

SPECIAL CONDITIONS OF APPROVAL:

- PER UDO SECTION 6.12.2.H.2, A PEDESTRIAN TRAFFIC CONTROL PLAN IS REQUIRED FOR ANY PEDESTRIAN PATH WHICH WILL BE INACCESSIBLE FOR MORE THAN 7 DAYS, AN ADDITIONAL SHEET ILLUSTRATING THE PEDESTRIAN TRAFFIC CONTROL PLANS MUST BE PROVIDED FOR REVIEW/APPROVAL THROUGH CONSTRUCTION DRAWING REVIEW PROCESS.
- DEVELOPMENT PURSUANT TO THIS SITE PLAN/CONSTRUCTION DRAWING RELIES IN PART ON GOTRIANGLE ACQUIRING INTERESTS IN PROPERTY IN THE NAME OF THE CITY FOR USE AS RIGHT OF WAY. THE ACQUIRED RIGHT OF WAY SHALL BE USED FOR THE CONSTRUCTION AND MAINTENANCE OF THE BUS STOP. GOTRIANGLE SHALL CONSTRUCT THE BUS STOP IN COMPLIANCE WITH ALL APPLICABLE CITY REQUIREMENTS. VESTED RIGHTS ARE NOT CREATED IN ANY COMPONENT OF THIS SITE PLAN/CONSTRUCTION DRAWING TO THE EXTENT THAT GOTRIANGLE FAILS TO ACQUIRE THE NECESSARY PROPERTY INTERESTS FOR THE CITY AS STATED HEREIN.



**GoTRIANGLE
BUS STOP IMPROVEMENTS
CONSTRUCTION GROUP M
SITES 706, 1155, 1159, 1167**

PUBLIC WORKS CONDITION OF APPROVAL:

- THE DESIGNING PROFESSIONAL (A NCPE, NCPLS, OR NCRLA – AS REQUIRED) SHALL SUBMIT THREE (3) SETS OF CONSTRUCTION DRAWINGS TO THE PUBLIC WORKS DEPARTMENT – DEVELOPMENT REVIEW FOR REVIEW AND APPROVAL. CONSTRUCTION DRAWING APPROVAL IS REQUIRED PRIOR TO COMMENCING CONSTRUCTION (SEE CONSTRUCTION PLAN APPROVAL PROCESS). THE APPROVAL OF CONSTRUCTION DRAWINGS IS SEPARATE FROM SITE PLAN APPROVAL. CITY OFFICIALS SHALL REVIEW ALL SIZES, MATERIALS, SLOPES, LOCATIONS, EXTENSIONS AND DEPTHS FOR ALL PROPOSED UTILITIES (WATERLINES, SANITARY SEWER LINES AND STORM DRAINAGE CONVEYANCE SYSTEMS) FOR COMPLIANCE WITH ALL APPLICABLE REGULATORY STANDARDS, SPECIFICATIONS, AND BEST MANAGEMENT PRACTICES.
- THE DESIGNING PROFESSIONAL (A NCPE, NCPLS, OR NCRLA – AS REQUIRED) SHALL SUBMIT ONE (1) SET OF AS-BUILT DRAWINGS TO THE PUBLIC WORKS DEPARTMENT – DEVELOPMENT REVIEW FOR REVIEW AND APPROVAL. AS-BUILT DRAWING APPROVAL IS REQUIRED PRIOR TO WATER METER INSTALLATION AND/OR SANITARY SEWER SERVICE CONNECTION AND PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
- A CONSTRUCTION ON CITY RIGHT-OF-WAY/PRIVATE PROPERTY PERMIT MAY BE REQUIRED. CONTACT THE PUBLIC WORKS CUSTOMER SERVICE DESK AT 560-4326.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BENJAMIN R. LENNON, PE
PROJECT ENGINEER

ERIC H. ALSPAUGH
PROJECT DESIGN ENGINEER

DESIGN ENGINEER

Signed by: *Benjamin R. Lennon*

GENERAL NOTES (APPLICABLE FOR ALL SHEETS):

- THE CONTRACTOR IS TO OBTAIN THE BUS SHELTERS, BENCHES, AND OTHER AMENITIES FROM GOTRIANGLE, WHICH HAVE BEEN PRE-PURCHASED AND ARE BEING STORED AT A LOCATION TO BE DETERMINED. CONTRACTOR TO COORDINATE WITH GOTRIANGLE TO OBTAIN THE AMENITIES. BUS SHELTERS AND BENCHES INCLUDE ALL PARTS AND AMENITIES INCLUDING TRASH RECEPTACLE. CONTRACTOR TO PROVIDE ANCHORS AND INCIDENTAL ITEMS REQUIRED TO ASSEMBLE AND INSTALL BUS SHELTERS, BENCHES, AND OTHER AMENITIES AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO INSTALL PER MANUFACTURERS INSTRUCTIONS. CONTRACTOR TO DISPOSE OF PACKING MATERIAL IN A LEGAL MANNER OFF-SITE AND AT NO ADDITIONAL COST TO THE OWNER.
- THE CONTRACTOR IS TO CONTACT NCB11 TO LOCATE UTILITIES AT EACH SITE AT LEAST THREE WORKING DAYS PRIOR TO STARTING WORK ON EACH SITE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES PRIOR TO BEGINNING WORK. ANY DAMAGE TO EXISTING UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- PRIOR TO REMOVAL, SAW CUT ALL PAVEMENT AND CONCRETE CURB AND GUTTER AT REMOVAL LIMITS OR AT NEAREST JOINT IF WITHIN 2' OF JOINT.
- CONTROL SEDIMENT ON SITES AND PREVENT FROM WASHING ONTO ADJACENT ROADWAYS. PROVIDE INLET PROTECTION AT INLETS THROUGHOUT CONSTRUCTION AND SILT FENCING OR NCDOT #57 STONE PILED 1' HIGH BY 2' WIDE AT BASE AS APPLICABLE TO PREVENT SEDIMENT FROM LEAVING THE SITES OR ENTERING ADJACENT STORM DRAINAGE SYSTEMS. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PER THE 2024 NCDOT ROADWAY STANDARD DRAWINGS. MAINTENANCE OF EROSION CONTROL MEASURES IS INCIDENTAL TO EROSION CONTROL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS AND EQUIPMENT LEFT ON SITE. IT IS RECOMMENDED THAT THE CONTRACTOR NOT LEAVE MATERIAL ON SITE WHEN NOT PRESENT.
- PROTECT ALL DISTURBED AREAS AND DO NOT LEAVE ANY OPEN TRENCHES WHEN NOT PRESENT. PROVIDE PROPER AND VISIBLE PROTECTION FENCING, MARKERS AND SIGNAGE AT ALL TIMES. DO NOT LEAVE ANY OPEN TRENCHES OR TRIPPING HAZARDS OVER NIGHT. USE PROPER SIDEWALK CLOSURE/DETOUR SIGNS MEETING THE LATEST CITY OF DURHAM AND NCDOT STANDARDS.
- COORDINATE WITH PROPERTY OWNERS FOR STAGING AREAS AND OWNER ACCESS TO THE SITE DURING CONSTRUCTION, INCLUDING TENANT PARKING, DELIVERIES AND GARBAGE PICKUP. THE CITY HAS PROCURED OR IS IN THE PROCESS OF PROCURING ROW AND/OR TEMPORARY CONSTRUCTION EASEMENTS AT EACH INDIVIDUAL BUS SITE (IF APPLICABLE). THE CONTRACTOR WILL COORDINATE ENTRANCE INTO ADJACENT PROPERTY WITH THE CITY AND UNDERSTANDS THAT SOME OF THE ROW AND/OR TEMPORARY CONSTRUCTION EASEMENTS MAY NOT BE PROCURED AT THE TIME OF CONSTRUCTION. ROW INFORMATION SHOWN ON PLANS IS BASED ON DEED RESEARCH AND NOT ACTUAL FIELD DATA.
- CONTROL POINTS PROVIDED ON PLAN ARE FOR USE IN STAKING OUT PROPOSED WORK TO BE COMPLETED BY THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR PROTECTING AND RESETTING IF DAMAGED BY CONSTRUCTION ACTIVITIES. CADD FILES CAN BE OBTAINED BY REQUEST FROM THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING EXISTING SITE FEATURES TO REMAIN AND RESTORING TO PRECONSTRUCTION CONDITIONS IF DAMAGED BY CONSTRUCTION ACTIVITIES.
- IF LANE CLOSURE IS REQUIRED TO PERFORM ANY WORK ITEMS, USE NCDOT STD. 1101.02 FOR ADVANCED WARNING SIGNS AND APPLICABLE LANE CLOSURE. SUBMIT PLAN TO CITY PRIOR TO LANE CLOSURE FOR APPROVAL. PROVIDE PROPER SIDEWALK CLOSURE/DETOUR SIGNING IN ACCORDANCE WITH THE CITY OF DURHAM STANDARDS. ALL TRAFFIC CONTROL DEVICES AND SIGNING ARE CONSIDERED INCIDENTAL TO TRAFFIC CONTROL.
- REFER TO THE SERIES 2 SHEETS AND THE LIST OF STANDARDS FOR SITE DETAILS. REFER TO THE MOST CURRENT VERSION OF THE NCDOT ROADWAY STANDARD DRAWINGS OR THE CITY OF DURHAM STANDARDS FOR ADDITIONAL INFORMATION. ALL CONSTRUCTION SHOULD ADHERE TO THESE STANDARDS.
- ALL NEW PAVEMENT SHALL BE FLUSH WITH EXISTING PAVEMENT TO PREVENT TRIPPING HAZARD. PROVIDE EXPANSION JOINT AT ALL EXISTING PAVEMENT OR STRUCTURES.
- IF ASPHALT PATCHING IS REQUIRED, USE 3" OF S9.5C IN PARKING LOT AREAS (CARS ONLY) AND USE 6" OF I19.0C AND 3" OF S9.5C IN ALL OTHER AREAS. ALL DAMAGE SHALL BE SAW CUT FOR SMOOTH JOINT. COORDINATE WITH CITY PRIOR TO REPAIRING ASPHALT PAVEMENT.
- PROVIDE JOINT SEALER AT ALL JOINTS BETWEEN NEW CONCRETE PAD AND EXISTING PAVEMENT. JOINT SEALER SHALL BE GRAY IN COLOR AND IN ACCORDANCE WITH NCDOT STANDARD SECTION 1028. CONTRACTOR SHOULD MATCH EXISTING CONTRACTION JOINT SPACING WHERE APPLICABLE. EXPANSION JOINTS SHALL BE LOCATED EVERY 50' AT MAXIMUM.
- BACKFILL ADJACENT TO ALL NEW PAVEMENT ONCE FORM WORK IS REMOVED AND COMPACT. USE MINIMUM 6" CLEAN TOP SOIL AND BRING TO WITHIN 2" OF PAVEMENT FOR PLACEMENT OF SOD. CUT GRADE DOWN 2" IN ALL GRASS AREAS TO TIE SOD FLUSH WITH SURROUNDING GRADE.
- GRADE ALL DISTURBED AREAS SMOOTH, REMOVE ALL ROOTS, ROCKS OR ANY OTHER DEBRIS, AND SOD. MATCH SOD TYPE TO EXISTING SURROUNDING GRASS, I.E. FESCUE, BERMUDA, ETC. FERTILIZE AND WATER FOR A 2-WEEK PERIOD. CONTACT ENGINEER ONCE GRASS IS PLACED TO START 2-WEEK WATERING PERIOD. ANY GRASS THAT NEEDS TO BE REPLACED AT THE END OF 2 WEEKS WILL BE AT THE CONTRACTORS EXPENSE.
- ALL PRUNING SHALL BE COMPLETED BY A LICENSED LANDSCAPE OR TREE PROFESSIONAL AND COORDINATED WITH THE CITY OF DURHAM.
- ALL EXISTING BUS STOPS WILL REMAIN OPERATIONAL DURING CONSTRUCTION. COORDINATE REMOVAL OF EXISTING MATERIAL WITH NEW SHELTER COMPLETION. PROVIDE TEMPORARY PROTECTED AREA ADJACENT TO SITE FOR RIDERS UNTIL NEW SHELTER HAS BEEN ACCEPTED BY THE CITY FOR OPERATION. REPAIR ANY DAMAGED AREAS USED FOR THE TEMPORARY BUS STOP.
- AT THE START OF GRADING INVOLVING THE LOWERING OF THE EXISTING GRADE AROUND A TREE OR STRIPPING OF TOPSOIL, A CLEAN, SHARP, VERTICAL CUT SHALL BE MADE AT THE EDGE OF THE TREE SAVE AREA AT THE SAME TIME AS OTHER EROSION CONTROL MEASURES ARE INSTALLED. TREE PROTECTION FENCING SHALL BE INSTALLED ON THE SIDE OF THIS CUT FARTHEST AWAY FROM THE TREE TRUNK.
- NO STORAGE OF MATERIALS, DUMPING OF WASTE MATERIALS, FILL, OR PARKING OF EQUIPMENT SHALL BE ALLOWED WITHIN THE ROOT PROTECTION ZONE, AND NO TRESPASSING SHALL BE ALLOWED WITHIN THE BOUNDARY OF THE ROOT PROTECTION ZONE.
- A CLEAR AREA OF 2 FEET MINIMUM SHOULD BE PROVIDED BEHIND SHELTER FOR MAINTENANCE UNLESS OTHERWISE NOTED ON THE PLANS.
- DIVERT RUNOFF AWAY FROM SHELTER PAD.
- THE USE OF SOD WILL BE USED AND DETERMINED BY THE TIME OF YEAR OR THE IMPORTANCE TO HAVE GRASS RE-ESTABLISHED. SMALL AREAS MAY BE SEEDED.
- RIGHT-OF-WAY INFORMATION ON PLANS IS BASED ON DEED RESEARCH AND NOT ACTUAL FIELD DATA.
- CONTRACTOR SHOULD MATCH EXISTING CONTRACTION JOINT SPACING WHERE APPLICABLE.
- THE WORK TAKING PLACE RELATED TO THE CHANGES IN THIS SITE PLAN WILL BE FULLY COMPLIANT WITH THE NORTH CAROLINA ACCESSIBILITY CODES (ANSI 117.1-2009 AND CHAPTER 11 OF THE NCB) UNLESS AND EXCEPT IN AREAS WHERE AN APPROVED STATEMENT FROM A SITE ENGINEER, SURVEYOR, ARCHITECT VERIFIES THAT SITE CONDITIONS EXIST WHERE THE TOPOGRAPHY OF THE SITE IS EXTREME AND ONLY ALTERNATE METHODS OF COMPLIANCE ARE POSSIBLE.
- ALL TRASH & RECYCLING RECEPTACLES LOCATED IN CITY OF DURHAM DESIGN DISTRICTS SHALL BE 32-GALLON DUMOR RECEPTACLE 102'S WITH BLACK FINISH WITH BLACK BONNET STYLE LIDS & BLUE RECYCLING STYLE LIDS (ONE OF EACH LID AT EACH SITE). DETAIL OF THE RECEPTACLE IS PROVIDED ON THE SERIES 2 SHEETS OF THIS PLAN SET. TRASH & RECYCLING RECEPTACLES & LIDS WILL BE PROVIDED TO THE CONTRACTOR BY GOTRIANGLE FOR INSTALLATION.
- A CITY OF DURHAM AND/OR NCDOT ENCROACHMENT PERMIT IS REQUIRED PRIOR TO ANY CONSTRUCTION. AFTER OBTAINING THE REQUIRED PERMITS, THE CONTRACTOR IS TO CONTACT THE CITY OF DURHAM ENGINEERING CONSTRUCTION INSPECTION OFFICE AT 560-4326 FOR A PRE-CONSTRUCTION CONFERENCE AND FIELD VISIT PRIOR TO ANY WORK ON THE PROPOSED SIDEWALK.
- CONTRACTOR TO PROVIDE A PEDESTRIAN DETOUR AND SIDEWALK CLOSURE SIGNS AT EACH SITE. PEDESTRIAN CLOSURES THAT WILL LAST LONGER THAN 7 DAYS WILL REQUIRE A PEDESTRIAN CONTROL PLAN SUBMITTED TO THE CITY FOR APPROVAL. ALL DETOUR PLANS, SIGNS, BARRICADES, ETC. AND PLAN SUBMITTAL FOR USE IN THE PEDESTRIAN DETOURS OR SIDEWALK CLOSURES WILL BE CONSIDERED INCIDENTAL TO THE OVERALL CONTRACT.
- IF EXISTING TREES TO BE RETAINED ARE DAMAGED OR DESTROYED, THE CONTRACTOR SHALL REPLACE TREE MATCHING EXISTING SPECIES AND SIZE AT NO ADDITIONAL COST TO THE OWNER.
- REMOVAL OR RELOCATION OF EXISTING AMENITIES AND SIGNS SHOULD NOT BE PERFORMED UNTIL COMPLETION OF PROPOSED IMPROVEMENTS WHEN POSSIBLE. AMENITIES OWNED BY THE CITY OF DURHAM SHOULD BE RETURNED TO THE CITY. AMENITIES OWNED BY GOTRIANGLE SHOULD BE RETURNED TO THE GOTRIANGLE RALEIGH WAREHOUSE FACILITY. CONTRACTOR IS TO COORDINATE WITH GOTRIANGLE AND CITY OF DURHAM TO DETERMINE THE OWNER OF SPECIFIC AMENITIES AND IS TO RETURN AMENITIES TO THE APPROPRIATE LOCATION AS PART OF THIS CONTRACT. SEE CONTRACT DOCUMENTS FOR MORE INFORMATION.
- RELOCATED BUS STOP SIGNS ARE REQUIRED TO BE INSTALLED ON A NEW 2"x2" 12-GAUGE GALVANIZED STEEL SQUARE TUBE POST. CONTRACTOR TO FABRICATE NEW BUS STOP SIGNS AT LOCATIONS DETERMINED BY GOTRIANGLE. CONTRACTOR IS TO PROVIDE A DETAILED SUBMITTAL TO THE ENGINEER SPECIFYING LETTERING HEIGHTS AND SPACING, SIGN SIZE, COLORING, AND OTHER INFORMATION REQUIRED TO ENSURE THE SIGN MEETS ALL APPLICABLE REQUIREMENTS OF THE 2024 ROADWAY STANDARD DRAWING AND THE MUTCD.
- DELIVERY OF REMOVED AMENITIES TO THE CITY OF DURHAM IS TO BE COORDINATED WITH LISTON PEOPLES AT GOTRIANGLE (LPEOPLES@GOTRIANGLE.ORG, 919-614-3079).
- ALL TRUNCATED DOME PADS AT CURB RAMPS WITHIN THE CITY OF DURHAM SHALL BE FEDERAL YELLOW UNLESS OTHERWISE NOTED.

