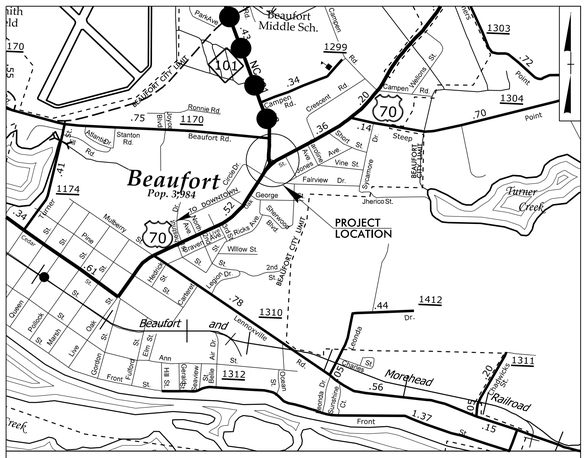
09/08/49

TIP PROJECT: U-6058/17BP.2.C.13

CONTRACT: C205075

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional symbols
See Sheets RW01 Thru RW06 For RW Plan Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CARTERET COUNTY

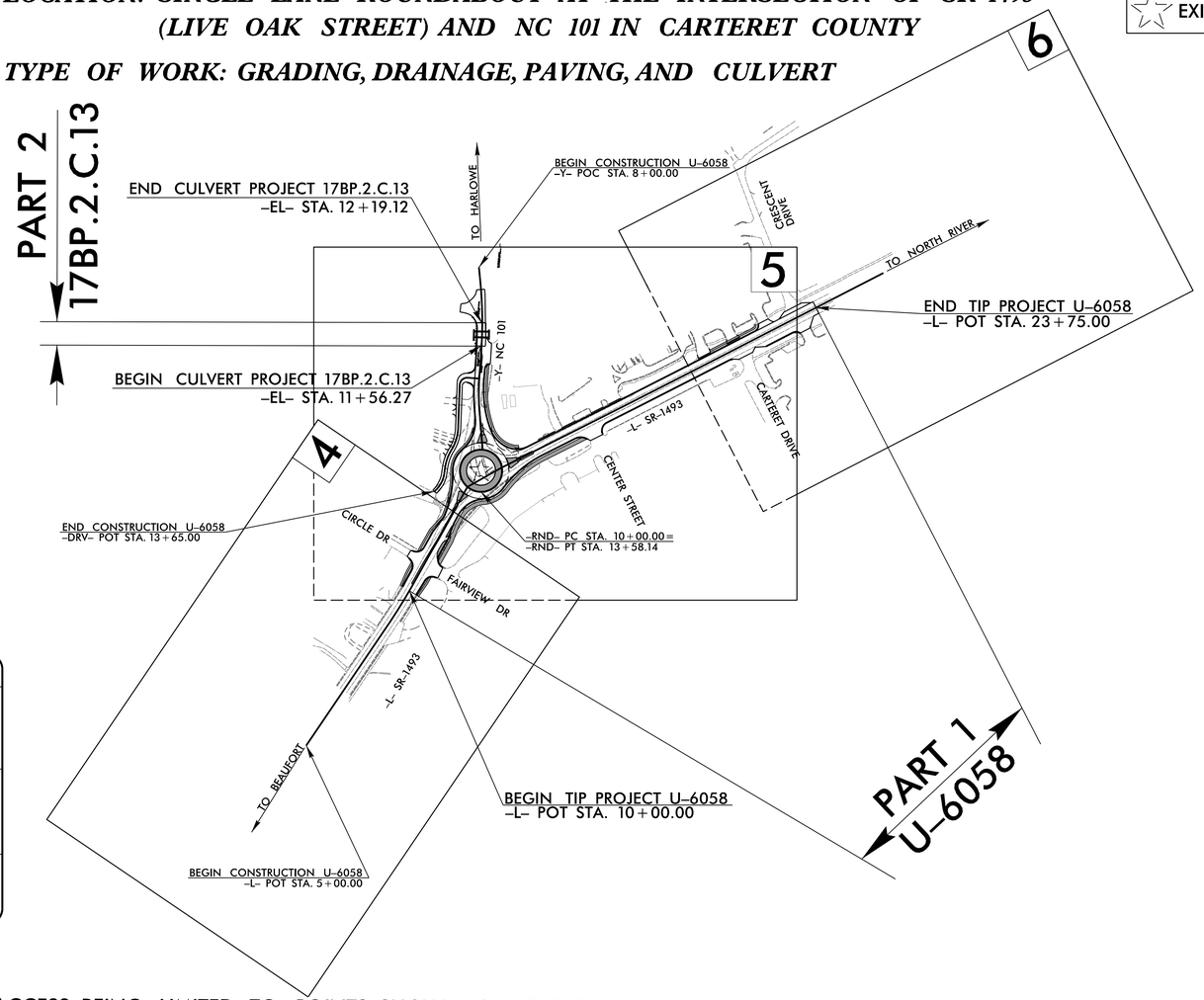
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-6058/17BP.2.C.13	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
47482.1.1	4748201	P.E. (U-6058)
47482.2.1	4748201	R/W (U-6058)
47482.2.2	N/A	UTIL. (U-6058)
47482.3.1	4748201	CONST. (U-6058)
17BP.2.C.13		

☆ EXISTING SIGNAL TO BE REMOVED

LOCATION: SINGLE LANE ROUNDABOUT AT THE INTERSECTION OF SR-1493 (LIVE OAK STREET) AND NC 101 IN CARTERET COUNTY

TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND CULVERT



PROJECT LENGTH
PART 1: U-6058
LENGTH OF ROADWAY TIP PROJECT U-6058 = 0.260 MILES
TOTAL LENGTH OF TIP PROJECT U-6058 = 0.260 MILES
PART 2: 17BP.2.C.13
LENGTH OF CULVERT TIP PROJECT 17BP.2.C.13 = 0.012 MILES
TOTAL LENGTH OF CULVERT PROJECT 17BP.2.C.13 = 0.012 MILES
TOTAL
TOTAL LENGTH OF PROJECTS U-6058/17BP.2.C.13 = 0.272 MILES

THIS IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS SHOWN ON THE PLANS.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DESIGN DATA

ADT 2025 = 21,110
ADT 2040 = 19,200
K = 8 %
D = 70 %
T = 4 %*
V = 40 MPH
* TTST=1 % DUAL=3%
FUNC CLASS =
PRINCIPAL ARTERIAL
"REGIONAL TIER"

PART 1 (U-6058) GRAPHIC SCALES

50 25 0 50 100 PLANS
50 25 0 50 100 PROFILE (HORIZONTAL)
10 5 0 10 20 PROFILE (VERTICAL)

PART 2 (17BP.2.C.13) GRAPHIC SCALES

20 10 0 20 40 PLANS
20 10 0 20 40 PROFILE (HORIZONTAL)
4 2 0 4 8 PROFILE (VERTICAL)

PART 1 (U-6058) Prepared In the Office of:

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: SEPTEMBER 7, 2022

LETTING DATE: JULY 15, 2025

RAJIT RAMKUMAR, PE
U-6058 PROJECT ENGINEER

DANIEL W. GARDNER, JR., PE
U-6058 PROJECT DESIGN ENGINEER

CATHRINE HOSSACK-MEYER, PE
U-6058 NCDOT CONTACT

PART 2 (17BP.2.C.13) Prepared In the Office of:

DIVISION OF HIGHWAYS
1037 WH Smith BLVD., Greenville, NC 27834

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A

LETTING DATE: JULY 15, 2025

HEATHER C. LANE, PE
17BP.2.C.13 PROJECT ENGINEER

RICH GODLEY
17BP.2.C.13 PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

5/12/2025
...\U-6058_17BP.2.C.13_Rdy_joint_tsh.dgn
USER:Wpope

8/17/99

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PROJECT REFERENCE NO.	SHEET NO.
U-6058/17BP.2.C.13	1A

U-6058 ROADWAY DESIGN ENGINEER
6/9/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
Signed by: Daniel W. Gardner Jr.
631FB74FE96A44D...

17BP.2.C.13 ROADWAY DESIGN ENGINEER
6/11/2025
NORTH CAROLINA PROFESSIONAL SEAL 042582 ENGINEER HEATHER M. C. LANE
Docusigned by: Heather M. C. Lane
A1154E9594D7468...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET (U-6058 / 17BP.2.C.13)
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL PLAN SHEET SYMBOLS

PART 1 (U-6058)

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
2A-1 THRU 2A-6	PAVEMENT SCHEDULE, WEDGING DETAIL, AND TYPICAL SECTIONS
2B-1	ROUNDABOUT DETAIL
2B-2	PARKING LAYOUT DETAIL
2C-1	MINIMUM DEPTH CONCRETE CATCH BASIN
2C-2	METHOD OF PIPE INSTALLATION (FLEXIBLE PIPE) DETAIL
2C-3	METHOD OF PIPE INSTALLATION (RIGID PIPE) DETAIL
2C-4	CONCRETE SIDEWALK DETAIL
2C-5	CURB RAMP DETAIL - PARALLEL RAMP
2C-6	CURB RAMP DETAIL - SHARED LANDING
3B-1	SUMMARY OF EARTHWORK , ASPHALT PAVEMENT REMOVAL, CONCRETE PAVEMENT REMOVAL, AND GUARDRAIL SUMMARY (U-6058 & 17BP.2.C.13)
3D-1 THRU 3D-3	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
3P-1	PARCEL INDEX SHEET
4 THRU 6	PLAN SHEETS
7 THRU 8	PROFILE SHEETS
RW01 THRU RW06	RIGHT OF WAY PLAN SHEETS
TMP-1 THRU TMP-14	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-5	PAVEMENT MARKING PLANS
EC-1 THRU EC-9	EROSION CONTROL PLANS
RF-1	REFORESTATION PLANS
SIGN-1 THRU SIGN-9	SIGNING PLANS
UC-1 THRU UC-5	UTILITIES CONSTRUCTION PLANS
UO-1 THRU UO-4	UTILITIES BY OTHERS PLANS
X-1	CROSS-SECTION INDEX SHEET
X-1A	CROSS-SECTION SUMMARY SHEET
X-2 THRU X-23	CROSS-SECTIONS

PART 2 (17BP.2.C.13)

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C	GUARDRAIL PLACEMENT DETAIL
3B	SUMMARY OF DRAINAGE AND EARTHWORK QUANTITIES
4	PLAN AND PROFILE SHEET
RW02C	SURVEY CONTROL, EXISTING CENTERLINE
EC-1 THRU EC-4	EROSION CONTROL PLANS
UC-1 THRU UC-4	UTILITIES CONSTRUCTION PLAN
X-1A	CROSS-SECTION SUMMARY SHEET
X-1	CROSS-SECTIONS

GENERAL NOTES: 2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024
REVISED:

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3 FOOT RADII OR RADII AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE Duke Energy-(Power Distribution)

Brightspeed - Communications, Conterra - Communications, Charter - Communications

Water - Town of Beaufort, Sanitary Sewer - Town of Beaufort

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED STATE FORCES

CURB RAMPS

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS.
CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.06.

EFF. 01-16-2024
REV.

2024 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - 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 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
840.00	Concrete Base Pad for Drainage Structures
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
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.17	Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.26	Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
846.01	Concrete Curb, Gutter and Curb & Gutter
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.06	Curb Ramp (Use Details in Lieu of Standards for Sheets 9 and 10 of 13)
848.07	Concrete Sidepath / Shared Use Path / Greenway Construction
852.01	Concrete Islands
862.01	Guardrail Placement
862.02	Guardrail Installation
876.02	Guide for Rip Rap at Pipe Outlets

5/8/2025
U-6058_17BP.2.C.13_Rdy_psh_joint_1A.dgn
USER:kwong

9/10/2021

PROJECT REFERENCE NO.	SHEET NO.
U-6058/17BP.2.CJ3	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Existing Concrete Monument (ECM)
- 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:

- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Secondary Horiz and Vert Control Point
- Vertical Benchmark
- Existing Right of Way Monument
- Proposed Right of Way Monument (Rebar and Cap)
- Proposed Right of Way Monument (Concrete)
- Existing Permanent Easement Monument
- Proposed Permanent Easement Monument (Rebar and Cap)
- Existing C/A Monument
- Proposed C/A Monument (Rebar and Cap)
- Proposed C/A Monument (Concrete)
- Existing Right of Way Line
- Proposed Right of Way Line
- Existing Control of Access Line
- Proposed Control of Access Line
- Proposed ROW and CA Line
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed 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:

** SUE – Subsurface Utility Engineering*
LOS – Level of Service – A,B,C or D (Accuracy)

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 Test Hole (SUE – LOS A)*
- U/G Power Line (SUE – LOS B)*
- U/G Power Line (SUE – LOS C)*
- U/G Power Line (SUE – LOS D)*

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- U/G Telephone Test Hole (SUE – LOS A)*
- U/G Telephone Cable (SUE – LOS B)*
- U/G Telephone Cable (SUE – LOS C)*
- U/G Telephone Cable (SUE – LOS D)*
- U/G Telephone Conduit (SUE – LOS B)*
- U/G Telephone Conduit (SUE – LOS C)*
- U/G Telephone Conduit (SUE – LOS D)*
- U/G Fiber Optics Cable (SUE – LOS B)*
- U/G Fiber Optics Cable (SUE – LOS C)*
- U/G Fiber Optics Cable (SUE – LOS D)*

WATER:

- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line Test Hole (SUE – LOS A)*
- U/G Water Line (SUE – LOS B)*
- U/G Water Line (SUE – LOS C)*
- U/G Water Line (SUE – LOS D)*
- Above Ground Water Line

TV:

- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- U/G TV Test Hole (SUE – LOS A)*
- U/G TV Cable (SUE – LOS B)*
- U/G TV Cable (SUE – LOS C)*
- U/G TV Cable (SUE – LOS D)*
- U/G Fiber Optic Cable (SUE – LOS B)*
- U/G Fiber Optic Cable (SUE – LOS C)*
- U/G Fiber Optic Cable (SUE – LOS D)*

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line Test Hole (SUE – LOS A)*
- U/G Gas Line (SUE – LOS B)*
- U/G Gas Line (SUE – LOS C)*
- U/G Gas Line (SUE – LOS D)*
- Above Ground Gas Line

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line
- Above Ground Sanitary Sewer
- SS Force Main Line Test Hole (SUE – LOS A)*
- SS Force Main Line (SUE – LOS B)*
- SS Force Main Line (SUE – LOS C)*
- SS Force Main Line (SUE – LOS D)*

MISCELLANEOUS:

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

09/08/49

TIP PROJECT: U-6058

CONTRACT: C205075

See Sheet 1A For Index of Sheets
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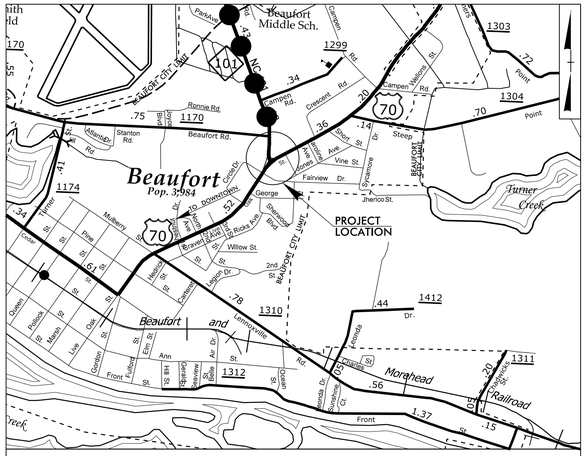

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DIVISION OF HIGHWAYS

CARTERET COUNTY

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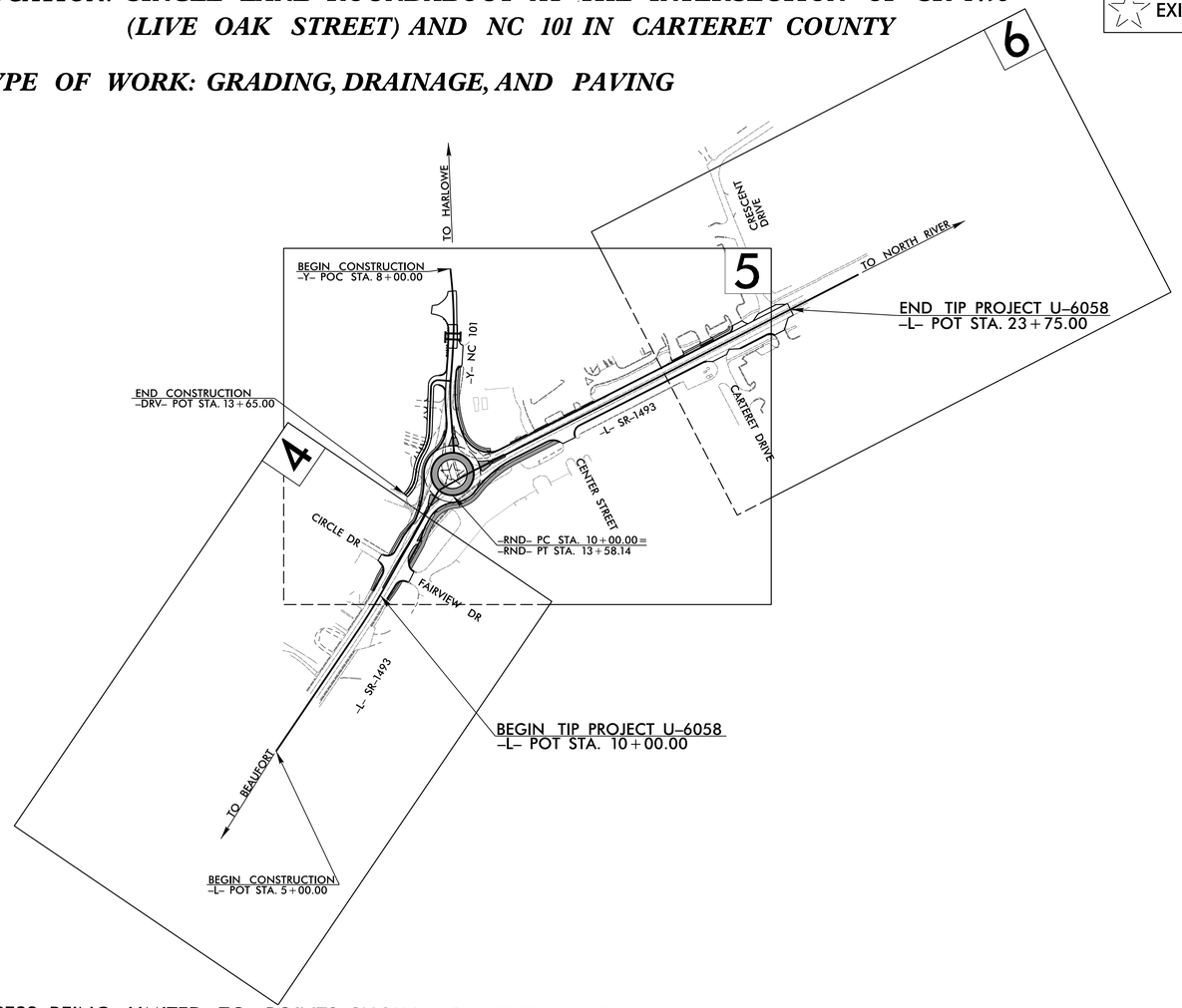

