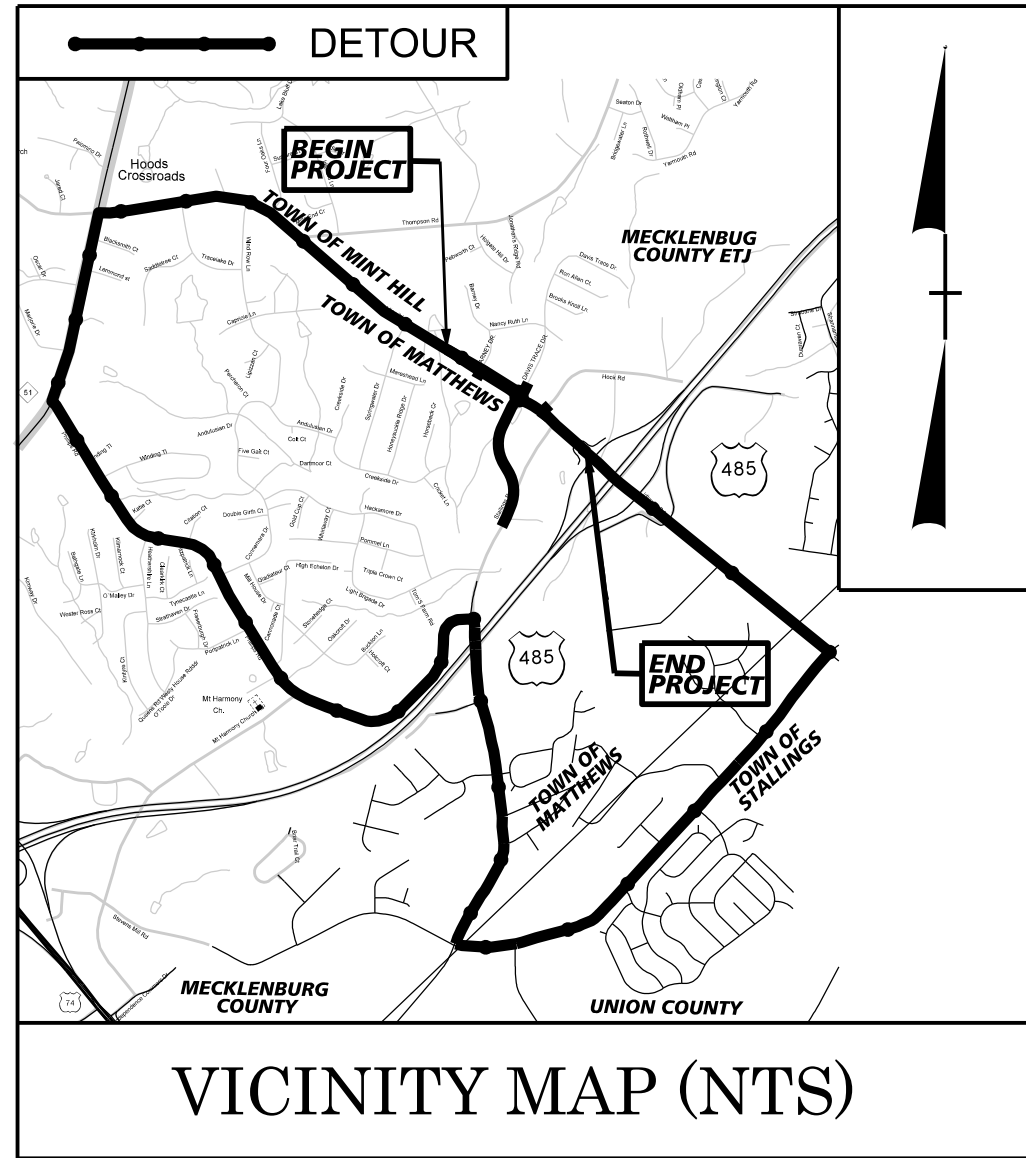


TIP PROJECT: U-4913A

CONTRACT: C205039

SEE SHEET 1A FOR INDEX OF SHEETS
SEE SHEET 1B FOR CONVENTIONAL PLAN SHEET SYMBOLS

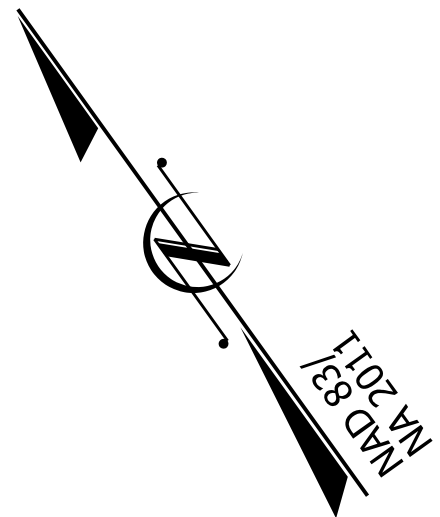


STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS MECKLENBURG COUNTY

LOCATION: *SR 3174 (IDLEWILD ROAD) FROM
SR 3175 (STALLINGS ROAD) TO I-485
WIDEN TO FOUR LANES*

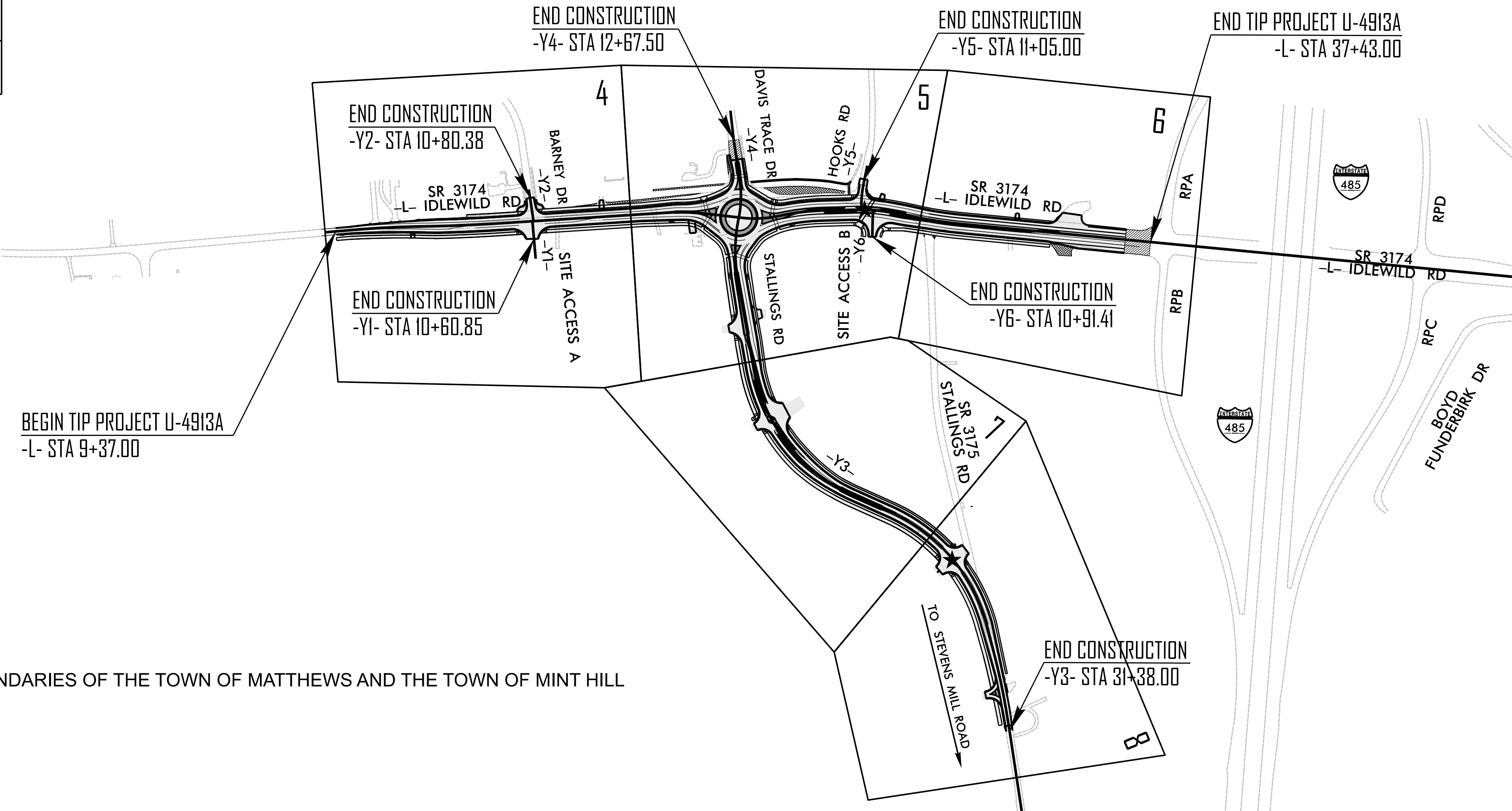
TYPE OF WORK: *GRADING, DRAINAGE
PAVING, AND SIGNALS*

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4913A	11	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
40543.1.3	N/A	PE	
40543.2.4	N/A	R/W	
40543.2.5	N/A	UTILITIES	
40543.3.2	N/A	CONST.	



- L- (SR 3174) IDLEWILD RD
- Y1- SITE ACCESS A
- Y2- BARNEY DR
- Y3- STALLINGS RD
- Y4- DAVIS TRACE DR
- Y5- HOOKS RD
- Y6- SITE ACCESS B

BEGIN TIP PROJECT U-4913A
-L- STA 9+37.00

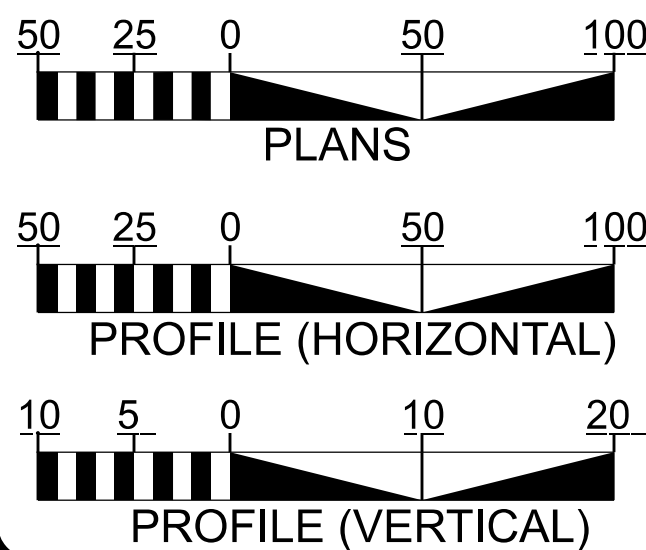


★ PROPOSED TRAFFIC SIGNAL
THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE TOWN OF MATTHEWS AND THE TOWN OF MINT HILL

NCDOT CONTACT:
RANDY BOWERS
NCDOT - DIVISION 10
716 W. MAIN STREET
ALBEMARLE, NC 28001

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



DESIGN DATA

ADT 2025 = 14,200
ADT 2040 = 18,400
K = 11 %
D = 55 %
T = 3 % *
V = 40 MPH
* TTST = 1% DUAL 2%
FUNC CLASS = MINOR
ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT U-4913A = 0.531 MILES
TOTAL LENGTH OF TIP PROJECT U-4913A = 0.531 MILES

Prepared in the Office of:
Kimley-Horn

200 South Tryon Street, Suite 200
Charlotte, North Carolina 28202

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
AUGUST 14, 2024

LETTING DATE:
AUGUST 19, 2025

FRANK MASTERSON, P.E.
PROJECT ENGINEER

ANDREW WEEKS, E.I.
PROJECT DESIGN ENGINEER

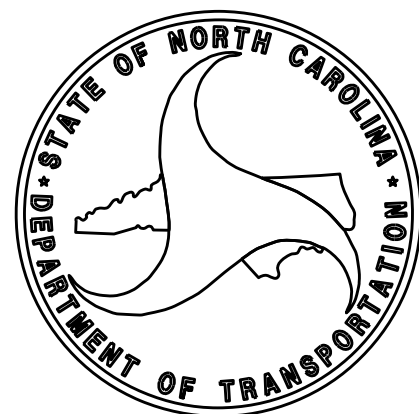
RANDY BOWERS
NCDOT PROJECT MANAGER

HYDRAULICS ENGINEER

DocuSigned by:
Frank Masterson
7/8/2025
P.E.