CONTACT INFORMATION:

CONTRACTOR TO CONTACT GOTRIANGLE INSPECTOR WHEN FORMS ARE SET AND PRIOR TO POURING OF CONCRETE FOR BUS STOP AMENITIES.

FOR DESIGN AND ENGINEERING ISSUES:
MICHELLE FEELE
mpfele@gotriangle.org

FOR PLANNING ISSUES:
Jay Heikes
jheikes@gotriangle.org

2024 NCDOT ROADWAY ENGLISH STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS THEY APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 16, 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
DIVISION 2 - 200.02	EARTHWORK METHOD OF CLEARING - METHOD II
DIVISION 6 - 654.01	ASPHALT BASES AND PAVEMENTS PAVEMENT REPAIRS
DIVISION 8 - 846.01, 848.01, 848.06	INCIDENTALS CONCRETE CURB, GUTTER, AND CURB & GUTTER CONCRETE SIDEWALK CURB RAMP
DIVISION 9 - 903.10, 904.10, 904.50	SIGNING GROUND MOUNTED SIGN SUPPORTS ORIENTATION OF GROUND MOUNTED SIGNS MOUNTING OF TYPE 'D', 'E', AND 'F' SIGNS ON 'U' CHANNEL POSTS
DIVISION 11 - 1101.01, 1101.02, 1110.02, 1130.01, 1135.01, 1145.01, 1180.01	WORK ZONE TRAFFIC CONTROL WORK ZONE ADVANCE WARNING SIGNS TEMPORARY LANE CLOSURES PORTABLE WORK ZONE SIGNS DRUMS CONES BARRICADES - TYPE III SKINNY DRUMS
DIVISION 12 - 1205.01, 1205.07, 1205.16	PAVEMENT MARKINGS, MARKERS, AND DELINEATION PAVEMENT MARKINGS - LINE TYPES AND OFFSETS PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS BICYCLE FACILITIES
DIVISION 16 - 1605.01, 1606.01	EROSION CONTROL AND ROADSIDE DEVELOPMENT TEMPORARY SILT FENCE SPECIAL SEDIMENT CONTROL FENCE

SHEET #
2A



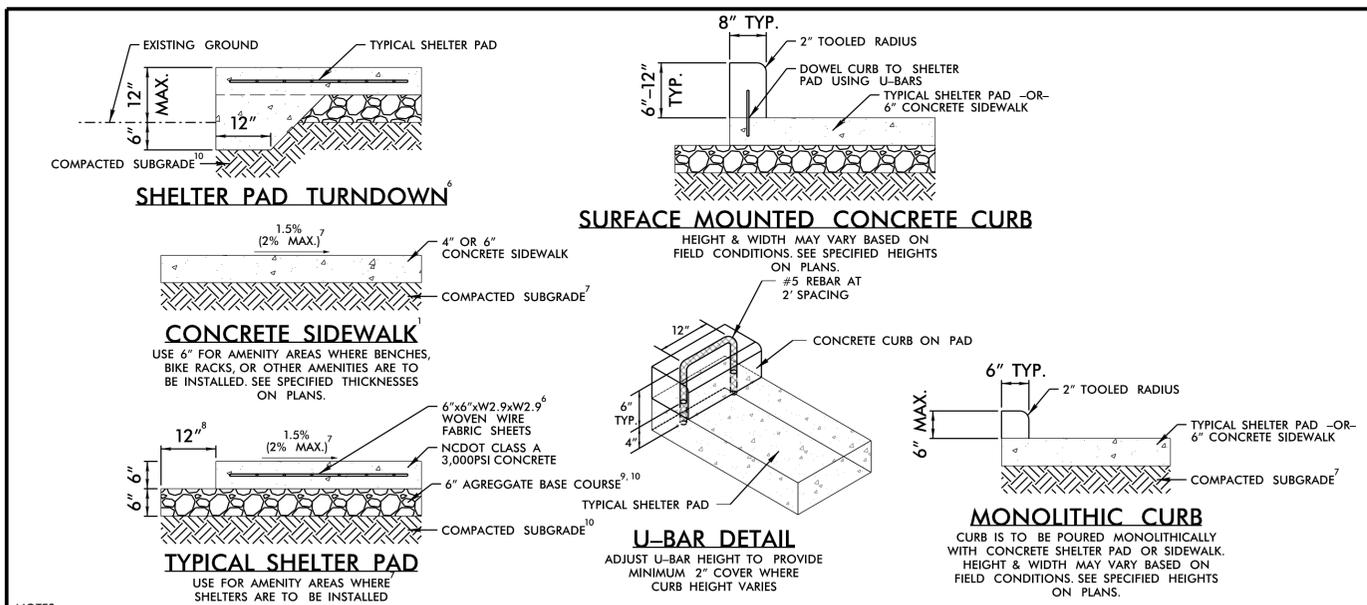
CITY OF DURHAM
GODURHAM BUS STOPS
GENERAL NOTES & DETAILS

REVISIONS	DATE	DESCRIPTION	BY	CHECKED

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATE: 10/02/2025
DESIGNED BY: EHA
CHECKED BY: BRL

NOT TO SCALE



- NOTES:
- SIDEWALKS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NCDOT STD. 848.01.
 - EXPANSION JOINTS ARE TO BE SPACED 50' MAX MEASURED ON CENTER AND PLACED AT ALL RIGID OBJECTS AND DIRECTION CHANGES IN THE SIDEWALK.
 - EXPANSION JOINTS SHALL HAVE A 18" RADIUS TOOLED EDGE AND BE FILLED WITH JOINT SEALER.
 - JOINT SEALER SHALL BE GRAY IN COLOR AND IN ACCORDANCE WITH NCDOT STANDARD SECTION 1028.
 - REINFORCE SHELTER PAD WITH WOVEN WIRE FABRIC SHEETS. WOVEN WIRE FABRIC SHEETS SHALL HAVE MINIMUM 6" OVERLAPS AND PLACED WITHIN 3" ON ALL SIDES.
 - SHELTER PAD TURNDOWN IS TO PROVIDE A 12" WIDE CONCRETE SECTION TO EXTEND A MINIMUM 6" BELOW THE EXISTING ADJACENT GROUND WITH A 45 DEGREE SECTION TO BRING BACK TO THE STANDARD 6" THICKNESS.
 - CROSS SLOPE OF AMENITY AREA PAVEMENTS SHALL BE 1.5% RECOMMENDED, 1% MINIMUM, 2% MAXIMUM UNLESS OTHERWISE APPROVED, OR NOTED ON THE PLANS.
 - EXTEND AGGREGATE BASE COURSE 12" BEYOND EDGE OF PAD IN ALL DIRECTIONS EXCEPT WHERE BORDERED BY EXISTING PAVEMENTS.
 - AGGREGATE BASE COURSE SHALL MEET NCDOT STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.
 - SUBGRADE AND AGGREGATE BASE COURSE SHALL BE PROPERLY COMPACTED WITH PLATE TAMPERS PRIOR TO PLACING CONCRETE.
 - WHERE HANDRAIL OR SAFETY RAIL IS PROPOSED WITHIN LIMITS OF CONCRETE PAD, INCREASE PAD THICKNESS AS SHOWN ON THE HANDRAIL OR SAFETY RAIL STANDARD.
 - ALL NEW PAVEMENTS SHALL BE FLUSH WITH EXISTING SIDEWALKS AND OTHER PAVEMENTS TO PREVENT TRIPPING HAZARDS AND TO ENSURE THE BUS STOP LANDING MEETS CURRENT ADA REQUIREMENTS.
 - COMPACTION OF SUBGRADE SHALL BE CHECKED BY A TECHNICIAN UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL ENGINEER PRIOR TO POURING CONCRETE BY USING A PROBE ROD OR TESTING THE SOIL IF NECESSARY.
 - QUALITY OF CONCRETE SHALL BE CHECKED PER ASTM STANDARDS TO ENSURE PROPER MIX DESIGN AND SPECIFICATIONS. TESTING SHALL BE PERFORMED BY A TECHNICIAN UNDER THE SUPERVISION OF A LICENSED PROFESSIONAL.
 - STORMWATER RUNOFF SHOULD BE DIVERTED AWAY FROM THE SHELTER PAD.
 - MATCH EXISTING CONTRACTION JOINT SPACING WHERE APPLICABLE AND WHEN WITHIN 1' OF EXISTING JOINTS.
 - THE CONTRACTOR SHALL REQUEST AN INSPECTION WHEN CONCRETE FORM WORK IS PLACED AND SHALL NOT POUR CONCRETE UNTIL APPROVED BY THE INSPECTOR OR ENGINEER.

10/2/2025 User: ealispough GoTriangle_Group_M_Details.dgn



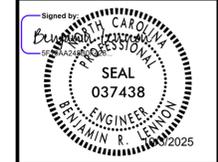
CITY OF DURHAM
GODURHAM BUS STOPS
STANDARD DETAILS

REVISIONS

NO.	DATE	DESCRIPTION

DATE: 10/02/2025
DESIGNED BY: EHA
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NOT TO SCALE



TYPICAL SIDEWALK with (VERGE) GRASS UTILITY STRIP

SECTION C-C

SEE SHEET 3 (THIS DETAIL) FOR SECTION A-A, B-B AND NOTES

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REVISION DATE: 06/2017	SHEET#: 1 of 3	

SIDEWALK abutting CURB / RIGID STRUCTURE

SECTION D-D

SEE SHEET 3 (THIS DETAIL) FOR SECTION A-A, B-B AND NOTES

Dept. of Public Works 101 City Hall Plaza Durham, NC 27701	CITY OF DURHAM, NC USE WITH THE STANDARD SPECIFICATIONS ONLY	Voice (919) 560-4326 www.durhamnc.gov
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REVISION DATE: 06/2023	SHEET#: 2 of 3	

**SECTION A-A
TRANSVERSE EXPANSION
JOINT IN SIDEWALK**

**SECTION B-B
CONTRACTION (GROOVE)
JOINT IN SIDEWALK**

NOTES:

- In addition to complying with Durham standards sidewalks shall conform to NCDOT standards and specifications. In cases where clarifications are needed, the City shall make the determination.
- Contraction (Groove) joints with 1/8" radius shall be placed at 5 foot intervals and be one inch deep with joint filler.
- One half inch (1/2") transverse expansion joints shall be placed at intervals no more than 50 feet and shall match expansion/construction joints in adjacent curb.
- A sealed 1/2" expansion joint is required where the sidewalk abuts buildings or any rigid structure.
- Joint materials shall limit shrink/swell so post construction installation results in a maximum of 1/4" from flush.
- Concrete compressive strength shall be 3,000 psi in 28 days.
- Top 6" of subgrade beneath the sidewalk shall be compacted to 100% Standard Proctor density. The City may require testing at its discretion.
- Six inch depth is required at all driveways, intersections (PC to PT), at Handicap ramps, and commercially developed or zoned areas.
- Undercutting of unsuitable subgrade material and/or placement of up to 6 inches of incidental ABC stone may be required to obtain proper bedding.
- The minimum width of the verge is one foot; otherwise the sidewalk shall abut the back of the curb and be six feet wide and six inches thick.
- Lids for junction boxes, structures, or utility vaults shall be non-skid, meet NCDOT standards, and be submitted to the City for review and approval prior to installation.
- Provide a minimum one foot wide flat area at the back of sidewalks before starting any cut or fill slope.

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REVISION DATE: 06/2017	SHEET#: 3 of 3	

CONC WALKWAY w/ PAVER BAND AT CURB DOWNTOWN STREETScape DETAILS

SECTION A-A

SEE SHEET 3 (THIS DETAIL) FOR SECTION A-A, B-B AND NOTES

Dept. of Public Works 101 City Hall Plaza Durham, NC 27701	CITY OF DURHAM, NC USE WITH THE STANDARD SPECIFICATIONS ONLY	Voice (919) 560-4326 www.durhamnc.gov
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REVISION DATE: 06/2017	SHEET#: 1 of 1	

REINFORCED PAVER WALKWAY WITH CONTINUOUS PAVER BAND AT CURB DOWNTOWN STREETScape DETAILS

SECTION A-A

SEE SHEET 3 (THIS DETAIL) FOR SECTION A-A, B-B AND NOTES

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REVISION DATE: 06/2017	SHEET#: 1 of 1	

STANDARD PAVER WALKWAY WITH CONTINUOUS PAVER BAND AT CURB DOWNTOWN STREETScape DETAILS

SECTION A-A

SEE SHEET 3 (THIS DETAIL) FOR SECTION A-A, B-B AND NOTES

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REVISION DATE: 06/2017	SHEET#: 1 of 1	

STREET CUT REPAIR DETAIL CROSS SECTION (ALL REPAIRS)

NOTES:

- Saw cut edges must be straight and clean.
- Patches must be square or rectangular with (4) straight sides.
- Final surface course must be flush with the edge of existing pavement, vertically and horizontally, with no spillover of asphalt or tack coat.
- Care must be taken not to damage integrity or appearance of surrounding pavement. If damaged, the entire surface patch must be expanded to cover damages.
- All street striping impacted by the repairs must be replaced to City of Durham and/or D.O.T. standards.
- Proper traffic control and plating of the road during cure time for flowable fill must be conducted appropriately and to the City, State, and Federal standards.
- The maximum time to complete the full repair shall not exceed (10) working days.
- For smaller repairs, surface asphalt may be substituted for base course, but must be compacted in 2" to 2.5" lifts.
- When placing flowable fill over coarse stone, place a separation fabric on top of stone before pouring.
- #57 stone to extend 4" to 6" above the pipe.

