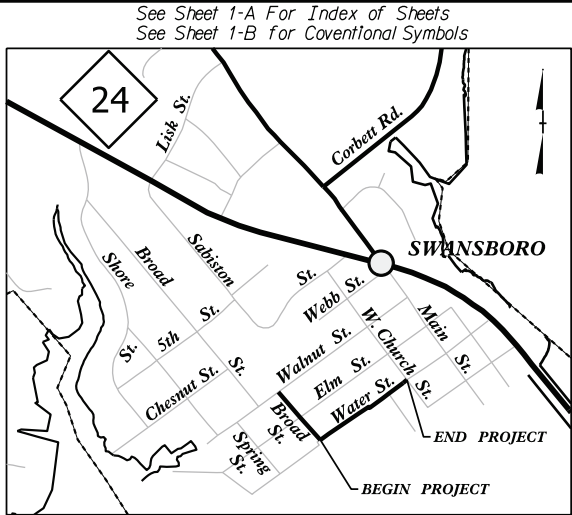


09/28/99

TIP PROJECT: N/A

CONTRACT: N/A



VICINITY MAP
(N.T.S.)

TOWN OF SWANSBORO
ONSLOW COUNTY, NORTH CAROLINA

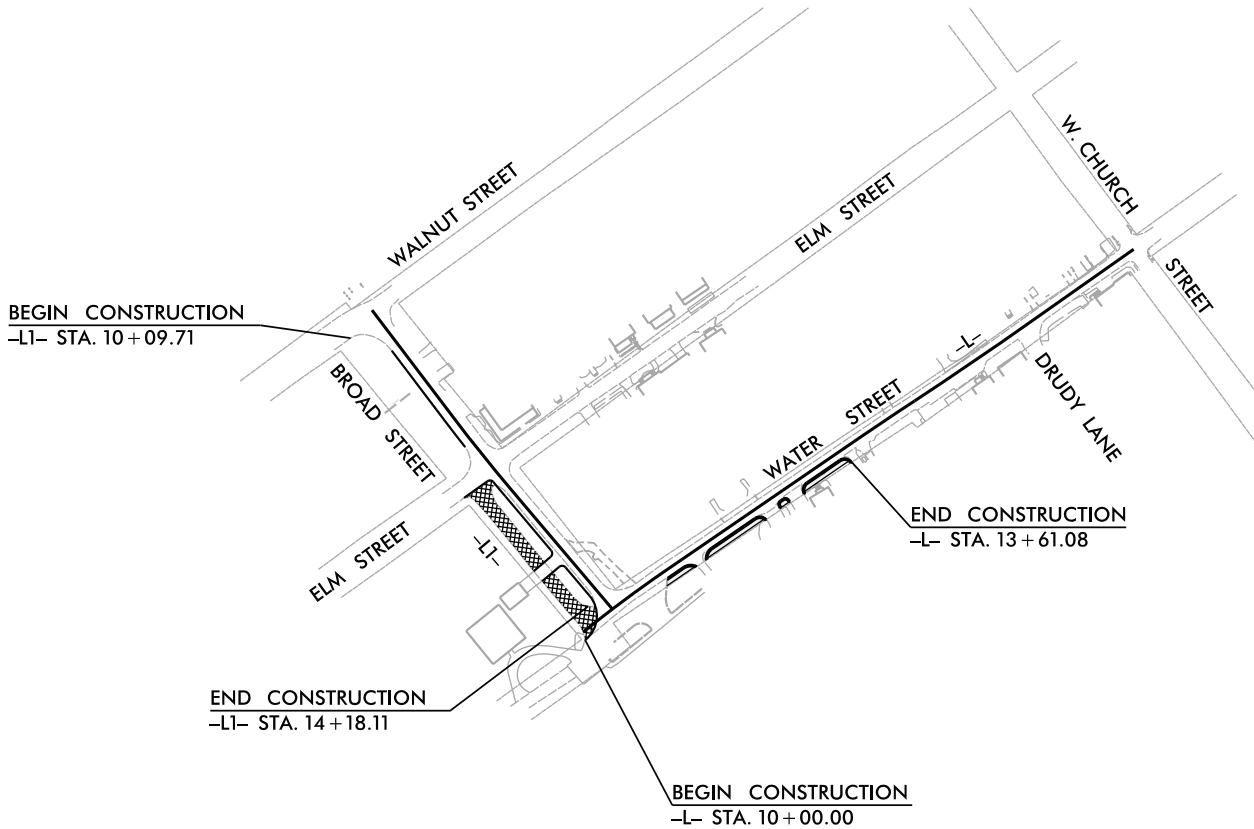
**WATER STREET
DRAINAGE IMPROVEMENTS**

LOCATION: FROM WATER STREET TO W. CHURCH STREET AND
BROAD STREET TO WATER STREET

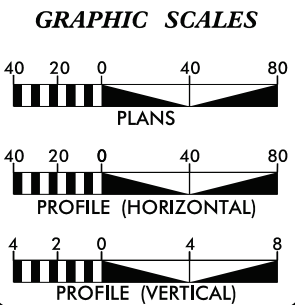
TYPE OF WORK: GRADING, PAVING, DRAINAGE, & EROSION CONTROL

100% PLANS

SUBMITTAL DATE: MAY 31, 2023



THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF SWANSBORO.
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.



DESIGN DATA
V = 40 MPH

PROJECT LENGTH
WATER STREET
= .068 MILES
BROAD STREET
= .078 MILES

TOWN OF SWANSBORO CONTACT:
PAULA WEBB
TOWN MANAGER
PH. 910-326-4428

NCDOT CONTACT:
KATIE HITE, P.E.
DIVISION 3 PROJECT DEVELOPMENT ENGINEER

PREPARED IN THE OFFICE OF:
WithersRavenel
Engineers | Planners | Surveyors
155 Mackintosh Drive, Cary, NC 27513 | 919-468-3840 | Email: P-5479 | www.withersravenel.com

2018 STANDARD SPECIFICATIONS

LETTING DATE:
?

TED KALLAM, P.E.
PROJECT ENGINEER

DOUGLAS PETRY
PROJECT DESIGNER

PROJECT ENGINEER

SIGNATURE: _____ P.E.

PREPARED FOR:

TOWN OF SWANSBORO
601 W. CORBETT AVENUE
SWANSBORO, NC 28584

NAD 83
NA 2011

2018 NCDOT LIST OF STANDARD DRAWINGS

STD. NO.	STANDARD DRAWING TITLES
200.02	METHOD OF CLEARING – METHOD II
605.01	TEMPORARY SILT FENCE
840.01	BRICK CATCH BASIN – 12” THRU 54” PIPE
840.02	CONCRETE CATCH BASIN – 12” THRU 54’ PIPE
840.03	FRAME, GRATES AND HOOD –FOR USE ON STANDARD CATCH BASIN
840.14	CONCRETE DROP INLET – 12” THRU 30” PIPE
840.15	BRICK DROP INLET – 12” THRU 30” PIPE
840.52	PRECAST MANHOLE
840.54	MANHOLE FRAME AND COVER
846.01	CONCRETE CURB, GUTTER AND CURB AND GUTTER
848.01	CONCRETE SIDEWALK

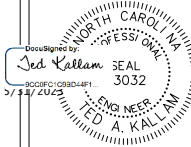
INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1–A	INDEX OF SHEETS, LIST OF STANDARD DRAWINGS
1–B	CONVENTIONAL SYMBOLS
2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2D–1	DRAINAGE SUMMARY SHEET
TMP–1	TRAFFIC CONTROL GENERAL NOTES & STANDARD DRAWINGS
X–1 THRU X–2	WATER STREET CROSS SECTIONS
X–3 THRU X–4	BROAD STREET CROSS SECTIONS
6	BIORETENTION 1
7	TERRACED BIORETENTION
8	DETAILS
9	PLANTING PLAN
10	EROSION CONTROL DETAILS



TOWN OF SWANSBORO
601 W. CORBETT AVENUE
SWANSBORO, NC 28584

CONSTRUCTION DRAWINGS
WATER STREET DRAINAGE
IMPROVEMENTS
WATER STREET| SWANSBORO, NORTH CAROLINA | ONSLOW
COUNTY



INITIAL PLAN DATE:
REVISIONS:

WR JOB NO. DATE
220730.00 05/31/2023
DRN: WR DGN: WR CKD: WR

INDEX OF SHEETS &
LIST OF STANDARD
DRAWINGS

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS
CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	
County Line	
Township Line	
City Line	
Reservation Line	
Property Line	
Existing Iron Pin	
Computed Property Corner	
Property Monument	
Parcel/Sequence Number	
Existing Fence Line	
Proposed Woven Wire Fence	
Proposed Chain Link Fence	
Proposed Barbed Wire Fence	
Existing Wetland Boundary	
Proposed Wetland Boundary	
Existing Endangered Animal Boundary	
Existing Endangered Plant Boundary	
Existing Historic Property Boundary	
Known Contamination Area: Soil	
Potential Contamination Area: Soil	
Known Contamination Area: Water	
Potential Contamination Area: Water	
Contaminated Site: Known or Potential	

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	
Sign	
Well	
Small Mine	
Foundation	
Area Outline	
Cemetery	
Building	
School	
Church	
Dam	

HYDROLOGY:

Stream or Body of Water	
Hydro, Pool or Reservoir	
Jurisdictional Stream	
Buffer Zone 1	
Buffer Zone 2	
Flow Arrow	
Disappearing Stream	
Spring	
Wetland	
Proposed Lateral, Tail, Head Ditch	
False Sump	

RAILROADS:

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

Standard Gauge	
RR Signal Milepost	
Switch	
RR Abandoned	
RR Dismantled	

RIGHT OF WAY & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	
Primary Horiz Control Point	
Primary Horiz and Vert Control Point	
Exist Permanent Easement Pin and Cap	
New Permanent Easement Pin and Cap	
Vertical Benchmark	
Existing Right of Way Marker	
Existing Right of Way Line	
New Right of Way Line	
New Right of Way Line with Pin and Cap	
New Right of Way Line with Concrete or Granite R/W Marker	
New Control of Access Line with Concrete CA Marker	
Existing Control of Access	
New Control of Access	
Existing Easement Line	
New Temporary Construction Easement	
New Temporary Drainage Easement	
New Permanent Drainage Easement	
New Permanent Drainage / Utility Easement	
New Permanent Utility Easement	
New Temporary Utility Easement	
New Aerial Utility Easement	

