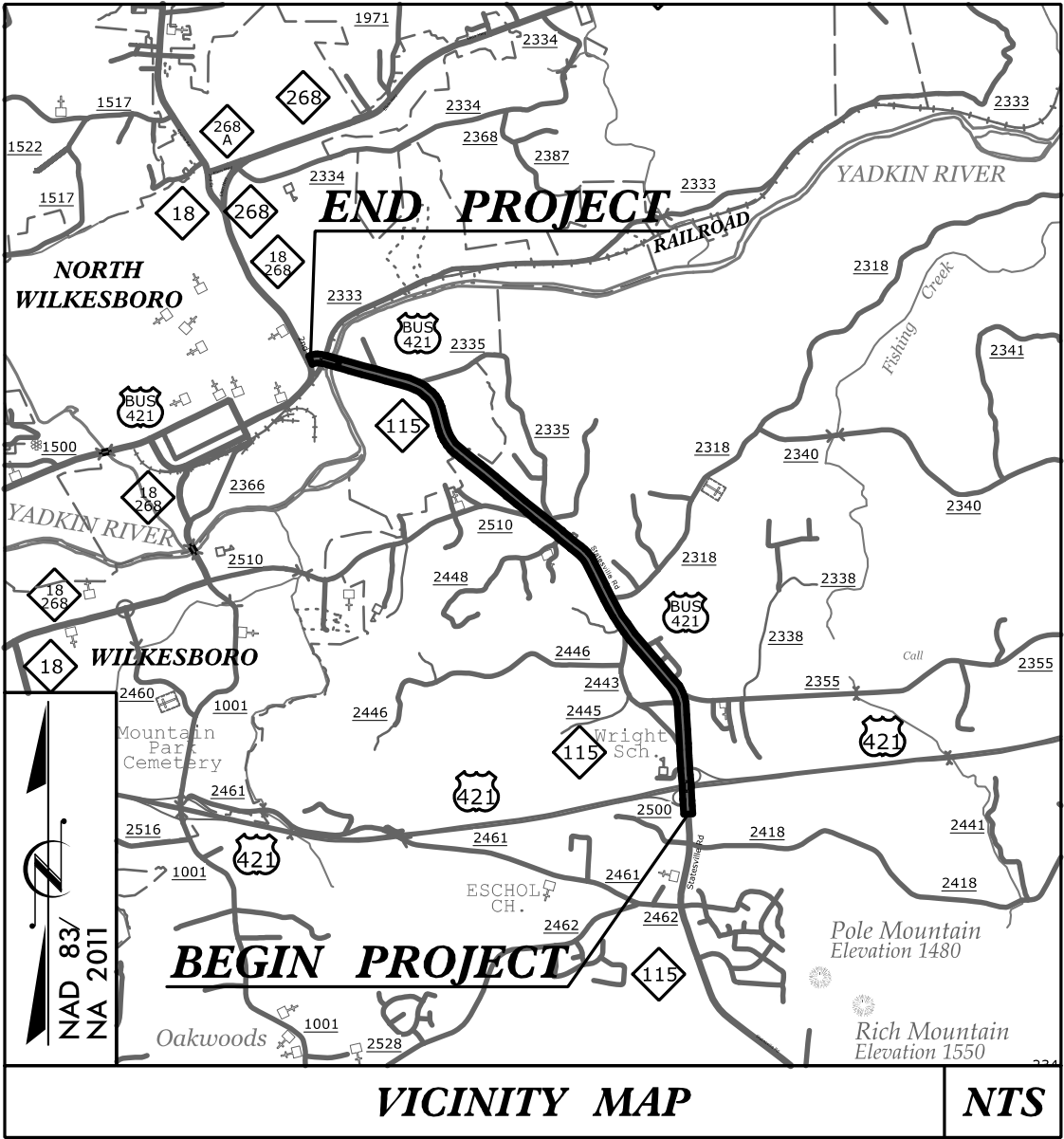


See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
WILKES COUNTY

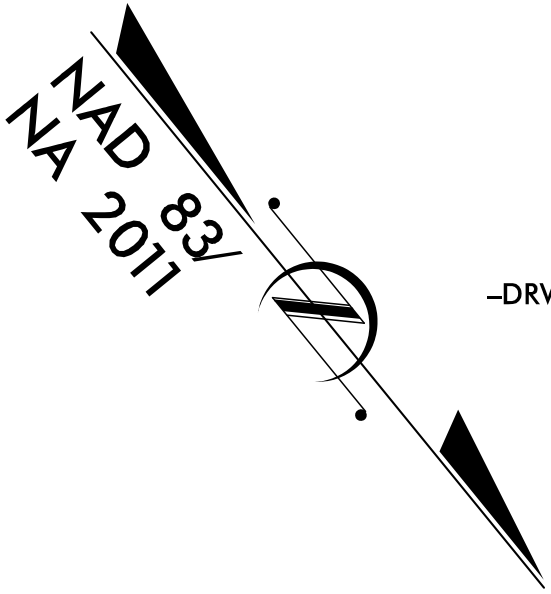
LOCATION: NC 115 /US 421 BUSINESS (STATESVILLE ROAD) FROM US 421 TO NC 18 (2ND STREET) IN NORTH WILKESBORO.

TYPE OF WORK: CULVERT, DRAINAGE, GRADING, PAVING, SIGNALS, STRUCTURE, WALLS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5759	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
44691.1.1		PE	
44691.2.1		RW	
44691.2.2		UTIL	
44691.3.1		CONSTRUCTION	

TIP PROJECT: R-5759

CONTRACT: C204976

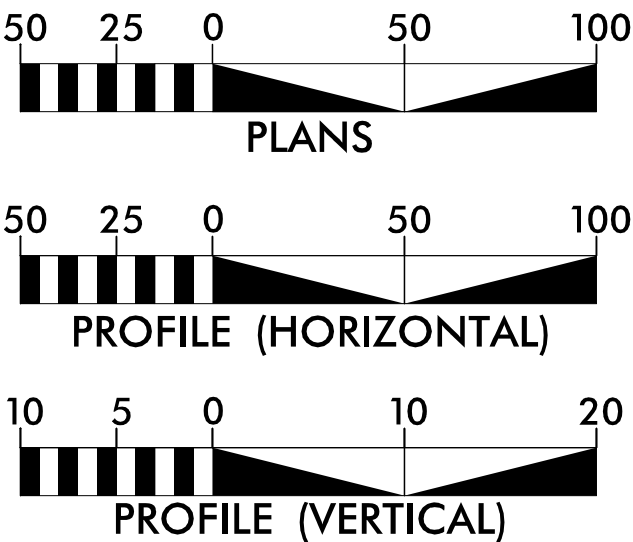


★ EXISTING TRAFFIC SIGNAL

NOTES:

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

GRAPHIC SCALES



DESIGN DATA

ADT 2026 = 9,100
ADT 2046 = 11,200
K = 10 %
D = 55 %
T = 8 % *
V = 50 MPH
* TTST = 4% DUAL 4%
FUNC CLASS = MINOR
REGIONAL TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT R-5759 = 3.017 MILES
LENGTH OF EXISTING STRUCTURE TIP PROJECT R-5759 = 0.035 MILES
TOTAL LENGTH OF TIP PROJECT R-5759 = 3.052 MILES
TOTAL LENGTH BASED ON -L- CENTERLINE



Prepared In the Office of:
HNTB NORTH CAROLINA, P.C.
4000 Center at North Hills St
Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554

FOR NCDOT DIVISION 11

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FEBRUARY 22, 2022

LETTING DATE:
NOVEMBER 17, 2026

DOUGLAS WHEATLEY, PE
PROJECT ENGINEER

THORNE KING, EI
PROJECT DESIGN ENGINEER

RAMIE SHAW, PE
NCDOT PROJECT TEAM LEAD

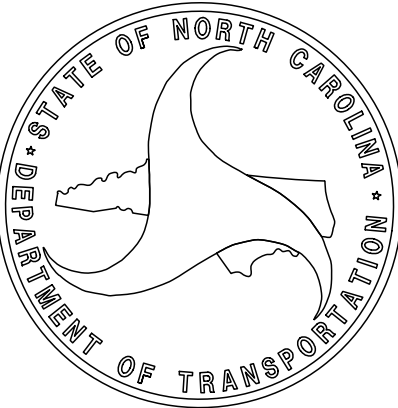
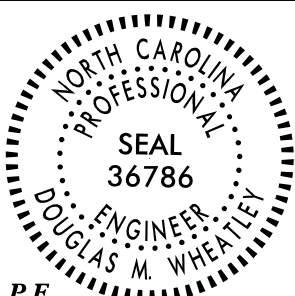
HYDRAULICS
ENGINEER

Signed by:
Paul Cameron
NCEM 1407265
SIGNATURE:



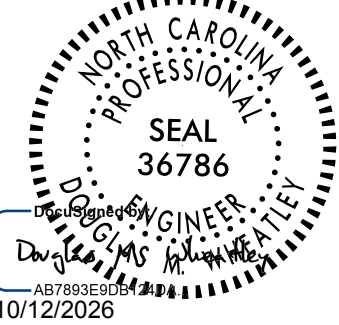
ROADWAY DESIGN
ENGINEER

DocuSigned by:
Douglas M. Wheatley
NCEM 1407265
SIGNATURE:



5/28/99

08-SEP-2026 09:26
C:\Users\pcoj\OneDrive\Documents\RDY_PSH01A.dgn
HNTB

PROJECT REFERENCE NO.		SHEET NO.	
		1A	
R-5759		ROADWAY DESIGN ENGINEER	
HNTB NORTH CAROLINA, P.C. 4000 Center at North Hills St Suite 500 Raleigh, North Carolina 27609 NC License No: C-1554			
INDEX OF SHEETS		DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
SHEET NUMBER	SHEET	EFF. 08-11-2025 REV. 11-26-2025	
1	TITLE SHEET		
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS		
1B	CONVENTIONAL SYMBOLS		
2A-1 THRU 2A-14	PAVEMENT SCHEDULE AND TYPICAL SECTIONS		
2B-1 THRU 2B-16	ROADWAY DETAILS		
2C-1 THRU 2C-20	SPECIAL DETAILS		
2D-1 THRU 2D-2	DRAINAGE DETAILS		
3B-1 THRU 3B-2	ROADWAY SUMMARIES		
3D-1 THRU 3D-17	DRAINAGE SUMMARIES		
3G-1	GEOTECHNICAL SUMMARIES		
3P-1 THRU 3P-2	PARCEL INDEX SHEET		
4 THRU 40	PLAN AND PROFILE SHEET		
RW01 THRU RW18	SURVEY CONTROL, EXISTING CENTERLINES, RIGHT OF WAY, EASEMENT AND PROPERTY TIES		
TMP-1 THRU TMP-42	TRAFFIC MANAGEMENT PLANS		
PMP-1 THRU PMP-16	PAVEMENT MARKING PLANS		
EC-1 THRU EC-33	EROSION CONTROL PLANS		
RF-1	REFORESTATION PLANS		
SIGN-1 THRU SIGN-17	SIGNING PLANS		
SIG 1.0 THRU SIG 5.2	SIGNAL PLANS		
SIG M1A THRU SIG M9	SIGNAL METAL POLE PLANS		
UC-1 THRU UC-38	UTILITIES CONSTRUCTION PLANS		
UO-1 THRU UO-18	UTILITIES BY OTHERS PLANS		
X-0	CROSS-SECTION INDEX		
X-0A THRU X-0G	CROSS-SECTION SUMMARY SHEET		
X-1 THRU X-275	CROSS-SECTIONS		
S1-1 THRU S1-17	STRUCTURE PLANS		
C1-1 THRU C1-4	CULVERT PLANS		
W-1 THRU W-12	RETAINING WALL PLANS		
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 III.	
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. 560.01/560.02	
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.	
BERM DITCHES:		BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.	
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 NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".	
UTILITIES:		UTILITY OWNERS ON THIS PROJECT ARE POWER - DUKE ENERGY COMM - BRIGHTSPEED COMM - WILKES COMMUNICATIONS CATV - CHARTER COMMUNICATIONS GAS - FRONTIER NATURAL GAS WATER - BROADWAY WATER ASSOCIATION WATER & SEWER - TOWN OF NORTH WILKESBORO 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 BY OTHERS.	
CURB RAMPS		CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.06. OR DETAILS.	
ROCK		ROCK IS ANTICIPATED BETWEEN -L- STA. 141+00 TO 142+25 & 147+00 TO 147+75 , -Y14- STA. 15+00 TO 16+50. BLASTING MAY BE REQUIRED FOR EXCAVATION ON THE PROJECT. SEE SECTION 220 OF THE STANDARD SPECIFICATIONS AND IF APPLICABLE, ROCK BLASTING PROVISION.	
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			
200.03		Method of Clearing - Method III	
225.02		Guide for Grading Subgrade - Secondary and Local	
225.04		Method of Obtaining Superelevation - Two Lane Pavement	
240.01		Guide for Berm Ditch Construction	
DIVISION 3 - PIPE CULVERTS			
300.01		Method of Pipe Installation (Use Details in Lieu of Standards for Sheets 1 and 2 of 2)	
310.10		Driveway Pipe Construction	
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS			
560.01		Method of Shoulder Construction - High Side of Superelevated Curve - Method I	
560.02		Method of Shoulder Construction - High Side of Superelevated Curve - Method II	
DIVISION 6 - ASPHALT BASES AND PAVEMENTS			
654.01		Pavement Repairs	
DIVISION 8 - INCIDENTALS			
815.02		Subsurface Drain	
838.01		Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew	
838.11		Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew	
838.21		Reinforced Concrete Endwall - for Single 54" Pipe 90 Skew	
838.27		Reinforced Concrete Endwall - for Single 60" Pipe 90 Skew	
838.33		Reinforced Concrete Endwall - for Single 66" Pipe 90 Skew	
838.45		Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40	
838.51		Reinforced Brick Endwall - for Single 54" Pipe 90 Skew	
838.57		Reinforced Brick Endwall - for Single 60" Pipe 90 Skew	
838.63		Reinforced Brick Endwall - for Single 66" Pipe 90 Skew	
838.75		Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70	
838.80		Precast Endwalls - 12" thru 72" Pipe 90 Skew	
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	
840.18		Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe	
840.20		Frames and Wide Slot Flat Grates	
840.24		Frames and Narrow Slot Sag Grates	
840.25		Anchorage for Frames - Brick or Concrete or Precast	
840.26		Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe	
840.27		Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe	
840.29		Frames and Narrow Slot Flat Grates	
840.31		Concrete Junction Box - 12" thru 66" Pipe	
840.32		Brick Junction Box - 12" thru 66" Pipe	
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	
840.36		Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates	
840.37		Steel Grate and Frame	
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	
846.04		Drop Inlet Installation in Shoulder Berm Gutter	
848.01		Concrete Sidewalk (Use Detail in Lieu of Standard for Sheet 1 of 1)	
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)	
850.01		Concrete Paved Ditches	
850.11		Guide for Berm Drainage Outlet - 24" and 30" Pipe	
852.01		Concrete Islands	
852.04		Method for Placement of Drop Inlets in Grassed Median - Using 1'-6" Curb and Gutter	
852.05		Median Curb for Catch Basin - for Use with 1'-6" Curb and Gutter	
852.06		Method for Placement of Drop Inlets in Concrete Islands	
852.07		Median Curb for Traffic Bearing Grated Drop Inlet for Use with 2'-9" Curb and Gutter (Use Detail in Lieu of Standard for Sheet 1 of 1)	
862.01		Guardrail Placement (Use Details in Lieu of Standards for Sheets 4, 6, 11, 12, and 14 of 15)	
862.02		Guardrail Installation (Use Detail in Lieu of Standard for Sheet 5 of 9)	
862.03		Structure Anchor Units (Use Detail in Lieu of Standards for Sheet 6 and 8 of 9)	
866.02		Woven Wire Fence - with Wood Post	
876.01		Rip Rap in Channels and Ditches	
876.02		Guide for Rip Rap at Pipe Outlets	
876.04		Drainage Ditches with Class 'B' Rip Rap	

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)*	

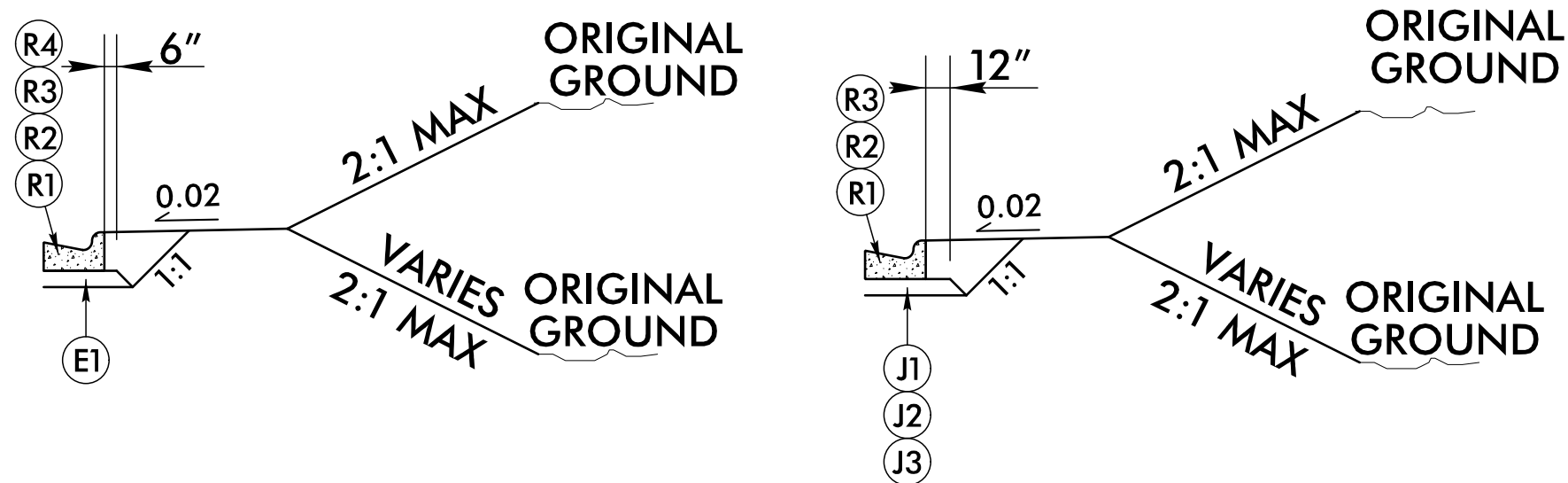
MISCELLANEOUS:

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	
End of Information	

FINAL PAVEMENT SCHEDULE

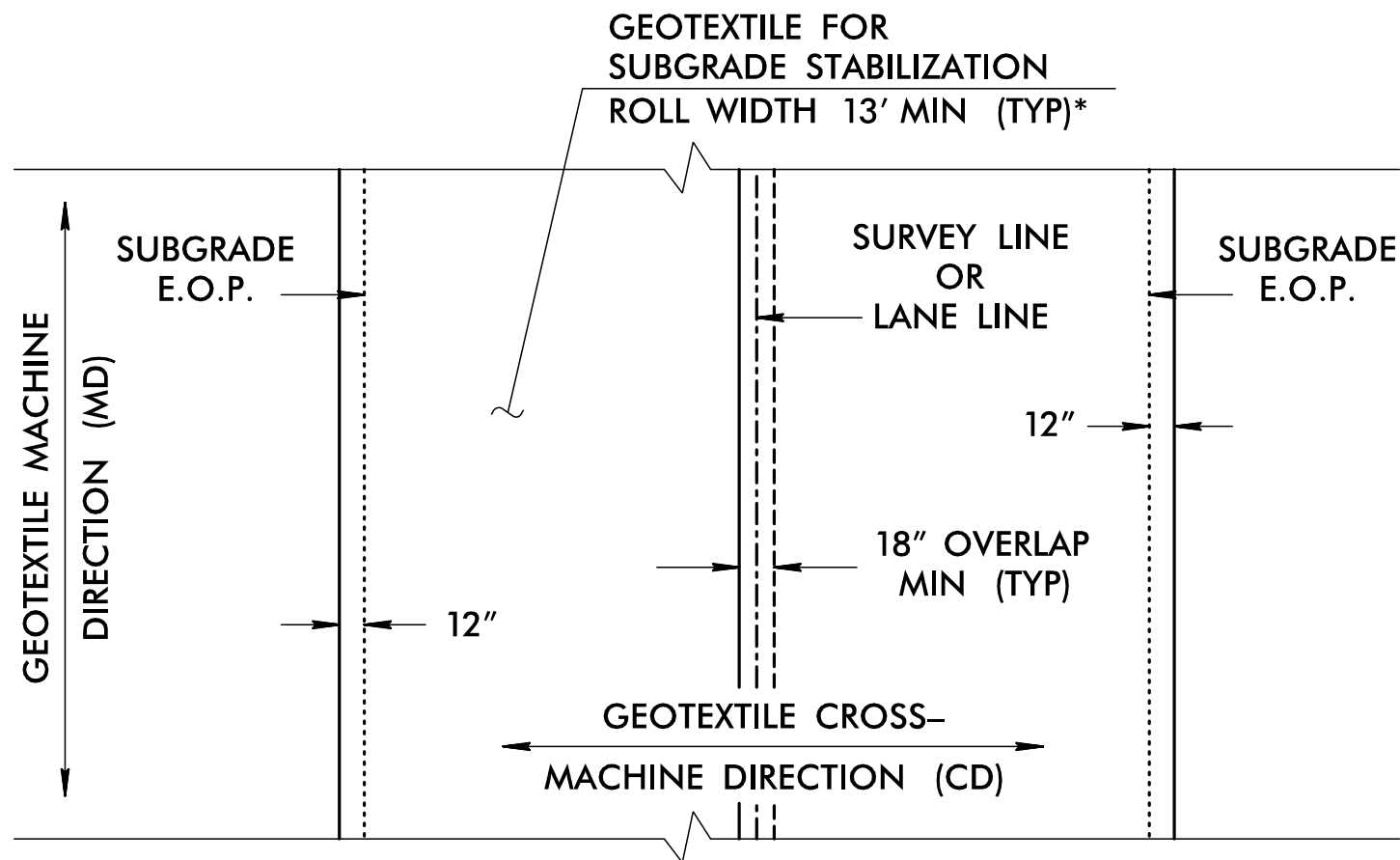
A1	12" CONCRETE TRUCK APRON, CLASS AA CONCRETE
A2	8" JOINTED CONCRETE DRIVEWAY
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
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 LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. APPROX. 4.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.
E3	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 5.5" IN DEPTH.
J1	PROP. 6" AGGREGATE BASE COURSE
J2	PROP. 8" AGGREGATE BASE COURSE
J3	PROP. 7" AGGREGATE BASE COURSE
K1	TYPE 1 (12") CLASS IV SUBGRADE STABILIZATION.
K2	TYPE 2 (8") CLASS IV SUBGRADE STABILIZATION.

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



CURB AND GUTTER SHELF DETAIL
USE INSET IN ALL APPLICABLE LOCATIONS

N1	GEOTEXTILE FOR SUBGRADE STABILIZATION.
R1	2'-6" CONCRETE CURB AND GUTTER.
R2	1'-6" CONCRETE CURB AND GUTTER.
R3	2'-9" CONCRETE CURB AND GUTTER.
R4	EXPRESSWAY GUTTER.
R5	9" X 18" CONCRETE CURB.
R6	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
R7	2'-0" CONCRETE CURB AND GUTTER
R8	8" X 18" CONCRETE CURB.
S	4" CONCRETE SIDEWALK.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT, 3" DEPTH
W1	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 1. THIS SHEET)
W2	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 2. THIS SHEET)



GEOTEXTILE FOR SUBGRADE STABILIZATION PLACEMENT (PLAN VIEW)
(100% COVERAGE REQUIRED)
*INSTALL GEOTEXTILE FOR SUBGRADE STABILIZATION WITH MINIMUM ROLL WIDTH UNDER ROADWAY EDGES AND SHOULDERS ADJACENT TO FILL SLOPES

HNTB

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RALEIGH, NORTH CAROLINA 27604
NC REGISTERED ENGINEERING FIRM # 0869
NC REGISTERED GEOLOGIC FIRM # C-367

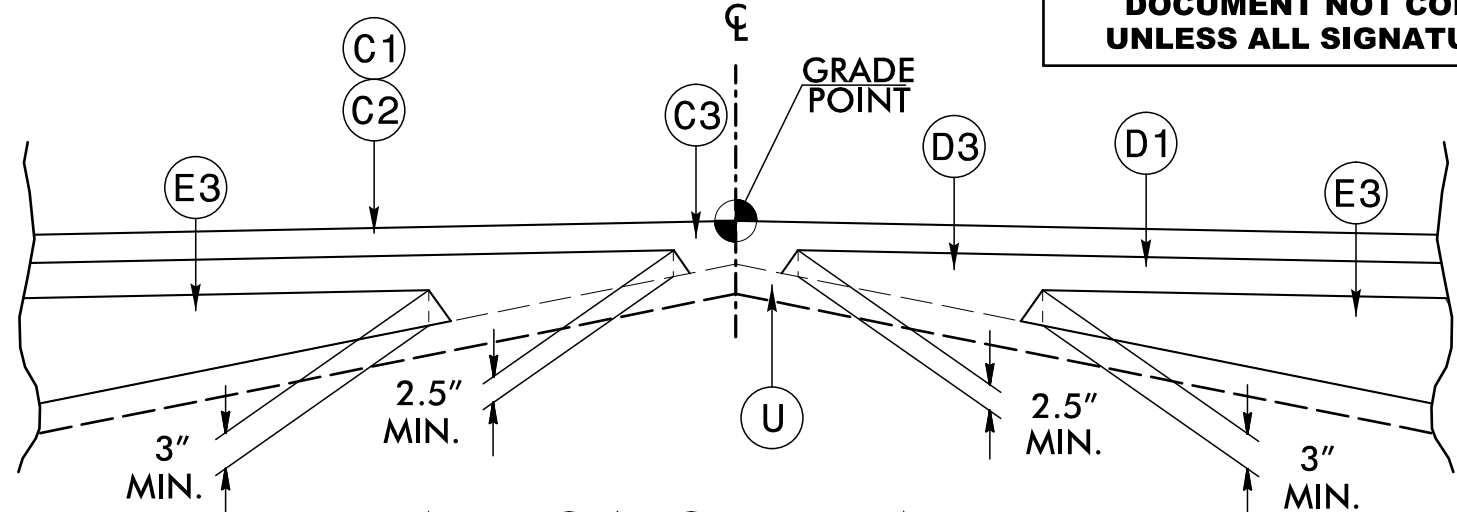
PROJECT REFERENCE NO.
R-5759

ROADWAY DESIGN ENGINEER

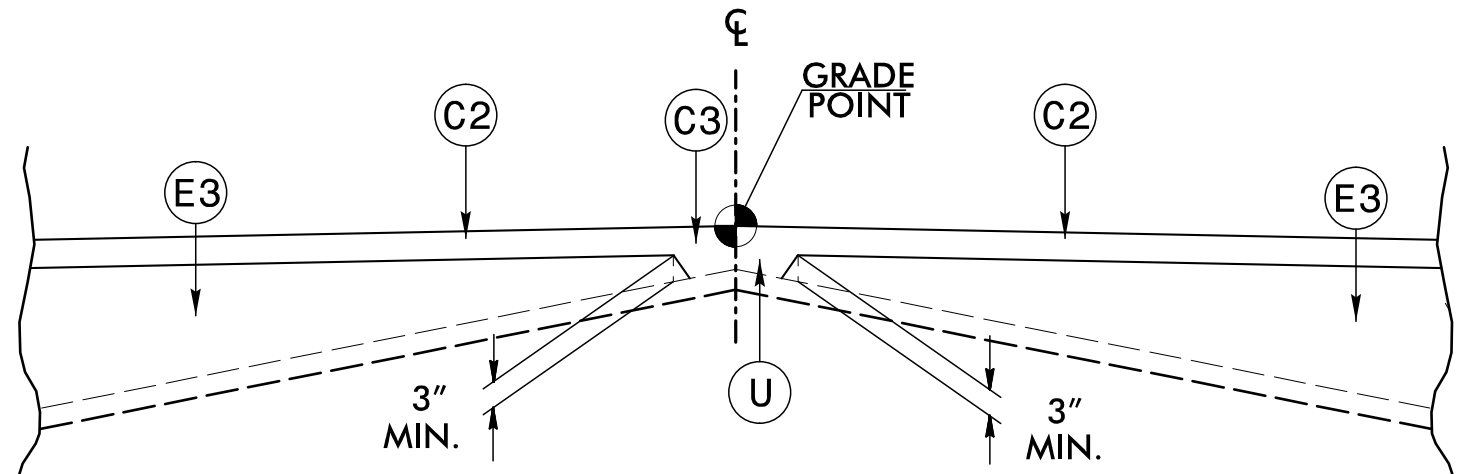
SHEET NO.
2A-1

PAVEMENT DESIGN ENGINEER

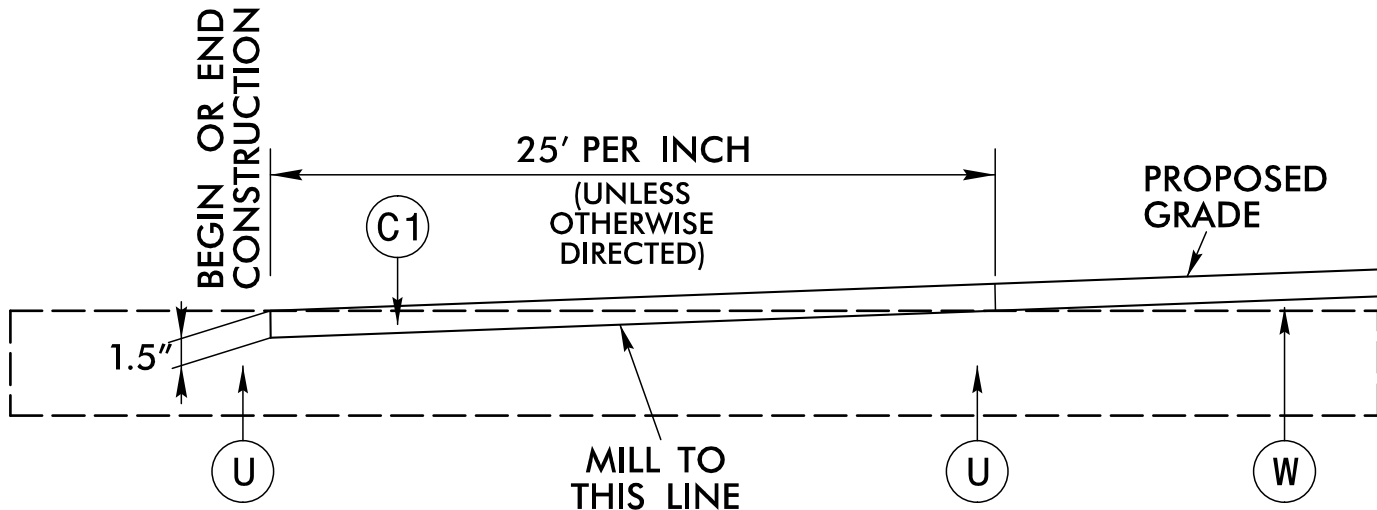
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



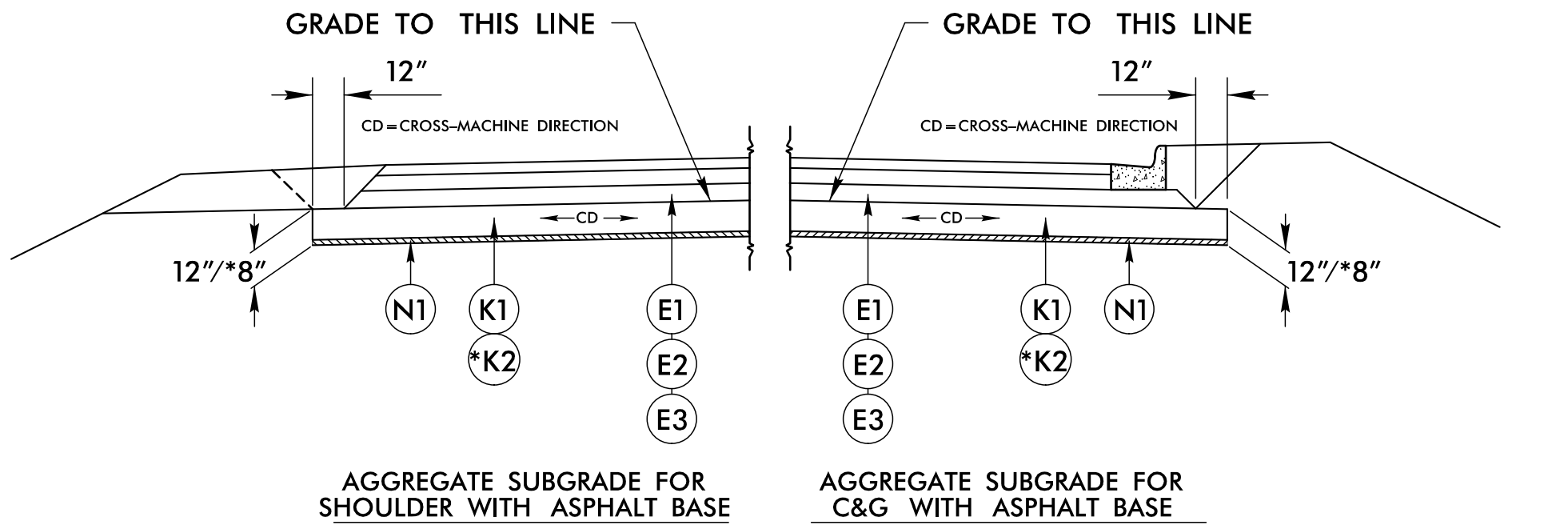
WEDGING DETAIL #1



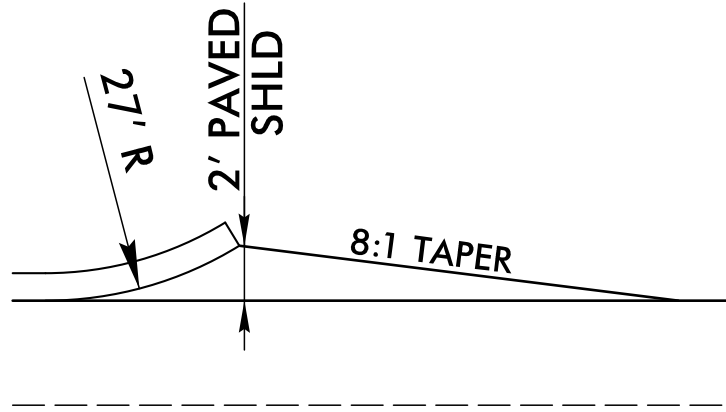
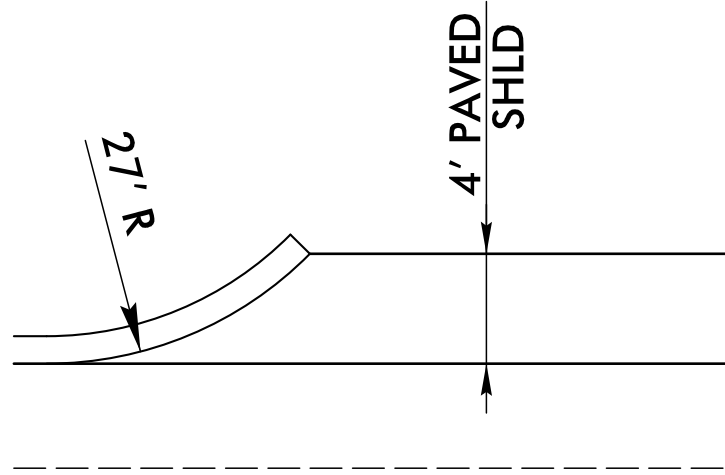
WEDGING DETAIL #2



INCIDENTAL MILLING DETAIL



USE IN CONJUNCTION WITH TYPICAL SECTION
NO. 1-11, 21, 24, 26, 27, 29, 30

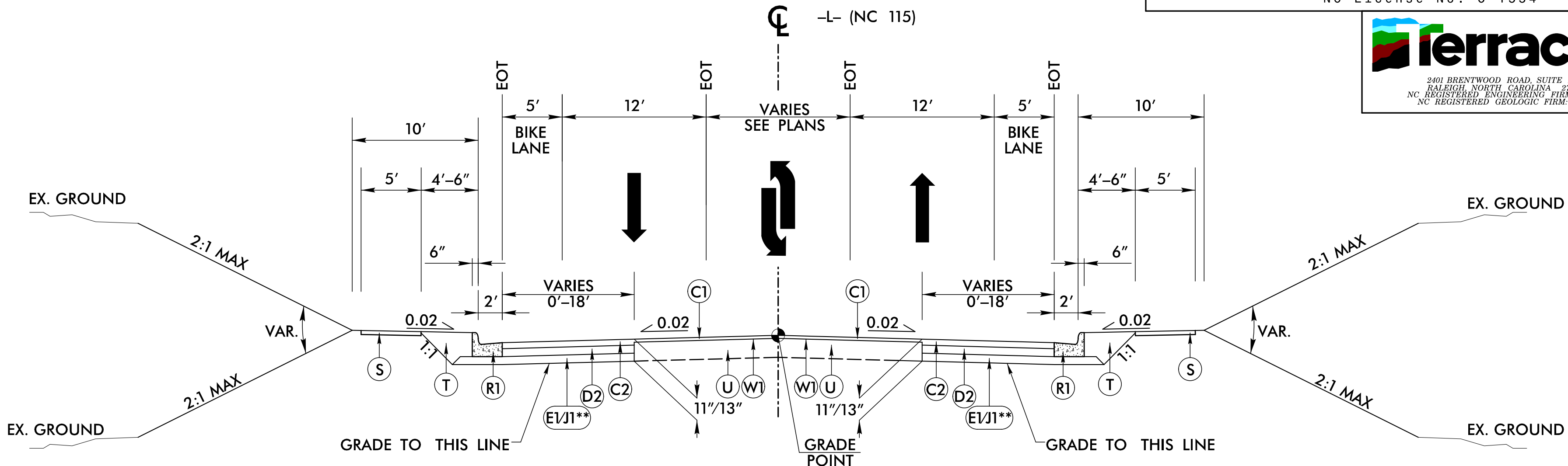


CURB RETURN DETAIL
SEE PLANS FOR LOCATIONS

NOTES:
SEE PLANS FOR TURN LANES, MONOLITHIC ISLANDS, CURB AND GUTTER, SIDEWALK AND LANE TAPER LOCATIONS.