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REVISION DATE: 08/2024	SHEET#: 1 of 1	

TREE PROTECTION DETAIL

FRONT VIEW

SIDE VIEW

WARNING SIGN DETAIL

EROSION CONTROL DETAIL

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SCALE: Not to Scale	DETAIL#: 408.01	
REVISION DATE: 06/2017	SHEET#: 1 of 1	



CITY OF DURHAM
GODURHAM BUS STOPS
BUS STOP AMENITY DETAILS

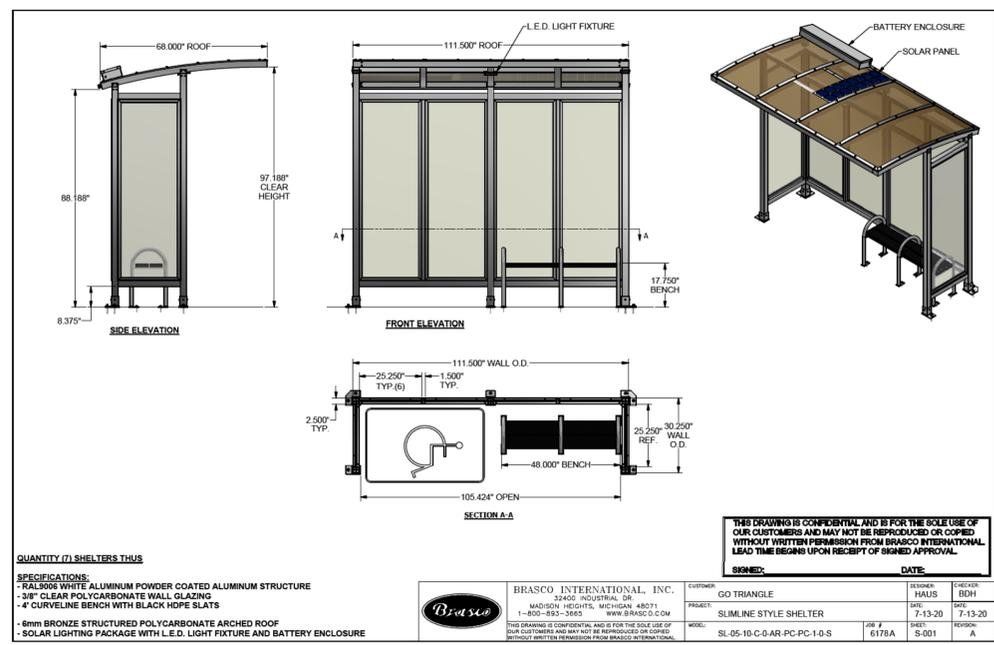
REVISIONS					

DATE: 10/02/2025
DESIGNED BY: EHA
CHECKED BY: BRL



NOTES

- BUS SHELTER DETAIL AND DIMENSIONS ARE PROVIDED BY THE MANUFACTURER. THE CONTRACTOR SHALL VERIFY DIMENSIONS AND QUANTITIES WITH THE SHELTER MANUFACTURER AND BUILD ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND NCDOT REQUIREMENTS.
- ALL SHELTERS, BENCHES, SIMME-SEATS, TRASH CANS AND OTHER AMENITIES ARE TO BE INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED. SEE GENERAL NOTES ON SHEET 2A.
- SHELTER COLUMN BASES ARE TO BE INSTALLED A MINIMUM OF 6" FROM EDGE OF CONCRETE UNLESS OTHERWISE NOTED.
- UNLESS OTHERWISE SHOWN, SHELTERS TO BE USED IN THE CITY OF DURHAM ARE TO BE BRASCO SLIMLINE NON-ADVERTISING SHELTERS WITH POLYCARBONATE WALLS WITH FULL BACK AND HALF END WALLS OF .354 TUFFAK AR2 CLEAR POLYCARBONATE AND WHITE ALUMINUM FINISH COLOR.
- UNLESS OTHERWISE SHOWN, SHELTERS TO BE USED ON UNC'S CAMPUS ARE TO BE BRASCO SLIMLINE NON-ADVERTISING SHELTERS WITH A SHED STYLE ROOF WITH WHITE STRUCTURED POLYCARBONATE SHEET GLAZING, 3/8" CLEAR POLYCARBONATE WALLS WITH FULL BACK AND HALF END WALLS AND TRAFFIC BLACK POWDER COAT PAINTED FINISH COLOR.

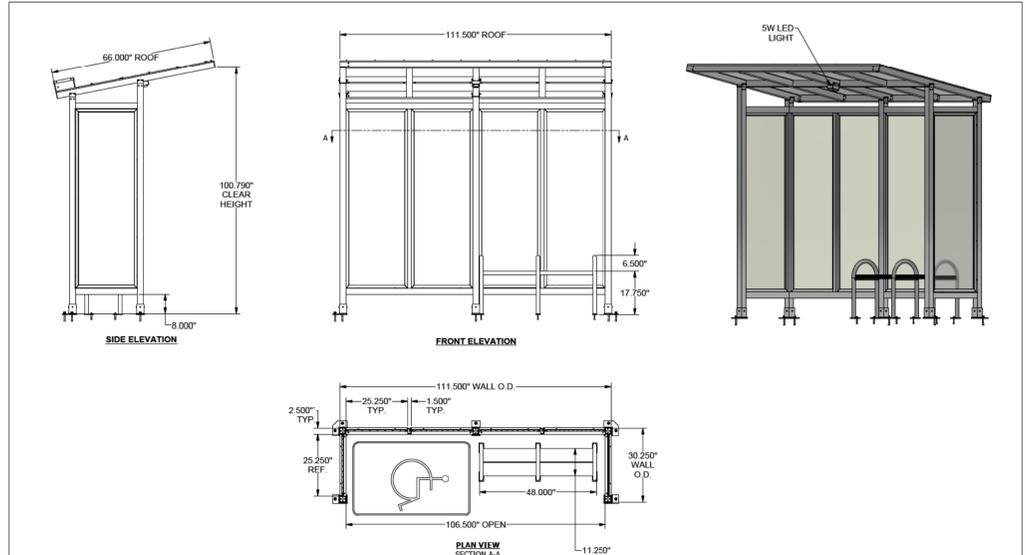


QUANTITY (7) SHELTERS THUS

SPECIFICATIONS:
-RAL5005 WHITE ALUMINUM POWDER COATED ALUMINUM STRUCTURE
-3/8" CLEAR POLYCARBONATE WALL GLAZING
-4" CURVILINE BENCH WITH BLACK HOPE SLATS
-8mm BRONZE STRUCTURED POLYCARBONATE ARCHED ROOF
-SOLAR LIGHTING PACKAGE WITH L.E.D. LIGHT FIXTURE AND BATTERY ENCLOSURE

BRASCO INTERNATIONAL, INC. 32400 INDUSTRIAL DR. MADISON HEIGHTS, MICHIGAN 48071 1-800-893-3465 WWW.BRASCO.COM	CUSTOMER	GO TRIANGLE	DESIGNER	HALS	CHECKER	BDH
	PROJECT	SLIMLINE STYLE SHELTER	DATE	7-13-20	DATE	7-13-20
	MODEL	SL-05-10-C-0-AR-PC-PC-1-0-S	JOB #	6176A	SHEET	001

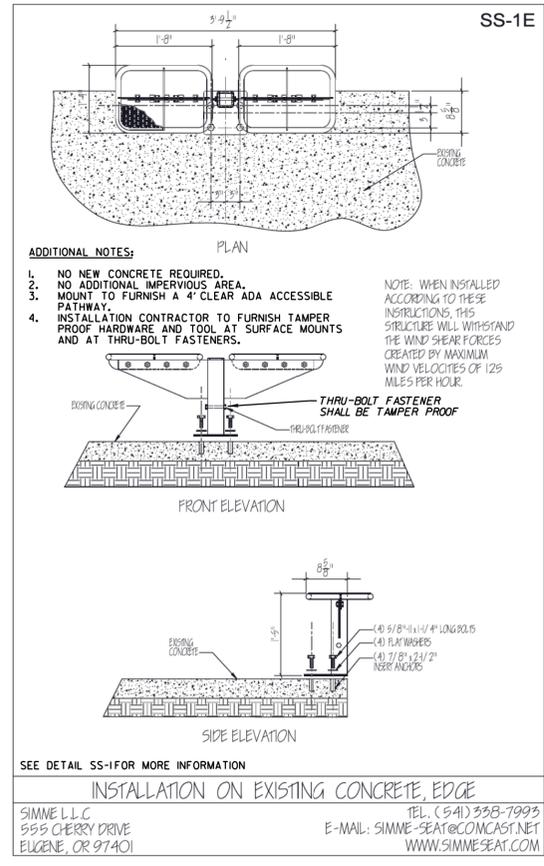
THIS DRAWING IS CONFIDENTIAL AND IS FOR THE SOLE USE OF OUR CUSTOMERS AND MAY NOT BE REPRODUCED OR COPIED WITHOUT WRITTEN PERMISSION FROM BRASCO INTERNATIONAL. LEAD TIME BEGINS UPON RECEIPT OF SIGNED APPROVAL.



QUANTITY (XX) SLIMLINE SHELTER THUS

SPECIFICATIONS:
- POWDER COAT PAINTED FINISH RAL 9017 TRAFFIC BLACK
-3/8" CLEAR POLYCARBONATE WALL GLAZING
-SHED ROOF WITH WHITE STRUCTURED POLYCARBONATE SHEET GLAZING
-SOLAR LIGHTING PACKAGE WITH 5WATT LED LIGHT
-4" CURVILINE BENCH WITH BLACK HOPE BENCH SLATS

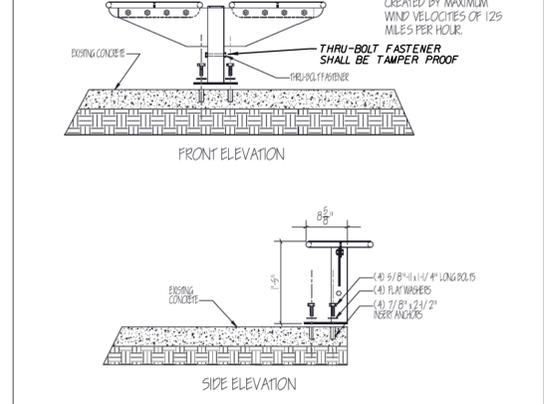
BRASCO INTERNATIONAL, INC. 32400 INDUSTRIAL DR. MADISON HEIGHTS, MICHIGAN 48071 1-800-893-3465 WWW.BRASCO.COM	CUSTOMER	U OF NC AT CHAPEL HILL	DESIGNER	RKE	CHECKER	KY
	PROJECT	SLIMLINE SHELTER	DATE	1/31/23	DATE	1/31/23
	MODEL	SL-05-10-C-0-SH-PT-PC-1-0-S	JOB #	6176A	SHEET	001



ADDITIONAL NOTES:

- NO NEW CONCRETE REQUIRED.
- NO ADDITIONAL IMPERVIOUS AREA.
- MOUNT TO FURNISH A 4' CLEAR ADA ACCESSIBLE PATHWAY.
- INSTALLATION CONTRACTOR TO FURNISH TAMPER PROOF HARDWARE AND TOOL AT SURFACE MOUNTS AND AT THRU-BOLT FASTENERS.

NOTE: WHEN INSTALLED ACCORDING TO THESE INSTRUCTIONS, THIS STRUCTURE WILL WITHSTAND THE WIND SHEAR FORCES CREATED BY MAXIMUM WIND VELOCITIES OF 125 MILES PER HOUR.

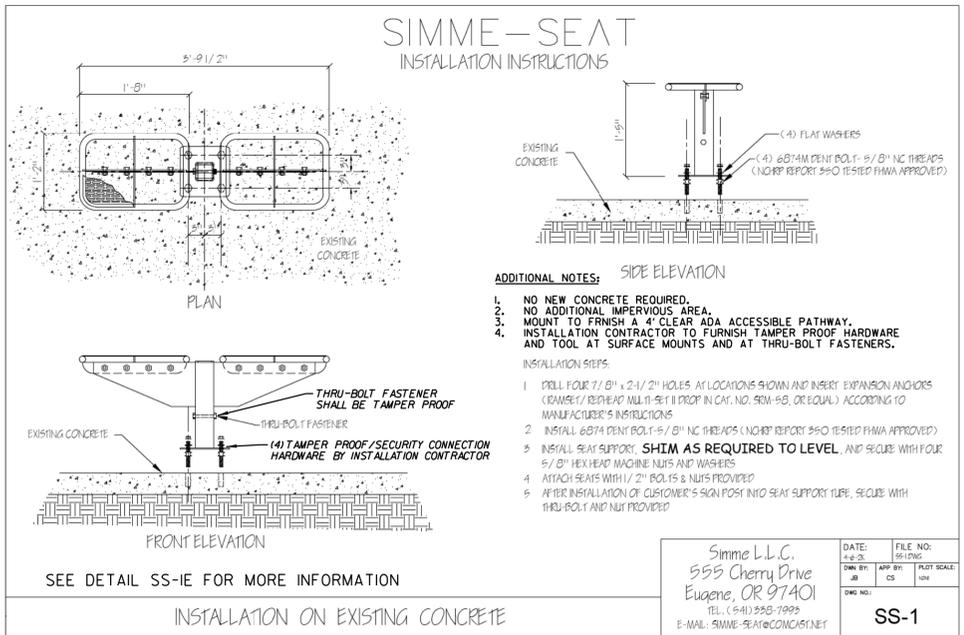


SEE DETAIL SS-1E FOR MORE INFORMATION

INSTALLATION ON EXISTING CONCRETE, EDGE

SIMME L.L.C.
555 CHERRY DRIVE
EUGENE, OR 97401

TEL: (541) 338-7993
E-MAIL: SIMME-SEAT@COMCAST.NET
WWW.SIMMESEAT.COM



ADDITIONAL NOTES:

- NO NEW CONCRETE REQUIRED.
- NO ADDITIONAL IMPERVIOUS AREA.
- MOUNT TO FURNISH A 4' CLEAR ADA ACCESSIBLE PATHWAY.
- INSTALLATION CONTRACTOR TO FURNISH TAMPER PROOF HARDWARE AND TOOL AT SURFACE MOUNTS AND AT THRU-BOLT FASTENERS.

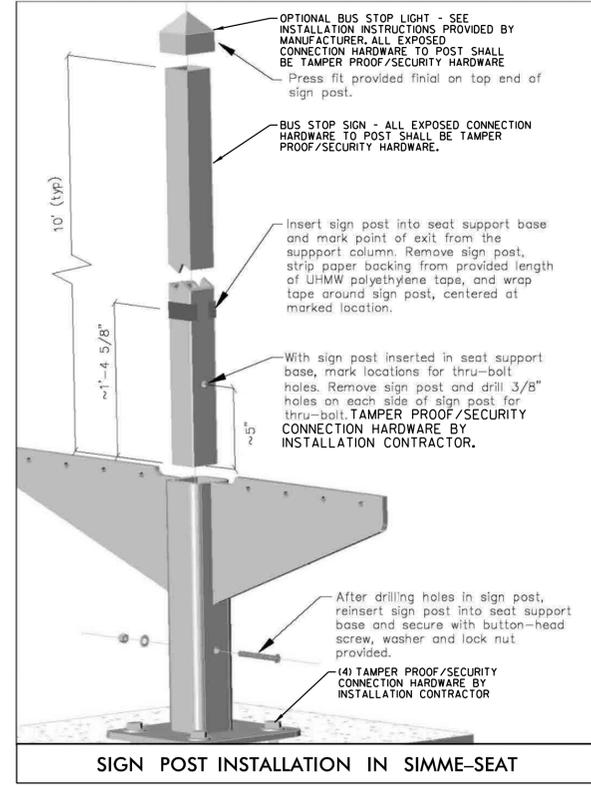
- INSTALLATION STEPS:
- DRILL FOUR 7/8" x 2 1/2" HOLES AT LOCATIONS SHOWN AND INSERT EXPANSION ANCHORS (CRANKS/1" REARHEAD MULLER 5/8" PROP IN CAT. NO. 90M-F8, OR EQUAL) ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
 - INSTALL 6074 DENT BOLT-5/8" NC THREADS (NORR REPORT 350 TESTED FHMA APPROVED).
 - INSTALL SEAT SUPPORT. SHIM AS REQUIRED TO LEVEL, AND SECURE WITH FOUR 5/8" HEX HEAD MACHINE NUTS AND WASHERS.
 - ATTACH SEATS WITH 1/2" BOLTS & NUTS PROVIDED.
 - AFTER INSTALLATION OF CUSTOMER'S SIGN POST INTO SEAT SUPPORT TUBE, SECURE WITH THRU-BOLT AND NUT PROVIDED.

