact dimensions and revisions will be made to raise it widen it and how will it effect both front and back end(

beside my house)Dottie Williford[removed address, phone number, email and personal identifying information]

Comment Responses

DEIS/Errata References

*As the the project progresses into Final Design, specifics about how the bridge will be altered will be determined. Triangle Transit will continue to coordinate with the public throughout the development of the project.*

DEIS appendix L

*The preliminary bridge plans are shown on the Basis for Engineering Design, located in DEIS appendix L.*

First Name	Last Name	Comment
Dottie	Williford	Also I want to know [removed name and address] I would also like to know exactly the amount of space on the rail side of I-40 also taken to buffer the rail from the highway and what exactly are the plans that I have a map you sent me on my side the other side of I-40 from the rail to quote from your map that you sent me " 44 feet from I-40 travel lane to near track centerline which allows for widening for additional traffic lane on I-40 beside me and trenton and Prescott place ---- what exactly dose that mean how much more of our property are you planning to infringe around --- from map plan and profile segment D sheet D-01 and d-03[removed name, address, phone number, email, and personal identifying information]

Comment Responses

DEIS/Errata References

*For specific property impacts, the Basis for Engineering Design found in the DEIS appendix L shows potential impacts based on project alternatives. Additionally, an interactive map that can be zoomed in and display distances can be found: [http://ourtransitfuture.com/interactive\\_dolrt\\_map/](http://ourtransitfuture.com/interactive_dolrt_map/)*

DEIS appendix L

*44 feet from the travel lane of I-40 is to ensure the Durham Orange Light Rail Project is consistent with future NCDOT projects. The widening of I-40 would be undertaken by the North Carolina Department of Transportation and would be considered under a project separate from that of the Durham-Orange Light Rail. Mitigative measures such as buffers would be determined at that time. Additionally, as shown on the Basis For Engineering Design (DEIS appendix L), the Durham-Orange Light Rail Project is located on the western side of I-40, direct impacts are not anticipated for properties and neighborhoods on the eastern side.*

First Name	Last Name	Comment
Dottie	Williford	Hi Natalie I think I asked you earlier to send me the nameand contact of the person or persons in control of determining what property's and home get bought that arein the line of fire and are adversely affected and ruined by the chaos you are creating in our neighborhoods bythis horrible lite rail –your colleague told me last night that there was no such person however one of thespeakers last night at Friday center who lives on George king road said that his house had already beenproposed to be purchased ---- so as usual I am getting wrong or conflicting information about these issues – Iknow they will most likely say no but I want that person in my yard looking at that bridge and the site of themaintenance center and the site where the rail runs down 40



and the feet away from my house that may widen 40 to make a new lane and tell me to my face that I am not adversely affected – that my property value will rise not drop and that I will not be visually impacted or disturbed and ruined by this project. Also I want to know [removed name and address] I would also like to know exactly the amount of space on the rail side of I-40 also taken to buffer the rail from the highway and what exactly are the plans that I have a map you sent me on my side the other side of I-40 from the rail to quote from your map that you sent me “ 44 feet from I-40 travel lane to near track centerline which allows for widening for additional traffic lane on I-40 beside me and Trenton and Prescott place ---- what exactly does that mean how much more of our property are you planning to infringe around --- from map plan and profile segment D sheet D-01 and D-03

*Comment Responses*

*DEIS/Errata References*

*In order to construct, operate, and maintain the proposed D-O LRT Project, it will be necessary for Triangle Transit to acquire private property. When property is selected to be acquired, all other alternatives will have been considered. That property will have been determined to be the best location for the D-O LRT Project to serve the public. As a result, some citizens may be displaced from their homes or businesses. The determination of which properties will be acquired will be determined by a team of engineering, planning, and environmental professionals. During engineering, Triangle Transit will work with identified property owners on acquisition. Local, state, and federal regulations and laws govern the acquisition of private property for public use. These laws ensure that owners of property acquired for public projects are treated fairly and consistently. They are designed to encourage and expedite acquisition by agreements with property owners, to minimize litigation and relieve congestion in the courts, and to promote public confidence in land acquisition programs designed to benefit the public as a whole. See DEIS section 4.14 for more information. The Basis for Engineering Design (Appendix L) shows typical sections of how the rail would interact with various roadways, including I-40. With 44 feet of buffer between the rail to allow for additional widening and an approximately 12-15 travel lane, the expected buffer in this vicinity would be approximately 29-32 feet. Future lane widening along I-40 would be conducted as part of a separate NCDOT project and potential impacts to the non-rail side of I-40 would be determined at such a time.*

DEIS section 4.4.4.1  
DEIS appendix L  
FEIS/ROD section 1.4  
FEIS/ROD Table ROD-1  
DEIS Errata 78

*Section 4.4.4.1 states that for visual impacts Triangle Transit will use interdisciplinary design teams to create aesthetics guidelines and standards in the design of project elements and provide landscaping and aesthetic treatments within close proximity to residences. As clarified in section 1.4 of the combined FEIS/ROD, DEIS Errata 78, visual and aesthetic impacts associated with the Farrington Road ROMF will be mitigated through coordination with the surrounding landowners and the City of Durham during Engineering. Potential treatments include landscaping, architectural treatments, visual barriers, and building height maximums. This and all other mitigation requirements are outlined in the Record of Decision (ROD), Table ROD-1.*

*Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile*

of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail. More information can be found at <https://www.stlouisfed.org/publications/bridges/winter-20032004/lightrail-transit-myths-and-realities> and at <http://uli.org/infrastructure-initiative/uli-research-roundup-the-impact-of-transit-on-property-values/>. A study published in the Journal of Transport and Land Use found an overall positive impact on the value of single-family homes along Charlotte first light rail line; see <https://www.jtlu.org/index.php/jtlu/article/download/261/242>.