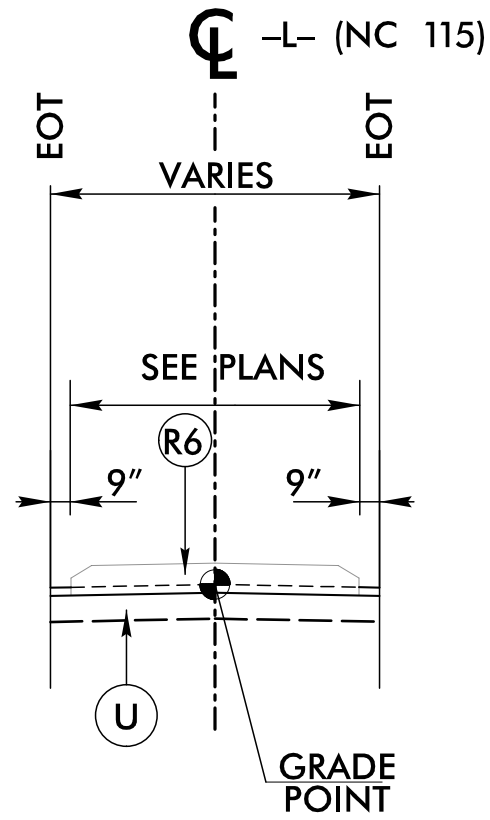
	FINAL PAVEMENT SCHEDULE
A1	12" CONCRETE TRUCK APRON, CLASS AA CONCRETE
A2	8" JOINTED CONCRETE DRIVEWAY
C1	PROP. 1.5" ACSC, TYPE S9.5C
C2	PROP. 3" ACSC, TYPE S9.5C
C3	PROP. VAR DEPTH ACSC, TYPE S9.5C
D1	PROP. 2.5" ACIC, TYPE I19.0C
D2	PROP. 4" ACIC, TYPE I19.0C
D3	PROP. VAR. DEPTH ACIC, TYPE I19.0C
E1	PROP. 4" ACBC, TYPE B25.0C
E2	PROP. 4.5" ACBC, TYPE B25.0C
E3	PROP. VAR. DEPTH ACBC, TYPE B25.0C
J1	PROP. 6" AGGREGATE BASE COURSE.
J2	PROP. 8" AGGREGATE BASE COURSE.
J3	PROP. 7" AGGREGATE BASE COURSE
K1	TYPE 1 (12") CLASS IV SUBGRADE STABILIZATION.
K2	TYPE 2 (8") CLASS IV SUBGRADE STABILIZATION.
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION.
R1	2'-6" CONCRETE CURB AND GUTTER.
R2	1'-6" CONCRETE CURB AND GUTTER.
R3	2'-9" CONCRETE CURB AND GUTTER.
R4	EXPRESSWAY GUTTER.
R5	9" X 18" CONCRETE CURB.
R6	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
R7	2'-0" CONCRETE CURB AND GUTTER
R8	8" X 18" CONCRETE CURB.
S	4" CONCRETE SIDEWALK.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT, 3" DEPTH
W1	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 1 ON SHEET 2A-1)
W2	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 2 ON SHEET 2A-1)

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



TYPICAL SECTION NO. 4

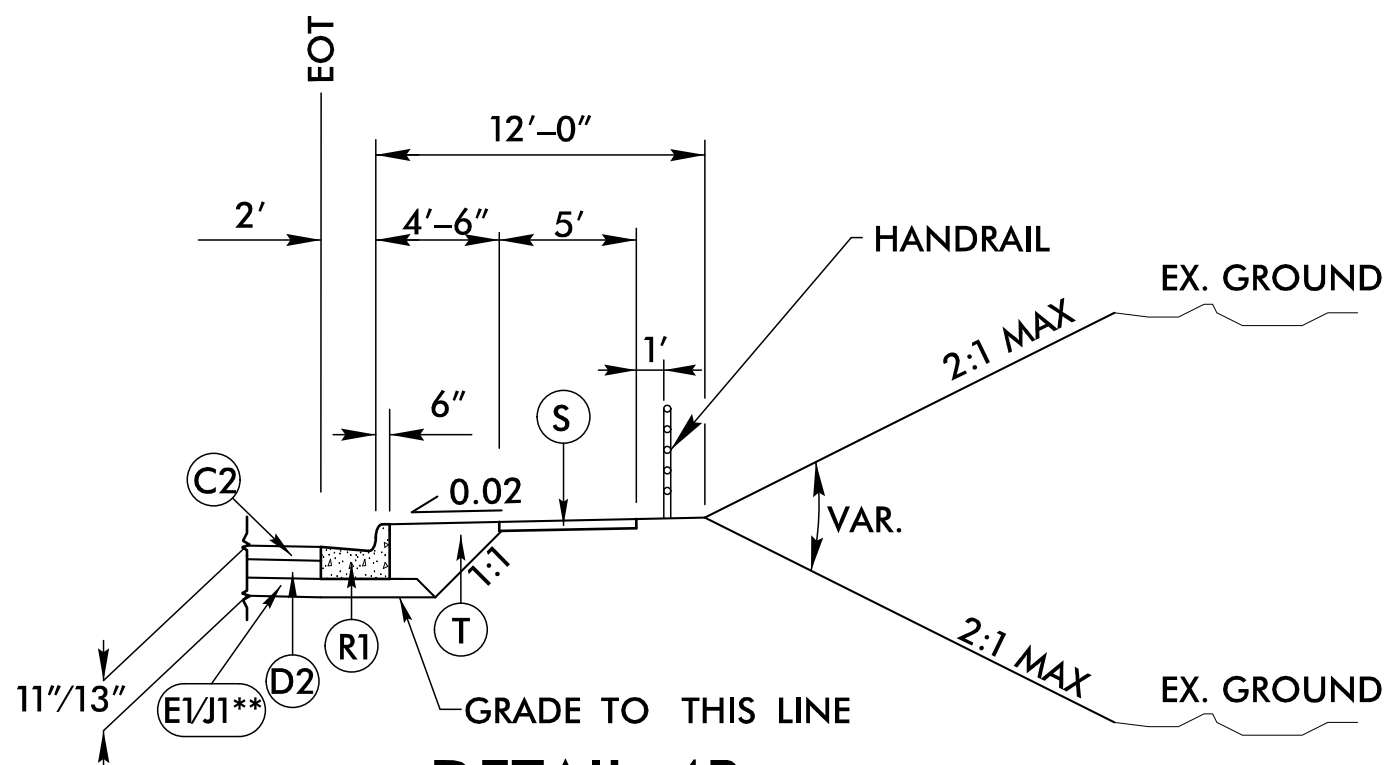
- L STA. 27+08.11 TO STA. 44+01.48
- L STA. 45+81.82 TO STA. 46+40.00
- L STA. 102+60.00 TO STA. 103+18.27
- L STA. 105+00.14 TO STA. 105+60.00



DETAIL 4A

USE ISLAND DETAIL IN CONJUNCTION WITH TYPICAL
SECTION 4

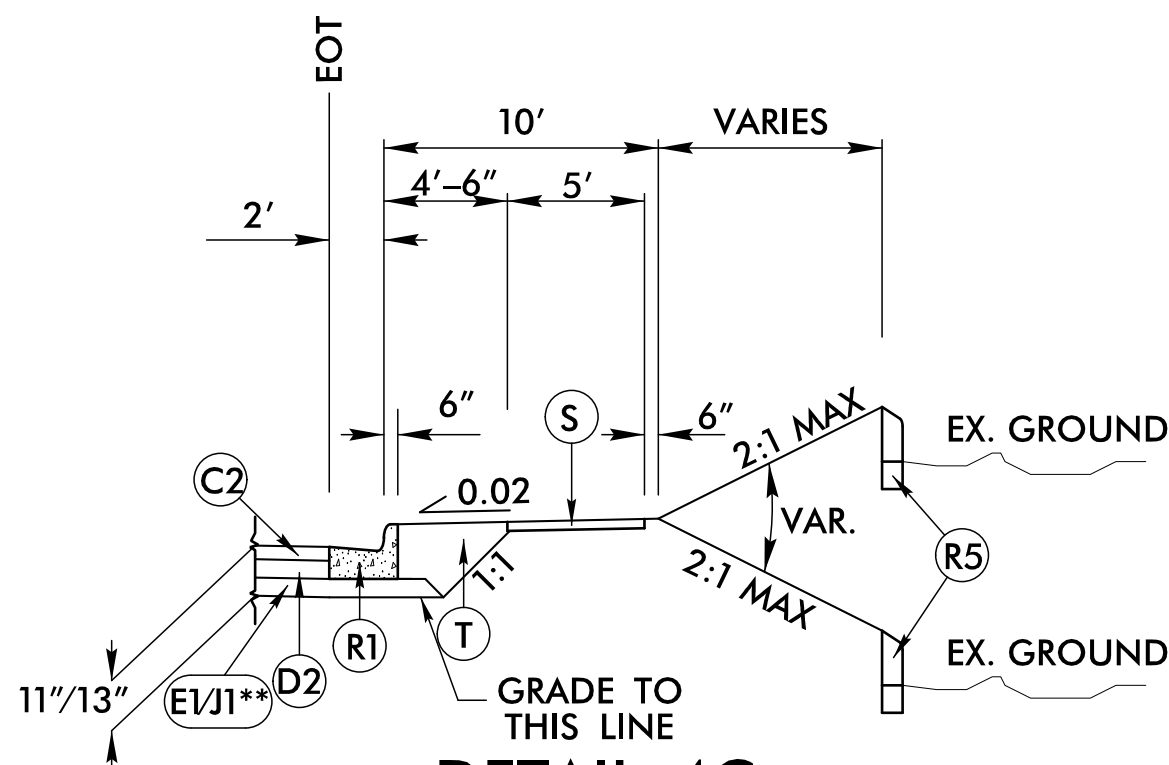
-L- STA. 27+08.11 TO STA. 28+10.00
 -L- STA. 43+00.00 TO STA. 43+99.21
 -L- STA. 45+83.18 TO STA. 46+40.00
 -L- STA. 102+60.00 TO STA. 103+16.80
 -L- STA. 105+01.61 TO STA. 105+60.00



DETAIL 4B

USE HANDRAIL DETAIL IN CONJUNCTION WITH TYPICAL
SECTION 4

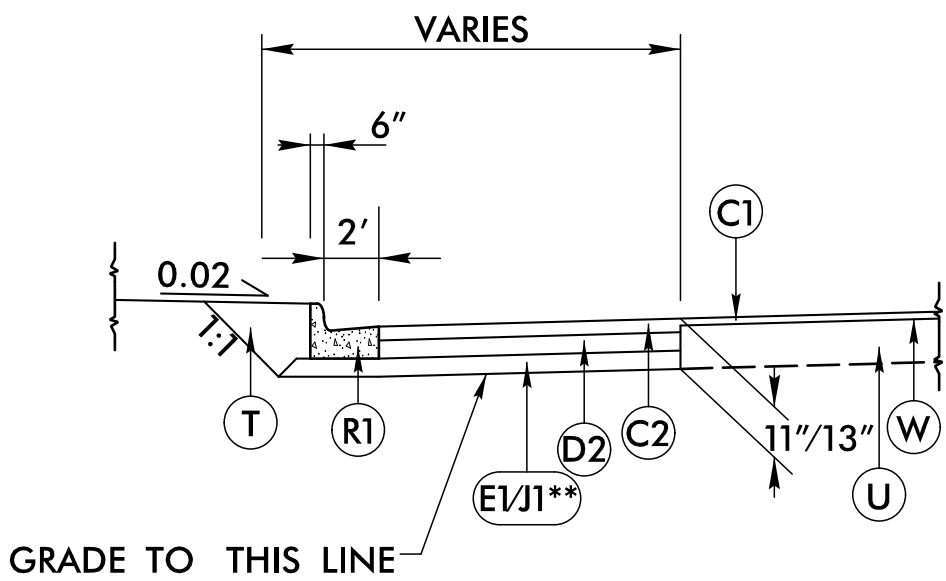
-L- STA. 38+50.00 TO STA. 43+10.00 RT



DETAIL 4C

USE CHANNELIZATION DETAIL IN CONJUNCTION WITH
TYPICAL SECTION 4

SEE PLANS FOR LOCATIONS



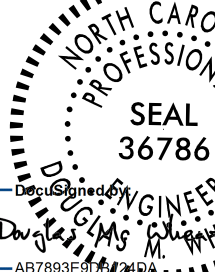
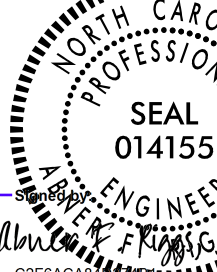
**NARROW WIDENING DETAIL

FOR TYPICAL SECTION NO. 4, USE E1 (4" ACBC, TYPE B25.0C) IN
AREAS OF NARROW WIDENING LESS THAN 12' IN WIDTH.
OTHERWISE, USE J1 (6" ABC) AT THE FOLLOWING LOCATIONS:

-L- STA. 32+89.50 TO STA. 43+01.50 RT
-L- STA. 34+00.00 TO STA. 41+61.25 LT

NOTES:

SEE PLANS FOR TURN LANES, MONOLITHIC ISLANDS, CURB AND GUTTER, SIDEWALK AND LANE TAPER LOCATIONS.

PROJECT REFERENCE NO.		SHEET NO.	
R-5759		2A-4	
ROADWAY DESIGN ENGINEER		PAVEMENT DESIGN ENGINEER	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

6/2/99

28-AUG-2026 15:38
\\Roadway\Proj\R-5759_RDY_TYP.dgn
HNTB

6/2/99

10'

2'

5'

6"

0.02'

11"

EX. GROUND

2:1 MAX

VAR.

EX. GROUND

2:1 MAX

GRADE TO THIS LINE

*2" SAWCUT MIN.

C2

D2

S

T

R1

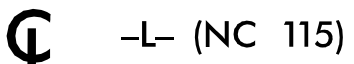
E1

USE DETAIL IN CONJUNCTION
TH TYPICAL SECTIONS NO. 7 & 8

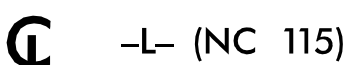
DETAIL 8A



-L- STA. 149+38.10 TO STA. 169+60.93



-L- STA. 169+60.93 TO STA. 170+99.65



-L- STA. 175+48.57 TO STA. 178+44.16



USE DETAIL IN CONJUNCTION
WITH TYPICAL SECTIONS NO. 6 AND 7

-L- STA. 168+25.77 TO STA. 170+99.65 RT

NOTES:

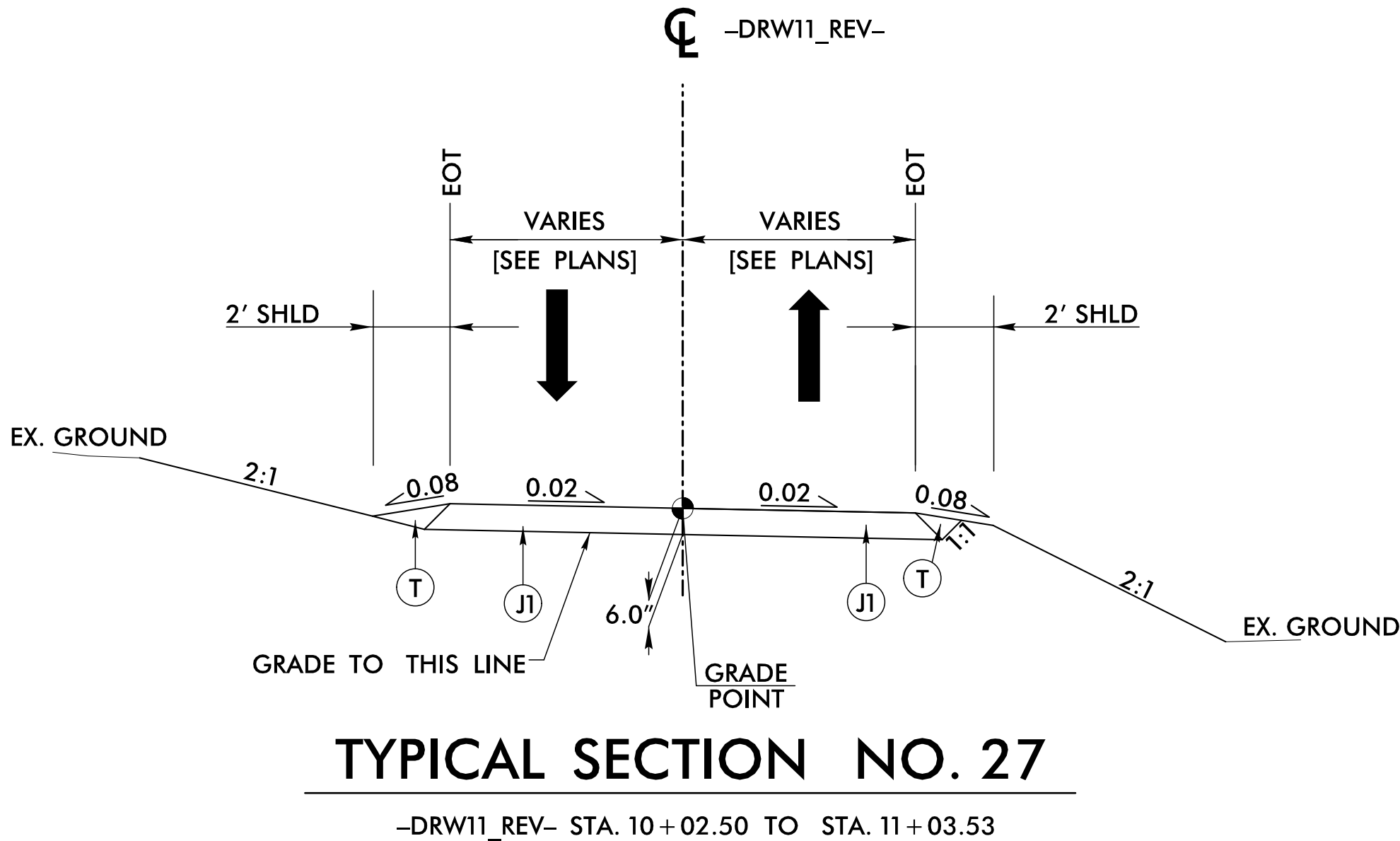
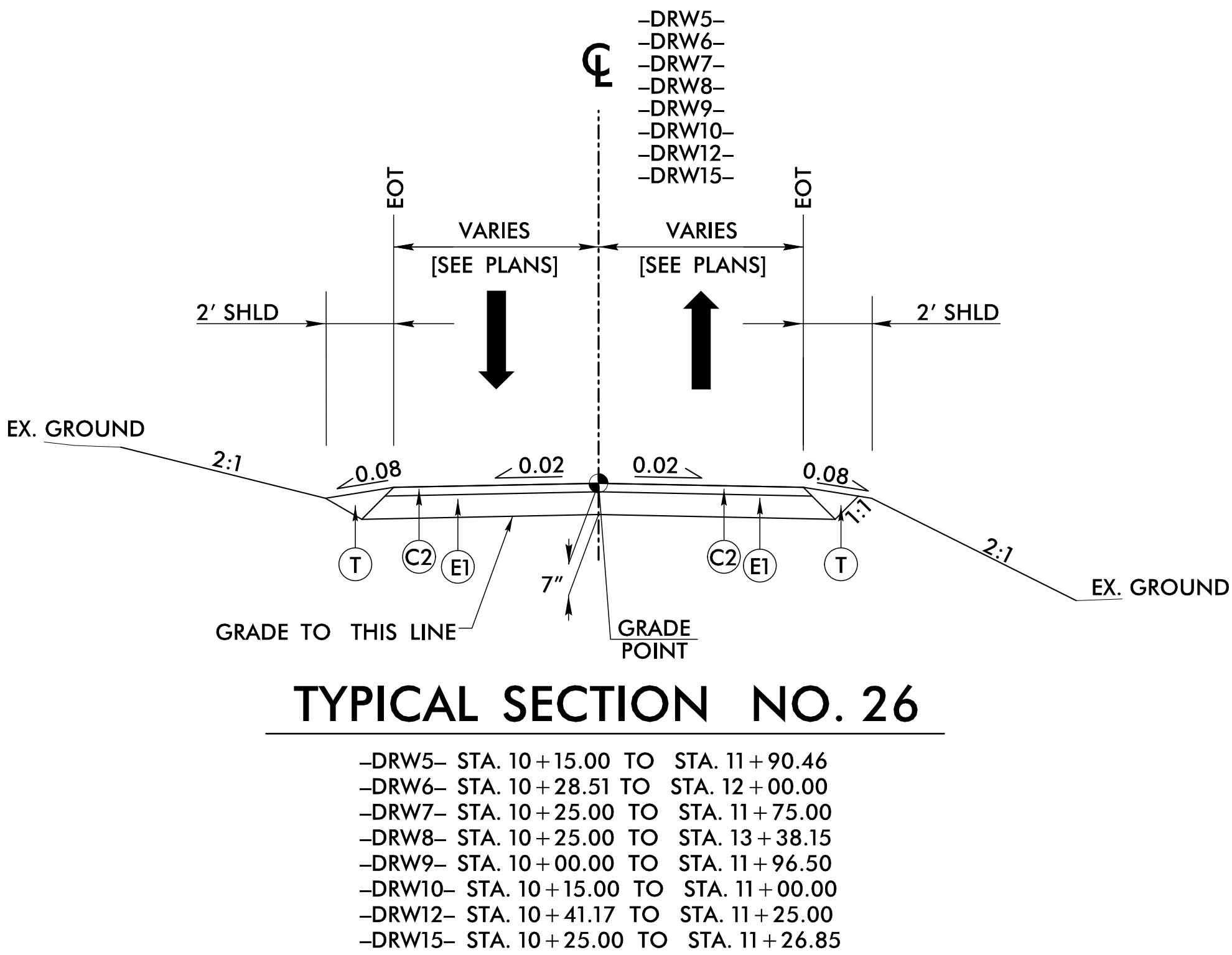
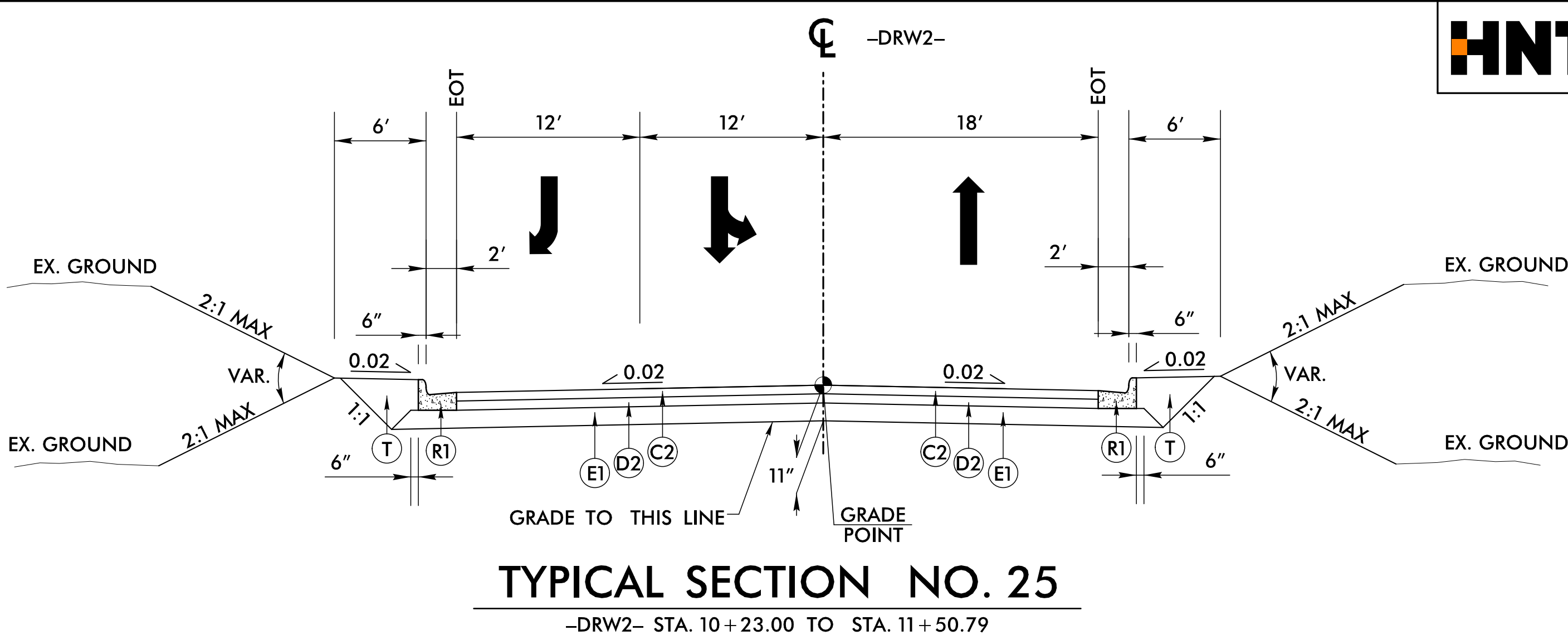
SEE PLANS FOR TURN LANES, MONOLITHIC ISLANDS, CURB AND GUTTER, SIDEWALK AND LANE TAPER LOCATIONS.

6/2/2019

	FINAL PAVEMENT SCHEDULE
A1	12" CONCRETE TRUCK APRON, CLASS AA CONCRETE
A2	8" JOINTED CONCRETE DRIVEWAY
C1	PROP. 1.5" ACSC, TYPE S9.5C
C2	PROP. 3" ACSC, TYPE S9.5C
C3	PROP. VAR DEPTH ACSC, TYPE S9.5C
D1	PROP. 2.5" ACIC, TYPE I19.0C
D2	PROP. 4" ACIC, TYPE I19.0C
D3	PROP. VAR. DEPTH ACIC, TYPE I19.0C
E1	PROP. 4" ACBC, TYPE B25.0C
E2	PROP. 4.5" ACBC, TYPE B25.0C
E3	PROP. VAR. DEPTH ACBC, TYPE B25.0C
J1	PROP. 6" AGGREGATE BASE COURSE.
J2	PROP. 8" AGGREGATE BASE COURSE.
J3	PROP. 7" AGGREGATE BASE COURSE
K1	TYPE 1 (12") CLASS IV SUBGRADE STABILIZATION.
K2	TYPE 2 (8") CLASS IV SUBGRADE STABILIZATION.
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION.
R1	2'-6" CONCRETE CURB AND GUTTER.
R2	1'-6" CONCRETE CURB AND GUTTER.
R3	2'-9" CONCRETE CURB AND GUTTER.
R4	EXPRESSWAY GUTTER.
R5	9" X 18" CONCRETE CURB.
R6	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
R7	2'-0" CONCRETE CURB AND GUTTER
R8	8" X 18" CONCRETE CURB.
S	4" CONCRETE SIDEWALK.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT, 3" DEPTH
W1	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 1 ON SHEET 2A-1)
W2	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 2 ON SHEET 2A-1)

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

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HNTB



HNTB NORTH CAROLINA, P.C.
4000 Center at North Hills St
Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554

2401 BRENTWOOD ROAD, SUITE 107
RALEIGH, NORTH CAROLINA 27604
NC REGISTERED ENGINEERING FIRM # 0869
NC REGISTERED GEOLOGIC FIRM # C-367

PROJECT REFERENCE NO.
R-5759

ROADWAY DESIGN ENGINEER

SHEET NO.
2A-12

PAVEMENT DESIGN ENGINEER

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UNLESS ALL SIGNATURES COMPLETED**

MIRROR FOR LEFT SIDE

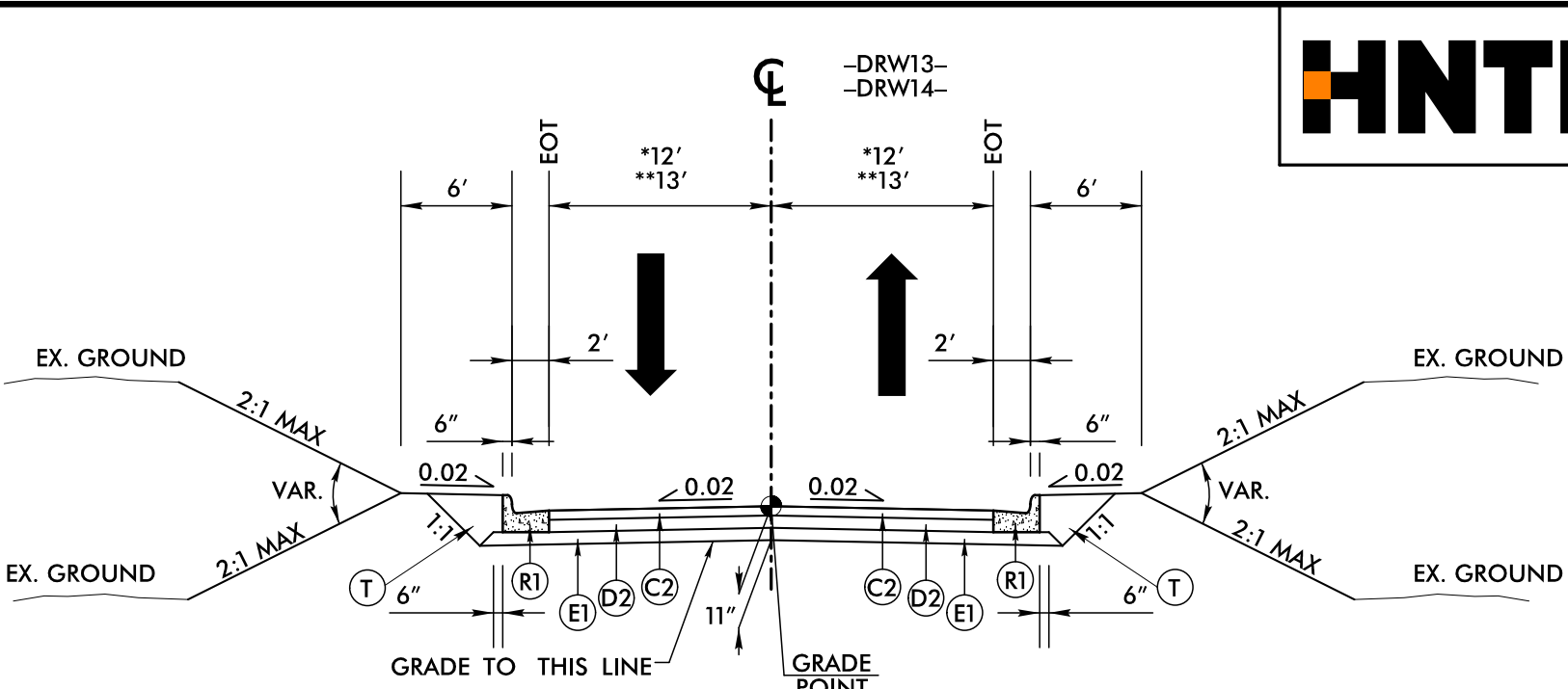
DETAIL 26A
USE DETAIL IN CONJUNCTION
WITH TYPICAL SECTION NO. 26

-DRW6- STA. 10+28.51 TO STA. 10+49.42 LT/RT
-DRW7- STA. 11+50.00 TO STA. 11+75.00 LT/RT
*-DRW9- STA. 11+68.42 TO STA. 11+96.50 LT/RT
-DRW12- STA. 10+17.78 TO STA. 10+41.17 LT/RT

NOTES:
SEE PLANS FOR TURN LANES, MONOLITHIC ISLANDS, CURB AND GUTTER, SIDEWALK AND LANE TAPER LOCATIONS.

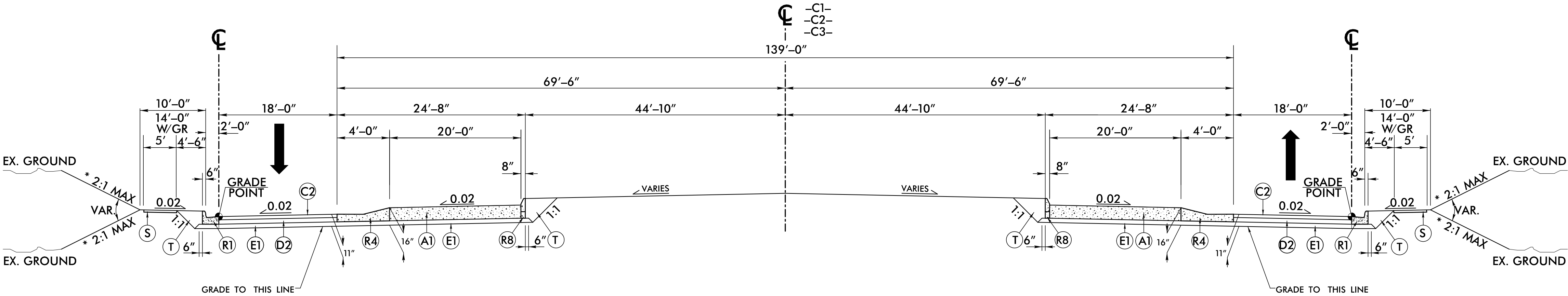
	FINAL PAVEMENT SCHEDULE
A1	12" CONCRETE TRUCK APRON, CLASS AA CONCRETE
A2	8" JOINTED CONCRETE DRIVEWAY
C1	PROP. 1.5" ACSC, TYPE S9.5C
C2	PROP. 3" ACSC, TYPE S9.5C
C3	PROP. VAR DEPTH ACSC, TYPE S9.5C
D1	PROP. 2.5" ACIC, TYPE I19.0C
D2	PROP. 4" ACIC, TYPE I19.0C
D3	PROP. VAR. DEPTH ACIC, TYPE I19.0C
E1	PROP. 4" ACBC, TYPE B25.0C
E2	PROP. 4.5" ACBC, TYPE B25.0C
E3	PROP. VAR. DEPTH ACBC, TYPE B25.0C
J1	PROP. 6" AGGREGATE BASE COURSE.
J2	PROP. 8" AGGREGATE BASE COURSE.
J3	PROP. 7" AGGREGATE BASE COURSE
K1	TYPE 1 (12") CLASS IV SUBGRADE STABILIZATION.
K2	TYPE 2 (8") CLASS IV SUBGRADE STABILIZATION.
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION.
R1	2'-6" CONCRETE CURB AND GUTTER.
R2	1'-6" CONCRETE CURB AND GUTTER.
R3	2'-9" CONCRETE CURB AND GUTTER.
R4	EXPRESSWAY GUTTER.
R5	9" X 18" CONCRETE CURB.
R6	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
R7	2'-0" CONCRETE CURB AND GUTTER
R8	8" X 18" CONCRETE CURB.
S	4" CONCRETE SIDEWALK.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT, 3" DEPTH
W1	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 1 ON SHEET 2A-1)
W2	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 2 ON SHEET 2A-1)

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



TYPICAL SECTION NO. 28

*-DRW13- STA. 10+50.00 TO STA. 10+77.60
*-DRW14- STA. 10+50.00 TO STA. 10+85.52

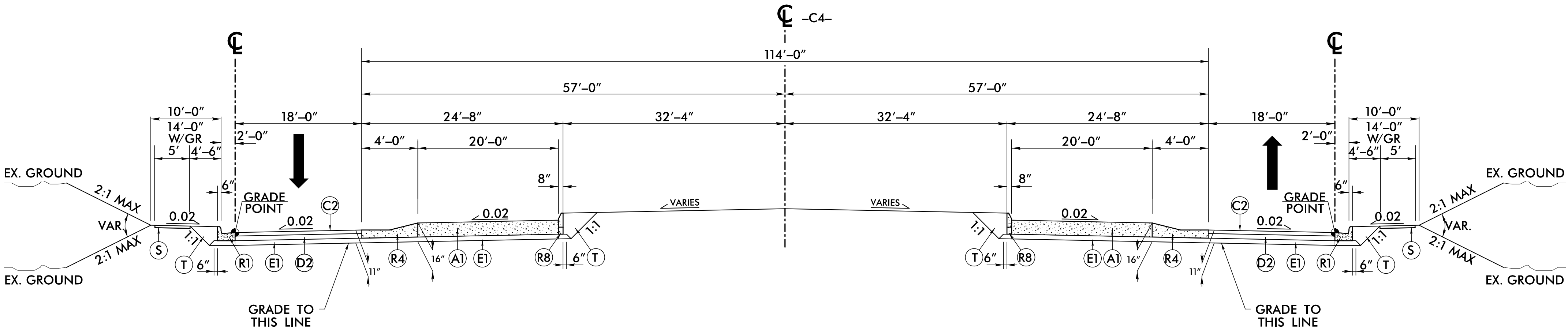


TYPICAL SECTION NO. 29

* -C1- STA. 10+00.00 TO STA. 15+49.78
* -C2- STA. 10+00.00 TO STA. 15+49.78
-C3- STA. 10+00.00 TO STA. 15+49.78
* USE 4:1 MAX SLOPE INSIDE THE INTERCHANGE

CONCRETE APRON REINFORCEMENT NOTE:

1. PLACE 18" LONG #8 BARS AT 12" CENTERS BEGINNING 6" FROM LONGITUDINAL JOINT.
2. PLACE 14" LONG #4 "J" BARS AT 36" CENTERS AT ALL LONGITUDINAL SLAB/CURB JOINTS.



TYPICAL SECTION NO. 30

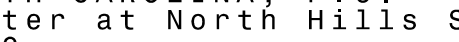
-C4- STA. 10+00.00 TO STA. 14+71.24

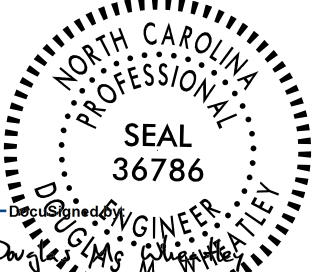
CONCRETE APRON REINFORCEMENT NOTE:

1. PLACE 18" LONG #8 BARS AT 12" CENTERS BEGINNING 6" FROM LONGITUDINAL JOINT.
2. PLACE 14" LONG #4 "J" BARS AT 36" CENTERS AT ALL LONGITUDINAL SLAB/CURB JOINTS.

NOTES:

SEE PLANS FOR TURN LANES, MONOLITHIC ISLANDS, CURB AND GUTTER, SIDEWALK AND LANE
TAPER LOCATIONS.

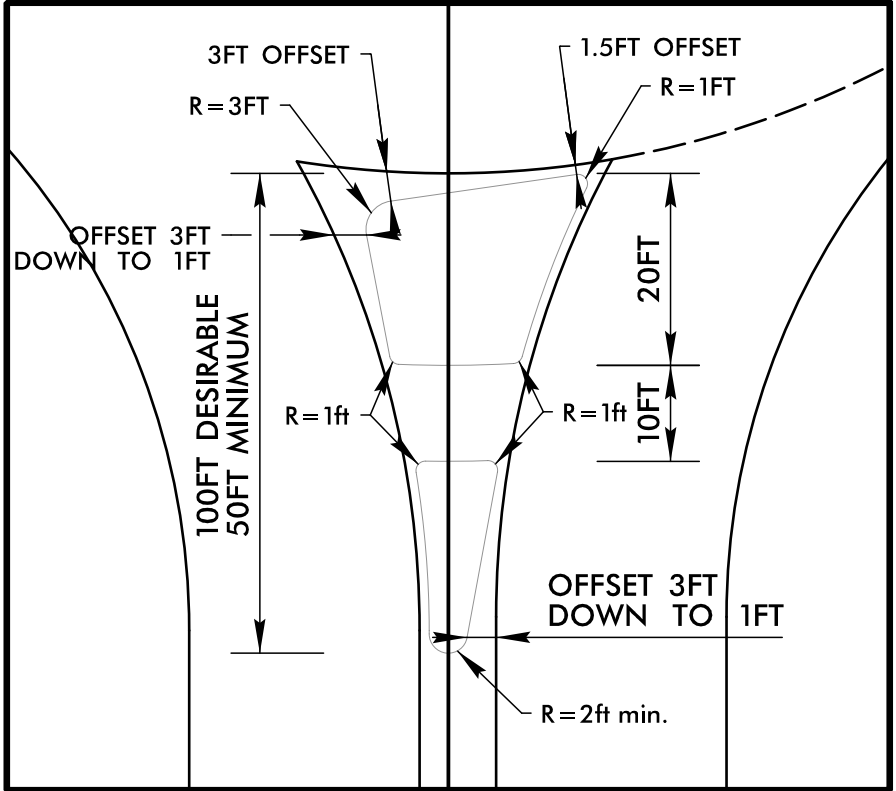
	HNTB NORTH CAROLINA, P. C. 4000 Center at North Hills St Suite 500 Raleigh, North Carolina 27609 NC License No: C-1554	 2401 BRENTWOOD ROAD, SUITE 107 RALEIGH NORTH CAROLINA 27604 NC REGISTERED GEODESIC FIRM C-5889 NC REGISTERED GEOLIC FIRM C-367
	EX. GROUND	

PROJECT REFERENCE NO.		SHEET NO.	
R-5759		2A-13	
ROADWAY DESIGN ENGINEER		PAVEMENT DESIGN ENGINEER	
			
10/12/2026 ASTORIA, OREGON		10/12/2026 OREGON	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

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 6/2/99

8/17/99

STANDARD ROUNDABOUT
SPLITTER ISLAND DETAIL

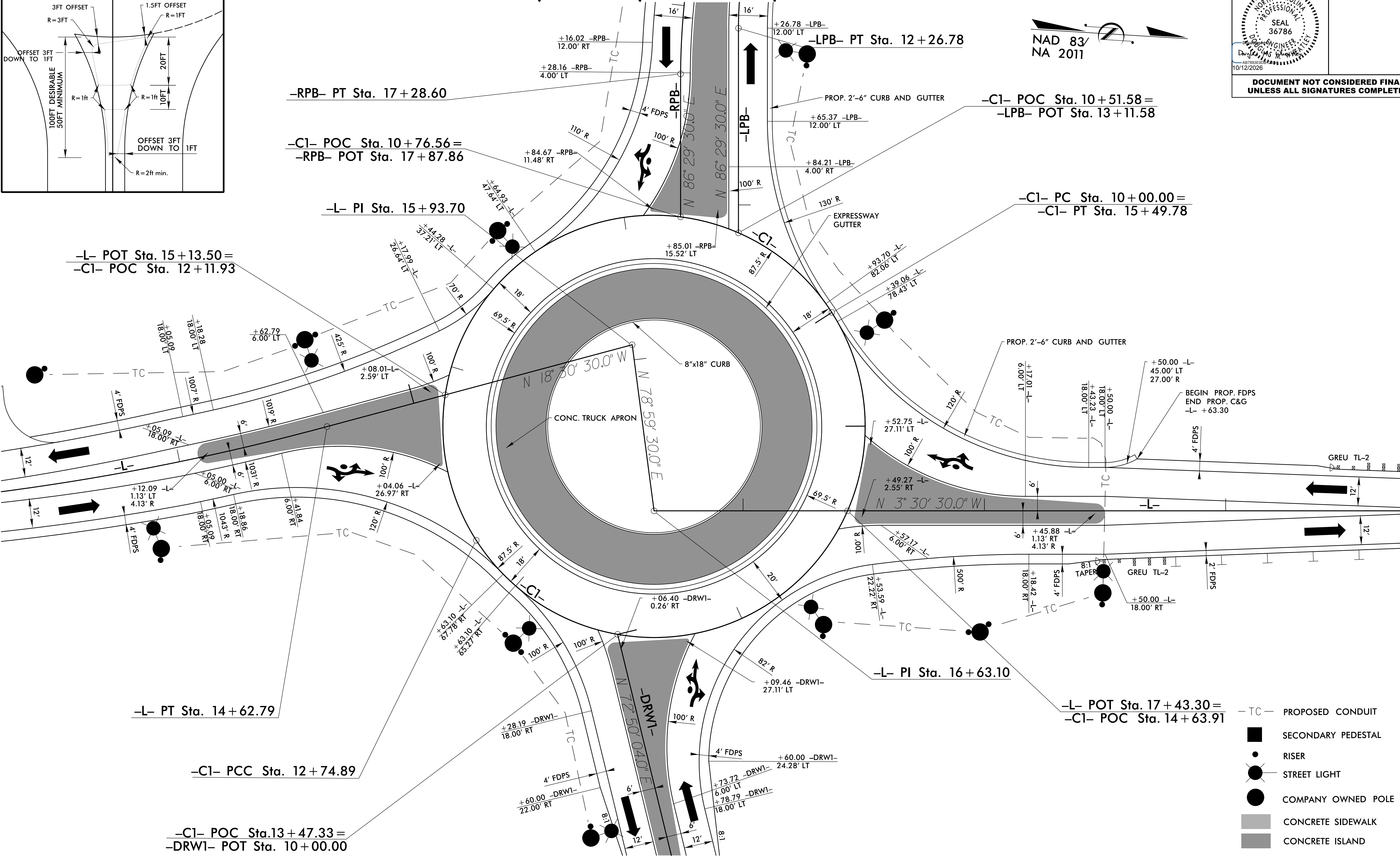
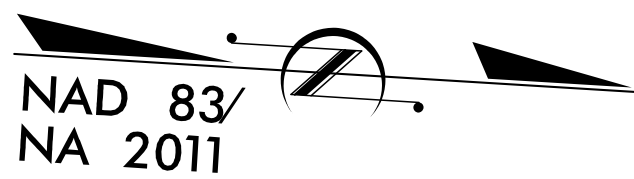


ROUNDABOUT DETAIL AT -L-,
-RPB-, -LPB-, -DRW1-, AND -C1-



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Raleigh, North Carolina 27609
NC License No: C-1554

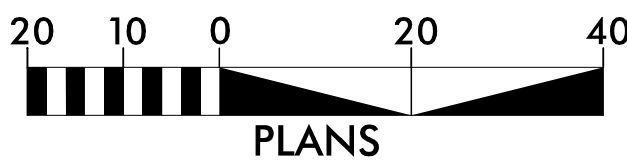
PROJECT REFERENCE NO.	SHEET NO.
R-5759	2B-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
NORTH CAROLINA PROFESSIONAL SEAL 36786 10/12/2026	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



NOTE:

1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. ALL OUTSIDE CURB & GUTTER ARE 2'-6" UNLESS OTHERWISE NOTED.
3. ALL ISLANDS ARE KEYED-IN 5" MONOLITHIC CONCRETE ISLANDS UNLESS OTHERWISE NOTED.
4. SEE PLANS FOR SUPERELEVATION RATES AND LOCATIONS.