ROADWAY DESIGN ENGINEER

DocuSigned by:
Andrew Weeks
7/8/2025
P.E.



INDEX OF SHEETS	
SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1 THRU 2A-3	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-4	ROADWAY DETAILS
2C-1	FLEXIBLE PIPE DETAIL
2C-2	RIGID PIPE DETAIL
2C-3	CONCRETE SIDEWALK DETAIL
2C-4	CURB RAMP DETAIL
2C-5	TEMPORARY STEEL COVER DETAIL
2C-6	CURB TRANSITION DETAIL
2D-1	DRAINAGE DETAILS
3B-1	SUMMARY OF PAVEMENT REMOVAL AND EARTHWORK SUMMARY SHEET
3D-1 THRU 3D-3	DRAINAGE SUMMARIES
3P-1	PARCEL INDEX SHEET AND ROW DATA SHEET
4 THRU 8	PLAN SHEETS
9 THRU 11	PROFILE SHEETS
RW-01 THRU RW-08	RIGHT OF WAY PLANS
TMP-01 THRU TMP-13	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-6	PAVEMENT MARKING PLAN SHEETS
EC-1 THRU EC-8	EROSION CONTROL PLAN SHEETS
SIGN-1 THRU SIGN-6	SIGNING PLAN SHEETS
SIG 1.0 THRU SIG 8.2	SIGNAL PLAN
SCP-1 THRU SCP-6	CABLE ROUTING PLANS
UC-1 THRU UC-09	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-6	UTILITY BY OTHERS PLANS
X-01	CROSS-SECTION INDEX
X-01A	CROSS-SECTION SUMMARY SHEET
X-02 THRU X-060	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. 848.03
AT LOCATIONS SHOWN ON 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.

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 Union Power, Windstream

Charter, PNG (Duke) Charlotte Water

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 CONTRACT.

CURB RAMPS

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

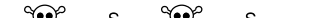
EFF. 01-16-2024
REV.
2024 ROADWAY ENGLISH STANDARD DRAWINGS

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:

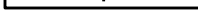
STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.04	Parallel Pipe End Section - Prefabricated Steel Section for 15" to 24" Pipe
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	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
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
838.80	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
840.20	Frames and Wide Slot Flat Grates
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.29	Frames and Narrow Slot Flat Grates
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
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.03	Driveway Turnout - Drop Curb Type
848.04	Street Turnout
848.06	Curb Ramp
848.07	Concrete Sidepath / Shared Use Path / Greenway Construction
852.01	Concrete Islands
852.06	Method for Placement of Drop Inlets in Concrete Islands
852.10	Median Construction - with Curb and Gutter
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

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	

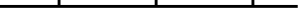
RAILROADS:

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:

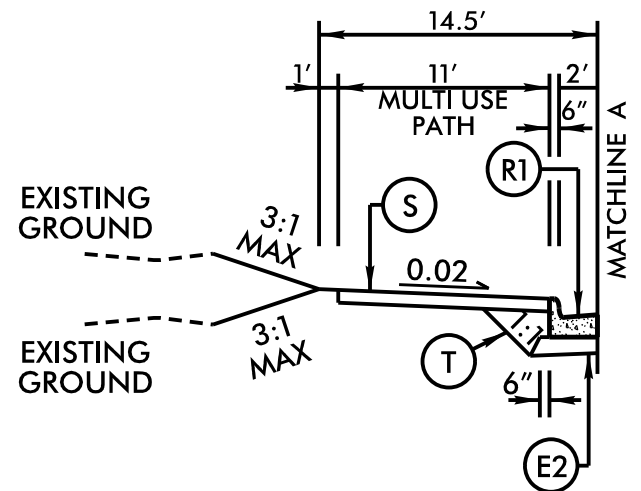
Gas Valve	
Gas Meter	
U/G Gas Line Test Hole (SUE - LOS A)*	
U/G Gas Line (SUE - LOS B)*	
U/G Gas Line (SUE - LOS C)*	
U/G Gas Line (SUE - LOS D)*	
Above Ground Gas Line	

SANITARY SEWER:

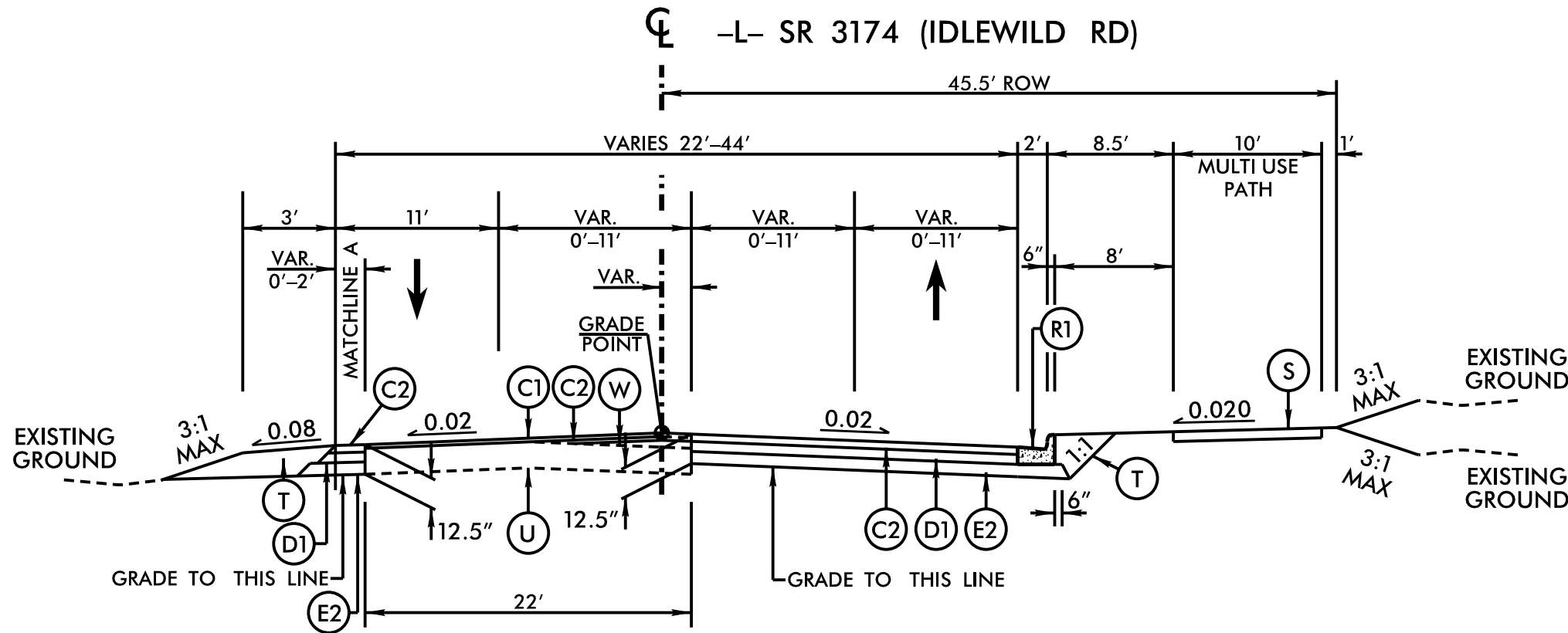
Sanitary Sewer Manhole	
Sanitary Sewer Cleanout	
U/G Sanitary Sewer Line	
Above Ground Sanitary Sewer	
SS Force Main Line Test Hole (SUE - LOS A)*	
SS Force Main Line (SUE - LOS B)*	
SS Force Main Line (SUE - LOS C)*	
SS Force Main Line (SUE - LOS D)*	