First Name	Last Name	Comment
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<b>Dottie</b>	<b>Williford</b>	<p>If I had the money to sound proof my windows and I do not have that many window 7 I think and glass in and sound proof my screen porch less that 200 feet( of course I would have to tile the concrete floor and add a small vent less air conditioner to be useable I would leave you all alone and just deal with it ----- especially if there was also a big brick wall at my grade level on my side of I-40 tall enough to block the lights from the maintenance center – regards Dottie willifordHi Jeffery , thank you for speaking with me today so in order of importance tome personally at [removed address] ( my house) 1) I would like to see a map and drawing and statistics and details exactly what will happen about the bridge on Fearington rd crosses over I-40 that is almost in my backyard literally ----and the end of the maintenance bld where it ends at the corner of the land almost touching that bridge ---and how much I-40 highway on either side may be widened to accommodate a new lane on I-40 bucked up to my back yard -----2) 4.5 acres on George king road [removed address] home and horse stable and pastures directly behind culp arbor last house owned by Betty jean Gorman and Lynne gorman -----3) betty Gorman’s church Aldersgate united Methodist church [removed address] how will the rail impact them and how close and exactly where and how the service rd will be altered ---what exact spot dose the rail cross over 15-501 BLVD near st thomas Moore school and church to head off behind Glenwood school----- where exactly is leigh station in relation to George king rd and celeste circle in Durham -----last but not least my sisters house at [removed address] ---how does it impact her house the woodmont at grade station will the three houses that face stencil rd and back up to [removed address] will they be torn down ? what sort of barrier will she have from this at grade station and where do people park to get to woodmont station -----how exactly dose the zoning for the rail and maintenance center effect future development on top of our neighborhoods culp arbor –glen view park Prescott place and Trenton and the other various houses down Fearington rd ?----- also if this monstrosity dose go as planned is there a way to buy out my duplex for an amount that I can replace what I have or at least compensate memonetary the cost to triple Payne my windows to sound proof and glass in my screen porch with sound proof windows and door -----and last if this happens could you at least consider building a high brick fence on both sides of I -40 the length it travels down I -40 ---- also if you took my house you would have more room to widen your bridge and lift it up and safeguard my neighborhood glen view park with landscaping or fence or both from the bridge I am sure the person who owns the other side of my duplex would sell he lives in charlotte and rents to a nice couple who could just leave when the ruckus of building begins ---whooo so that’s it for now in a nutshell my main concerns and interests --- regards Dottie williford</p>
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*Interactive maps can be found at: [http://ourtransitfuture.com/interactive\\_dolrt\\_map/](http://ourtransitfuture.com/interactive_dolrt_map/)Alternatively, the Basis for Engineering Design can be found in DEIS appendix L.*

DEIS section 4.1.4.1  
DEIS section 4.10.4  
DEIS section 8.2.2.1  
DEIS appendix L

*In order to construct, operate, and maintain the proposed D-O LRT Project, it will be necessary for Triangle Transit to acquire private property. When property is selected to be acquired, all other alternatives will have been considered. That property will have been determined to be the best location for the D-O LRT Project to serve the public. As a result, some citizens may be displaced from their homes or businesses. Local, state, and federal regulations and laws govern the acquisition of private property for public use. These laws ensure that owners of property acquired for public projects are treated fairly and consistently. They are designed to encourage and expedite acquisition by agreements with property owners, to minimize litigation and relieve congestion in the courts, and to promote public confidence in land acquisition programs designed to benefit the public as a whole. See DEIS section 4.14.*

*Please see DEIS Chapter 4.10 Noise and Vibration, for more information about noise including potential mitigation measures. As stated in DEIS section 4.10.4, none of the ROMF sites would result in noise or vibration impacts. As stated in DEIS section 4.10.4, According to the FTA Noise and Vibration Guidance Manual, mitigation for noise impacts should be considered if the project falls within an "impact" range and should be implemented if the project would result in a severe impact. Table 4.10-13 identifies proposed mitigation measures for the NEPA Preferred Alternative and the Project Element Alternatives. Sites 2, 7, and 8 (Odum Village) are part of a larger redevelopment area sponsored by UNC. The remaining residential buildings that would be impacted, depending upon the selected alternative, are within the right-of-way for the project elements and would be acquired as part of the project. Triangle Transit will coordinate design and policies related to audible warning devices with NCDOT and local jurisdictions in accordance with applicable regulations, guidance, municipal policies, and best management practices.*

*Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. DEIS section 4.1 describes land use and land use policy in the D-O Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic*

*growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments. As stated in DEIS section 4.1.4.1 and 8.2.2.1, construction of the ROMF at the Farrington Road site will require land use entitlements including a comprehensive plan amendment and rezoning. It is expected that the City and/or County of Durham will place conditions on the approvals that appropriate mitigation measures are included in the design, including strategies to complement the surrounding context such as use of architectural styles and/or landscape design. During Engineering, Triangle Transit will continue to coordinate with property owners and residents near the site to develop and refine these strategies. The public will also have the opportunity to comment on the design through a public hearing as part of the City and/or County approval process.*

First Name	Last Name	Comment
Dottie	Williford	<p>From Dottie williford durham nc 27707----- some of the land that you may take imminent domain appears to belong to an entire family including a 93 year old woman who grandfather worked his fingers to the bone as an freed slave to buy the property with his hard earned money and His extended family has lived there all these years--- there are relics in the yard from where it was an old working farm ---why is that not considered a protected historic site like Patterson mill and how can you justify ruining a family's land with a history such as that ? why would lite rail even consider that as an option unless you are making their whole family multi-millionaires ----who decides when and where houses are taken and whosehouse is worth paying for because of negative impact ???My message was kicked back from Natalie Murdock apparently she has blocked my emails or is no longer receiving emails herselfFrom: Dottie WillifordSent: Thursday, October 01, 2015 9:41 AMTo: 'Natalie Murdock'; 'info@ourtransitfuture.com'Subject: lite rail ROMFFrom Dottie williford ----- some of the land that you may take imminentdomain appears to belong to an entire family including a 93 year old woman who grandfather worked his fingers to the bone as an freed slave to buy the property with his hard earned money and His extended family has lived there all these years--- there are relics in the yard from where it was an old working farm ---why is that not considered a protected historic site like Patterson mill and how can you justify ruining a family's land with a history such as that ? why would lite rail even consider that as an option unless you are making their whole family multi-millionaires ----who decides when and where houses are taken and whosehouse is worth paying for because of negative impact ???</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Any relocation of a displaced use would also be conducted in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 C.F.R. 24). Ample notice would be given to those being relocated to allow for any planning contingencies that may arise. In accordance with Title VI of the Civil Rights Act of 1964, Triangle Transit would provide relocation advisory assistance to all eligible persons without discrimination.*

DEIS section 4.5  
DEIS appendix G

*DEIS section 4.5 describes the potential effects of the D-O LRT Project on historic and archaeological*

resources. The Patterson’s Mill Store, which was erected in 1972-1973 and located to the north, along with a few outbuildings, was found in 2015 not to be National Register of Historic Places (NRHP)-eligible, either individually or in association with the store. Appendix G of the DEIS provides additional detail regarding the determination of eligibility for historic resources.

First Name	Last Name	Comment
Will	Wilson	<p>I’ve never been a fan of the route that’s been put in front of us. There are so many turns and atgrade road crossings that I can’t debate, but, from a broader perspective, GoTransit hasn’t provided good reasons why the route can’t more closely follow the medians of the major highways. There’s also an alternative plan that follows I40, 55, and 147 (bit.ly/1Uk3XOx) with the same major downtown and university stations with equivalent transit times, higher speeds, fewer crossings, closer to neighborhoods already dependent on mass transit, and serving Southpoint. With a turn at I40 and 55, it more easily connects to the airport and Raleigh, providing direct routes from both Chapel Hill and Durham. GoTransit has too casually dismissed this option as an initial LRT route. Maybe we need regulatory changes? GoTransit has not shown how the proposed route fits within the context of a comprehensive mass transit system. I’ve never seen this route within a builtout LRT system. This line doesn’t take us to the airport; but will the first extension? If so, where does it connect to this route? Just as only rail can feed large employment centers, only an excellent bus system can bring lots of people to LRT stations. No system does this better than Calgary. I’m intrigued by batterypowered electric buses: several existing models cost less than \$1 million and have 150200 mile ranges per charge. Their batteries store up to 400kWh of energy, which 8,000 square feet of solar panels could provide for an investment of \$200,000. Assuming \$2 million dollars per bus, a billion dollars would buy at least 500 electric buses and 90 acres of solar panels for emissionsfree transit power for Durham and Chapel Hill. Five hundred buses would greatly expand the two cities combined present total of about 200 buses. We need railbased transit, it’s not too expensive, but we have to get it right. A rail transit system spends a lot of money on unmovable cement and steel, and we need to be absolutely certain of its future growth and adaptability. This first route needs to fit with the next route, and work with an efficient bus system. Does this plan do that? GoTransit hasn’t convincedme.</p>