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PROFILE (VERTICAL): 10 5 0 10 20

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PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT U-6058 = 0.260 MILES
TOTAL LENGTH OF TIP PROJECT U-6058 = 0.260 MILES

Prepared In the Office of:
TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
SEPTEMBER 7, 2022

LETTING DATE:
JULY 15, 2025

RAJIT RAMKUMAR, PE
PROJECT ENGINEER

DANIEL W. GARDNER, JR., PE
PROJECT DESIGN ENGINEER

CATHRINE HOSSACK-MEYER, PE
NCDOT CONTACT

HYDRAULICS ENGINEER
6/6/2025
NORTH CAROLINA PROFESSIONAL SEAL 052573 ENGINEER JONATHAN T. WILLIAMS
Signed by: Jonathan T. Williams
D710C63E4EF4A9...
P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER
6/9/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
Signed by: Daniel W. Gardner Jr.
E31552AFE0F444D...
P.E.
SIGNATURE:

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

5/8/2025
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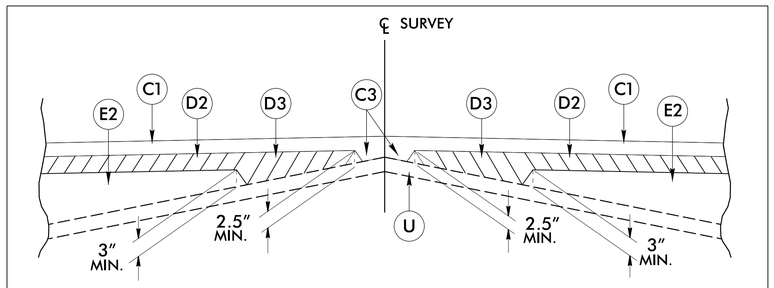
USER:Wpope

6/2/99

FINAL PAVEMENT SCHEDULE

A	PROP. 8" JOINTED CONCRETE TRUCK APRON, CLASS AA CONCRETE.	K	12" CLASS IV SUBGRADE STABILIZATION
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	N	GEOTEXTILE FOR SUBGRADE STABILIZATION
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R1	1'-6" CONCRETE CURB AND GUTTER, CLASS AA CONCRETE.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH.	R2	2'-6" CONCRETE CURB AND GUTTER.
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	R3	9"X18" CONCRETE CURB
D2	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	R4	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
D3	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	S1	4" PROPOSED CONCRETE SIDEWALK.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	T	EARTH MATERIAL.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	U	EXISTING PAVEMENT.
J1	PROP. 6" AGGREGATE BASE COURSE.	V	MILLING ASPHALT PAVEMENT, 3" DEPTH.
J2	PROP. 8" AGGREGATE BASE COURSE.	W	VAR. DEPTH ASPHALT PAVEMENT
J3	PROP. 12" AGGREGATE BASE COURSE.		

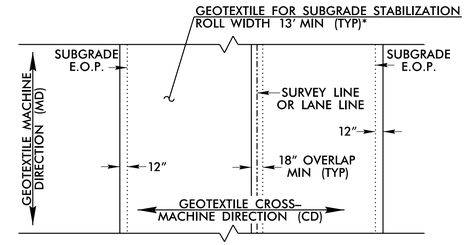
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE SHOWN.



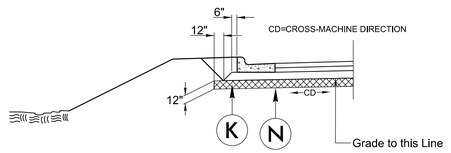
Detail Showing Method of Wedging

GEOTEXTILE FOR SUBGRADE STABILIZATION PLACEMENT (PLAN VIEW)

*INSTALL GEOTEXTILE FOR SUBGRADE STABILIZATION WITH MINIMUM ROLL WIDTH UNDER ROADWAY EDGES AND SHOULDERS ADJACENT TO FILL SLOPES



SHALLOW UNDERCUT DETAIL

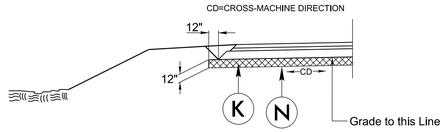


CURB AND GUTTER SECTION

SHALLOW UNDERCUT STATIONS

–L– STA. 10+00.00 TO STA. 13+20.00 LT./RT.
–L– STA. 14+27.00 TO STA. 22+25.00 LT./RT.
–Y– STA. 10+15.00 TO STA. 12+75.00 LT./RT.
–RND– STA. 10+00.00 TO STA. 13+58.00 LT./RT.

SHALLOW UNDERCUT DETAIL



SHOULDER SECTION

SHALLOW UNDERCUT STATIONS

–DRV– STA. 10+25.00 TO STA. 13+65.00 LT./RT.

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2A-1

ROADWAY DESIGN ENGINEER

6/11/2025

NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.

Signed by: Daniel W. Gardner Jr.
9729005848149...

PAVEMENT DESIGN ENGINEER

6/11/2025

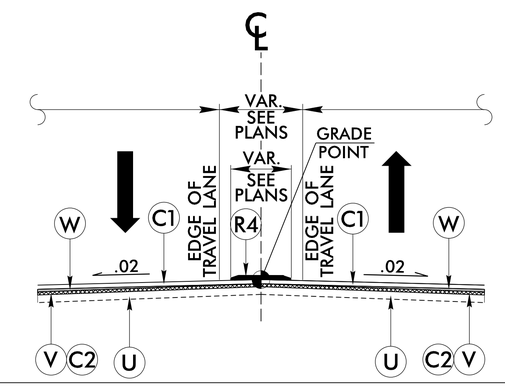
NORTH CAROLINA PROFESSIONAL SEAL 036694 ENGINEER AMY L. SIMPSON

Signed by: Amy Simpson
FDD4C717C77248F...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

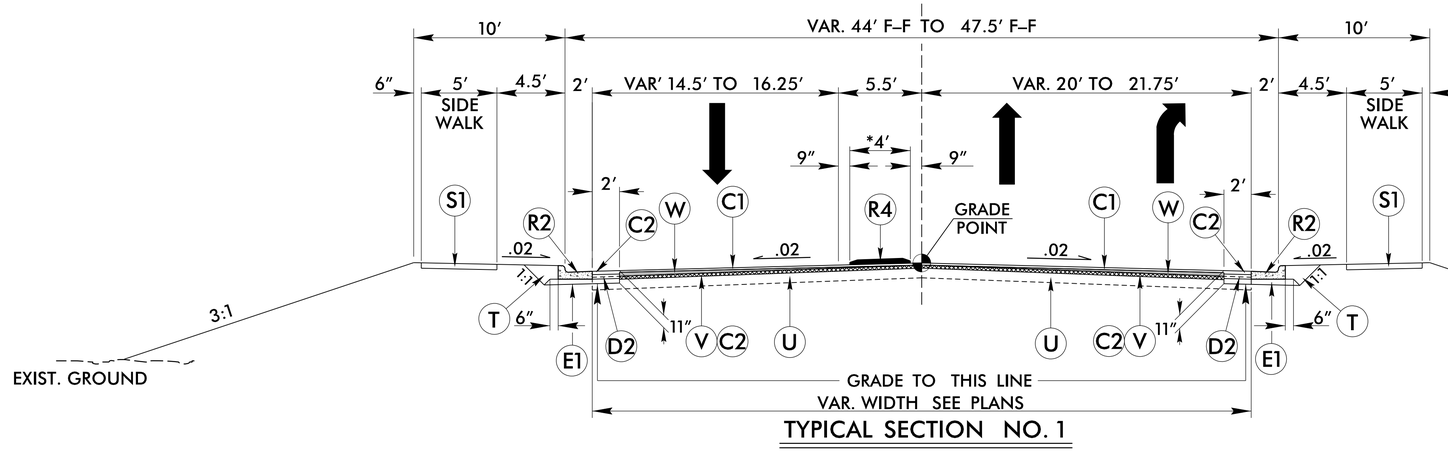
INSET A



USE INSET A WITH TYPICAL SECTION NO. 2, 3, AND 6

–L– STA. 11+55.00 TO STA. 13+01.91
–L– STA. 14+46.16 TO STA. 15+21.04
–Y– STA. 12+24.53 TO STA. 12+72.32

℄ –L– SR–1493 (LIVE OAK STREET)



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1 AS FOLLOWS

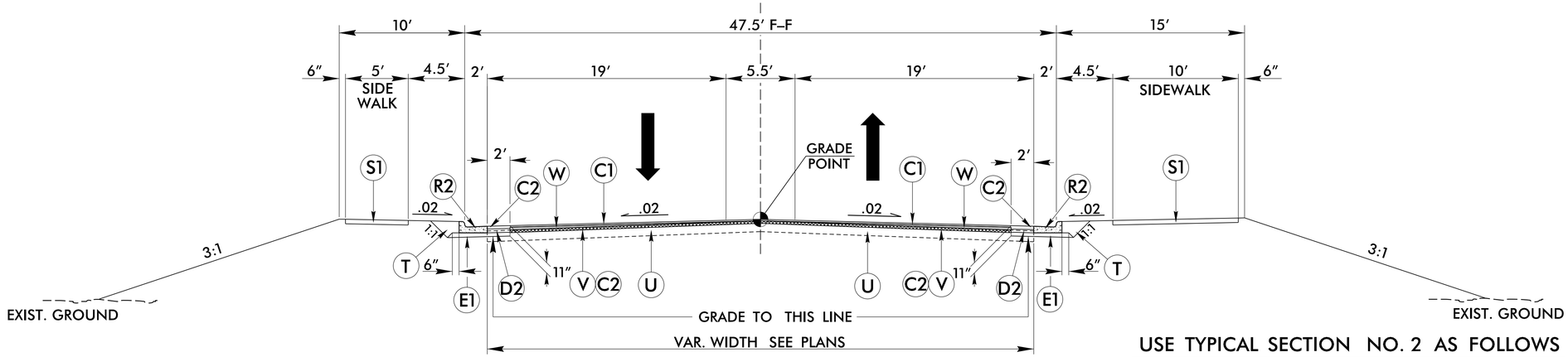
–L– STA. 10+00.00 TO STA. 10+80.00
*–L– STA. 10+20.00 TO STA. 10+80.00

NOTE: TRANSITION FROM T.S. NO. 1 TO T.S. NO. 2
–L– STA. 10+80.00 TO STA. 11+55.00

NOTE: DUE TO ASSUMPTIONS MADE DURING THE 15%/25% DESIGN PLANS ON THE RESURFACING DEPTH, THE SUBSEQUENT GRADE WILL HAVE A LARGER AMOUNT OF WEDGING DUE TO THE RECENT PAVEMENT DESIGN REVISIONS. THE 3" MILL/FILL WILL REQUIRE A 1.5" RESURFACE LIFT AND WEDGING TO ACHIEVE THE DESIRED DESIGN GRADE IN SOME AREAS OF –L– AND –Y– AS NOTED IN THE TYPICALS.

5/29/2025
U-6058_Rdy_typ.dgn
USER:None

℄ –L– SR–1493 (LIVE OAK STREET)



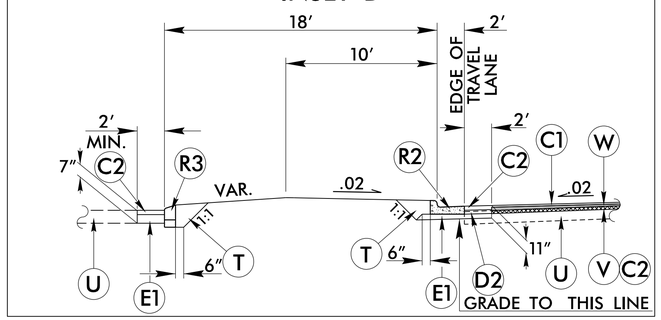
TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2 AS FOLLOWS

–L– STA. 11+55.00 TO STA. 13+01.91

NOTE: SEE INSET 'A' ON SHEET 2A–1 FOR MEDIAN DESIGN.
SEE SHEET 2B–1 FOR LANE AND MEDIAN TRANSITIONS.

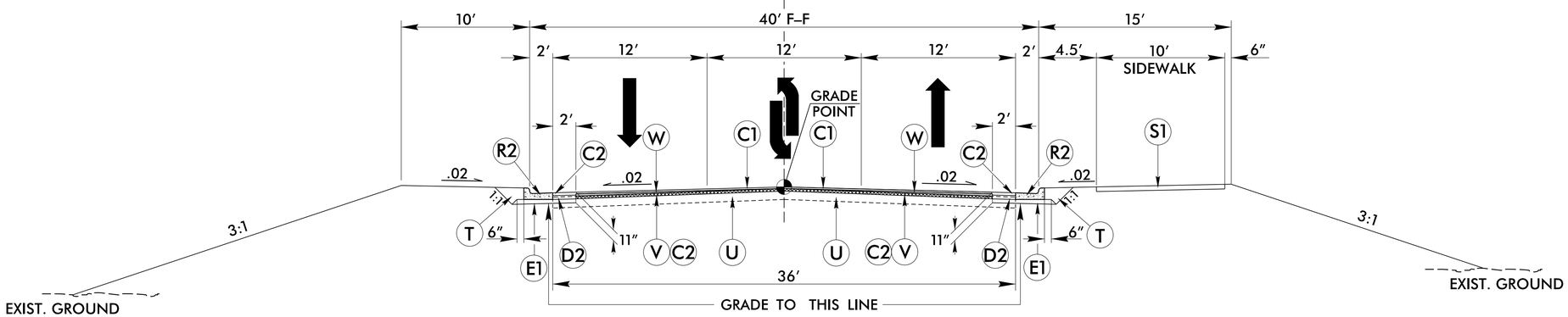
INSET B



USE INSET B WITH TYPICAL SECTION NO. 3 & 4

–L– STA. 15+00.00 TO STA. 15+47.91 LT.
–L– STA. 15+97.91 TO STA. 16+19.46 LT.
–L– STA. 16+59.46 TO STA. 17+07.57 LT.
–L– STA. 17+43.59 TO STA. 17+59.93 LT.
–L– STA. 17+95.95 LT.

℄ –L– SR–1493 (LIVE OAK STREET)



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3 AS FOLLOWS

–L– STA. 14+45.62 TO STA. 16+64.93

NOTE: SEE INSET 'A' ON SHEET 2A–1 FOR MEDIAN DESIGN.
SEE INSET 'E' ON SHEET 2A–4 FOR CHANNELIZATION DETAIL.
SEE INSET 'F' ON SHEET 2A–4 FOR TRANSITION TO 9″ X 18″ CURB.
SEE INSET 'G' ON SHEET 2A–5 FOR TRANSITION TO PARKING AREA TO BE PAVED.
SEE SHEET 2B–1 FOR LANE AND MEDIAN TRANSITIONS.

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2A-2

ROADWAY DESIGN ENGINEER

6/11/2025

NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.

Signed by: Daniel W. Gardner Jr. 9725900588481497...

PAVEMENT DESIGN ENGINEER

6/11/2025

NORTH CAROLINA PROFESSIONAL SEAL 036694 ENGINEER AMY L. SIMPSON

Signed by: Amy Simpson FD04C717C77248F...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

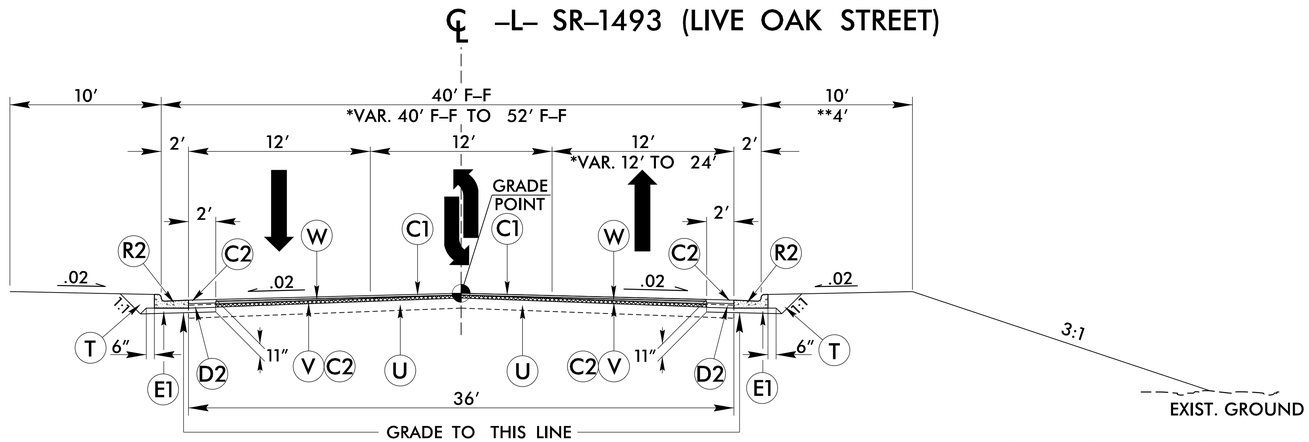
TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PAVEMENT SCHEDULE

A	8″ JOINTED CONC. TRUCK APRON
C1	1½″ TYPE S9.5B
C2	3″ TYPE S9.5B
C3	VAR. TYPE S9.5B
D1	2½″ TYPE I19.0C
D2	4″ TYPE I19.0C
D3	VAR. TYPE I19.0C
E1	4″ TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	6″ AGGREGATE BASE COURSE
J2	8″ AGGREGATE BASE COURSE
J3	12″ AGGREGATE BASE COURSE
K	12″ CLASS IV
N	GEOTEXTILE
R1	1′-6″ CURB AND GUTTER
R2	2′-6″ CURB AND GUTTER
R3	9″ X 18″ CONCRETE CURB
R4	5″ MONOLITHIC CONC. ISLAND
S1	4″ CONCRETE SIDEWALK
T	EARTH MATERIAL.
U	EXISTING PAVEMENT
V	MILLING PAVEMENT, 3″ DEPTH
W	VAR. DEPTH WEDGING

5/30/2025
K:\Proj\U-6058_Rdy_typ.dgn
USER:None

6/2/99

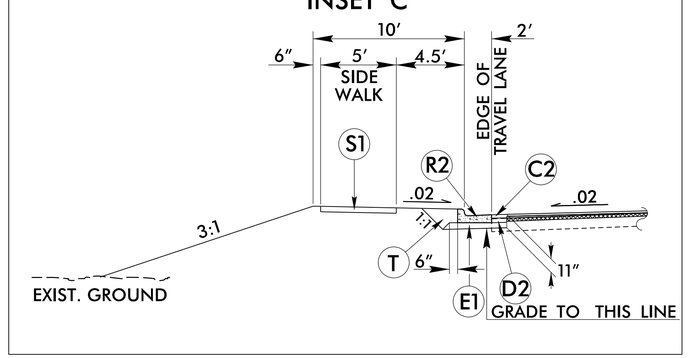


TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4 AS FOLLOWS
–L– STA. 16+64.93 TO STA. 22+25.00
*–L– STA. 21+76.68 TO STA. 22+25.00

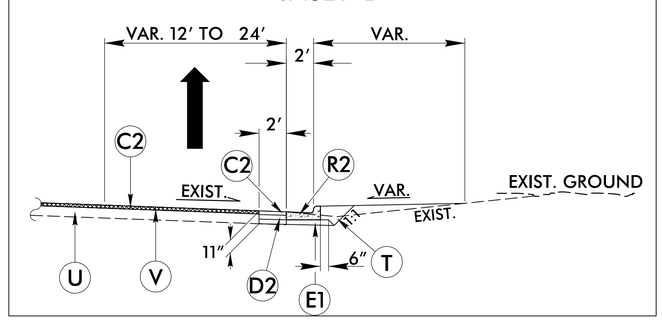
NOTE: MILLING REQUIRED TO PROVIDE PROPOSED SUPER (.02) FROM –L– STA. 17+25.00 TO STA. 18+75.00 LT.
MILLING REQUIRED FOR GRADE TIE–IN.
SEE INSET 'B' ON SHEET 2A–2 FOR CHANNELIZATION DETAIL.
**USE 4′ BERM WIDTH FROM –L– STA. 20+85.00 TO STA. 22+25.00 RT.