FOR -L-, -RPB-, -LPB-, -DRW1-, & -C1- ALIGNMENTS, SEE SHEET 4.
FOR -L- PROFILE, SEE SHEET 19.
FOR -RPB- & -LPB- PROFILES, SEE SHEET 25.
FOR -DRW1- & -C1- PROFILES, SEE SHEET 26.
FOR CONDUIT DETAILS SEE UC-04

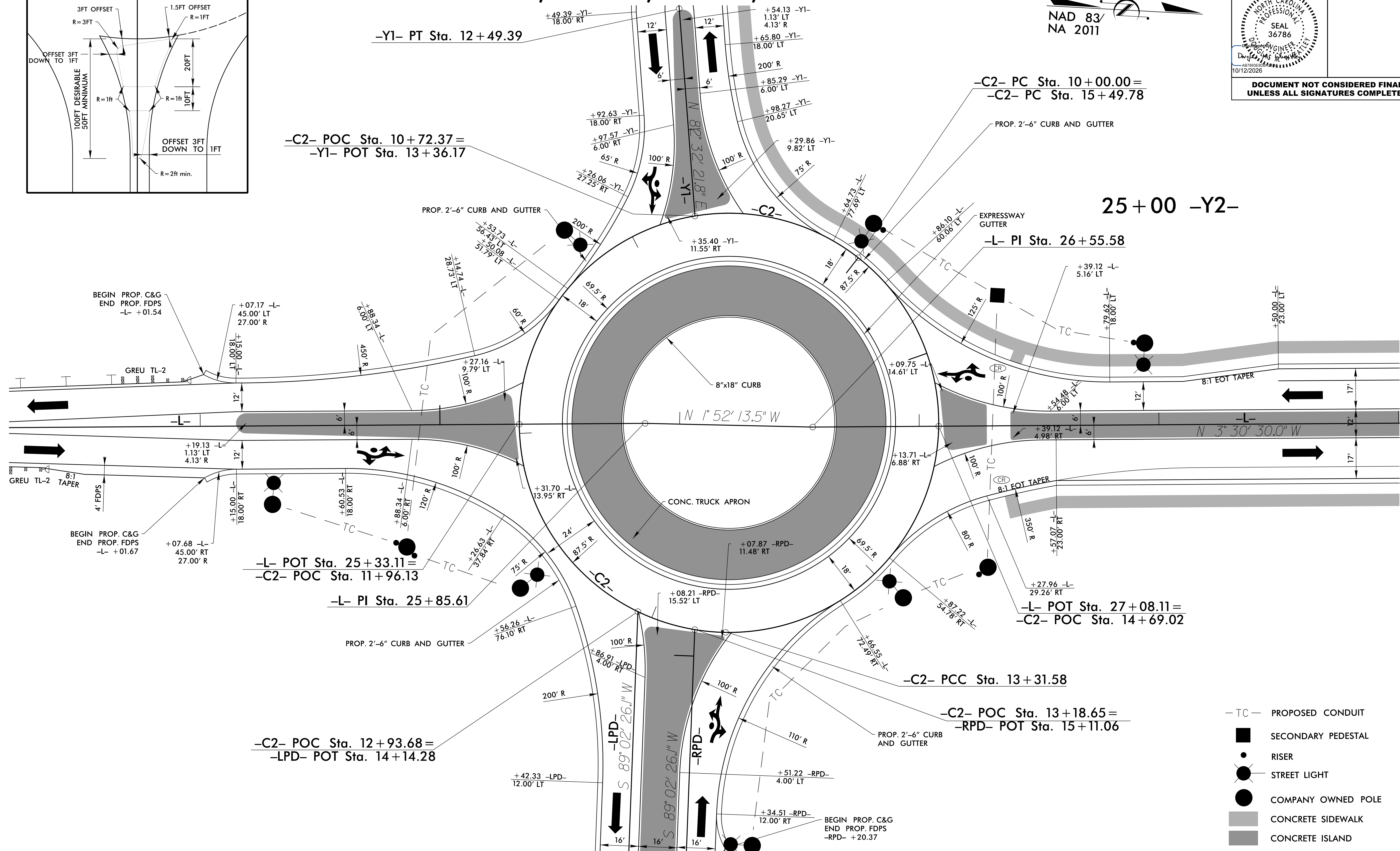


PLANS

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HNTB

NAD 83
NA 2011

— TC —	PROPOSED CONDUIT
	SECONDARY PEDESTAL
	RISER
	STREET LIGHT
	COMPANY OWNED POLE
	CONCRETE SIDEWALK
	CONCRETE ISLAND



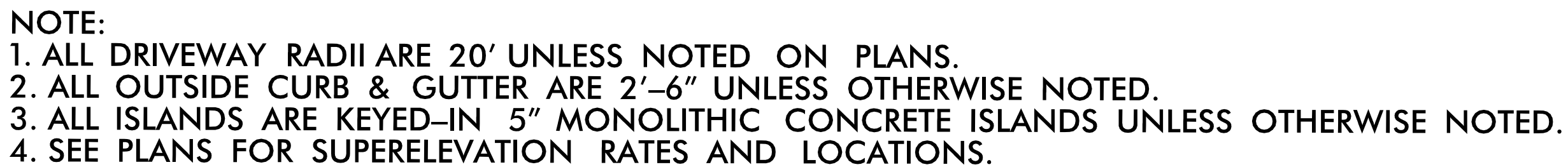
NOTE:

1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. ALL OUTSIDE CURB & GUTTER ARE 2'-6" UNLESS OTHERWISE NOTED.
3. ALL ISLANDS ARE KEYED-IN 5" MONOLITHIC CONCRETE ISLANDS UNLESS OTHERWISE NOTED.
4. SEE PLANS FOR SUPERELEVATION RATES AND LOCATIONS.

FOR -L-, -RPD-, -LPD-, -C2-, & -Y1- ALIGNMENTS, SEE SHEET 5.
FOR -L- PROFILE, SEE SHEET 19.
FOR -RPD- & -LPD- PROFILES, SEE SHEET 27.
FOR -C2- & -Y1- PROFILES, SEE SHEET 28.
FOR CONDUIT DETAILS SEE UC-05

NAD 83
NA 2011

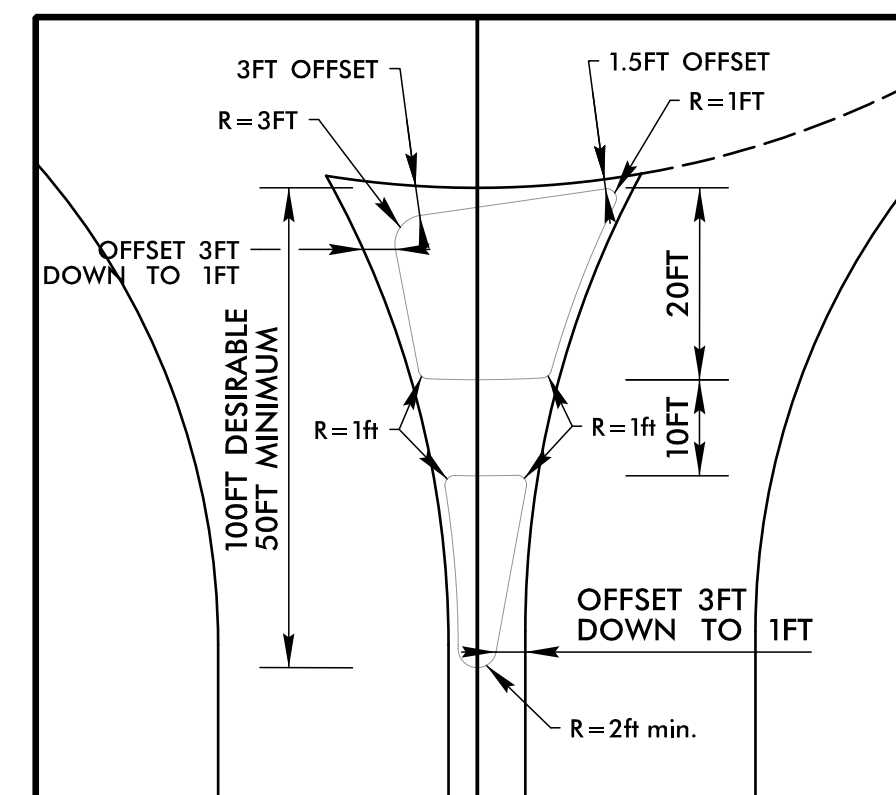
TC —	PROPOSED CONDUIT
	SECONDARY PEDESTAL
	RISER
	STREET LIGHT
	COMPANY OWNED POLE
	CONCRETE SIDEWALK
	CONCRETE ISLAND



FOR -L-, -RPD-, -LPD-, -C2-, & -Y1- ALIGNMENTS, SEE SHEET 5.
FOR -L- PROFILE, SEE SHEET 19.
FOR -RPD- & -LPD- PROFILES, SEE SHEET 27.
FOR -Y2- PROFILE, SEE SHEET 29.
FOR -DRW2- PROFILE, SEE SHEET 30.

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Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554

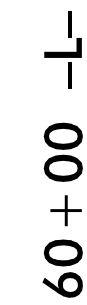
NAD 83/
NA 2011



FOR -L-, -C3-, & -Y4- ALIGNMENTS, SEE SHEET 6.
FOR -L- PROFILE, SEE SHEET 20.
FOR -C3- & -Y4- PROFILES, SEE SHEET 31.
FOR CONDUIT DETAILS SEE UC-06

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NAD 83
NA 2011



- | | |
|---|--------------------|
| — TC — | PROPOSED CONDUIT |
|  | SECONDARY PEDESTAL |
|  | RISER |
|  | STREET LIGHT |
|  | COMPANY OWNED POLE |
|  | CONCRETE SIDEWALK |
|  | CONCRETE ISLAND |

FOR -L- ALIGNMENT, SEE SHEET 7.
FOR -L- PROFILE, SEE SHEET 20.

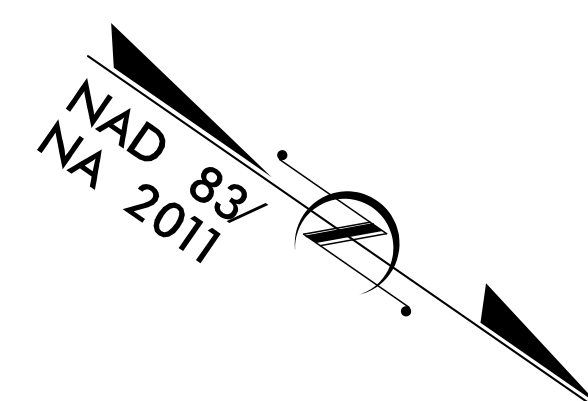
8/17/99

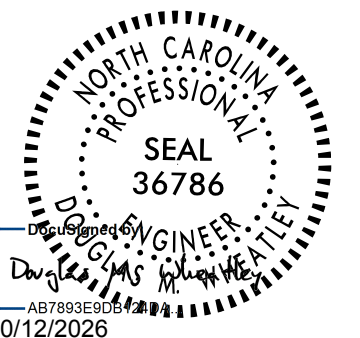
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HNTB

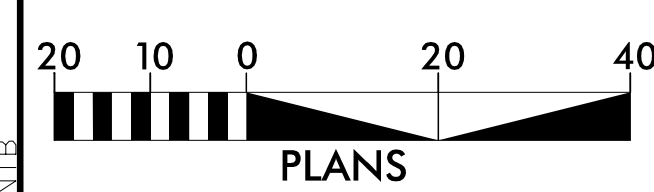
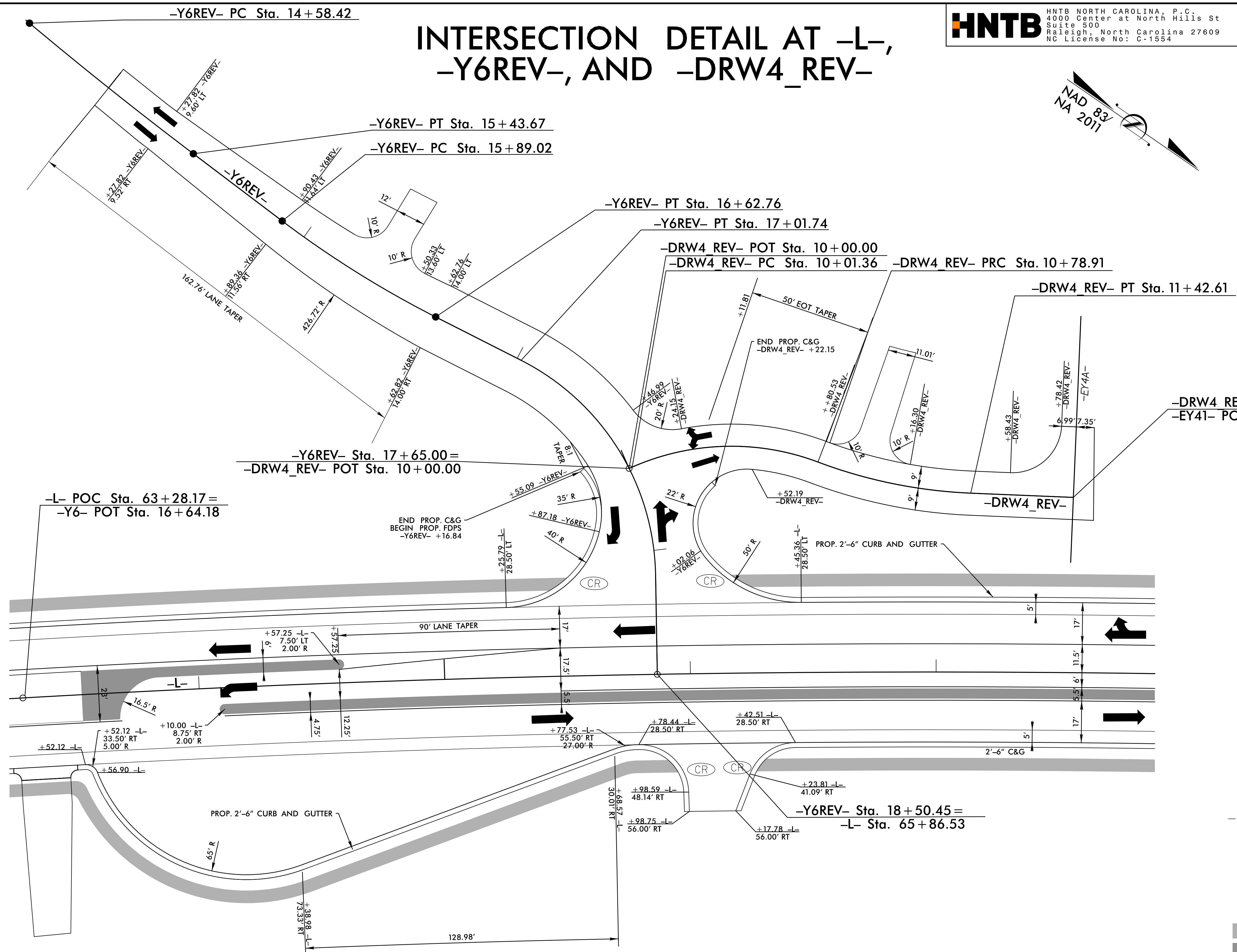
INTERSECTION DETAIL AT -L-, -Y6REV-, AND -DRW4_REV-

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4000 Center at North Hills St
Suite 500
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NC License No: C-1554



PROJECT REFERENCE NO.		SHEET NO.
R-5759		2B-6
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		
		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



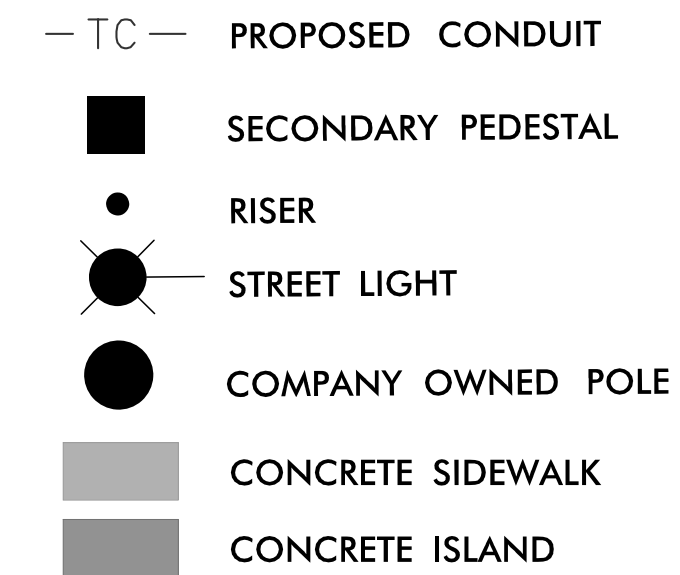
NOTE:
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. ALL OUTSIDE CURB & GUTTER ARE 2'-6" UNLESS OTHERWISE NOTED.
3. ALL ISLANDS ARE KEYED-IN 5" MONOLITHIC CONCRETE ISLANDS UNLESS OTHERWISE NOTED.
4. SEE PLANS FOR SUPERELEVATION RATES AND LOCATIONS.

- TC - PROPOSED CONDUIT
- SECONDARY PEDESTAL
- RISER
- STREET LIGHT
- COMPANY OWNED POLE
- CONCRETE SIDEWALK
- CONCRETE ISLAND

FOR -L-, -Y6REV-, & -DRW4_REV- ALIGNMENTS, SEE SHEET 8.
FOR -L- PROFILE, SEE SHEETS 20 & 21.
FOR -Y6REV- PROFILE, SEE SHEET 32.
FOR -DRW4_REV- PROFILE, SEE SHEET 33.

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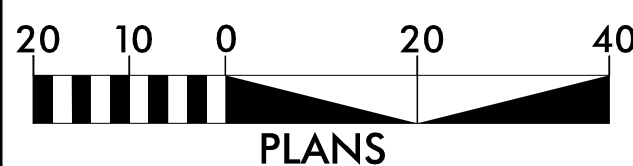
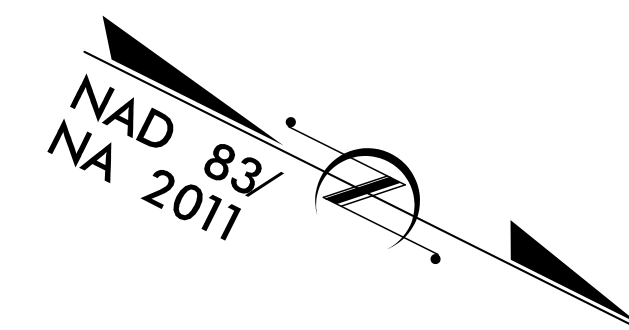
NAD 83
NA 2011



FOR -L- & -Y7- ALIGNMENTS, SEE SHEETS 8 & 9.
FOR -L- PROFILE, SEE SHEET 21.
FOR -Y7- PROFILE, SEE SHEET 33.



PROJECT REFERENCE NO.	SHEET NO.
R-5759	2B-8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



FOR -L- & -DRW8- ALIGNMENTS, SEE SHEETS 9.
FOR -L- PROFILE, SEE SHEET 21.
FOR -DRW8- PROFILE, SEE SHEET 33.

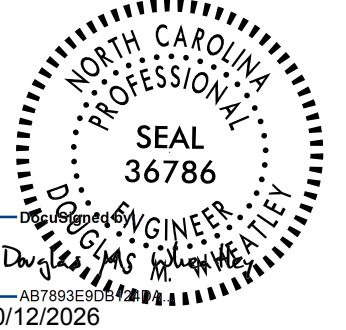
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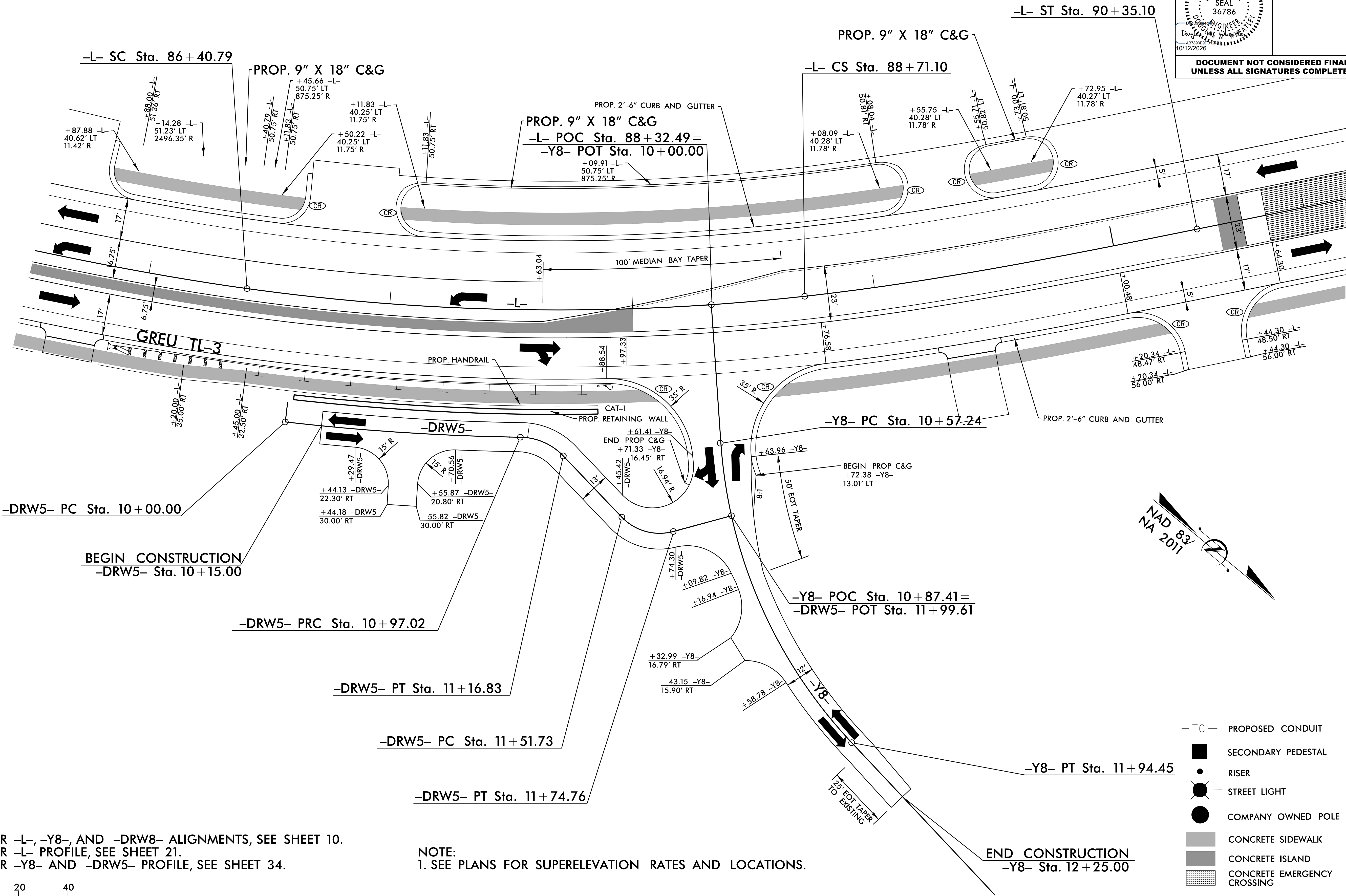
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HNTB

INTERSECTION DETAIL AT -L- AND -Y8-



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NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2B-9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



FOR -L-, -Y8-, AND -DRW5- ALIGNMENTS, SEE SHEET 10.
FOR -L- PROFILE, SEE SHEET 21.
FOR -Y8- AND -DRW5- PROFILE, SEE SHEET 34.

NOTE:
1. SEE PLANS FOR SUPERELEVATION RATES AND LOCATIONS.



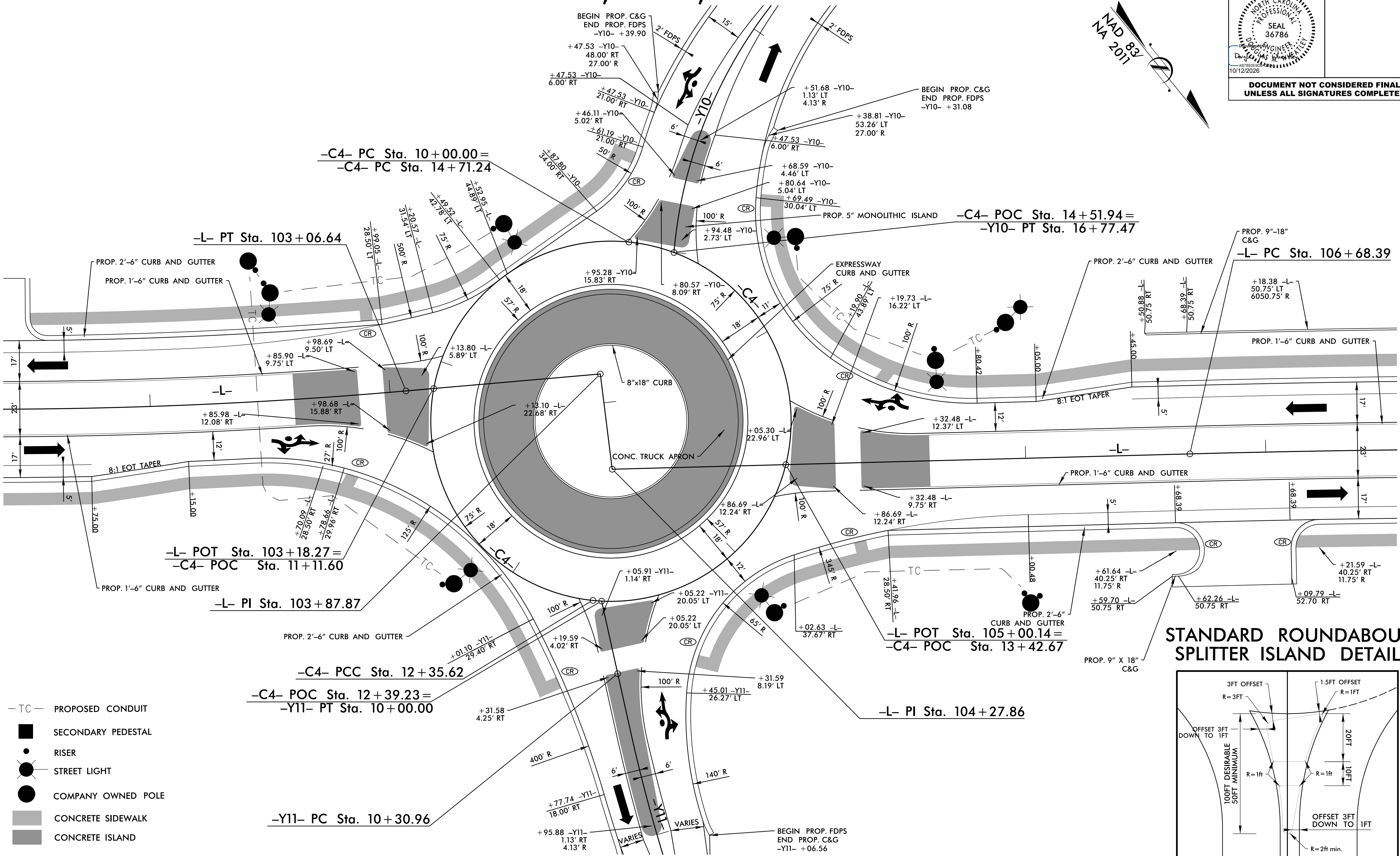
- TC - PROPOSED CONDUIT
- SECONDARY PEDESTAL
- RISER
- STREET LIGHT
- COMPANY OWNED POLE
- CONCRETE SIDEWALK
- CONCRETE ISLAND
- CONCRETE EMERGENCY CROSSING

ROUNABOUT DETAIL AT -L-, -Y10-, -Y11-, AND -C4-



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NC License No: C-1554

PROJECT REFERENCE NO.		SHEET NO.
R-5759		2B-10
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		
NORTH CAROLINA PROFESSIONAL SEAL 36786 DATE: 10/12/2026 David S. McWhorter REGISTERED PROFESSIONAL ENGINEER		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		



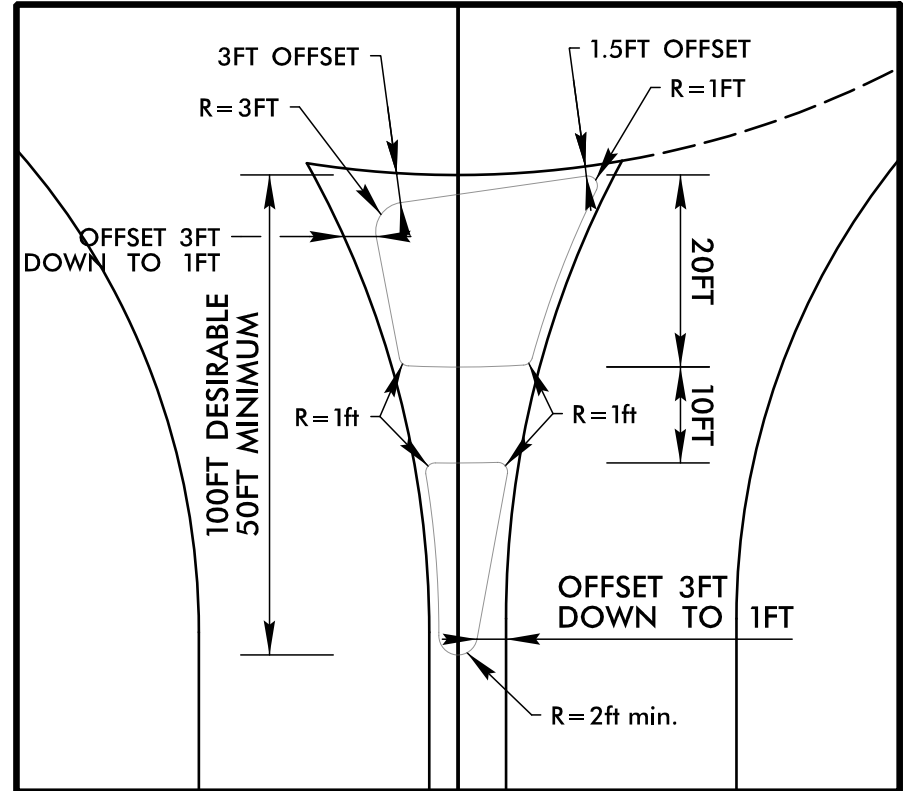
- TC - PROPOSED CONDUIT
- SECONDARY PEDESTAL
- RISER
- STREET LIGHT
- COMPANY OWNED POLE
- CONCRETE SIDEWALK
- CONCRETE ISLAND



NOTE:

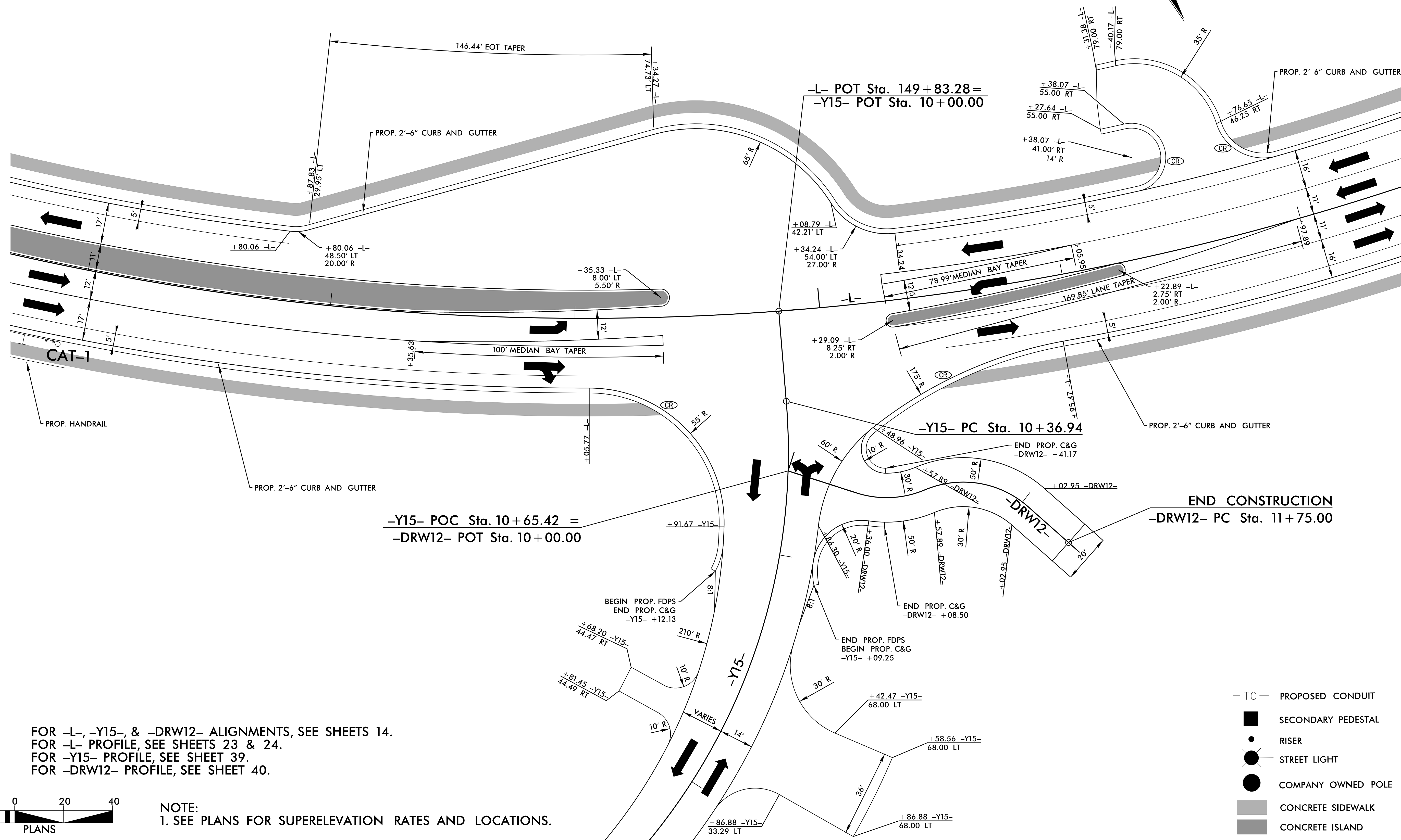
1. ALL DRIVEWAY RADII ARE 20' UNLESS NOTED ON PLANS.
2. ALL OUTSIDE CURB & GUTTER ARE 2'-6" UNLESS OTHERWISE NOTED.
3. ALL ISLANDS ARE KEYED-IN 5" MONOLITHIC CONCRETE ISLANDS UNLESS OTHERWISE NOTED.
4. SEE PLANS FOR SUPERELEVATION RATES AND LOCATIONS.

STANDARD ROUNDABOUT SPLITTER ISLAND DETAIL



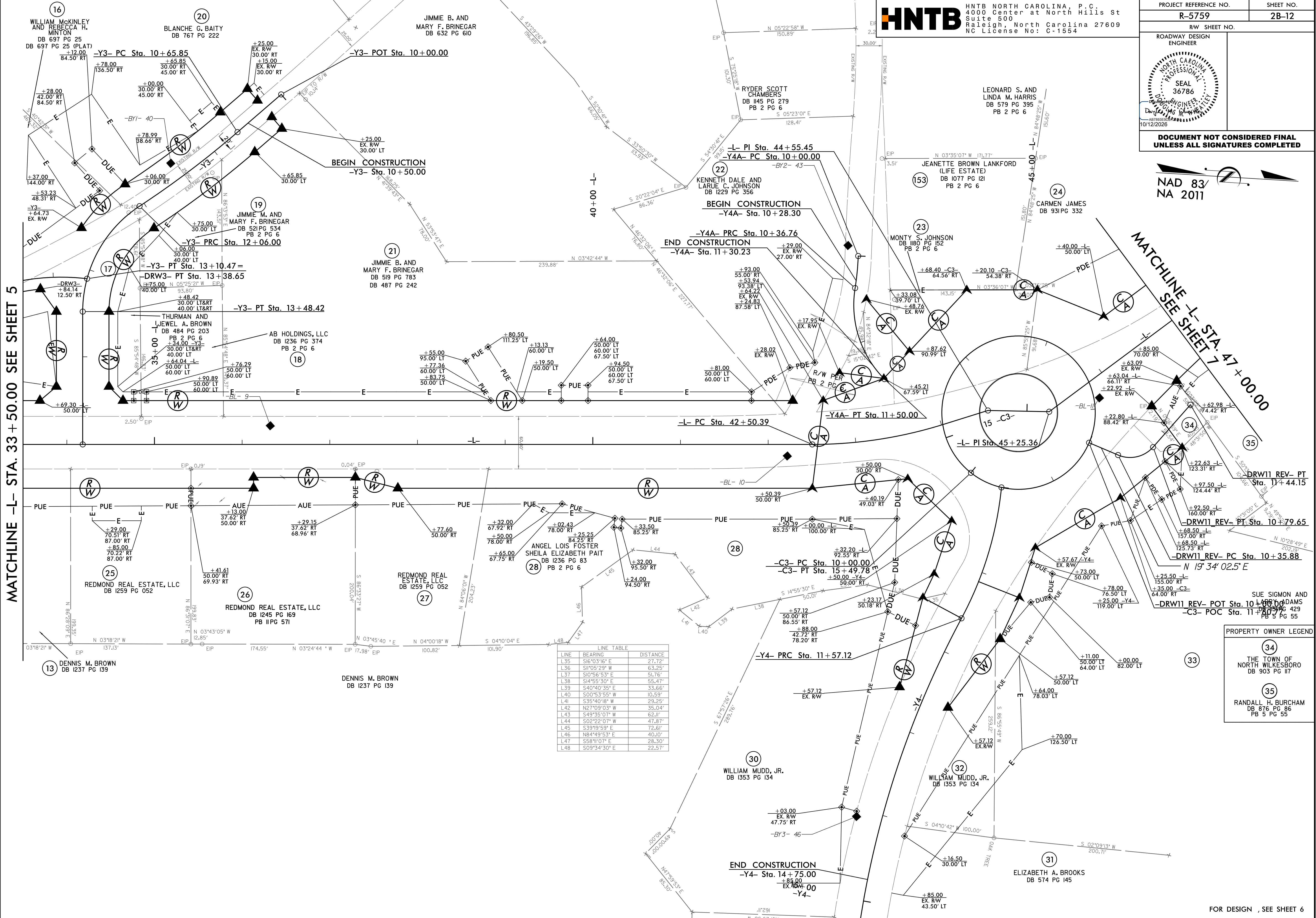
FOR -L-, -Y10-, -Y11 & -C4- ALIGNMENTS, SEE SHEET 11.
FOR -L- PROFILE, SEE SHEET 22.
FOR -Y10- & -Y11- PROFILES, SEE SHEET 36.
FOR -C4- PROFILE, SEE SHEET 37.
FOR CONDUIT DETAILS SEE UC-11

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2B-11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



8/17/2019

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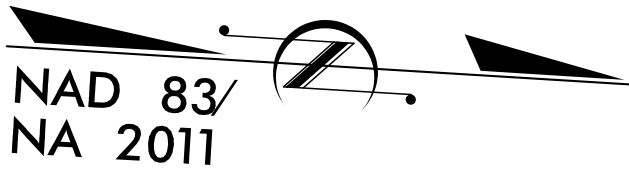
PROJECT REFERENCE NO.
R-5759

SHEET NO.
2B-12

ROADWAY DESIGN
ENGINEER

SEAL
36786
10/12/2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

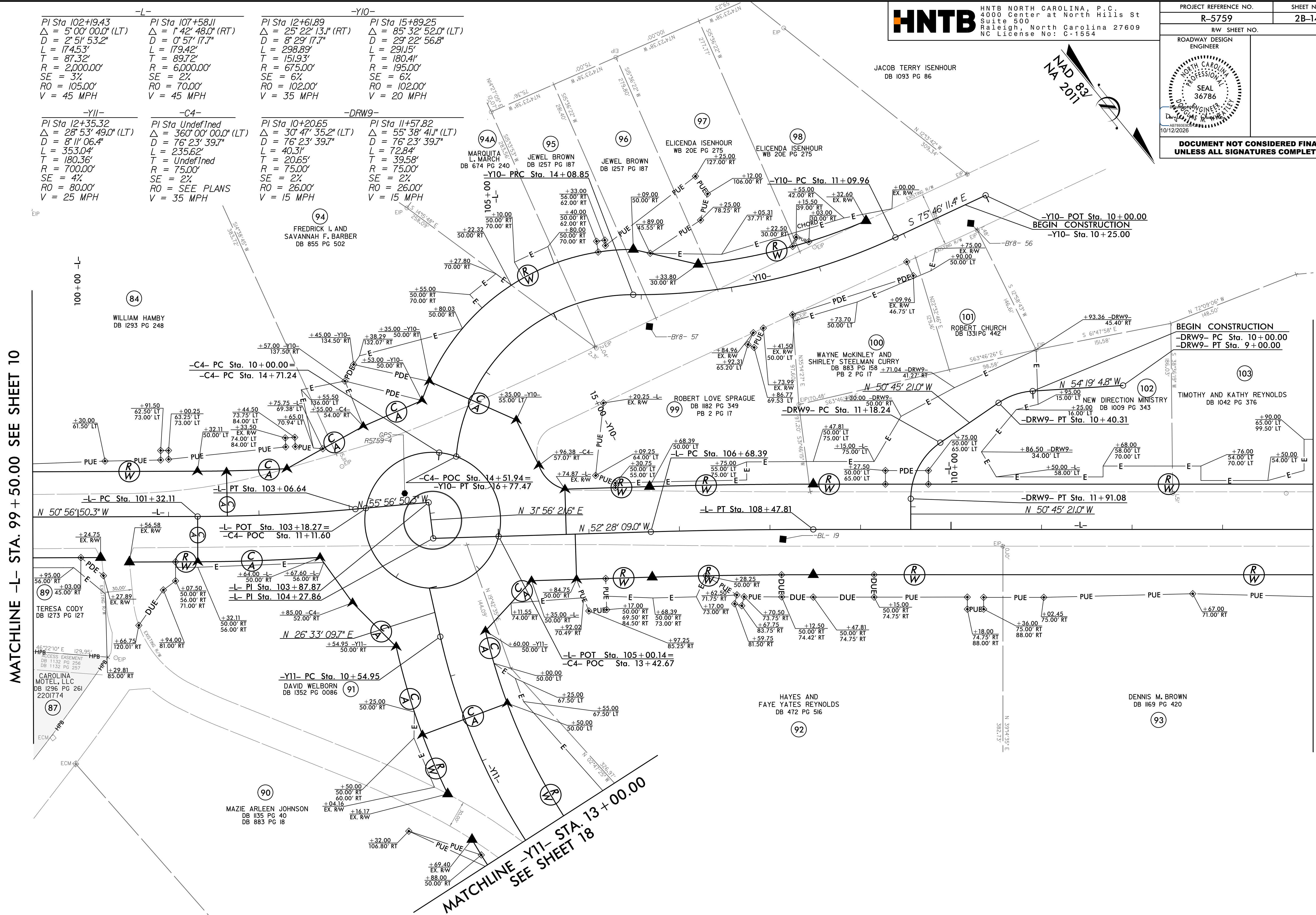


LINE	BEARING	DISTANCE
L35	S16°03'16" E	27.72'
L36	S11°05'29" W	63.25'
L37	S10°56'53" E	51.76'
L38	S14°55'30" E	55.47'
L39	S40°40'35" E	33.66'
L40	S00°53'55" W	10.59'
L41	S35°40'18" W	29.25'
L42	N27°09'03" W	35.04'
L43	S49°35'07" W	62.11'
L44	S02°22'07" W	47.87'
L45	S39°19'59" E	72.61'
L46	N84°49'53" E	40.00'
L47	S58°11'07" E	28.30'
L48	S09°34'30" E	22.57'