Comment Responses	DEIS/Errata References
<p><i>The Durham-Orange Corridor was identified as part of a larger 51-mile system across Durham, Orange, and Wake Counties. As summarized in DEIS section 2.2.1, various transit technologies and route alternatives were previously studied and evaluated in an extensive public process called the “Alternatives Analysis.” Technologies considered during the Alternatives Analysis included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. In addition, a number of potential corridors were identified, studied, and ultimately, the current route was selected and adopted by local planning organizations. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available at <a href="http://ourtransitfuture.com/do_alternatives_analysis/A">http://ourtransitfuture.com/do_alternatives_analysis/A</a> conceptual alignment following NC 54, I-40, NC 55, the CSX Corridor, and the NCR Corridor was evaluated. It is not within the D-O Corridor, does not meet the Purpose and Need of the proposed D-O LRT Project, and was not carried forward for detailed study.</i></p>	<p>DEIS section 1.5.1.2 DEIS section 2.2.1 DEIS section 3.2</p>



*Bus routes that currently service the D-O LRT Corridor alone carry an average of 9,700 passengers every weekday. Overall, Chapel Hill Transit, GoDurham, and Triangle Transit's services within Durham and Orange Counties carry 71,300 passengers per weekday. Transit ridership in Durham and Orange Counties has grown over the last few years, and is projected to grow in the future as the communities encourage the growth of walkable, pedestrian-friendly communities and the universities continue to grow and encourage transit use to their campuses by restricting parking. As noted in the Executive Summary (ES-5), the region's existing transit network is currently operating at close to maximum capacity including 84 buses per hour servicing UNC Hospitals and 46 buses per hour servicing Duke University and Durham Veterans Affairs (VA) Medical Centers. As further detailed in DEIS section 1.5.1.2 of the Purpose and Need, this combination of bus routes that currently serve the D-O Corridor and provide a high level of transit service (Figure 1.5-2). However, there are portions of the corridor within Chapel Hill and between Duke and downtown Durham where, due to congestion, adding additional buses will not improve service, as discussed further in DEIS section 3.2.*

First Name	Last Name	Comment
Rhonda	Woodell	<p><b>**Please do not include my email address**</b>To whom it may concern:I am against the current plan of the Go Triangle Light Rail System. I have concerns about the funding as well as the location of the repair station.1. Funding At the few meetings that I have attended, Go Triangle representatives made it known that ridership would not be able to cover the costs of the light rail. I am wondering how much my taxes will increase to cover the costs? Durham has already voted once to increase taxes to cover the costs. I am not in favor of increasing these again. Secondly, what happens if the state doesn't cover the 25% they are supposed to? Will this portion fall to Durham &amp; Orange counties? Again, I am not in favor of increasing taxes.2. Location of the Repair station I live a block from the proposed light rail repair station. Currently this is zoned rural. I think it is horrible that Durham is even considering clearing this wooded area and putting up a three story building. Where is the runoff going to go? Farrington Road is like a hidden gem in Durham. You can quickly get to shopping areas and restaurants, but you still have the farmland and woods that has a quaint feel to it. This is going to take away that quaint feel that people long for. I also have concerns about safety. My daughter just started at Creekside elementary school that will also be a block away. I am positive that you will have some kind of acids, caustics or solvents to use for the upkeep of these trains. What would happen if there was a severe accident, explosion or fire? Creekside Elementary school is the second largest elementary school in Durham. If you had to evacuate the school, what is the plan to move almost 1000 young students? Does GoTriangle and Durham County Public Schools have a plan for this situation? I believe Farrington Road was selected because it is the cheapest solution, not the best solution. There has to be other options. I understand the need for planning for the future and growth, but I think it needs to be done correctly. I do not believe GoTriangle did all their homework on this one. This email was sent from a contact form on Our Transit Future (<a href="http://ourtransitfuture.com">http://ourtransitfuture.com</a>)</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined*

DEIS section 2.2.3  
 DEIS section 4.8.3.1  
 DEIS section 4.11.3

*FEIS/ROD, Table FEIS-2, DEIS Errata #22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

DEIS section 4.12.4  
DEIS section 8.2.2  
DEIS section 8.2.2.1  
FEIS/ROD section 1.2.2  
FEIS/ROD section 1.4  
FEIS/ROD Table FEIS-2  
DEIS Errata 21, 22, 52, 70, 76,  
78, 93, 94, 95 103, 104, 110,  
119 121 and 137

*The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 21 clarifies DEIS section 2.2.3 to note that the ROMF will not include a LRT body repair and paint shop. These functions would be performed off site as needed. Section 1.4 of the combined FEIS/ROD, DEIS Errata 95 clarifies that maintenance operations at the ROMF would not contaminate private wells as any chemicals used at the ROMF would be collected and disposed in the manner required by law; and opportunities for green building design and low-impact development design will be reviewed during Engineering. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As further noted in section 1.4 of the combined FEIS/ROD, DEIS Errata 94 adds clarification to explain that all fluids (e.g., oils, greases, solvents and other waste materials) used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. As noted in DEIS section 4.11.3, all regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures in close coordination with law enforcement, emergency and medical personnel, and other public agencies. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. Section 1.4 of the combined FEIS/ROD, DEIS Errata 110 adds language to clarify that the SEPP will include an evacuation plan for the ROMF. The*

SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.