SEE DETAIL SS-1E FOR MORE INFORMATION

INSTALLATION ON EXISTING CONCRETE

Simme L.L.C.
555 Cherry Drive
Eugene, OR 97401
TEL: (541) 338-7993
E-MAIL: SIMME-SEAT@COMCAST.NET

DATE: 4-4-23 FILE NO: SS-1.DWG
DRAWN BY: JSP APP BY: CSJ PLOT SCALE: 1/8"=1'-0"
DATE: 4-4-23



After drilling holes in sign post, reinsert sign post into seat support base and secure with button-head screw, washer and lock nut provided.

(4) TAMPER PROOF/SECURITY CONNECTION HARDWARE BY INSTALLATION CONTRACTOR

SIGN POST INSTALLATION IN SIMME-SEAT

10/2/2025
User: ealispough
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



CITY OF DURHAM
GODURHAM BUS STOPS
BUS STOP AMENITY DETAILS

NOTES:
1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
3.) CUSTOM LETTERING AVAILABLE FOR RECESSED SIDE PANELS (TOTAL OF 37 SPACES)
 CUSTOM LETTERING (37 SPACES)

LENGTH OPTIONS:
 6' BENCH
 8' BENCH

DuMor, inc.	BENCH	DATE DRAWN : 3/22/94 DRAWN BY : JH DATE REV. : 11/21/99 REV. BY : JSB	REV. D	DRAWING NUMBER	58 SERIES	SHEET 1 OF 2
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NOTES:
1.) DURING ASSEMBLY PROCEDURE, DO NOT COMPLETELY TIGHTEN HARDWARE.
2.) THE ACTUAL PARTS WILL NOT BE NUMBERED.
3.) NUMBERS ONLY APPLY TO DRAWING.
4.) MOUNT AND ANCHOR AS SPECIFIED.

TOOLS REQ'D:
3/4" WRENCH
5/16" ALLEN WRENCH
1/2" MASONRY DRILL BIT
DRILL
RATCHET STRAP (PROVIDED)

PARTS LIST:

ITEM	QTY	PART NO	DESCRIPTION
1	2	0-57-60-04	CAST IRON BENCH SUPPORT
2	1	0-57-60-04	71 3/4" PIPE BRACE
3	1	0-58-60-01	6" STL SEAT
4	6	1-12-085	1/2" X 2 1/2" FLT SKT HD CAP SCR

KITS PROVIDED:

ITEM	QTY	PART NO	DESCRIPTION
5	1	K-F0840-6	1/2" CAP HARDWARE KIT (6PCS)
6	1	K-AN2000-4	1/2" X 3 3/4" SS ANCHOR KIT (4PCS)

ASSEMBLY INSTRUCTIONS:

1. REMOVE AND DISCARD 1/2" X 1/2" HD BOLTS AND SHIPPING BRACKET.

2. ATTACH CAST IRON BENCH SUPPORT TO 6" STL SEAT.

3. PLACE SEAT ASSEMBLY ON WORK SURFACE ALLOWING ACCESS TO ENDS. PLACE RATCHET STRAP AROUND SEAT ASSEMBLY AS SHOWN ABOVE.

4. TIGHTEN STRAP UNTIL SHIPPING BRACKET BECOMES LOOSE, THEN REMOVE AND DISCARD BOLTS & SHIPPING BRACKET.

5. ATTACH CAST SUPPORT TO SEAT ASSEMBLY. IF HOLES IN CASTING DO NOT ALIGN WITH THE SEAT ASSEMBLY, ADJUST BY USING THE RATCHET STRAP.

6. TIGHTEN HARDWARE THEN REMOVE RATCHET STRAP AND REPEAT THIS PROCEDURE ON THE OTHER END OF BENCH.

7. ATTACH 71 3/4" PIPE BRACE TO STEP 1 ASSEMBLY.

ASSEMBLY INSTRUCTIONS:

DuMor, inc.	ASSEMBLY INSTRUCTIONS	DATE DRAWN : 3/22/94 DRAWN BY : JH DATE REV. : 11/21/99 REV. BY : JSB	REV. D	DRAWING NUMBER	58 SERIES	SHEET 2 OF 2
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NOTE:
1.) DURING ASSEMBLY PROCEDURE, DO NOT COMPLETELY TIGHTEN HARDWARE.
2.) THE ACTUAL PARTS WILL NOT BE NUMBERED.
NUMBERS ONLY APPLY TO DRAWING.

STEP 1:
USE 2 - PCS. CAST IRON BENCH SUPPORT (2)
1 - PC. 6" SEAT ASSEMBLY (3)
4 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. (4)
ATTACH CAST IRON BENCH SUPPORTS (2) TO 6" SEAT ASSEMBLY (3) USING HARDWARE (4). TIGHTEN TO SNUG FIT.

STEP 2:
USE 1 - PC. 71 3/4" PIPE BRACE (1)
2 - PCS. 1/2" X 2 1/2" FLT. SKT. HD. CAP SCR. (4)
ATTACH 71 3/4" PIPE BRACE (1) TO STEP 1 ASSEMBLY USING HARDWARE (4). TIGHTEN TO SNUG FIT.

STEP 3:
UPON COMPLETION OF BENCH ASSEMBLY SQUARE ALL COMPONENTS THEN TIGHTEN ALL HARDWARE.

STEP 4:
MOUNT AND ANCHOR AS SPECIFIED.

SCALE: NONE

TITLE: BENCH ASSEMBLY

DuMor, inc.	BENCH ASSEMBLY	DATE DRAWN : 3/22/94 DRAWN BY : JH DATE REV. : 12/14/99 REV. BY : JSB	REV. C	DRAWING NUMBER	92 SERIES	SHEET 2 OF 2
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NOTES:
1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.

LENGTH OPTIONS:
 6' BENCH
 8' BENCH

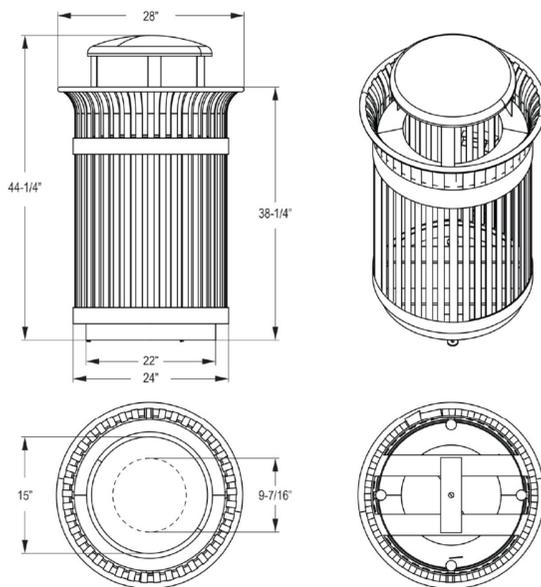
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TITLE: BENCH

DuMor, inc.	BENCH	DATE DRAWN : 3/22/94 DRAWN BY : JH DATE REV. : 12/14/99 REV. BY : JSB	REV. C	DRAWING NUMBER	92 SERIES	SHEET 1 OF 2
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Executive Series Flare Top Trash Receptacle with Rain Bonnet Lid - Black
593-9122



Spec Sheet

NOTES:
1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.
3.) CUSTOM LETTERING AVAILABLE FOR RECESSED SIDE PANELS (TOTAL OF 37 SPACES)
 CUSTOM LETTERING (37 SPACES)

LENGTH OPTIONS:
 6' BENCH
 8' BENCH

SCALE: NONE

TITLE: BENCH

DuMor, inc.	BENCH	DATE DRAWN : 03/22/94 DRAWN BY : JH DATE REV. : 11/21/99 REV. BY : JSB	REV. D	DRAWING NUMBER	58 SER-3AR	SHEET 1 OF 2
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NOTES:
1.) DURING ASSEMBLY PROCEDURE, DO NOT COMPLETELY TIGHTEN HARDWARE.
2.) THE ACTUAL PARTS WILL NOT BE NUMBERED.
3.) NUMBERS ONLY APPLY TO DRAWING.
4.) MOUNT AND ANCHOR AS SPECIFIED.

TOOLS REQ'D:
3/4" WRENCH
5/16" ALLEN WRENCH
1/2" MASONRY DRILL BIT
DRILL
RATCHET STRAP (PROVIDED)

PARTS LIST:

ITEM	QTY	PART NO	DESCRIPTION
1	2	0-57-60-04	CAST IRON BENCH SUPPORT
2	1	0-57-60-04	71 3/4" PIPE BRACE
3	1	0-58-60-01	6" STL SEAT
4	6	1-12-085	1/2" X 2 1/2" FLT SKT HD CAP SCR
5	1	1-22-075	1/2" SS TUB WRENCH

KITS PROVIDED:

ITEM	QTY	PART NO	DESCRIPTION
10	1	K-F0840-6	1/2" CAP HARDWARE KIT (6PCS)
11	1	K-AN2000-4	1/2" X 3 3/4" SS ANCHOR KIT (4PCS)
12	1	K-F0840-6	1/2" CAP HARDWARE KIT (6PCS)

ASSEMBLY INSTRUCTIONS:

1. REMOVE AND DISCARD 1/2" X 1/2" HD BOLTS AND SHIPPING BRACKET.

2. ATTACH CAST IRON BENCH SUPPORT TO 6" STL SEAT.

3. PLACE SEAT ASSEMBLY ON WORK SURFACE ALLOWING ACCESS TO ENDS. PLACE RATCHET STRAP AROUND SEAT ASSEMBLY AS SHOWN ABOVE.

4. TIGHTEN STRAP UNTIL SHIPPING BRACKET BECOMES LOOSE, THEN REMOVE AND DISCARD BOLTS & SHIPPING BRACKET.

5. ATTACH CAST SUPPORT TO SEAT ASSEMBLY. IF HOLES IN CASTING DO NOT ALIGN WITH THE SEAT ASSEMBLY, ADJUST BY USING THE RATCHET STRAP.

6. TIGHTEN HARDWARE THEN REMOVE RATCHET STRAP AND REPEAT THIS PROCEDURE ON THE OTHER END OF BENCH.

7. ATTACH 71 3/4" PIPE BRACE TO STEP 1 ASSEMBLY.

ASSEMBLY INSTRUCTIONS:

DuMor, inc.	ASSEMBLY INSTRUCTIONS	DATE DRAWN : 03/22/94 DRAWN BY : JH DATE REV. : 11/21/99 REV. BY : JSB	REV. A	DRAWING NUMBER	58 SER-3AR	SHEET 2 OF 2
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REVISIONS

DATE: 02/05/2026
DESIGNED BY: EHA
CHECKED BY: BRL

NOT TO SCALE

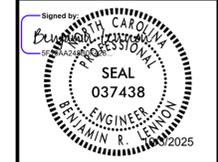




CITY OF DURHAM
GODURHAM BUS STOPS
CURB RAMP DETAILS

REVISIONS					
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED					

DATE: 10/02/2025
 DESIGNED BY: EHA
 CHECKED BY: BRL
 NOT TO SCALE



ISOMETRIC VIEW
PAY LIMITS FOR CURB RAMP

SECTION A-A
SECTION B-B

NOTES:

- Maximum curb ramp slope 8.33% (12:1)
- Maximum cross slope 2.00%
- Curb ramps require a (5'-0") minimum landing, with a maximum cross slope and longitudinal slope of 2.00% where pedestrians perform turning maneuvers. Slope to drain to curb.
- Detectable warning domes will cover 2'-0" length and full width of the ramp where it is flush with the pavement.

CITY OF DURHAM, NC
USE WITH THE STANDARD SPECIFICATIONS ONLY
www.durhamnc.gov

DEPT. OF PUBLIC WORKS
101 City Hall Plaza
Durham, NC 27701

DOUBLE CURB RAMP WITH PROPOSED CURB & GUTTER

SCALE: Not to Scale	DETAIL#: 405.01
REVISION DATE: 06/2017	SHEET#: 1 of 1

ISOMETRIC VIEW
PAY LIMITS FOR CURB RAMP

SECTION A-A
SECTION B-B

NOTES:

- Maximum curb ramp slope 8.33% (12:1)
- Maximum cross slope 2.00%
- Curb ramps require a (5'-0") minimum landing, with a maximum cross slope and longitudinal slope of 2.00% where pedestrians perform turning maneuvers. Slope to drain to curb.
- Detectable warning domes will cover 2'-0" length and full width of the ramp where it is flush with the pavement.

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DEPT. OF PUBLIC WORKS
101 City Hall Plaza
Durham, NC 27701

SINGLE CURB RAMP WITH PROPOSED CURB & GUTTER

SCALE: Not to Scale	DETAIL#: 405.03
REVISION DATE: 06/2017	SHEET#: 2 of 2

ISOMETRIC VIEW
PAY LIMITS FOR CURB RAMP

SECTION A-A
SECTION B-B

NOTES:

- Maximum curb ramp slope 8.33% (12:1)
- Maximum cross slope 2.00%
- Curb ramps require a (5'-0") minimum landing, with a maximum cross slope and longitudinal slope of 2.00% where pedestrians perform turning maneuvers. Slope to drain to curb.
- Detectable warning domes will cover 2'-0" length and full width of the ramp where it is flush with the pavement.

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101 City Hall Plaza
Durham, NC 27701

SINGLE CURB RAMP WITH PROPOSED CURB & GUTTER

SCALE: Not to Scale	DETAIL#: 405.03
REVISION DATE: 06/2017	SHEET#: 1 of 2

ISOMETRIC VIEW
PAY LIMITS FOR CURB RAMP

SECTION A-A
SECTION B-B

NOTES:

- Maximum curb ramp slope 8.33% (12:1)
- Maximum cross slope 2.00%
- Curb ramps require a (5'-0") minimum landing, with a maximum cross slope and longitudinal slope of 2.00% where pedestrians perform turning maneuvers. Slope to drain to curb.
- Detectable warning domes will cover 2'-0" length and full width of the ramp where it is flush with the pavement.

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101 City Hall Plaza
Durham, NC 27701

DOUBLE CURB RAMP WITH PROPOSED CURB & GUTTER

SCALE: Not to Scale	DETAIL#: 405.01
REVISION DATE: 06/2017	SHEET#: 1 of 1

ISOMETRIC VIEW
PAY LIMITS FOR CURB RAMP

SECTION A-A
SECTION B-B

NOTES:

- Maximum curb ramp slope 8.33% (12:1)
- Maximum cross slope 2.00%
- Curb ramps require a (5'-0") minimum landing, with a maximum cross slope and longitudinal slope of 2.00% where pedestrians perform turning maneuvers. Slope to drain to curb.
- Detectable warning domes will cover 2'-0" length and full width of the ramp where it is flush with the pavement.

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101 City Hall Plaza
Durham, NC 27701

CURB RAMPS - PARALLEL TYPE 3

SCALE: Not to Scale	DETAIL#: 405.06
REVISION DATE: 06/2017	SHEET#: 1 of 1

ISOMETRIC VIEW
PAY LIMITS FOR CURB RAMP

SECTION A-A
SECTION B-B

NOTES:

- Maximum curb ramp slope 8.33% (12:1)
- Maximum cross slope 2.00%
- Curb ramps require a (5'-0") minimum landing, with a maximum cross slope and longitudinal slope of 2.00% where pedestrians perform turning maneuvers. Slope to drain to curb.
- Detectable warning domes will cover 2'-0" length and full width of the ramp where it is flush with the pavement.

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DEPT. OF PUBLIC WORKS
101 City Hall Plaza
Durham, NC 27701

CURB RAMPS - PARALLEL TYPE 2A

SCALE: Not to Scale	DETAIL#: 405.05
REVISION DATE: 06/2017	SHEET#: 2 of 2

ISOMETRIC VIEW
PAY LIMITS FOR CURB RAMP

SECTION A-A
SECTION B-B

NOTES:

- Maximum curb ramp slope 8.33% (12:1)
- Maximum cross slope 2.00%
- Curb ramps require a (5'-0") minimum landing, with a maximum cross slope and longitudinal slope of 2.00% where pedestrians perform turning maneuvers. Slope to drain to curb.
- Detectable warning domes will cover 2'-0" length and full width of the ramp where it is flush with the pavement.