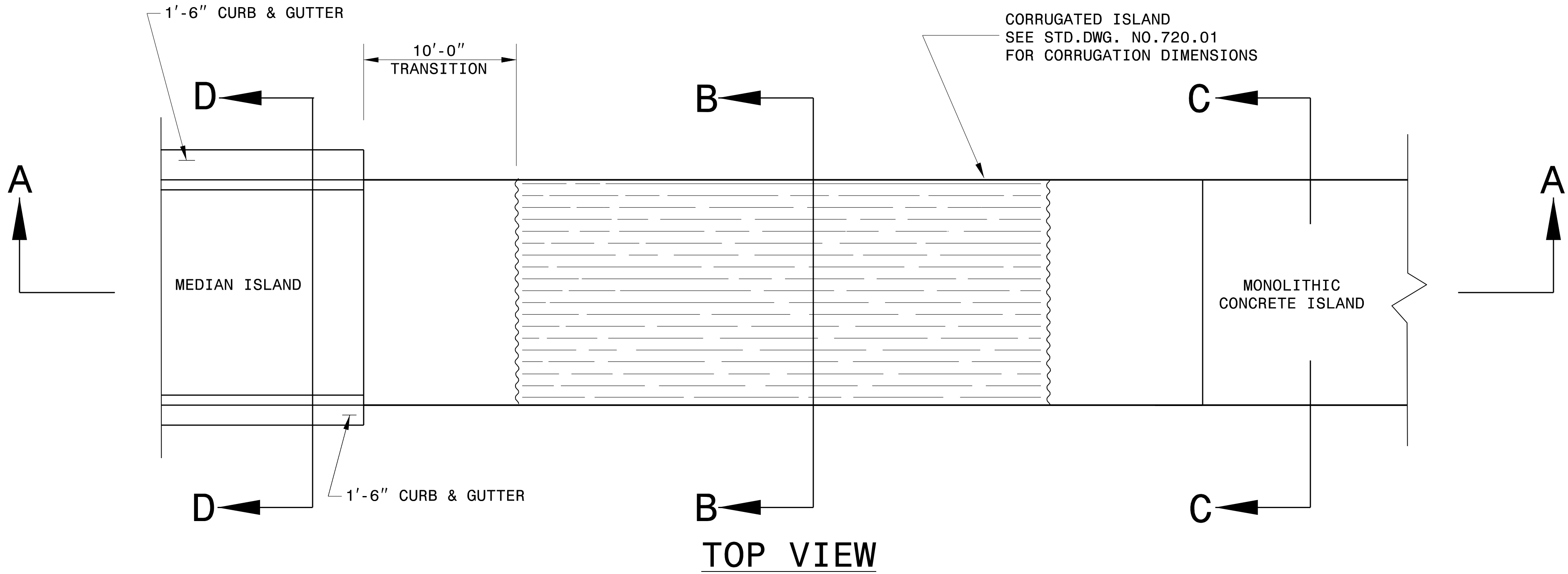


FOR -L- DESIGN, SEE SHEET 10

FOR DESIGN, SEE SHEET 11



PROJECT REFERENCE NO.	SHEET NO.
R-5759	2B-15



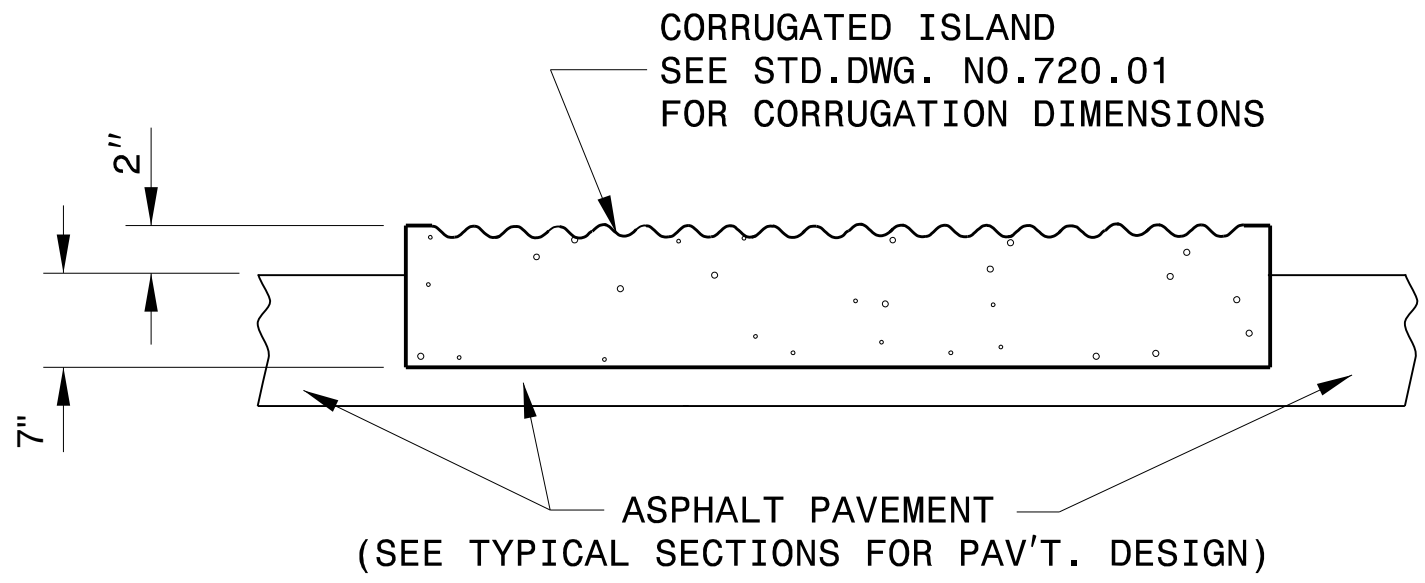
DETAIL OF EMERGENCY VEHICLE ACCESS

NOTES:

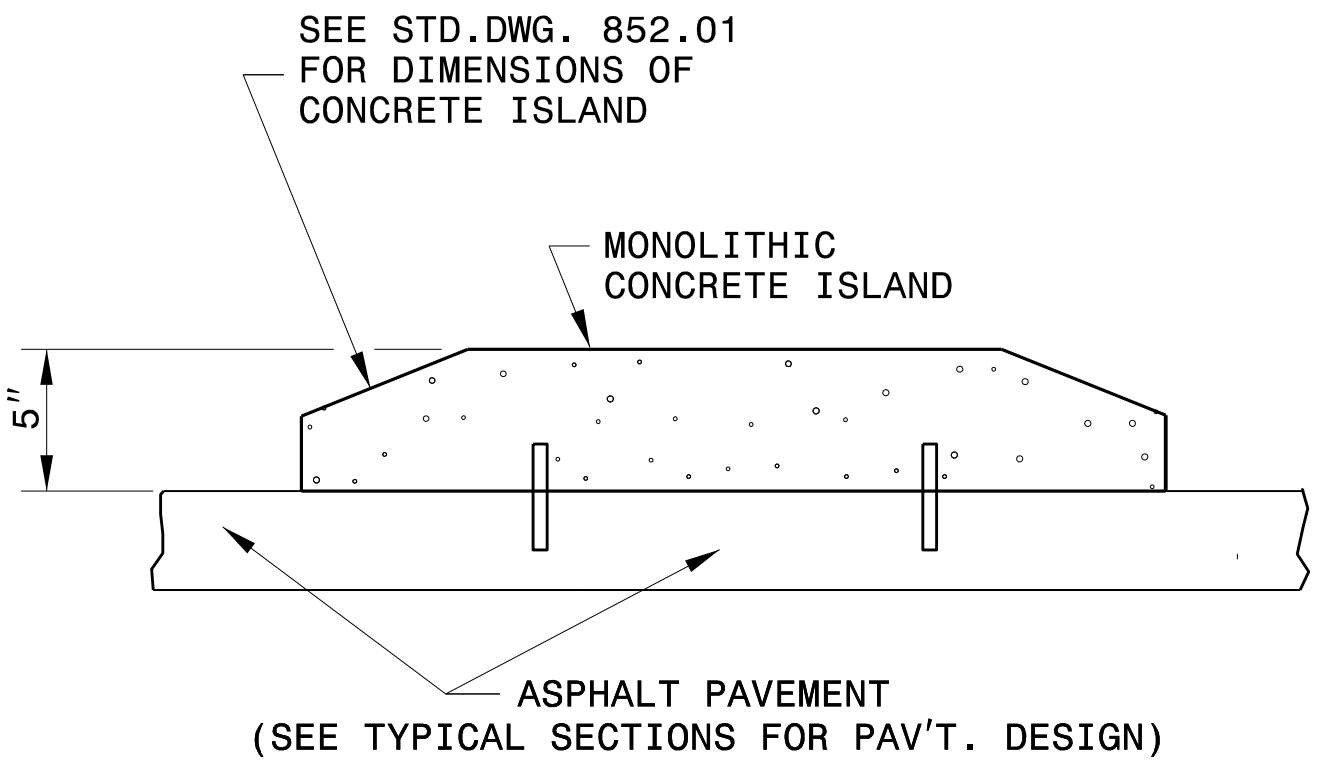
REFER TO SECTION 852 OF STANDARD SPECIFICATIONS FOR CONCRETE ISLANDS.

REFER TO STANDARD DRAWING 852.01 FOR CONTRACTION/EXPANSION JOINTS.

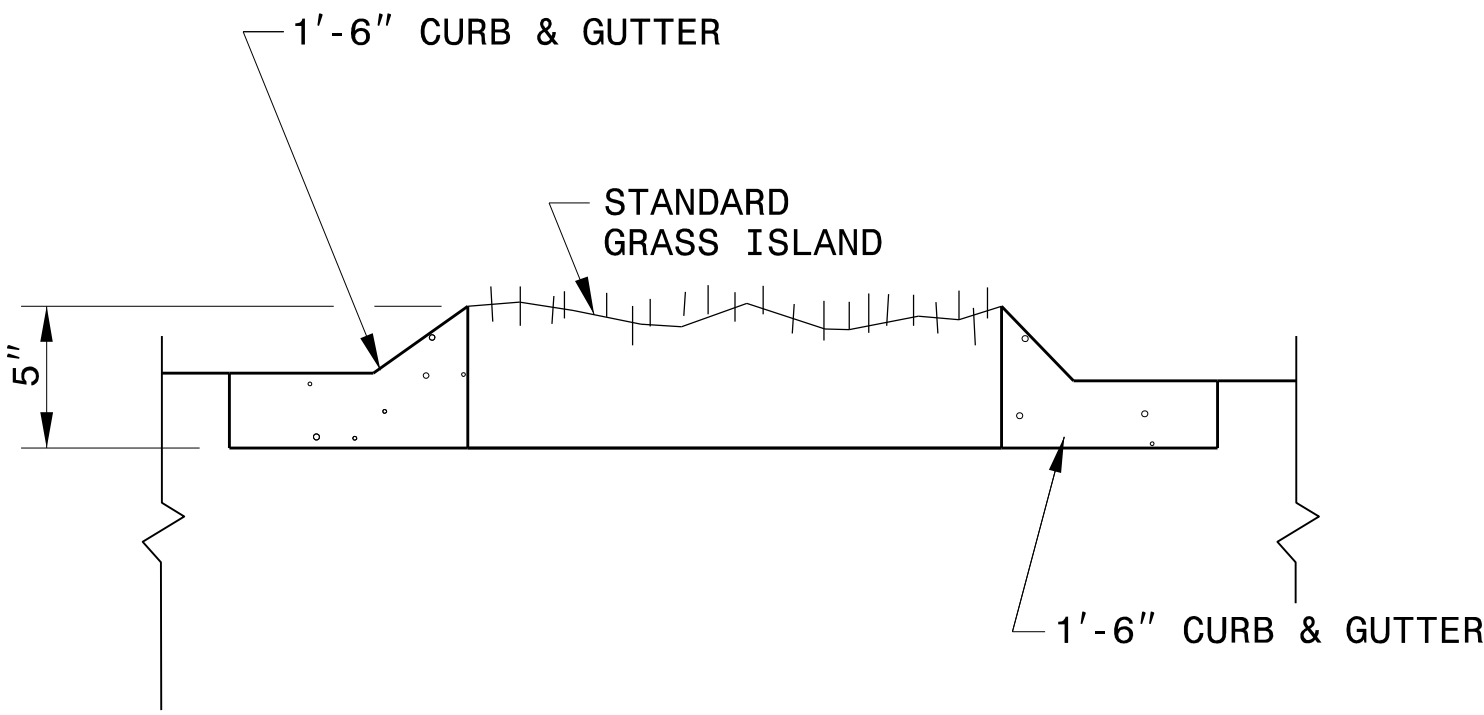
PLACE W6xW6 REINFORCING WIRE MESH IN THE BOTTOM 3RD OF THE EMERGENCY VEHICLE ACCESS PORTION OF THE CONCRETE ISLAND THAT MEETS SECTION 1070 OF THE STANDARD SPECIFICATIONS.



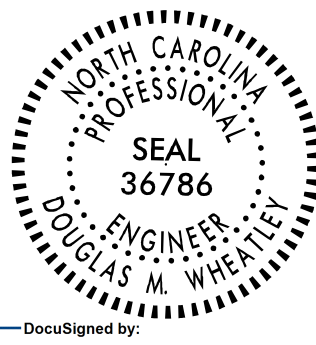
SECTION B-B



SECTION C-C



SECTION D-D



DocuSigned by:
Douglas M. Wheatley
4876885826124DA...
10/12/2026

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Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554

**EMERGENCY VEHICLE ACCESS
FOR CONCRETE ISLAND**

6/2/99

FINAL PAVEMENT SCHEDULE	
A1	12" MONOLITHIC CONCRETE APRON REINFORCED WITH 4X4 W3.5 X W3.5 OR 6X6 W5 X W5 WIRE MESH
A2	8" CONCRETE SLAB REINFORCED WITH #4 REBAR @ 16" ON CENTER EACH WAY
C1	PROP. 1.5" ACSC, TYPE S9.5C
C2	PROP. 2.5" ACSC, TYPE S9.5C
C3	PROP. 3" ACSC, TYPE S9.5C
C4	PROP. VAR DEPTH ACSC, TYPE S9.5C
D1	PROP. 2.5" ACIC, TYPE I19.0C
D2	PROP. 4" ACIC, TYPE I19.0C
D3	PROP. VAR. DEPTH ACIC, TYPE I19.0C
E1	PROP. 4" ACBC, TYPE B25.0C
E2	PROP. 4.5" ACBC, TYPE B25.0C
E3	PROP. VAR. DEPTH ACBC, TYPE B25.0C
J1	PROP. 6" AGGREGATE BASE COURSE.
J2	PROP. 8" AGGREGATE BASE COURSE.
J3	PROP. 7" AGGREGATE BASE COURSE
K1	PROP 8" CLASS IV SUBGRADE STABILIZATION.
N1	GEOTEXTILE FOR SUBGRADE STABILIZATION.
P1	PRIME COAT.
R1	2'-6" CONCRETE CURB AND GUTTER.
R2	1'-6" CONCRETE CURB AND GUTTER.
R3	2'-9" CONCRETE CURB AND GUTTER.
R4	EXPRESSWAY GUTTER.
R5	9" X 18" CONCRETE CURB.
R6	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
R7	2'-0" CONCRETE CURB AND GUTTER
R8	8" X 18" CONCRETE CURB.
S	4" CONCRETE SIDEWALK.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V1	MILLING PAVEMENT 3".
V2	RETAINING WALL.
W	VARIABLE DEPTH ASPHALT PAVEMENT. (SEE DETAIL SHOWING METHOD OF WEDGING No. 1 ON SHEET 2A-1)

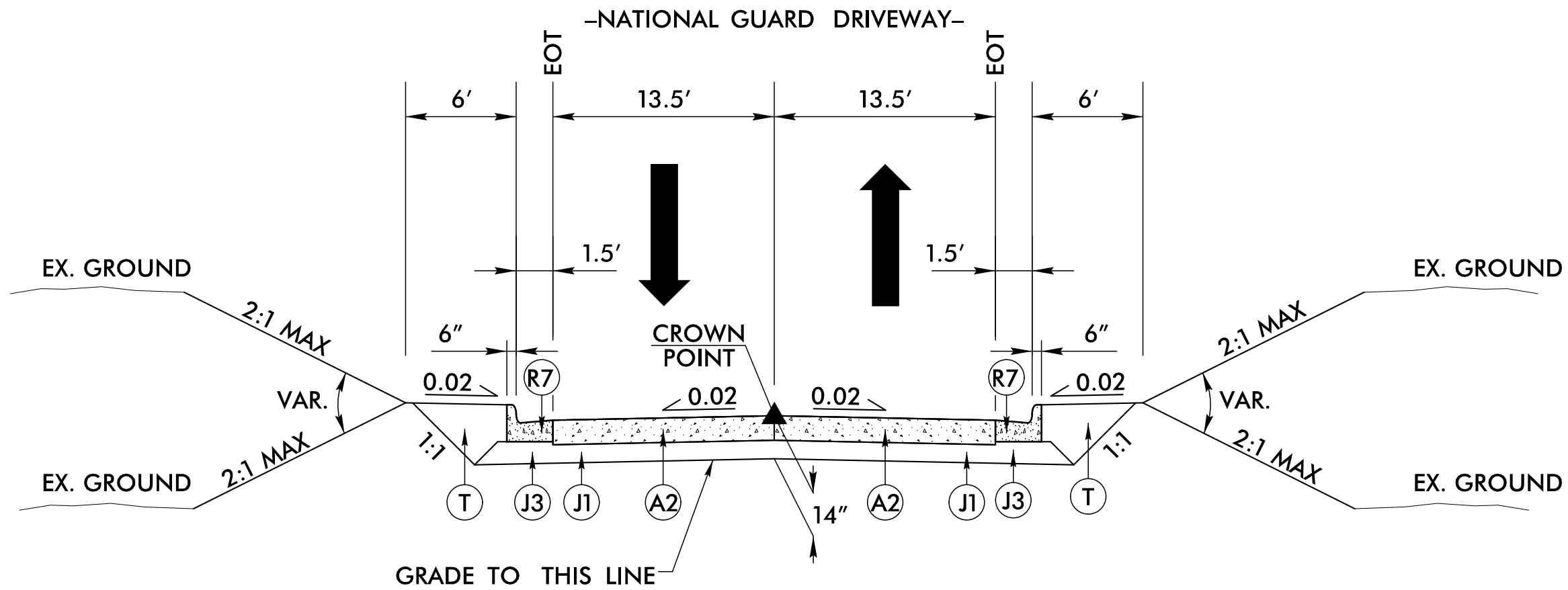
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

07-AUG-2026 09:39
\\Roadway\Proj\R-5759_RDY_PSH02B-16.dgn
UNITD

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Suite 500
Raleigh, North Carolina 27609
NC License No: C-1554

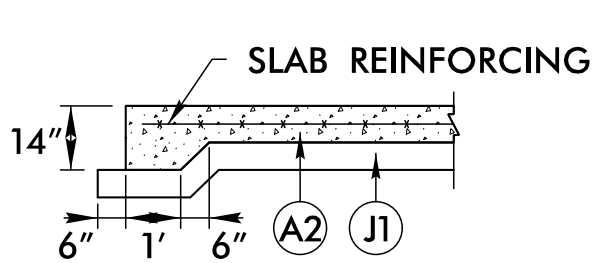
PROJECT REFERENCE NO.		SHEET NO.	
R-5759		2B-16	
ROADWAY DESIGN ENGINEER			
			
10/12/2026			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

PARCEL 141 (NATIONAL GUARD) DRIVEWAY DETAIL SHEET

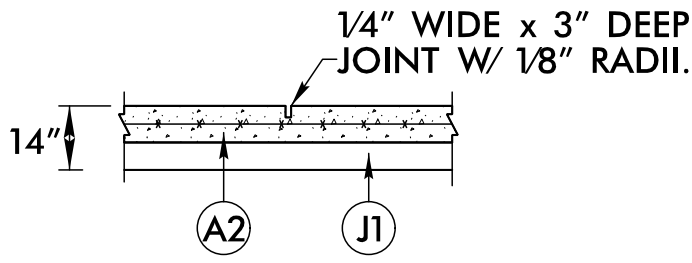


TYPICAL SECTION

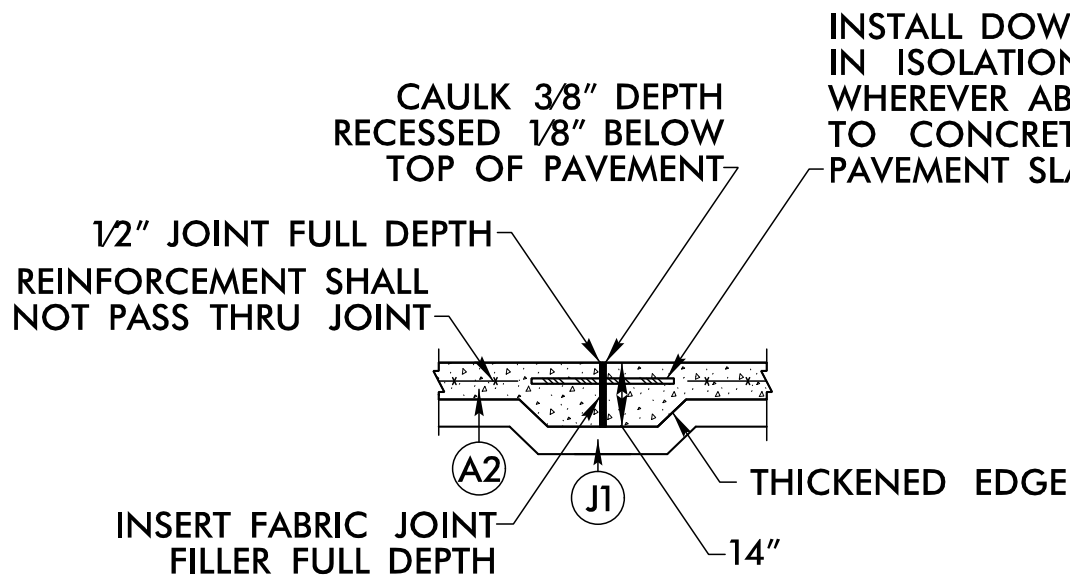
NATIONAL GUARD DRIVEWAY AT
-Y15- STA. 13+00.70 LT.



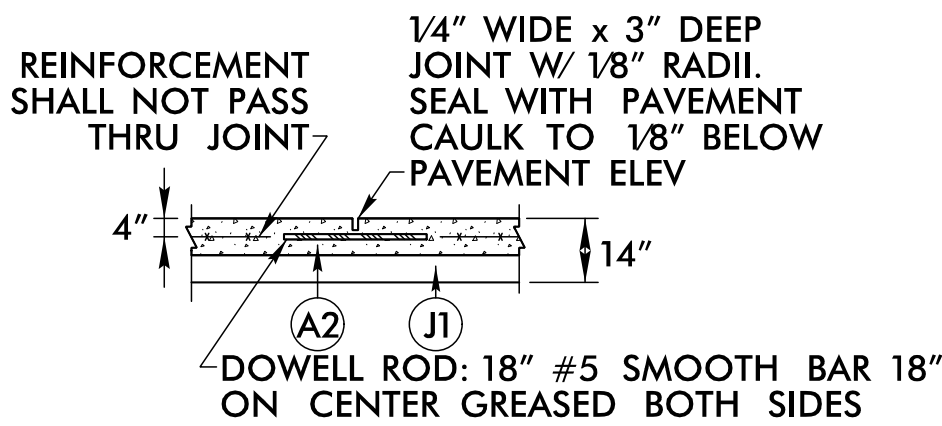
TYPICAL THICKENED EDGE



TYPICAL CONTRACTION JOINT



TYPICAL ISOLATION (EXPANSION) JOINT



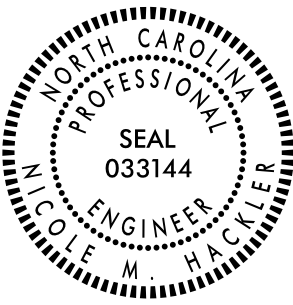
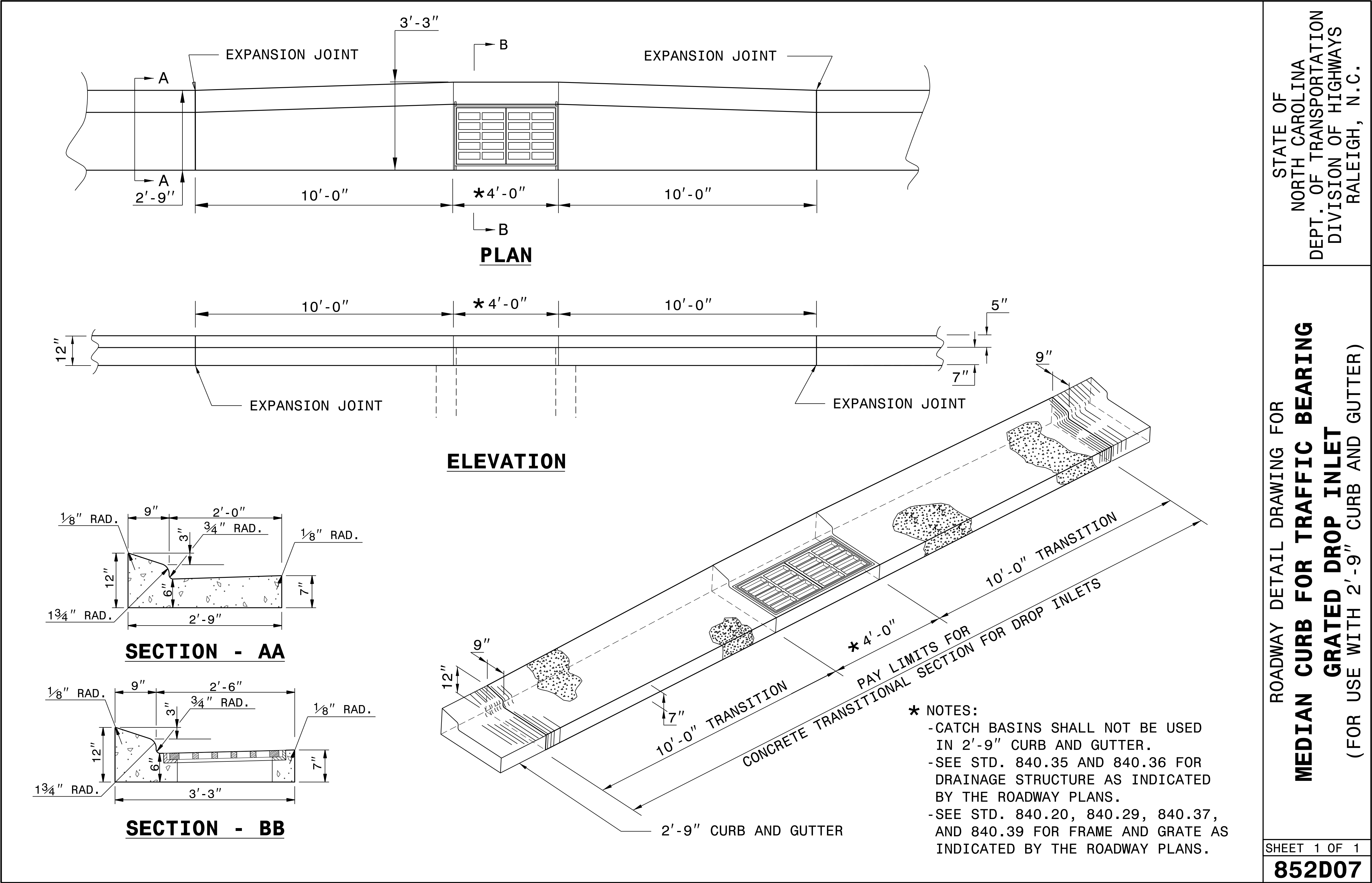
TYPICAL CONSTRUCTION JOINT

CONCRETE PAVEMENT DETAILS

NOTES:

1. THE CONTRACTOR SHALL SUBMIT A WRITTEN PLAN BEFORE PLACEMENT OF CONCRETE TO OUTLINE HIS/HER PLAN FOR INSTALLATION OF JOINTS AND DOWELS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
2. ALL CONCRETE PAVEMENT SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI MIN. (ASTM C39)
3. CONTRACTION JOINTS: SHALL BE SPACED AT 10' ON CENTER EACH WAY MAX. OR AS INDICATED ON THE PLAN, EXCEPT WHERE EXPANSION AND CONSTRUCTION JOINTS ARE LOCATED. REFER TO SPECIFICATION (321313) FOR ADDITIONAL INFORMATION.
4. ISOLATION (EXPANSION) JOINTS: FORM ISOLATION JOINTS OF PREFORMED JOINT FILLER STRIPS ABUTTING CONCRETE CURBS, CATCH BASINS, MANHOLES, INLETS, STRUCTURES, WALKS, OTHER FIXED OBJECTS, AND WHERE INDICATED. INSTALL DOWEL RODS IN ISOLATION JOINTS WHEREVER ABUTTING TO CONCRETE PAVEMENT SLABS.
5. CONSTRUCTION JOINTS: SET CONSTRUCTION JOINTS AT SIDE AND END TERMINATIONS OF PAVING AND AT LOCATIONS WHERE PAVING OPERATIONS ARE STOPPED FOR MORE THAN ½ HOUR, UNLESS PAVING TERMINATES AT ISOLATION JOINTS. INSTALL DOWEL RODS 18-IN ON CENTER ALONG CONSTRUCTION JOINTS.
6. DOWEL RODS: DOWEL RODS SHALL BE EPOXY COATED AND PLACED AT 18-IN ON CENTER EPOXY COATED DOWEL BASKETS ARE AN ACCEPTABLE ALTERNATIVE. SUBMIT FOR SHOP DRAWING REVIEW.
7. FABRIC JOINT FILLER AND CAULK SEALANT: INSTALL AT ALL ISOLATION JOINTS AND THICKENED EDGES.
8. INSTALL THICKENED EDGES ALONG ALL EDGES/SIDES OF CONCRETE PAVEMENT.

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-1



Signed by:
Nicole M. Hacker
5884323034164CS

10/8/2026

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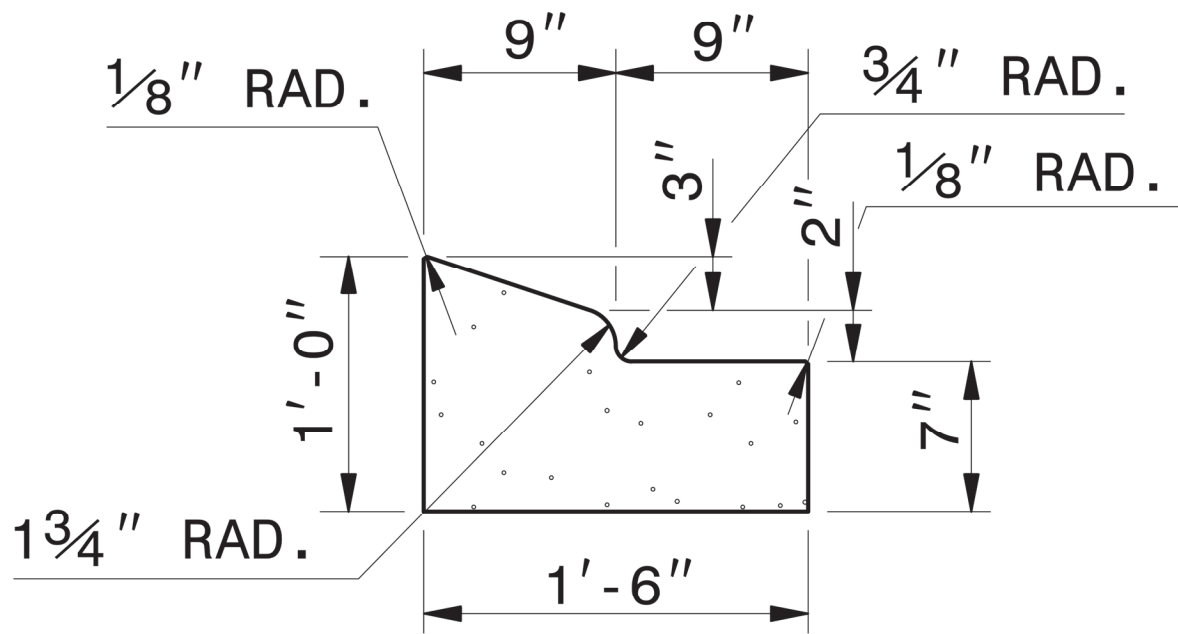
**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

ORIGINAL BY: K.A. KEMPF DATE: 7-20-23
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: 2024 details in lieu\852D0701.dgn

5/14/99

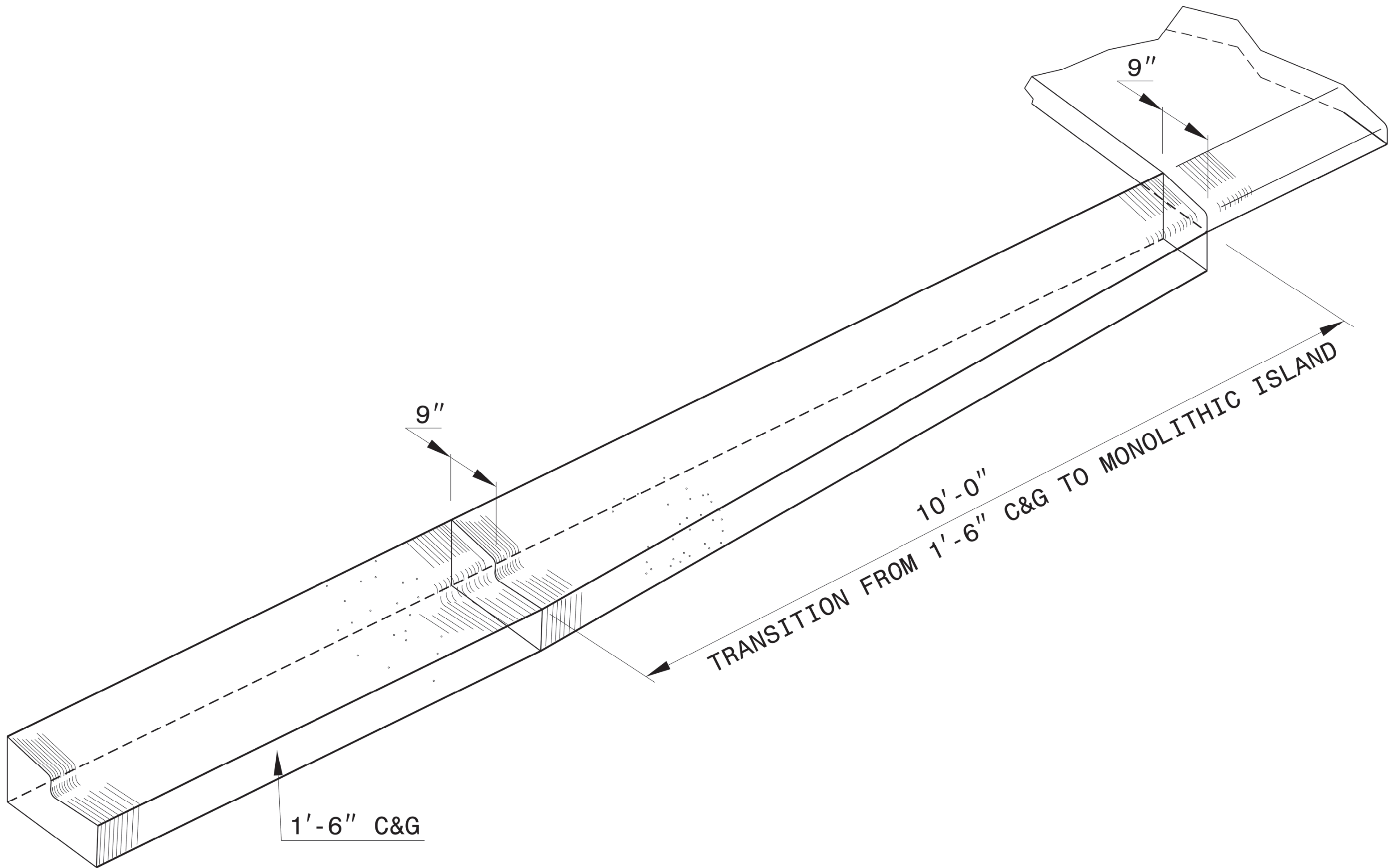
PROJECT	REFERENCE NO.	SHEET NO.
	R-5759	2C-2



NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.