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	

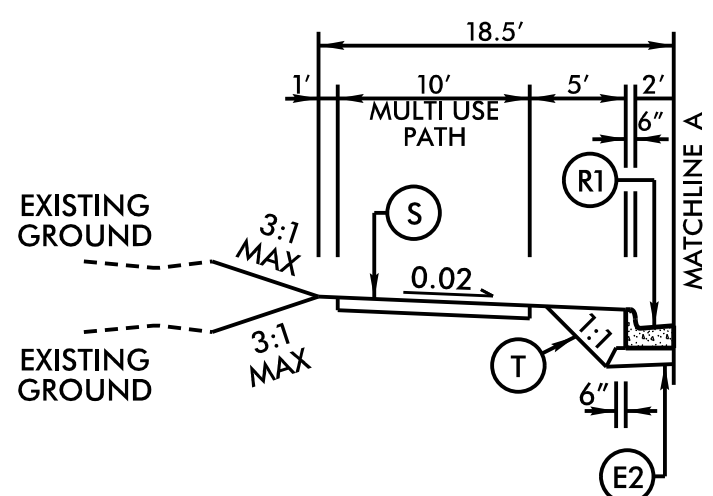


TYPICAL SECTION NO. 1A
-L- STA. 12+88.00 TO 12+89.06

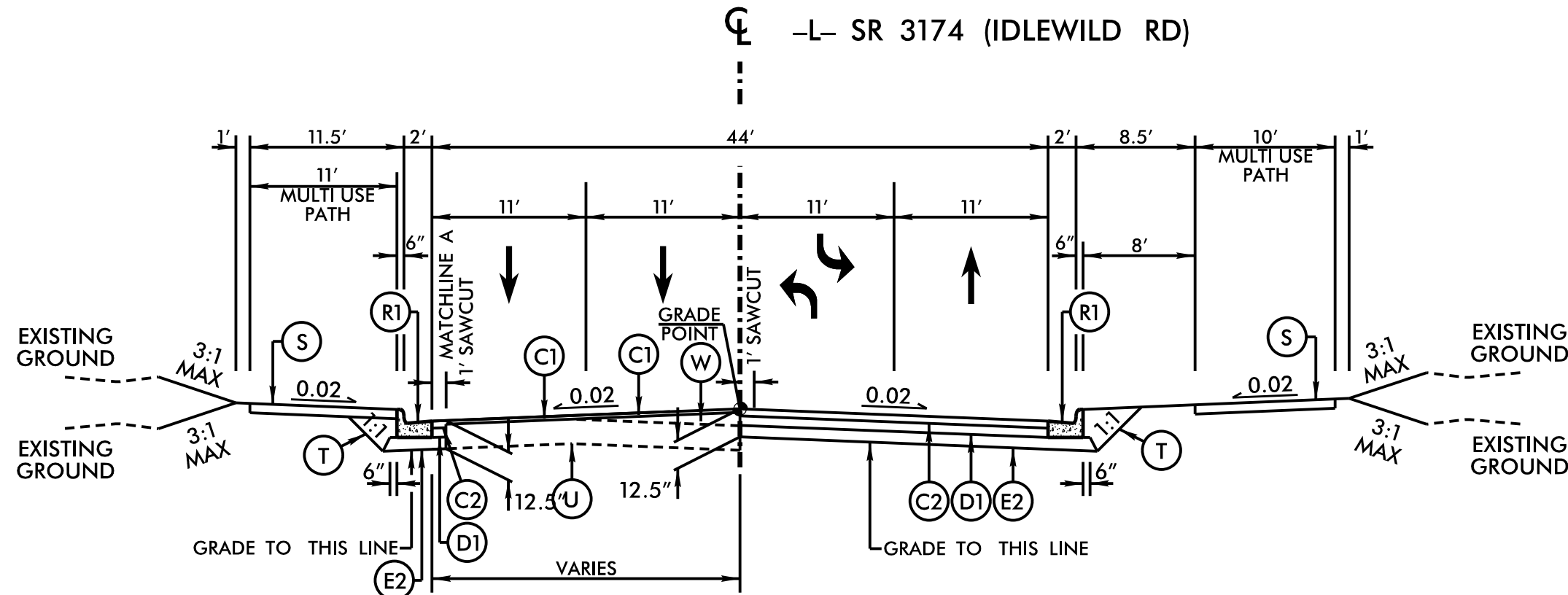


TYPICAL SECTION NO. 1
-L- STA. 9+37.00 TO 12+89.06

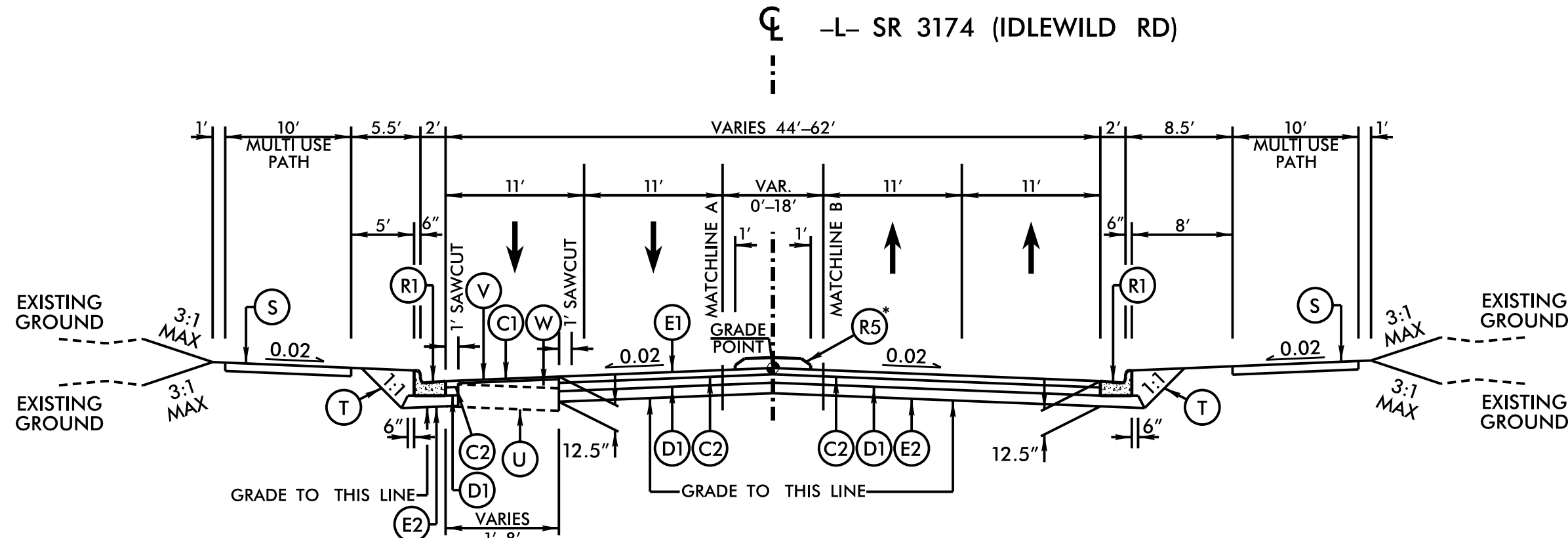
- INCIDENTAL MILLING
- L- STA. 8+87 TO 9+37
 - L- STA. 35+56 TO 37+43
 - Y2- STA. 10+80 TO 11+30
 - Y3- STA. 31+20 TO 31+70
 - Y4- STA. 12+00 TO 12+68
 - Y5- STA. 11+05 TO 11+55



TYPICAL SECTION NO. 2A
-L- STA. 16+41.19 TO 18+20.00

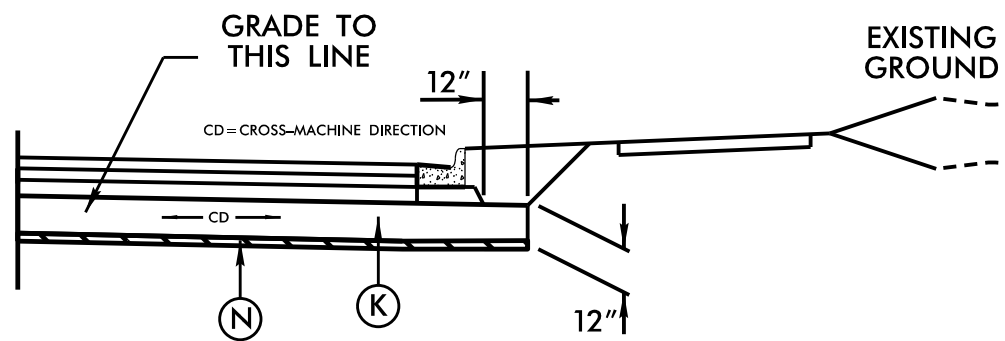


TYPICAL SECTION NO. 2
-L- STA. 12+89.06 TO 18+20.00



TYPICAL SECTION NO. 3
-L- STA. 18+20.00 TO 22+43.33
*SEE PLAN SHEETS FOR SPECIFIC LOCATIONS

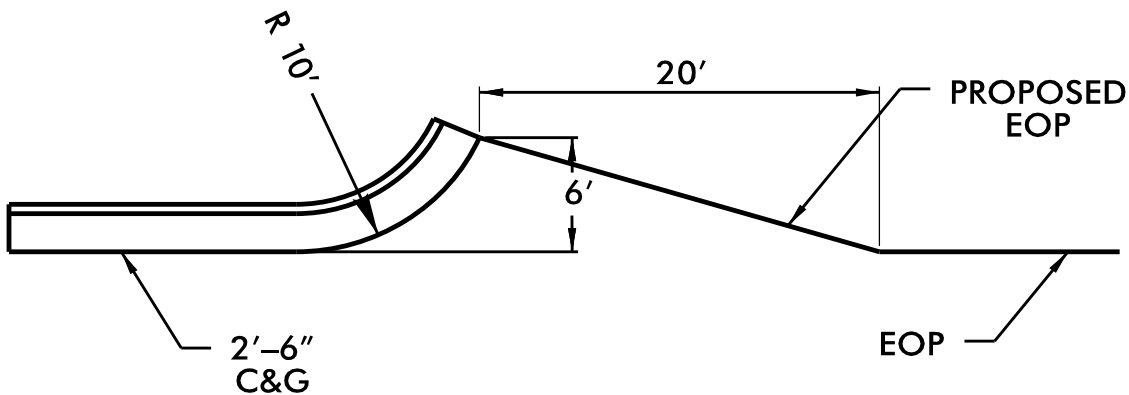
NOTE:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



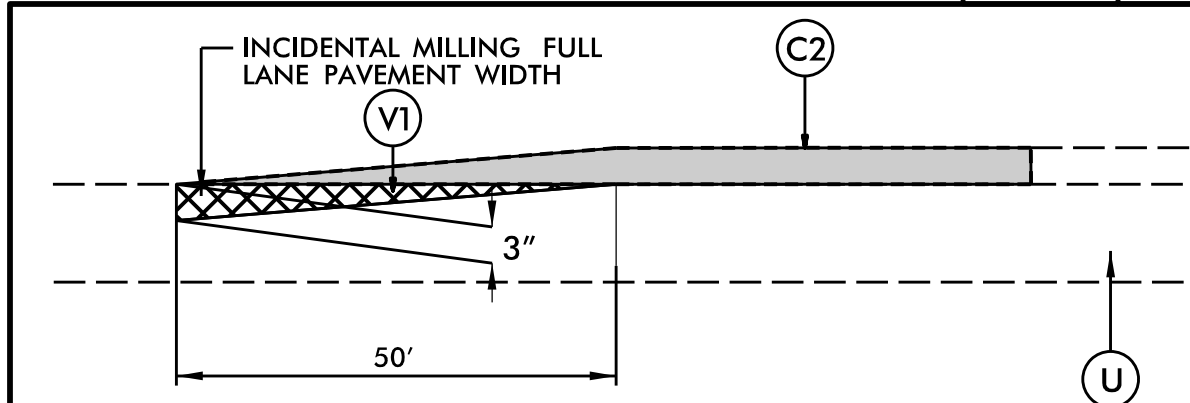
USE DETAIL FOR SUBGRADE STABILIZATION AS FOLLOWS:
-L- STA 10+00 TO 16+75 -Y3- STA 10+00 TO 18+00
-L- STA 21+50 TO 26+00 -Y3- STA 28+75 TO 31+20
-L- STA 26+00 TO 32+25 -Y4- STA 10+80 TO 12+68
-Y2- STA 10+22 TO 11+10 -Y5- STA 10+00 TO 11+05

SEE SHEET 2A-2 FOR PLACEMENT DETAIL

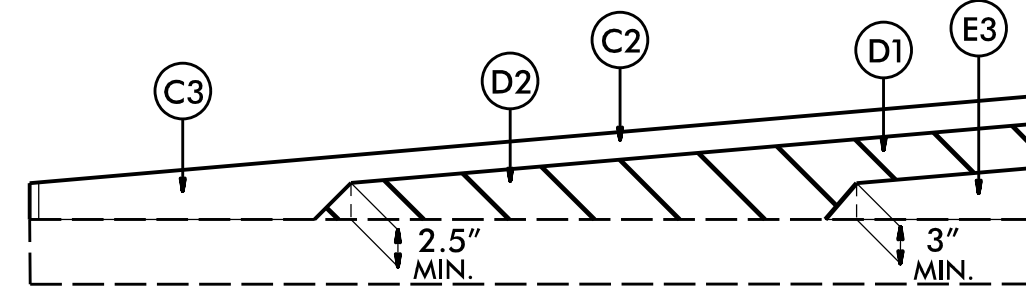
GEOTEXTILE FOR SUBGRADE STABILIZATION



CURB RETURN DETAIL



INCIDENTAL MILLING DETAIL



WEDGING DETAIL FOR RESURFACING

FINAL PAVEMENT SCHEDULE

A1	12" CONCRETE TRUCK APRON (CLASS AA)
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 OF 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 TO EXCEED 2" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	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. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 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.
K	CLASS IV SUBGRADE STABILIZATION
N	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" CONCRETE CURB AND GUTTER.
R2	1'-6" CONCRETE CURB AND GUTTER.
R3	1'-6" CONCRETE CURB AND GUTTER. (CLASS AA)
R4	8" X 18" CONCRETE CURB
R5	5" MONOLITHIC CONCRETE ISLAND (SURFACE MOUNTED)
S_	4" CONCRETE SIDEWALK.
T_	EARTH MATERIAL.
U_	EXISTING PAVEMENT.
V_	MILLING ASPHALT PAVEMENT, 1.5" DEPTH.
V1	INCIDENTAL MILLING ASPHALT PAVEMENT
W_	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL).