CITY OF DURHAM, NC
USE WITH THE STANDARD SPECIFICATIONS ONLY
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DEPT. OF PUBLIC WORKS
101 City Hall Plaza
Durham, NC 27701

CURB RAMPS - PARALLEL TYPE 2

SCALE: Not to Scale	DETAIL#: 405.05
REVISION DATE: 06/2017	SHEET#: 1 of 2

ISOMETRIC VIEW
PAY LIMITS FOR CURB RAMP

SECTION A-A
SECTION B-B

NOTES:

- Maximum curb ramp slope 8.33% (12:1)
- Maximum cross slope 2.00%
- Curb ramps require a (5'-0") minimum landing, with a maximum cross slope and longitudinal slope of 2.00% where pedestrians perform turning maneuvers. Slope to drain to curb.
- Detectable warning domes will cover 2'-0" length and full width of the ramp where it is flush with the pavement.

CITY OF DURHAM, NC
USE WITH THE STANDARD SPECIFICATIONS ONLY
www.durhamnc.gov

DEPT. OF PUBLIC WORKS
101 City Hall Plaza
Durham, NC 27701

CURB RAMPS - DIRECTIONAL TYPE 1A

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REVISION DATE: 06/2017	SHEET#: 2 of 2

10/2/2025
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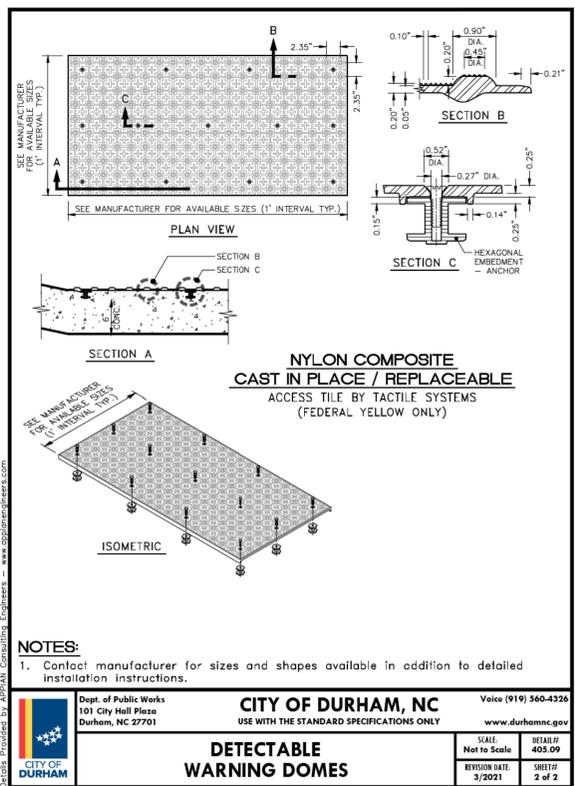
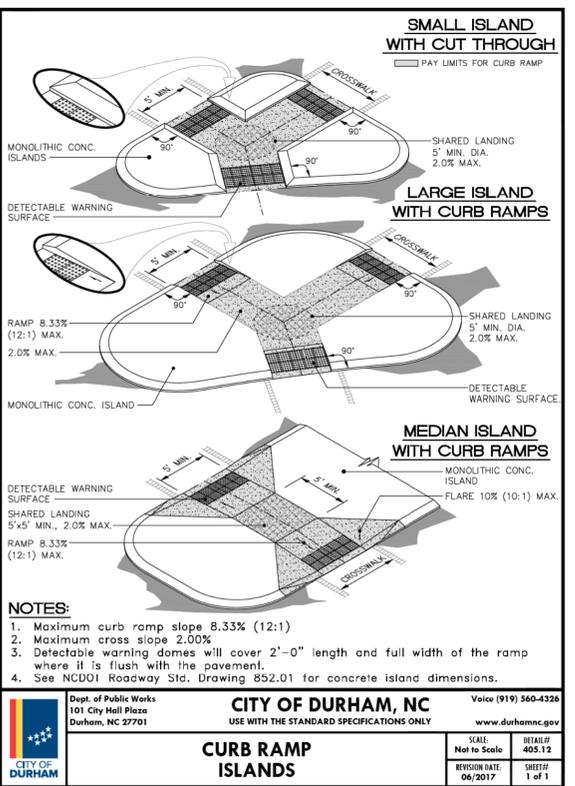
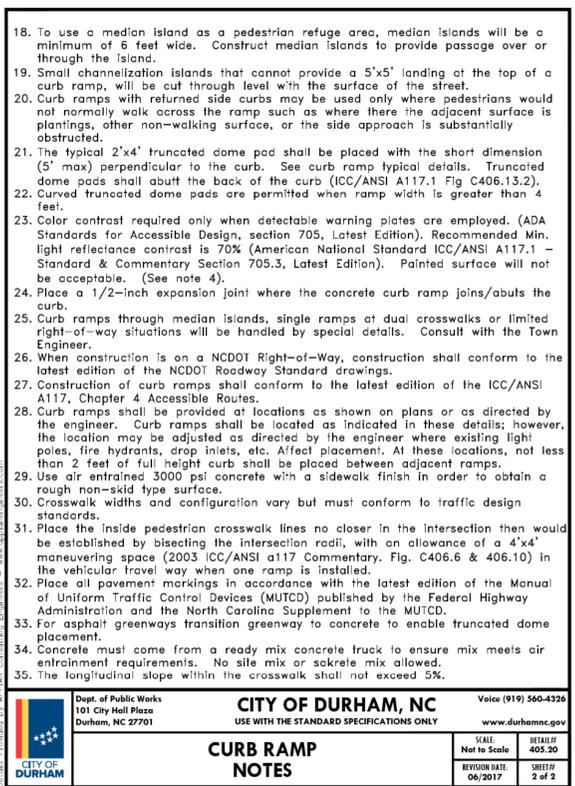
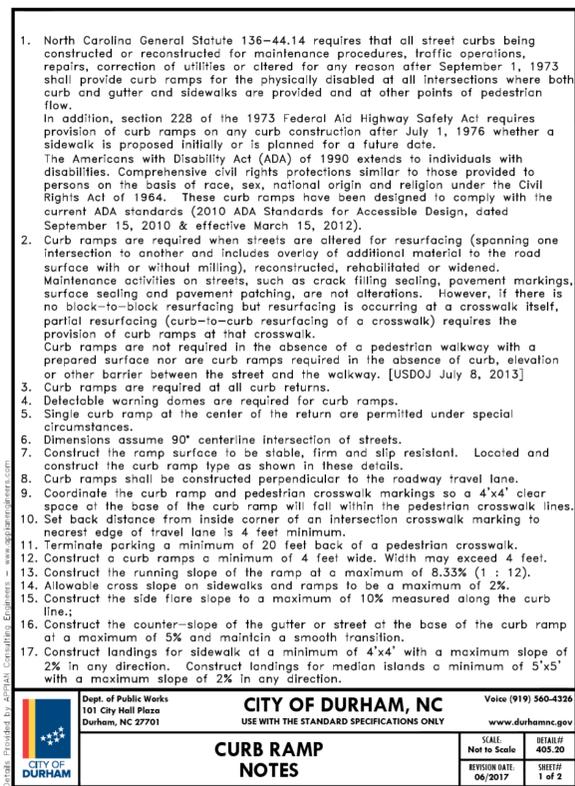
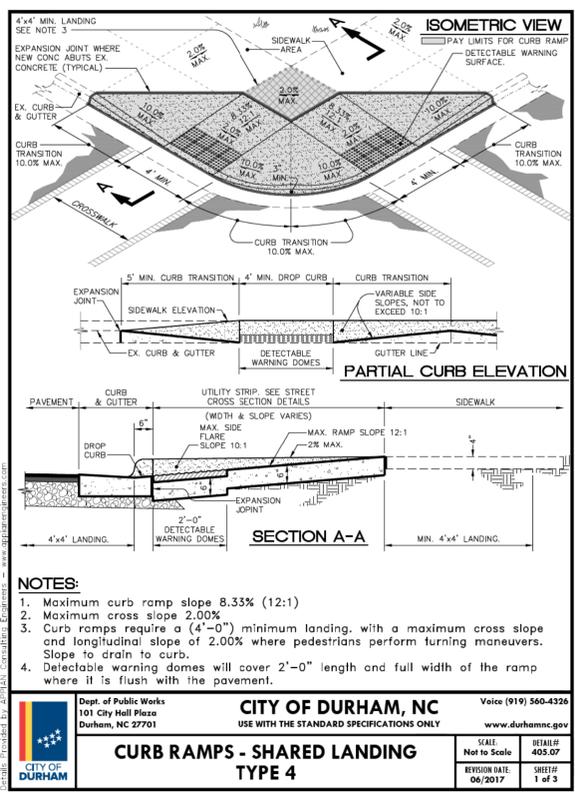
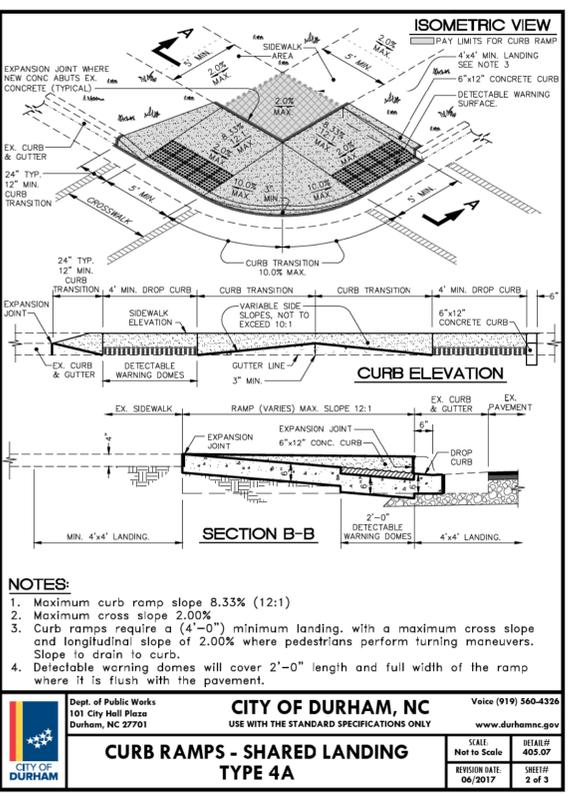
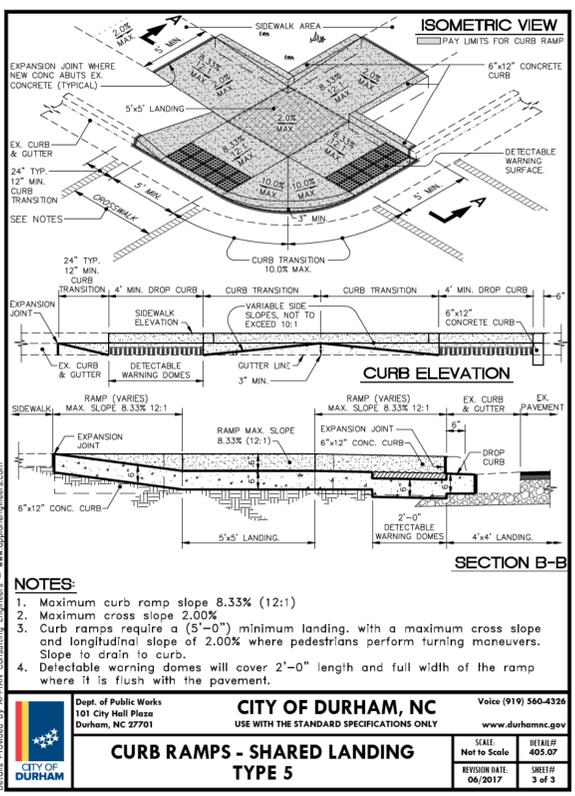
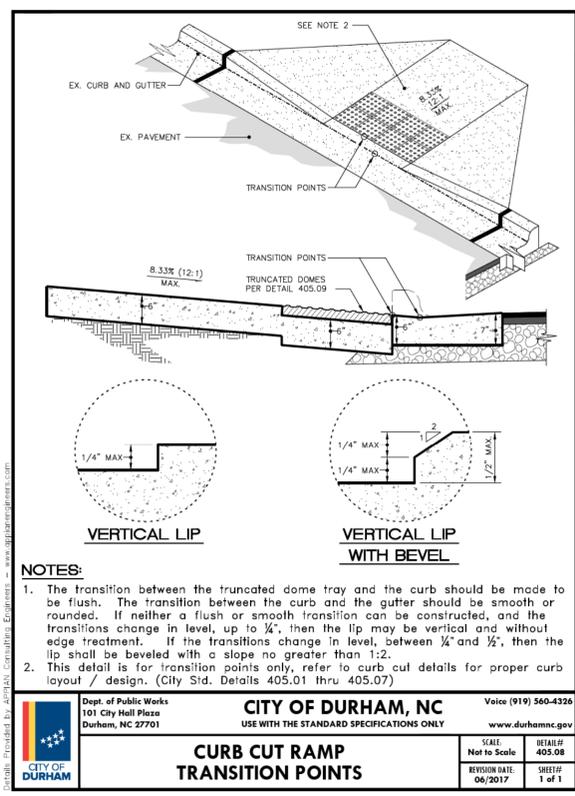
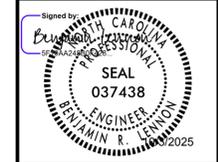