INSET C

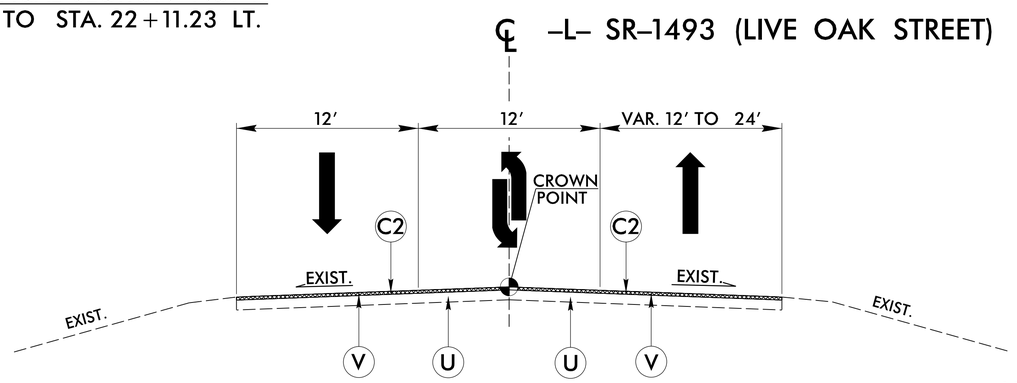


USE INSET C WITH TYPICAL SECTION NO. 4
–l– STA. 20+67.49 TO STA. 22+11.23 LT.

INSET D



USE INSET D WITH TYPICAL SECTION NO. 5
–L– STA. 22+25.00 TO STA. 23+06.85 RT.



TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5 AS FOLLOWS
–L– STA. 22+25.00 TO STA. 23+75.00

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2A-3

ROADWAY DESIGN ENGINEER
6/11/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
Signed by: David W. Gardner Jr.
9725900584B1497...

PAVEMENT DESIGN ENGINEER
6/11/2025
NORTH CAROLINA PROFESSIONAL SEAL 036694 ENGINEER AMY L. SIMPSON
Signed by: Amy Simpson
FD04C717C77248F...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PAVEMENT SCHEDULE

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C1	1½″ TYPE S9.5B
C2	3″ TYPE S9.5B
C3	VAR. TYPE S9.5B
D1	2½″ TYPE I19.0C
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J3	12″ AGGREGATE BASE COURSE
K	12″ CLASS IV
N	GEOTEXTILE
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R3	9″ X 18″ CONCRETE CURB
R4	5″ MONOLITHIC CONC. ISLAND
S1	4″ CONCRETE SIDEWALK
T	EARTH MATERIAL.
U	EXISTING PAVEMENT
V	MILLING PAVEMENT, 3″ DEPTH
W	VAR. DEPTH WEDGING

5/29/2025
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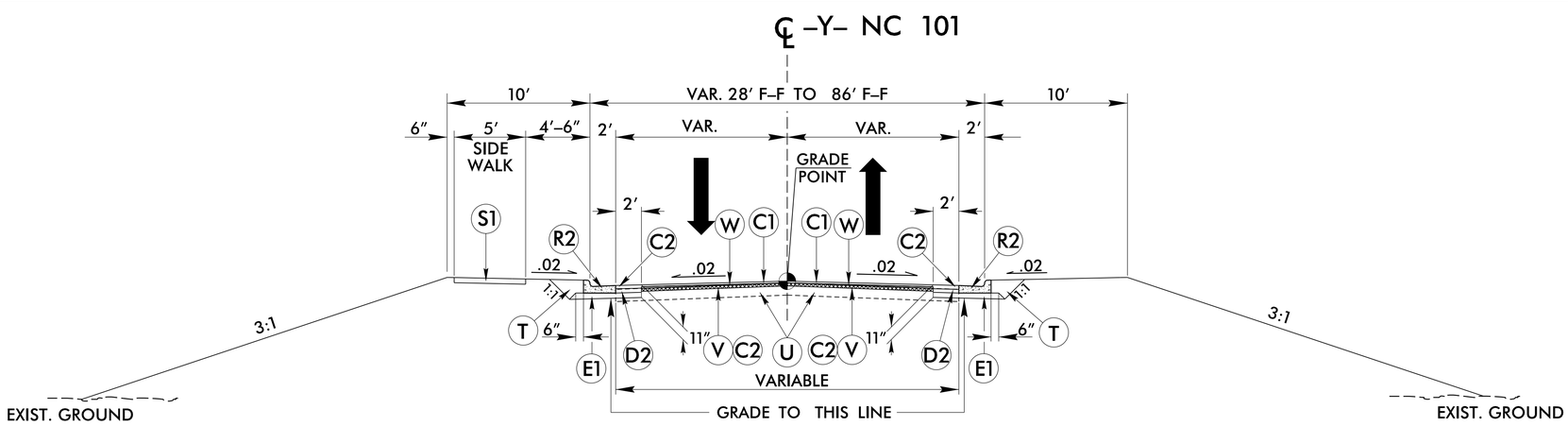
USER:kcole



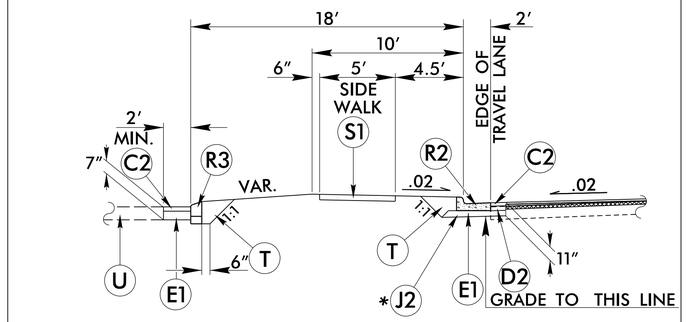
TYPICAL SECTION NO. 6

NOTE: SEE INSET 'A' ON SHEET 2A–1 FOR MEDIAN DESIGN.

USE TYPICAL SECTION NO. 6 AS FOLLOWS

–Y– STA. 10+15.00 TO STA. 12+91.58

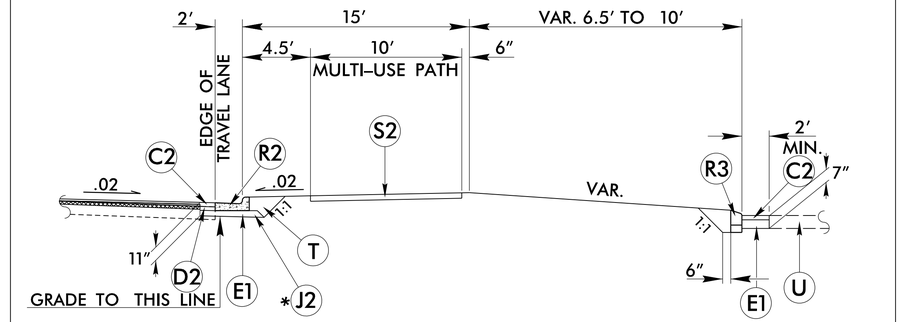
INSET E



USE INSET E WITH TYPICAL SECTION NO. 6 AND 7

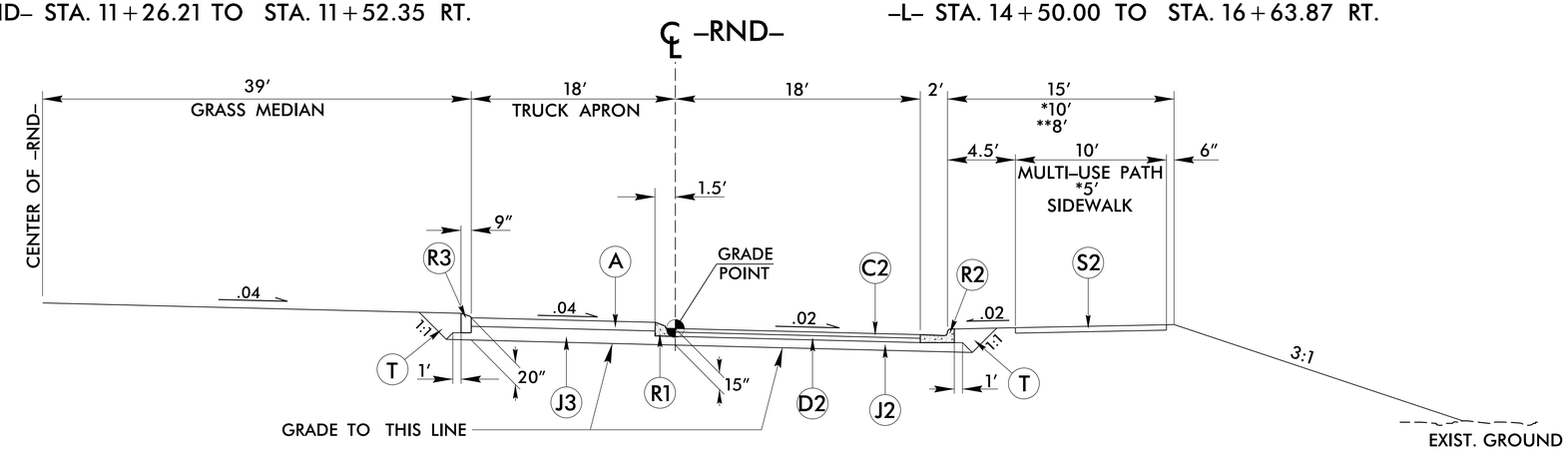
–Y– STA. 10+58.11 TO STA. 12+50.00 LT.
*–RND– STA. 11+26.21 TO STA. 11+52.35 RT.

INSET F



USE INSET F WITH TYPICAL SECTION NO. 3 AND 7

*–RND– STA. 10+04.78 TO STA. 10+71.15 RT.
–L– STA. 14+50.00 TO STA. 16+63.87 RT.



TYPICAL SECTION NO. 7

USE TYPICAL SECTION NO. 7 AS FOLLOWS

–RND– STA. 10+00.00 TO STA. 13+58.14

NOTE: USE 15′ BERM WITH 10′ MULTI–USE PATH FROM –RND– STA. 10+04.52 TO STA. 10+52.97
*USE 10′ BERM WITH 5′ SIDEWALK FROM –RND– STA. 11+22.04 TO STA. 11+65.69
**USE 8′ BERM WITH 5′ SIDEWALK FROM –RND– STA. 12+19.56 TO STA. 12+69.74
REMOVE EXISTING PAVEMENT AND CONCRETE ISLANDS WITHIN THE LIMITS OF THE GRASS MEDIAN, TRUCK APRON, AND 18′ TRAVEL LANE.

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2A-4

ROADWAY DESIGN ENGINEER

6/11/2025 NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
Signed by: Daniel W. Gardner Jr.
9725900584B1497...

PAVEMENT DESIGN ENGINEER

6/11/2025 NORTH CAROLINA PROFESSIONAL SEAL 036694 ENGINEER AMY L. SIMPSON
Signed by: Amy L. Simpson
FD04C717C77248F...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PAVEMENT SCHEDULE

A	8″ JOINTED CONC. TRUCK APRON
C1	1½″ TYPE S9.5B
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C3	VAR. TYPE S9.5B
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S1	4″ CONCRETE SIDEWALK
T	EARTH MATERIAL.
U	EXISTING PAVEMENT
V	MILLING PAVEMENT, 3″ DEPTH
W	VAR. DEPTH WEDGING

5/20/2025
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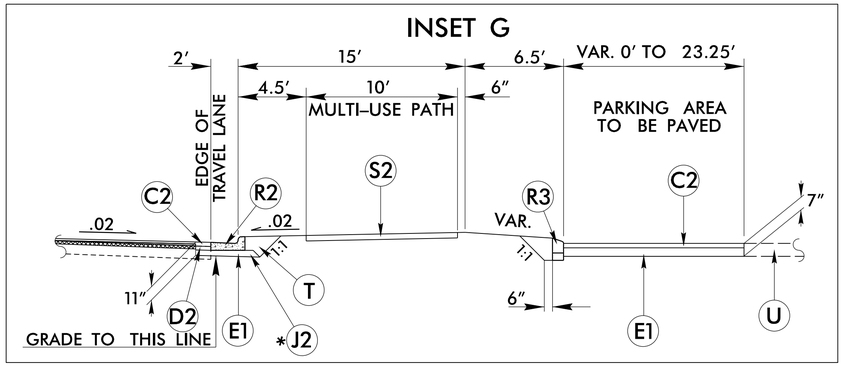
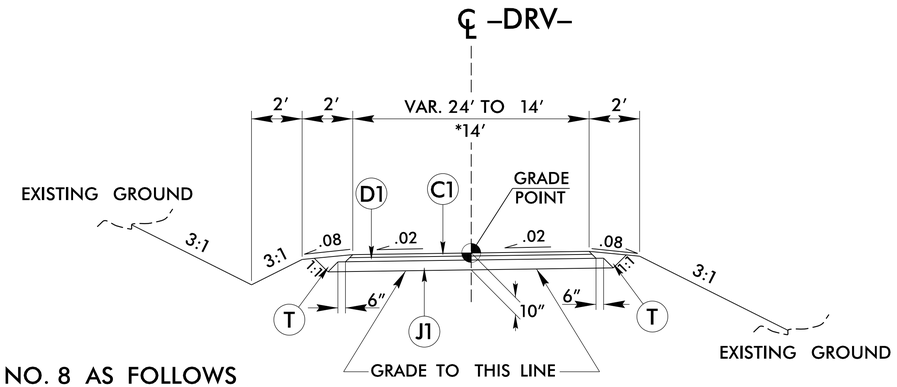
USER:rbooe



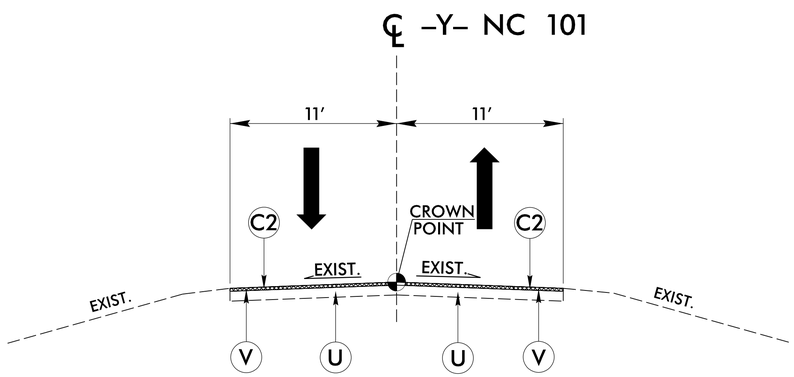
USE INSET G WITH TYPICAL SECTION NO. 3
*–L– STA. 15+48.15 TO STA. 16+35.00 RT.



USE TYPICAL SECTION NO. 8 AS FOLLOWS
–DRV– STA. 10+31.54 TO STA. 10+65.30
*–DRV– STA. 10+65.30 TO STA. 13+40.00

TYPICAL SECTION NO. 8

NOTE: TRANSITION FROM TYPICAL SECTION NO. 8 TO EXISTING
–DRV– STA. 13+40.00 TO STA. 13+65.00 LT. & RT.



TYPICAL SECTION NO. 9

USE TYPICAL SECTION NO. 9 AS FOLLOWS
–Y– STA. 8+60.00 TO STA. 10+15.00

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2A-5

ROADWAY DESIGN ENGINEER
6/11/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
Daniel W. Gardner Jr.
9729000884B1497...

PAVEMENT DESIGN ENGINEER
6/11/2025
NORTH CAROLINA PROFESSIONAL SEAL 036694 ENGINEER AMY L. SIMPSON
Amy L. Simpson
FD04C717C772485F...