REVISIONS

U-4913A

2A-1

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MECKLENBURG COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEER

SEAL
037923
J.R. HORN
2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

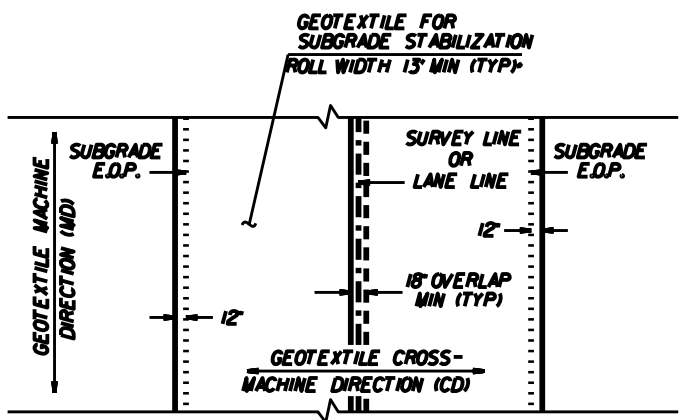
PAVEMENT DESIGN
ENGINEER

SEAL
044590
KIMLEY-HORN
2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

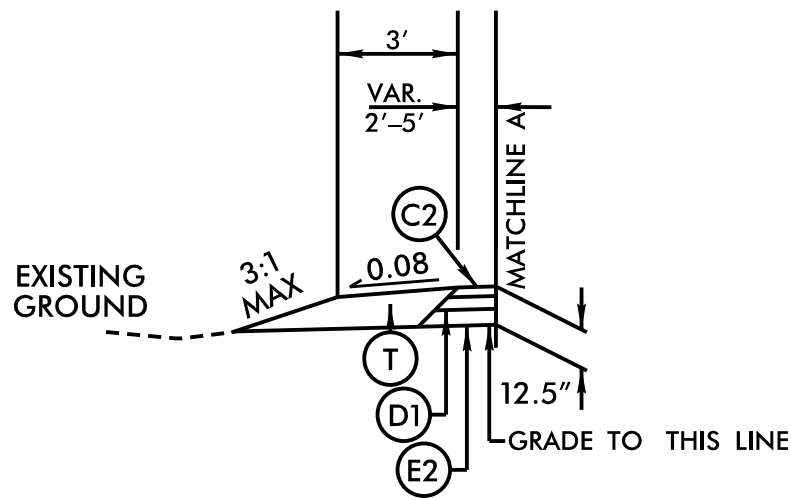
PREPARED BY

KimleyHorn



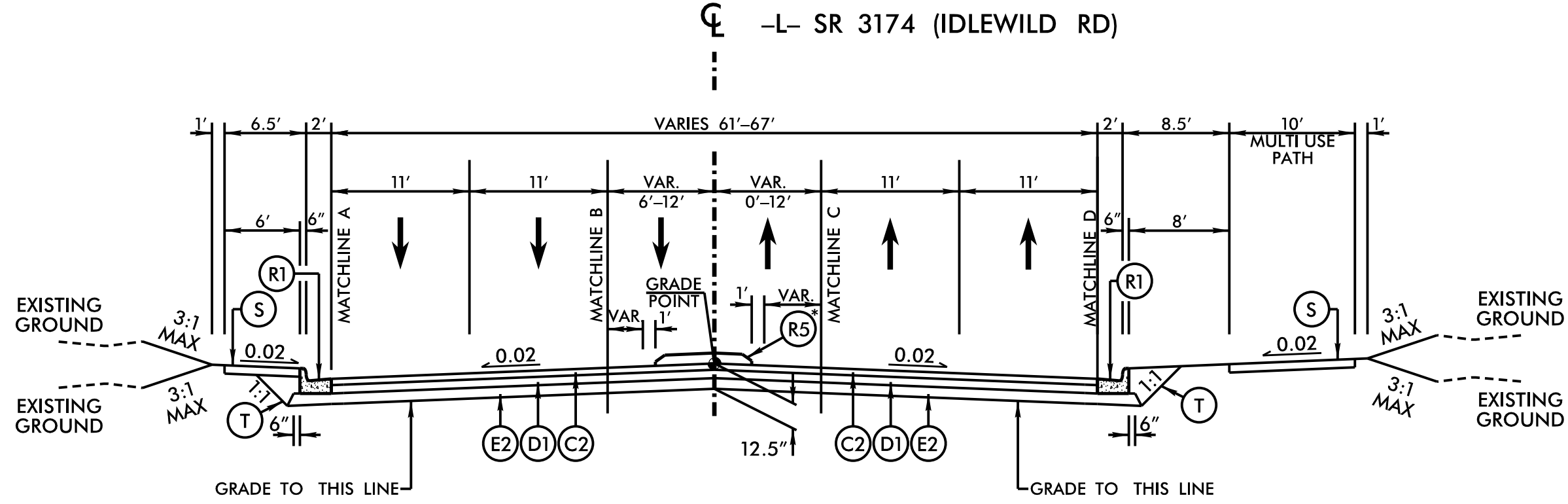
GEOTEXTILE FOR SUBGRADE STABILIZATION PLACEMENT (PLAN VIEW)
(100% COVERAGE REQUIRED)