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	
Existing Curb	
Proposed Slope Stakes Cut	
Proposed Slope Stakes Fill	
Proposed Curb Ramp	
Existing Metal Guardrail	
Proposed Guardrail	
Existing Cable Guiderail	
Proposed Cable Guiderail	
Equality Symbol	
Pavement Removal	

VEGETATION:

Single Tree	
Single Shrub	

Hedge	
Woods Line	
Orchard	
Vineyard	

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	
Bridge Wing Wall, Head Wall and End Wall	
MINOR:	
Head and End Wall	
Pipe Culvert	
Footbridge	
Drainage Box: Catch Basin, DI or JB	
Paved Ditch Gutter	
Storm Sewer Manhole	
Storm Sewer	

UTILITIES:

POWER:	
Existing Power Pole	
Proposed Power Pole	
Existing Joint Use Pole	
Proposed Joint Use Pole	
Power Manhole	
Power Line Tower	
Power Transformer	
U/G Power Cable Hand Hole	
H-Frame Pole	
U/G Power Line LOS B (S.U.E.*)	
U/G Power Line LOS C (S.U.E.*)	
U/G Power Line LOS D (S.U.E.*)	

TELEPHONE:

Existing Telephone Pole	
Proposed Telephone Pole	
Telephone Manhole	
Telephone Pedestal	
Telephone Cell Tower	
U/G Telephone Cable Hand Hole	
U/G Telephone Cable LOS B (S.U.E.*)	
U/G Telephone Cable LOS C (S.U.E.*)	
U/G Telephone Cable LOS D (S.U.E.*)	
U/G Telephone Conduit LOS B (S.U.E.*)	
U/G Telephone Conduit LOS C (S.U.E.*)	
U/G Telephone Conduit LOS D (S.U.E.*)	
U/G Fiber Optics Cable LOS B (S.U.E.*)	
U/G Fiber Optics Cable LOS C (S.U.E.*)	
U/G Fiber Optics Cable LOS D (S.U.E.*)	

WATER:

Water Manhole	
Water Meter	
Water Valve	
Water Hydrant	
U/G Water Line LOS B (S.U.E.*)	
U/G Water Line LOS C (S.U.E.*)	
U/G Water Line LOS D (S.U.E.*)	
Above Ground Water Line	

TV:

TV Pedestal	
TV Tower	
U/G TV Cable Hand Hole	
U/G TV Cable LOS B (S.U.E.*)	
U/G TV Cable LOS C (S.U.E.*)	
U/G TV Cable LOS D (S.U.E.*)	
U/G Fiber Optic Cable LOS B (S.U.E.*)	
U/G Fiber Optic Cable LOS C (S.U.E.*)	
U/G Fiber Optic Cable LOS D (S.U.E.*)	

GAS:

Gas Valve	
Gas Meter	
U/G Gas Line LOS B (S.U.E.*)	
U/G Gas Line LOS C (S.U.E.*)	
U/G Gas Line LOS D (S.U.E.*)	
Above Ground Gas Line	

SANITARY SEWER:

Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Forced Main Line LOS B (S.U.E.*)	
SS Forced Main Line LOS C (S.U.E.*)	
SS Forced Main Line LOS D (S.U.E.*)	

MISCELLANEOUS:

Utility Pole	
Utility Pole with Base	
Utility Located Object	
Utility Traffic Signal Box	
Utility Unknown U/G Line LOS B (S.U.E.*)	
U/G Tank; Water, Gas, Oil	
Underground Storage Tank, Approx. Loc.	
A/G Tank; Water, Gas, Oil	
Geoenvironmental Boring	
U/G Test Hole LOS A (S.U.E.*)	
Abandoned According to Utility Records	
End of Information	

WithersRavenel
115 MacKenzie Drive | Cary, NC 27511
License #: F-1475 | E-934693340 | www.withersravenel.com



TOWN OF SWANSBORO
601 W. CORBETT AVENUE
SWANSBORO, NC 28584

CONSTRUCTION DRAWINGS
WATER STREET DRAINAGE
IMPROVEMENTS
WATER STREET | SWANSBORO, NORTH CAROLINA | ONSLOW COUNTY



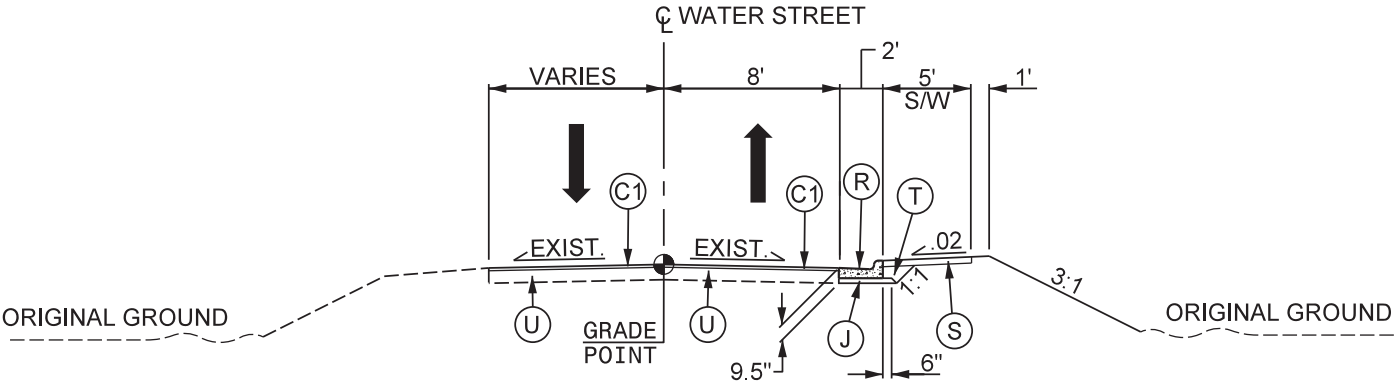
INITIAL PLAN DATE:
REVISIONS:

WR JOB NO. DATE
220730.00 05/31/2023
DRN: WR DGN: WR CKD: WR

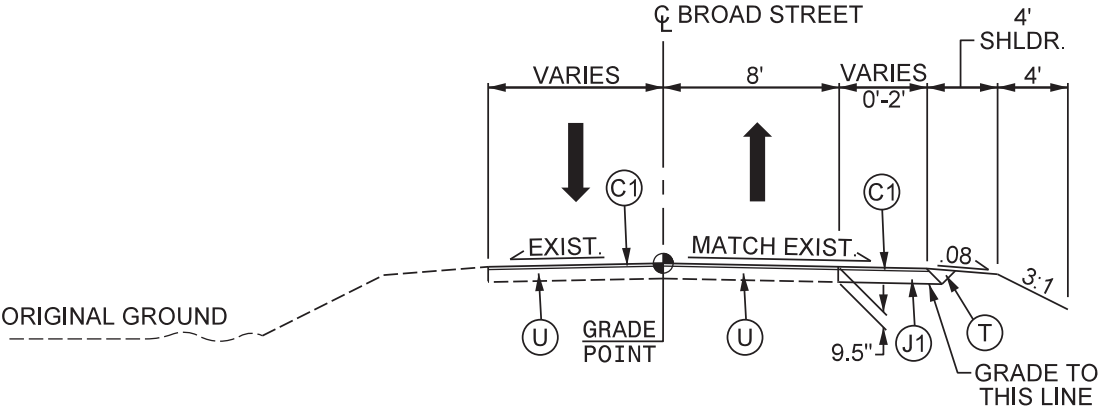
CONVENTIONAL
SYMBOLS

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
J	3" AGGREGATE BASE COURSE
J1	8" AGGREGATE BASE COURSE
R	2'-0" CONCRETE CURB & GUTTER
S	5' CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT

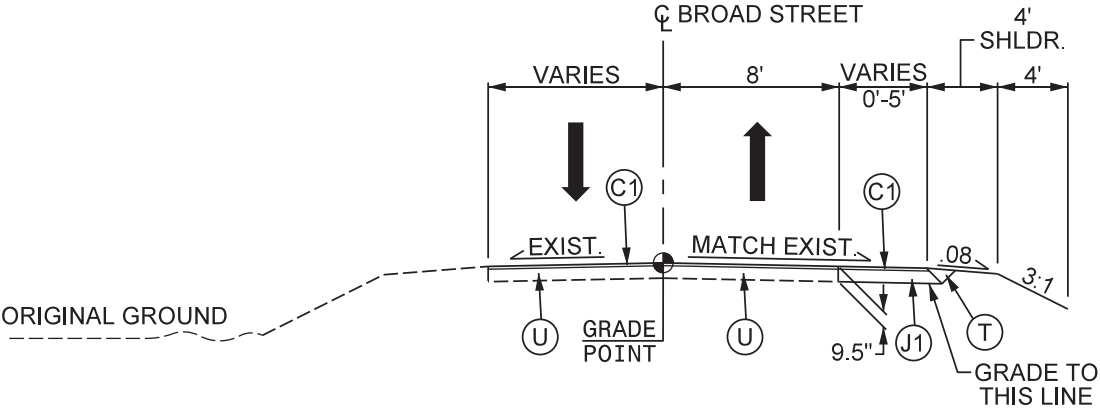
NOTE: 1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE SPECIFIED.