First Name	Last Name	Comment
Lucy	Woodell	<p>The D-O LRT project has been a tremendous stretch, at best, to provide the kind of service to the people group that it has been advertised to reach. The communication and feedback on this project has been awful, and that is being extremely kind. You ask a question, get no answer, told you will but it never comes. The data that has been provided to promote the light rail project is flawed and downright incorrect. I would strongly suggest that whoever is supposed to approve this project needs to look very closely at how GoTriangle arrived at some of its ridiculous numbers such as the 23,000 people that are supposed to be riding buses in the Chapel Hill/Durham area on a daily basis. The traffic on Farrington Road where the rail will come and the ROMF that is planned is absolutely the worst possible site they could have selected. It is a rural, two-lane road with small family/residential neighborhoods, an elementary school with approximately 950 children (K-5) and an over 55 retirement community. The latter of these groups moved here for the beauty of rural area, the tranquility and what the area offers for retirees. Imagine their disappointment over hearing of a three story monster to be right in their view and told it will be hidden with trees (Redwoods don't grow well here). The lights, noise from added traffic, at grade crossing to get into the ROMF with frequent dinging sounds 24/7, etc. are not what people in Culp Arbor signed up for. I might mention that only half of the development has been completed and the remainder is to be completed soon which will extend down Farrington Road right in front of this ROMF. Can you imagine how this will devalue their property along with it being uncertain if the remainder of the houses, when completed, will ever be sold? These retired folks and an elementary school would be two of the worst people groups to evacuate if anything happened to the rail or at the ROMF. Right now, I am told there is no evacuation plan because nothing will happen to warrant that. GoTriangle knows that now? I recommend using the funds for BRT (Bus Rapid Transit) which makes more sense, is easier to change as areas grow and expand, is faster than light rail and will not ruin the beauty of the area. As happened in Charlotte, after the project was completed, the cost was twice what it was advertised and it will be the same here. It makes no sense to spend this money on these 17 miles of rail to nowhere. Also think about the ridership in Charlotte over the past 7-8 years – ridership has decreased, not increased but the cost to support it continues. Please think about this and check out the numbers you have been given by GoTriangle very carefully, challenge them and see what you find out.</p>

<i>Comment Responses</i>	<i>DEIS/Errata References</i>
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*As stated in Triangle Transit's Request to Enter the New Starts Program Project Development Phase for the proposed Durham-Orange Light Rail Transit Project: "Within the D-O Corridor, transit use already rivals larger municipalities. For example, when Chapel Hill Transit, Durham Area Transit Authority, Duke University Transit, and Triangle Transit riders are counted together, approximately 70,000 transit trips occur every weekday within and between Chapel Hill and Durham. This level of ridership is comparable to the roughly 73,000 daily transit trips taken in Charlotte in 2006, the year before the LYNX Blue Line Light Rail Transit Line opened." Since Charlotte opened the Blue Line in 2007, Charlotte has continued to expand its rail transit system. In 2015 it opened the Gold Line (streetcar) and is currently in the process of constructing Blue Line Extension (LRT). The link below includes documentation on the Triangle Regional Model (TRM) V5 as it was deployed for the 2040 Metropolitan Transportation Plan (MTP) by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO). <https://sites.google.com/a/ncsu.edu/dchc-mpo/home/trm-v5->*

DEIS section 2.2.1  
 DEIS section 3.1  
 DEIS section 4.8.3.1  
 DEIS section 4.12.4  
 DEIS appendix K2  
 DEIS Errata 63

**D-O LRT FEIS / ROD**

*data*This model serves as the basis for the travel demand modeling performed for the DEIS as explained in DEIS section 3.1, Public Transportation, and DEIS appendix K2, Travel Demand Methodology and Results Report.

The proposed D-O LRT Project would include a ROMF where light rail vehicles would be stored and maintained. This facility would have the indirect effect of generating regulated materials associated because of maintenance activities. These materials would include oils, greases, solvents, and other waste materials. While the light rail vehicles, as noted in DEIS section 4.8.3.1, do not operate on gasoline or oils that could spill and contaminate the groundwater through the operation of the light rail, as noted above, regulated materials would be generated from maintenance activities at the ROMF. As such, all regulated materials, including fluids (e.g., oils, greases, solvents and other waste materials), used at the ROMF will be captured and stored in tanks, where they will be periodically collected by an outside vendor for off-site recycling or disposal. All regulated materials will be disposed of in accordance with state and local guidelines and no substantial indirect impacts are anticipated. As noted in DEIS section 4.12.4, before revenue service begins, the D-O LRT Project Team will develop transit system safety management procedures. This safety program will be documented in the System Safety Program Plan (SSPP), a plan to guide system risk management and a core aspect of the State Safety Oversight program. System security management during revenue service will be guided by the Safety and Emergency Preparedness Plan (SEPP), which will be developed prior to the opening of revenue service. The SEPP is a plan to guide system security risk management and will include the Farrington ROMF. The SEPP will include an evacuation plan for the ROMF. The SEPP likely will not include an area-wide evacuation plan, since there will not be on-site storage of fuel or storage of large quantities of hazardous materials.