1'-6" CURB AND GUTTER



ISOMETRIC VIEW OF TRANSITIONING CURB & GUTTER



Signed by
Nicola M. Hatcher

10/8/2026

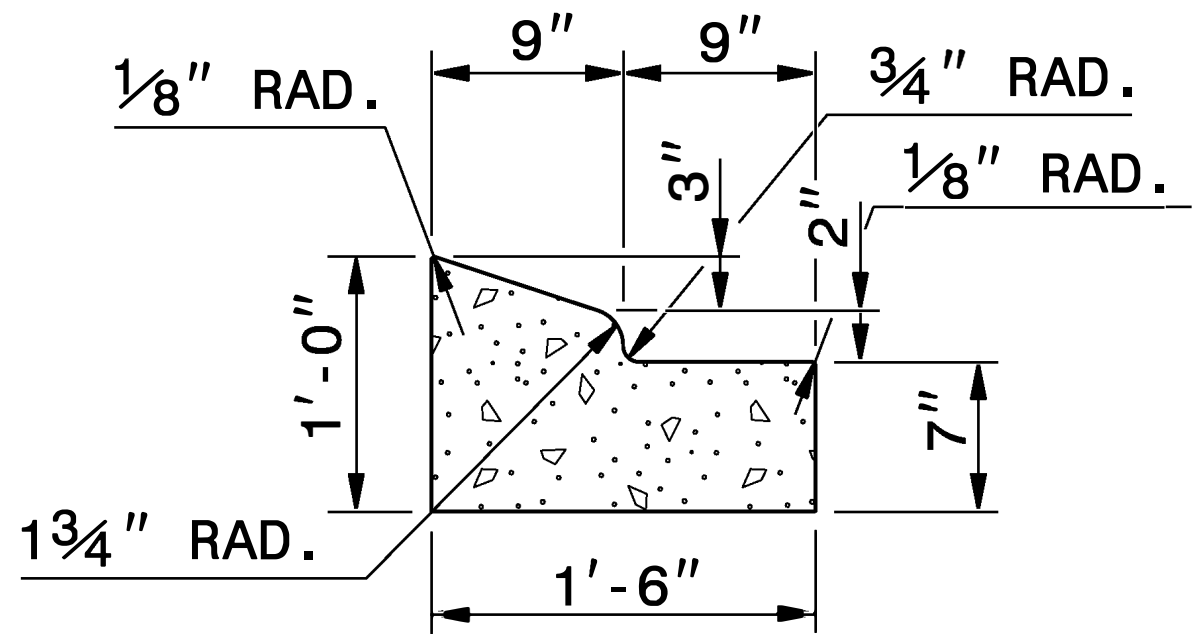
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

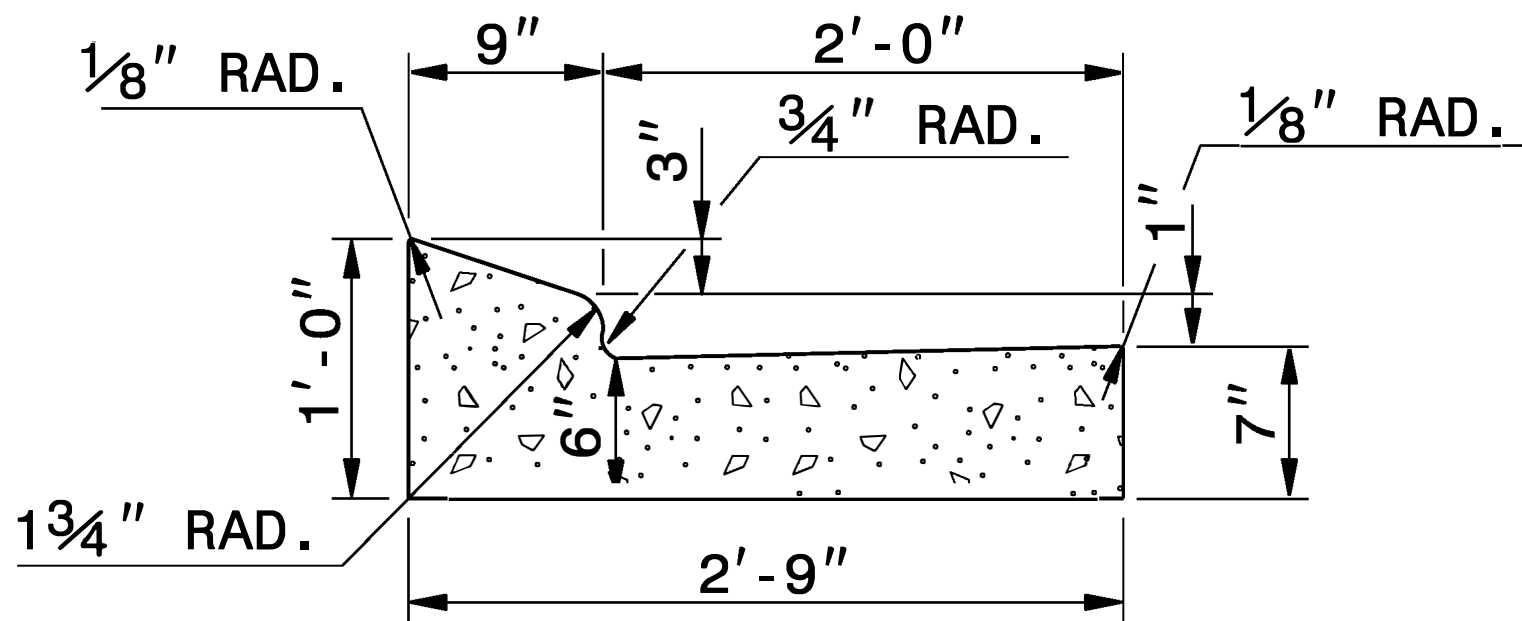
DETAIL OF 1'-6" CURB & GUTTER TRANSITION SECTION

ORIGINAL BY:	DATE:
MODIFIED BY: KKEMPF	DATE: 09-24-14
CHECKED BY:	DATE:
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PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-3



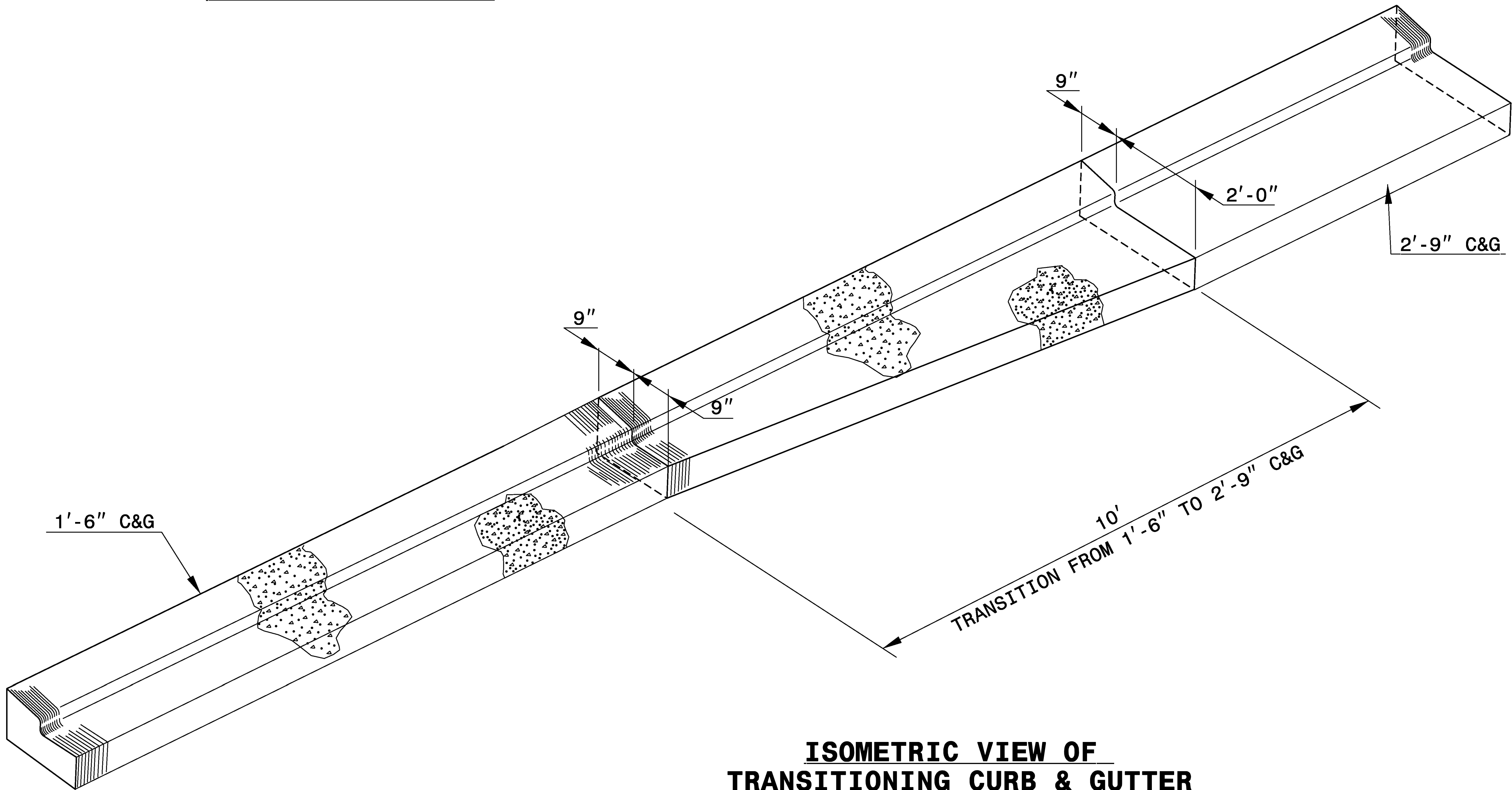
1'-6" CURB AND GUTTER



2'-9" CURB AND GUTTER

NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



ISOMETRIC VIEW OF
TRANSITIONING CURB & GUTTER



Signed by:
Nicole M. Heckler
5884323034164C5

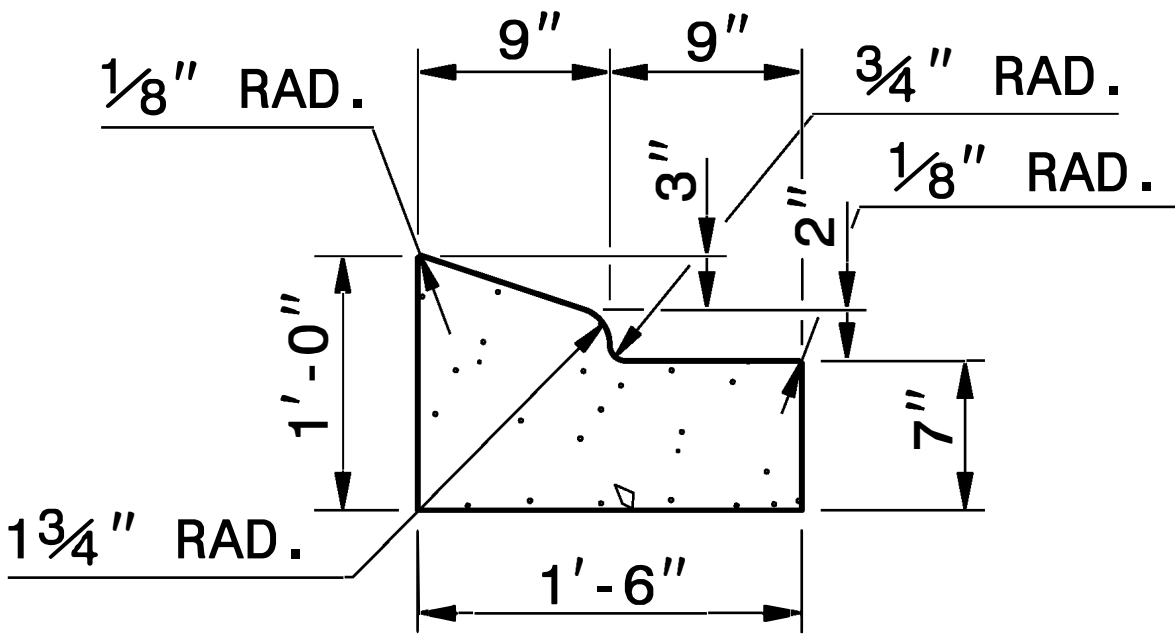
10/8/2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

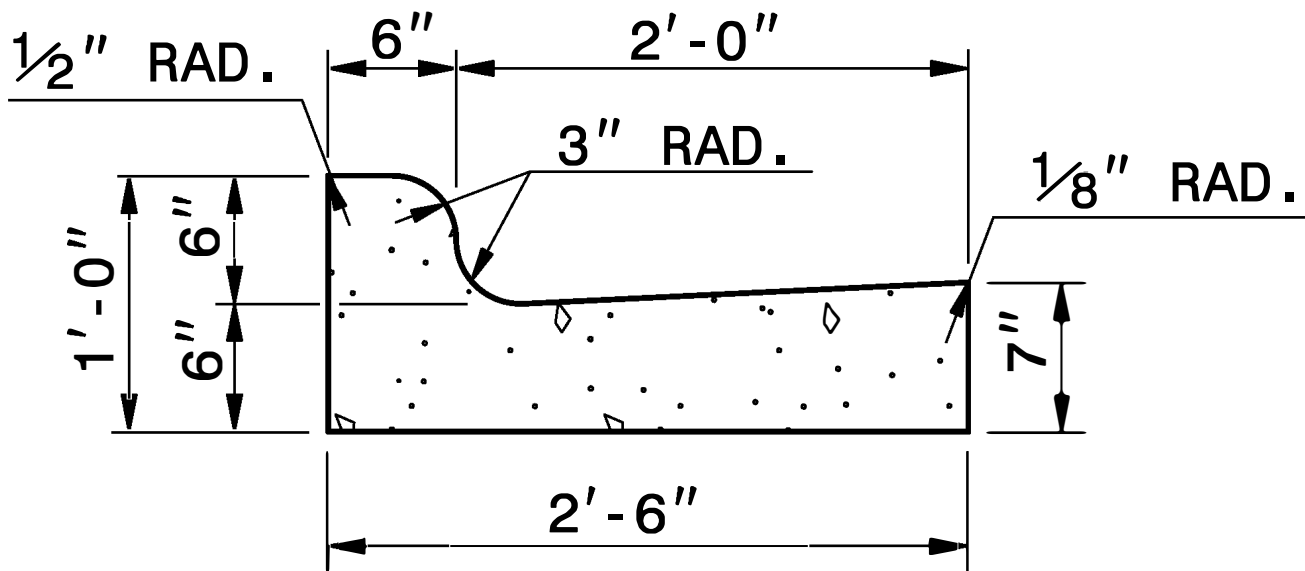
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
DETAIL OF 1'-6" TO 2'-9" CURB & GUTTER TRANSITION SECTION	
ORIGINAL BY: T.S.SPELL	DATE: NOV. 26, 2001
MODIFIED BY: T.S.SPELL	DATE: JAN. 23, 2007
CHECKED BY:	DATE:
FILE SPEC.: DS174:/usr/details/stand/cqtransit.dgn	

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-4



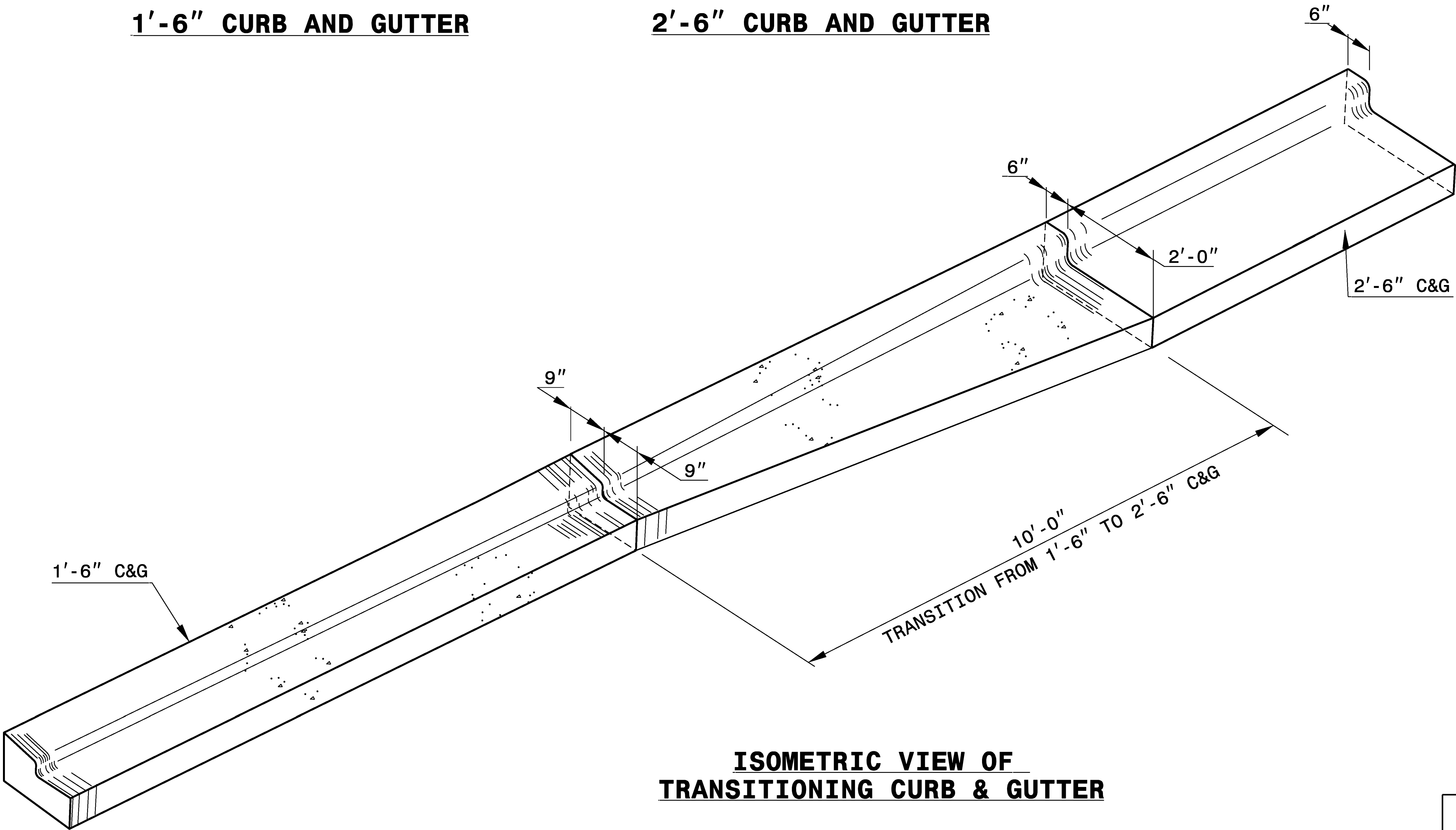
1'-6" CURB AND GUTTER



2'-6" CURB AND GUTTER

NOTE: SEE STD. DWG. 846.01 FOR ADDITIONAL CURB AND GUTTER INFORMATION.

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



**ISOMETRIC VIEW OF
TRANSITIONING CURB & GUTTER**



Signed by:
Nicole M. Hunkler
58843232034164C5

10/8/2026

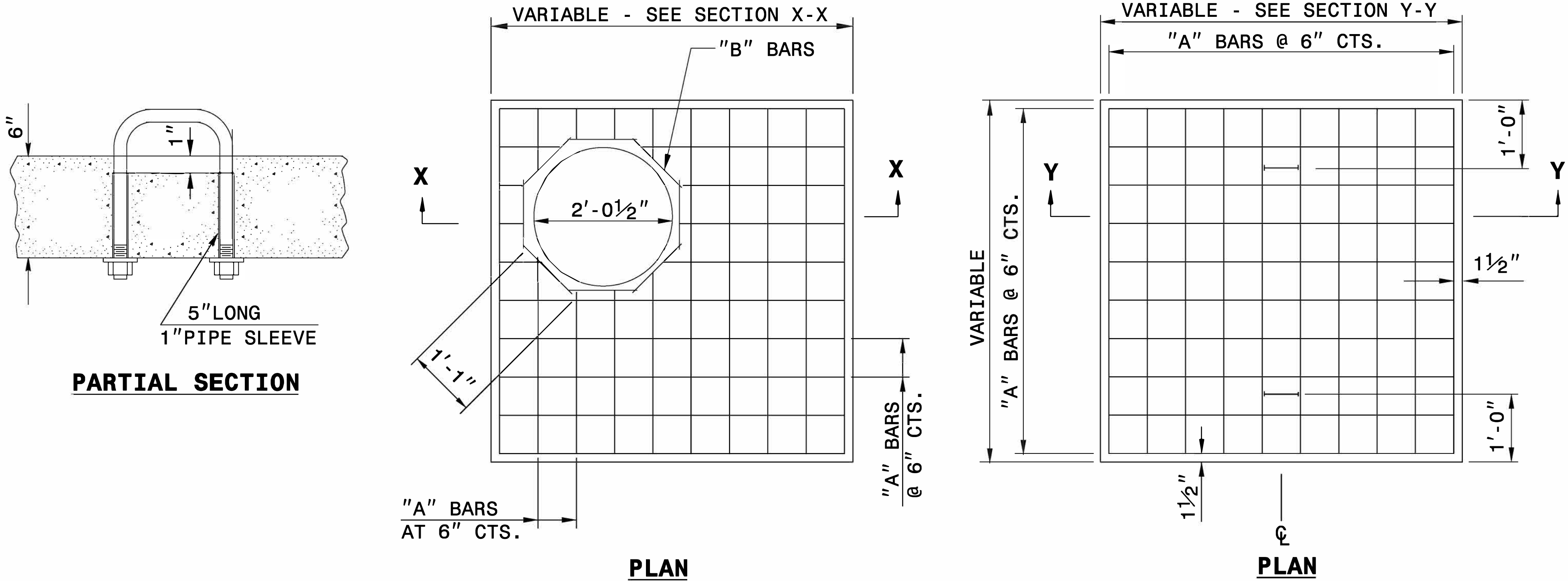
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

DETAIL OF 1'-6"
TO 2'-6" CURB & GUTTER
TRANSITION SECTION

ORIGINAL BY: T.S. SPELL DATE: MARCH 3, 2000
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: _DS174:/usr/details/stand/cgtransit.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-5



GENERAL NOTES:

CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.

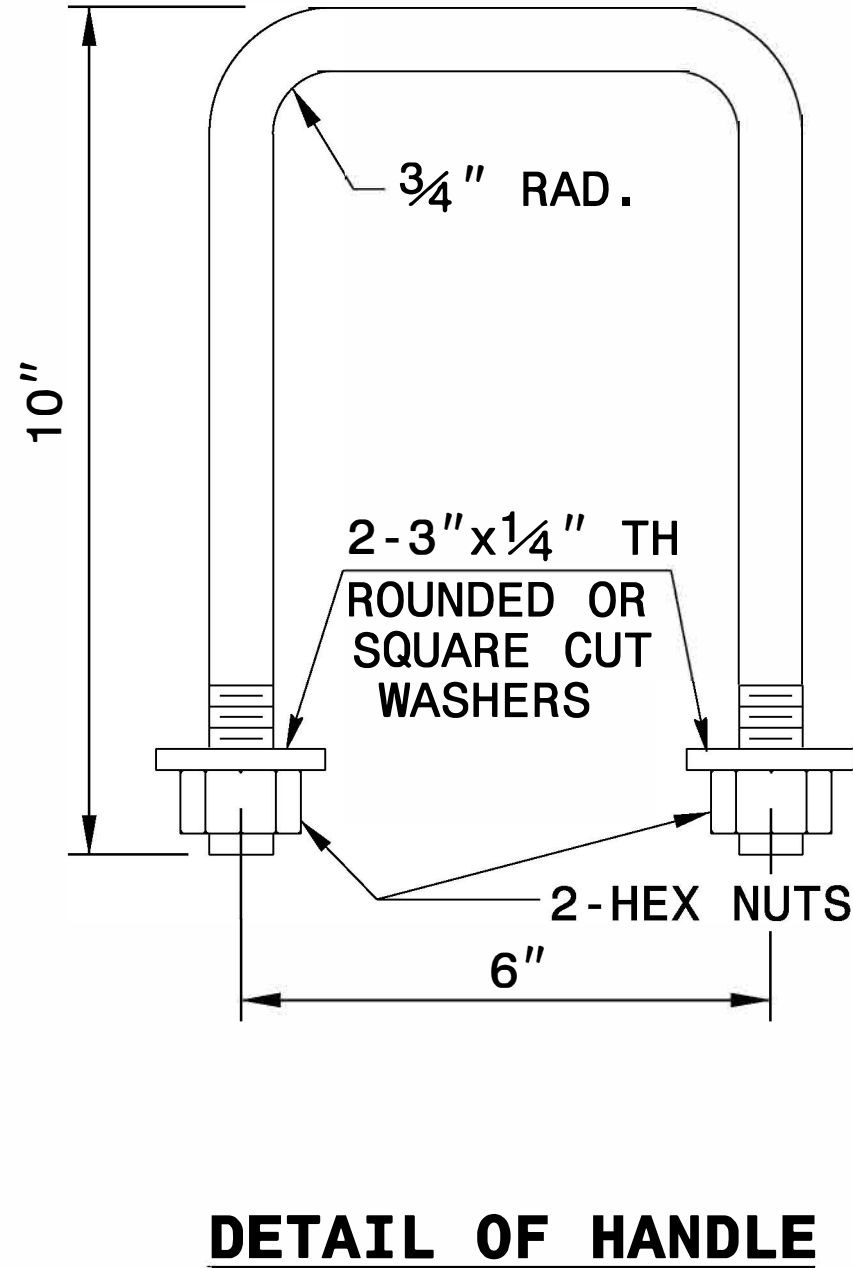
THE DIMENSIONS FOR THE EXISTING BOXES ARE APPROXIMATE AND MAY VARY SLIGHTLY.

DETAIL INTENDED FOR NON-TRAFFIC BEARING DRAINAGE STRUCTURES.

BILL OF MATERIALS

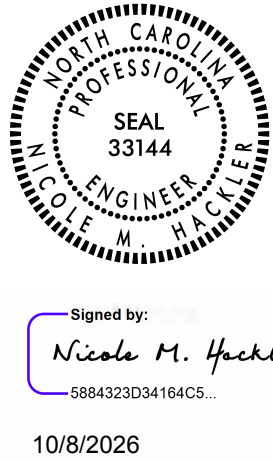
REINFORCING STEEL				
CODE	SIZE	QTY.	LENGTH	REINF. STEEL LBS.
A	#4	20	4'-6"	60.12
B	#4	8	1'-1"	5.79
TOTAL				65.91 *
MASONRY				CU YDS
TOP SLAB CONCRETE CLASS "B"				.4326 *
BRICK MASONRY PER FT HT (MIN)				.4111

*** NOTE:**
QUANTITIES BASED ON 3'-6" X 3'-6" DRAINAGE STRUCTURE. ADJUST QUANTITIES FOR LARGER STRUCTURES AND MANHOLE CONSTRUCTION.



SECTION X-X

SECTION Y-Y



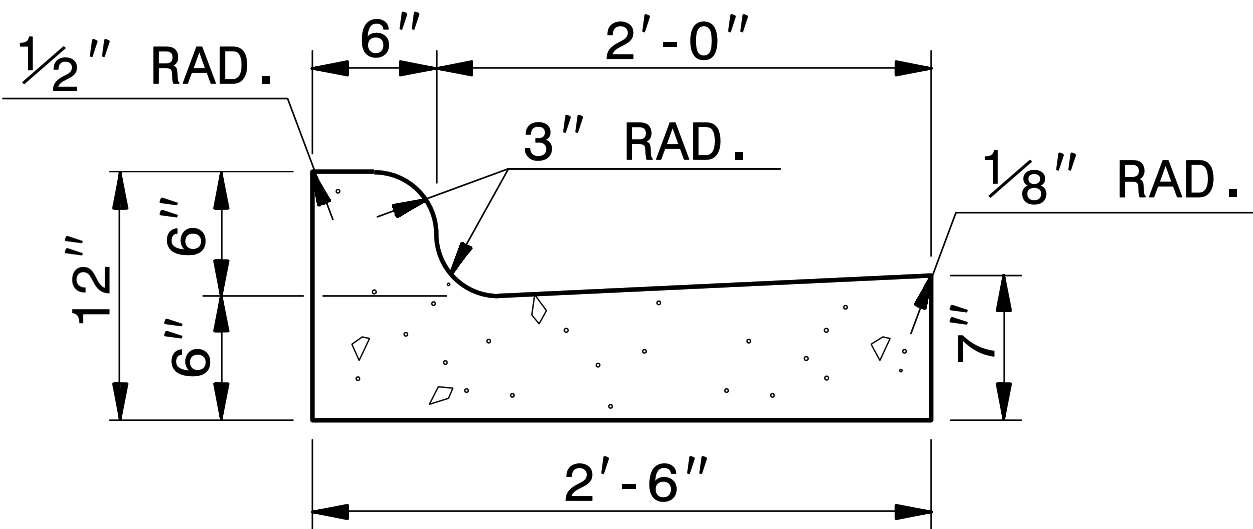
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
DETAIL TO CONVERT EXISTING DI, CB, OTCB or GI TO JUNCTION BOX (MANHOLE OPTIONAL)	
ORIGINAL BY: T.S.S.	DATE: NOV. 1997
MODIFIED BY: T.S.S.	DATE: FEB. 2000
CHECKED BY:	DATE:
FILE SPEC.: ds174:/usr/details/stand/boxtojb.dgn	

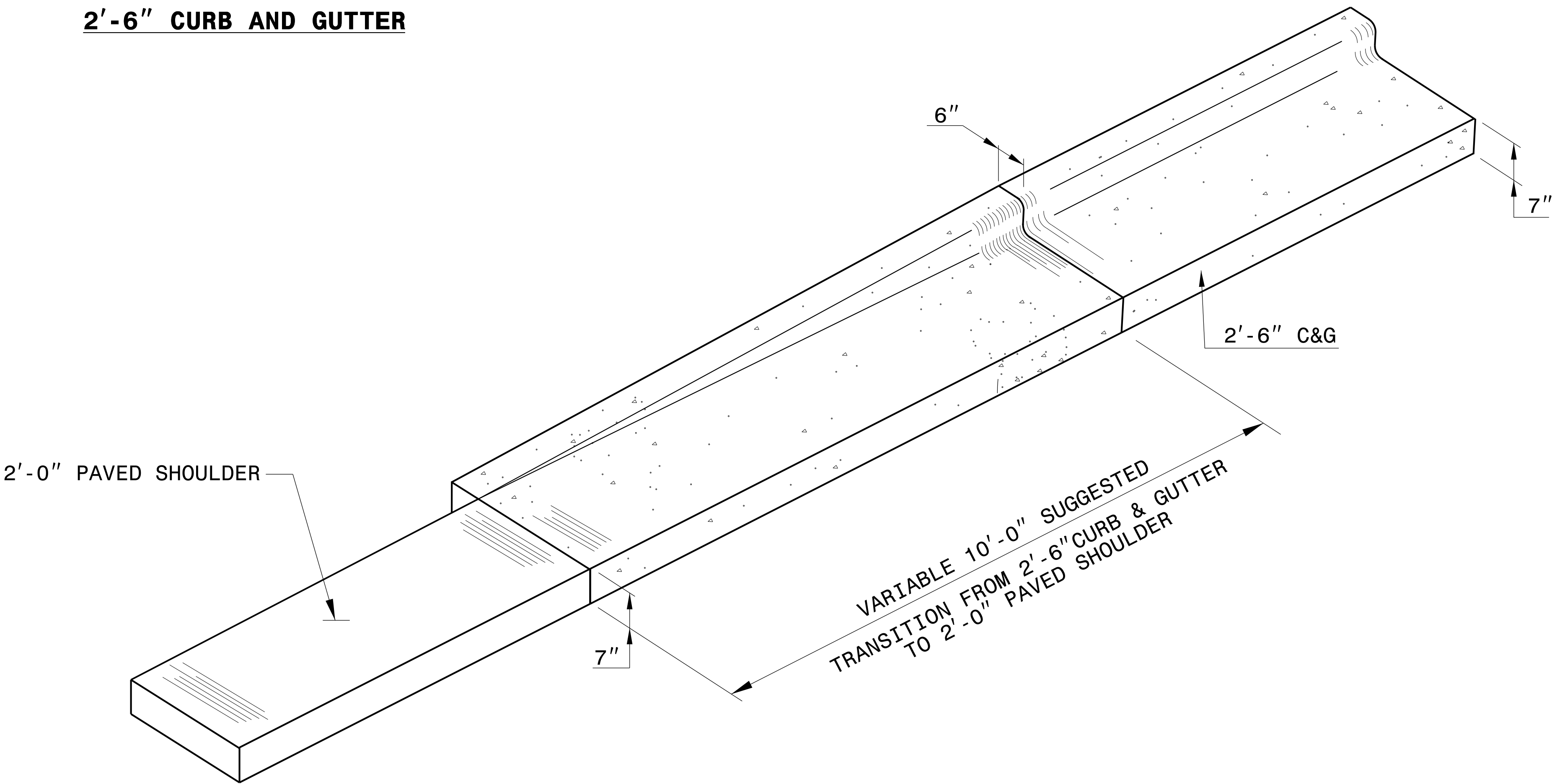
5/14/99

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-6

*NOTE: SEE STD. DWG. 846.01
FOR GENERAL NOTES



2'-6" CURB AND GUTTER



ISOMETRIC VIEW OF TRANSITION



Signed by:
Nicole M. Fischer
588432034184CS
10/8/2026

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UNLESS ALL SIGNATURES COMPLETED

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

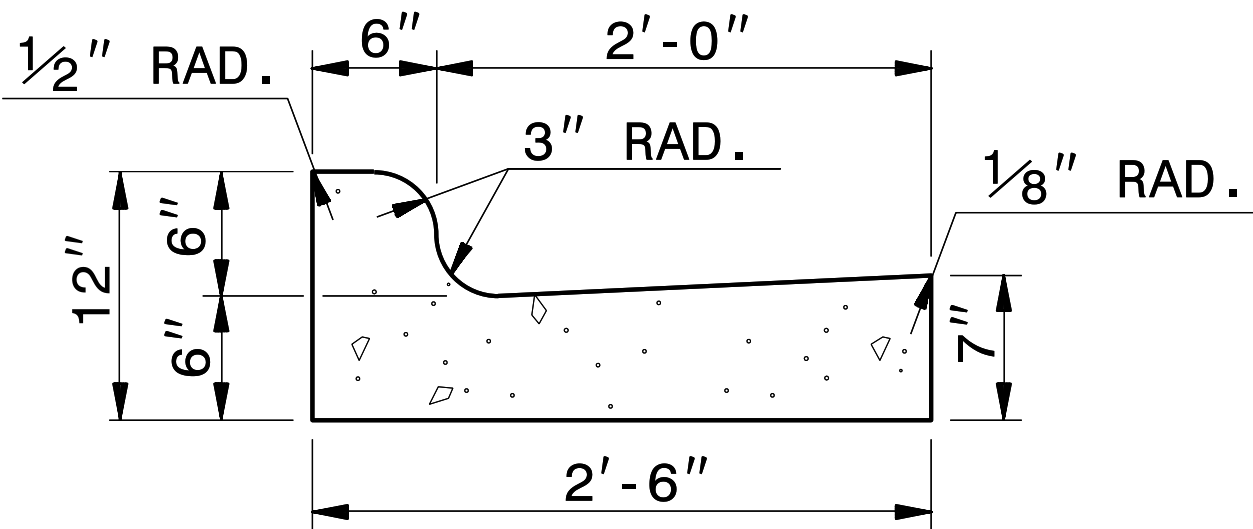
**DETAIL OF 10' TRANSITION
FROM 2'-6" CURB & GUTTER
TO 2'-0" PAVED SHOULDER**

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: rnbritt DATE: 04-13-2016
CHECKED BY: _____ DATE: _____
FILE SPEC: details/nbritt/english/misc/c&g transition sections.dgn

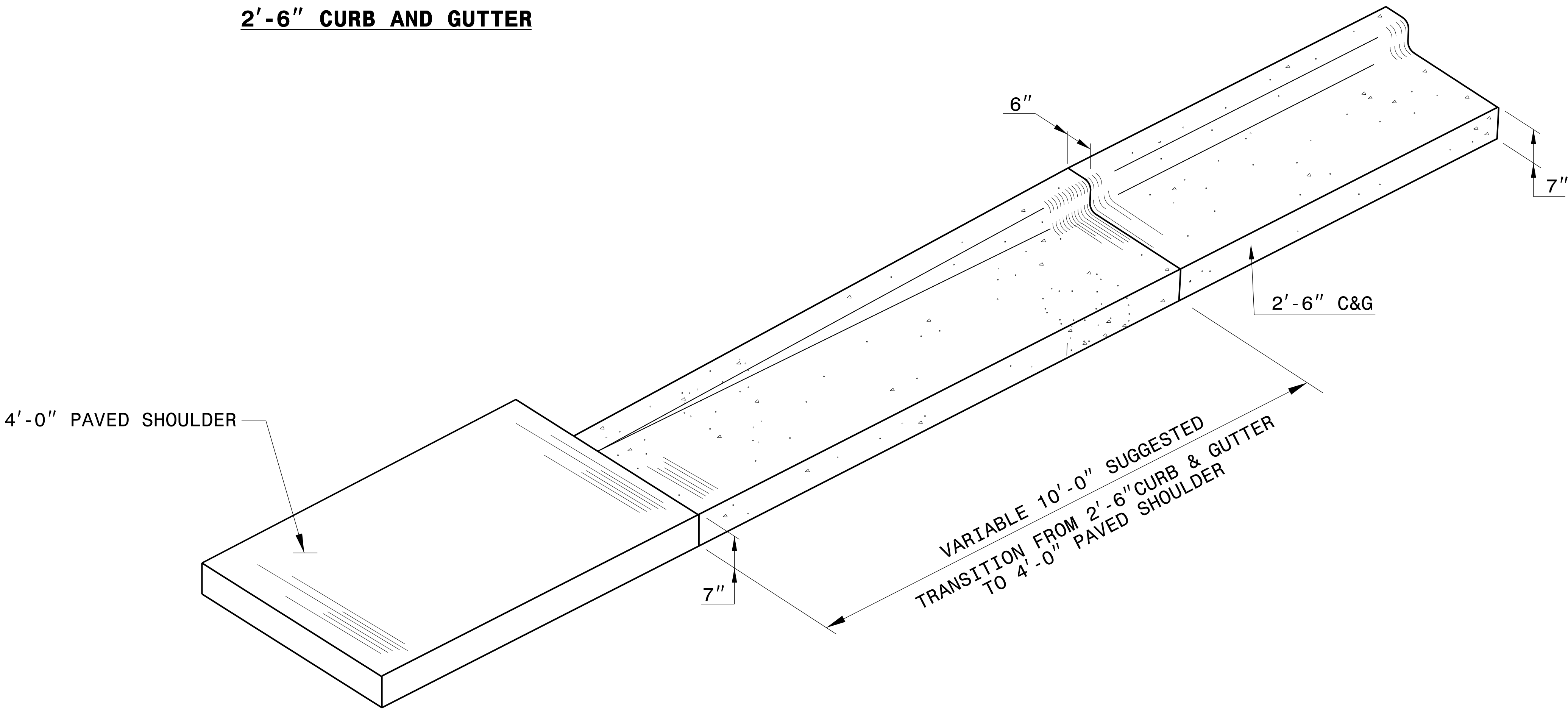
I:\MAP-2020\1030
S:\Contracts\Special Details\english\misc\c&g transition sections.dgn
Jhoverton AT CSD-320965

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-7

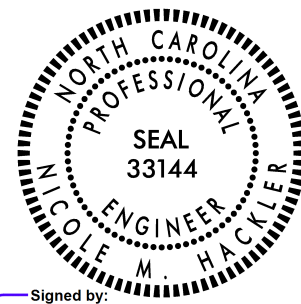
*NOTE: SEE STD. DWG. 846.01
FOR GENERAL NOTES



2'-6" CURB AND GUTTER



ISOMETRIC VIEW OF TRANSITION



Signed by
Nicole M. Hatcher
5894323034164CS
10/8/2026

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UNLESS ALL SIGNATURES COMPLETED

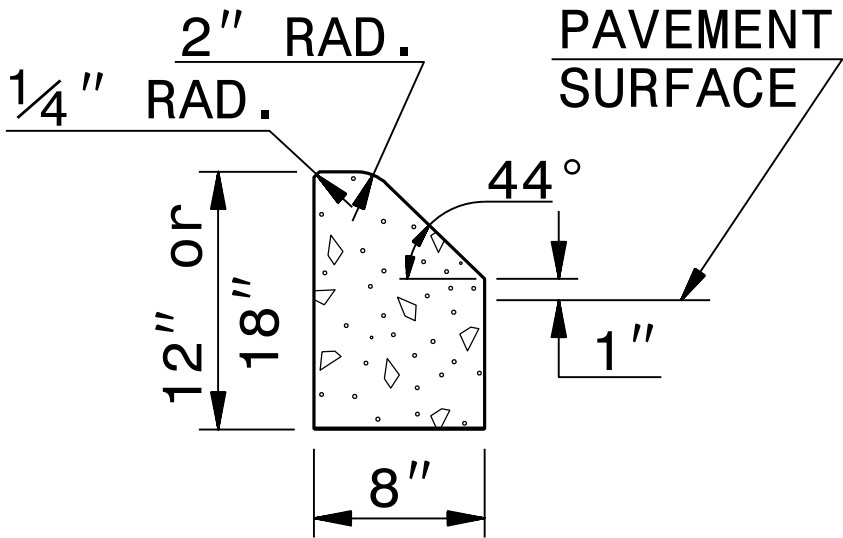
**CONTRACT STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

**DETAIL OF 10' TRANSITION
FROM 2'-6" CURB & GUTTER
TO 4'-0" PAVED SHOULDER**

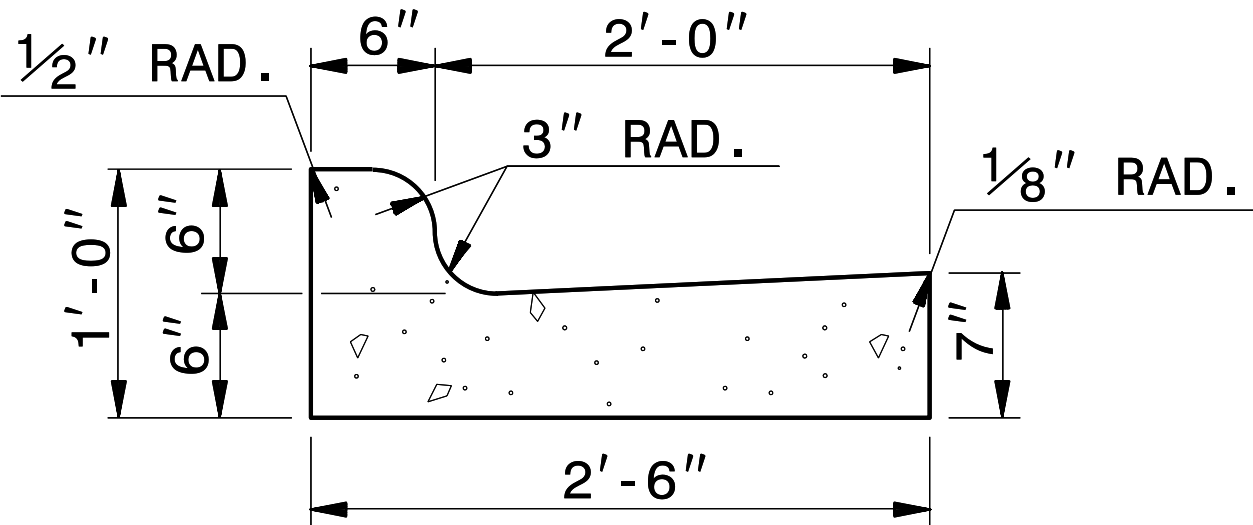
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MODIFIED BY: rnbritt DATE: 04-13-2016
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PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-8

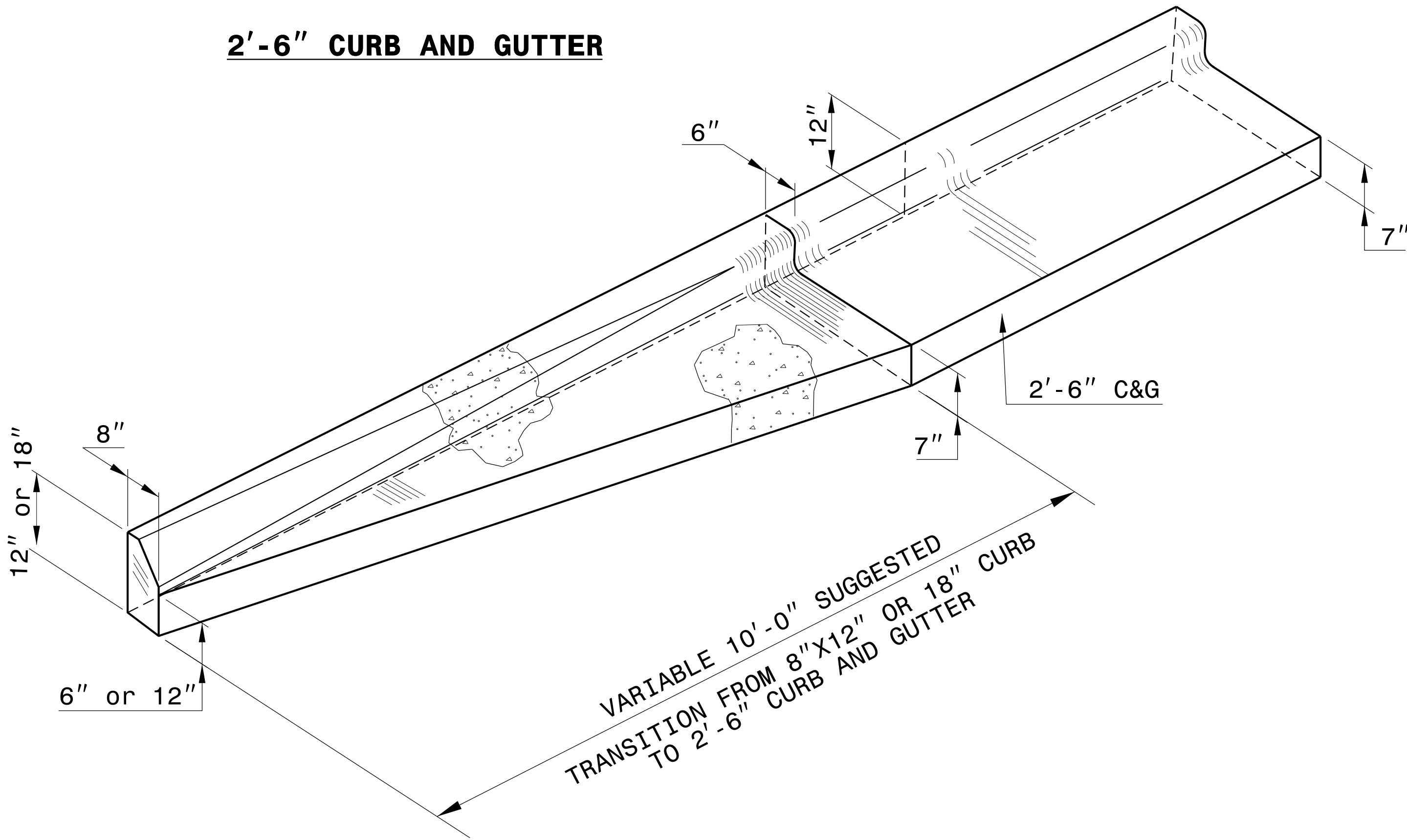
*NOTE: SEE STD. DWG. 846.01
FOR GENERAL NOTES



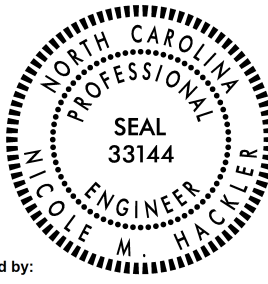
8" X 12" or 18" CONCRETE CURB



2'-6" CURB AND GUTTER



ISOMETRIC VIEW OF TRANSITION



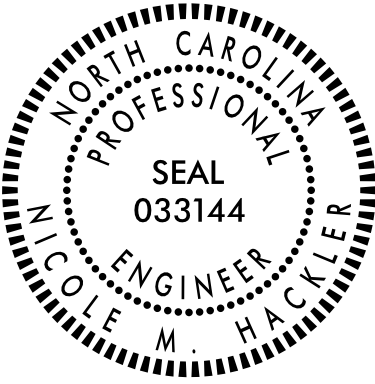
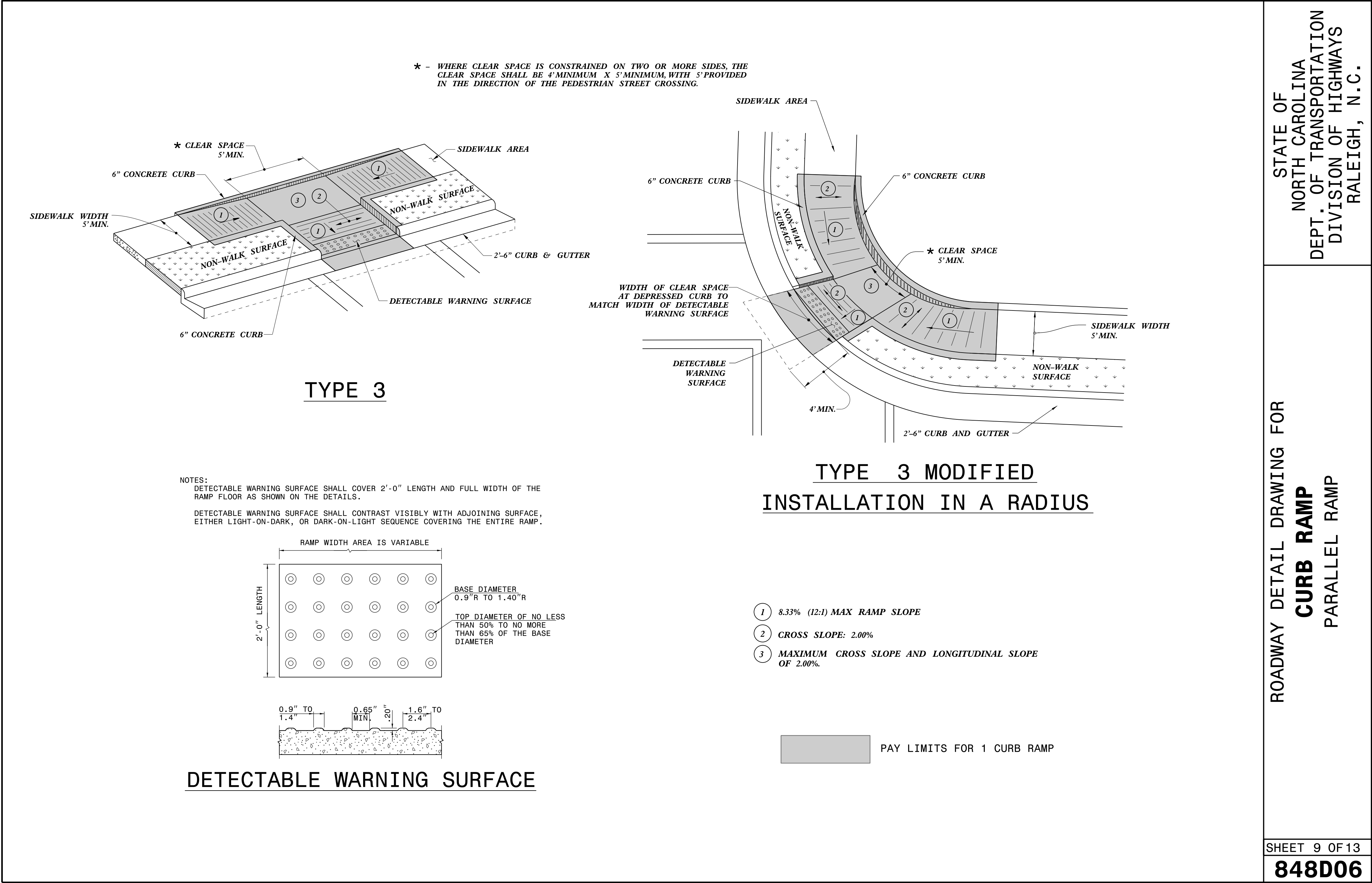
Signed by:
Nicola M. Hecker
5894320334164CS...
10/8/2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
DETAIL OF 8"x 12" or 18" CURB TO 2'-6" CURB & GUTTER TRANSITION SECTION	
ORIGINAL BY: _____	DATE: _____
MODIFIED BY: K. KEMPF	DATE: 4-05-18
CHECKED BY: _____	DATE: _____
FILE SPEC.: details/ericiward/usr/details/stand/cgtransit.dgn	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
PEDESTRIAN SAFETY RAIL	
ORIGINAL BY: _____	DATE: _____
MODIFIED BY: K.A. KEMPF _____	DATE: 7-20-23 _____
CHECKED BY: _____	DATE: _____
FILE SPEC.: details\kempf\english\safety rails 2024.dgn	

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-10



Signed by:
Nicole M. Hickler
5884323034184C5...