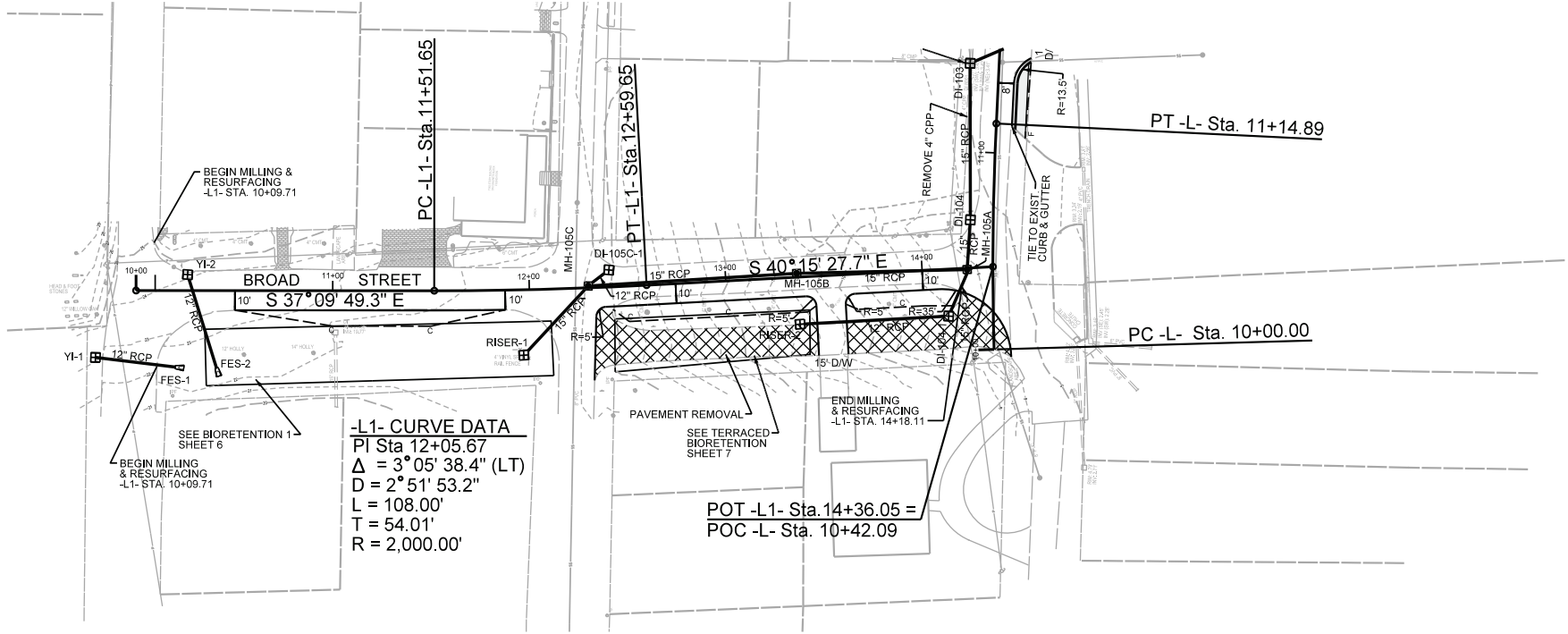
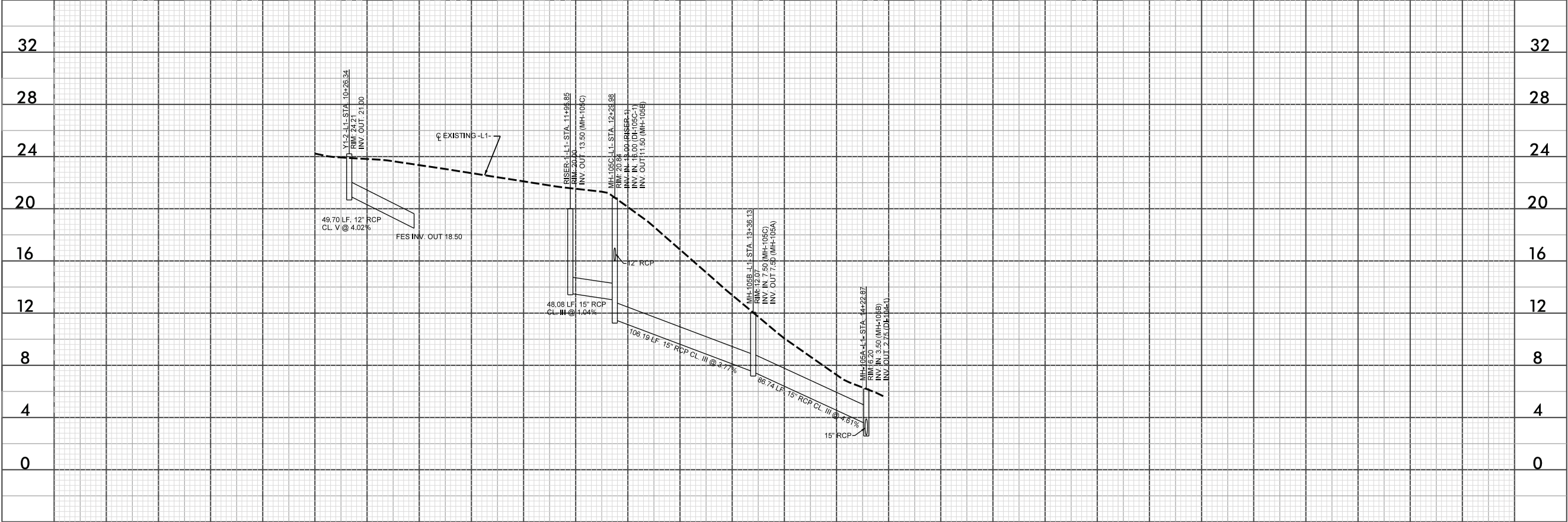
TYPICAL SECTION NO. 1
-L- STA.10+00.00 TO -L- STA.13+61.08



TYPICAL SECTION NO. 2
-L1- STA.10+09.71 TO -L1- STA.11+86.27



TYPICAL SECTION NO. 3
-L1- STA.12+41.90 TO -L1- STA.14+18.11

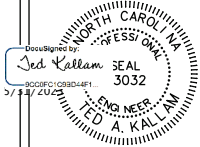


-L1- CURVE DATA
PI Sta 12+05.67
 $\Delta = 3^{\circ}05'38.4''$ (LT)
D = 2°51'53.2"
L = 108.00'
T = 54.01'
R = 2,000.00'



WR JOB NO. 220730.00
DATE 05/31/2023
DRN- WR DGN- WR CKD- WR

BROAD STREET PLAN PROFILE



INITIAL PLAN DATE:
REVISIONS:

WATER STREET DRAINAGE IMPROVEMENTS

CONSTRUCTION DRAWINGS

WATER STREET SWANSBORO, NORTH CAROLINA | ONSLOW COUNTY

TOWN OF SWANSBORO
601 W. CORBETT AVENUE
SWANSBORO, NC 28584



WithersRavenel
115 MacKenzie Drive | Cary, NC 27511
License #: F-14757 | E-19469.3340 | www.withersravenel.com

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE
DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE
NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE
OR UNDESired OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE:
MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS
DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE
DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE
NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES AS FOLLOWS:

ROAD NAME DAY AND TIME RESTRICTIONS

WATER STREET MONDAY THROUGH SUNDAY

BROAD STREET FROM 6:00 A.M. TO 9:00 A.M.

B) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND
SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

WATER STREET

BROAD STREET

HOLIDAY

C) FOR ANY UNEXPECTED OCCURENCE THAT CREATES UNUSUALLY
HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.

D) FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M.
DECEMBER 31st TO 9:00 P.M. JANUARY 2ND. IF NEW
YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR
MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.

E) FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY
AND 9:00 P.M. MONDAY.

F) FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M.
FRIDAY TO 9:00 P.M. TUESDAY.

G) FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M.
THE DAY BEFORE INDEPENDENCE AND 9:00 P.M. THE DAY
AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR
MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY
BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE TUESDAY AFTER
INDEPENDENCE DAY.

H) FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY
AND 9:00 P.M. TUESDAY.

I) FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M.
TUESDAY AND 9:00 P.M. MONDAY.

J) FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY
BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE
FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

TRAFFIC PATTERN ALTERATIONS

K) NOTIFY THE ENGINEER TWENTY-ONE (21) CALENDAR DAYS PRIOR
TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40
FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS
PRIOR TO THE BEGINNING OF CONSTRUCTION.

M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY
TRAFFIC PATTERN.

N) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS
(W8-1) 500 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY
THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

O) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING
PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO
LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

P) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT. OF AN
OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY
STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY
BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

Q) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER
ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT. OF AN OPEN TRAVEL
LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD
DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR
GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER
ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT. OF AN OPEN TRAVEL
LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD
DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER
OR GUARDRAIL.

PAVEMENT EDGE DROP OFF REQUIREMENTS

R) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING
PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN
EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED
SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED
SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE
ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

S) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN
LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE
WARNING "UNEVEN LANES" SIGNS (W8-11) 200 FT. IN ADVANCE AND A MINIMUM
OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC CONTROL DEVICES

T) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES
IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT
(MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT. OFF THE EDGE OF AN OPEN
TRAVELWAY, REFER TO "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES"
SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL
REQUIREMENTS.

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" -
PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C.,
DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY
ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	STD. DRAWING TITLES
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1130.01	DRUM
1150.01	FLAGGERS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTI-LANE ROADWAYS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKING - LANE DROPS
1205.13	PAVEMENT MARKINGS - LANE REDUCTIONS

PHASING NOTES

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING
DRIVEWAYS AS DIRECTED BY THE ENGINEER.

PHASE 1: WATER STREET

STEP 1: INSTALL WORK ZONE ADVANCE WARNING SIGNS SEE
ROADWAY STANDARD DRAWINGS STD. 1101.01 SHEET 3 OF 3.

STEP 2: USING A FLAGGER, MAINTAIN TRAFFIC ON THE NORTH SIDE
OF EXISTING WATER STREET.

STEP 3: CONSTRUCT PROPOSED WIDENING AND SIDEWALK ON THE
SOUTH SIDE OF WATER STREET.

STEP 4: PLACE FINAL LAYER OF ASPHALT WEARING SURFACE.

STEP 4: REMOVE TRAFFIC CONTROL DEVICES AND OPEN UP TO FINAL
TRAFFIC PATTERN.