Many communities across the country are implementing or extending light rail transit systems because of the long term value and opportunities which they bring to businesses, home owners, and people of all generations living, working, learning, and traveling along light rail corridors. Studies of light rail projects around the country have shown a positive impact on properties within 1/4 to 1 mile of a station, closest to the improved transportation service. Nationwide, in a synthesis of 12 studies around the country, residential property value premiums of 3%-40% were observed in rail station areas. In Charlotte, a study of single-family home prices indicated increased value of properties close to light rail stations relative to properties farther from stations after opening of the LYNX Blue Line light rail. This information is clarified in DEIS Errata #63. Triangle Transit has looked at several studies regarding property values nationwide. Our summaries for those issues can be found at [ourtransitfuture.com/faq](http://ourtransitfuture.com/faq). More information can be found at <https://www.stlouisfed.org/publications/bridges/winter-20032004/lightrail-transit-myths-and-realities> and at <http://uli.org/infrastructure-initiative/uli-research-roundup-the-impact-of-transit-on-property-values/>. A study published in the Journal of Transport and Land Use found an overall positive impact on the value of single-family homes along Charlotte first light rail line; see <https://www.jtlu.org/index.php/jtlu/article/download/261/242>.

Various transit technologies were previously studied and evaluated in an extensive public process called the "Alternatives Analysis" (AA). Technologies considered during the AA included: conventional bus, Bus Rapid Transit (BRT), Streetcar, Light Rail Transit (LRT), and Commuter Rail Transit (CRT). Through the Alternatives Analysis, light rail was selected as the best transit technology option to best serve the Durham-Orange Corridor and to meet the Purpose and Need of the proposed transit project. The findings of the Alternatives Analysis are summarized in 2.2.1 of the DEIS. The Alternatives Analysis is available on [ourtransitfuture.com](http://ourtransitfuture.com).

First Name	Last Name	Comment
Phil	Woodell	<p>I have attended several meetings regarding the proposed 17 mile DO LRT project. The GoTriangle staff have published projected ridership numbers that most of us at the meetings are having difficulty believing. When asked how they arrived at their published numbers, I would get varying answers depending on which GoTriangle staff person that you asked.</p> <p>I suggest that an independent, unbiased agency or firm conduct a study of what the real ridership numbers would be. They should not use the model that GoTriangle indicated they used to arrive at the ridership of 23,000. This agency should study the table in the DEIS to determine how GoTriangle came up with what they published a ridership expectation would be. A different method of calculating ridership would probably result in another outcome more in line with what the actual number would be.</p> <p>I strongly suggest that GoTriangle begin a search for another site for the ROMF rather than Farrington Road. The Farrington Road area is a quiet, residential area with a two lane road which is already congested now. An elementary school with 900 + children is extremely close to the proposed entrance to the ROMF. I recommend a no build option.</p> <p>[REMOVED NAME AND ADDRESS]</p>

Comment Responses	DEIS/Errata References
<p><i>The link below includes documentation on the Triangle Regional Model (TRM) V5 as it was deployed for the 2040 Metropolitan Transportation Plan (MTP) by the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO). <a href="https://sites.google.com/a/ncsu.edu/dchc-mpo/home/trm-v5-data">https://sites.google.com/a/ncsu.edu/dchc-mpo/home/trm-v5-data</a> This model serves as the basis for the travel demand modeling performed for the DEIS as explained in DEIS section 3.1, Public Transportation, and DEIS appendix K2, Travel Demand Methodology and Results Report. In the documentation, particularly pertaining to items such as Alternative-Specific Effects, the methodology differs from the modeling work described in the DEIS for the Durham-Orange Light Rail Transit Project. This is because the TRM is only capable of applying one set of Alternative-Specific Effects for all individual fixed guideway transit projects in the model at a time. As the DCHC MPO MTP has two fixed guideway transit projects (Durham-Orange Light Rail; Durham-Wake Commuter Rail) in their adopted MTP, the MPO decided to use a hybrid of the recommended Alternative Specific Effects for Commuter Rail and Light Rail in the 2040 MTP, knowing that this approach would not be what would ultimately be accepted for FTA purposes if either project advanced. The work in the DEIS builds upon the work in the 2040 MTP, using the TRM V5 as a tool, but then deviates from the MTP approach by applying Alternative Specific Effects</i></p>	<p>DEIS section 3.1  DEIS section 3.2  DEIS section 3.2.3  DEIS section 3.6  DEIS section 8.2.2  DEIS section 8.2.2.1  DEIS appendix K2  DEIS appendix L  FEIS/ROD section 1.2.2  FEIS/ROD section 1.4  FEIS/ROD Table FEIS-2  DEIS Errata 21, 22, 36, 52, 70,  76, 78, 93, 94, 95 103, 104,  108, 110, 119, 121, and 137</p>

**D-O LRT FEIS / ROD**



*for light-rail-only (excluding commuter rail) in the DEIS, which was done according to FTA best practice recommendations.*