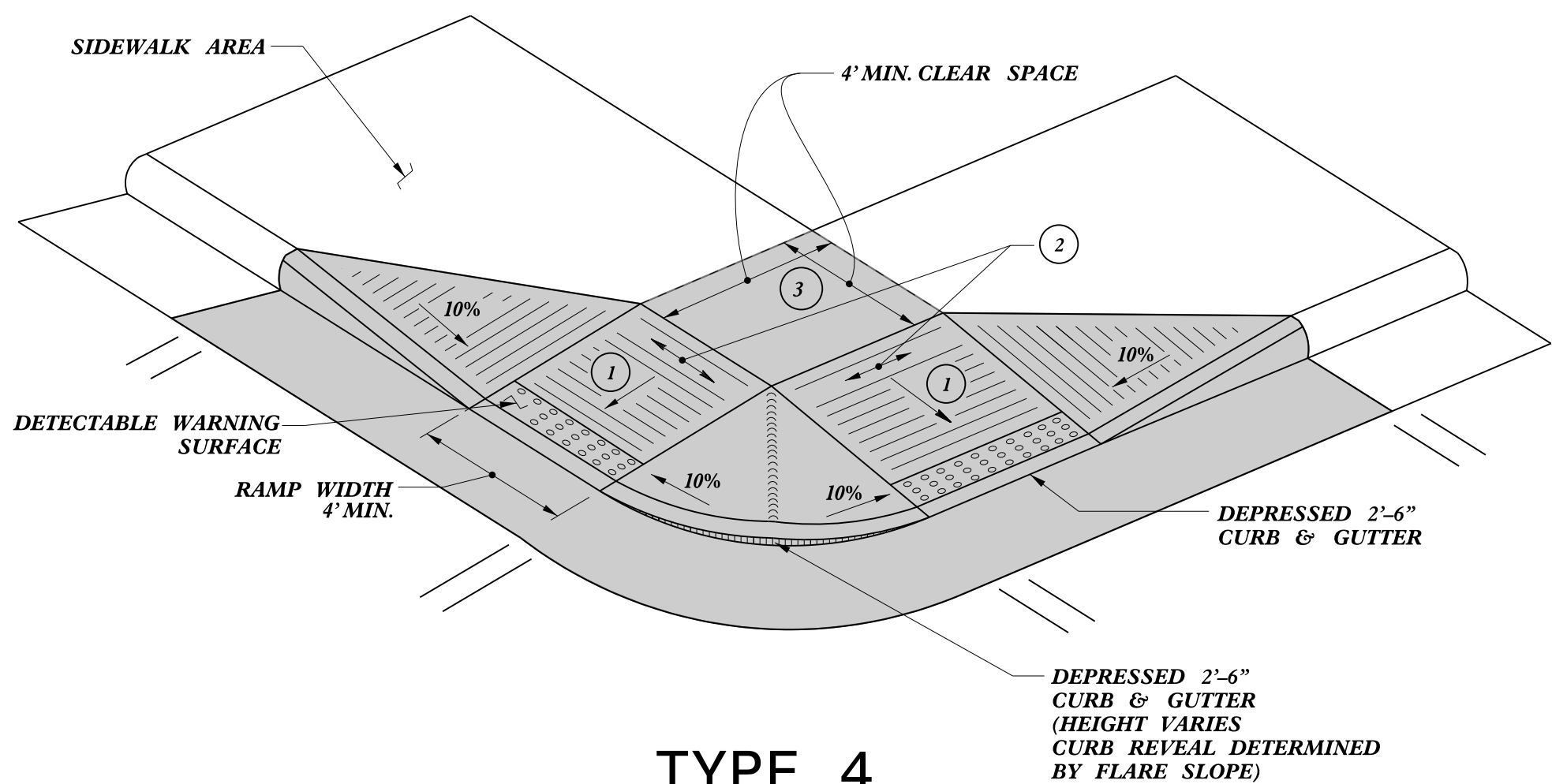
10/8/2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

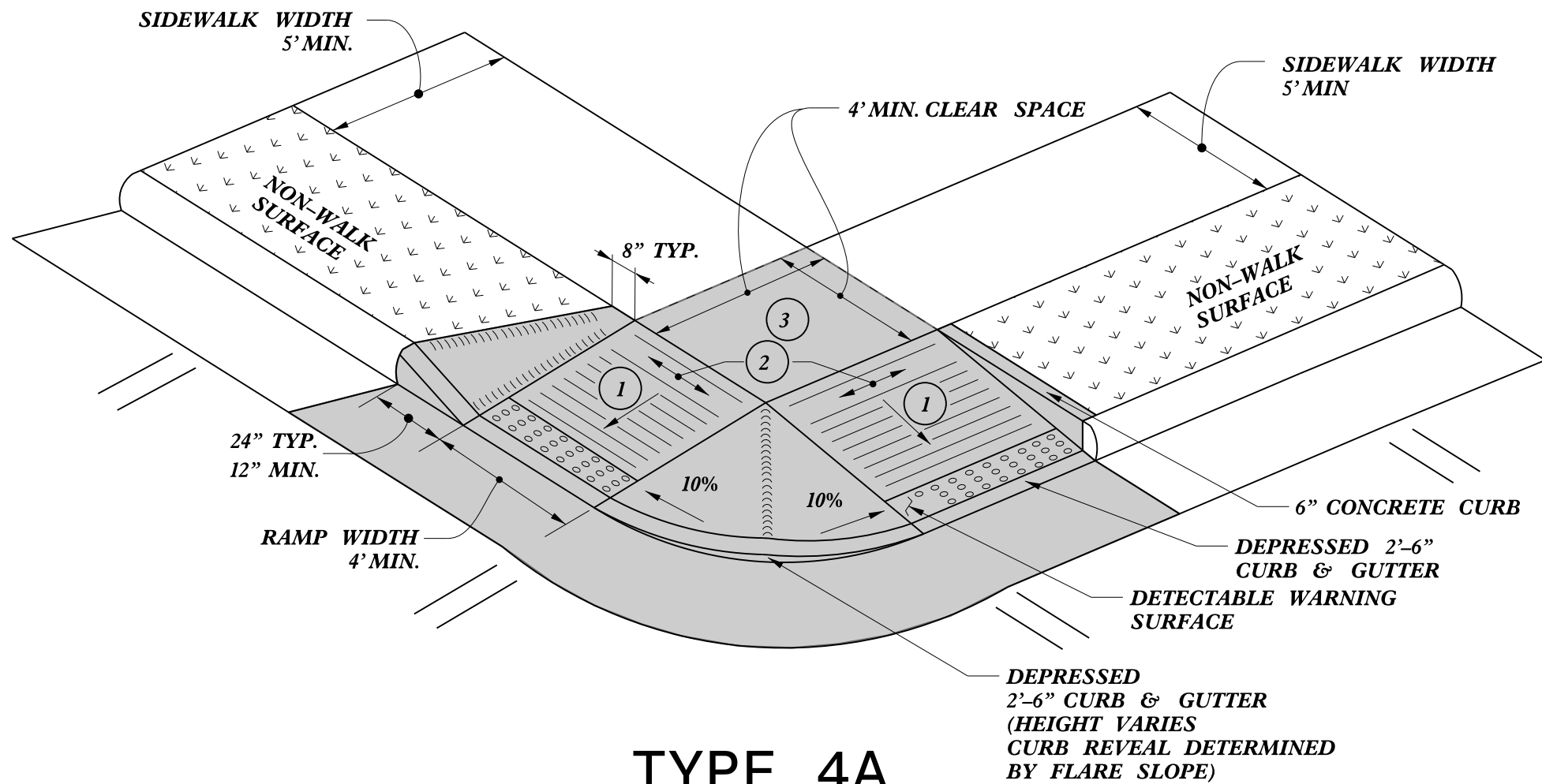
CONTRACTS STANDARDS
AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

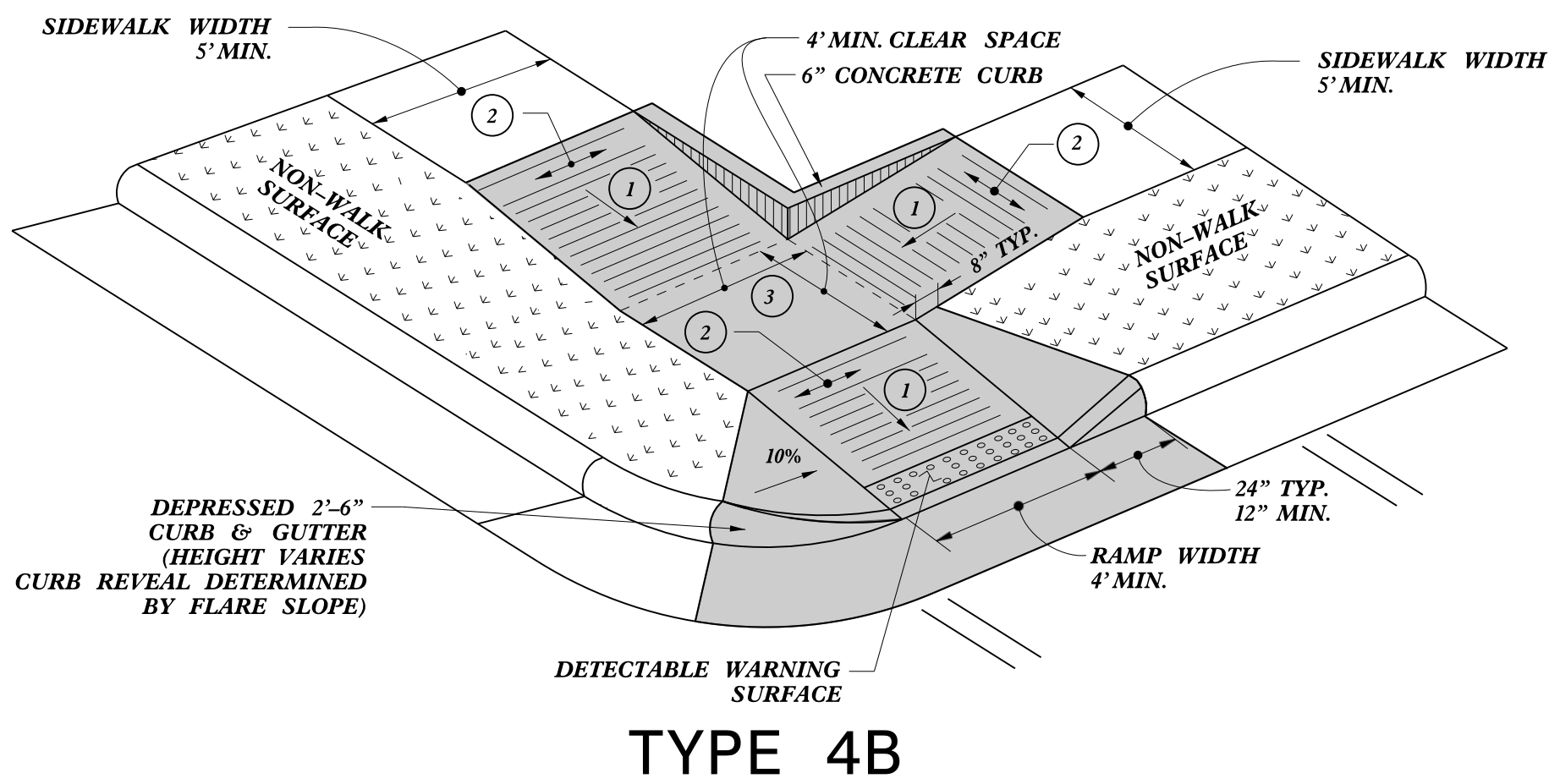
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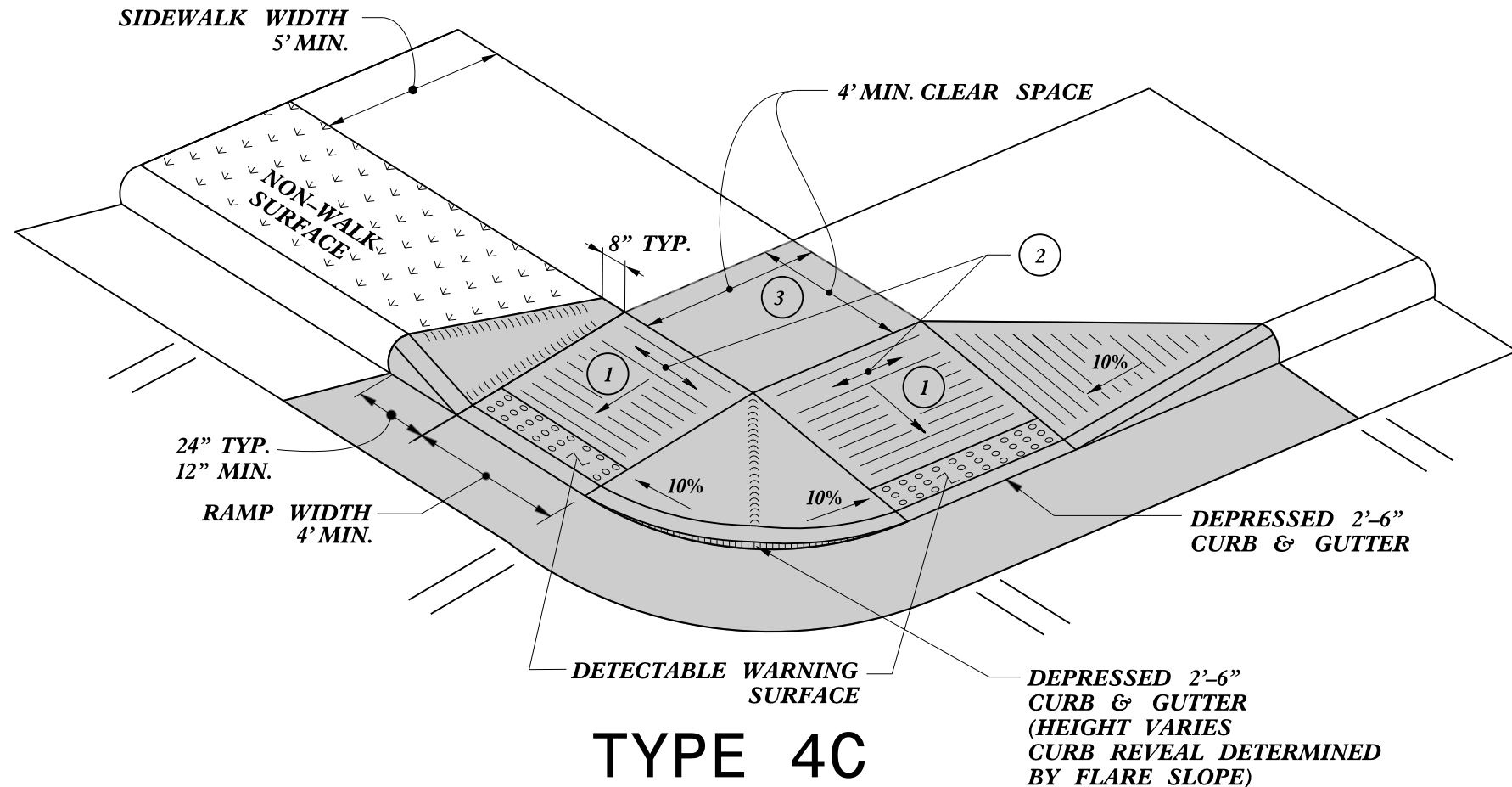
TYPE 4



TYPE 4A

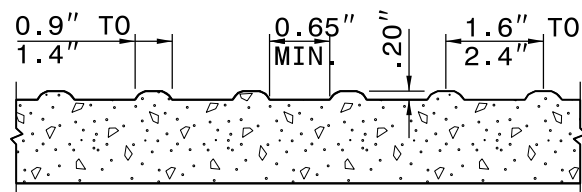
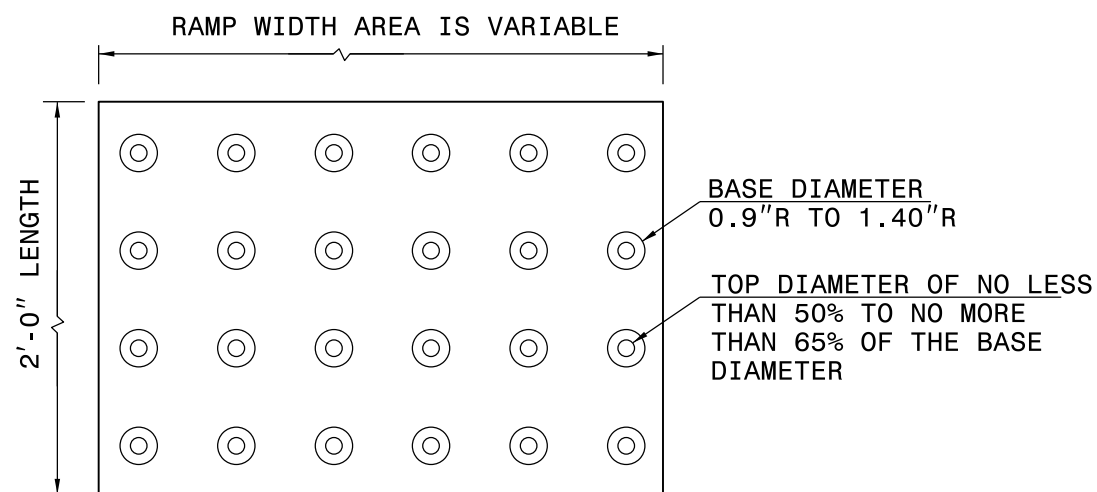


TYPE 4B



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.



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

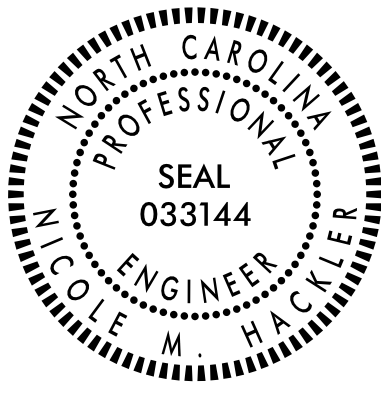
PAY LIMITS FOR 1 OR 2 CURB RAMPS
(CALCULATE BASED ON NUMBER OF SETS
OF DETECTABLE WARNING SURFACES)

DETECTABLE WARNING SURFACE

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

ROADWAY DETAIL DRAWING FOR
CURB RAMP
SHARED LANDING

SHEET 10 OF 13
848D06



Signed by:
Nicole M. Hickler
5884323034184C5...
10/8/2026

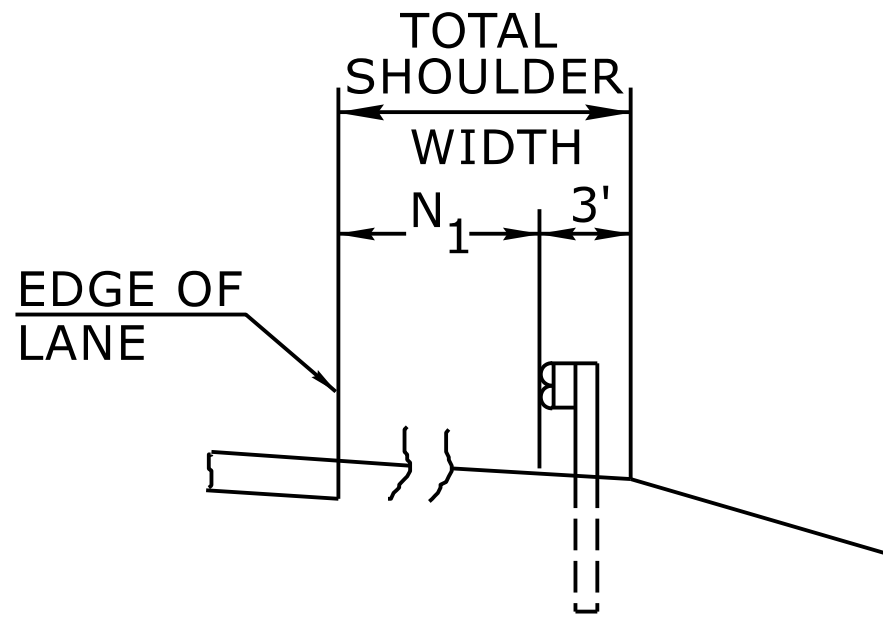
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

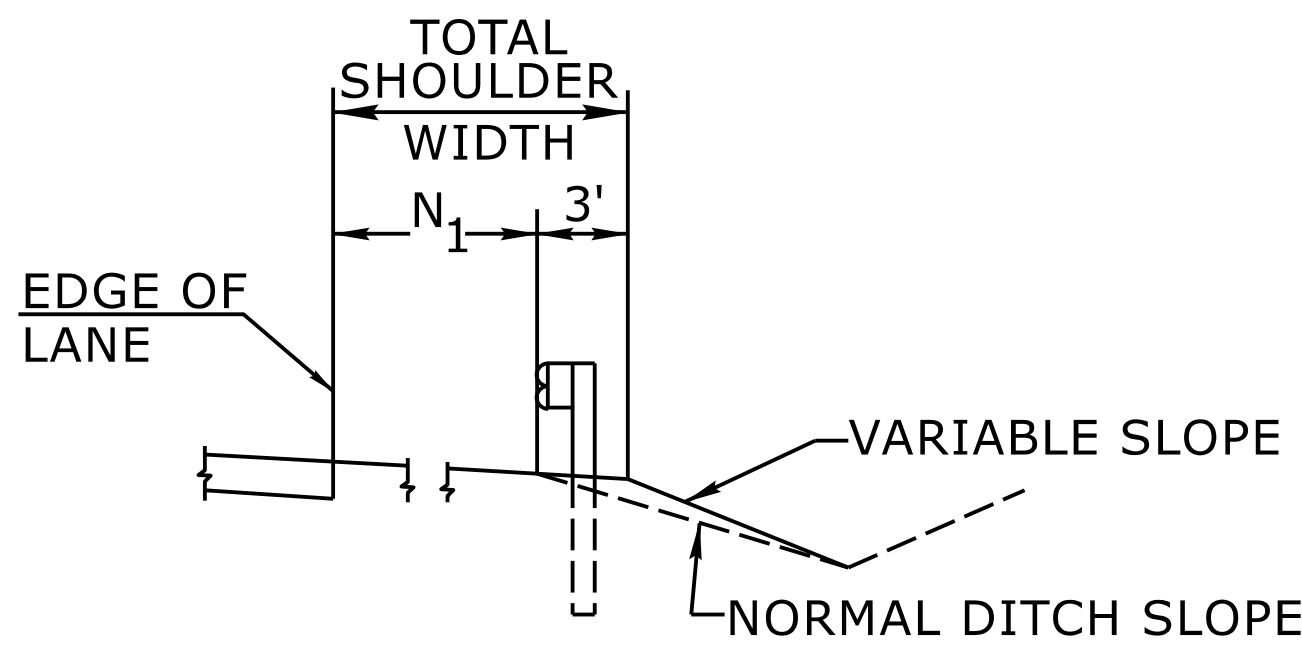
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MODIFIED BY: DATE:
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PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-12

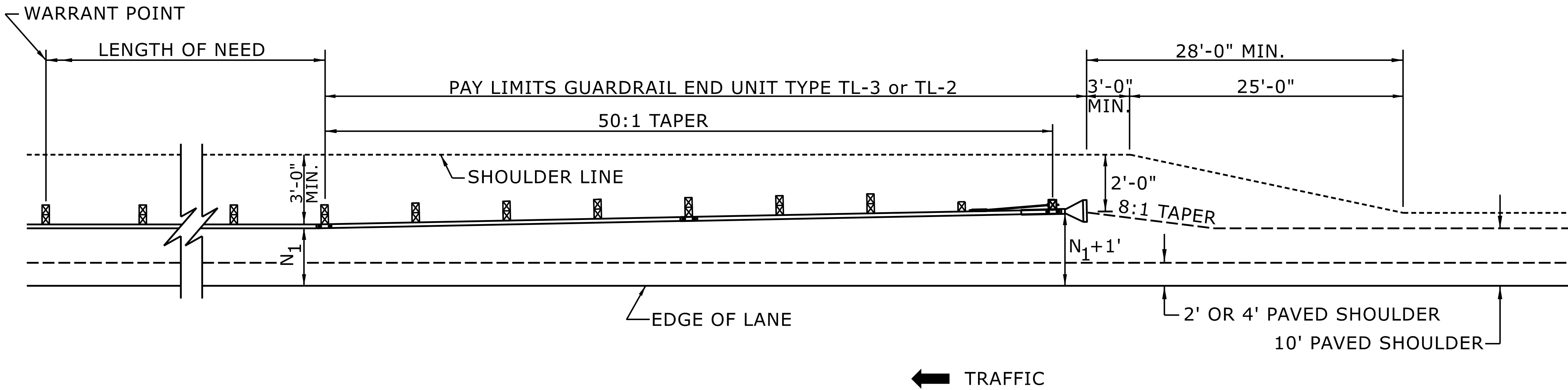


FILL SECTION



CUT SECTION

"N₁"= DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL WHERE GUARDRAIL IS PARALLEL TO LANE.



FOR POSTED SPEEDS ≥ 45mph USE GREU TYPE TL-3
FOR POSTED SPEEDS < 45mph USE GREU TYPE TL-2

DETAIL OF BEGINNING OF GUARDRAIL IN CUT OR FILL SECTION

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT



Signed by:
Nicole M. Hackler
5884323D34164C5
10/8/2026

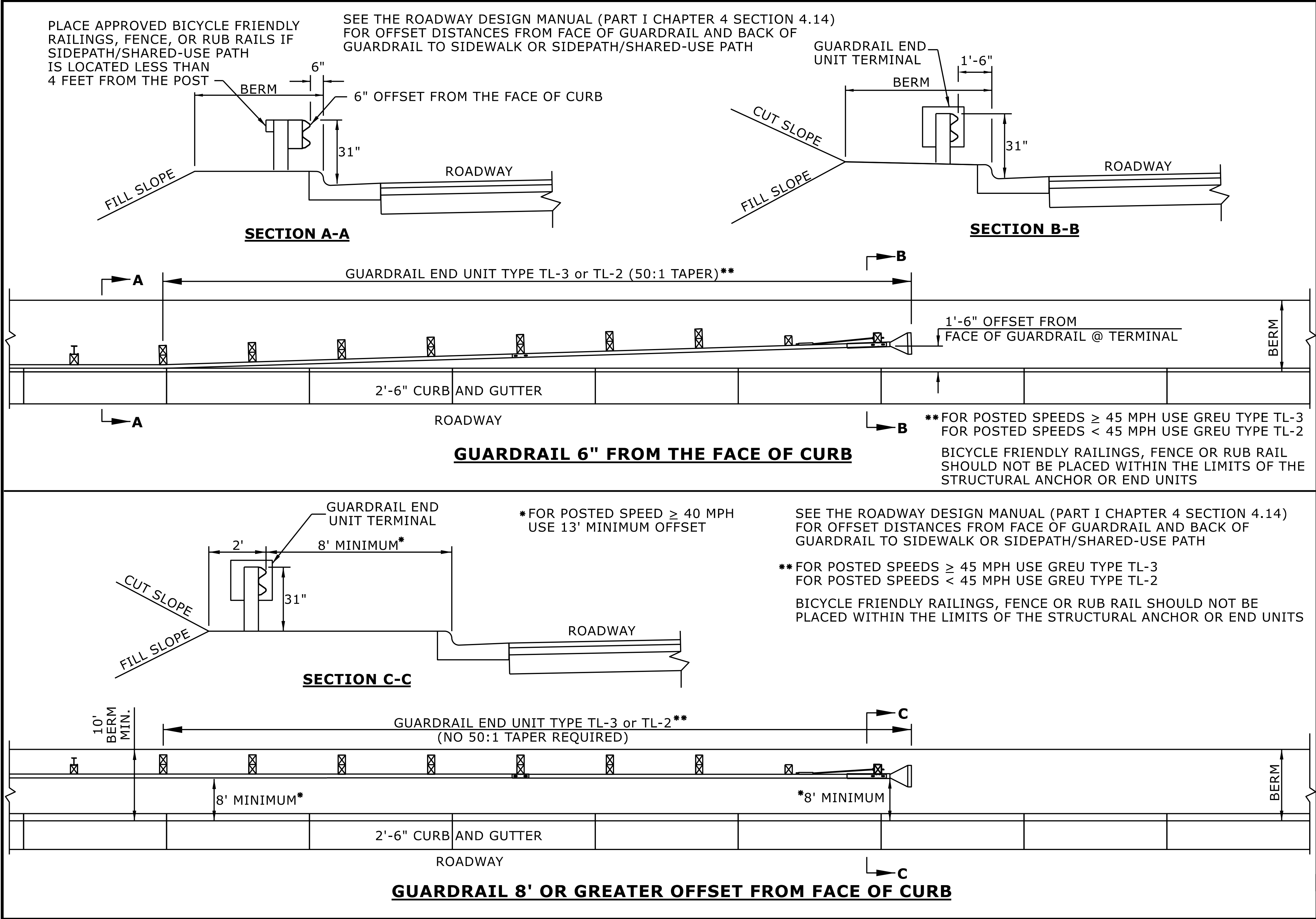
SHEET 6 OF 15
862D01

DOCUMENT NOT CONSIDERED FINAL
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**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

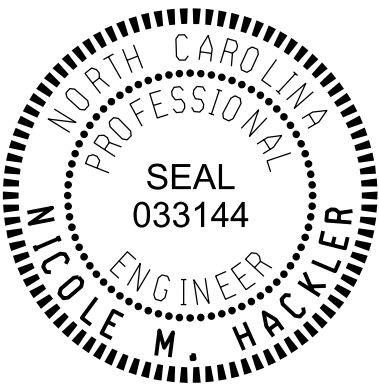
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ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DATE:



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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT
GUARDRAIL TREATMENT AT CURB AND GUTTER



Signed by:
Nicole M. Hacker
5884323D34164C5
10/8/2026

SHEET 12 OF 15
862D01

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**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.:	

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

Diagram showing a pipe in a trench with normal earth foundation. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, and NORMAL EARTH FOUNDATION.

Diagram showing a pipe in a trench with rock foundation. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, ROCK, TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR., and ROCK FOUNDATION PIPE IN TRENCH.

Diagram showing a pipe in a trench with unsuitable material foundation. Labels include: TOP OF FILL, GROUND LINE, H, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 3', COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, EARTH, TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGR., and UNSUITABLE MATERIAL FOUNDATION.

Diagram showing a pipe above ground with normal earth foundation. Labels include: TOP OF FILL, GROUND LINE, H, MIN. O.D., 1:1, COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', and NORMAL EARTH FOUNDATION.

Diagram showing a pipe above ground with rock foundation. Labels include: TOP OF FILL, GROUND LINE, H, MIN. O.D., 1:1, COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER, and ROCK FOUNDATION PIPE ABOVE GROUND.

Diagram showing a pipe above ground with unsuitable material foundation. Labels include: TOP OF FILL, GROUND LINE, H, MIN. O.D., 1:1, COMPACT AFTER PIPE IS PLACED & PRIOR TO PLACEMENT OF FILL, I.D. /6 MIN. NOT LESS THAN 6", O.D. + 2', TYPE 4a GEOTEXTILE, I.D. /6 MIN. NOT LESS THAN 6", 1/2" PER FOOT OF 'H' BUT NOT LESS THAN 12" NOR MORE THAN 24" AS DIRECTED BY ENGINEER, and UNSUITABLE MATERIAL FOUNDATION.

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.

Signed by:
Nicole M. Hackler
5884323D34164C5
10/8/2026

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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.:			



ROADWAY DETAIL DRAWING FOR METHOD OF PIPE INSTALLATION RIGID PIPE

RIGID PIPE

SHEET 2 OF 2

300.01

	SPRINGLINE OF PIPE
	SELECT BACKFILL MATERIAL CLASS III OR CLASS II, BELOW SPRINGLINE.
	UNDISTURBED EARTH MATERIAL
	SELECT MATERIAL CLASS V OR VI FOR FOUNDATION CONDITIONING. ENCAPSULATE WITH TYPE IV GEOTEXTILE AS DIRECTED BY THE ENGINEER.