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License: F-0453

PAVEMENT SCHEDULE

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S1	4″ CONCRETE SIDEWALK
T	EARTH MATERIAL.
U	EXISTING PAVEMENT
V	MILLING PAVEMENT, 3″ DEPTH
W	VAR. DEPTH WEDGING

5/20/2025
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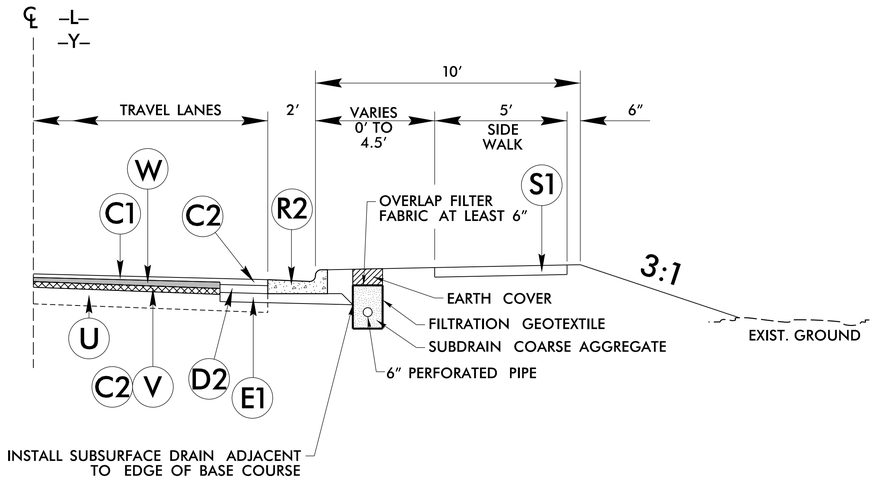
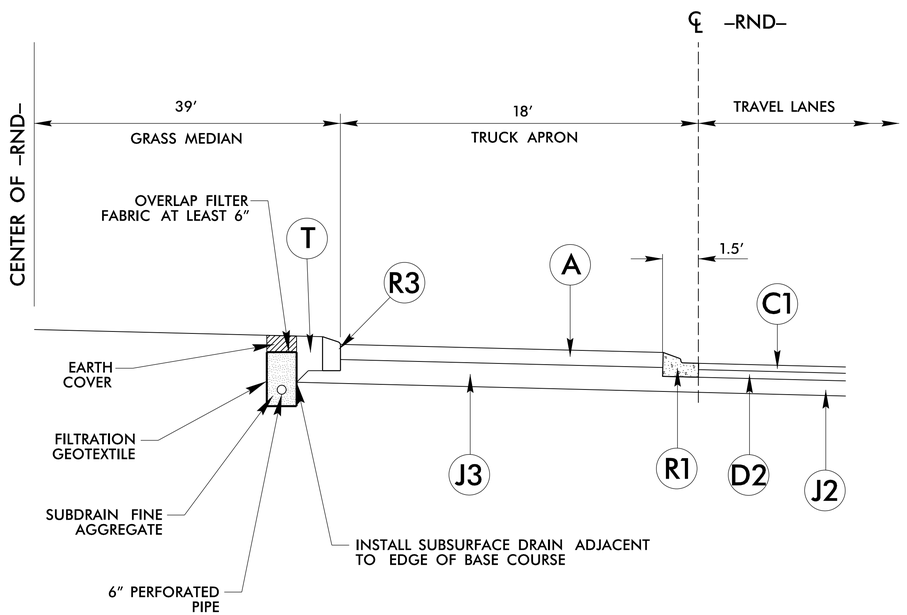
USER:dgardner

SUBSURFACE DRAIN DETAILS





LINE	BEGIN STATION	END STATION	LOCATION	OUTLET STATION	DRAINAGE STRUCTURE
–L–	10+00.00	10+74.93	LT	10+40.00	0408
–L–	10+99.13	13+01.91	LT	11+25.00	0411
–L–	14+67.49	22+15.63	LT	16+78.00	0527
				18+60.00	0506
				19+74.00	0525
				21+05.00	0601
				21+93.00	0602
–L–	10+00.00	10+65.06	RT	10+41.00	0407
–L–	10+99.60	13+36.51	RT	11+25.00	0410
				11+68.00	0516
				12+80.00	0538
–L–	14+45.62	16+66.19	RT	14+71.00	0514
				16+37.00	0505
–L–	17+10.30	21+11.28	RT	17+35.00	0520
				18+60.00	0513
				19+47.00	0530
				20+65.00	0529
–Y–	10+60.09	12+73.42	LT	10+73.00	0539
				11+63.00	0540
–Y–	10+15.00	10+86.41	RT	10+22.00	0508
–Y–	11+13.25	12+73.42	RT	11+63.00	0509
				11+98.00	0512
–RND–	10+00.00	13+58.14	LT (INSIDE ROUND–ABOUT)	12+62.00	0541
–RND–	10+00.00	10+80.34	RT (OUTSIDE ROUND–ABOUT)	(–L–) 14+77.00	0515
–RND–	11+29.89	11+47.20	RT (OUTSIDE ROUND–ABOUT)	(–Y–) 11+63.00	0540
–RND–	12+04.64	12+97.15	RT (OUTSIDE ROUND–ABOUT)	12+15.00	0537
				12+62.00	0511

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2A-6

ROADWAY DESIGN ENGINEER

6/11/2025

NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.

Signature: Daniel W. Gardner Jr.

PAVEMENT DESIGN ENGINEER

6/11/2025

NORTH CAROLINA PROFESSIONAL SEAL 036694 ENGINEER AMY L. SIMPSON

Signature: Amy Simpson

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

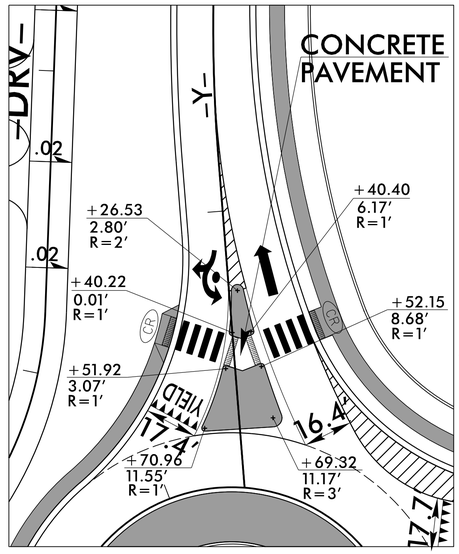
PAVEMENT SCHEDULE

A	8″ JOINTED CONC. TRUCK APRON
C1	1½″ TYPE S9.5B
C2	3″ TYPE S9.5B
C3	VAR. TYPE S9.5B
D1	2½″ TYPE I19.0C
D2	4″ TYPE I19.0C
D3	VAR. TYPE I19.0C
E1	4″ TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	6″ AGGREGATE BASE COURSE
J2	8″ AGGREGATE BASE COURSE
J3	12″ AGGREGATE BASE COURSE
K	12″ CLASS IV
N	GEOTEXTILE
R1	1′-6″ CURB AND GUTTER
R2	2′-6″ CURB AND GUTTER
R3	9″ X 18″ CONCRETE CURB
R4	5″ MONOLITHIC CONC. ISLAND
S1	4″ CONCRETE SIDEWALK
T	EARTH MATERIAL.
U	EXISTING PAVEMENT
V	MILLING PAVEMENT, 3″ DEPTH
W	VAR. DEPTH WEDGING

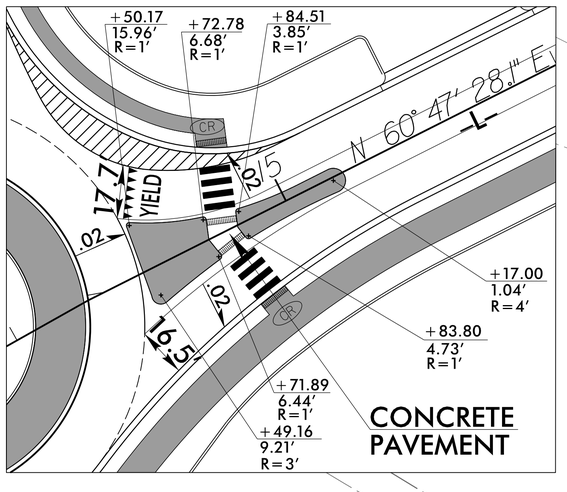
8/17/99

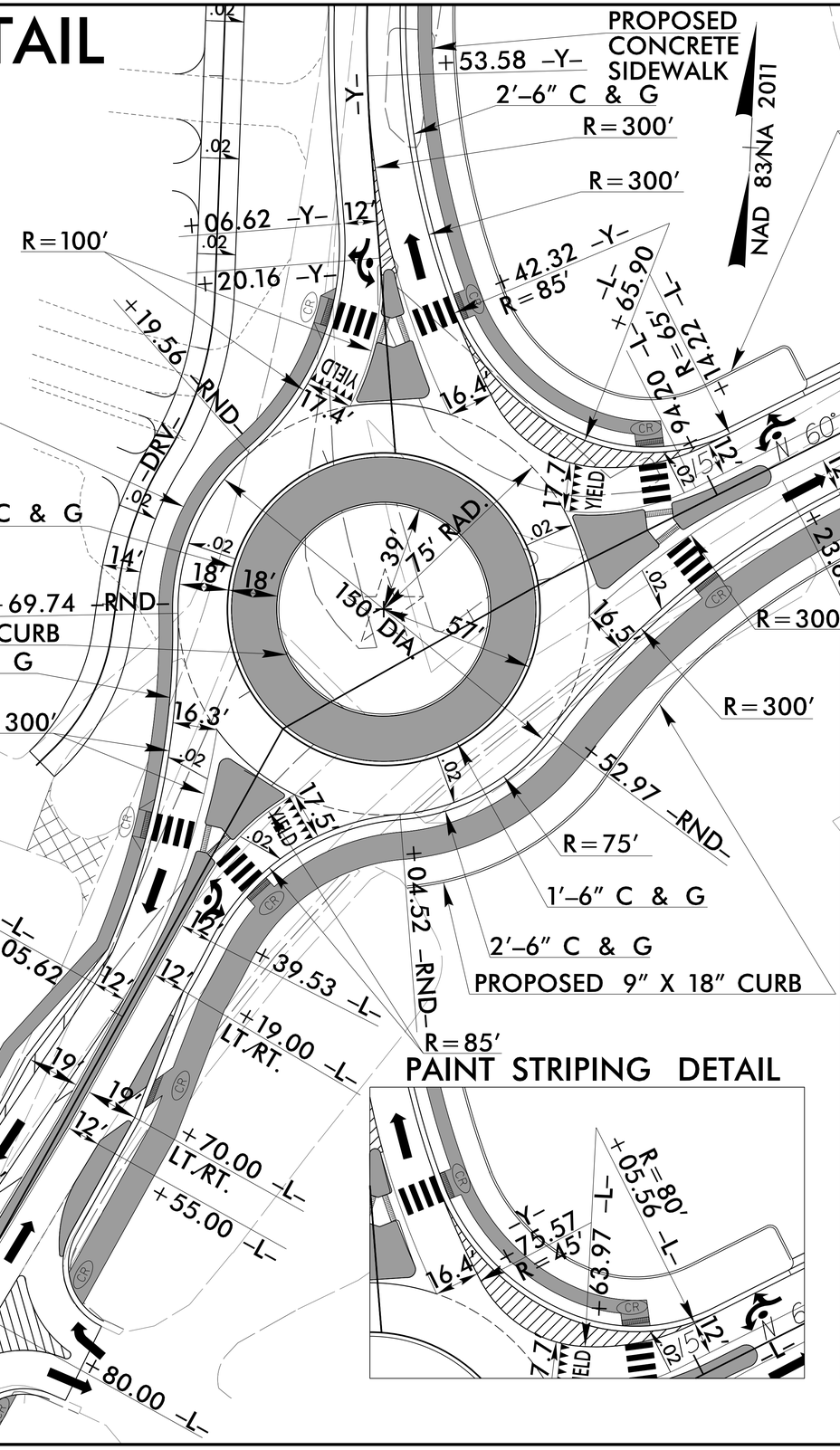
ROUNDABOUT DETAIL

–Y– ISLAND DETAIL

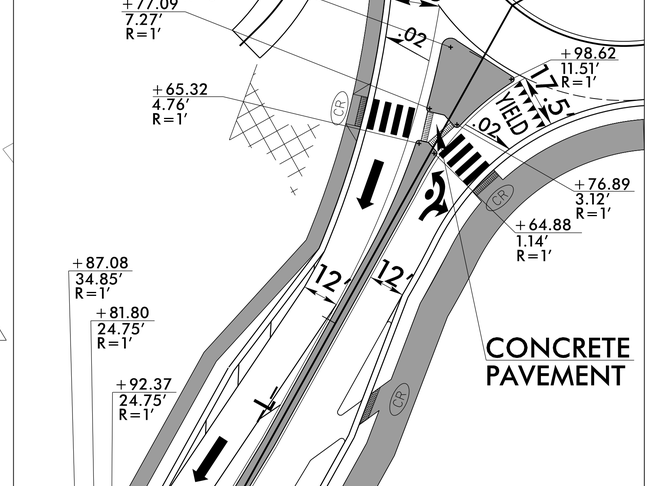


–L– NORTH ISLAND DETAIL





–L– SOUTH ISLAND DETAIL



PAINT STRIPING DETAIL

TRANSYSTEMS	1 Glenwood Avenue Raleigh, NC 27603 Tel:919.789.9977 Fax:919.789.9591 License: F-0453

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2B-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
6/9/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL WAYNE GARDNER
Daniel Wayne Gardner Jr.
631FB74FE96A44D...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

25' 0' 25' 50'
12.5'
(ENGLISH)

SEE SHEET 5 FOR PLAN VIEW

5/30/2025
U-6058_Rdy_psh_2B-1.dgn
USER:Rwarne

8/17/99

PARKING LAYOUT DETAIL

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2B-2
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
6/9/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
Signature: Daniel W. Gardner Jr.
631FB74FE96A44D...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

PROPOSED 9" X 18" CURB

PROPOSED CONCRETE SIDEWALK

1'–6" C & G

9" X 18" CURB
2'–6" C & G

EXISTING EOP

–L– STA. 16+35.00 RT.
41.50' OFFSET

1'–6" C & G

2'–6" C & G
PROPOSED 9" X 18" CURB

–L– STA. 14+72.15 RT.
49.37' OFFSET

–L– STA. 14+92.39 RT.
45.30' OFFSET

AREA = 113.73 SF

SIGN TO BE REMOVED

AREA = 1822.56 SF

–L– STA. 15+48.15 RT.
41.50' OFFSET

–L– STA. 15+19.07 RT.
42.20' OFFSET

PROPOSED PAINT STRIPING
(PARKING SPACES TYP.)

25' 0' 25' 50'
12.5'
(ENGLISH)

PARKING AREA TO BE PAVED

SEE SHEET 2A–5 INSET G FOR TYPICAL SECTION
SEE SHEET 5 FOR PLAN VIEW

5/8/2025
U-6058_Rdy_psh_2B-2.dgn
USER:None

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2C-1

GENERAL NOTES:

USE CLASS "B" CONCRETE THROUGHOUT.

PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.

OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.

USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.

IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.

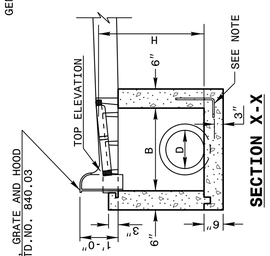
USE TYPE "E", "F" AND "G" GRATES UNLESS OTHERWISE INDICATED.

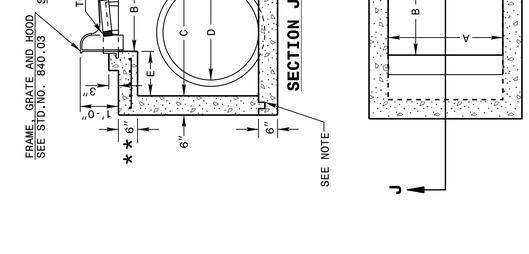
FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.

CONSTRUCT WITH PIPE CROWNS MATCHING.

CHAMFER ALL EXPOSED CORNERS 1".