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



TYPICAL SECTION NO. 4B

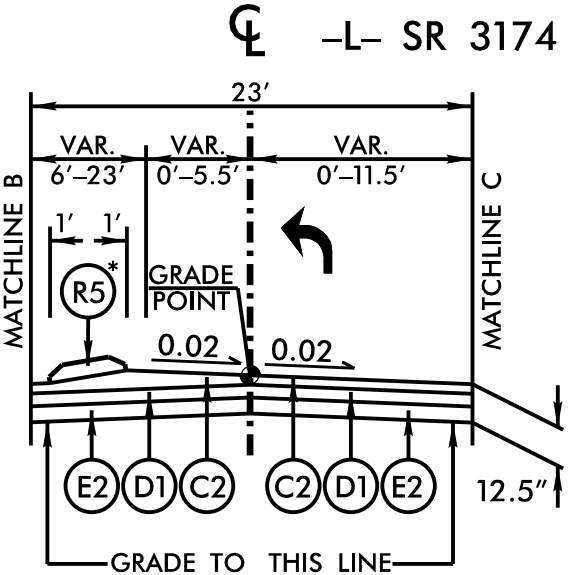
-L- STA. 34+14.31 TO 37+06.00



TYPICAL SECTION NO. 4

-L- STA. 24+01.33 TO 37+06.00

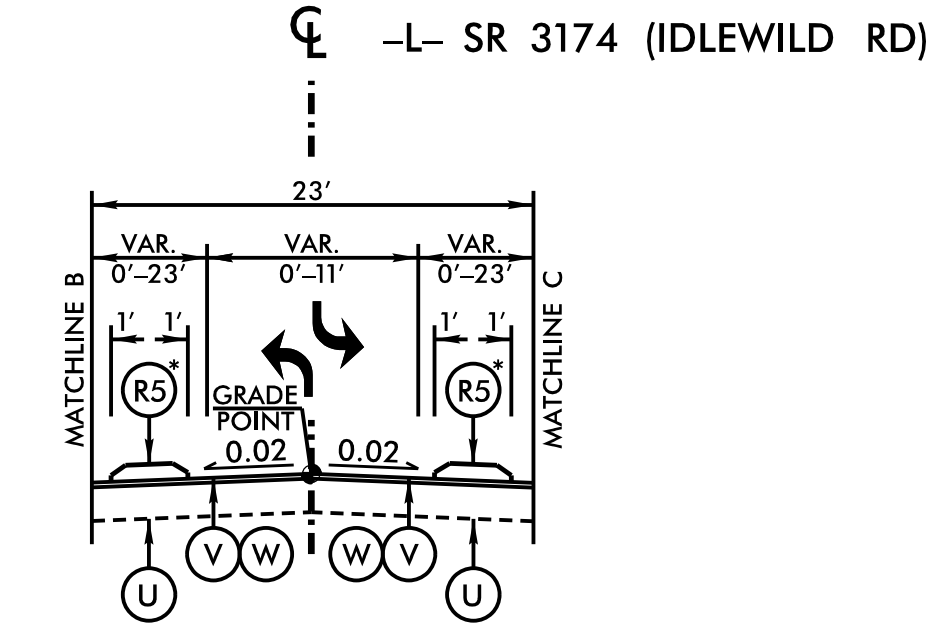
*SEE PLAN SHEETS FOR SPECIFIC LOCATIONS



TYPICAL SECTION NO. 4C

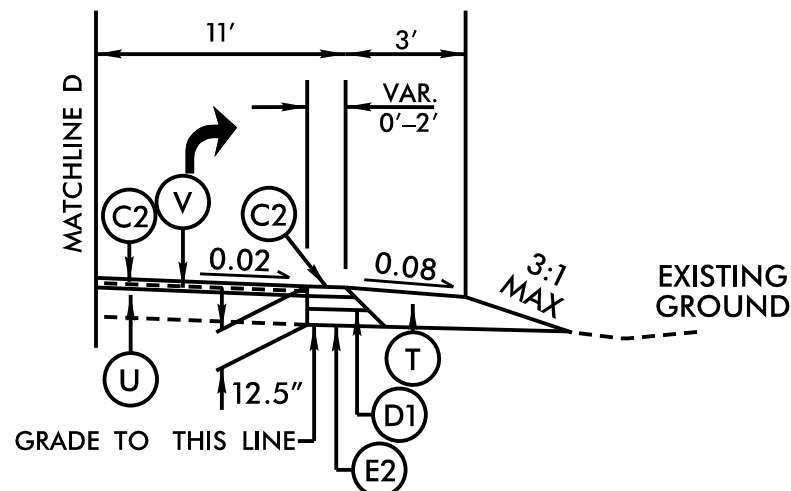
-L- STA. 24+01.33 TO 26+19.96

*SEE PLAN SHEETS FOR SPECIFIC LOCATIONS



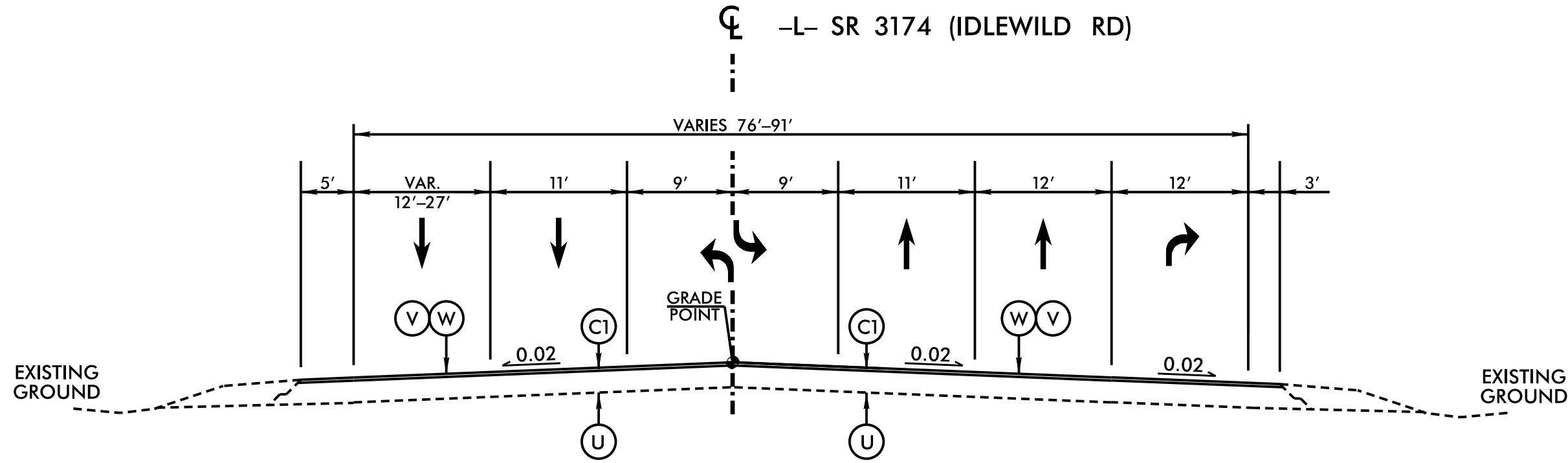
TYPICAL SECTION NO. 4A

-L- STA. 26+19.96 TO 28+97.00
*SEE PLAN SHEETS FOR SPECIFIC LOCATIONS



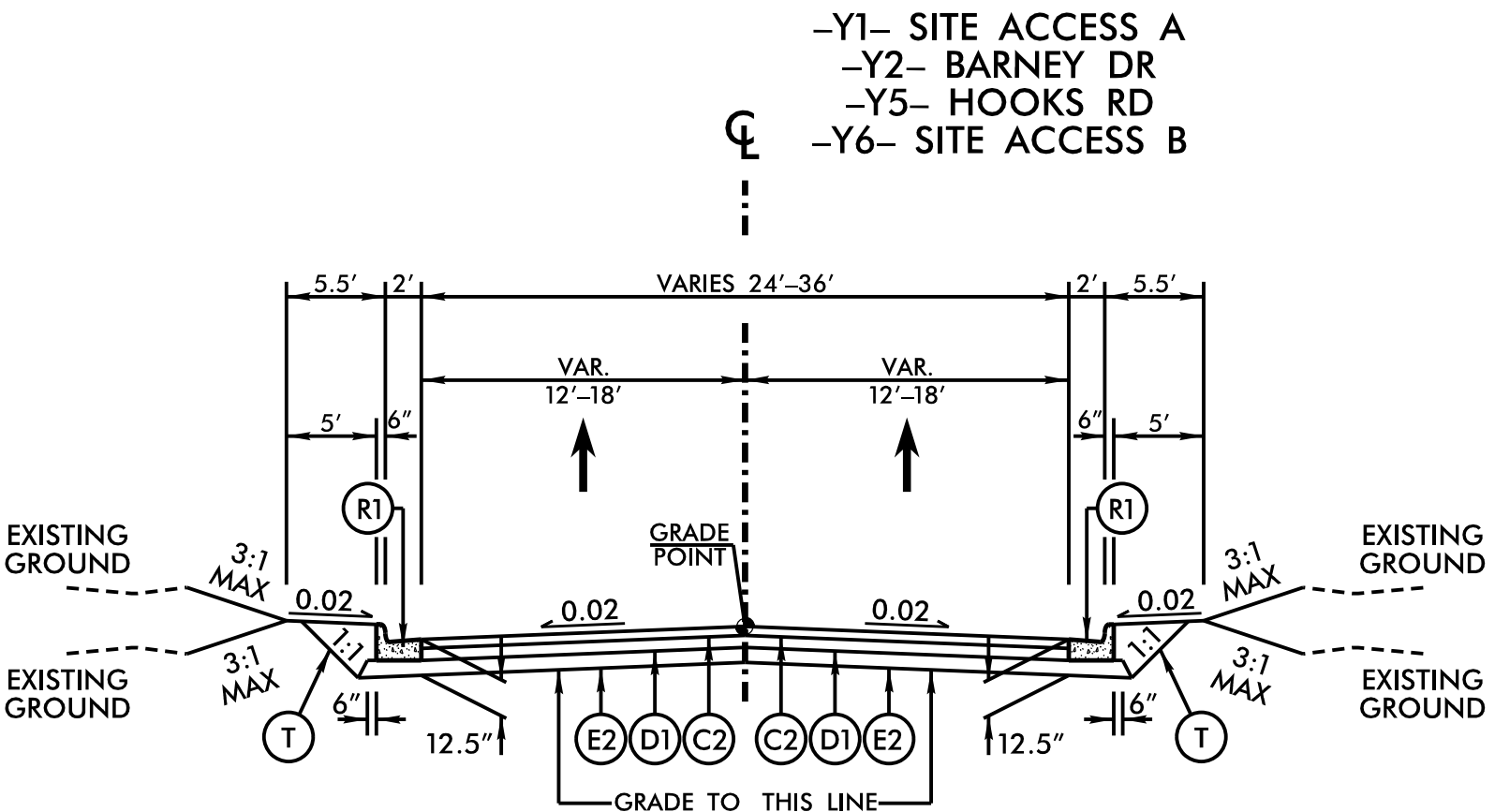
TYPICAL SECTION NO. 4D

-L- STA. 34+00.00 TO 37+06.00



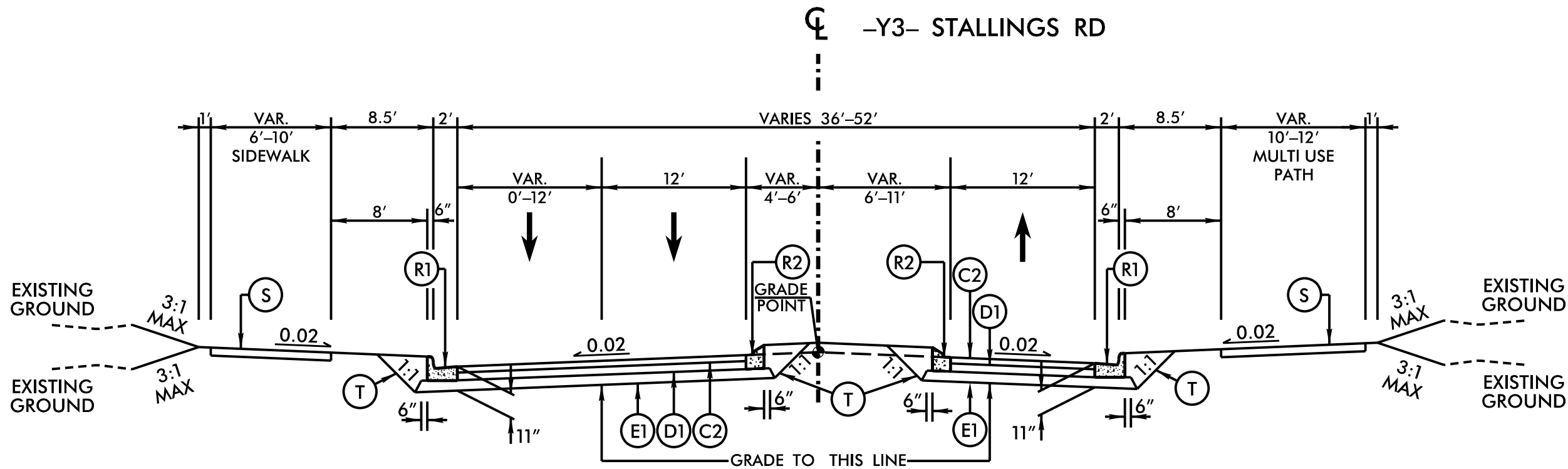
TYPICAL SECTION NO. 5

-L- STA. 37+06.00 TO 37+43.00



TYPICAL SECTION NO. 6

-Y1- STA. 10+22.00 TO 10+60.85
-Y2- STA. 10+22.00 TO 10+80.38
-Y5- STA. 10+33.75 TO 11+05.00
-Y6- STA. 10+33.55 TO 10+91.41



TYPICAL SECTION NO. 7

-Y3- STA. 10+94.11 TO 12+13.00
-Y3- STA. 12+13.00 TO 14+06.00
-Y3- STA. 20+50.00 TO 22+08.00

A1	12" CONCRETE TRUCK APRON (CLASS AA)
C1	1.5" S9.5C.
C2	3" S9.5C.
C3	VAR. S9.5C.
D1	4" I19.0C.
D2	VAR. I19.0C.
E1	4" B25.0C.
E2	5.5" B25.0C.
E3	VAR. B25.0C.
K	CLASS IV SUBGRADE STABILIZATION
N	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" C&G.
R2	1'-6" C&G.
R3	1'-6" C&G. (CLASS AA)
R4	8" X 18" CONCRETE CURB
R5	5" MONO. CONC. ISLAND.
S_	4" CONC. SIDEWALK.
T_	EARTH MATERIAL.
U_	EXISTING PAVEMENT.
V_	MILLING, 1.5" DEPTH
V1	INCIDENTAL MILLING
W_	WEDGING.

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

U-4913A
2A-2

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MECKLENBURG COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

SEAL
037923
J.R. HORN
REGISTERED PROFESSIONAL ENGINEER
12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT DESIGN
ENGINEER

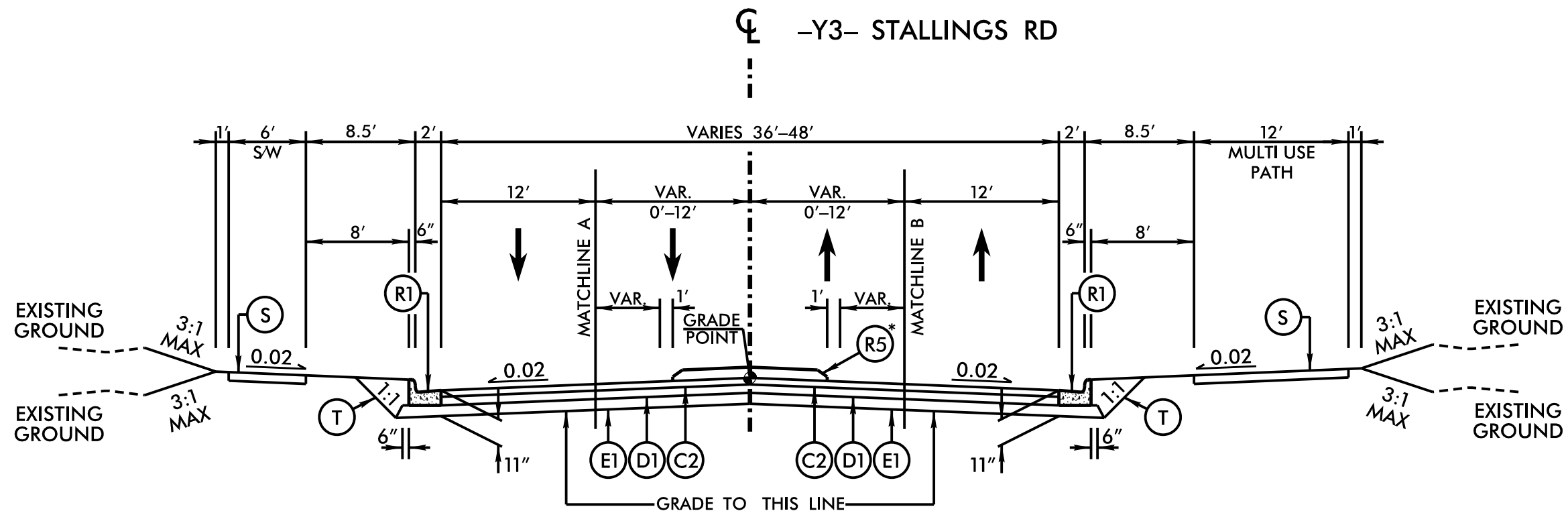
SEAL
044590
J. HORN
REGISTERED PROFESSIONAL ENGINEER
12/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