Signed by:
Nicole M. Hackler
5884323D34164C5...
10/8/2026

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UNLESS ALL SIGNATURES COMPLETED**

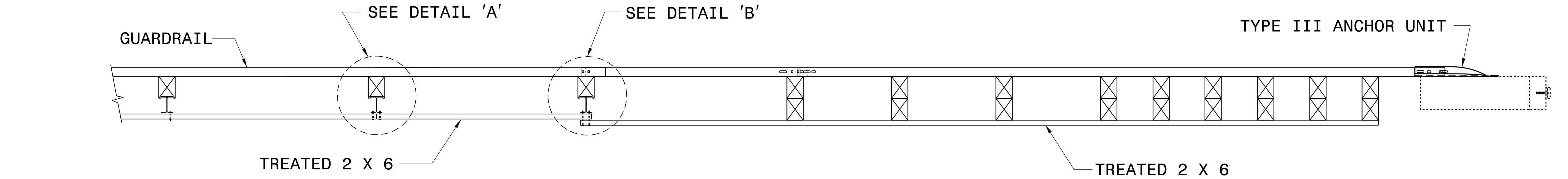
**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

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

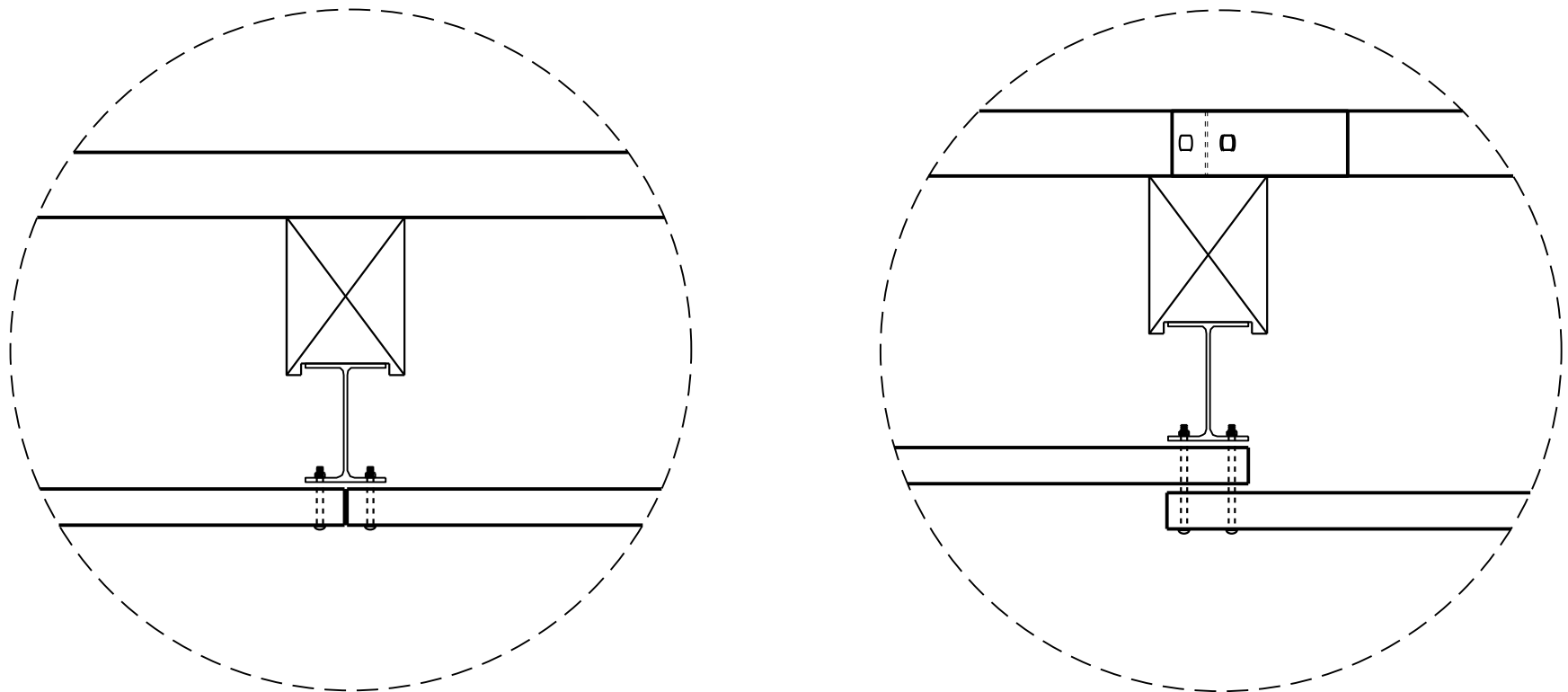
SEE TITLE BLOCK

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

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-16



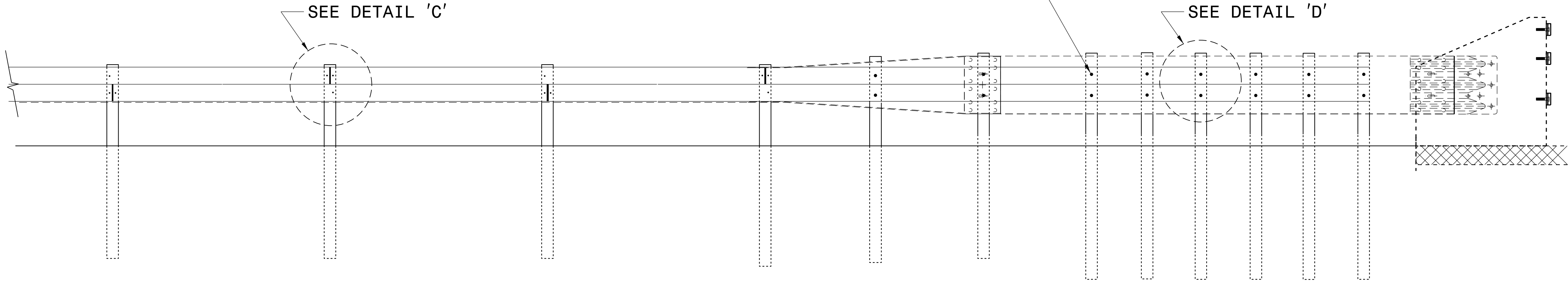
PLAN



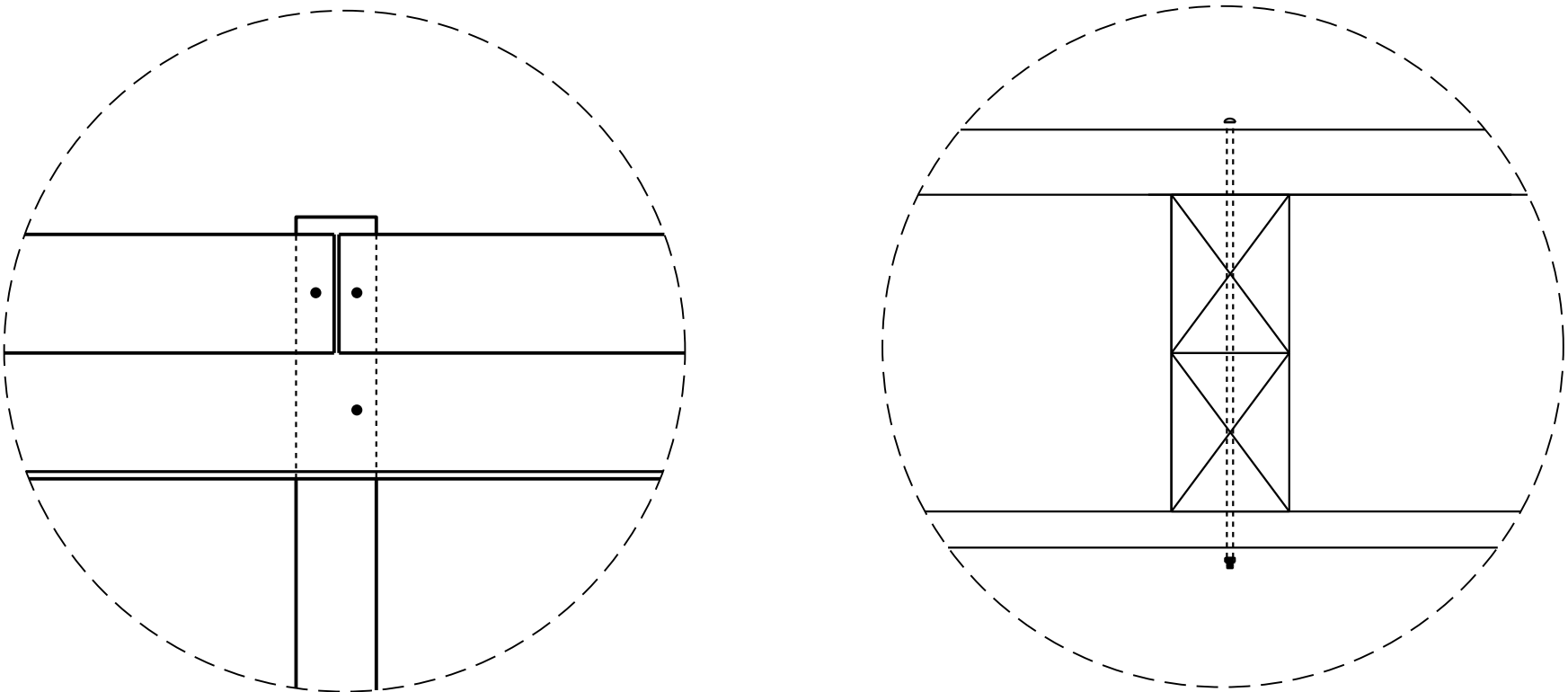
DETAIL 'A'

DETAIL 'B'

USE BOLTS AND NUTS FROM TYPE III ANCHOR UNIT TO FASTEN 2 X 6 WOOD RAILS TO THE WOOD POSTS - BOLTS MAY NEED TO BE LENGTHENED TO ACCOMMODATE FOR THE 2 X 6 WOOD RAILS.



ELEVATION

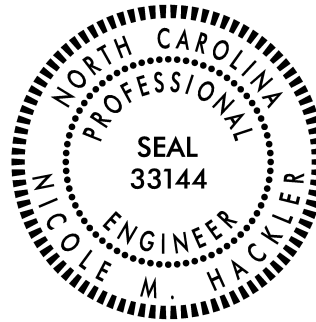


DETAIL 'C'

DETAIL 'D'

NOTES:

1. USE #2 SYP TREATED 2 X 6 FOR WOOD RAIL.
2. USE GUARDRAIL BOLTS TO FASTEN WOOD RAIL TO GUARDRAIL POSTS. SEE ROADWAY STD.NO.862.02.
3. THE MOUNTING HEIGHT OF THE WOOD RAIL TO BE DETERMINED IN THE FIELD.
4. PLACE THE TREATED 2 X 6 WOOD RAIL AS DIRECTED BY THE ENGINEER.
5. DO NOT PLACE WOOD RAIL WITHIN THE PAY LIMITS OF THE GREU.



Signed by:
Nicole M. Hacker
58843203034184CS...
10/8/2026

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

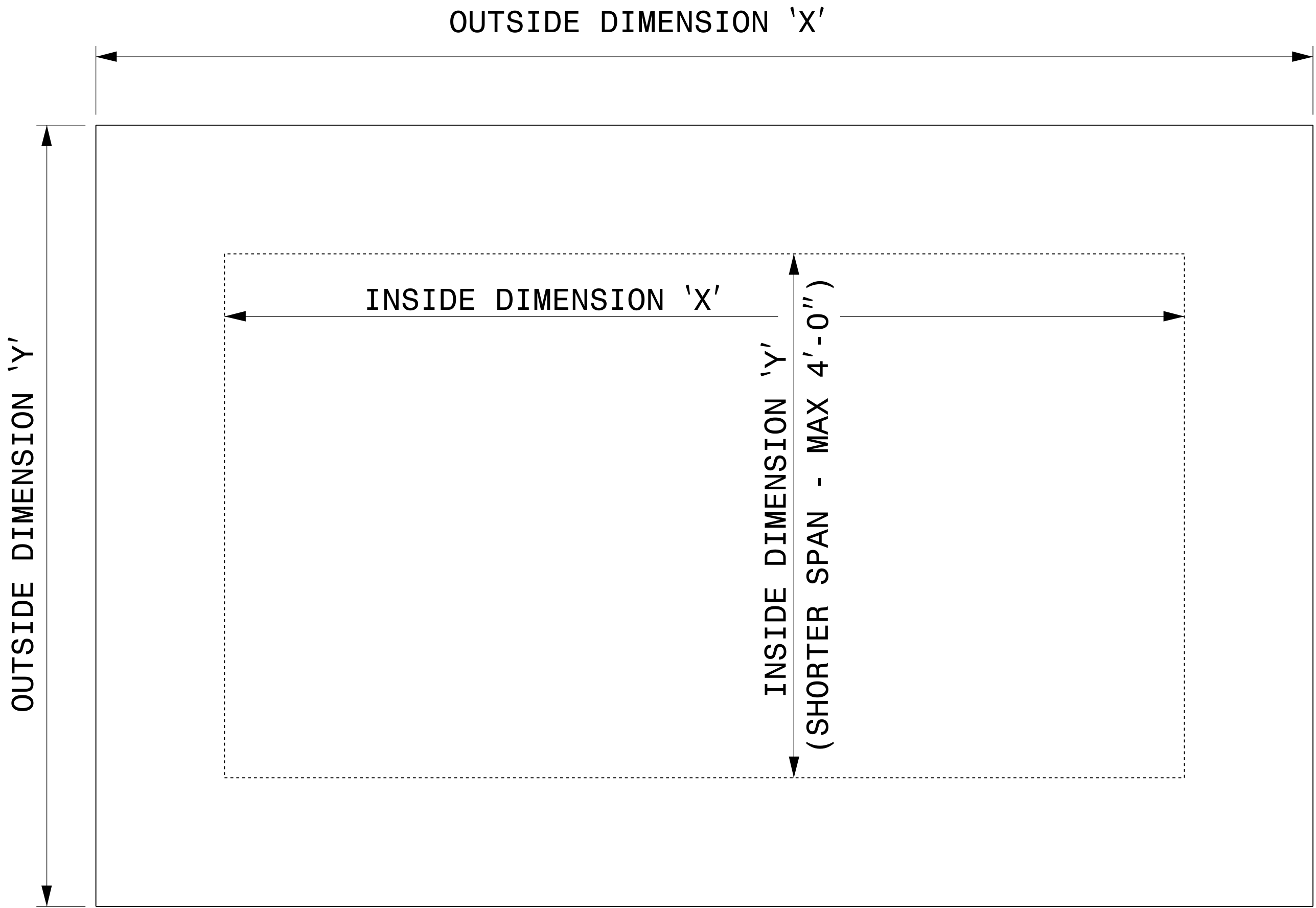
**DETAIL OF
WOOD RUB RAIL**

ORIGINAL BY: STD.862 DATE: 1-25-12
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: jhowerton/Wood Rail on Back of Guardrail

Docusign Envelope ID: 45BFC6F0-3A9B-8F1A-8233-43F7CE2D6D2F

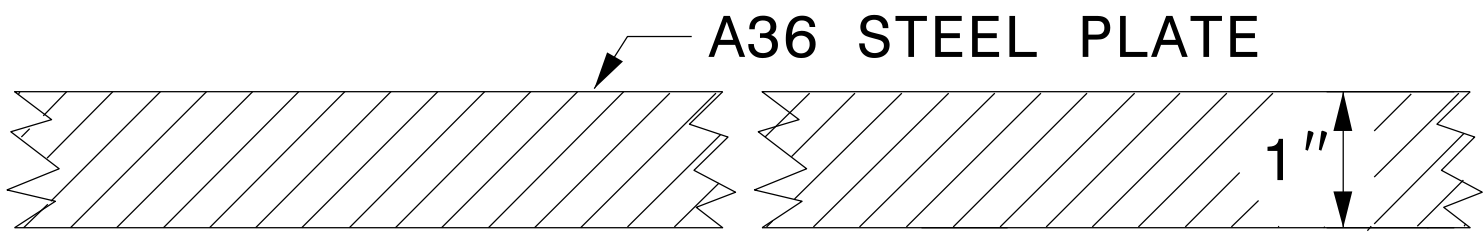
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PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-17



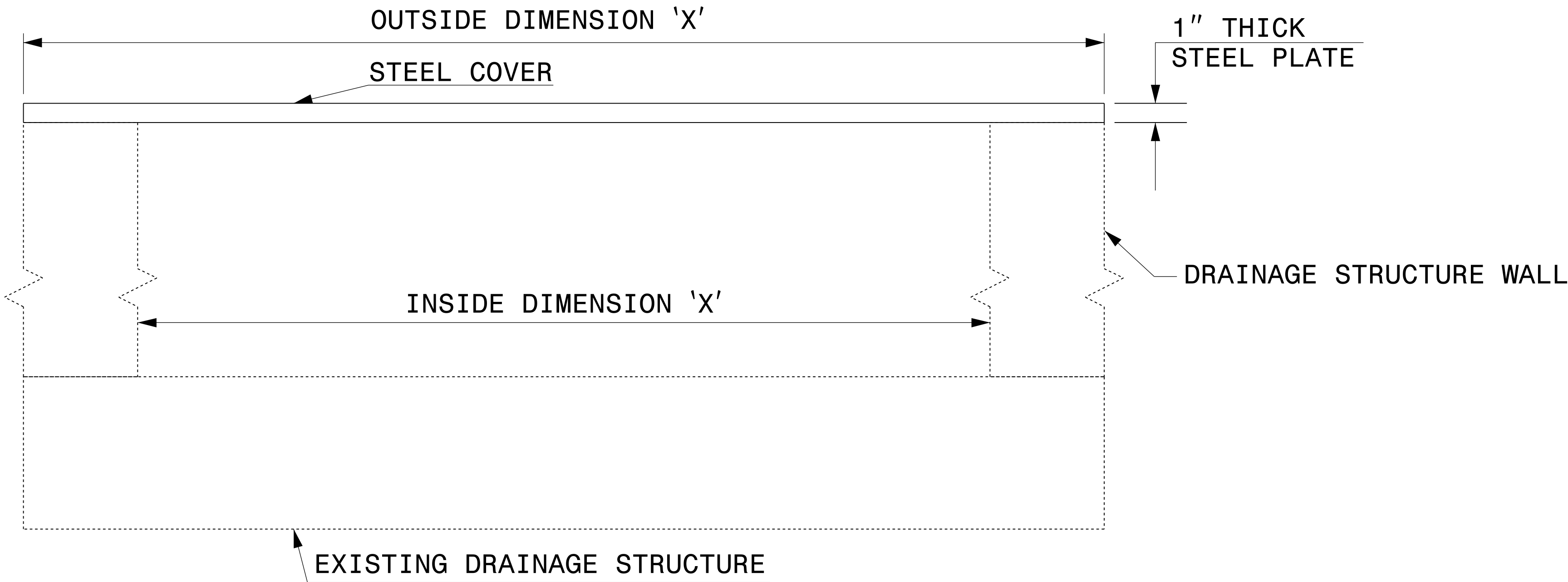
GENERAL NOTES:

- USE GRADE A36 STEEL
- STEEL COVERS ARE FOR TEMPORARY USE DURING PHASE CONSTRUCTION.
- FILL SHALL BE PLACED DIRECTLY OVER THE STEEL PLATES.
- SEE ROADWAY PLANS AND PROVISIONS FOR LOCATIONS
- QUANTITES TO BE PAID FOR AT THE UNIT PRICE BID PER EACH.



SECTION VIEW OF STEEL TOP PLATE

PLAN VIEWS



ELEVATION VIEWS



Signed by:
Nicole M. Hecker
58043203034164C5..

10/8/2026

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT Office 919-707-6950 FAX 919-250-4119	
DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE	
ORIGINAL BY: E.E. WARD	DATE: 2-2-98
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: eric:/usr/details/metric/stand/stlcvr2.dgn	

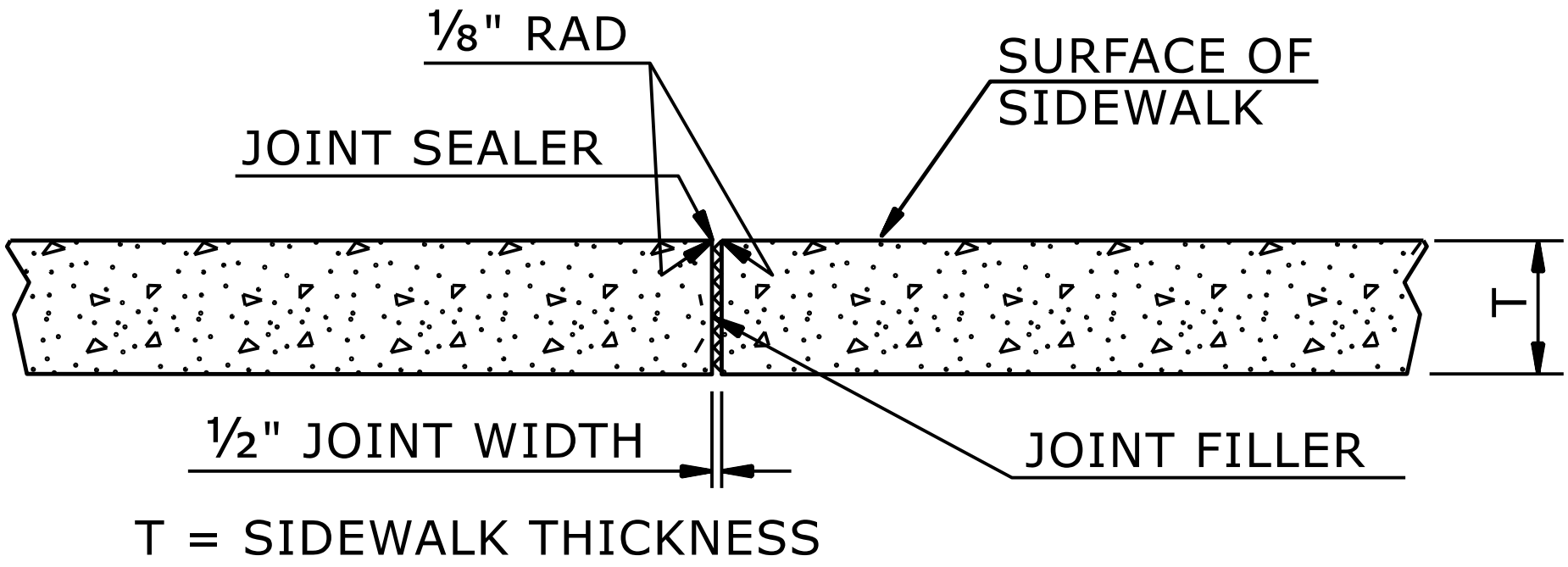
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R-5759	2C-18

NOTES:

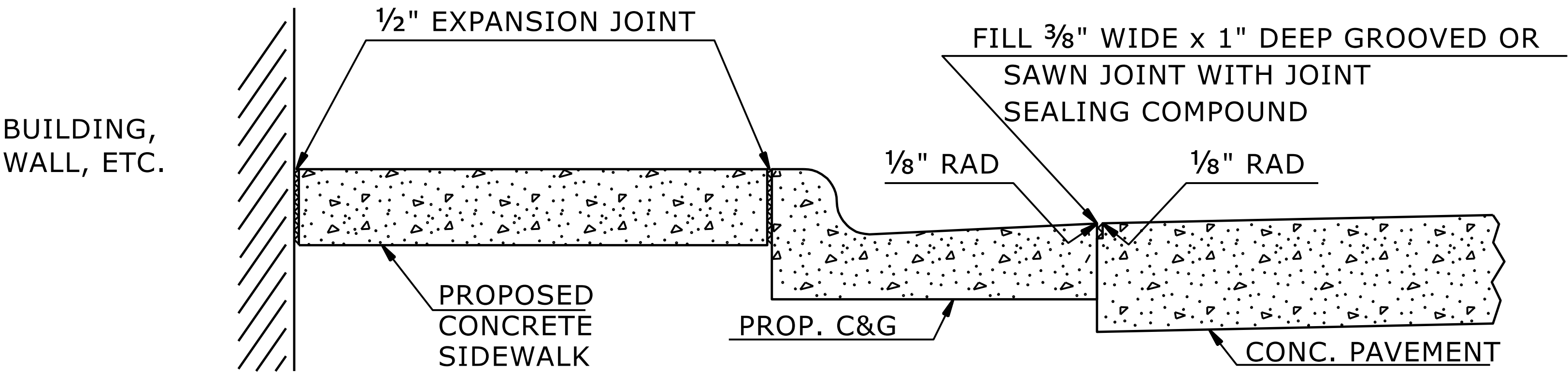
CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

PLACE A GROOVE JOINT 1" DEEP WITH 1/8" RADII IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 50' INTERVALS. A 1/2" 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.



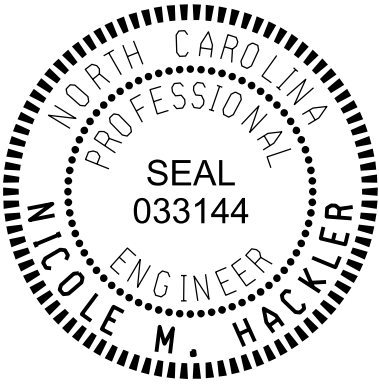
TRANSVERSE EXPANSION JOINT
IN SIDEWALK



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



Signed by:
Nicole M. Hacker
588432303416405
10/8/2026

SHEET 1 OF 1
848D01

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UNLESS ALL SIGNATURES COMPLETED

**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

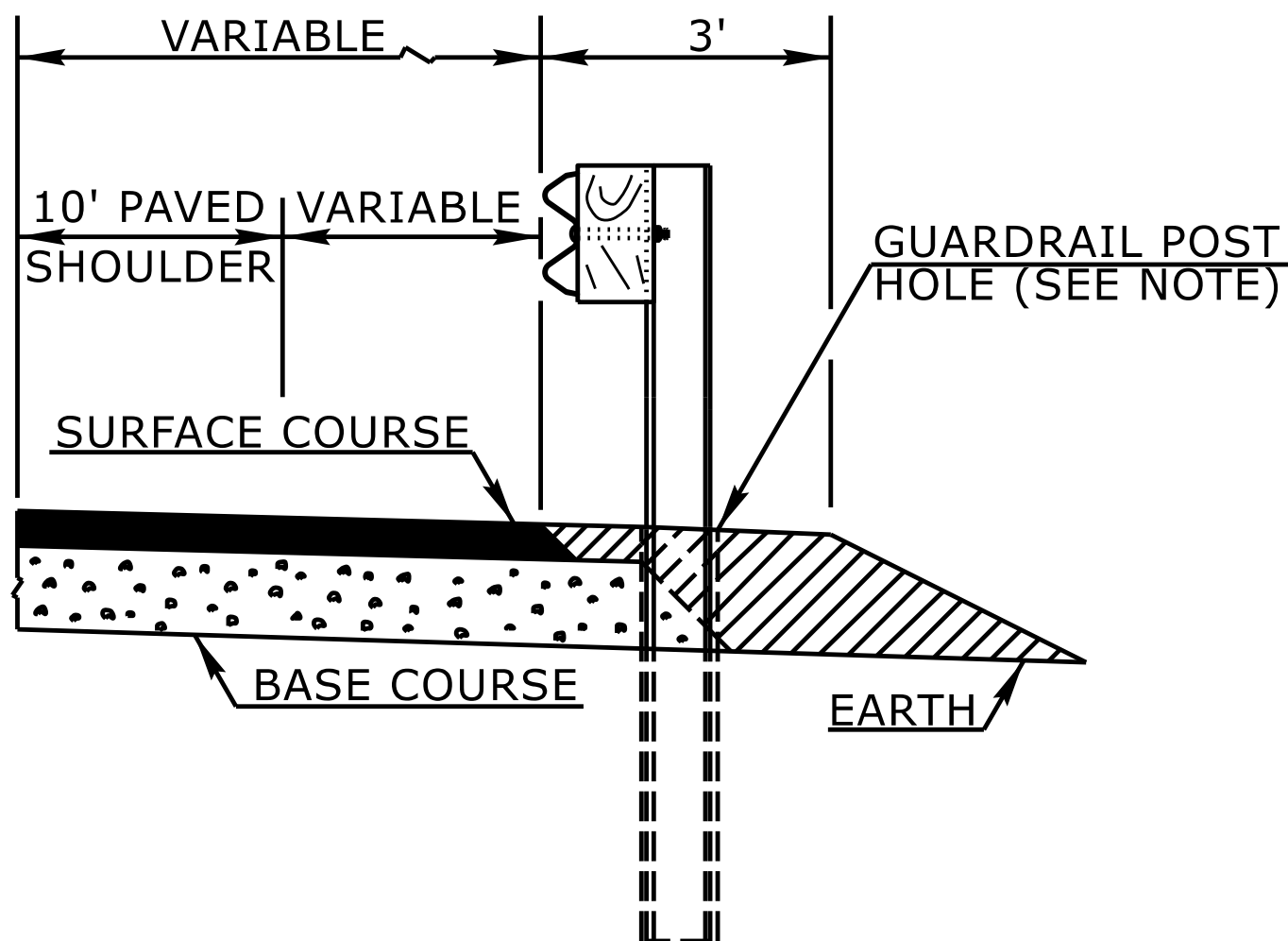
Office 919-707-6950 FAX 919-250-4119

SEE TITLE BLOCK

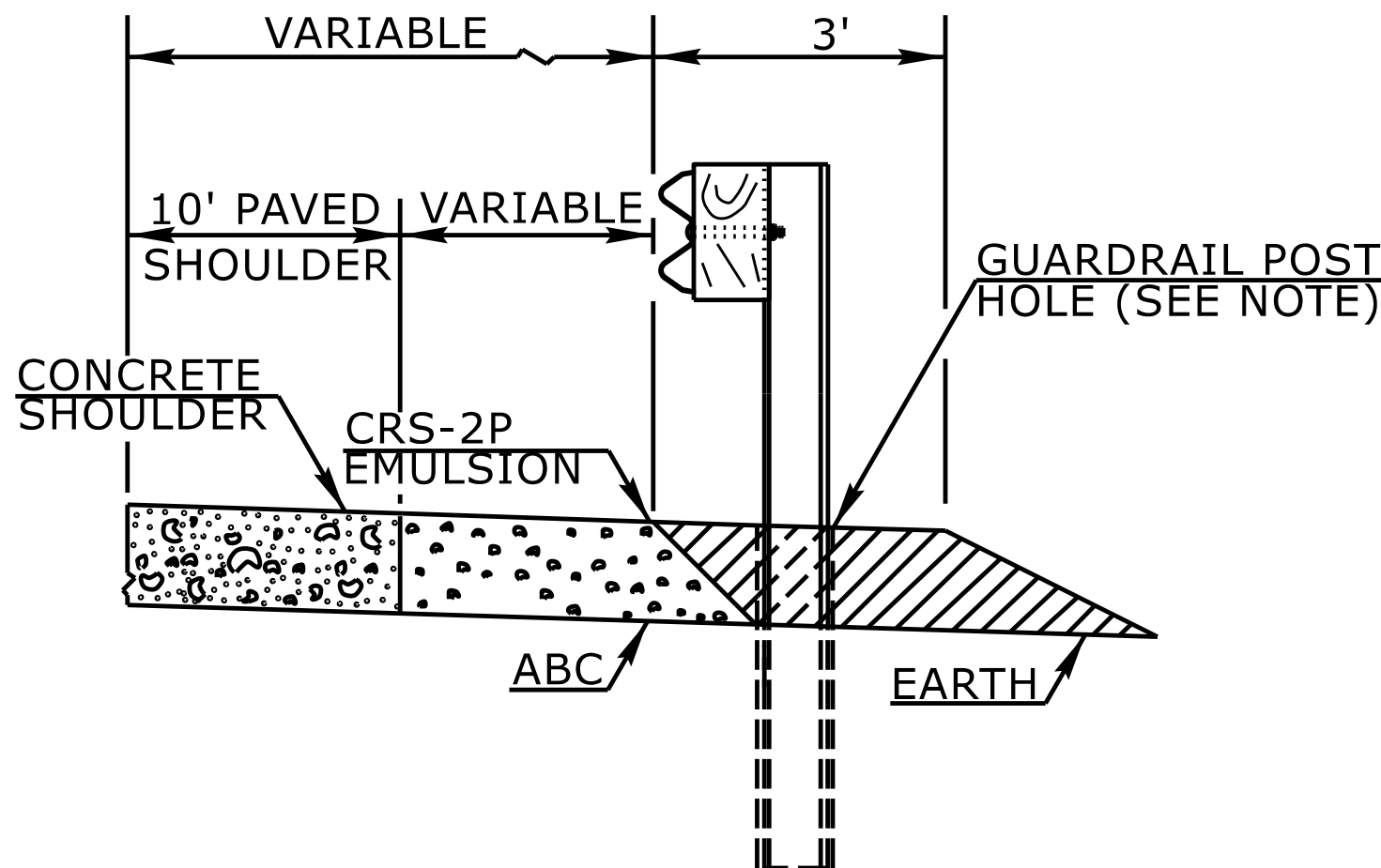
ORIGINAL BY: S.CALHOUN DATE: 7-25-2024
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DATE:

PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-19

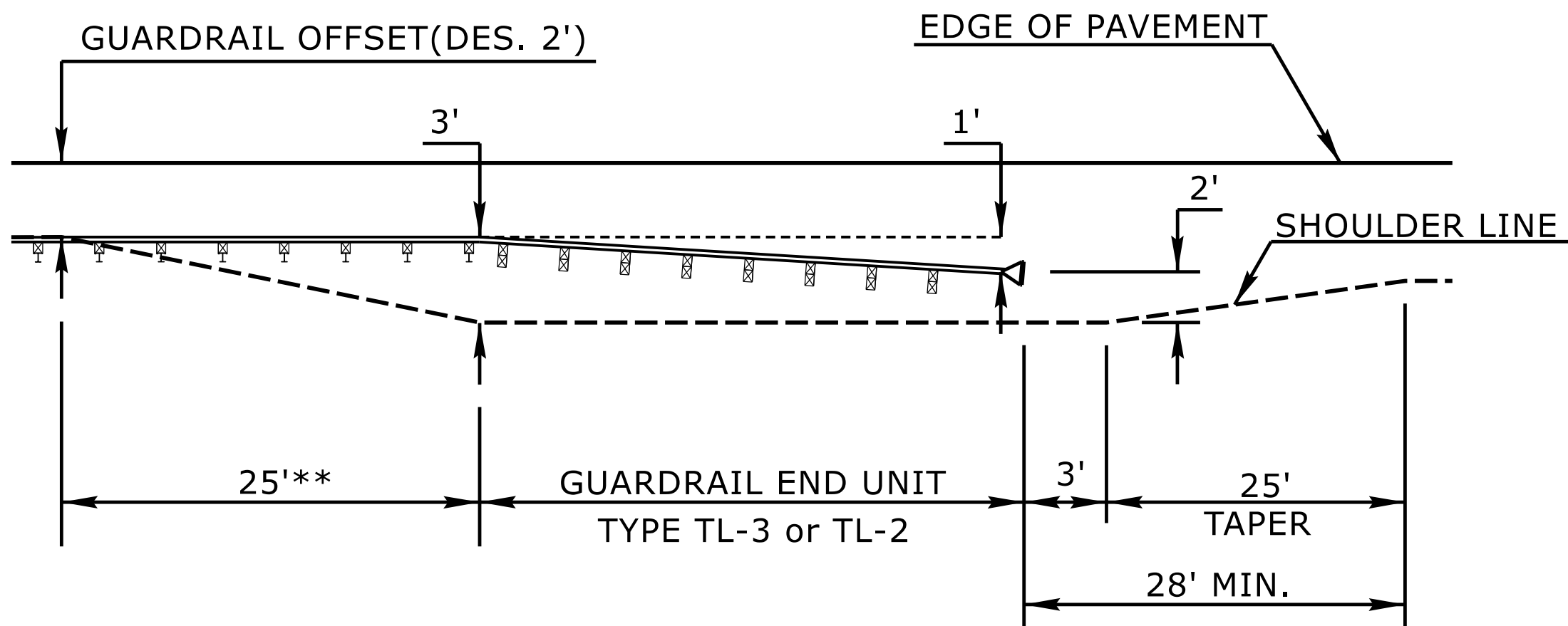
PROJECT REFERENCE NO.	SHEET NO.
R-5759	2C-20



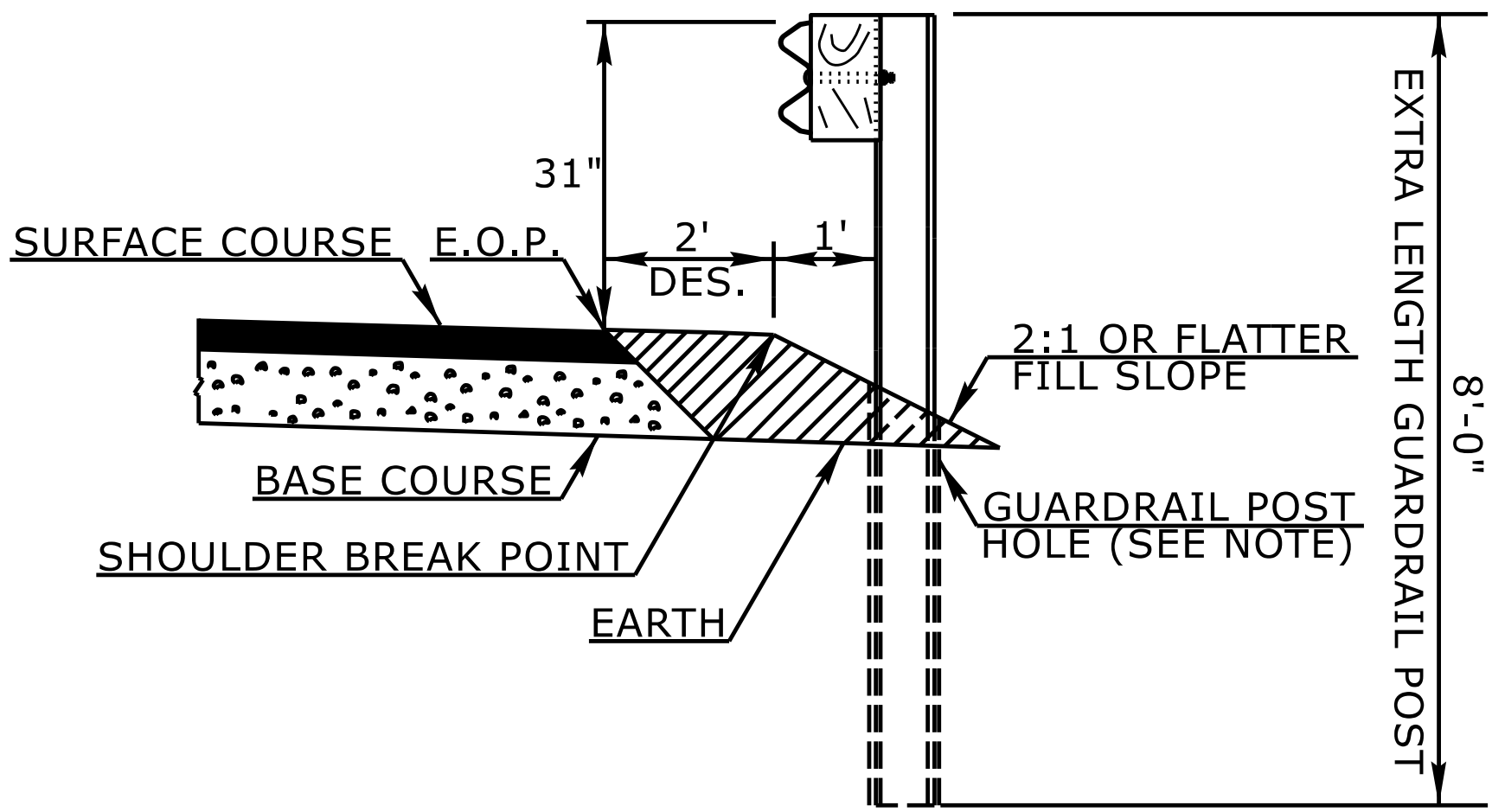
FLEXIBLE PAVED SHOULDER



CONCRETE PAVED SHOULDER



8' GUARDRAIL POST ON 2:1 SLOPE-END UNIT TRANSITION*
PLAN VIEW



8' GUARDRAIL POST ON 2:1 SLOPE*

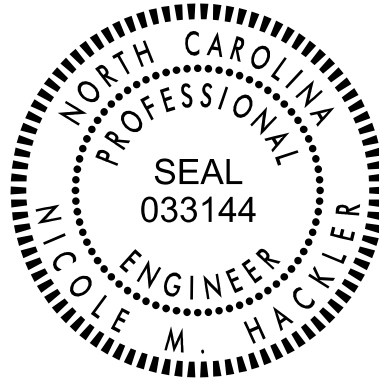
* THE 8' GUARDRAIL POST ON 2:1 SLOPE DETAIL IS INTENDED FOR USE ONLY IN SEVERELY CONSTRAINED AREAS WITH A POSTED SPEED $\leq$ 60 MPH. GUARDRAIL END UNITS MAY NOT BE PLACED ON THE 2:1 SLOPE AND MUST TRANSITION TO THE SHOULDER.
** 8' GUARDRAIL POST SHOULD BE USED IN THIS RANGE

NOTE:
WHEN WOODEN GUARDRAIL POSTS ARE USED, DRILL HOLES THROUGH EARTH MATERIAL AND BASE COURSE.THE POST MAY THEN BE DRIVEN TO THE PROPER DEPTH. DRILL THE HOLE OF SUFFICIENT SIZE TO ACCOMMODATE THE PARTICULAR POST BEING USED. BACKFILL AND TAMP HOLES USING THE EXCAVATED MATERIAL.