CITY OF DURHAM
GODURHAM BUS STOPS
CURB RAMP DETAILS

REVISIONS

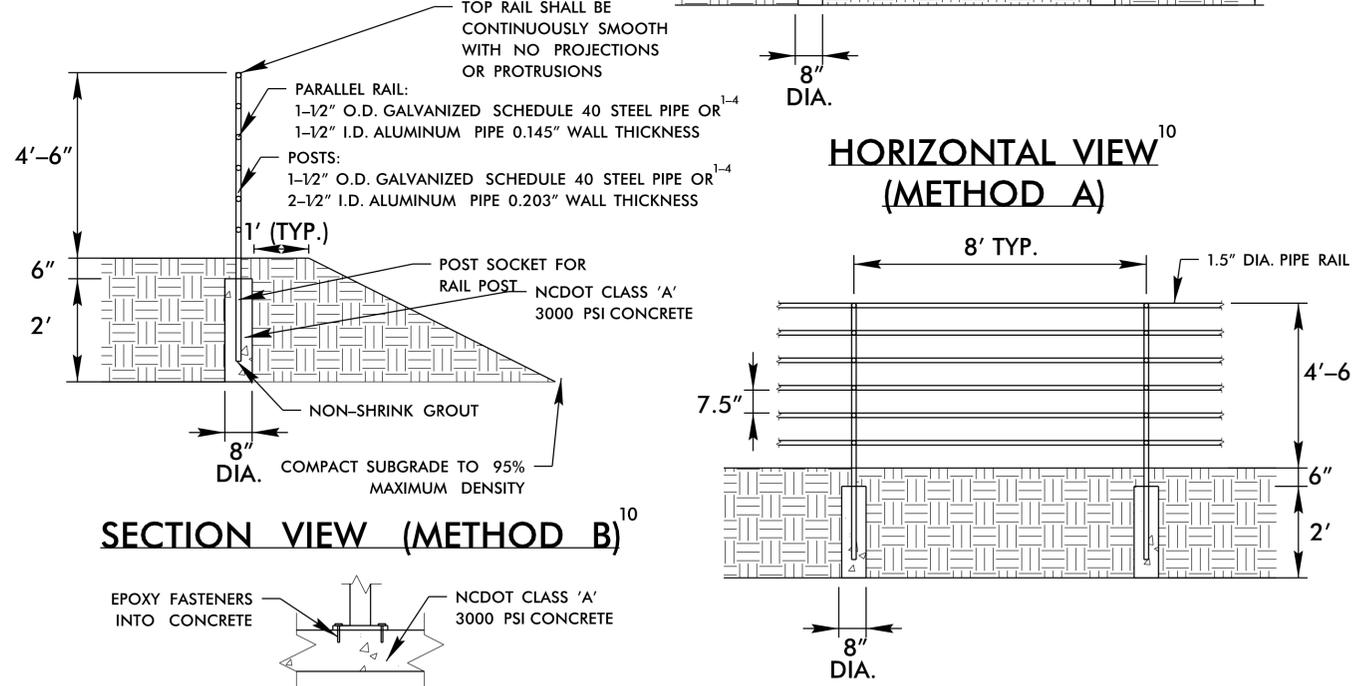
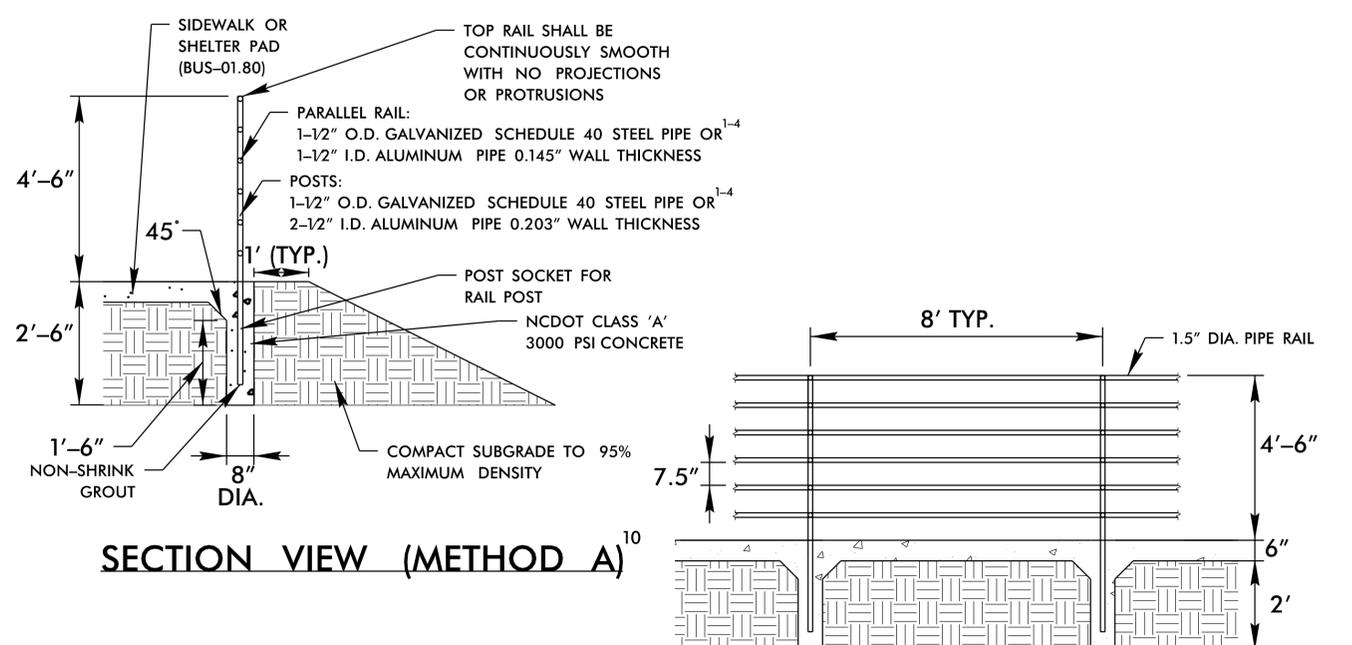
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User: ealispough
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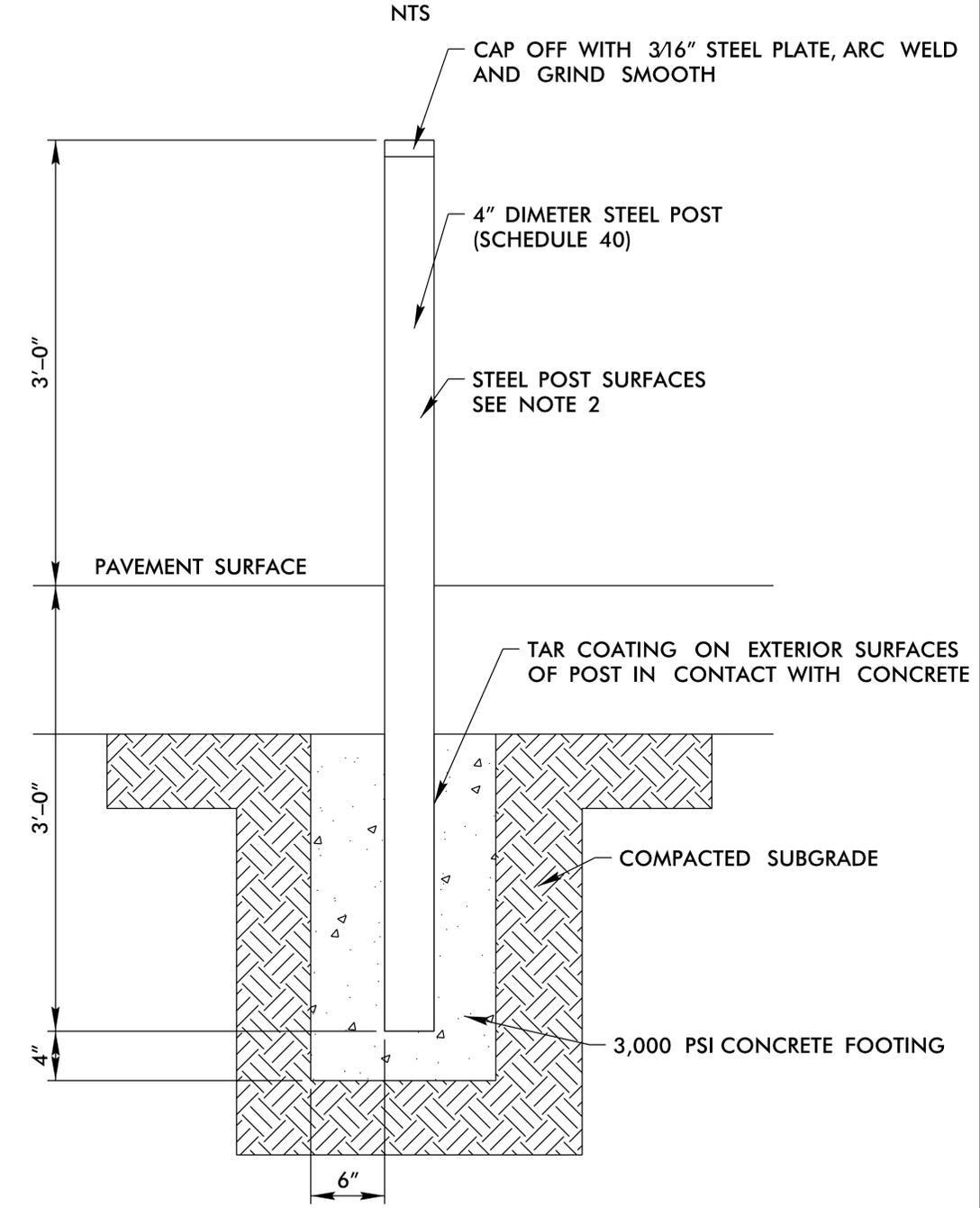
PEDESTRIAN SAFETY RAIL



ALUMINUM POST MOUNT (METHOD C) HORIZONTAL VIEW (METHOD B)

- NOTES:
1. CONSTRUCT PROPOSED STEEL PIPE RAIL OF 1.5" DIAMETER SCHEDULE 40 PLAIN END GALVANIZED STEEL PIPE MEETING REQUIREMENTS OF ASTM A53.
 2. REPAIR GALVANIZING IN ACCORDANCE WITH SECTION 1076 OF THE NCDOT STANDARD SPECIFICATIONS.
 3. PAINT, IF REQUIRED BY ENGINEER, IN ACCORDANCE WITH SECTION 1080 OF THE NCDOT SPECIFICATIONS.
 4. WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE NCDOT STANDARD SPECIFICATIONS.
 5. GOTRIANGLE WILL BE REQUIRED TO PERFORM A SAFETY AND SECURITY REVIEW FOR ALL BUS STOP LOCATIONS. CONTACT GOTRIANGLE'S PLANNING & CAPITAL DEVELOPMENT STAFF AT 919-314-8746 TO SCHEDULE A REVIEW.
 6. SHOP DRAWINGS OF PEDESTRIAN SAFETY RAIL ARE TO BE PROVIDED TO GOTRIANGLE FOR REVIEW PRIOR TO APPROVAL.
 7. EARTH SLOPES STEEPER THAN 2:1 ADJACENT TO TRANSIT PASSENGER AREAS ARE NOT RECOMMENDED AND WOULD REQUIRE SUPPORTING CALCULATIONS AND APPROVAL BY GOTRIANGLE.
 8. PLACEMENT OF SAFETY RAIL IN RELATION TO SHOULDER BREAK POINT AND SIDEWALK MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.
 9. EXCEPTIONS TO THE REQUIREMENTS STATED MAY BE CONSIDERED ON A CASE-BY-CASE BASIS WITH DOCUMENTATION BY THE ENGINEER AND APPROVAL BY GOTRIANGLE.
 10. PREFERRED METHOD OF INSTALLATION IS TO BE DETERMINED BY GOTRIANGLE.

STEEL BOLLARD



- NOTES:
1. ENSURE 1' CLEAR SPACE BETWEEN EDGE OF BOLLARD AND ANY PROPOSED AMENITY.
 2. ALL SURFACES ARE TO BE HOT DIPPED GALVANIZED AND SHOP PRIMED AND PAINTED WITH TWO COATS INDUSTRIAL ENAMEL "SAFETY YELLOW."



CITY OF DURHAM
GODURHAM BUS STOPS
DETAILS

REVISIONS	DATE	DESCRIPTION

DATE: 10/02/2025
DESIGNED BY: EHA
CHECKED BY: BRL

NOT TO SCALE



10/2/2025
User: ealispough
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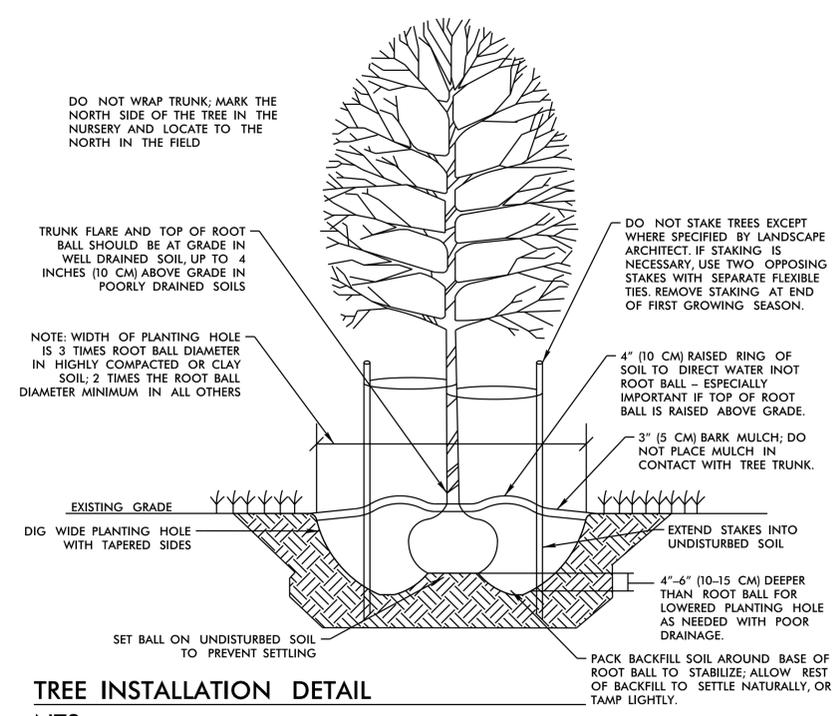
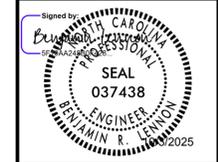


CITY OF DURHAM
GODURHAM BUS STOPS
DETAILS

REVISIONS					DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATE: 10/02/2025
DESIGNED BY: EHA
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NOT TO SCALE



IF PLANTING HOLES ARE DUG WITH A LARGE AUGER, BREAKING DOWN THE SIDES WITH A SHOVEL CAN ELIMINATE GLAZING AND CREATE THE PREFERRED SLOPING SIDE.

AVOID PURCHASING TREES WITH TWO LEADERS OR REMOVE ONE AT PLANTING. OTHERWISE, DO NOT PRUNE TREE AT PLANTING EXCEPT FOR SPECIFIC STRUCTURAL CORRECTIONS.

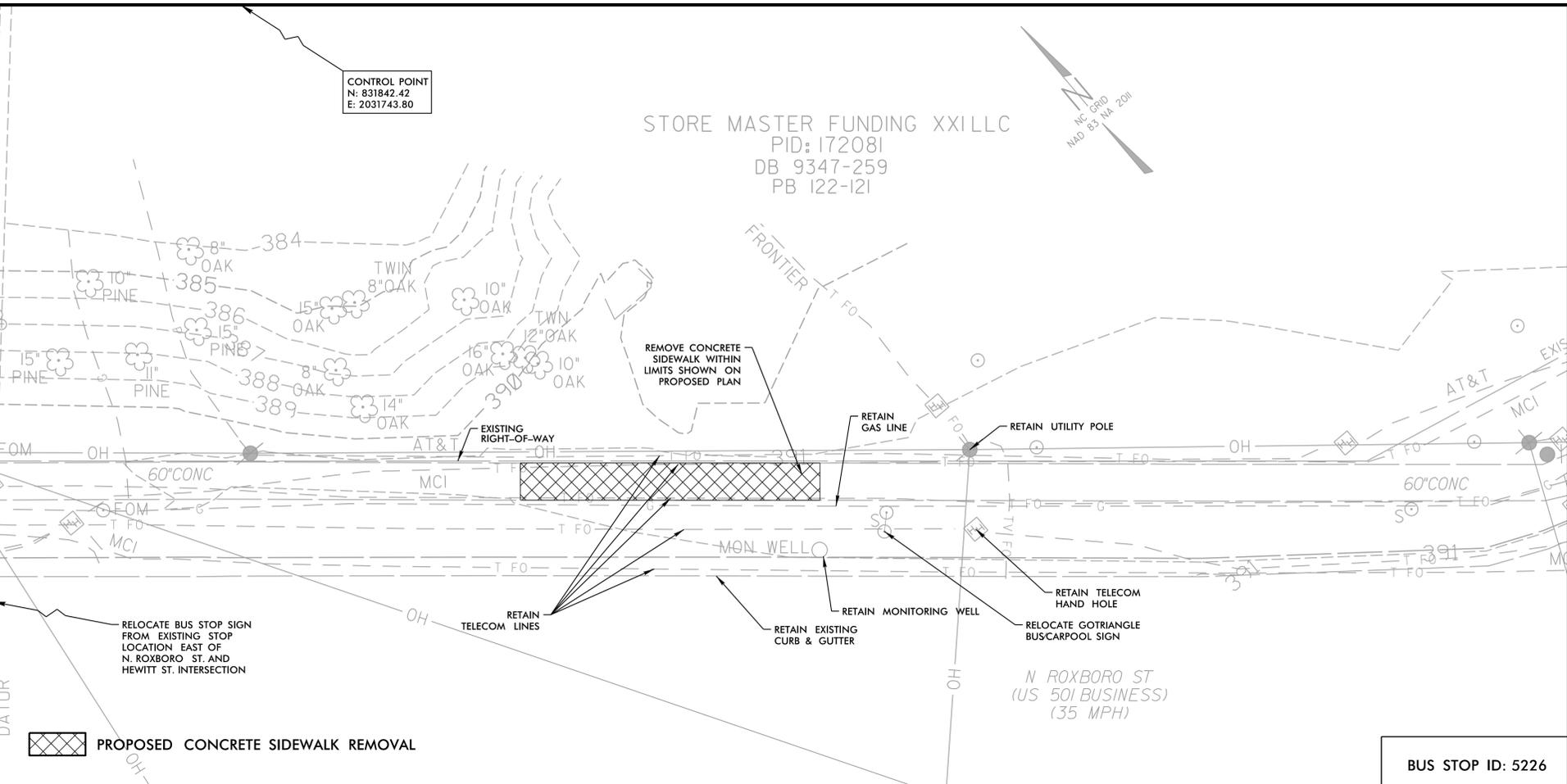
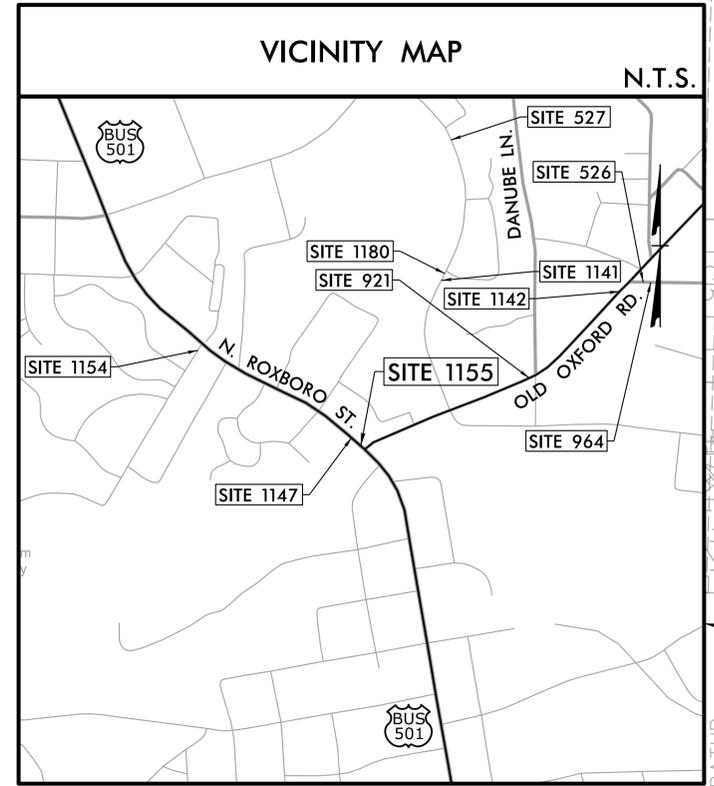
BEFORE PLANTING, ADD 3"-4" (7-10 CM) OF WELL COMPOSITED LEAVES, RECYCLED YARD WASTE OR OTHER COMPOST AND TILL INTO TOP 6" (15 CM) OF PREPARED SOIL. ADD COMPOST AT 10-20% BY VOLUME TO BACKFILL.