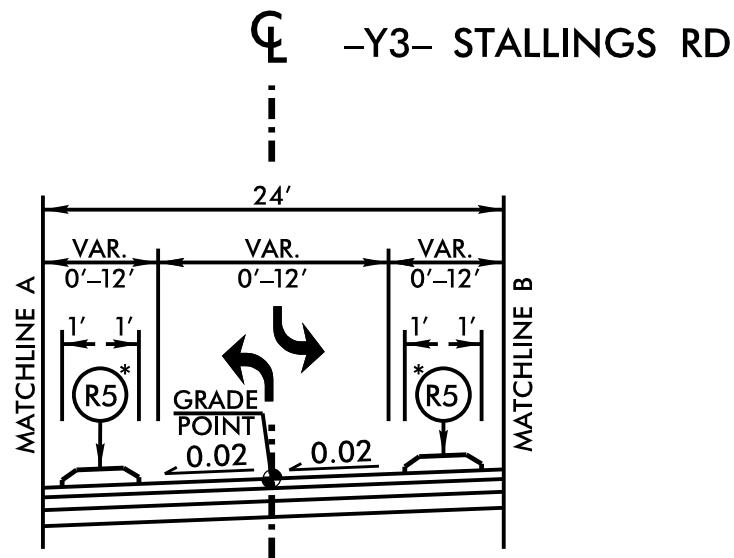
PREPARED BY

Kimley Horn

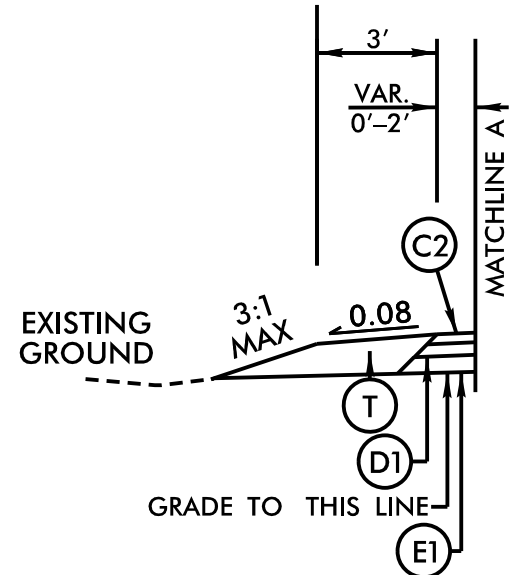
REVISIONS



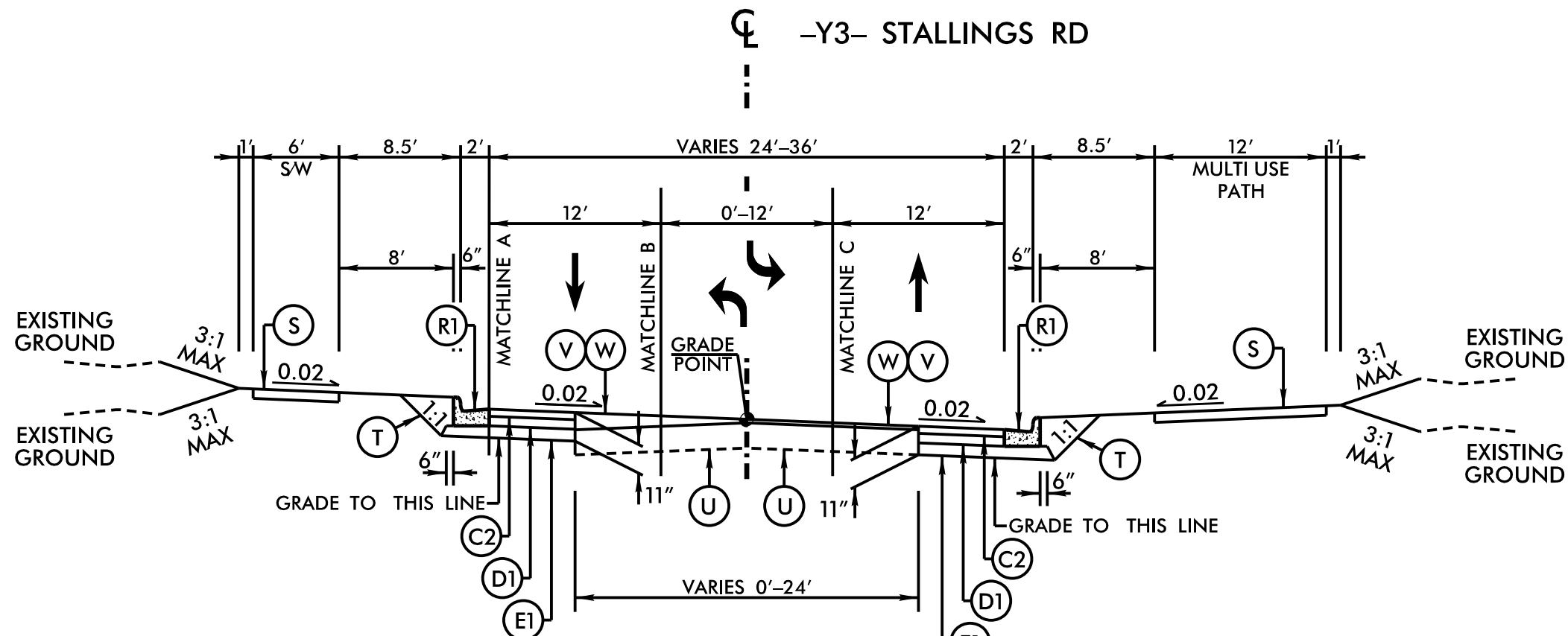
TYPICAL SECTION NO. 8
-Y3- STA. 14+06.00 TO 15+64.03
-Y3- STA. 18+40.00 TO 20+50.00
-Y3- STA. 22+08.00 TO 29+00.00
*SEE PLAN SHEETS FOR SPECIFIC LOCATIONS



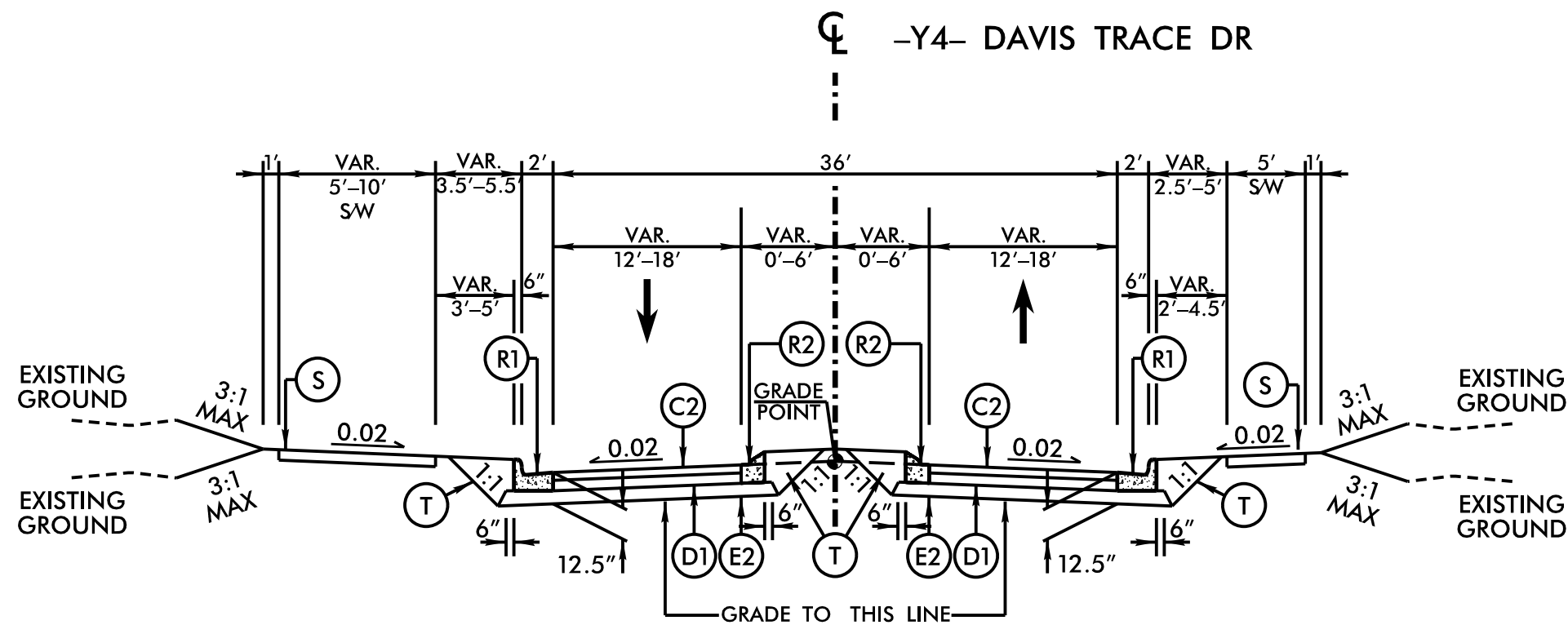
TYPICAL SECTION NO. 8A
-Y3- STA. 15+64.03 TO 18+40.00
*SEE PLAN SHEETS FOR SPECIFIC LOCATIONS



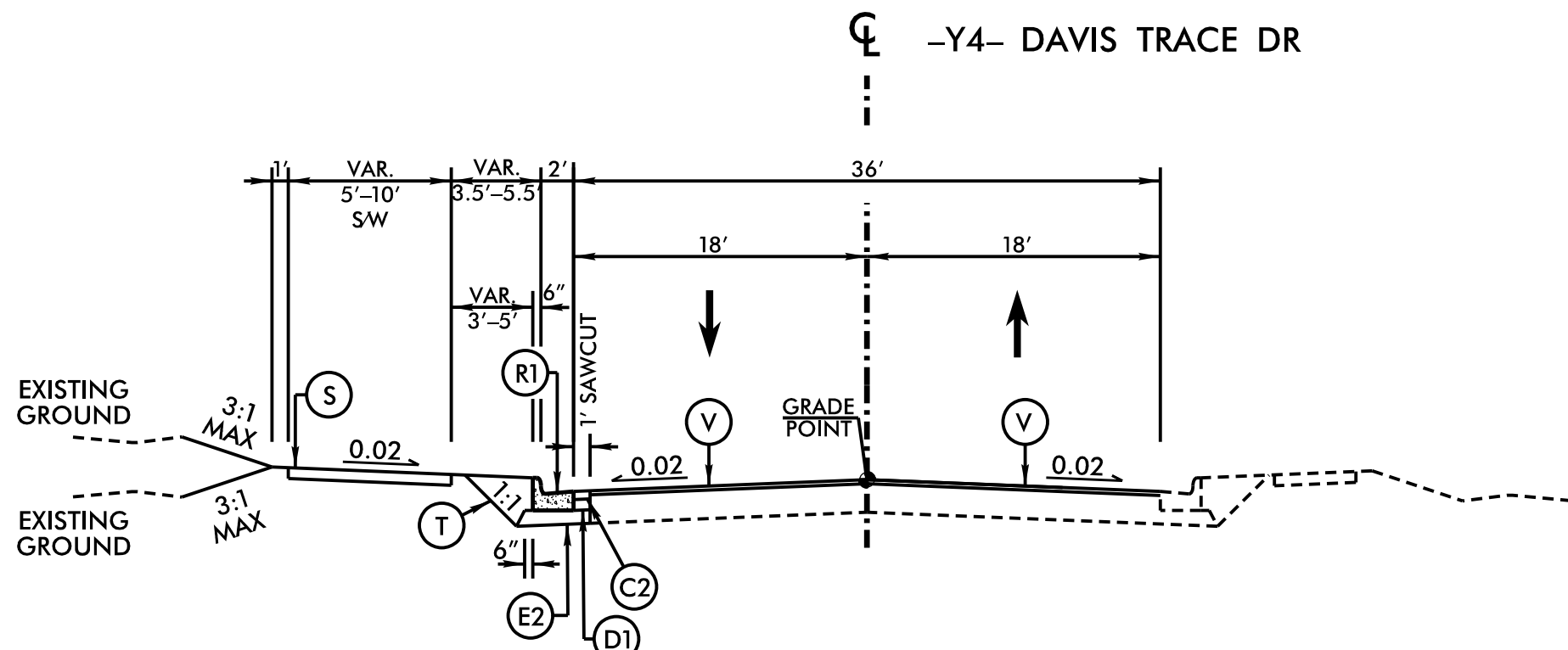
TYPICAL SECTION NO. 9A
-Y3- STA. 29+45.00 TO 31+20.00