** FOR STRUCTURES WITH PIPE LARGER THAN 54", MAKE THE TOP SLAB 8" THICK.

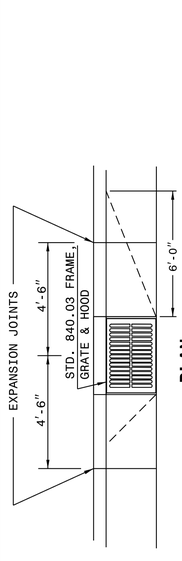


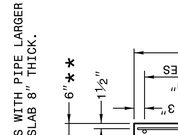


STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
MINIMUM DEPTH CONCRETE CATCH BASIN
12" THRU 84" PIPE

SHEET 1 OF 2 **840D02**





* RISER HAS .228 CUBIC YARDS OF CONCRETE PER FOOT HEIGHT

MINIMUM DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN(BASED ON MIN. HEIGHT, H, WITH NO RISER) *

PIPE D	DIMENSIONS OF BOX AND PIPE SPAN A	WIDTH B	WIDTH C	SPAN G	MIN. HEIGHT H	COVER DIMENSION E	COVER DIMENSION F	BARS-U NO.	BARS-U LENGTH	BARS-V NO.	BARS-V LENGTH	TOTAL LBS.	CU.YDS. CONC. IN BOX TOP SLAB	CU.YDS. CONC. IN BOX BOTTOM SLAB	CU.YDS. CONC. IN BOX TOT. CONC. FOR MINIMUM HEIGHT H	DEDUCTIONS ONE PIPE C.M.	DEDUCTIONS ONE PIPE R.C.
12"	3'-0"	2'-2"	--	--	2'-0"	--	--	--	--	--	--	--	--	0.235	0.772	0.015	0.026
15"	3'-0"	2'-2"			2'-3"									0.235	0.829	0.023	0.036
18"	3'-0"	2'-2"			2'-6"									0.235	0.887	0.033	0.049
24"	3'-0"	2'-2"			3'-1"									0.235	1.001	0.059	0.085
30"	3'-0"	2'-2"	3'-4"	3'-4"	3'-10"	1'-2"	4'-4"	4	1'-6"	2	4'-1"	39	0.123	0.347	1.433	0.092	0.127
36"	3'-0"	2'-2"	3'-10"	3'-10"	4'-6"	1'-8"	4'-10"	4	1'-11"	3	4'-7"	43	0.161	0.432	1.714	0.132	0.178
42"	3'-0"	2'-2"	4'-5"	4'-5"	4'-11"	2'-2"	5'-5"	5	2'-5"	4	5'-2"	47	0.200	0.543	1.738	0.160	0.243
48"	3'-0"	2'-2"	5'-0"	5'-0"	5'-6"	2'-10"	6'-0"	5	3'-1"	4	5'-9"	51	0.235	0.667	2.052	0.235	0.317
54"	3'-0"	2'-2"	5'-7"	5'-7"	6'-0"	3'-5"	6'-7"	6	3'-8"	5	6'-4"	56	0.289	0.802	2.387	0.297	0.401
60"	3'-0"	2'-2"	6'-3"	6'-3"	6'-6"	4'-1"	7'-3"	6	4'-4"	6	7'-0"	61	0.340	0.973	2.722	0.363	0.546
66"	3'-0"	2'-2"	6'-11"	6'-11"	7'-0"	4'-9"	7'-11"	7	5'-0"	6	7'-8"	66	0.391	1.160	3.057	0.440	0.655
72"	3'-0"	2'-2"	7'-6"	7'-6"	7'-6"	5'-3"	8'-6"	7	5'-6"	6	8'-3"	72	0.442	1.340	3.392	0.524	0.774
78"	3'-0"	2'-2"	8'-1"	8'-1"	8'-0"	5'-11"	9'-1"	8	6'-2"	7	8'-10"	78	0.493	1.530	3.727	0.615	0.893
84"	3'-0"	2'-2"	8'-9"	8'-9"	8'-6"	6'-7"	9'-9"	8	6'-10"	7	9'-6"	84	0.544	1.760	4.062	0.713	1.010

STATE OF NORTH CAROLINA DEPT. OF TRANSPORTATION DIVISION OF HIGHWAYS RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
MINIMUM DEPTH CONCRETE CATCH BASIN
12" THRU 84" PIPE

SHEET 2 OF 2 **840D02**

6/10/2021

NORTH CAROLINA PROFESSIONAL SEAL 33144 ENGINEER NICOLAS W. CLARK

5884323034164B4D...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

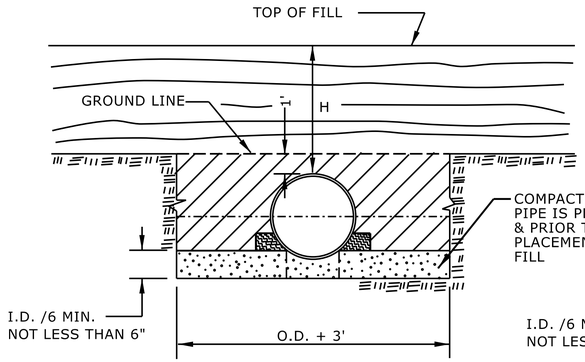
CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE PLATE FOR TITLE

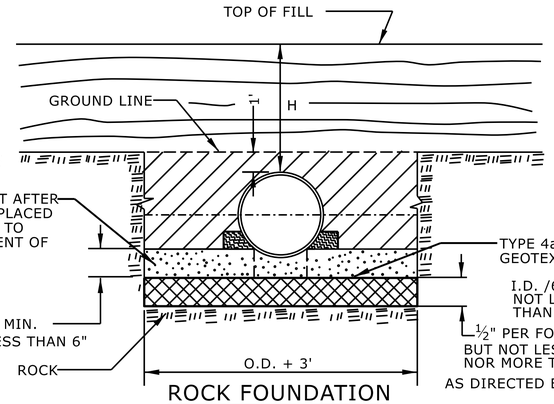
ORIGINAL BY: 2002 Std.840.01 DATE:
MODIFIED BY: E.E. WARD DATE: 3-1-02
CHECKED BY: DATE:
FILE SPEC.: s:Special Details/jhowerton/840d02.dgn

10-AUG-2017 10:11
S:\Contracts\Special Details\jhowerton\840d02 Min Depth CB.dgn
jhowerton
AT CSD-292595

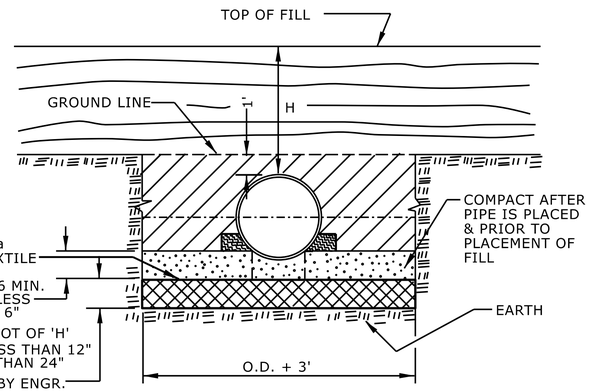
PROJECT REFERENCE NO.	SHEET NO.
U-6058	2C-2



NORMAL EARTH FOUNDATION

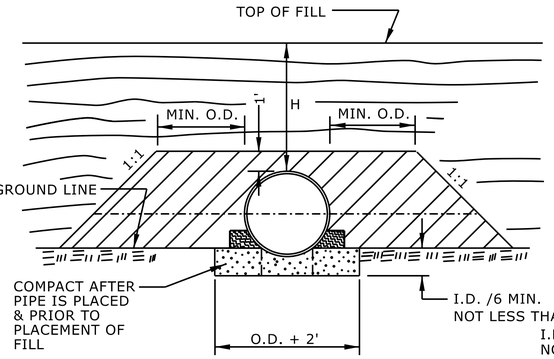


ROCK FOUNDATION

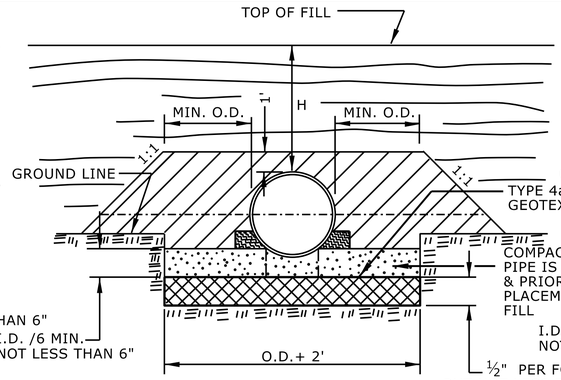


UNSUITABLE MATERIAL FOUNDATION

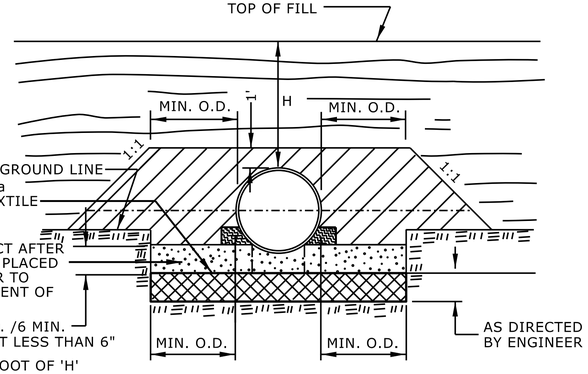
PIPE IN TRENCH



NORMAL EARTH FOUNDATION



ROCK FOUNDATION



UNSUITABLE MATERIAL FOUNDATION

PIPE ABOVE GROUND

GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

DO NOT OPERATE HEAVY EQUIPMENT OVER ANY PIPE CULVERT UNTIL THE PIPE CULVERT HAS BEEN PROPERLY BACKFILLED AND COVERED WITH AT LEAST 3 FEET OF APPROVED MATERIAL.

REFER TO NCDOT PIPE MATERIAL SELECTION GUIDE AND STANDARD SPECIFICATIONS FOR ALLOWABLE PIPE FILL HEIGHTS AND PIPE SPECIFICATIONS.

SPRINGLINE OF PIPE

SELECT BACKFILL MATERIAL CLASS III OR CLASS II, TYPE 1 ABOVE AND BELOW SPRINGLINE.

UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

METHOD OF PIPE INSTALLATION

FLEXIBLE PIPE

SHEET 1 OF 2

300.01

6/10/2024

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE MARIE HACKER

Signature: Nicole Marie Hacker

5884323D34164C5...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS AND DEVELOPMENT UNIT

Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

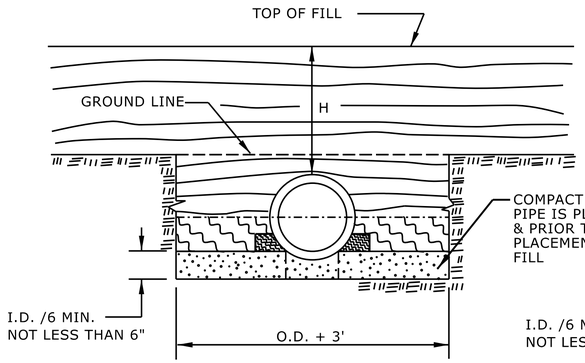
ORIGINAL BY: S.CALHOUN DATE: 7-25-2024

MODIFIED BY: _____ DATE: _____

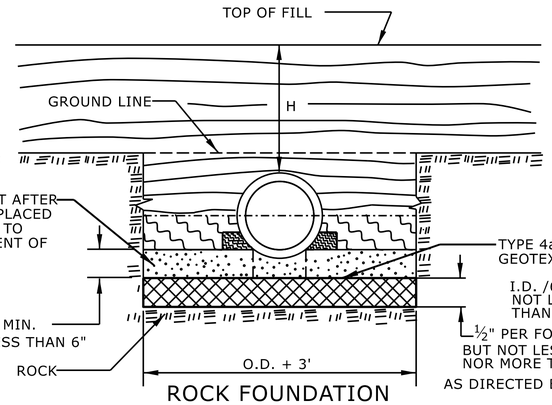
CHECKED BY: _____ DATE: _____

FILE SPEC.: _____

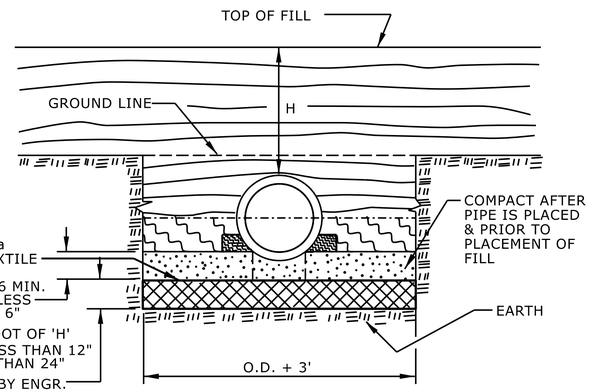
PROJECT REFERENCE NO.	SHEET NO.
U-6058	2C-3



NORMAL EARTH FOUNDATION

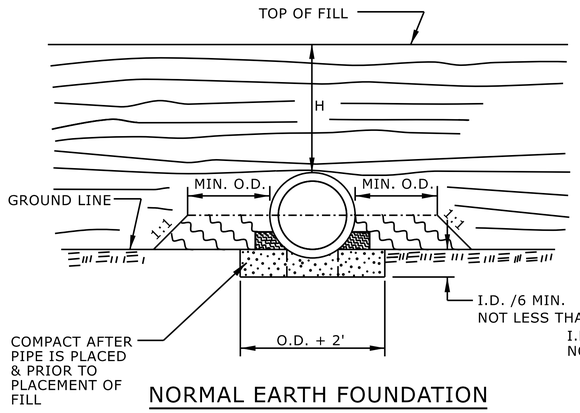


ROCK FOUNDATION

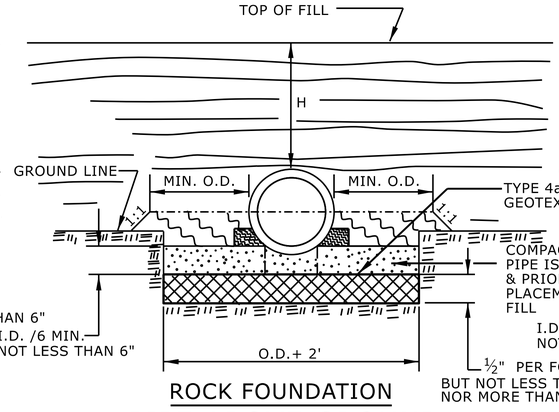


UNSUITABLE MATERIAL FOUNDATION

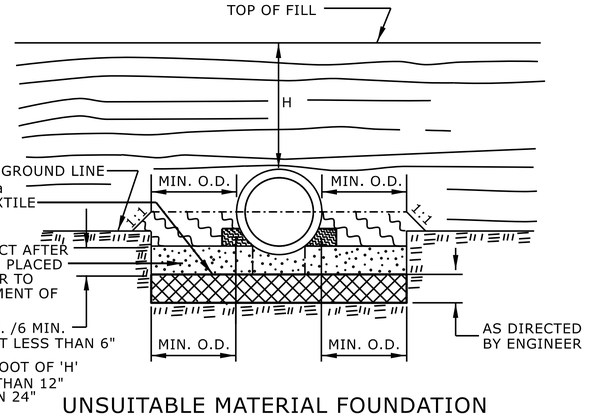
PIPE IN TRENCH



NORMAL EARTH FOUNDATION



ROCK FOUNDATION



UNSUITABLE MATERIAL FOUNDATION

PIPE ABOVE GROUND

GENERAL NOTES:

I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

O.D. = THE MAXIMUM HORIZONTAL OUTSIDE DIAMETER DIMENSION.

H = THE FILL HEIGHT MEASURED VERTICALLY AT ANY POINT ALONG THE PIPE FROM THE TOP OF THE PIPE TO THE TOP OF THE EMBANKMENT AT THAT POINT.

APPROVED SUITABLE LOCAL MATERIAL.

TAKE CARE TO FULLY COMPACT HAUNCH ZONE OF PIPE BACKFILL.

LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

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SPRINGLINE OF PIPE

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UNDISTURBED EARTH MATERIAL

SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

METHOD OF PIPE INSTALLATION

RIGID PIPE

SHEET 2 OF 2

300.01

6/10/2024

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE HACKLER

Signature: Nicole Hackler

5884323D341164C8...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

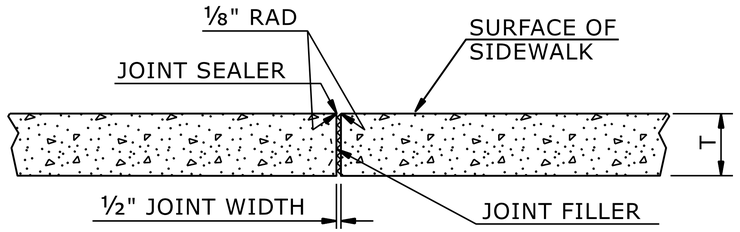
PROJECT REFERENCE NO.	SHEET NO.
U-6058	2C-4

NOTES:

CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

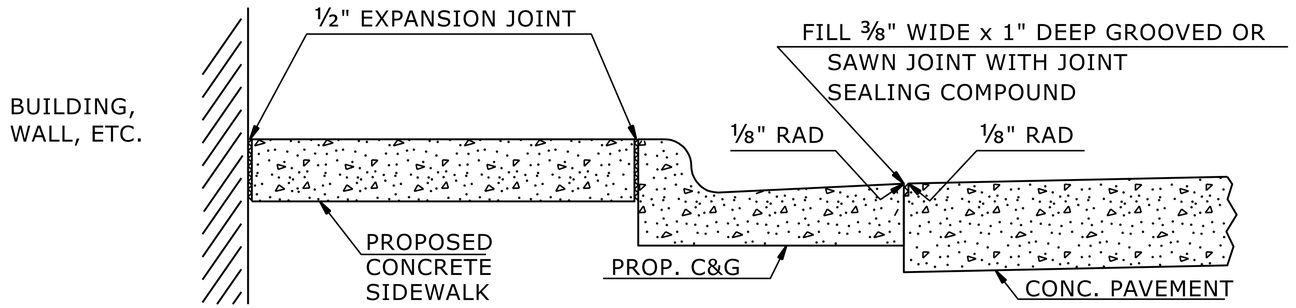
PLACE A GROOVE JOINT 1" DEEP WITH ⅛" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE ½" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A ½" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.

SEE STD. DWG. 848.06 FOR CURB RAMP LOCATION REQUIREMENTS AND CONSTRUCTION GUIDELINES.



T = SIDEWALK THICKNESS

TRANSVERSE EXPANSION JOINT IN SIDEWALK



DETAILS SHOWING JOINTS IN CONCRETE SIDEWALK

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

CONCRETE SIDEWALK

6/10/2024

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE M HACKLER

Nicole Hackler

5884323D3416405...

SHEET 1 OF 1

848D01

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CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

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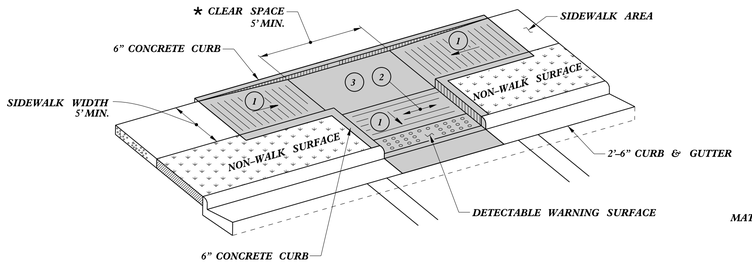
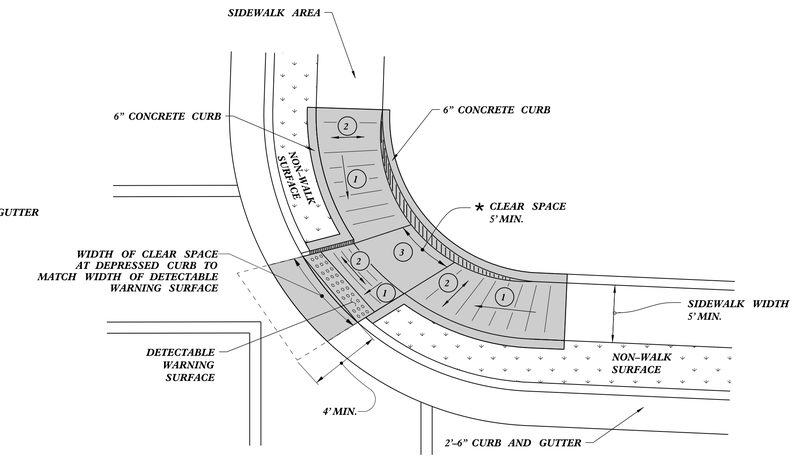
ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: _____

PROJECT REFERENCE NO.	SHEET NO.
U-6058	2C-5

* – *WHERE CLEAR SPACE IS CONSTRAINED ON TWO OR MORE SIDES, THE CLEAR SPACE SHALL BE 4'MINIMUM X 5'MINIMUM, WITH 5' PROVIDED IN THE DIRECTION OF THE PEDESTRIAN STREET CROSSING.*



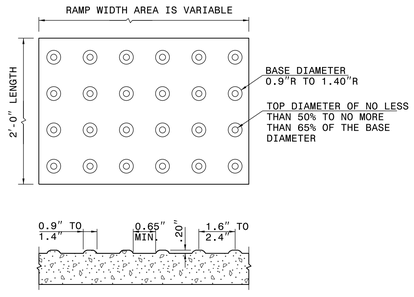
TYPE 3



TYPE 3 MODIFIED
INSTALLATION IN A RADIUS

NOTES:
DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE

(1) *8.33% (12:1) MAX RAMP SLOPE*

(2) *CROSS SLOPE: 2.00%*

(3) *MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.*

PAY LIMITS FOR 1 CURB RAMP

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR

CURB RAMP

PARALLEL RAMP

SHEET 9 OF13

848D06

6/10/2024

NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE HACKLER

Signed by: Nicole Hackler
588432D34164C8...