*Section 8.2.2 of the DEIS presents the evaluation of ROMF alternatives and explains why the NEPA Preferred Alternative was selected and why the other alternatives were eliminated from consideration. Further clarification on the alternatives is provided in section 1.4 of the combined FEIS/ROD, Table FEIS-2, DEIS Errata 22. The Farrington Road ROMF Alternative is included in the NEPA Preferred Alternative. In summary, the Farrington Road ROMF Alternative site is the most desirable from a construction and operations standpoint. It is a 25-acre site, the largest site of the alternatives considered. The Farrington Road ROMF site is located on a long straight section of track which accommodates cross-overs for access to the yard. The site is reasonably flat, making preparation of the site for construction easier. Effective screening buffers can be provided around the site. The largest land owner on the site has expressed support for the Farrington Road ROMF Alternative. The site would have no effects to historic resources. The Farrington Road ROMF Alternative also has the lowest cost of all ROMF alternatives considered (see section 8.2.2.1 of the DEIS for additional information). See also section 1.2.2 of the combined FEIS/ROD and DEIS Errata numbers 21, 22, 52, 70, 76, 78, 93, 94, 95 103, 104, 110, 119 121 and 137 for changes made regarding documentation of outreach efforts, potential impacts, and mitigation at the Farrington Road ROMF.*

*Triangle Transit seeks to reduce or eliminate pedestrian and motorist conflicts with transit vehicles.*

*Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2 (roadways), DEIS section 3.6 (bicycle/pedestrian), and the Basis for Engineering Design (appendix L). As noted in section 3.2.3 of the DEIS and in section 1.4 of the combined FEIS/ROD, DEIS Errata 36, to avoid the potential for incidents at -grade intersections, crossings would be signalized or equipped with gates with bells to warn of oncoming trains. The trains will also have bells and horns. Bells, gates, and horns would be activated according to Triangle Transit operating procedures and safety guidelines, in close coordination with NCDOT (and NCR and Norfolk Southern, as appropriate). Triangle Transit will also coordinate with surrounding neighborhoods on safety at at-grade crossings. Section 1.4 of the combined FEIS/ROD, Table FEIS-2 Errata Sheet, DEIS Errata 108 provides the following clarification for section 4.12.3.5 of the DEIS: during the Engineering phase, Triangle Transit will continue to coordinate with NCDOT to evaluate additional engineering safety measures, including vehicle detection technology at certain crossings, where appropriate. Furthermore, Triangle Transit facilities are designed to comply with the Americans with Disabilities Act (ADA) to improve safety and ease of movement for disabled individuals. Detailed information regarding the roadways, sidewalks, and trails expected to be affected by the proposed D-O LRT Project is provided in DEIS section 3.2, DEIS section 3.6, and the Basis for Engineering Design (appendix L).*

First Name Last Name

Comment

D-O LRT FEIS / ROD

How does light rail help the poor? My understanding is that the Alston station, as originally proposed, would be located near an under-resourced area but had to be moved further away. How does that move affect those residents? Will there be buses? A larger concern is new development at this station. How will affect nearby under--resourced/underserved areas? Will it be development that enhances their neighborhood, ie, providing them with stores and services they need. Or, will it be the kind of development we've seen over and over that only drives the poor even more to the fringes of our community?

Comment Responses

DEIS/Errata References

Regarding the location of the station at Alston Avenue in relationship to East Durham, as noted in the DEIS table 5.3-1: EJ Community Concerns Expressed and Triangle Transit Actions/Response: As a result of ongoing coordination with both North Carolina Railroad (NCRR) and the City of Durham and the comments received, the alignment through downtown Durham and into east Durham was revised. These changes included shifting a portion of Pettigrew Street to the south and converting a portion of it to a one-way street. In addition, the proposed Durham Station shifted to the east of Chapel Hill Street and the proposed Alston Avenue Station was relocated to the west side of Alston Avenue, as a result of coordination with the NCRR as described in DEIS chapter 2. Revisions were due to NCRR's horizontal track clearance requirements and constraints in relocating Pettigrew Street east of Alston Avenue. Triangle Transit held numerous outreach meetings with the communities in downtown and east Durham to gather their input on the proposed alignment and station locations. See DEIS section 9.3.6 for more information regarding public outreach.

DEIS chapter 2  
DEIS chapter 5  
DEIS Table 5.3-1  
FEIS/ROD section 1.4  
DEIS Errata 64

Chapter 5 of the DEIS presents detailed analysis of environmental justice and identifies that the NEPA Preferred Alternative would improve accessibility for all communities, including low-income and minority populations. Overall, the potential impacts would be minimal compared with the proposed project's benefits, which would include improvements to connectivity and mobility; access to jobs, services, education, and entertainment; pedestrian and bicycle conditions; access to transit; and reliability in transit service. In those areas where stations are proposed, there is the potential for economic opportunities through associated development. As described in DEIS section 8.3.1, the NEPA Preferred and Project Element Alternatives would improve both the travel time and the reliability of the transit service within the D-O Corridor. The NEPA Preferred and Project Element Alternatives would connect the major activity centers and communities along the D-O Corridor and would provide improved access to the corridor's employment centers; educational facilities; health centers; and institutional, cultural, recreational, entertainment, open space, retail, and governmental resources. No one group would receive a disproportionate share of these benefits to the detriment of another group. Prior to opening the line for revenue service, a Service and Fare Equity Analysis will be completed in accordance with the requirements of Title VI of the Civil Rights