- NOTES:
- WHERE SEVERAL TREES WILL BE PLANTED CLOSE TOGETHER SUCH THAT THEY WILL LIKELY SHARE ROOT SPACE, TILL IN SOIL AMENDMENTS TO A DEPTH OF 4"-6" (10-15 CM) OVER THE ENTIRE AREA.
 - FOR CONTAINER-GROWN TREES, USE FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL; THEN CUT OR PULL APART ANY ROOTS CIRCLING THE PERIMETER OF THE CONTAINER.
 - DURING THE DESIGN PHASE, CONFIRM THAT WATER DRAINS OUT OF THE SOIL; USE LOWERED PLANTING HOLE DEPTH AND DESIGN ALTERNATIVE DRAINAGE SYSTEMS AS REQUIRED.
 - THOROUGHLY SOAK THE TREE ROOT BALL AND ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AFTER PLANTING AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.
 - THE PLANTING PROCESS IS SIMILAR FOR DECIDUOUS AND EVERGREEN TREES.

TREE INSTALLATION DETAIL
NTS

10/2/2025
User: ealispough
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EXISTING SURVEY/DEMOLITION PLAN



SITE NO. 1155



CITY OF DURHAM
 GODURHAM BUS STOPS
 N. ROXBORO STREET (NB)
 AT OLD OXFORD ROAD

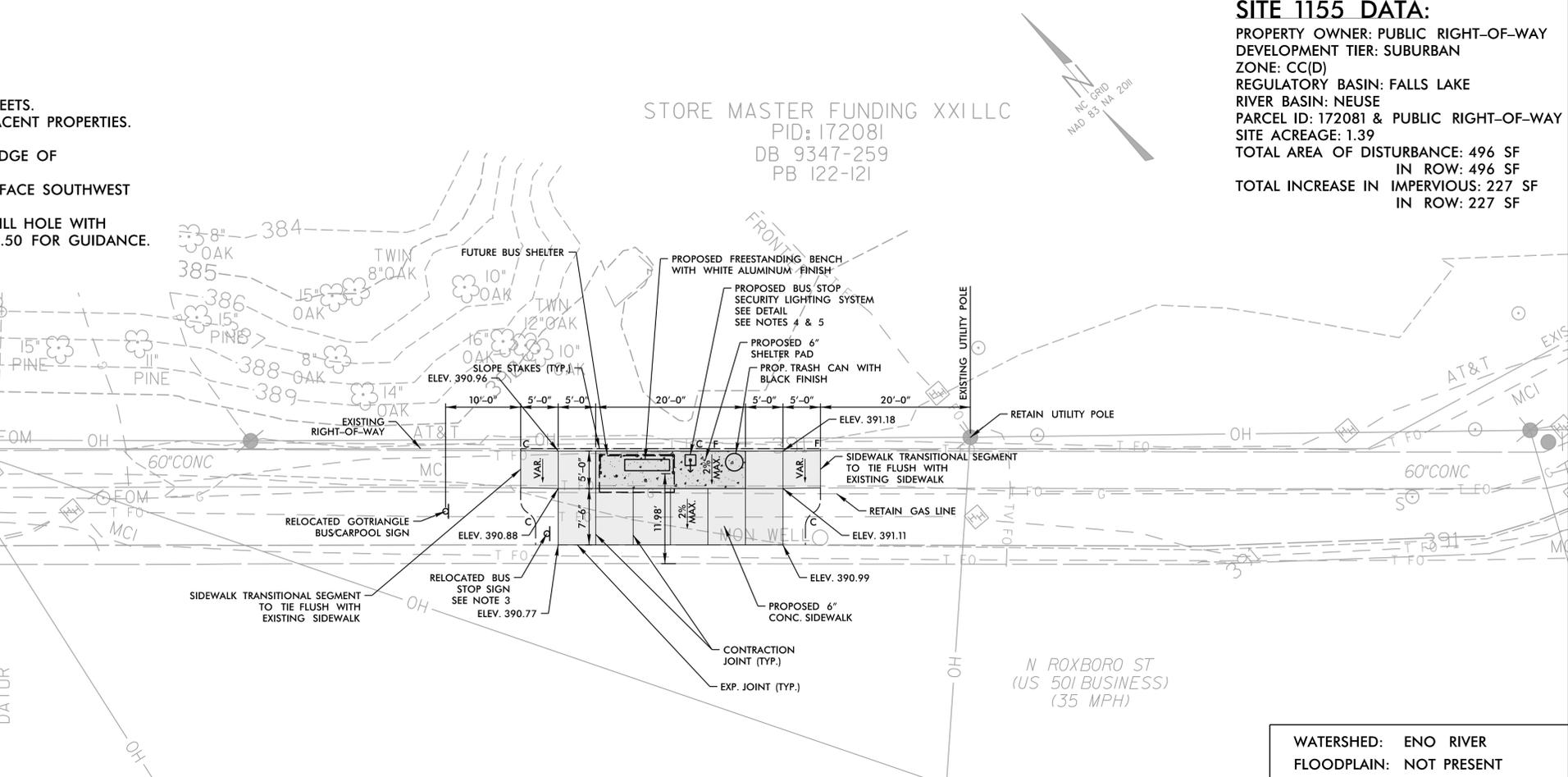
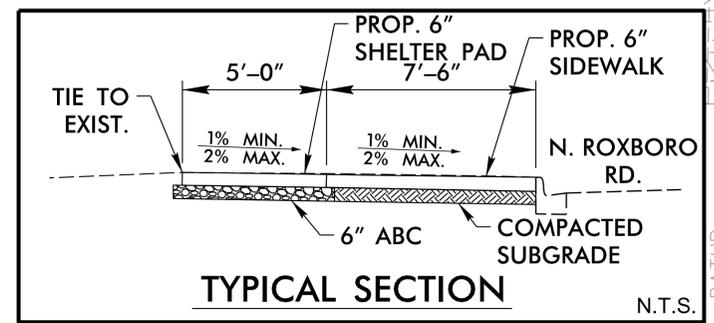
BUS STOP ID: 5226

PROPOSED PLAN

NOTES:

- SEE GENERAL NOTES, LIST OF STANDARDS, & DETAILS ON SERIES 2 SHEETS.
- NO RIGHT-OF-WAY OR EASEMENTS HAVE BEEN ACQUIRED ON ADJACENT PROPERTIES. COMPLETE ALL WORK WITHIN EXISTING RIGHT-OF-WAY.
- MOUNT SIGN 84" ABOVE SIDEWALK. 2' MIN. & 8' MAX. CLEAR FROM EDGE OF PAVEMENT TO EDGE OF SIGN.
- BUS STOP SECURITY LIGHTING SYSTEM ACTIVATION BUTTON IS TO FACE SOUTHWEST TOWARD THE PROPOSED SIDEWALK.
- CONTRACTOR TO CORE 12" DIAMETER HOLE FOR SIGN PLACEMENT. FILL HOLE WITH SOIL. TOP 2" OF HOLE WITH JOINT SEALER. FOLLOW NCDOT STD. 904.50 FOR GUIDANCE.

- PROPOSED 6" CONCRETE SIDEWALK
- PROPOSED 6" SHELTER PAD WITH 6" ABC & WIRE FABRIC



SITE 1155 DATA:

PROPERTY OWNER: PUBLIC RIGHT-OF-WAY
 DEVELOPMENT TIER: SUBURBAN
 ZONE: CC(D)
 REGULATORY BASIN: FALLS LAKE
 RIVER BASIN: NEUSE
 PARCEL ID: 172081 & PUBLIC RIGHT-OF-WAY
 SITE ACREAGE: 1.39
 TOTAL AREA OF DISTURBANCE: 496 SF
 IN ROW: 496 SF
 TOTAL INCREASE IN IMPERVIOUS: 227 SF
 IN ROW: 227 SF

REVISIONS	DATE	BY

DATE: 10/31/2024
 DESIGNED BY: EHA
 CHECKED BY: BRL



WATERSHED: ENO RIVER
 FLOODPLAIN: NOT PRESENT

10/31/2024
 User: eal.prough
 Color: Triangle_Site_1155_PSH.dgn

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PAVEMENT MARKING PLAN

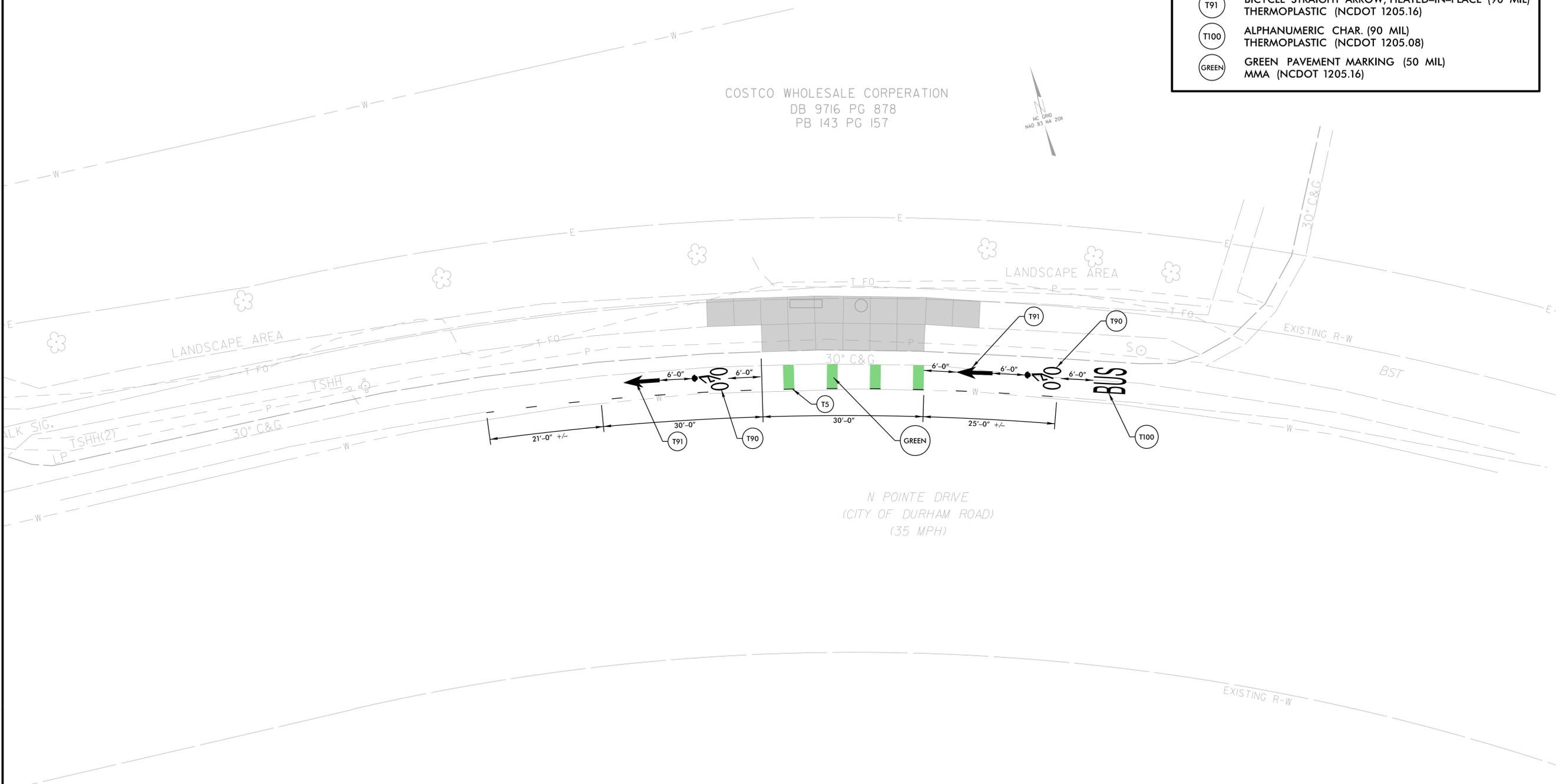
PAVEMENT MARKING LEGEND

- T5 2 FT.-6 FT.SP WHITE MINISKIP (4", 90 MIL) THERMOPLASTIC (NCDOT 1205.01)
- T90 BICYCLE SYMBOL, HEATED-IN-PLACE (90 MIL) THERMOPLASTIC (NCDOT 1205.16)
- T91 BICYCLE STRAIGHT ARROW, HEATED-IN-PLACE (90 MIL) THERMOPLASTIC (NCDOT 1205.16)
- T100 ALPHANUMERIC CHAR. (90 MIL) THERMOPLASTIC (NCDOT 1205.08)
- GREEN GREEN PAVEMENT MARKING (50 MIL) MMA (NCDOT 1205.16)