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING
DRIVEWAYS AS DIRECTED BY THE ENGINEER.

PHASE 2: BROAD STREET

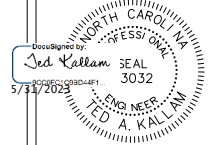
STEP 1: INSTALL WORK ZONE ADVANCE WARNING SIGNS SEE
ROADWAY STANDARD DRAWINGS STD. 1101.01 SHEET 3 OF 3.

STEP 2: USING A FLAGGER, MAINTAIN TRAFFIC ON THE NORTH SIDE
OF EXISTING BROAD STREET.

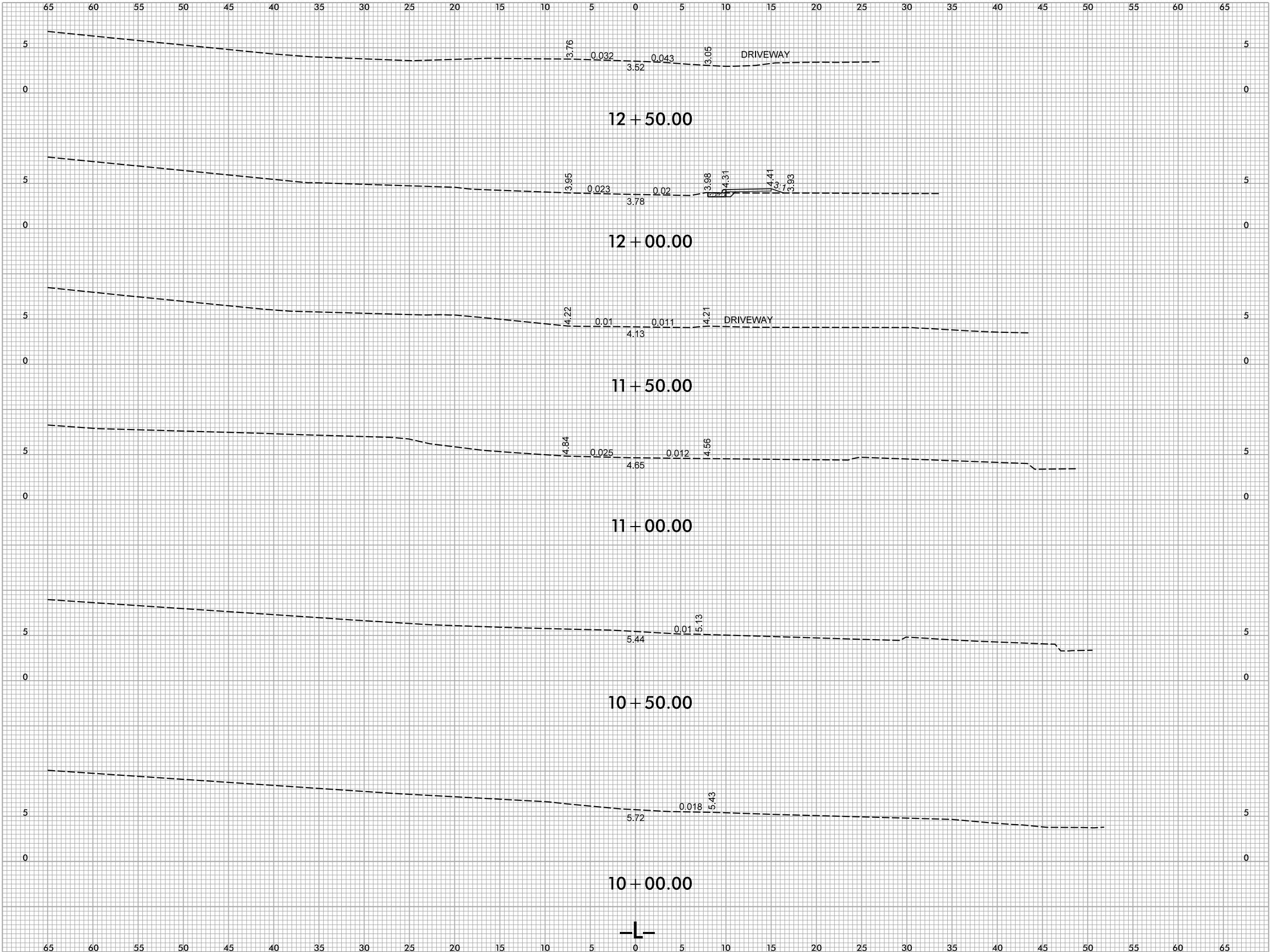
STEP 3: CONSTRUCT PROPOSED WIDENING ON THE SOUTH SIDE
OF BROAD STREET.

STEP 4: PLACE FINAL LAYER OF ASPHALT WEARING SURFACE.

STEP 5: REMOVE TRAFFIC CONTROL DEVICES AND OPEN UP TO FINAL
TRAFFIC PATTERN.

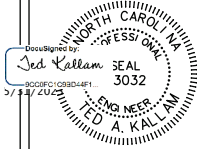


INITIAL PLAN DATE:
REVISIONS:



TOWN OF SWANSBORO
601 W. CORBETT AVENUE
SWANSBORO, NC 28584

CONSTRUCTION DRAWINGS
**WATER STREET DRAINAGE
IMPROVEMENTS**
WATER STREET | SWANSBORO, NORTH CAROLINA | ONSLOW
COUNTY



SCALE: 1 inch = 5 ft.

INITIAL PLAN DATE:
REVISIONS:

WR JOB NO. 220730.00 DATE 05/31/2023
DRN: WR DGN: WR CKD: WR

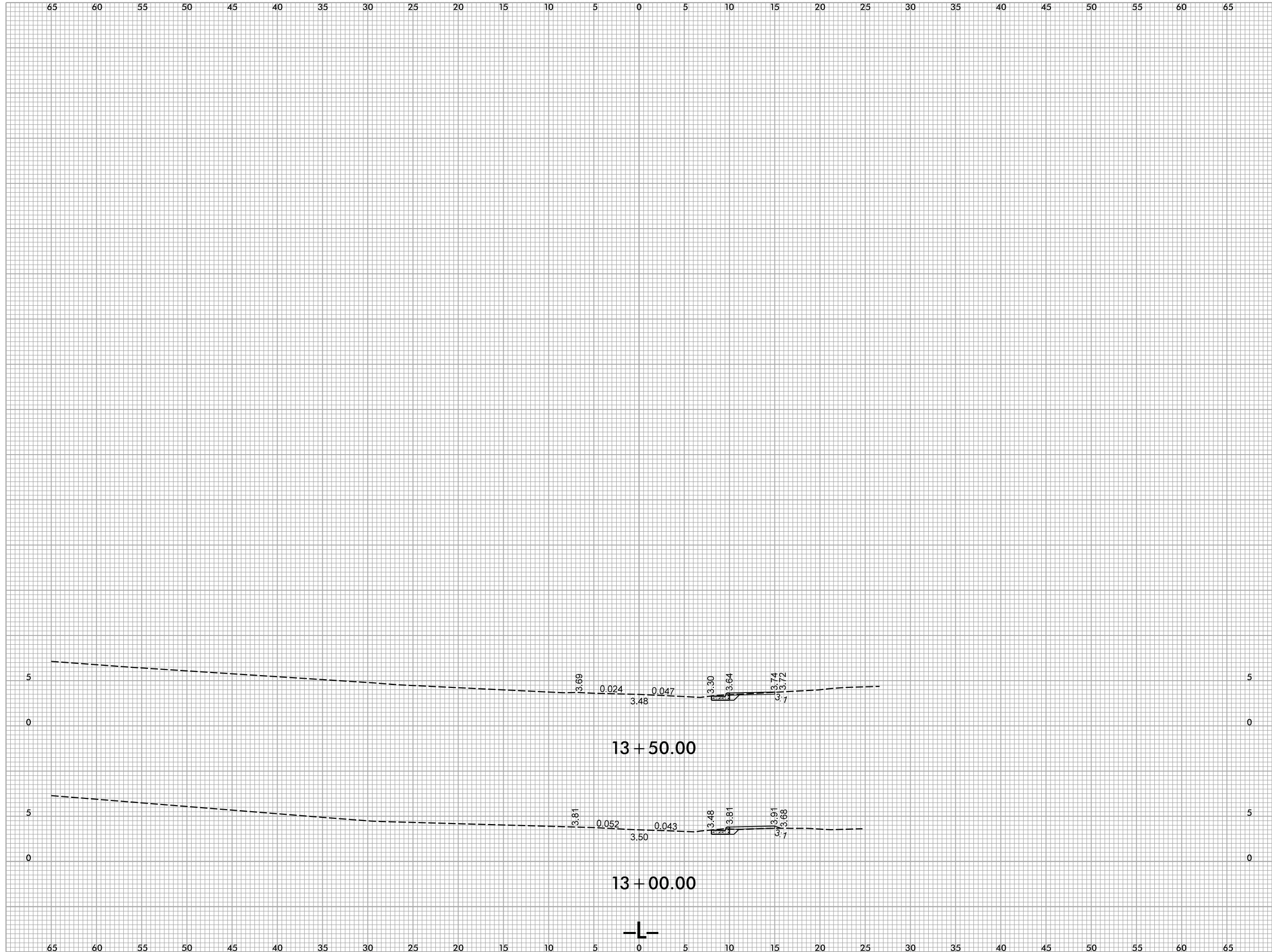
**WATER STREET
CROSS SECTIONS**

X-1



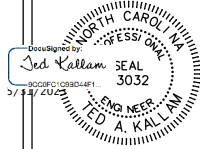
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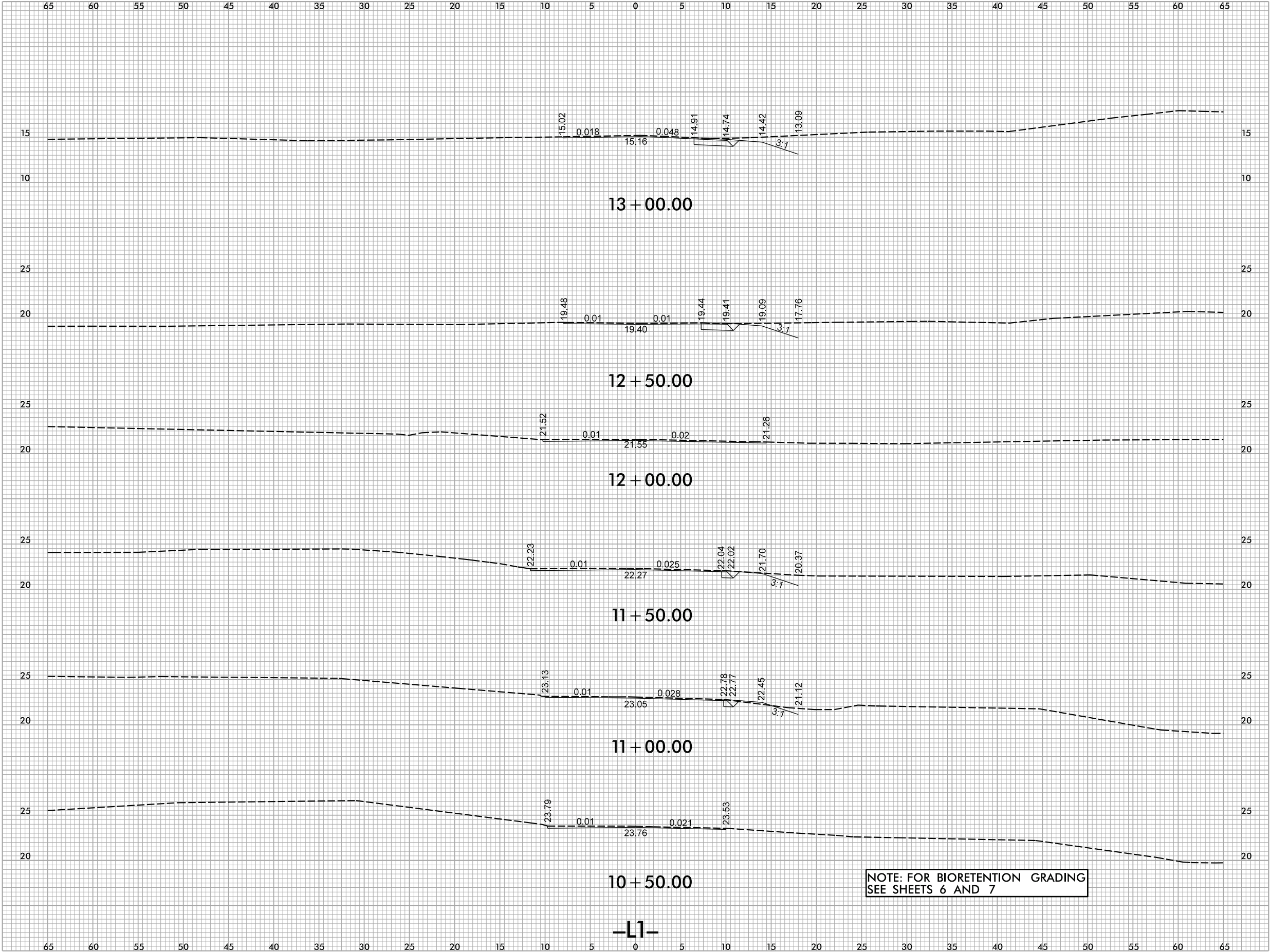
CONSTRUCTION DRAWINGS
**WATER STREET DRAINAGE
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WATER STREET | SWANSBORO, NORTH CAROLINA | ONSLOW
COUNTY



INITIAL PLAN DATE:
REVISIONS:

WR JOB NO.	DATE
220730.00	05/31/2023
DRN: WR	DGN: WR CKD: WR

**WATER STREET
CROSS SECTIONS**



NOTE: FOR BIORETENTION GRADING
SEE SHEETS 6 AND 7

TOWN OF SWANSBORO
601 W. CORBETT AVENUE
SWANSBORO, NC 28584

CONSTRUCTION DRAWINGS
**WATER STREET DRAINAGE
IMPROVEMENTS**
WATER STREET | SWANSBORO, NORTH CAROLINA | ONSLOW
COUNTY

DESIGNED BY:
Red Kallam
5/14/2023
SEAL
3032
ENGINEER
RED A. KALLAM

SCALE: 1 inch = 5 ft.
INITIAL PLAN DATE:
REVISIONS:

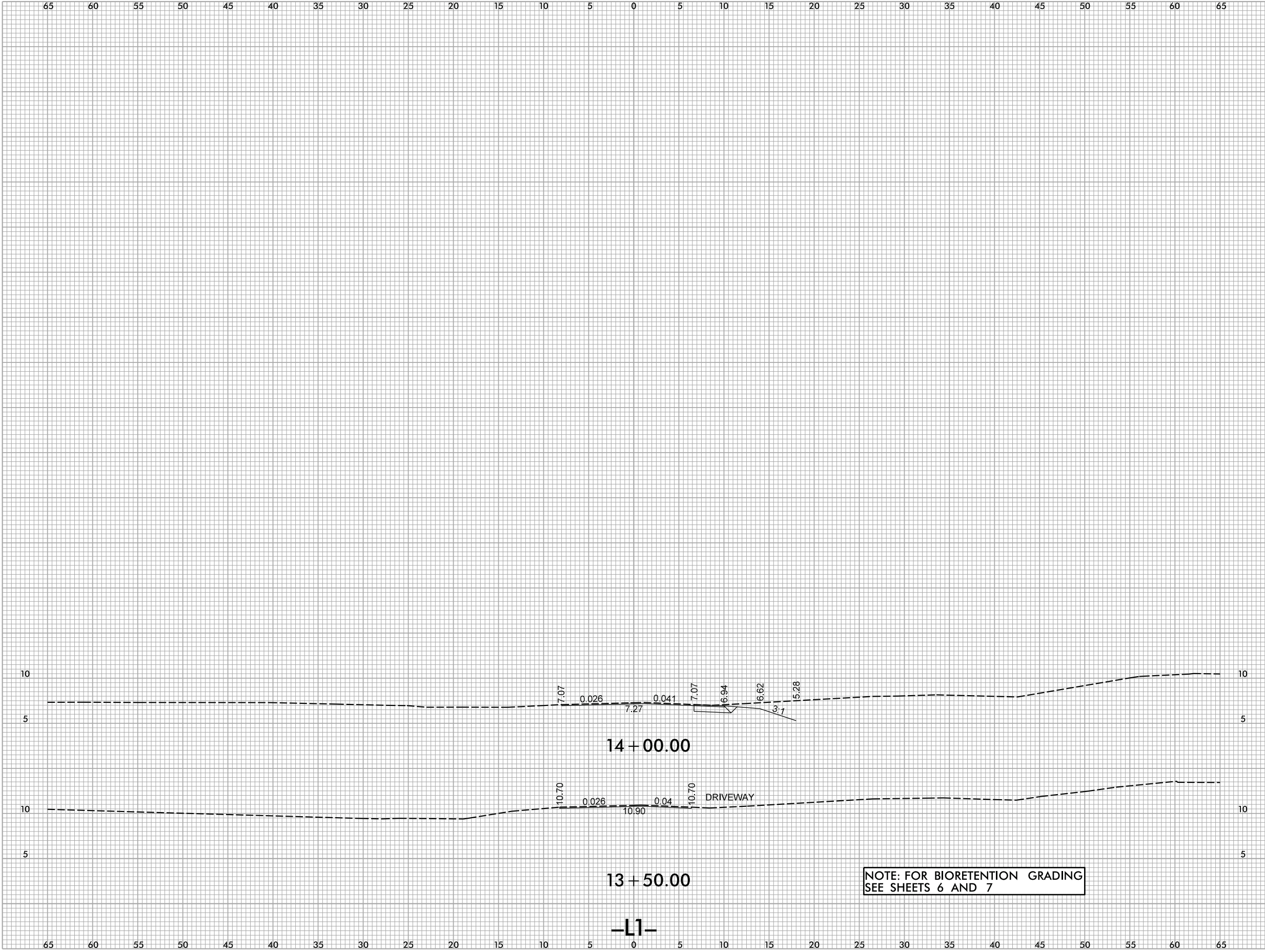
WR JOB NO. 220730.00
DATE 05/31/2023
DRN: WR DGN: WR CKD: WR

BROAD STREET
CROSS SECTIONS

X-3

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TOWN OF SWANSBORO
601 W. CORBETT AVENUE
SWANSBORO, NC 28584

CONSTRUCTION DRAWINGS
**WATER STREET DRAINAGE
IMPROVEMENTS**
WATER STREET | SWANSBORO, NORTH CAROLINA | ONSLOW
COUNTY



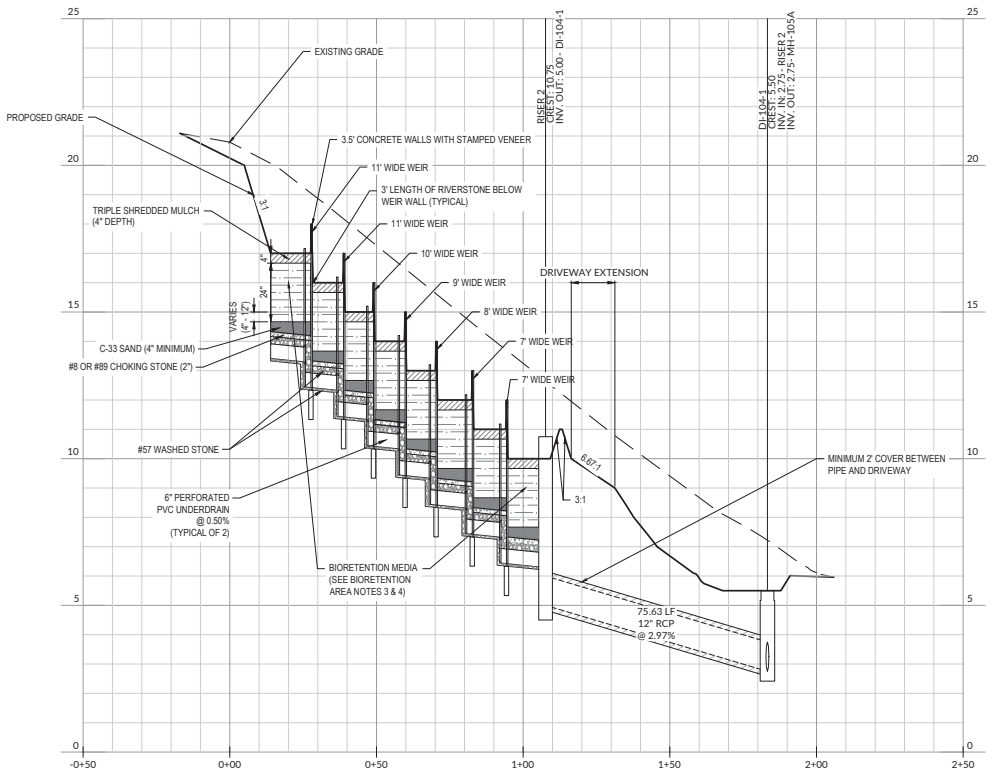
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INITIAL PLAN DATE:
REVISIONS:

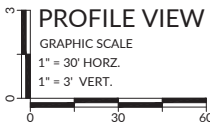
WR JOB NO.	DATE
220730.00	05/31/2023
DRN: WR	DGN: WR CKD: WR

BROAD STREET
CROSS SECTIONS

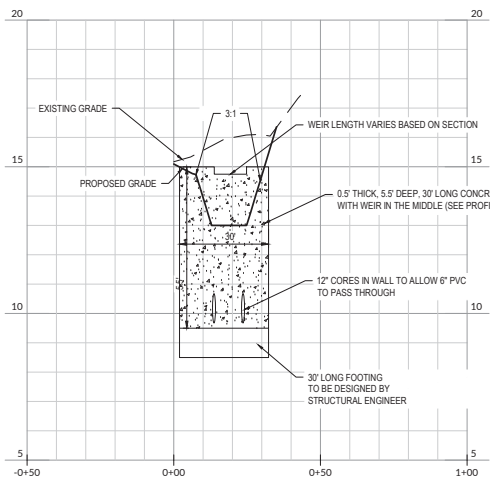
TERRACED BIORETENTION



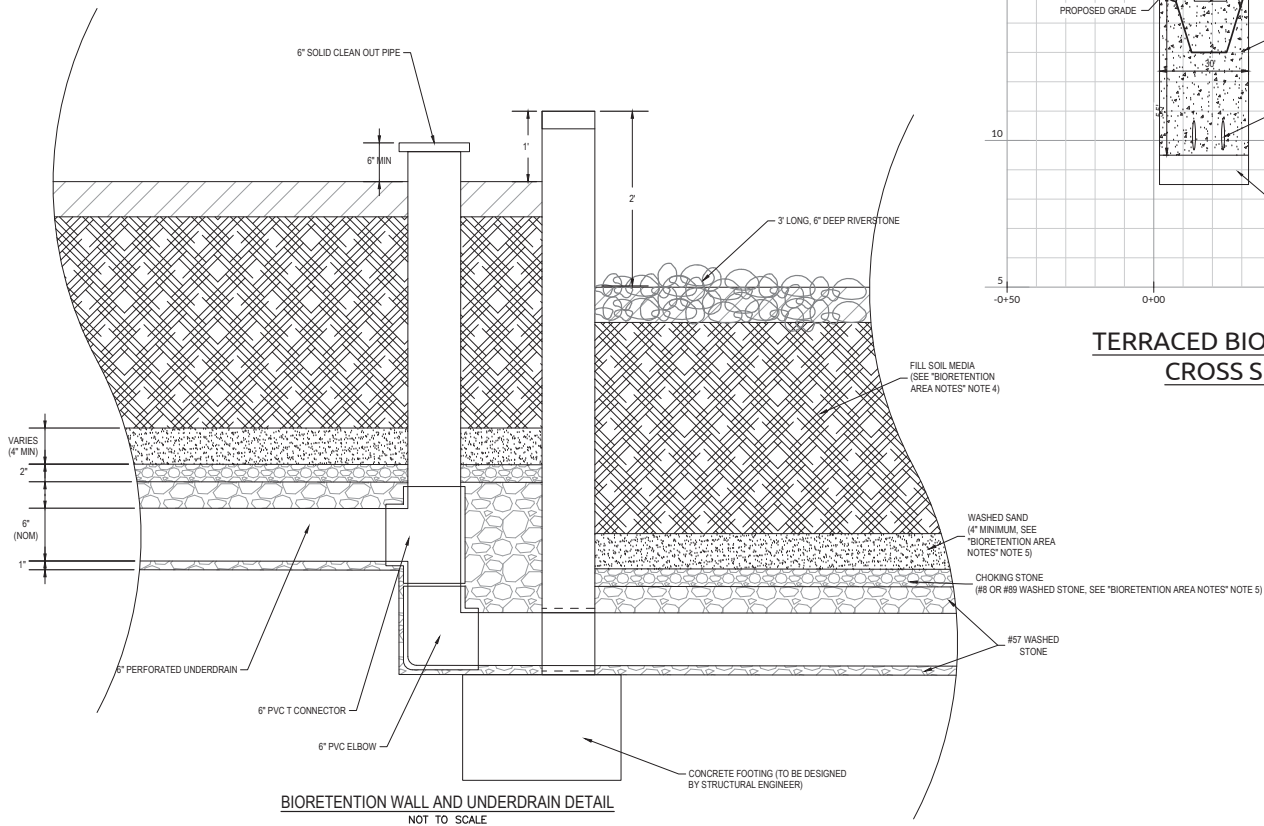
TERRACED BIORETENTION - PROFILE



WEIR WALL (TYP.)