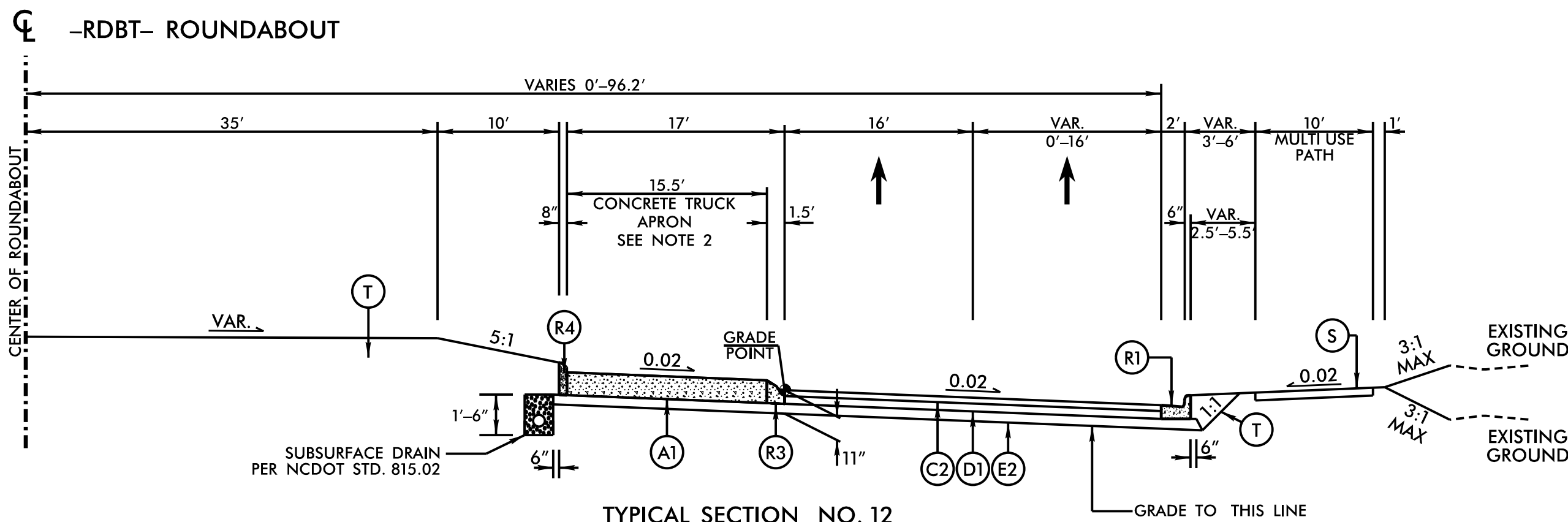
TYPICAL SECTION NO. 9
-Y3- STA. 29+00.00 TO 31+38.00



TYPICAL SECTION NO. 10
-Y4- STA. 11+57.77 TO 12+00.00



TYPICAL SECTION NO. 11
-Y4- STA. 12+00.00 TO 12+67.50



TYPICAL SECTION NO. 12
-RDBT- STA. 10+00.00 TO STA. 13+95.84

A1	12" CONCRETE TRUCK APRON (CLASS AA)
C1	1.5" S9.5C.
C2	3" S9.5C.
C3	VAR. S9.5C.
D1	4" I19.0C.
D2	VAR. I19.0C.
E1	4" B25.0C.
E2	5.5" B25.0C.
E3	VAR. B25.0C.
K	CLASS IV SUBGRADE STABILIZATION
N	GEOTEXTILE FOR SUBGRADE STABILIZATION
R1	2'-6" C&G.
R2	1'-6" C&G.
R3	1'-6" C&G. (CLASS AA)
R4	8" X 18" CONCRETE CURB
R5	5" MONO. CONC. ISLAND.
S_	4" CONC. SIDEWALK.
T_	EARTH MATERIAL.
U_	EXISTING PAVEMENT.
V_	MILLING, 1.5" DEPTH
V1	INCIDENTAL MILLING
W_	WEDGING.

NOTE:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE
2. 12" JOINTED CONCRETE TRUCK APRON W/ WELDED WIRE MESH (4X4 W5.5XW5.5 OR 6X6 W8.5XW8.5 OR HEAVIER). 15' RADIAL JOINT SPACING.

REVISIONS

U-4913A

2A-3

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MECKLENBURG COUNTY

ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEER

SEAL
037923
12/2/2025
NORTH CAROLINA
PROFESSIONAL
ENGINEER
JAMES M. WILSON
MASTERS OF THE ROAD

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT DESIGN
ENGINEER

SEAL
044590
12/2/2025
NORTH CAROLINA
PROFESSIONAL
ENGINEER
JAMES M. WILSON
MASTERS OF THE ROAD

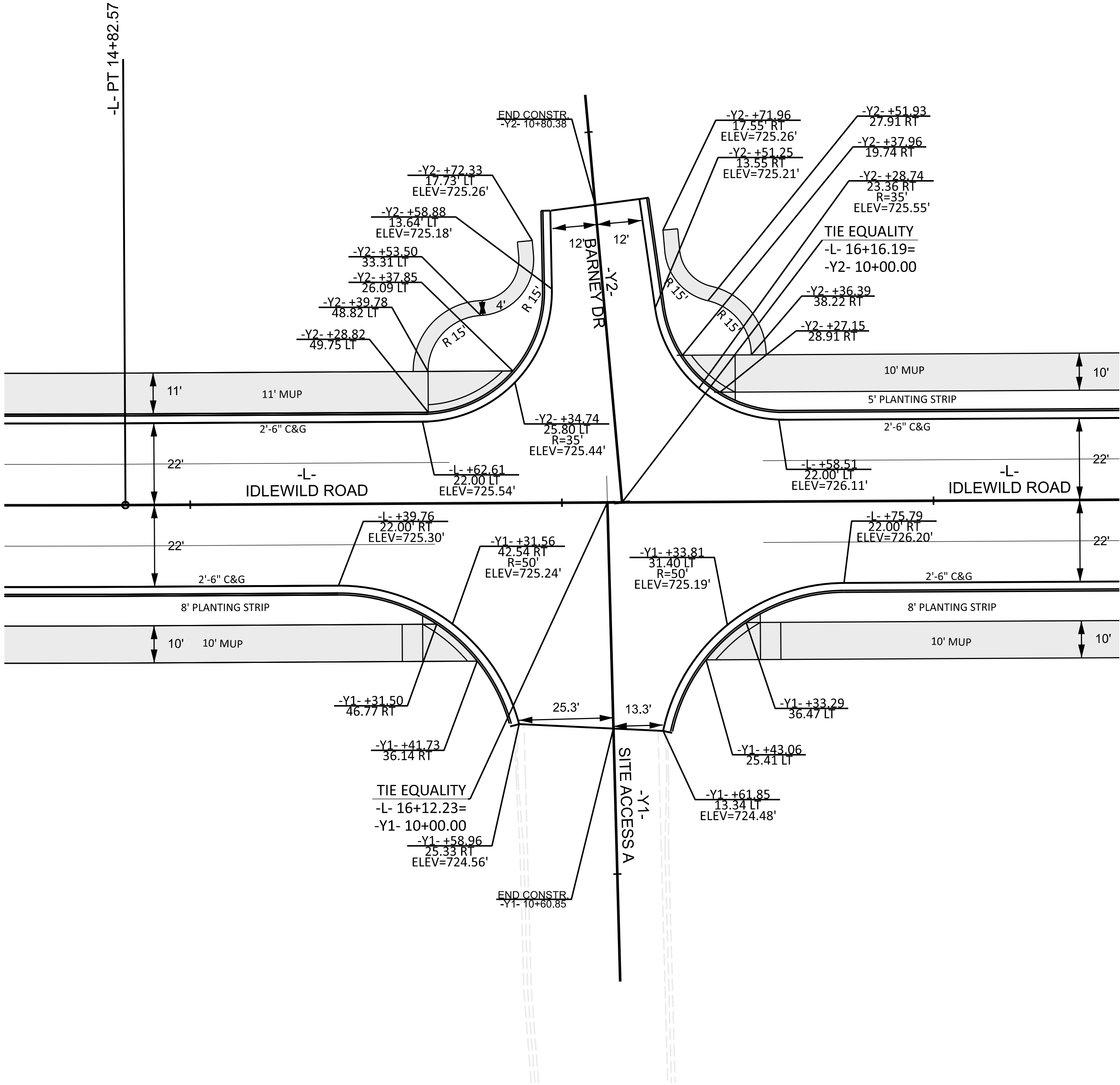
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PREPARED BY

Kimley Horn



-L- (IDLEWILD ROAD / -Y2- BARNEY ROAD) INTERSECTION GEOMETRY SHEET



PROP. 4" CONC. SIDEWALK

SEE SHEET 4 FOR -L- PLAN

U-4913A

28-2

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MICKLEBURG COUNTY

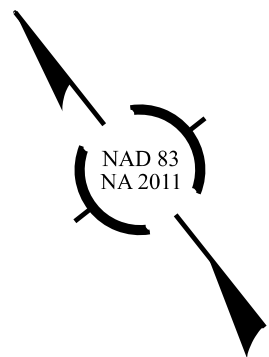
ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