SITE NO.
1159.2



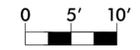
CITY OF DURHAM
 GODURHAM BUS STOPS
 NORTH POINTE DRIVE (WB)
 AT BROAD STREET



REVISIONS	DATE	DESCRIPTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

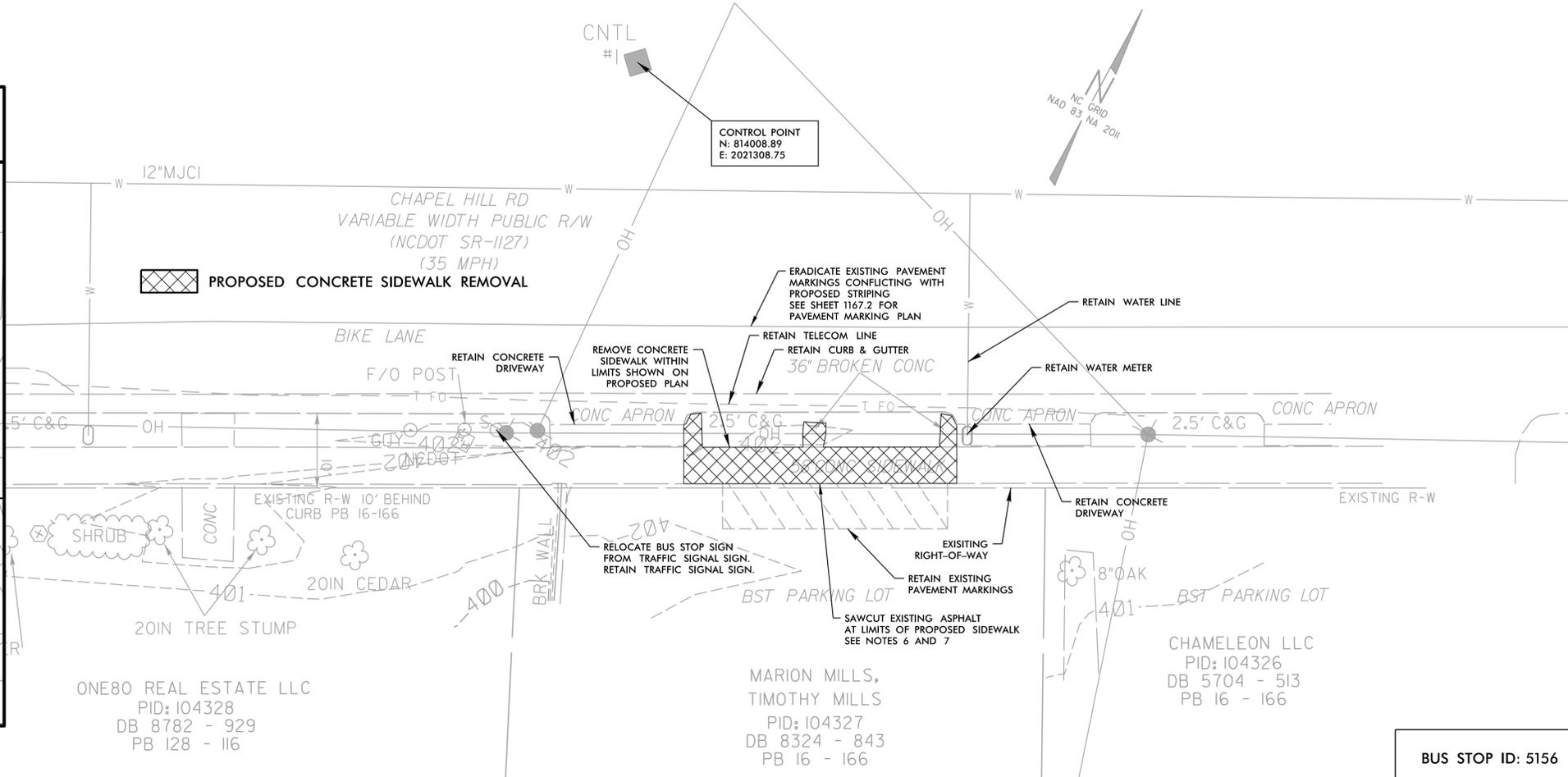
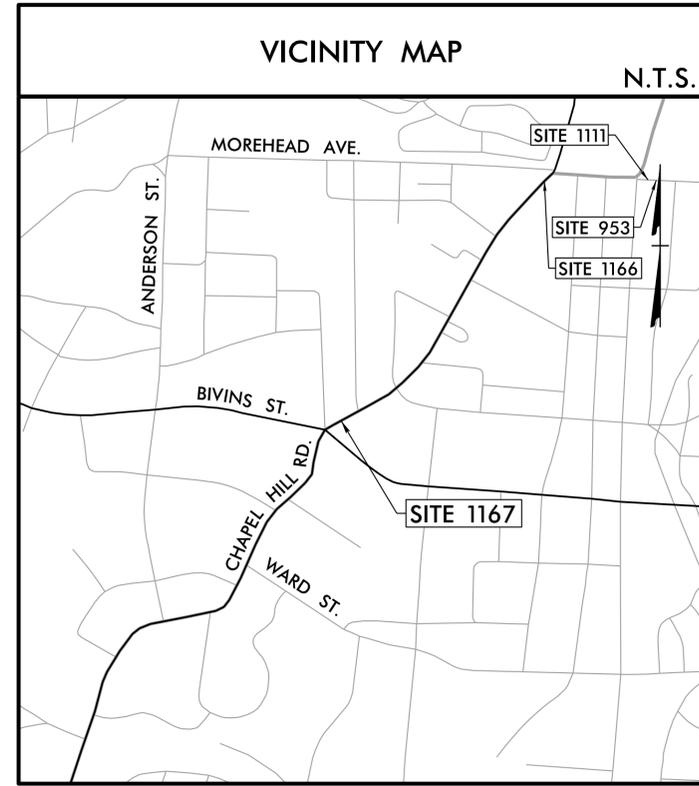
DATE: 02/05/2026
 DESIGNED BY: RJN
 CHECKED BY: BRL



DRMP
 DRMP, INC.
 5808 FARINGTON PLACE
 RALEIGH, NC 27609
 (919) 872-5115
 NC LICENSE NO. F-1524
 www.drmp.com

2/5/2026
 User: eai1spough
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EXISTING SURVEY/DEMOLITION PLAN



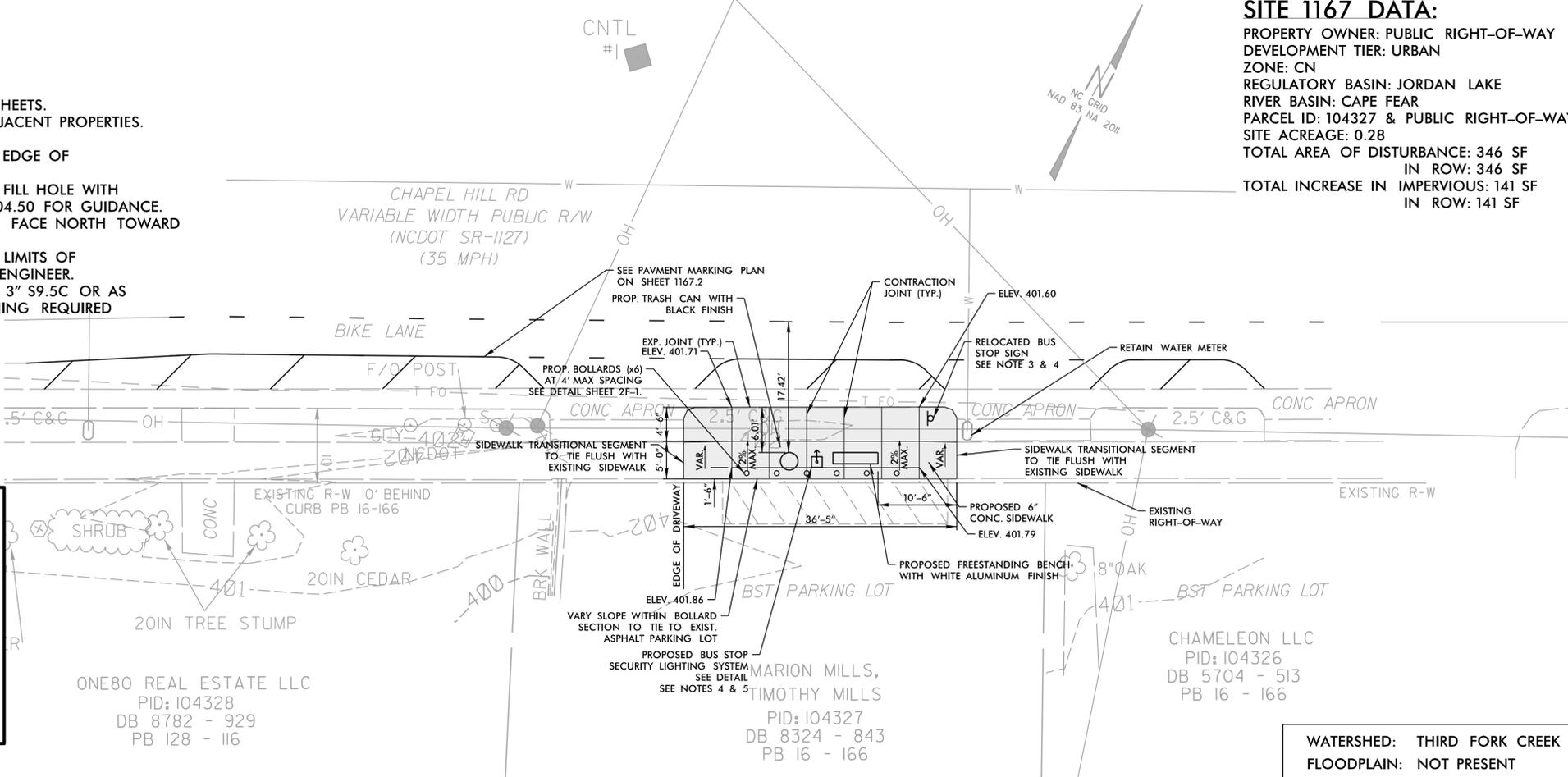
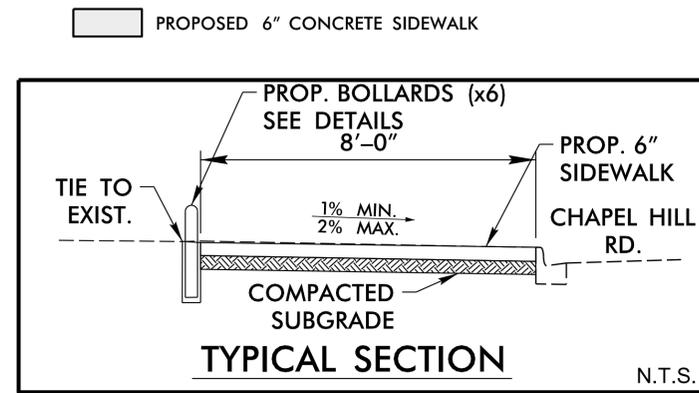
SITE NO. 1167.1



CITY OF DURHAM
GODURHAM BUS STOPS
CHAPEL HILL ROAD (NB)
AT BIVINS STREET

PROPOSED PLAN

- NOTES:
- SEE GENERAL NOTES, LIST OF STANDARDS, & DETAILS ON SERIES 2 SHEETS.
 - NO RIGHT-OF-WAY OR EASEMENTS HAVE BEEN ACQUIRED ON ADJACENT PROPERTIES. COMPLETE ALL WORK WITHIN EXISTING RIGHT-OF-WAY.
 - MOUNT SIGN 84" ABOVE SIDEWALK. 2' MIN. & 8' MAX. CLEAR FROM EDGE OF PAVEMENT TO EDGE OF SIGN.
 - CONTRACTOR TO CORE 12" DIAMETER HOLE FOR SIGN PLACEMENT. FILL HOLE WITH SOIL. TOP 2" OF HOLE WITH JOINT SEALER. FOLLOW NCDOT STD. 904.50 FOR GUIDANCE.
 - BUS STOP SECURITY LIGHTING SYSTEM ACTIVATION BUTTON IS TO FACE NORTH TOWARD CHAPEL HILL ROAD.
 - SAW CUT ASPHALT TO PROVIDE SMOOTH, STRAIGHT LINE BETWEEN LIMITS OF REMOVAL. ASPHALT PATCH AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
 - ANY ASPHALT PATCHING REQUIRED IS TO INCLUDE 6" 119.0C AND 3" S9.5C OR AS OTHERWISE DIRECTED BY THE ENGINEER OR NCDOT. ASPHALT PATCHING REQUIRED WILL BE AT NO ADDITIONAL COST TO THE OWNER.



SITE 1167 DATA:
 PROPERTY OWNER: PUBLIC RIGHT-OF-WAY
 DEVELOPMENT TIER: URBAN
 ZONE: CN
 REGULATORY BASIN: JORDAN LAKE
 RIVER BASIN: CAPE FEAR
 PARCEL ID: 104327 & PUBLIC RIGHT-OF-WAY
 SITE ACREAGE: 0.28
 TOTAL AREA OF DISTURBANCE: 346 SF
 IN ROW: 346 SF
 TOTAL INCREASE IN IMPERVIOUS: 141 SF
 IN ROW: 141 SF

BUS STOP ID: 5156

REVISIONS

DATE: 10/31/2024
 DESIGNED BY: EHA
 CHECKED BY: BRL



WATERSHED: THIRD FORK CREEK
 FLOODPLAIN: NOT PRESENT

10/31/2024
 User: eal.spough
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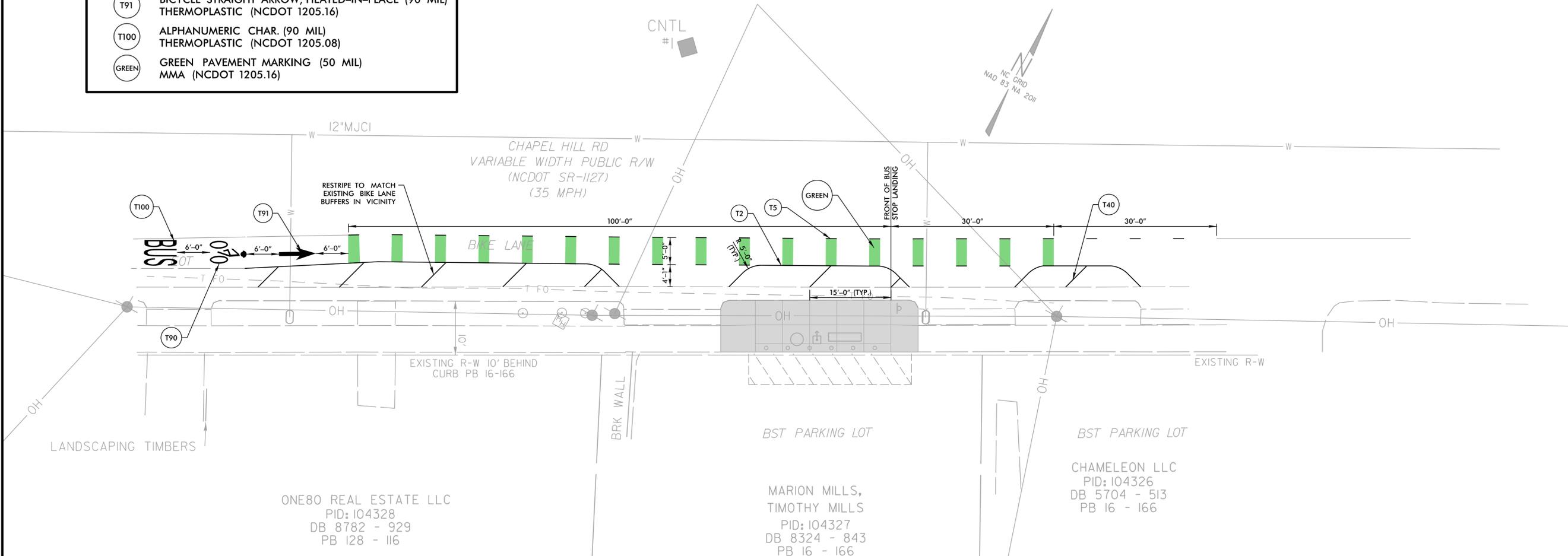
PAVEMENT MARKING PLAN

SITE NO.
1167.2



PAVEMENT MARKING LEGEND	
(T2)	WHITE SOLID LANE LINE (4", 90 MIL) THERMOPLASTIC (NCDOT 1205.01)
(T5)	2 FT.-6 FT.SP WHITE MINISKIP (4", 90 MIL) THERMOPLASTIC (NCDOT 1205.01)
(T40)	WHITE GORELINE (8", 90MIL) THERMOPLASTIC (NCDOT 1205.01)
(T90)	BICYCLE SYMBOL, HEATED-IN-PLACE (90 MIL) THERMOPLASTIC (NCDOT 1205.16)
(T91)	BICYCLE STRAIGHT ARROW, HEATED-IN-PLACE (90 MIL) THERMOPLASTIC (NCDOT 1205.16)
(T100)	ALPHANUMERIC CHAR. (90 MIL) THERMOPLASTIC (NCDOT 1205.08)
(GREEN)	GREEN PAVEMENT MARKING (50 MIL) MMA (NCDOT 1205.16)

CITY OF DURHAM
 GODURHAM BUS STOPS
 CHAPEL HILL ROAD (NB)
 AT BIVINS STREET



REVISIONS	DATE	BY	DESCRIPTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DATE: 10/31/2024
 DESIGNED BY: EHA
 CHECKED BY: BRL



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