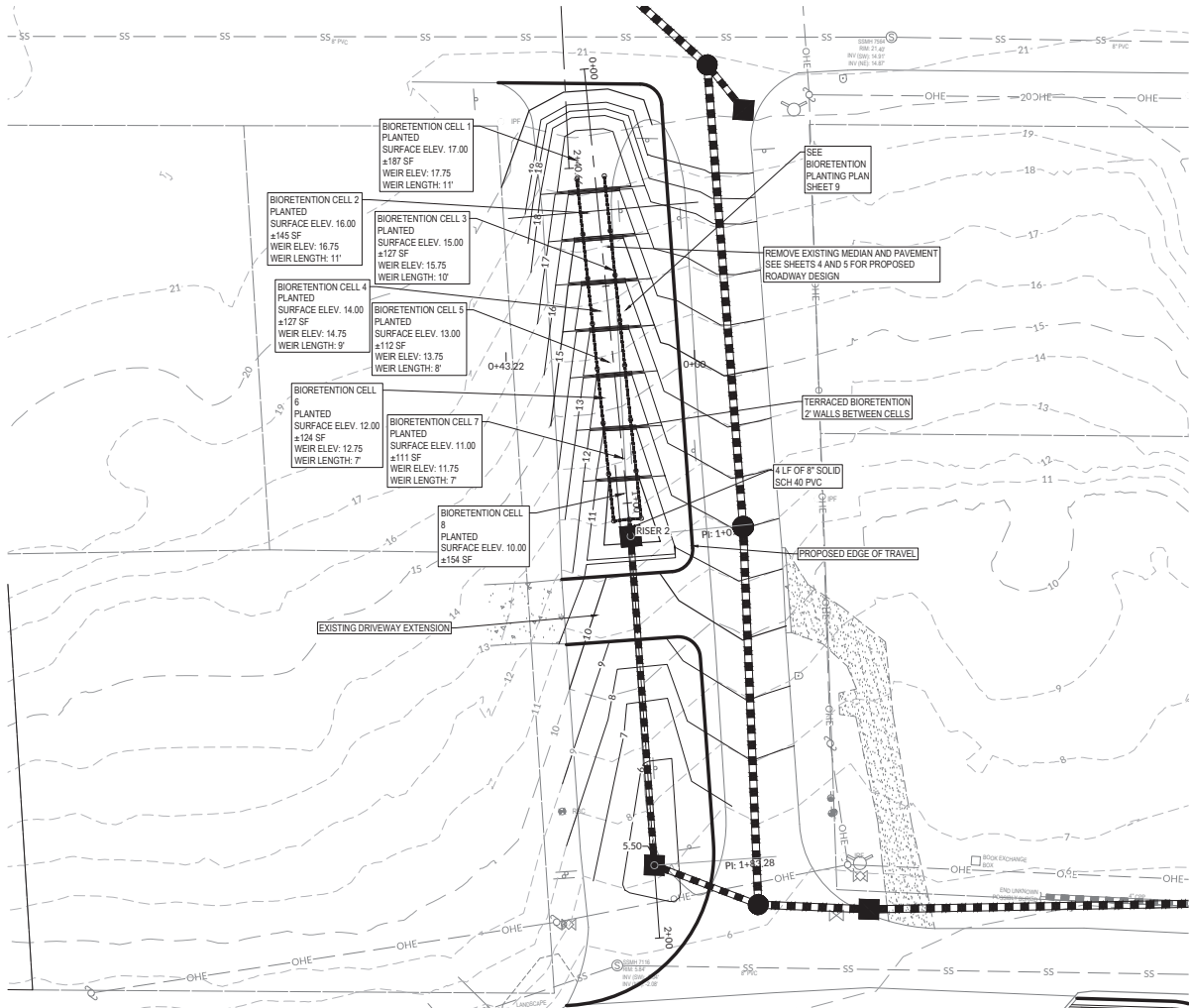


TERRACED BIORETENTION - CROSS SECTION



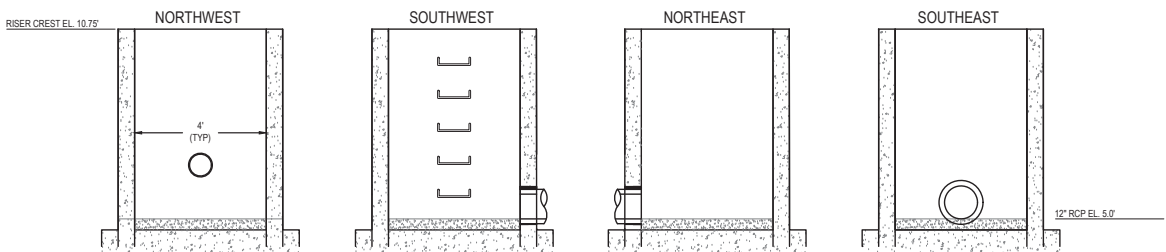
BIORETENTION WALL AND UNDERDRAIN DETAIL

NOT TO SCALE



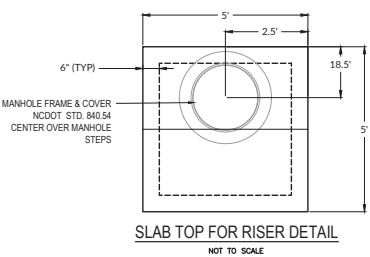
TERRACED BIORETENTION - PLAN VIEW

NOTE:
SEE SHEETS 2D-1, 4, AND 5 FOR PROPOSED STORM NETWORK
ELEVATION INFORMATION



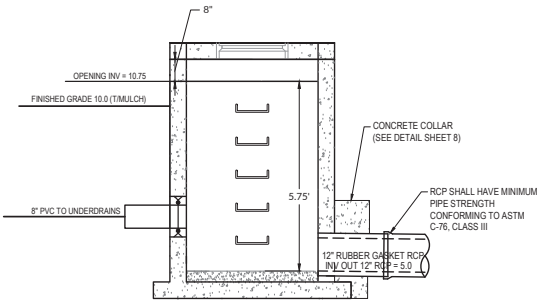
TERRACE BIORETENTION RISER WALL ELEVATIONS

NOT TO SCALE



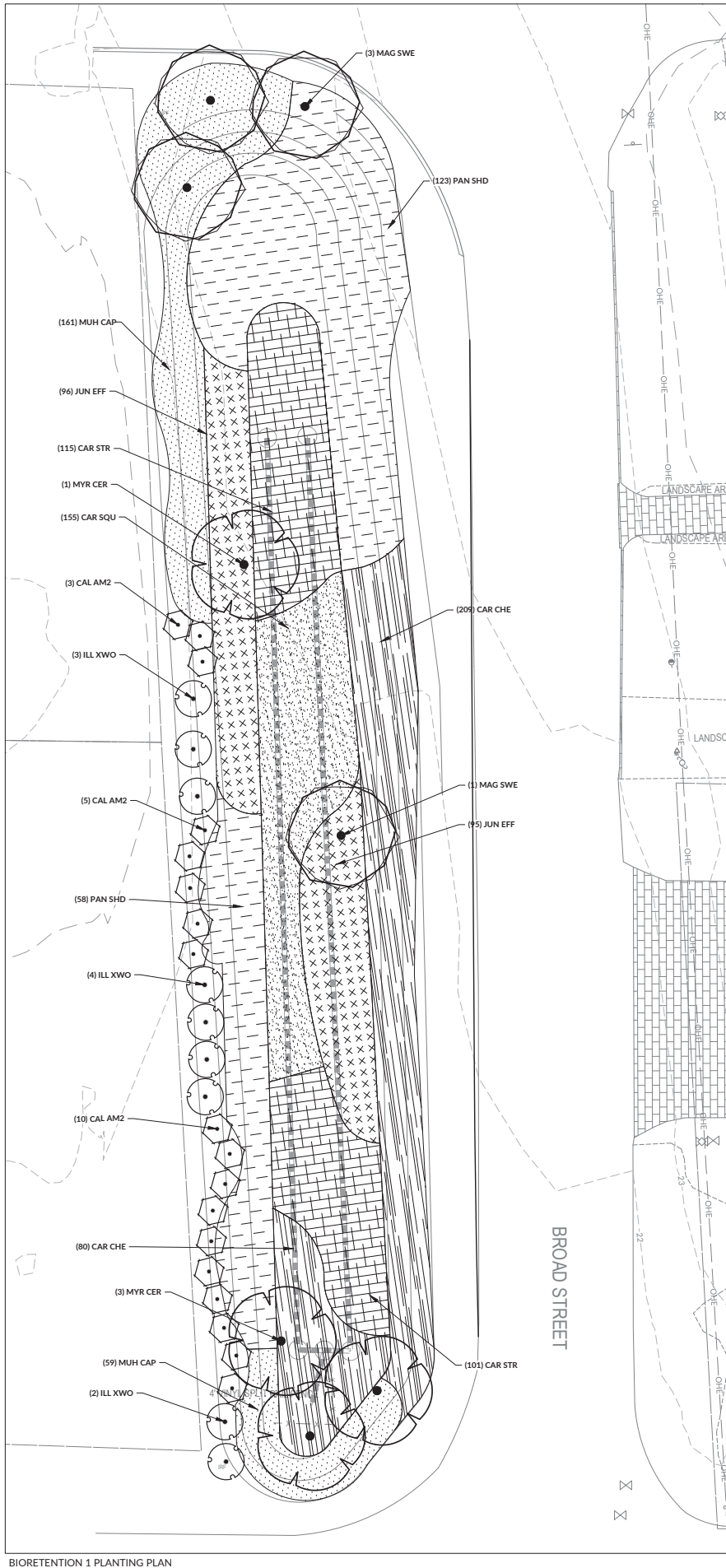
SLAB TOP FOR RISER DETAIL

NOT TO SCALE

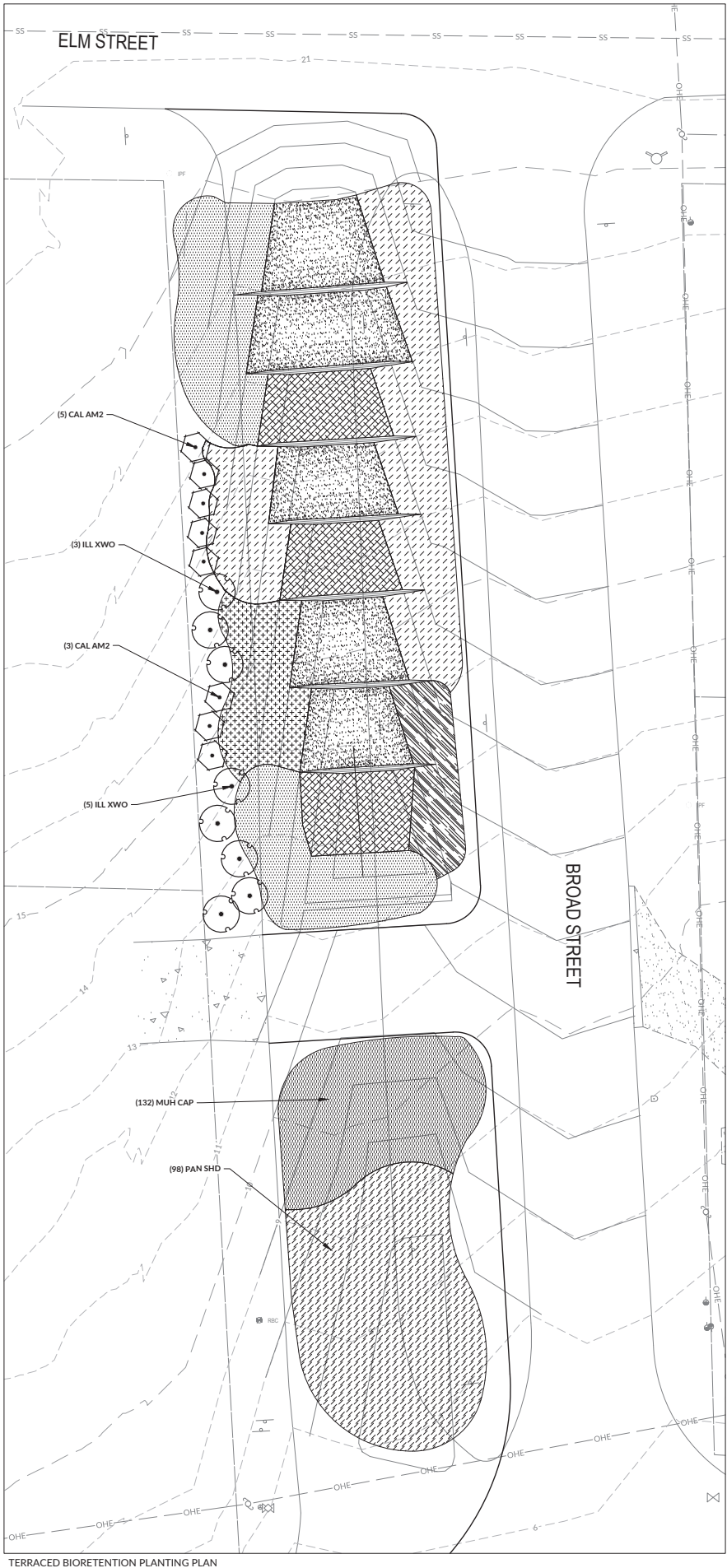


TERRACED BIORETENTION DRAWDOWN DEVICE DETAIL

NOT TO SCALE



BIORETENTION 1 PLANTING PLAN



TERRACED BIORETENTION PLANTING PLAN

PLANT SCHEDULE

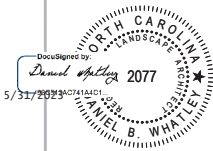
TEEFES MAG SWE	QTY 4	BOTANICAL NAME MAGNOLIA VIRGINIANA	COMMON NAME SWEETBAY MAGNOLIA	ROOT B&B	SIZE 2" CAL MIN	HEIGHT 8' MIN	REMARKS MULTI-STEM
MYR CER	4	MYRICIA CERIFERA	WAX MYRTLE "TREE FORM"	B&B	2" CAL MIN	6' MIN	MULTI STEM TREE FORM
SHIRUBS CAL AM2	QTY 26	BOTANICAL NAME CALLICARPA AMERICANA	COMMON NAME AMERICAN BEAUTYBERRY	SIZE 3 GAL	CONTAINER	HEIGHT 2' MIN	REMARKS
ILL XWO	17	ILLICIUM X "WOOD,LAND RUBY"	WOODLAND RUBY ANISE	3 GAL	CONT		
<u>GROUND COVERS</u> CAR CHE	QTY 335	BOTANICAL NAME CAREX CHEROKEENSIS	COMMON NAME CHEROKEE SEDGE	SIZE 2.5" POT	CONTAINER POT	SPACING 24" o.c.	
CAR SOU	376	CAREX SQUAROSA	SQUARE ROSE SEDGE	2.5" POT	POT	24" o.c.	
CAR STR	339	CAREX STRICTA	TUSsock SEDGE	2.5" POT	POT	24" o.c.	
JUN EFF	255	JUFT EFFUSUS	SOFT RUSH	2.5" POT	POT	24" o.c.	
MUH CAP	667	MUHLENBERGIA CAPILLARIS	PINK MUHLY GRASS	2.5" POT	POT	24" o.c.	
PAN SHD	466	PANICUM VIRGATUM "SHENANDOAH"	SHENANDOAH SWITCH GRASS	2.5" POT	POT	36" o.c.	