Land use broadly refers to the different functions of human use of land (e.g., residential, commercial, industrial) and is influenced by development patterns and activity centers, population and employment levels, growth potential and trends, local and regional land use policies, and other factors that affect area growth. DEIS section 4.1 describes land use and land use policy in the D-O

*Corridor and the potential impacts of the alternatives under study in the DEIS. Population and employment data related to land uses are presented in DEIS section 4.2. Transit-supportive growth and development is expected to continue throughout the corridor due largely to positive market forces, supportive land use policies, and capacity for growth and supportive public investments. Market support for this type of development includes shifting lifestyle preferences toward more mixed-use, pedestrian-friendly, higher density projects, as well as strong population and economic growth in both Chapel Hill and Durham. Over the past decade, Chapel Hill and Durham have either adopted, or are in the process of adopting, transit-supportive zoning districts that will be applied in station areas. Both Chapel Hill and Durham have zoning in place that is designed to support TOD in the corridor. This includes associated parking requirements for new development and re-development in and around station areas. Station locations were chosen to be consistent with local planning efforts. Changes in land use falls under the jurisdiction of the local governments.*

*The Durham Comprehensive Plan calls for focusing additional growth and employment into these compact neighborhoods to contain urban sprawl, create more walkable neighborhoods, and provide more affordable housing with high-quality access to transit (4.1.2.2). As described in Table 5.3-1, Triangle Transit works directly with the Town of Chapel Hill, Durham City/County Planning staff, and the citizen-led Coalition for Affordable Housing and Transit to encourage, support, and facilitate the development and implementation of affordable housing policies within the D-O Corridor. Durham City and County leaders set a goal to have 15 percent of housing within ½ mile of each station be affordable to people at or below 60 percent of the median area income. Section 1.4 of the combined FEIS/ROD, DEIS Errata 58 indicates that the City and County adopted a resolution in 2014 supporting affordable housing within a half-mile of transit stations. The resolution establishes a goal of at least 15 percent of housing units be affordable to families with income less than sixty percent of the area median income. Furthermore, section 1.4 of the combined FEIS/ROD, DEIS Errata 64 indicates that Triangle Transit is committed to working with the municipalities to keep existing residents in their homes through tax abatement and affordable housing programs. In addition to Triangle Transit's efforts with the local jurisdictions to develop affordable housing policies, any privately-owned businesses that are displaced by the project will be compensated in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and its implementing regulations (42 U.S.C. § 4601 et seq.; 49 C.F.R. Part 24) The Federal Transit Administration (FTA) prioritizes affordable housing as a factor which can make the project more competitive for federal funds. There is also a commitment made as part of the local tax referendum to research and plan affordable housing along the project corridor. Triangle Transit is developing affordable housing data to assist it in working with potential partners on affordable housing.*

First Name	Last Name	Comment
Laura	Yost-Grande	I have lots of concerns about this light rail project. One of my major concerns is parking. if you are predicting 23,000 boardings a day, where will people park? Nor everyone, especially those in SW Durham really have an option. I doubt any extra spaces at the Friday

Center will be enough nor will the 700 lot you plan to build. As I live near the planned Woodmont station, I don't want cars parking along the parkway in my neighborhood. And, please don't tell me in won't happen.

*Comment Responses*

*DEIS/Errata References*

*Parking is proposed at several stations as described in DEIS section 3.3. As described in DEIS Table 2.3-2 and further detailed in DEIS Table 3.3-2, park-and-ride facilities are currently planned at the following stations: \$Friday Center\$Leigh Village\$Gateway\$MLK Jr. Parkway\$South Square\$Durham\$Dillard Street\$Alston Avenue. The number of parking spaces proposed varies and are based on forecasted ridership and land availability. Stations with park-and-ride facilities would include bus bays for connecting feeder bus routes and "kiss-and-ride" spaces for passenger pick-up and drop-off. Walk-up stations would be accessed primarily by pedestrians, bicyclists, and passengers transferring from bus service. In general, automobile parking would not be provided at walk-up stations (DEIS section 2.3.2.1). Typical images can be found in DEIS section 2.3.2.1 and conceptual designs in DEIS Appendix L. Section 1.4 of the combined FEIS/ROD, DEIS Errata 75 further adds clarification that Triangle Transit will coordinate with municipalities and neighborhoods on the aesthetic treatments for stations. Parking fees, if any, will be set by the Triangle Transit Board of Trustees in conjunction with local jurisdictions and/or property owners. A total of 5,100 park-and-ride spaces will be added at station locations as part of the project. No stations (drop off sites) are planned at the entrances to the Downing Creek Neighborhood. As stated in section 3.3.4, Triangle Transit will work with the municipalities to develop appropriate mitigation measures if spillover parking becomes a concern.*

DEIS section 2.3.2.1  
DEIS section 3.3  
DEIS Table 2.3-2  
DEIS Table 3.3-2  
DEIS appendix L  
FEIS/ROD section 1.4  
DEIS Errata 75