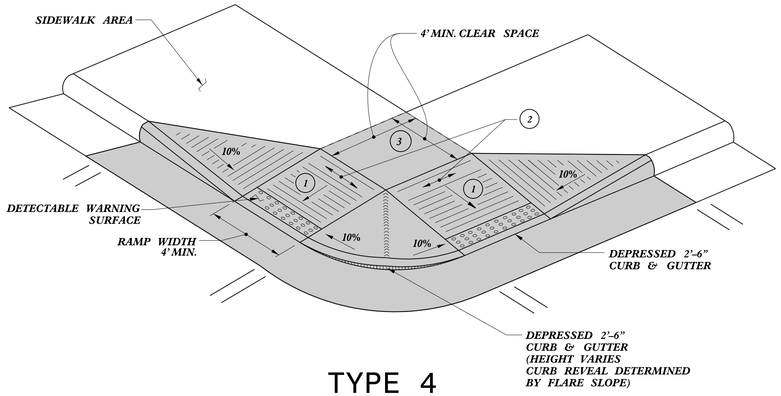
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

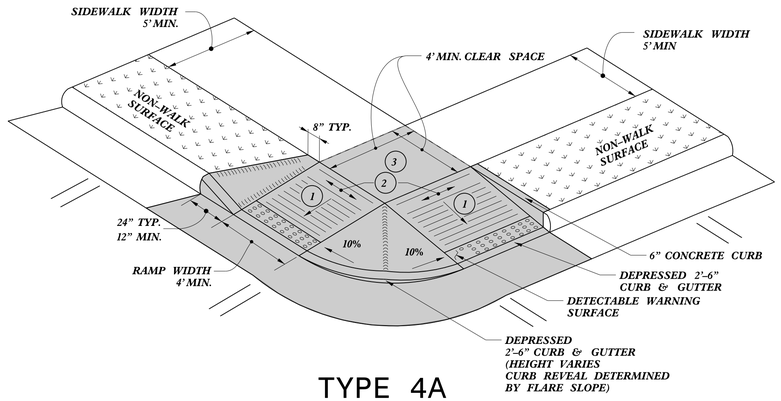
SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
FILE SPEC.: special details\nmhackler\D0609.dgn

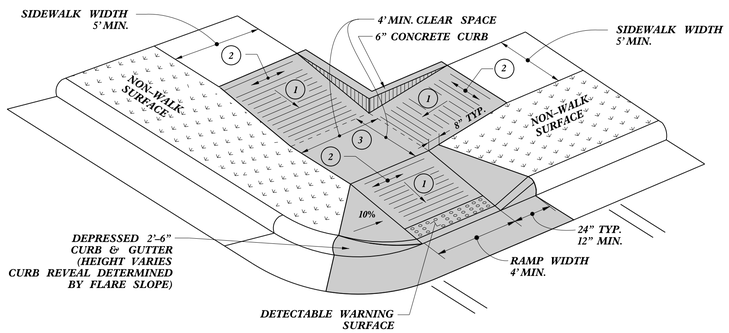
PROJECT REFERENCE NO.	SHEET NO.
U-6058	2C-6



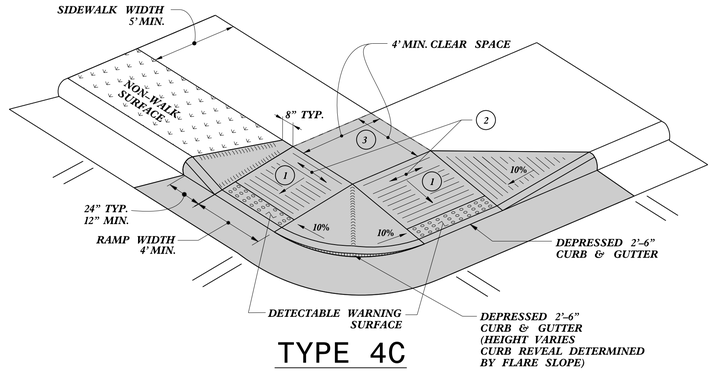
TYPE 4



TYPE 4A



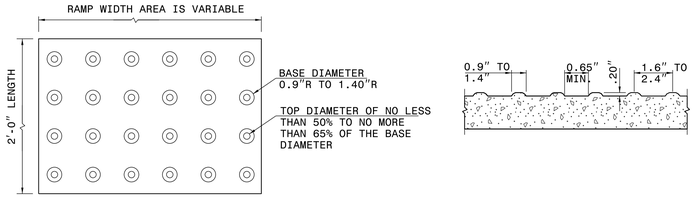
TYPE 4B



TYPE 4C

NOTES:
DETECTABLE WARNING SURFACE SHALL COVER 2'-0" LENGTH AND FULL WIDTH OF THE RAMP FLOOR AS SHOWN ON THE DETAILS.

DETECTABLE WARNING SURFACE SHALL CONTRAST VISIBLY WITH ADJOINING SURFACE, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT SEQUENCE COVERING THE ENTIRE RAMP.



DETECTABLE WARNING SURFACE

1. 8.33% (12:1) *MAX RAMP SLOPE*
2. *CROSS SLOPE: 2.00%*
3. *MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.*

PAY LIMITS FOR 1 OR 2 CURB RAMPS (CALCULATE BASED ON NUMBER OF SETS OF DETECTABLE WARNING SURFACES

STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
CURB RAMP
SHARED LANDING

6/10/2024
NORTH CAROLINA PROFESSIONAL SEAL 033144 ENGINEER NICOLE MARIE HACKLER
Signed by: Nicole Hackler
5884323D3416455...

SHEET 10 OF 13
848D06

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACTS STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: S.CALHOUN DATE: 12-22-2023
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: special details\nmhackler\848D0610.dgn

5/14/99

COMPUTED BY: TJN DATE: 9/9/2024
CHECKED BY: WAP DATE: 5/7/2025

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PROJECT REFERENCE NO.	SHEET NO.
U-6058/17BP.2.C.13	3B-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK
IN CUBIC YARDS

PROJECT	LOCATION	UNCLASS EXCAV		UNDERCUT	EMBT+%	BORROW	WASTE
U-6058	-L- STA. 10+00.00 TO STA. 13+20.17	100			205	105	
	-L- STA. 14+26.93 TO STA. 23+75.00	217			1,388	1,171	
	*-Y- STA. 10+15.00 TO STA. 11+80.00	68			263	195	
	-RND- STA. 10+00.00 TO STA. 13+58.14	41			2,791	2,750	
	*-DRV- STA. 10+12.00 TO STA. 13+65.00	18			137	119	
	U-6058 TOTAL	444			4,784	4,340	
	EST. 5% TO REPLACE TOPSOIL ON BORROW PIT					217	
	U-6058 PROJECT TOTAL	444			4,784	4,557	
	U-6058 SAY TOTAL	500				4,700	
17.BP.2.C.13	-EL- STA. 11+56.27 TO STA. 12+19.12	414			27	5	392
	17BP.2.C.13 SAY TOTAL	420				10	
	COMBINED PROJECT TOTALS	920				4,710	

*UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN TOP 3' OF EMBANKMENT OR BACKFILL
-Y- STA. 10+15.00 TO STA. 11+80.00 (25 CY) & -DRV- STA. 10+25.00 TO STA. 10+40.00 (10 CY) PER GEOTECH.

SELECT GRANULAR MATERIAL = 400 CY

SHALLOW UNDERCUT = 1,420 CY
UNDERCUT EXCAVATION = 400 CY

U-6058 earthwork quantities are calculated by TRANSYSTEMS. These earthwork quantities are based in part on subsurface data provided by WSP.
17BP.2.C.13 earthwork quantities are calculated by NCDOT.

Note: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing, Removal of Existing Asphalt Pavement, Pavement, and Removal of Existing Concrete Pavement will be paid for at the contract lump sum price for "Grading."

ASPHALT PAVEMENT REMOVAL SUMMARY

PROJECT	SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	SQUARE YARDS
U-6058	-L-	10+49.00	13+20.17	LT	231.08
U-6058	-L-	10+21.36	13+42.69	RT	316.35
U-6058	-L-	13+01.91	14+45.62	LT/RT	1,798.71
U-6058	-L-	14+75.56	22+16.68	LT	300.35
U-6058	-L-	14+45.43	21+10.42	RT	203.80
U-6058	-Y-	10+62.23	10+98.66	LT	14.25
U-6058	-Y-	10+15.00	12+87.94	RT	299.04
			U-6058 TOTAL		3163.58
			U-6058 SAY TOTAL		3200
17BP.2.C.13	-EL-	11+56.27	12+19.12	CL	153.63
			17BP.2.C.13	SAY TOTAL	160
			COMBINED PROJECT		
			TOTALS		3360

CONCRETE PAVEMENT REMOVAL SUMMARY

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	SQUARE YARDS
-Y-	10+15.00	12+85.00	LT.	330.00
			TOTALS	330.00
			SAY	330

GUARDRAIL SUMMARY

PROJECT	SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS								IMPACT ATTENUATOR TYPE 350						REMARKS
					STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	CAT-1	TL-2							EA	G	NG				
17.BP.2.C.13	-EL-			LT					11+35	2.0'	5.0'		25.0'		0.0'		1													
17.BP.2.C.13	-EL-	11+35	12+12	LT	50'					2.0'	5.0'																			
17.BP.2.C.13	-EL-	12+12	12+30	LT		18.75'				1.0'	5.0'																			R=35.0'
17.BP.2.C.13	-EL-			LT				12+33		1.0'	5.0'	6.25'		0.0'		1														

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

5/8/2025
U6058_Rdy_sum_33-1.dgn
USER:wapope

RAGN1K1T3

COMPUTED BY: SLT DATE: 10/7/2024

CHECKED BY: JTW DATE: 5/8/2025

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-6058	3D-1

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| STATION | LOCATION (LT, RT, OR CL)' | STRUCTURE NO. FROM | STRUCTURE NO. TO | TOP ELEVATION | INVERT ELEVATION | INVERT ELEVATION | SLOPE CRITICAL | DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE | C.S. PIPE SIZE 6" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS III SIZE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS IV SIZE 12" | 15" | 18" | 24" | 30" | 36" | 42" | ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS | QUANTITIES FOR DRAINAGE STRUCTURES 'TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B') PER EACH (0' THRU 5.0') | LIN. FT. A 5.0' THRU 10.0' | LIN. FT. B 10.0' AND ABOVE | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E | F | G | CONCRETE TRANSITIONAL SECTION DROP INLET | CATCH BASIN | D.I. STD. 840.14 OR STD. 840.15 | D.I. FRAME AND GRATE STD. 840.16 | C.B. STD. 840.02D (SEE SHEET 2C-1) | G.D.I. TYPE "B" STD. 840.18 OR 840.27 | G.D.I. TYPE "D" STD. 840.19 OR 840.28 | T.B.D.I. STD. 840.35 | G.D.I. TYPE "A" STD. 840.17 OR 840.26 | T.B. D.I. (N.S. FLAT) FRAME WITH TWO GRATES STD. 840.29 | | | T.B. J.B. STD. 840.34 | M.H. FRAME AND COVER STD. 840.54 | | | | SUBSURFACE DRAINAGE STD. 815.02 (LIN. FT.) | PIPE CLEANOUT PER EACH | CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71 | CONC. COLLARS CL. "B" C.Y. STD. 840.72 | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---

RAGN1K1T3

COMPUTED BY:	SLT	DATE:	10/7/2024
CHECKED BY:	JTW	DATE:	5/8/2025

PROJECT NO.	SHEET NO.
U-6058	3D-2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

ABBREVIATIONS

- C.B. — CATCH BASIN
- N.D.I. — NARROW DROP INLET
- D.I. — DROP INLET
- G.D.I. — GRATED DROP INLET
- G.D.I.(N.S.) — (NARROW SLOT)
- J.B. — JUNCTION BOX
- M.H. — MANHOLE
- T.B.D.I. — TRAFFIC BEARING DROP INLET
- T.B.J.B. — TRAFFIC BEARING JUNCTION BOX

STATION / SIZE / THICKNESS OR GAUGE	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	C.S. PIPE 6" .064	15" .064	18" .064	24" .064	30" .079	36" .079	42" .109	48" .109	R.C. PIPE CLASS III 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV 12"	15"	18"	24"	30"	36"	42"	12 " R.C. PIPE (CLASS V)	15 " R.C. PIPE (CLASS V)	18 " R.C. PIPE (CLASS V)	24 " R.C. PIPE (CLASS V)	30 " R.C. PIPE (CLASS V)	36 " R.C. PIPE (CLASS V)	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	*TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION DROP INLET	CATCH BASIN	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	C.B. STD. 840.02D (SEE SHEET 2C-1)	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	T.B.D.I. STD. 840.35	G.D.I. TYPE "A" STD. 840.17 OR 840.26	T.B. D.I. (N.S. FLAT) FRAME WITH TWO GRATES STD. 840.29			T.B. J.B. STD. 840.34	M.H. FRAME AND COVER STD. 840.54				SUBSURFACE DRAINAGE STD. 815.02 (LIN. FT.)	PIPE CLEANOUT PER EACH	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
16+37 -L-	RT	505		8.42	4.78																																													1					1						1																		MIN. DEPTH CB SP. DETAIL - SEE SHEET 2C-1
		505	520		4.78	4.51																																								96																																		
17+35 -L-	RT	520		8.08	4.51																																													1					1						1																		MIN. DEPTH CB SP. DETAIL - SEE SHEET 2C-1
		520	513		4.51	4.17																																								124																																		
18+60 -L-	RT	513		8.07	4.17																																													1			1	1																										
		513	530		4.17	3.93																																								84																																		
19+47 -L-	RT	531		6.30	4.38																																													1														1		1													
		531	530		4.38	3.93	X			20																																																																			
19+47 -L-	RT	530		8.26	3.93																																													1			1		1																								
		530	529		3.93	3.60																																									116																																
20+65 -L-	RT	532		6.70	4.45																																													1									1	1																			
		532	529		4.45	4.10			16																																																																						
20+65 -L-	RT	529		7.79	3.60																																													1			1		1																								
		529	605		3.60	3.18																																									148																																
21+78 -L-	RT	610		6.39	3.30																																													1															1	1													
		610	613		3.30	3.21					36																																																																				
22+15 -L-	RT	605		7.74	3.18																																													1			1	1																										
		605	606		3.18	2.98	X																																								72																																
22+88 -L-	RT	606		7.51	2.98																																													1			1	1																										
		606	607		2.98	2.78																																										60																															
16+78 -L-	LT	524		7.80	5.88																																													1														1		1													
		524	527		5.88	5.28			20																																																																				
16+78 -L-	LT	527		8.28	5.28																																													1			1			1																							
		527	521		5.28	5.02																																						72																																				
17+53 -L-	LT	528		8.00	6.08																																													1														1		1													
		528	521		6.08	5.02			20																																																																				
17+53 -L-	LT	521		8.02	5.02																																													1						1					1																		MIN. DEPTH CB SP. DETAIL SEE SHEET 2C-1
		521	506		5.02	4.70																																							104																																			
18+60 -L-	LT	506		8.07	4.70																																													1			1	1																										
		506	504		4.70	4.64																																							20																																			
18+80 -L-	LT	518		7.20	4.95																																													1									1	1																			
		518	504		4.95	4.64			16																																																																					
18+80 -L-	LT	504		8.16	4.64																																													1					1						1																		MIN. DEPTH CB SP. DETAIL SEE SHEET 2C-1
		504	525		4.64	4.33																																								92																																		
19+74 -L-	LT	526		7.00	4.75																																													1									1	1																			
		526	525		4.75	4.33			16																																																																				
19+74 -L-	LT	525		8.22	4.33																																													1			1			1																							
		525	601		4.33	3.89																																								128																																		
21+05 -L-	LT	603		6.60	4.35																																													1									1	1																			
		603	601		4.35	3.89			16																																																																				
21+05 -L-	LT	601		7.58	3.89																																													1						1					1																		MIN. DEPTH CB SP. DETAIL SEE SHEET 2C-1
		601	602		3.89	3.46																																								88																																		
21+93 -L-	LT	604		6.75	4.25																																													1									1	1																			
		604	602		4.25	3.96			16																																																																				
21+93 -L-	LT	602		7.30	3.46																																													1						1					1																		MIN. DEPTH CB SP. DETAIL SEE SHEET 2C-1
		602	607		3.46	2.78																																									96																																
22+93 -L-	LT	607		7.55	2.78																																													1																			1										
		607	609		2.78	2.73	X					20																																																																	
SHEET TOTALS								0	120	20	36	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	124	612	432	60	0	24	0.0	0	8	4	5	5	0	0	5	5	6	0	0	3	1	4	0	0	1	0	0	0	0	0	0	0	0	0	

RAGNYKT3

COMPUTED BY:	SLT	DATE:	10/7/2024
CHECKED BY:	JTW	DATE:	5/8/2025

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
U-6058	3D-3

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

STATION	LOCATION (LT, RT, OR CL)'	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
								THICKNESS OR GAUGE											
11+15 -L-	RT																		
15+35 -L-	RT																		
16+55 -L-	RT																		
16+90 -L-	RT																		
20+50 -L-	LT																		
21+35 -L-	RT																		
21+55 -L-	LT																		
22+30 -L-	LT																		
22+85 -L-	LT																		
7+50 to 7+56 -L-	LT																		
7+50 to 7+50 -L-	RT																		
7+50 to 10+40 -L-	RT																		
10+43 to 10+68 -L-	RT																		
10+68 to 10+98 -L-	RT																		
10+00 to 10+55 -Y-	LT																		
10+40 -L-	LT	408		7.15	4.15														
		408	407		4.15	3.96													
10+40 -L-	RT	407		7.16	3.96														
21+95 -L-	RT																		
22+50 -L-	RT																		
22+90 -L-	CL																		
12+62 -RND-	LT	541		9.70	6.70														
		541	511		6.70	5.67													
22+15 -L-	RT	613		8.00	3.21														
		613	605		3.21	3.18				12									
SHEET TOTALS								0	0	0	12	0	0	0	0	0	0	0	0
PROJECT TOTALS								0	164	48	48	0	20	0	0	0	0	0	0