GENERAL LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL TAKE PROPER PRECAUTIONS NOT TO DAMAGE EXISTING PLANTS, FACILITIES AND STRUCTURES THAT ARE TO REMAIN. THE CONTRACTOR SHALL RESTORE DISTURBED AREAS TO THEIR ORIGINAL CONDITION TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER. ADJACENT STREETS AND SIDEWALKS SHALL BE MAINTAINED IN A CLEAN CONDITION, MUD AND DUST-FREE.
2. ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH MUNICIPAL STANDARDS AND SPECIFICATIONS, AND NCDOT, STANDARDS AND SPECIFICATIONS IF APPLICABLE.
3. NO CHANGES TO ANY ASPECT OF APPROVED SITE PLAN, INCLUDING BUT NOT LIMITED TO LANDSCAPING, GRADING, BUILDING ELEVATIONS, LIGHTING, OR UTILITIES SHALL BE MADE WITHOUT THE APPROVAL OF THE GOVERNING MUNICIPALITY.
4. ALL PLANTS PROVIDED BY THE CONTRACTOR SHALL MEET OR SURPASS THE SPECIFICATIONS GIVEN IN THE PLANT TABLE AND CONFORM TO THE AMERICAN STANDARD OF NURSERY STOCK, ANSI Z601-1973 IN REGARD TO SIZING, GROWING AND B&B SPECIFICATIONS. PLANTS SHALL BE FULL AND HEAVY, AND IN HEALTHY CONDITION AT THE TIME OF PLANTING. LANDSCAPE ARCHITECT SHALL REJECT ANY PLANT NOT MEETING THESE GUIDELINES AND REQUIRE REPLACEMENT.
5. ALL PLANTS ARE TO BE FULLY GUARANTEED (INCLUDING LABOR AND MATERIALS) FOR A PERIOD OF NOT LESS THAN ONE (1) YEAR FROM FINAL ACCEPTANCE.
6. [PLANTING SHALL FOLLOW NCDOT STANDARD SPECIFICATIONS AS OUTLINED IN SECTION 1670. PLANTING SEASON IS OCTOBER 15 - MARCH 15, UNLESS OTHERWISE NOTED OR APPROVED BY NCDOT ENGINEER.] ALL PLANTS THAT ARE UNABLE TO BE IMMEDIATELY PLANTED SHALL BE STORED IN A PROTECTED AREA OUT OF DIRECT SUN AND WIND. PLANTS SHALL BE EVENLY AND CONSISTENTLY WATERED, AS NEEDED, TO PREVENT DRYING OF ROOTS. ROOT BALLS OF B&B STOCK SHALL BE COVERED WITH AT LEAST 4 INCHES OF HARDWOOD MULCH TO MAINTAIN MOISTURE IN ROOTS.
7. THE CONTRACTOR SHALL VERIFY ALL PLANT QUANTITIES SHOWN ON PLANS AND TO VERIFY ANY DISCREPANCIES WITH LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS. CONTRACTOR SHALL TAG ALL TREES (AS DESIGNATED IN THE MASTER PLANT LIST) AT THE NURSERY FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO PURCHASING PLANTS.
8. LANDSCAPE ARCHITECT SHALL BE NOTIFIED IN WRITING OF ANY PROPOSED PLANT SUBSTITUTIONS BY THE CONTRACTOR. NO SUBSTITUTIONS SHALL BE MADE UNDER ANY CIRCUMSTANCES WITHOUT PRIOR APPROVAL BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE.
9. ALL PLANTS AND PLANTING BEDS ARE TO BE LOCATED BY SCALED DIMENSIONS FROM BUILDINGS, CURBS, PAVEMENTS, ETC. SPECIFIC ATTENTION SHALL BE GIVEN TO ENSURE THAT PLANTS INDIVIDUALLY SHOWN ON THE PLAN ARE ACCURATELY LOCATED. LOCATION OF ALL PLANTS SHALL BE REVIEWED IN THE FIELD BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE FOR REVIEW.
10. A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL NEW PLANTING BEDS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ALLOWED TO DISSIPATE PRIOR TO INSTALLATION OF ANY PLANT MATERIAL.
11. ALL LANDSCAPE AREAS ARE TO BE GRADED FOR POSITIVE DRAINAGE AND TO ENSURE NO STANDING WATER. SEE GRADING PLAN FOR SPECIFIC GRADING INFORMATION.
12. ESTABLISH AND MAINTAIN TOP OF GRADE BELOW ADJACENT CURBS, WALKWAYS AND OTHER HARDSCAPE AREAS TO ALLOW FOR INSTALLATION OF MULCH.
13. ALL PLANTING BEDS ARE TO BE COVERED WITH MULCH TO A MINIMUM DEPTH OF 3 INCHES. MULCH SHALL BE DARK BROWN, DESIGNER-GRADE, DOUBLE-SHREDED HARDWOOD. NO PINE STRAW IS PERMITTED. CONTRACTOR TO SUBMIT A SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND DELIVERY TO PROJECT SITE.
14. FINISH OFF 2'-4" CLEAR ZONE AROUND TREES WITH A 3" LAYER OF MULCH, BUT DO

NOT PLACE UP AGAINST OR MOUND AROUND THE ROOT FLARE

3. MIXED GROUND COVER AND PLANTS SPECIFIED FOR MASS PLANTINGS SHALL BE PLANTED IN GROUPS OF 3-7 AND LOCATED AS REQUIRED TO PROVIDE A GENERAL MIXING OF SPECIES. DO NOT PLANT IN ROWS OR REPETITIVE PATTERNS UNLESS OTHERWISE DIRECTED.
16. ALL TREES ADJACENT TO PEDESTRIAN WALKWAYS AND IN SIGHT TRIANGLES SHALL BE UNDER-TRIMMED SUFFICIENTLY TO ALLOW CLEAR SIGHT AND PEDESTRIAN ACCESS UP TO 6 FEET ABOVE SIDEWALK ELEVATION. ALL PRUNING SHALL BE PERFORMED BY A CERTIFIED ARBORIST, AND ADHERE TO THE ANSI A300 PRUNING STANDARD. PRUNING CUTS ARE TO BE DELIBERATE AND TARGETED ONLY TO THE NECESSARY BRANCHES IN ORDER TO SATISFY SIGHT AND CLEARANCE REQUIREMENTS WHILE MAINTAINING THE INTEGRITY OF THE TREES.
17. CONTRACTOR IS RESPONSIBLE FOR FULLY MAINTAINING ALL PLANTING (INCLUDING, BUT NOT LIMITED TO WATERING, MULCHING, SPRAYING, FERTILIZING, ETC.) OF THE PLANTING AREAS UNTIL FINAL ACCEPTANCE.
18. ANY PLANT WHICH DIES, TURNS BROWN OR DEFOLIATES PRIOR TO FINAL ACCEPTANCE OF THE WORK SHALL BE PROMPTLY REMOVED FROM THE SITE AND REPLACED WITH MATERIAL OF THE SAME SPECIES, IN ACCORDANCE WITH THE APPROPRIATE PLANTING SEASON, QUANTITY AND SIZE TO MEET PLAN SPECIFICATIONS.
19. UTILITIES SHOWN ON THE LANDSCAPE DRAWINGS ARE FOR REFERENCE ONLY. SEE UTILITY DRAWINGS FOR EXISTING AND PROPOSED UTILITY LOCATIONS. THE CONTRACTOR MUST LOCATE AND VERIFY ALL SUCH INFORMATION, INCLUDING INFORMATION NOT SHOWN ON THE PLANS, BY CONTACTING THE INDIVIDUAL UTILITY COMPANY & INVESTIGATING THE SITE TO DETERMINE THE EXACT LOCATION OF UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING, AT HIS OWN EXPENSE, AND TO THE SATISFACTION OF THE PROJECT OWNER AND THE UTILITY OWNER, DAMAGE TO ANY UTILITY CAUSED BY HIS WORK. HE SHALL IMMEDIATELY NOTIFY THE OWNER AND THE UTILITY OWNER OF ANY DAMAGE TO ANY UTILITY BY HIS OPERATION.
20. THE SITE SHALL BE STABILIZED AND SEEDED PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY (CO).
21. ALL ABOVE-GROUND HVAC EQUIPMENT AND UTILITY DEVICES (TO INCLUDE, BUT NOT LIMITED TO TELEPHONE AND CABLE PEDESTALS; ELECTRICAL TRANSFORMERS; BACKFLOW-DEVICE HOTBOX; ETC) SHALL BE SCREENED FROM OFF-SITE VIEW BY EVERGREEN SHRUBS, FENCE, OR WALL.



INITIAL PLAN DATE:
REVISIONS:

6