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL PLACEMENT

SHEET 11 OF 15
862D01



Signed by:
Nicole M. Hickler
5884323034184CS
10/8/2026

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: L.SMITH DATE: 10-14-2025
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: DATE:

R-5759 PROPOSED DITCH TYPICALS

HNTB NORTH CAROLINA, P.C.
4000 Center at North Hills St
Suite 500
Raleigh, North Carolina 27609
NC License No: C-1854

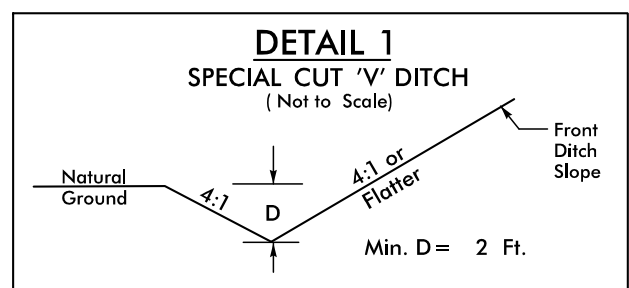
PROJECT REFERENCE NO.
R-5759

SHEET NO.
2D-1

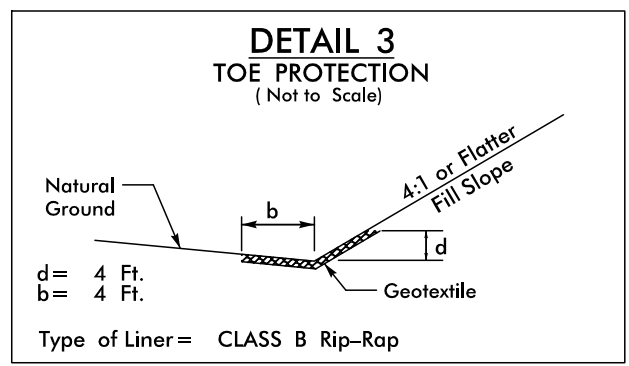
HYDRAULICS
ENGINEER

PAUL V. AMERSON
NORTH CAROLINA PROFESSIONAL ENGINEER
SEAL 40801
10/12/2026

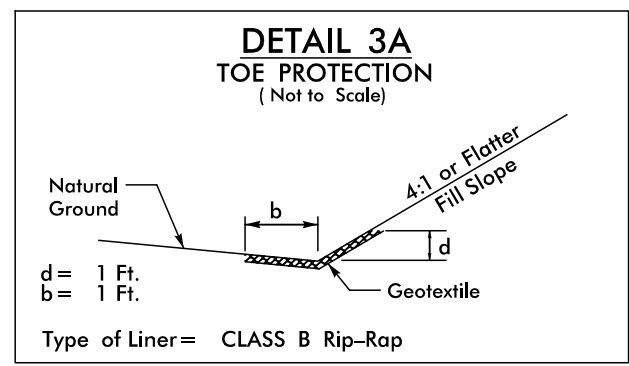
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**



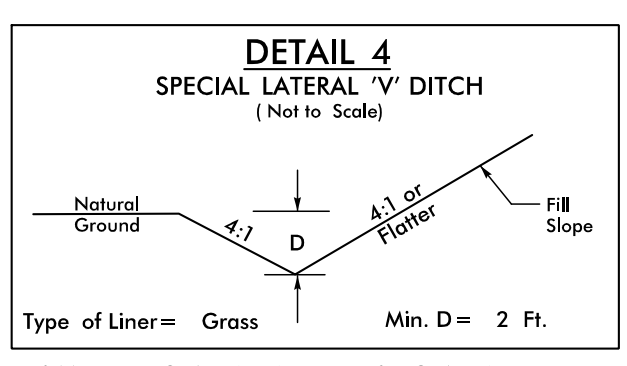
FROM -L- STA. 9+85 LT TO STA. 15+13 LT
FROM -L- STA. 9+85 RT TO STA. 12+20 RT
FROM -L- STA. 23+50 LT TO STA. 25+00 LT
FROM -C1- STA. 11+28.66 RT TO STA. 11+76.74 RT
FROM -RPB- STA. 17+25 RT TO STA. 17+75 RT
FROM -Y3- STA. 13+50 RT TO STA. 14+00 RT
FROM -Y10- STA. 14+00 LT TO STA. 16+25 LT
FROM -Y11- STA. 11+25 LT TO STA. 15+50 LT
FROM -Y11- STA. 11+25 RT TO STA. 12+50 RT
FROM -Y15- STA. 12+45 RT TO STA. 14+25 RT



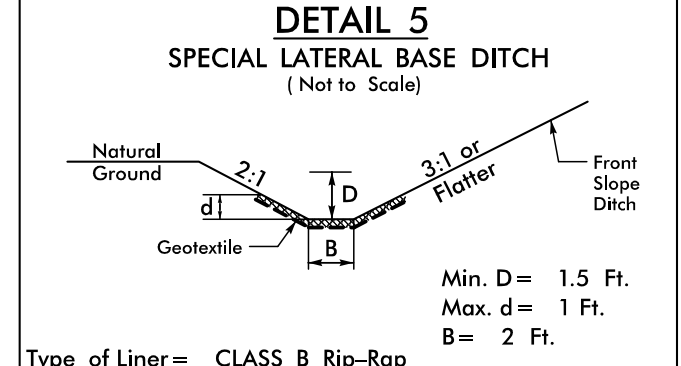
FROM -DRW1- STA. 10+50 LT TO STA. 12+25 LT



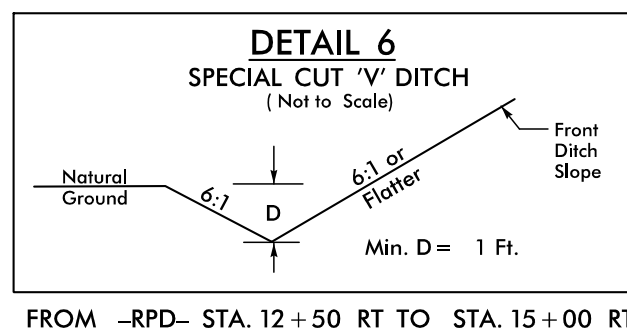
FROM -Y2- STA. 19+25 LT TO STA. 21+50 RT



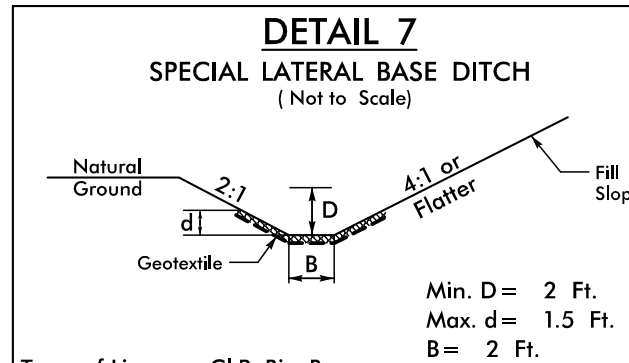
FROM -Y1- STA. 12+25 RT TO STA. 12+75 RT
FROM -Y1- STA. 13+00 RT TO STA. 13+25 RT
FROM -Y3- STA. 14+00 RT TO STA. 14+25 RT
FROM -Y10- STA. 12+25 LT TO STA. 14+00 LT



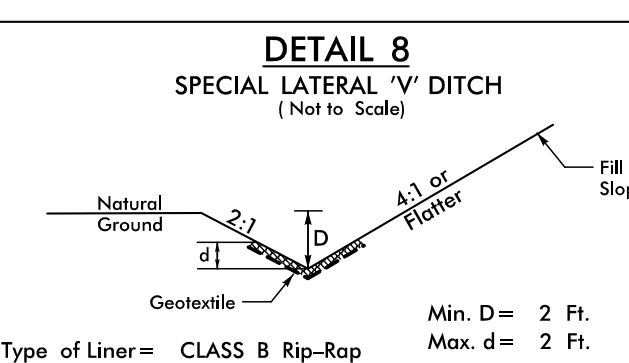
FROM -Y14- STA. 10+25 LT TO STA. 12+00 LT



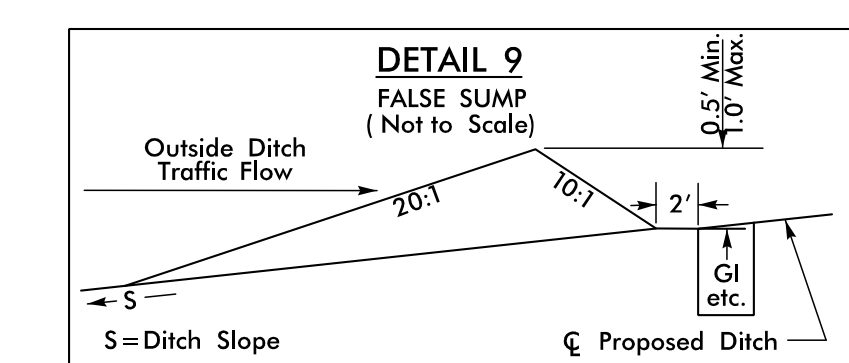
FROM -RPD- STA. 12+50 RT TO STA. 15+00 RT



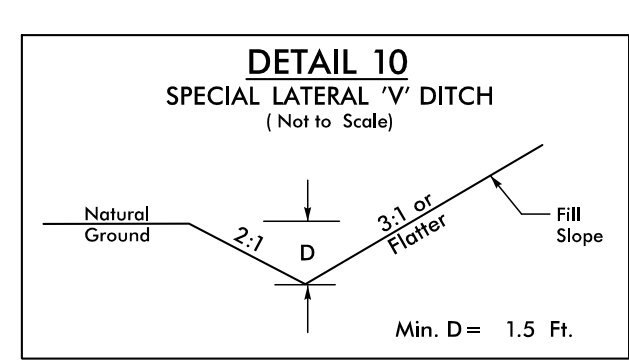
Type of Liner = C18 Rip-Rap
FROM -Y15- STA. 11+25 RT TO STA. 12+40 RT



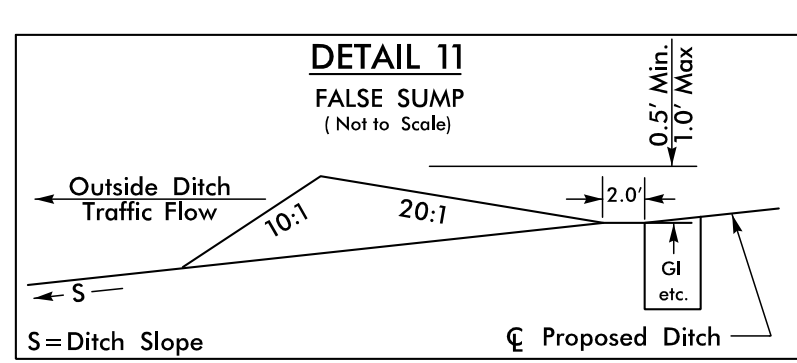
Type of Liner = CLASS B Rip-Rap
FROM -L- STA. 43+00 LT TO STA. 44+00 LT



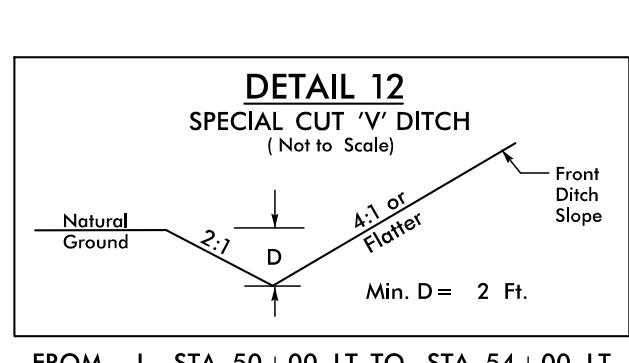
-L- STA. 46+88 LT
-L- STA. 58+93 LT
-L- STA. 63+59 LT
-RPD- STA. 12+50 RT



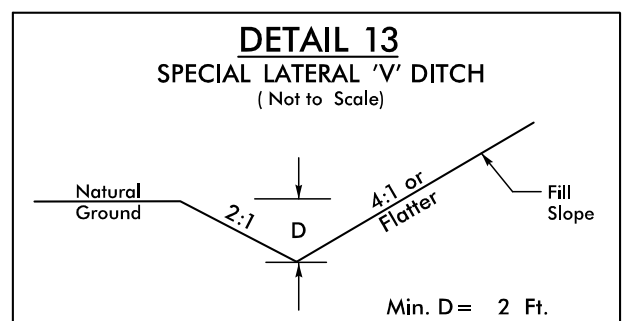
FROM -C3- STA. 13+25 RT TO STA. 14+34 RT



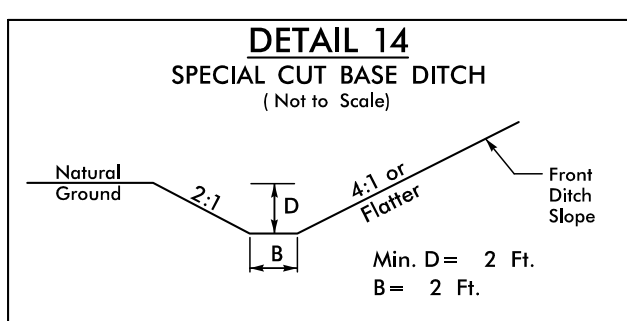
-L- STA. 143+62 LT
-L- STA. 147+85 LT



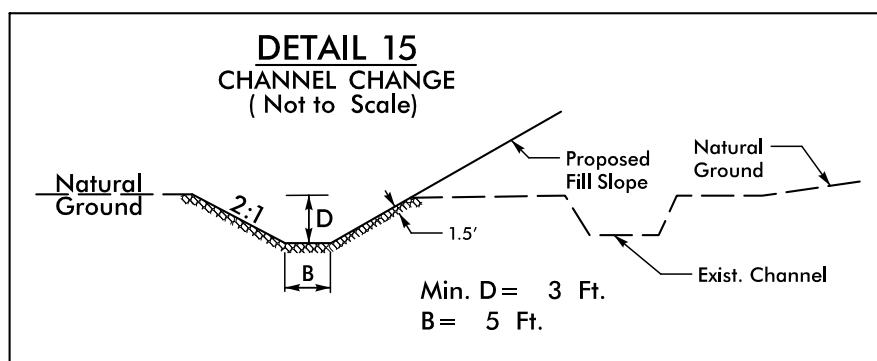
FROM -L- STA. 50+00 LT TO STA. 54+00 LT
FROM -L- STA. 53+60 LT TO STA. 62+84.26 LT
FROM -L- STA. 63+71.06 LT TO STA. 65+30 LT
FROM -L- STA. 142+50 LT TO STA. 149+90 LT
FROM -L- STA. 152+50 LT TO STA. 154+00 LT
FROM -Y1- STA. 12+50 LT TO STA. 13+25 RT
FROM -Y6REV- STA. 15+00 RT TO STA. 16+25 RT
FROM -Y6REV- STA. 15+00 LT TO STA. 16+50 LT
FROM -DRW4- STA. 10+39 RT TO STA. 11+50 RT
FROM -DRW4- STA. 10+30 LT TO STA. 10+75 LT
FROM -DRW4- STA. 14+00 LT TO STA. 14+25 LT
FROM -Y9- STA. 12+50 RT TO STA. 13+50 RT



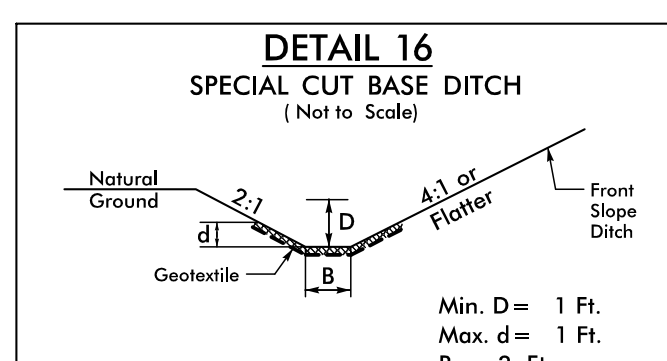
FROM -L- STA. 53+00 RT TO STA. 54+16 RT
FROM -L- STA. 152+00 LT TO STA. 152+50 LT
FROM -L- STA. 154+00 LT TO STA. 154+50 LT
FROM -Y1- STA. 10+75 LT TO STA. 12+50 LT
FROM -Y3- STA. 12+25 LT TO STA. 14+25 LT
FROM -Y4- STA. 11+75 LT TO STA. 14+75 LT
FROM -Y5- STA. 10+55.66 RT TO STA. 11+50 RT
FROM -DRW4- STA. 11+20 LT TO STA. 14+00 LT



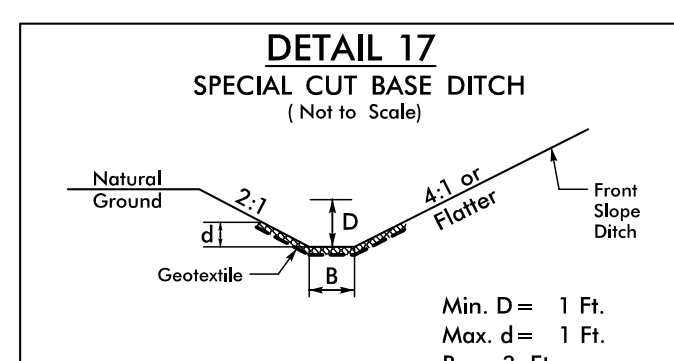
FROM -L- STA. 54+00 LT TO STA. 55+60 LT



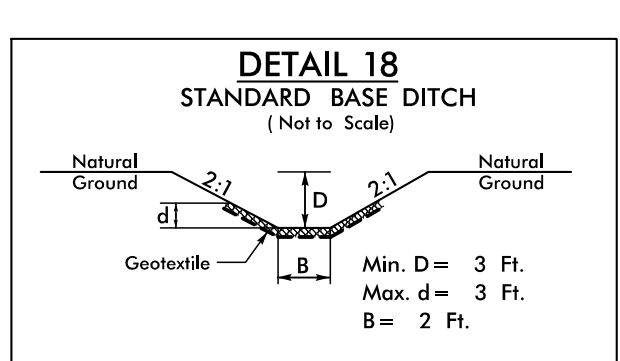
Type of Liner = Class I Rip-Rap - Keyed-In
FROM -L- STA. 136+47 TO STA. 137+23 RT



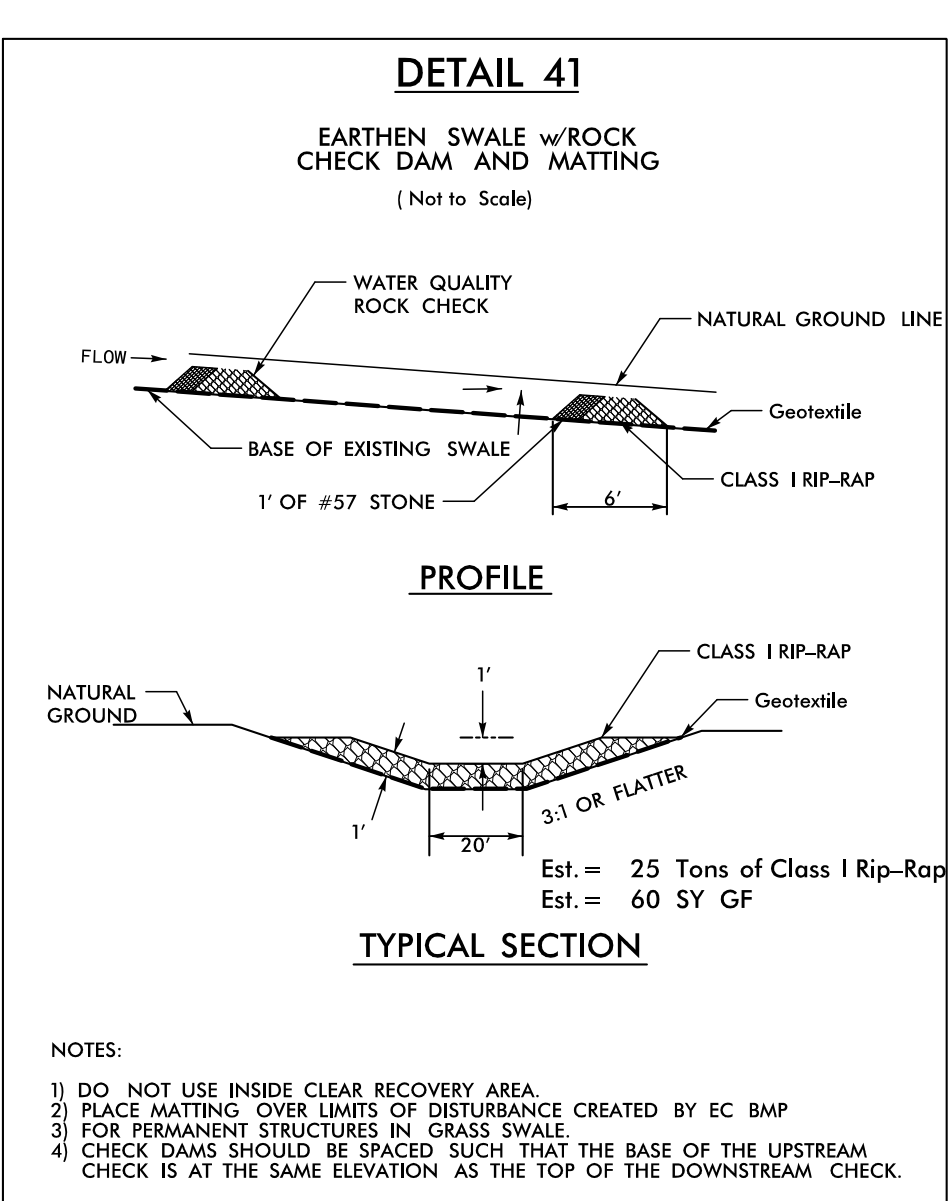
Type of Liner = CLASS B Rip-Rap
FROM -Y14- STA. 12+00 LT TO STA. 12+25 LT
FROM -Y14- STA. 13+00 RT TO STA. 16+50 RT



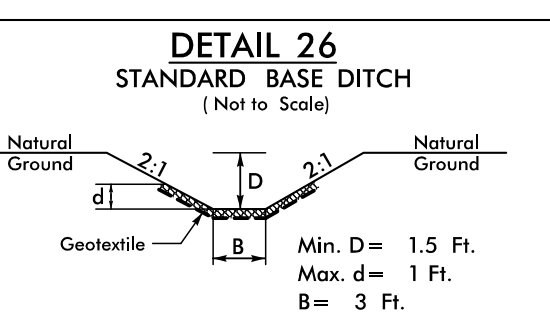
Type of Liner = CLASS B Rip-Rap
FROM -Y14- STA. 12+25 LT TO STA. 16+50 LT



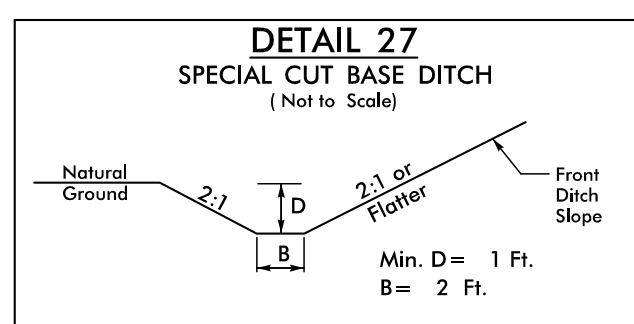
Type of Liner = CLASS B Rip-Rap
FROM -L- STA. 42+00 LT TO STA. 42+42 LT



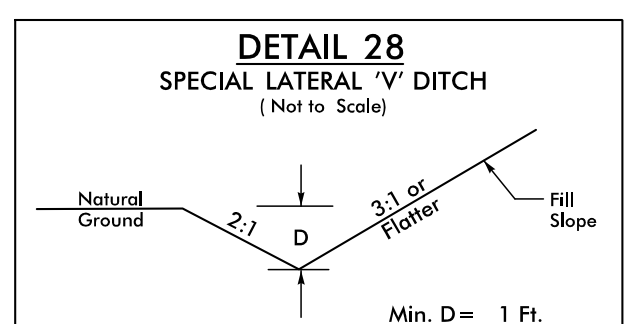
FROM -L- STA. 63+75 TO STA. 64+41 RT



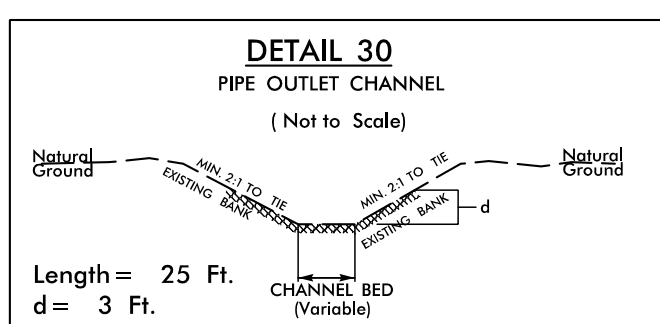
Type of Liner = Class B Rip-Rap
FROM -Y4- STA. 10+48 RT TO STA. 11+57 RT



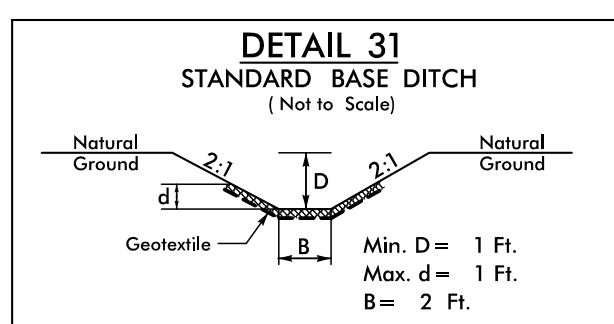
FROM -RPB- STA. 12+50 RT TO STA. 13+00 RT



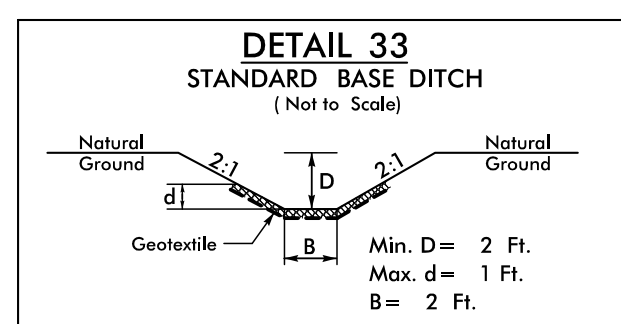
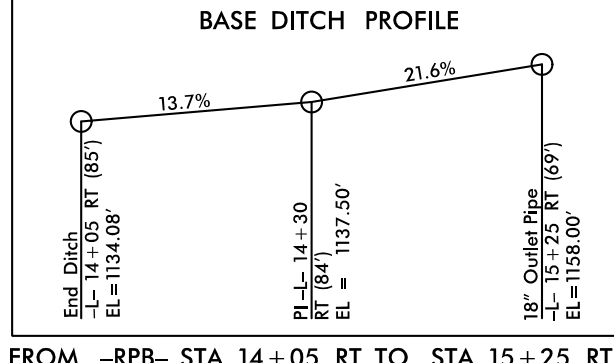
FROM -Y3- STA. 10+25 RT TO STA. 12+20 RT
FROM -DRW3- STA. 11+50 LT TO STA. 12+50 LT



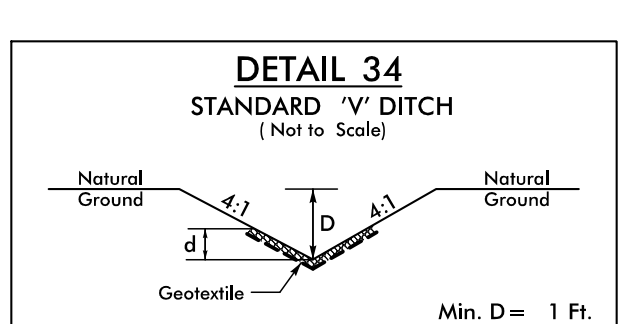
-L- STA. 45+85 RT



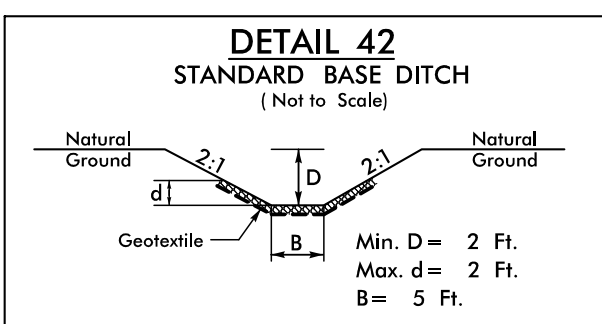
Type of Liner = CLASS I Rip-Rap



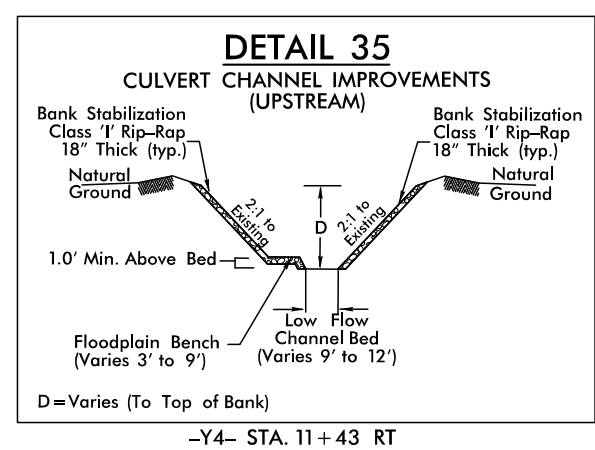
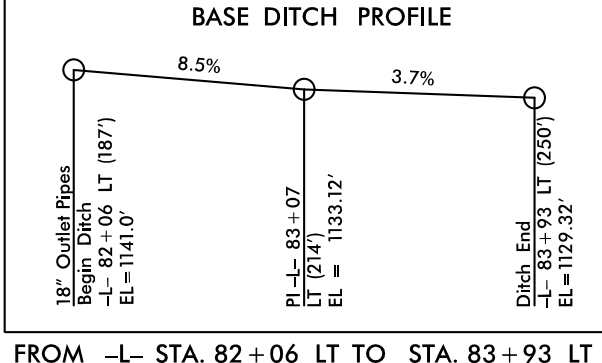
Type of Liner = Class I Rip-Rap
-Y3- STA. 12+20 RT



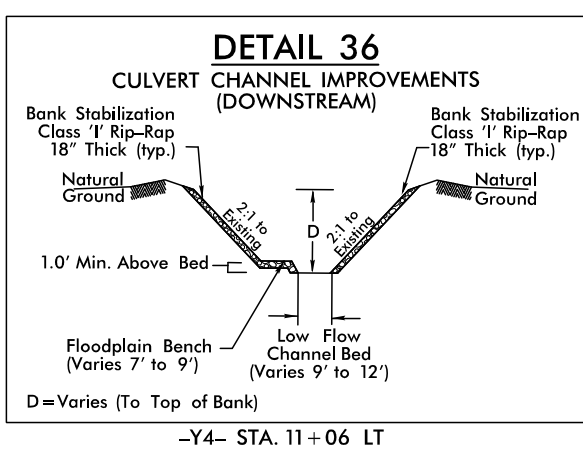
Type of Liner = CLASS I Rip-Rap
-L- STA. 58+67 RT



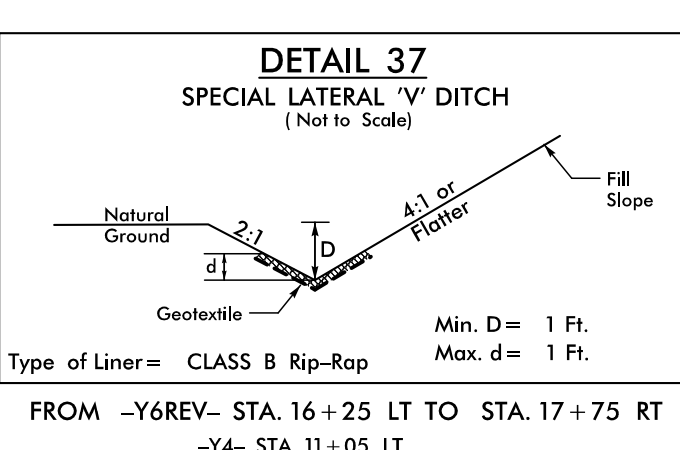
Type of Liner = CLASS I Rip-Rap



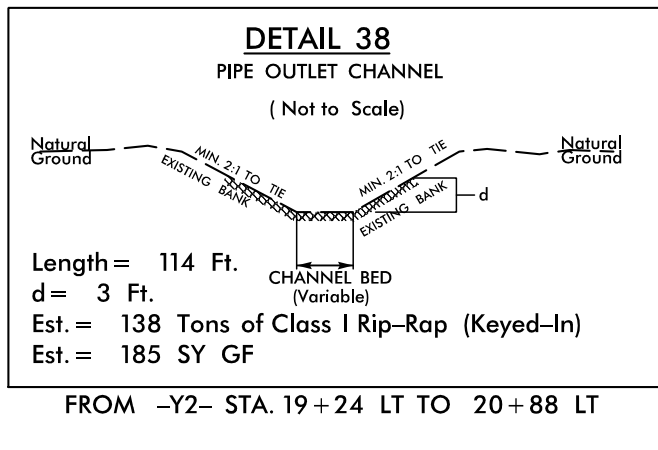
D=Varies (To Top of Bank)
-Y4- STA. 11+43 RT



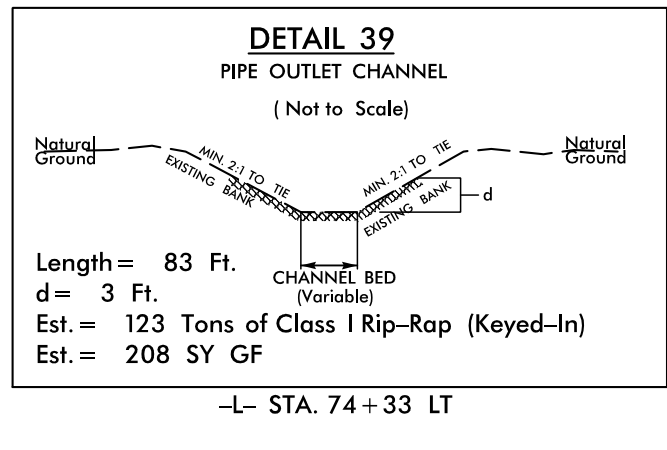
D=Varies (To Top of Bank)
-Y4- STA. 11+06 LT



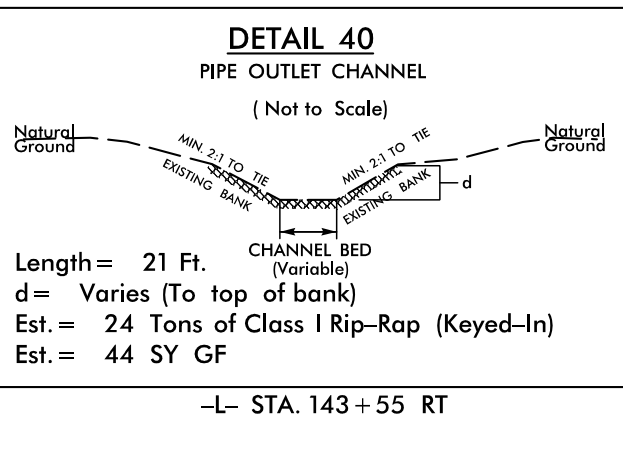
Type of Liner = CLASS B Rip-Rap
FROM -Y6REV- STA. 16+25 LT TO STA. 17+75 RT
-Y4- STA. 11+05 LT



FROM -Y2- STA. 19+24 LT TO 20+88 LT



-L- STA. 74+33 LT



-L- STA. 143+55 RT

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

IN CUBIC YARDS

Station	Station	Uncl. Excav.	Rock	Undercut	Embank. +%	Borrow	Waste
-L- LT STA 9+85.00	-L- LT STA 15+00.00	755	0	0	12	0	743
-L- RT STA 9+85.00	-L- RT STA 15+00.00	94	0	0	236	142	0
-C1- STA 10+00.00	-C1- STA 15+49.75	360	0	0	2,743	2,383	0
-LPB- STA 11+00.00	-LPB- STA 13+00.00	28	0	0	19	0	9
-RPB- STA 15+25.00	-RPB- STA 17+75.00	201	0	0	294	93	0
-DRW1- STA 10+25.00	-DRW1- STA 12+25.00	16	0	0	1,911	1,895	0
-L- LT STA 18+00.00	-L- LT STA 20+00.00	24	0	0	68	44	0
-L- RT STA 18+00.00	-L- RT STA 20+00.00	16	0	0	46	30	0
	SUBTOTAL	1,494	0	0	5,329	4,587	752
-L- LT STA 23+00.00	-L- LT STA 25+00.00	193	0	0	90	0	103
-L- RT STA 23+00.00	-L- RT STA 25+00.00	12	0	0	59	47	0
-C2- STA 10+00.00	-C2- STA 15+49.75	386	0	0	1,279	893	0
-Y1- STA 10+75.00	-Y1- STA 13+25.00	363	0	0	195	0	168
-LPD- STA 11+25.00	-LPD- STA 14+00.00	95	0	0	263	168	0
-RPD- STA 11+50.00	-RPD- STA 15+00.00	496	0	0	130	0	366
-L- LT STA 27+50.00	-L- LT STA 28+50.00	5	0	0	91	86	0
-L- RT STA 27+50.00	-L- RT STA 28+50.00	3	0	0	156	153	0
	SUBTOTAL	1,553	0	0	2,263	1,347	637
-L- LT STA 28+00.00	-L- LT STA 44+00.00	1,952	0	0	1,854	0	98
-L- RT STA 28+00.00	-L- RT STA 44+00.00	183	0	0	7,933	7,750	0
-Y2- STA 13+75.00	-Y2- STA 25+75.00	602	0	0	13,323	12,721	0
-Y2A- STA 11+25.00	-Y2A- STA 12+50.00	146	0	0	0	0	146
-DRW2- STA 10+25.00	-DRW2- STA 11+50.00	122	0	0	87	0	35
-Y3- STA 10+50.00	-Y3- STA 14+75.00	423	0	0	288	0	135
-DRW3- STA 11+50.00	-DRW3- STA 13+25.00	47	0	0	61	14	0
-Y4A- STA 10+50.00	-Y4A- STA 11+25.00	317	0	0	161	0	156
-C3- STA 10+00.00	-C3- STA 15+49.75	97	0	0	3,993	3,896	0
-Y4- STA 10+25.00	-Y4- STA 14+75.00	4,970	0	101	2,258	0	2,813
-DRW11_REV- STA 10+02.50	-DRW11_REV- STA 11+00.00	24	0	0	971	947	0
	SUBTOTAL	8,883	0	101	30,929	25,328	3,383
-L- LT STA 46+00.00	-L- LT STA 58+50.00	9,488	0	0	1,651	0	7,837
-L- RT STA 46+00.00	-L- RT STA 58+50.00	401	0	0	1,635	1,234	0
-Y5- STA 10+50.00	-Y5- STA 11+50.00	105	0	0	86	0	19
	SUBTOTAL	9,994	0	0	3,372	1,234	7,856
-L- LT STA 58+50.00	-L- LT STA 88+00.00	9,779	0	0	7,378	0	2,401
-L- RT STA 58+50.00	-L- RT STA 88+00.00	1,894	0	0	7,331	5,437	0
-Y6REV- STA 15+00.00	-Y6REV- STA 18+00.00	2,799	0	598	4	0	3,393
-DRW4_REV- STA 10+50.00	-DRW4_REV- STA 11+75.00	1,832	0	0	0	0	1,832
-Y7- STA 10+75.00	-Y7- STA 14+00.00	153	0	0	420	267	0
-DRW8- STA 10+25.00	-DRW8- STA 13+25.00	5	0	0	3,353	3,348	0
	SUBTOTAL	16,462	0	598	18,486	9,052	7,626
SHEET 1 SUBTOTALS:		38,386	0	699	60,379	41,548	20,254

Station	Station	Uncl. Excav.	Rock	Undercut	Embank. +%	Borrow	Waste
-L- LT STA 88+00.00	-L- LT STA 103+00.00	1,004	0	0	1,133	129	0
-L- RT STA 88+00.00	-L- RT STA 103+00.00	306	0	0	4,338	4,032	0
-Y8- STA 10+50.00	-Y8- STA 12+25.00	42	0	0	104	62	0
-DRW5- STA 10+25.00	-DRW5- STA 11+75.00	14	0	0	75	61	0
-DRW6- STA 10+50.00	-DRW6- STA 12+00.00	2	0	0	957	955	0
-Y9- STA 12+25.00	-Y9- STA 14+50.00	655	0	0	174	0	481
-C4- STA 10+00.00	-C4- STA 14+71.24	354	0	0	1,361	1,007	0
-Y10- STA 10+25.00	-Y10- STA 17+00.00	874	0	0	1,912	1,038	0
-Y11- STA 10+25.00	-Y11- STA 15+50.00	6,574	0	0	412	0	6,162
	SUBTOTAL	9,825	0	0	10,466	7,284	6,643
-L- LT STA 105+50.00	-L- LT STA 119+00.00	199	0	0	6,822	6,623	0
-L- RT STA 105+50.00	-L- RT STA 119+00.00	3,124	0	0	1,739	0	1,385
-DRW9- STA 10+00.00	-DRW9- STA 11+75.00	3	0	0	1,669	1,666	0
-DRW10- STA 10+25.00	-DRW10- STA 11+00.00	2	0	0	193	191	0
	SUBTOTAL	3,328	0	0	10,423	8,480	1,385
-L- LT STA 118+50.00	-L- LT STA 148+50.00	104,952	0	0	6,850	0	98,102
-L- RT STA 118+50.00	-L- RT STA 148+50.00	17,136	0	962	13,350	0	4,748
-Y12- STA 10+50.00	-Y12- STA 12+50.00	318	0	0	194	0	124
-DRW15- STA 10+25.00	-DRW15- STA 11+25.00	5	0	0	448	443	0
-DRW7- STA 10+25.00	-DRW7- STA 11+75.00	375	0	0	41	0	334
-DRW13- STA 10+50.00	-DRW13- STA 10+75.00	50	0	0	3	0	47
-DRW14- STA 10+50.00	-DRW14- STA 10+75.00	54	0	0	3	0	51
-Y13- STA 10+50.00	-Y13- STA 12+25.00	59	0	0	946	887	0
-Y14- STA 10+25.00	-Y14- STA 16+75.00	97,557	207	0	178	0	97,379
	SUBTOTAL	220,506	207	962	22,013	1,330	200,785
-L- LT STA 148+50.00	-L- LT STA 170+50.00	21,266	0	0	1,170	0	20,096
-L- RT STA 148+50.00	-L- RT STA 170+50.00	188	0	0	1,522	1,334	0
-Y15- STA 10+50.00	-Y15- STA 14+25.00	604	0	0	624	20	0
-DRW12- STA 10+25.00	-DRW12- STA 11+25.00	57	0	0	209	152	0
-Y16- STA 10+50.00	-Y16- STA 11+25.00	34	0	0	26	0	8
-L- STA 175+00.00	-L- STA 178+50.00	32	0	0	7	0	25
	SUBTOTAL	22,181	0	0	3,558	1,506	20,129
SHEET 2 SUBTOTALS:		255,840	207	962	46,460	18,600	228,942
PROJECT TOTAL:		294,226	207	1,661	106,839	60,148	249,196
MATERIAL FOR SHOULDER CONSTRUCTION					719	719	
LOSS DUE TO CLEARING & GRUBBING		-8,500					
ADDITIONAL UNDERCUT				1,275			1,275
ROCK WASTE TO REPLACE BORROW							
ADJUST FOR ROCK WASTE							
WASTE IN LIEU OF BORROW						-60,867	-60,867
GRAND TOTAL:		285,726	207	2,936	107,558	0	189,604
SAY:		286,000		3,200		0	

Note: Quantities are approximate only. The Resident Engineer will use methods including but not limited to recross-sectioning, truck measurements, and aerial surveys to compute the final quantities for which the contractor will be paid.

Note: Earthwork quantities are calculated by the Roadway Designer. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

EST. DDE = 1,808 CUBIC YARDS
EST. SHALLOW UNDERCUT = 5,500 CY
SHOULDER BORROW = 625 CY
CLASS IV SUBGRADE STABILIZATION = 13,650 TONS
-L- PAVEMENT STRUCTURE VOLUME=3370 CY
-C1- PAVEMENT STRUCTURE VOLUME = 227 CY
-C2- PAVEMENT STRUCTURE VOLUME = 226 CY
-C3- PAVEMENT STRUCTURE VOLUME = 118 CY
-C4- PAVEMENT STRUCTURE VOLUME = 90 CY

GEOTEXTILE FOR SOIL STABILIZATION = 27,765 SY
SELECT GRANULAR MATERIAL = 2,450 CY

UNCLASSIFIED EXCAVATION - ACCEPTABLE = 22,100 CY
UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN THE TOP 3' OF EMBANKMENT OR BACKFILL FROM:

-L- STA. 9+85 TO 15+25 (255 CY)	-L- STA. 121+75 TO 123+25 (1480 CY)	-L- STA. 117+25 TO 120+25 (6 CY)
-L- STA. 18+25 TO 20+48 (15 CY)	-L- STA. 124+75 TO 125+25 (46 CY)	-RPB- STA. 15+20 TO 16+15 (50 CY)
-L- STA. 22+75 TO 25+25 (4 CY)	-L- STA. 127+25 TO 129+25 (103 CY)	-LPD- STA. 11+25 TO 14+14 (306 CY)
-L- STA. 27+25 TO 29+75 (394 CY)	-L- STA. 156+25 TO 158+75 (229 CY)	-RPD- STA. 11+50 TO 12+35 (11 CY)
-L- STA. 31+25 TO 33+75 (7328 CY)	-L- STA. 163+75 TO 170+75 (2860 CY)	-RPD- STA. 13+60 TO 14+15 (208 CY)
-L- STA. 40+25 TO 44+25 (323 CY)	-Y1- STA. 10+65 TO 13+36 (137 CY)	-C1- STA. 11+15 TO 12+15 (116 CY)
-L- STA. 57+25 TO 63+25 (272 CY)	-Y6_REV- STA. 15+00 TO 18+50 (1365 CY)	-C1- STA. 12+65 TO 12+85 (8 CY)
-L- STA. 65+25 TO 67+75 (7 CY)	-Y10- STA. 10+25 TO 13+15 (18 CY)	-C2- STA. 10+00 TO 11+85 (1655 CY)
-L- STA. 96+25 TO 98+75 (277 CY)	-Y11- STA. 12+15 TO 14+15 (14 CY)	-C2- STA. 15+15 TO 15+50 (978 CY)
-L- STA. 100+25 TO 102+75 (1583 CY)	-Y12- STA. 10+35 TO 12+50 (91 CY)	-DRW1- STA. 11+35 TO 12+25 (47 CY)
-L- STA. 105+25 TO 108+25 (1574 CY)	-LPB- STA. 10+90 TO 11+65 (4 CY)	-DRW4_REV- STA. 10+00 TO 11+84 (336 CY)

ROCK BLASTING - CRYSTALLINE ROCK IS PRESENT WITHIN 6 FEET OF PROPOSED GRADE AT THE FOLLOWING LOCATIONS AND MAY REQUIRE BLASTING.

-L- STA. 141+00 TO 142+25
-L- STA. 147+00 TO 147+75