STATION	C.S. PIPE SIZE 6"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS III SIZE 12"	15"	18"	24"	30"	36"	42"	48"	R.C. PIPE CLASS IV SIZE 12"	15"	18"	24"	30"	36"	42"
	THICKNESS OR GAUGE .064	.064	.064	.064	.079	.079	.109	.109															
11+15 -L-																							
15+35 -L-																							
16+55 -L-																							
16+90 -L-																							
20+50 -L-																							
21+35 -L-																							
21+55 -L-																							
22+30 -L-																							
22+85 -L-																							
7+50 to 7+56 -L-																							
7+50 to 7+50 -L-																							
7+50 to 10+40 -L-																							
10+43 to 10+68 -L-																							
10+68 to 10+98 -L-																							
10+00 to 10+55 -Y-																							
10+40 -L-																							
10+40 -L-																							
21+95 -L-																							
22+50 -L-																							
22+90 -L-																							
12+62 -RND-																							
22+15 -L-																							
SHEET TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PROJECT TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

STATION	ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS	QUANTITIES FOR DRAINAGE STRUCTURES 'TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B') LIN. FT. PER EACH (0' THRU 5.0')	A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES, AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G	CONCRETE TRANSITIONAL SECTION DROP INLET	CATCH BASIN	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	C.B. STD. 840.02D (SEE SHEET 2C-1)	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	T.B.D.I. STD. 840.35	G.D.I. TYPE "A" STD. 840.17 OR 840.26	T.B. D.I. (N.S. FLAT) FRAME WITH TWO GRATES STD. 840.29			T.B. J.B. STD. 840.34	M.H. FRAME AND COVER STD. 840.54				SUBSURFACE DRAINAGE STD. 815.02 (LIN. FT.)	PIPE CLEANOUT PER EACH	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	CONC. COLLARS CL. "B" C.Y. STD. 840.72	PIPE REMOVAL LIN. FT.	REMARKS
11+15 -L-																												28	REMOVE 25 LF OF 15" RCP
15+35 -L-																												36	REMOVE 18" RCP
16+55 -L-																												12	REMOVE 10 LF OF 18" RCP
16+90 -L-																												76	REMOVE 18" RCP
20+50 -L-																												52	REMOVE 12" RCP
21+35 -L-																												100	REMOVE 24" RCP
21+55 -L-																												76	REMOVE 12" RCP
22+30 -L-																												72	REMOVE 12" RCP
22+85 -L-																												20	REMOVE 12" RCP
7+50 to 7+56 -L-																										1			CLEANOUT 20 LF 18" RCP
7+50 to 7+50 -L-																										1			CLEANOUT 40 LF 18" RCP
7+50 to 10+40 -L-																										1			CLEANOUT 290 LF 15" RCP
10+43 to 10+68 -L-																										1			CLEANOUT 25 LF 15" RCP
10+68 to 10+98 -L-																										1			CLEANOUT 30 LF 15" RCP
10+00 to 10+55 -Y-																										1			CLEANOUT 65 LF 15" RCP
10+40 -L-		1			1	1																							
									44																				
10+40 -L-		1			1		1																						
21+95 -L-																												36	REMOVE 24" RCP
22+50 -L-																												72	REMOVE 24" RCP
22+90 -L-																												64	REMOVE 36" RCP
12+62 -RND-		1																		1	1						250			SEE SUBSURFACE DRAINS QUANTITY SHEET
									40																					FOR THE PROJECT TOTAL OF SUBSURFACE
22+15 -L-		1																					1	1						DRAINS
SHEET TOTALS	0	4	0.0	0	2	1	0	1	0	0	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	250	6	0	0	644	
PROJECT TOTALS	0	51	0	0	24	7	11	12	0	0	10	10	6	0	0	6	2	8	0	0	3	2	0	0	0	250	6	0	0	644	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

8/17/99

COMPUTED BY: L. Nesbitt DATE: 04/03/2025
CHECKED BY: C.T. Tang DATE: 04/08/2025

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PROJECT REFERENCE NO.	SHEET NO.
U-6058	3G-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

SUMMARY OF AGGREGATE SUBGRADE /STABILIZATION

LINE	STATION	STATION	AGGREGATE TYPE* ASU(1/2)/ AST	AGGREGATE THICKNESS INCHES [8" for ASU(2)]	SHALLOW UNDERCUT CY	CLASS IV SUBGRADE STABILIZATION TONS	GEOTEXTILE FOR SUBGRADE STABILIZATION SY	GEOTEXTILE FOR SOIL STABILIZATION SY	STABILIZER AGGREGATE TONS	CLASS IV AGGREGATE STABILIZATION TONS
-L-	10+00	22+25	ASU(1)	12	560	1020	1600			
-Y-	10+15	12+75	ASU(1)	12	170	325	510			
-RND-	10+00	13+58	ASU(1)	12	260	520	820			
-DRV-	10+25	13+65	ASU(1)	12	180	490	760			
	CONTINGENCY		ASU	12	250	475	750	400		
				TOTAL CY/TONS/SY:	1420	2830**	3975**	400**		

*ASU(1/2) = AGGREGATE SUBGRADE (Type 1 or 2)
*AST = AGGREGATE STABILIZATION
**TOTAL TONS OF "CLASS IV SUBGRADE STABILIZATION", TOTAL SQUARE YARDS OF "GEOTEXTILE FOR SUBGRADE STABILIZATION", AND TOTAL SQUARE YARDS OF "GEOTEXTILE FOR SOIL STABILIZATION" ARE ONLY THE ESTIMATED QUANTITIES FOR ASU(1/2)/AST AND MAY ONLY REPRESENT A PORTION OF THE SUBGRADE STABILIZATION AND GEOTEXTILE QUANTITIES SHOWN IN THE ITEM SHEETS OF THE PROPOSAL.

SUMMARY OF SUBSURFACE DRAINAGE

LINE	STATION	STATION	LOCATION LT/RT/CL	DRAIN TYPE* UD/BD/SD	LF
-L-	10+00	23+75	LT&RT	SD	2750
-Y-	9+90	12+75	LT&RT	SD	570
-DRV-	10+30	13+65	RT	SD	335
	CONTINGENCY			SD	200
				SUBTOTAL:	3855
				TOTAL LF:	3855

*UD = UNDERDRAIN
*BD = BLIND DRAIN
*SD = SUBSURFACE DRAIN (STD. 815.02)

NOTE: SEE SUBSURFACE DRAINS QUANTITY SHEET FOR THE PROJECT TOTAL OF SUBSURFACE DRAINS.

5/8/2025
X:\60\U-6058\Rdy_sum_3G-1.dgn
USER:wpope

PROJ. REFERENCE NO.	SHEET NO.
U-6058	3P-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

PARCEL No.	SHEET No.	PROPERTY OWNER NAME
1	4	SANDRA K. CROBAR
2	4	PAMPLICO OZ FUND, LLC
3	4 & 5	WALTER SAMUEL O'BERRY & WIFE MELINDA C. O'BERRY
4 & 4Z	5	GEORGE J. WANNER
5 & 5Z	4 & 5	HEAVYWEIGHT PROPERTIES, LLC
5A	5 & 6	ANNIE L. JONES, INC.
6	5	HOLMES OIL COMPANY, INC.
6A	5	HOLMES OIL COMPANY, INC.
7	5	SIM MUN, LLC.
8 & 8Z	5	FIRST CITIZENS BANK & TRUST CO.
9	5 & 6	OSBORNE ONE, LLC.
10	5	ZAKERY T. SHERMAN
11	5	BETSY MILLER VORSTER & SPOUSE HELGAARD VORSTER
12	5	WILLIAM C. DORWART & WIFE PATRICIA L. DORWART
13	5	REBECCA ROSE
14	6	ANNIE JONES COMPANY, INC.

PARCEL No.	SHEET No.	PROPERTY OWNER NAME

8/17/99

-L-
PI Sta 9+59.56
Δ = 5° 03' 11.0" (LT)
D = 3° 26' 22.3"
L = 146.91'
T = 73.50'
R = 1,665.80'
SE = SEE PLANS

CLEAN OUT EXISTING PIPES DURING CONSTRUCTION
FROM -L- STA. 7+50 20' LT TO -L- STA. 7+56 40' LT - EST. 20 LF
-L- STA. 7+50 CL - EST. 40 LF
FROM -L- STA. 7+50 RT TO -L- STA. 10+40 RT - EST. 290 LF
FROM -L- STA. 10+43 RT TO -L- STA. 10+68 RT - EST. 25 LF
FROM -L- STA. 10+68 RT TO -L- STA. 10+98 RT - EST. 30 LF

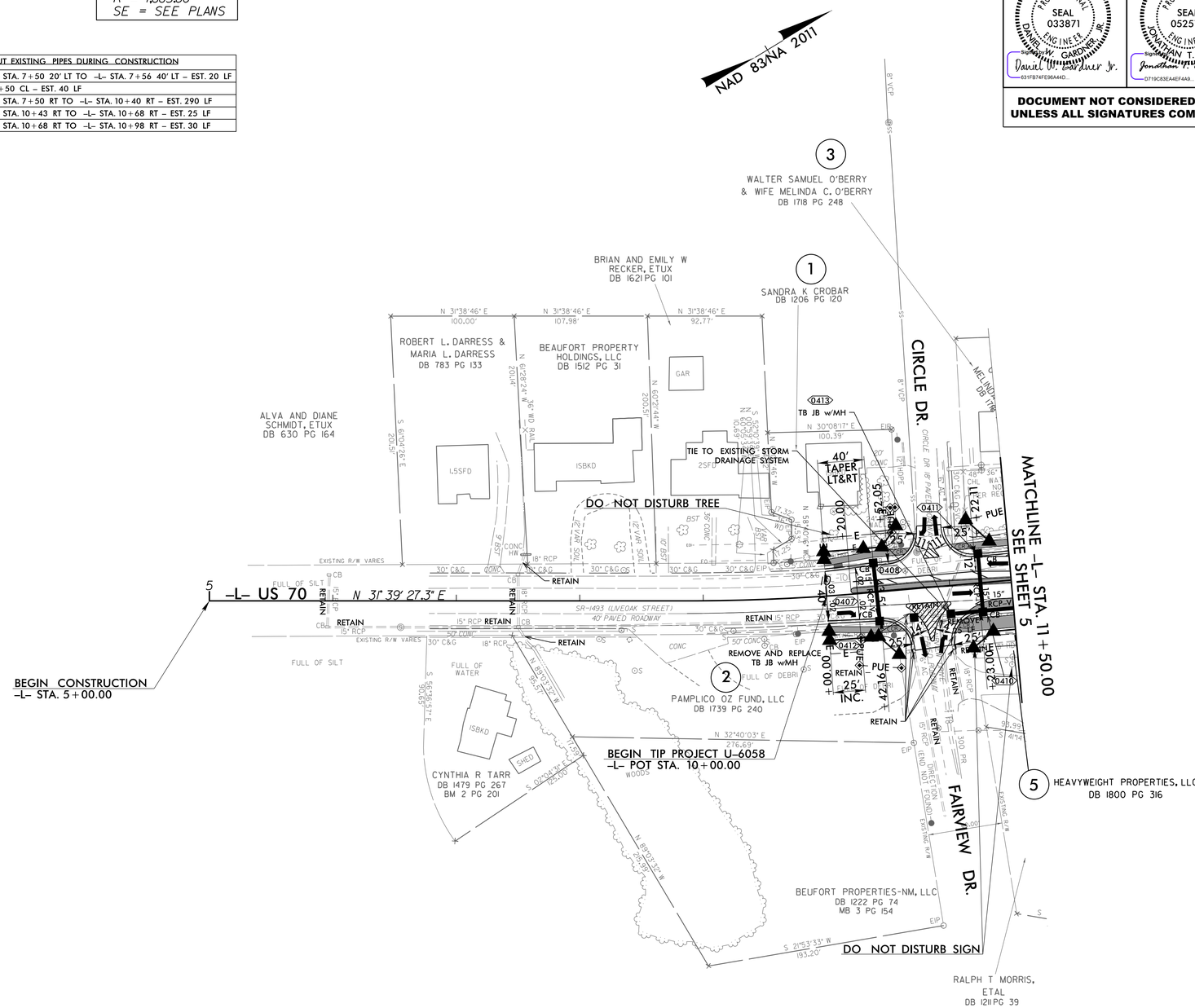
TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PROJECT REFERENCE NO.	SHEET NO.
U-6058	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
6/9/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W GARDNER JR
Signature: Daniel W. Gardner Jr.
631FB74FE96A44D...

HYDRAULICS ENGINEER
6/6/2025
NORTH CAROLINA PROFESSIONAL SEAL 052573 ENGINEER JONATHAN T WILLIAMS
Signature: Jonathan T. Williams
0719C83EA4EF4A9...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



SEE SHEET 2B-1 FOR ROUNDABOUT DETAILS
SEE SHEET 5A FOR ALIGNMENT AND RIGHT OF WAY DATA
SEE SHEET 7 FOR -L- PROFILE

5/8/2025
U-6058_Rdy_psh_4.dgn
USER:wood

8/17/99

EXISTING SIGNAL TO BE REMOVED

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PROJECT REFERENCE NO.	SHEET NO.
U-6058	5
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
6/9/2005
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
631FB74FE96A44D...

HYDRAULICS ENGINEER
6/6/2005
NORTH CAROLINA PROFESSIONAL SEAL 052573 ENGINEER JONATHAN T. WILLIAMS
0719C83EA4EF4A9...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

BEGIN CONSTRUCTION –Y– STA. 8+00.00
BEGIN MILLING/OVERLAY –Y– STA. 8+60.00
REFER TO PLAN SET TITLED "NCDOT WATER LINE RELOCATION – NC HIGHWAY 101" BY MCDAVID ASSOCIATES. CONSTRUCTION OF PROJECT NEARING COMPLETION.
CARTERET PRIDE CARWASH LLC 0000151 HWY 101 BEAUFORT, NC 28516 DB 0749 P 00186
KELLY,HOBERT M 828 WEST BEAUFORT RD BEAUFORT, NC 28516 DB 0782 P 00495
END MILLING/OVERLAY BEGIN GRADE –Y– STA. 10+15.00
CULVERT UPGRADE PROJECT 17.BP.2.C.13
CL 'B' RIP RAP EST. 3 TONS EST. 10 SYGF
REMOVE
TIE TO EXISTING STORM DRAINAGE SYSTEM
HOLMES OIL COMPANY, INC. DB 1784 PG 231
ZAKERY T SHERMAN DB 1052 PG 293 MB 29 PG 356
GRADE TO DRAIN TO STRUCTURE 0510
BETSY MILLER VORSTER & SPOUSE HELGAARD VORSTER DB 1747 PG 154
WILLIAM C. DORWART & WIFE PATRICIA L. DORWART DB 1751PG 027
REBECCA ROSE DB 1476 PG 364 MB 29 PG 777
GEORGE J WANNER DB 1287 PG 313
END CONSTRUCTION –DRV– POT STA. 13+65.00
DO NOT DISTURB TREES
DO NOT DISTURB LIVE OAK TREE
WALTER SAMUEL O'BERRY & WIFE MELINDA C. O'BERRY DB 1769 PG 248
SIM MUN LLC DB 837 PG 140
BEGIN SIDEWALK –L– STA. 20+67.49 LT.
OSBORNE ONE LLC DB 1245 PG 31
FIRST CITIZENS BANK & TRUST CO DB 1511 PG 467 DB 1220 PG 17 DB 1217 PG 463
DO NOT DISTURB SIGN
DO NOT DISTURB SIDEWALK
MATCHLINE –L– STA 21+00.00 SEE SHEET 6
9" X 18" CONC. CURB 3' R TYP. DO NOT DISTURB SIGN
DO NOT DISTURB SIGN
DO NOT DISTURB PUMP STATION
ANNIE L. JONES COMPANY, INC. DB 585 PG 6
TIE TO EXISTING STORM DRAINAGE SYSTEM
RETAIN
HEAVYWEIGHT PROPERTIES, LLC DB 1800 PG 306
DO NOT DISTURB SIGN
–L– POT Sta.13+73.55 OFFSET 19.98' LT.
PAVE AREA TO PROVIDE ADDITIONAL PARKING AND SIGN TO BE REMOVED. SEE DETAIL SHEET 2B–2.
9" X 18" CONC. CURB
ELAINE LAWRENCE, ETAL DB 1252 PG 143 MB 33 PG 479
WILLIE P WILLIS JR. ET UX DB 725 PG 609 MB 3 PG 154
HEAVYWEIGHT PROERTIES, LLC DB 1795 PG 263
MATCHLINE –L– STA. 11+50.00 SEE SHEET 4

CLEAN OUT EXISTING PIPES DURING CONSTRUCTION
FROM –Y– STA. 9+90 LT TO –Y– STA. 10+55 LT – EST. 65 LF

POINT 15 N 363,076.2971 E 2,706,786.9129

–L–		–Y–	
PI Sta 9+59.56	PI Sta 18+87.57	PI Sta 10+45.89	PI Sta 11+37.14
△ = 5° 03' 11.0" (LT)	△ = 0° 30' 21.8" (LT)	△ = 1° 59' 15.3" (RT)	△ = 9° 25' 51.2" (LT)
D = 3° 26' 22.3"	D = 0° 07' 54.2"	D = 2° 09' 56.5"	D = 10° 25' 02.7"
L = 146.91'	L = 384.22'	L = 91.78'	L = 90.53'
T = 73.50'	T = 192.11'	T = 45.89'	T = 45.37'
R = 1,665.80'	R = 43,501.90'	R = 2,645.60'	R = 550.00'
SE = SEE PLANS	SE = NC	SE = SEE PLANS	SE = SEE PLANS

–RND–			
PI Sta 10+57.00	PI Sta 11+46.54	PI Sta 12+36.07	PI Sta 13+25.61
△ = 90° 00' 00.0" (LT)	△ = 90° 00' 00.0" (LT)	△ = 90° 00' 00.0" (LT)	△ = 90° 00' 00.0" (LT)
D = 100° 31' 08.1"	D = 100° 31' 08.1"	D = 100° 31' 08.1"	D = 100° 31' 08.1"
L = 89.54'	L = 89.54'	L = 89.54'	L = 89.54'
T = 57.00'	T = 57.00'	T = 57.00'	T = 57.00'
R = 57.00'	R = 57.00'	R = 57.00'	R = 57.00'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS

–DRV–			
PI Sta 10+51.99	PI Sta 12+11.60	PI Sta 12+67.28	PI Sta 13+35.18
△ = 91° 58' 40.5" (LT)	△ = 29° 51' 51.8" (RT)	△ = 23° 39' 47.7" (LT)	△ = 37° 22' 34.8" (RT)
D = 286° 28' 44.0"	D = 47° 44' 47.3"	D = 47° 44' 47.3"	D = 76° 23' 39.7"
L = 32.11'	L = 62.55'	L = 49.56'	L = 48.93'
T = 20.70'	T = 32.00'	T = 25.14'	T = 25.37'
R = 20.00'	R = 120.00'	R = 120.00'	R = 75.00'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS

SEE SHEET 2B–1 FOR ROUNDABOUT DETAILS
SEE SHEET 5A FOR ALIGNMENT AND RIGHT OF WAY DATA
SEE SHEETS 7 AND 8 FOR –L–, –Y–, –RND–, AND –DRV– PROFILES

5/9/2005
U-6058_Rdy_psh_5.dgn
USERName

ALIGNMENT AND RIGHT OF WAY DETAIL

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

PROJECT REFERENCE NO.	SHEET NO.
U-6058	5A
RW SHEET NO.	

ROADWAY DESIGN ENGINEER
6/9/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
Signature: Daniel W. Gardner Jr.
631FB74FE96AA4D...

HYDRAULICS ENGINEER
6/6/2025
NORTH CAROLINA PROFESSIONAL SEAL 052573 ENGINEER JONATHAN Y. WILLIAMS
Signature: Jonathan Y. Williams
D719C83EA4EF4A9...

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NC 101
16573
11800
9823 / 7300 — 6750 / 4500
US HWY 70/ LIVE OAK STREET 19200 — 21110
18037 — US HWY 70/ 16400 LIVE OAK STREET
2025 ADT
2040 ADT

NOTE: 1.) DO NOT PLACE ANY FILL ABOVE PROTECTIVE COATING ON TRANSMISSION POLE LOCATED AT –Y– STA. 11+34.00 RT. (LIMIT GRADING FILL HEIGHT TO 1' MAX.)
2.) EXTEND PAVING LIMITS ON NC 101 TO RESURFACING LIMITS OF R-3307 (THE INTERSECTION OF MASON LANE AND NC 101).

BEGIN CONSTRUCTION
–Y– STA. 8+00.00

CULVERT UPGRADE
PROJECT 17.BP.2.C.13

BEGIN TIP PROJECT U-6058
–L– POT STA. 10+00.00

END CONSTRUCTION
–DRV– POT STA. 13+65.00

END TIP PROJECT U-6058
–L– POT STA. 23+75.00

POINT 15 N 363,076.2971 E 2,706,786.9129

–L–		–Y–	
PI Sta 9+59.56	PI Sta 18+87.57	PI Sta 10+45.89	PI Sta 11+37.14
△ = 5° 03' 11.0" (LT)	△ = 0° 30' 21.8" (LT)	△ = 1° 59' 15.3" (RT)	△ = 9° 25' 51.2" (LT)
D = 3° 26' 22.3"	L = 384.22'	D = 2° 09' 56.5"	D = 10° 25' 02.7"
L = 146.91'	T = 192.11'	L = 91.78'	L = 90.53'
T = 73.50'	R = 43,501.90'	T = 45.89'	T = 45.37'
R = 1,665.80'	SE = NC	R = 2,645.60'	R = 550.00'
SE = SEE PLANS		SE = SEE PLANS	SE = SEE PLANS

–RND–			
PI Sta 10+57.00	PI Sta 11+46.54	PI Sta 12+36.07	PI Sta 13+25.61
△ = 90° 00' 00.0" (LT)	△ = 90° 00' 00.0" (LT)	△ = 90° 00' 00.0" (LT)	△ = 90° 00' 00.0" (LT)
D = 100° 31' 08.1"	D = 100° 31' 08.1"	D = 100° 31' 08.1"	D = 100° 31' 08.1"
L = 89.54'	L = 89.54'	L = 89.54'	L = 89.54'
T = 57.00'	T = 57.00'	T = 57.00'	T = 57.00'
R = 57.00'	R = 57.00'	R = 57.00'	R = 57.00'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS

–DRV–			
PI Sta 10+51.99	PI Sta 12+11.60	PI Sta 12+67.28	PI Sta 13+35.18
△ = 91° 58' 40.5" (LT)	△ = 29° 51' 51.8" (RT)	△ = 23° 39' 47.7" (LT)	△ = 37° 22' 34.8" (RT)
D = 286° 28' 44.0"	D = 47° 44' 47.3"	D = 47° 44' 47.3"	D = 76° 23' 39.7"
L = 32.11'	L = 62.55'	L = 49.56'	L = 48.93'
T = 20.70'	T = 32.00'	T = 25.14'	T = 25.37'
R = 20.00'	R = 120.00'	R = 120.00'	R = 75.00'
SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS	SE = SEE PLANS

SEE SHEET 2B-1 FOR ROUNDABOUT DETAILS
SEE SHEETS 7 AND 8 FOR –L–, –Y–, –RND–, AND –DRV– PROFILES

5/8/2025
U-6058_Rdy_psh_5A.dgn
USER:None

8/17/99

8/17/99

TRANSYSTEMS
1 Glenwood Avenue
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PROJECT REFERENCE NO.	SHEET NO.
U-6058	6
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
6/9/2025
NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.
Daniel W. Gardner Jr.
631FB74FE96A44D...

HYDRAULICS ENGINEER
6/6/2025
NORTH CAROLINA PROFESSIONAL SEAL 052573 ENGINEER JONATHAN T. WILLIAMS
Jonathan T. Williams
D719C83EAEF4A9...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83/NA 2011

MATCHLINE –L– STA. 21+00.00
SEE SHEET 5

SIM MUN LLC
DB 857 PG 140

JOHN A. TAYLOR &
MAUREEN J. TAYLOR
DB 1303 PG 138

18" CONC
15" CMP
148" CMP
CRESCENT DRIVE 17' PAVED ROADWAY
12" CMP
DI NON-STANDARD 1.5X1.5
60.00'
EXISTING R/W
VAR WIDTH
8' GRASS MEDIAN
GEORGE AND MARIA TAYLOR, ETUX
DB 1570 PG 19
ISFS
ISFS
ISFS
ISFD
RANDY AND DEBORAH WINFREY SR, ETUX
DB 1125 PG 452
S 20°10'22" E
204.23'
N 25°24'45" W
S 60°17'29" W
210.40'
12" CMP
24" C&G
48" BST
24" CMP
24" C&G
24" C&G
15" RCP
N 59°51'23" E
99.72'
N 59°51'23" E
89.31'
CL 'I' RIP RAP
EST. 15 TONS
EST. 30 SYGF
END 2'-6" C & G
–L– STA. 22+17.58 LT.
BST
END SIDEWALK
–L– STA. 22+11.23 LT.
9
OSBORNE ONE LLC
DB 1245 PG 31
JUDY W. MCLAWHORN
DB 525 PG 386
ISBLK BUS
S 20°10'22" E
193.48'
CRESCENT DRIVE 18' PAVED ROADWAY
8' GRASS MEDIAN
VAR WIDTH
20' CMP
24" CMP
24" CMP
24" C&G
24" C&G
24" C&G
24" C&G
BST
REMOVE
EX R/W MON
0609
TIE TO EXISTING STORM DRAINAGE SYSTEM
REMOVE AND REPLACE TB JB w/SLAB LID
0607
POSSIBLE UNDERGROUND JB
SVC
REMOVE 17 LF
0604
0603
0601
DI
MINIMUM DEPTH CB
24" RCP
36" RCP
REMOVE
REMOVE
RETAIN
2'-6" C & G
MINIMUM DEPTH CB
0602
N 60°17'06.3" E
–L– US 70
SR-1493 (LYEON STREET)
35' PAVED ROADWAY
24 Str
TIE TO EXISTING STORM DRAINAGE SYSTEM
25 PR
U6058-4
30" RCP-Y
REMOVE
0605
CB
30" RCP-Y
24" RCP
RETAIN
0606
REMOVE
4 LF
2GI-A
2GI-C
0610
0613
RETAIN
78.00'
25.00'
20.4'
25' INC.
REMOVE
24" RCP
24" RCP
RETAIN
24" RCP
32" BST
CB
CB
CB
BOTTOM BOX=1.33' NO INVERT FULL OF WATER
CULTIVATED
ANNIE L. JONES COMPANY INC.
DB 585 PG 6
BM 3 PG 154
FULL OF DEBRI
CAPE FEAR PKWY
24' PAVED ROADWAY
12" WATERLINE
ISBKD BUS
END TIP PROJECT U-6058
–L– POT STA. 23+75.00
END 2'-6" C & G
–L– STA. 23+06.85 RT.
DO NOT DISTURB SIGN
END GRADE
BEGIN MILLING/OVERLAY
–L– STA. 22+25.00
DO NOT DISTURB SIGN
S 29°49'50" E
DO NOT DISTURB SIDEWALK
BEGIN 2'-6" C & G
–L– STA. 22+08.00 RT.
DO NOT DISTURB SIGN
ANNIE JONES COMPANY INC.
DB 1330 PG 492
14
END 2'-6" C & G
–L– STA. 21+12.26 RT.
S 60°10'12" W
100.00'
GAULDEN PROPERTIES LLC
DB 1417 PG 256
N 29°49'50" W
150.01'
ANNIE L. JONES COMPANY INC.
DB 585 PG 6
BM 3 PG 154
BENJAMIN E. THAMPSON &
GEORGIE C. THOMPSON
DB 542 PG 71
BM 3 PG 154
S 60°00'35" W
100.00'
S 60°00'35" W
90.33'
S 60°00'35" W
169.17'
S 60°00'35" W
285.44'
U6058-3

SEE SHEET 2B-1 FOR ROUNDABOUT DETAILS
SEE SHEET 5A FOR ALIGNMENT AND RIGHT OF WAY DATA
SEE SHEET 8 FOR –L– PROFILE

5/8/2025
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USER:wgore

5/28/99

PROJECT REFERENCE NO.	SHEET NO.
U-6058	7

ROADWAY DESIGN ENGINEER

6/9/2025

NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.

Signed by: Daniel W. Gardner Jr.

631FB74FE96AA4D...

HYDRAULICS ENGINEER

6/6/2025

NORTH CAROLINA PROFESSIONAL SEAL 052573 ENGINEER JONATHAN T. WILLIAMS

Signed by: Jonathan T. Williams

D719C83EA4EF4A9...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TRANSYSTEMS
1 Glenwood Avenue
Raleigh, NC 27603
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

–L–

BEGIN GRADE –L– STA.10+00.00
MILLING REQUIRED FOR TIE-IN
ELEV.= 7.79'

PIPE HYDRAULIC DATA
EXISTING 18" RCP Sta.7+50

DRAINAGE AREA	= 4.5	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 28	CFS
DESIGN HW ELEVATION	= 15.6	FT
100 YEAR DISCHARGE	= 34	CFS
100 YEAR HW ELEVATION	= 19.6	FT
OVERTOPPING FREQUENCY	= < 10	YRS
OVERTOPPING DISCHARGE	= 12	CFS
OVERTOPPING ELEVATION	= 11.3	FT

*PIPE REPLACEMENT IS NOT WITHIN THE SCOPE OF THIS PROJECT FOR THIS LOCATION.

PI = 11+00.00
EL = 8.01'
VC = 120'
K = 353
DS = 80 MPH

EXISTING GROUND

(+)0.2200% (+)0.5597%

RETAIN EXISTING 18" RCP STA.7+50 ELEV.=3.53'

PROPOSED 15" RCP-V STA.11+25 ELEV.=4.32'

SEE SHEET 4 FOR PLAN VIEW

10 0 –10 –20 –30

5+00 6+00 7+00 8+00 9+00 10+00 11+00

–L–

END GRADE –L– STA.13+20.17=
–RND– STA.13+18.22
ELEV.= 9.49'

BEGIN GRADE –L– STA.14+26.93=
–RND– STA.10+98.31
ELEV.= 10.12'

PINC = 13+01.91
EL = 9.14'

PINC = 14+45.62
EL = 9.75'

EXISTING GROUND

PI = 18+00.00
EL = 8.50'
VC = 120'
K = 168
DS = 65 MPH

PI = 19+50.00
EL = 9.04'
VC = 120'
K = 136
DS = 55 MPH

(+)0.5597% (+)1.9168% (+)1.9797% (–)0.3527% (–)0.3527% (+)0.3600% (+)0.3600% (–)0.5256%

BMI ELEVATION = 9.02'
BL STATION 7+08.19 88' LEFT
BENCHTIE SET IN 28" OAK

SEE SHEET 5 FOR PLAN VIEW

10 0 –10 –20 –30

11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00 21+00 22+00 23+00

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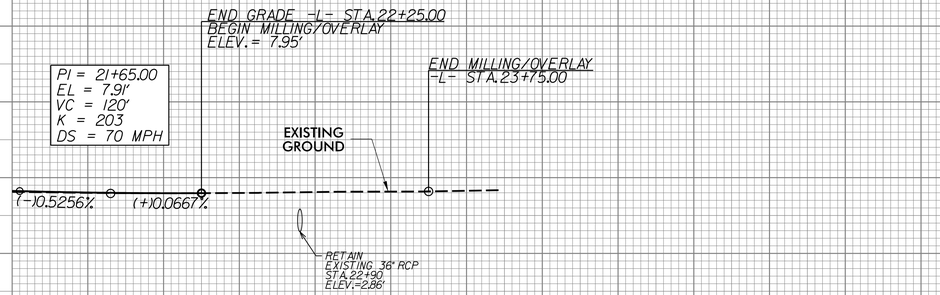
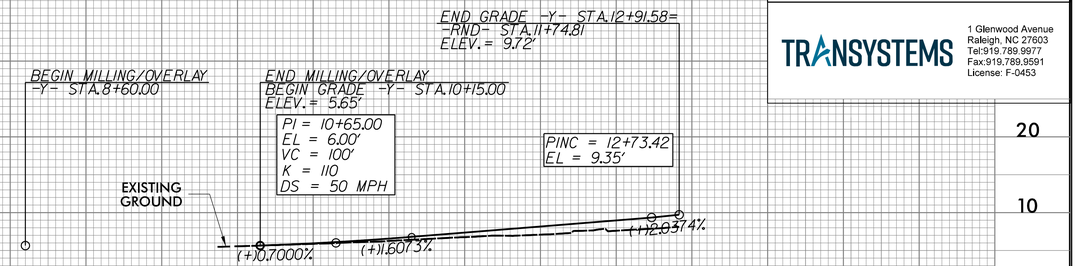
PIPE HYDRAULIC DATA
EXISTING 36" RCP Sta.22+90

DRAINAGE AREA	= 5.6	AC
DESIGN FREQUENCY	= 25	YRS
DESIGN DISCHARGE	= 35	CFS
DESIGN HW ELEVATION	= 7.2	FT
100 YEAR DISCHARGE	= 41	CFS
100 YEAR HW ELEVATION	= 8.0	FT
OVERTOPPING FREQUENCY	= 50 +/-	YRS
OVERTOPPING DISCHARGE	= 39	CFS
OVERTOPPING ELEVATION	= 7.5	FT



SEE SHEET 6 FOR PLAN VIEW

–Y–



SEE SHEET 5 FOR PLAN VIEW

PROJECT REFERENCE NO.	SHEET NO.
U-6058	8

ROADWAY DESIGN ENGINEER

6/9/2025 NORTH CAROLINA PROFESSIONAL SEAL 033871 ENGINEER DANIEL W. GARDNER JR.

Signed by: Daniel W. Gardner Jr.
631FB74FE96A44D...

HYDRAULICS ENGINEER

6/6/2025 NORTH CAROLINA PROFESSIONAL SEAL 052573 ENGINEER JONATHAN D. WILLIAMS

Signed by: Jonathan Williams
D719C83EA4EF4A9...

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1 Glenwood Avenue
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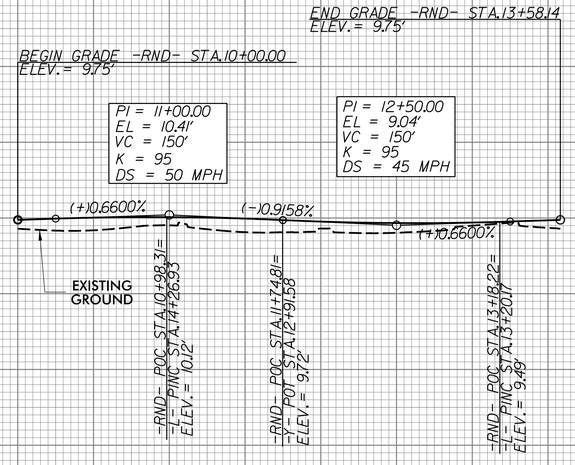
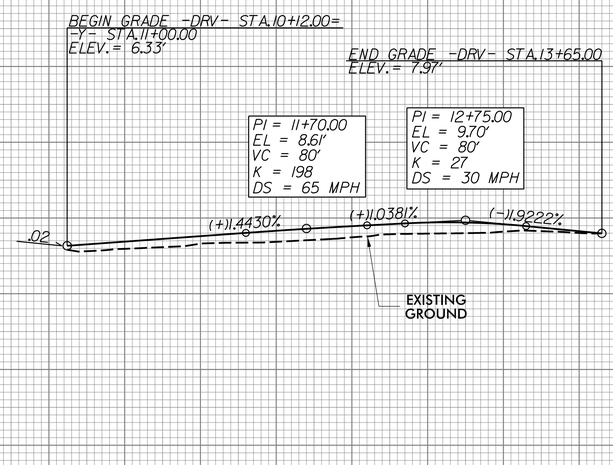
Tel:919.789.9977
Fax:919.789.9591
License: F-0453

–RND–



SEE SHEET 5 FOR PLAN VIEW

–DRV–



SEE SHEET 5 FOR PLAN VIEW

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