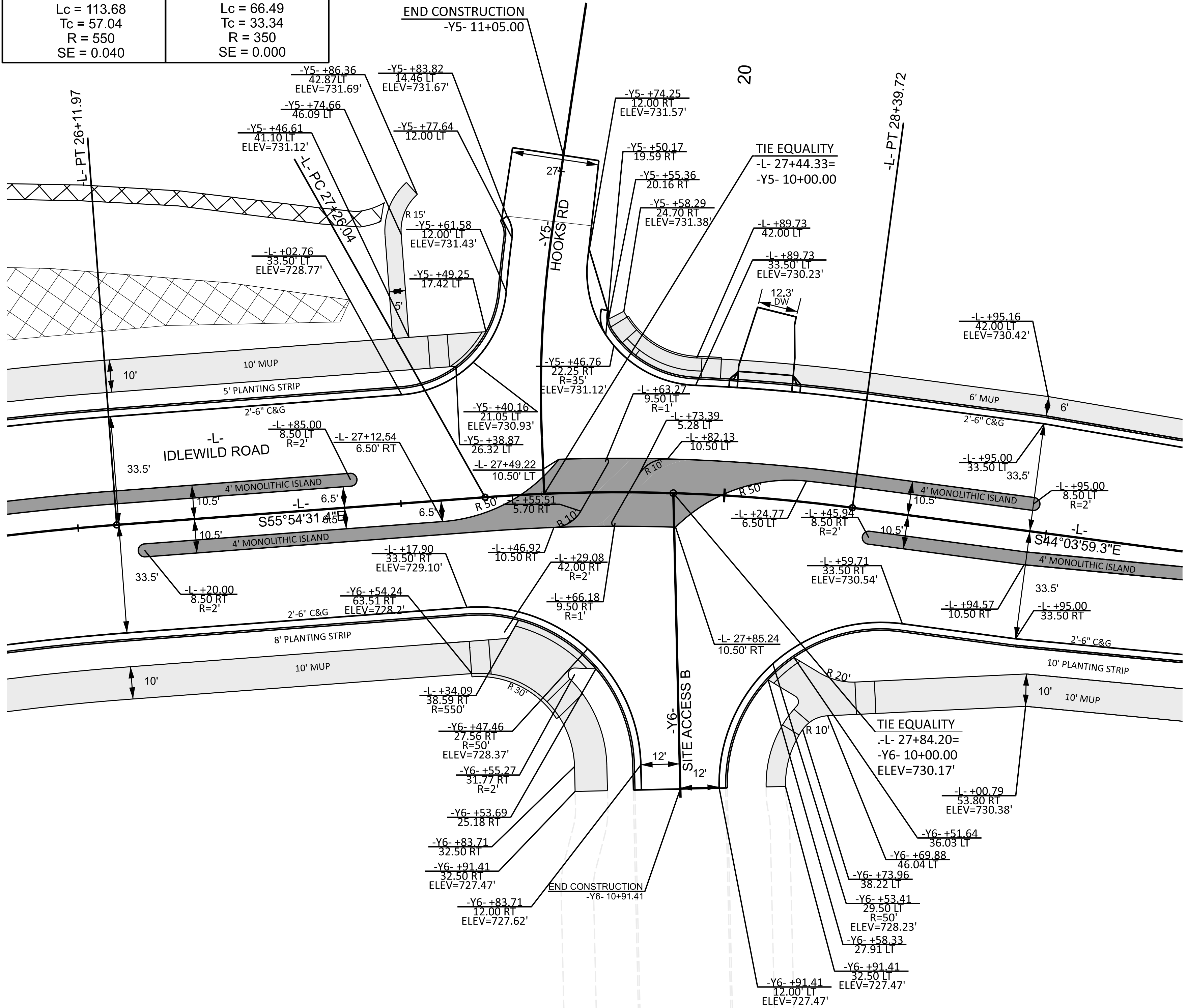
PREPARED BY
Kimley » Horn

REVISIONS

-L- (IDLEWILD ROAD/Y5 HOOKS ROAD) INTERSECTION GEOMETRY SHEET



CUR DATA -L-	CUR DATA -Y5-
Plc 27+83.09	Plc 10+50.70
$\Delta c = 11^{\circ}50'32.1''$ (RT)	$\Delta c = 10^{\circ}53'02.2''$ (RT)
D = $10^{\circ}25'02.7''$	D = $16^{\circ}22'12.8''$
Lc = 113.68	Lc = 66.49
Tc = 57.04	Tc = 33.34
R = 550	R = 350
SE = 0.040	SE = 0.000



- PROP. 5' MONO. CONC. ISLAND (KEYED IN)
- PROP. 4' CONC. SIDEWALK



SEE SHEET 5 FOR -L- PLAN

U-4913A

28-3

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MCKENBURG COUNTY

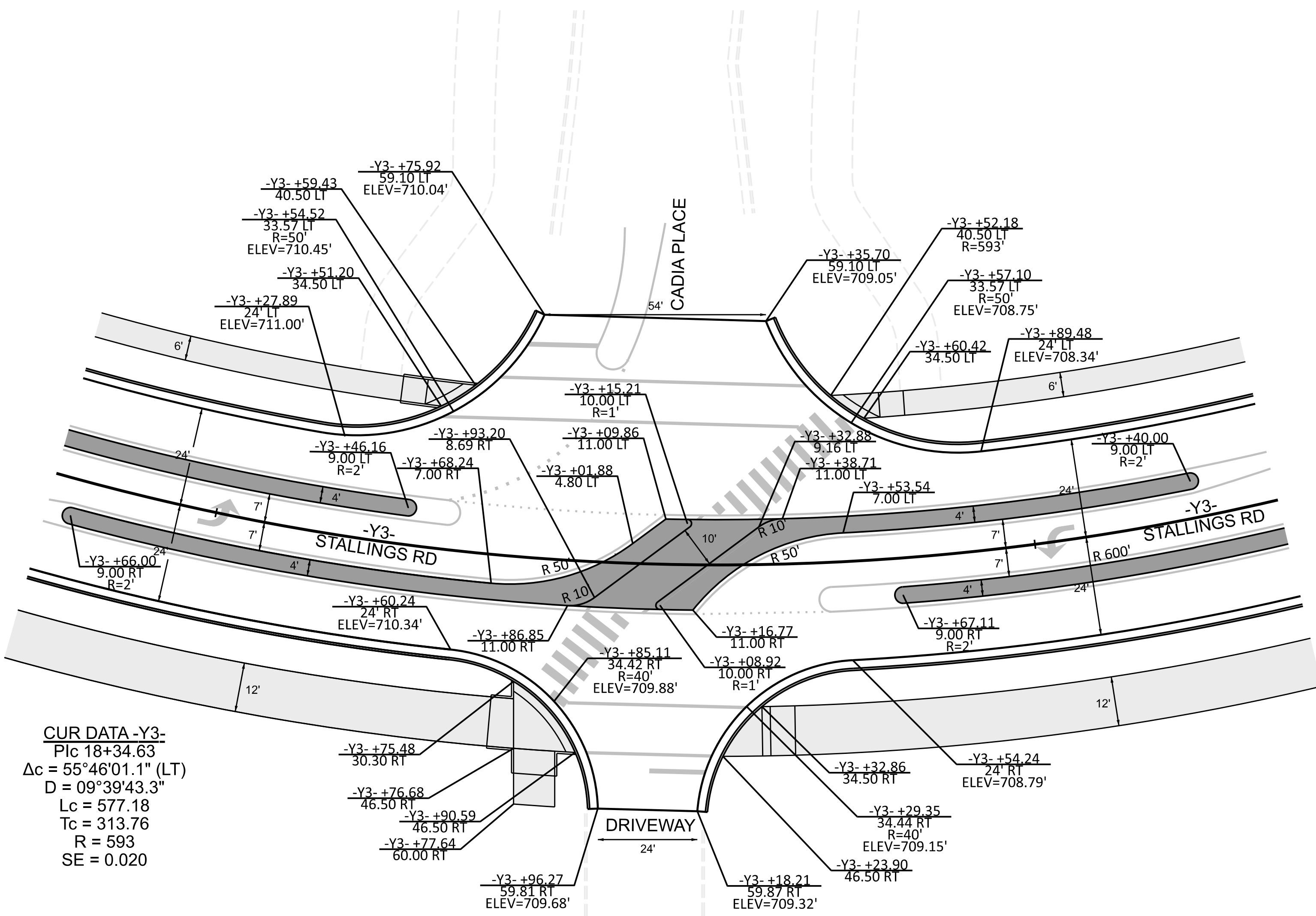
ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

DOCUMENT NOT CONSIDERED FINAL
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PREPARED BY
Kimley Horn

REVISIONS

-Y3- STALLINGS RD & CADIA PLACE INTERSECTION GEOMETRY SHEET



CUR DATA -Y3-
Plc 18+34.63
 $\Delta c = 55^\circ 46' 01.1''$ (LT)
D = 09°39'43.3"
Lc = 577.18
Tc = 313.76
R = 593
SE = 0.020

-  PROP. 5' MONO. CONC. ISLAND (KEYED IN)
-  PROP. 4' CONC. SIDEWALK



SEE SHEET 7 FOR -Y3- PLAN

U-4913A

28-4

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MECKLENBURG COUNTY

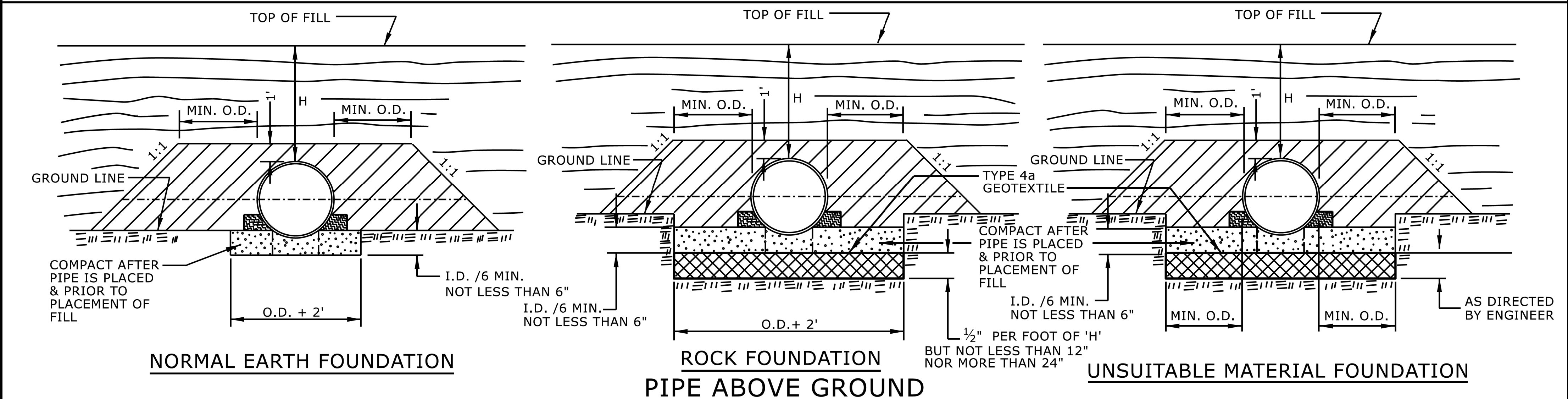
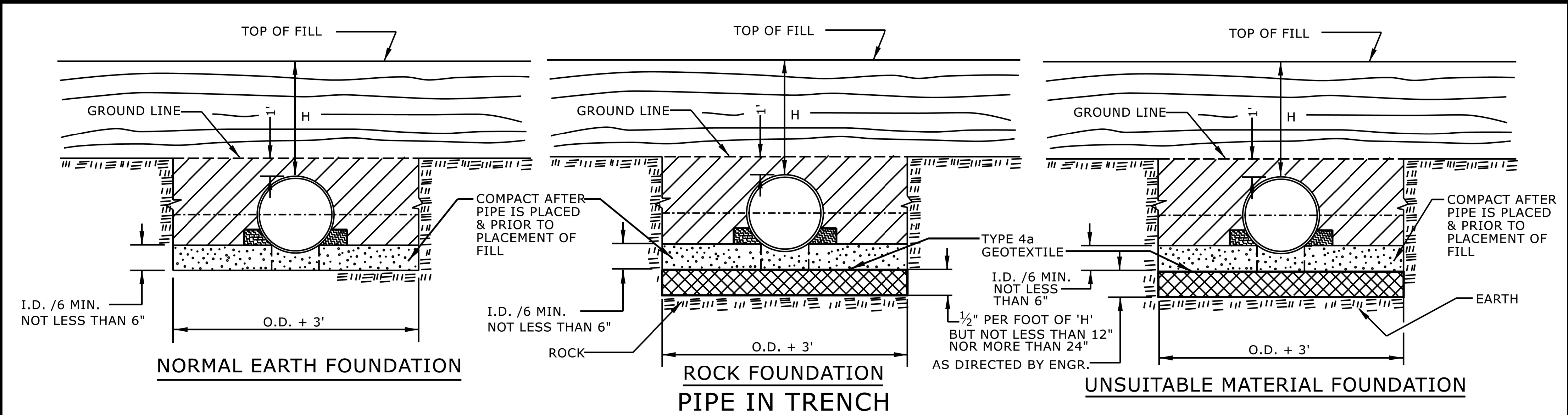
ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

NORTH CAROLINA
PROFESSIONAL
SEAL
037923
JULY 2011
JULY 2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PREPARED BY
Kimley Horn

REVISIONS



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



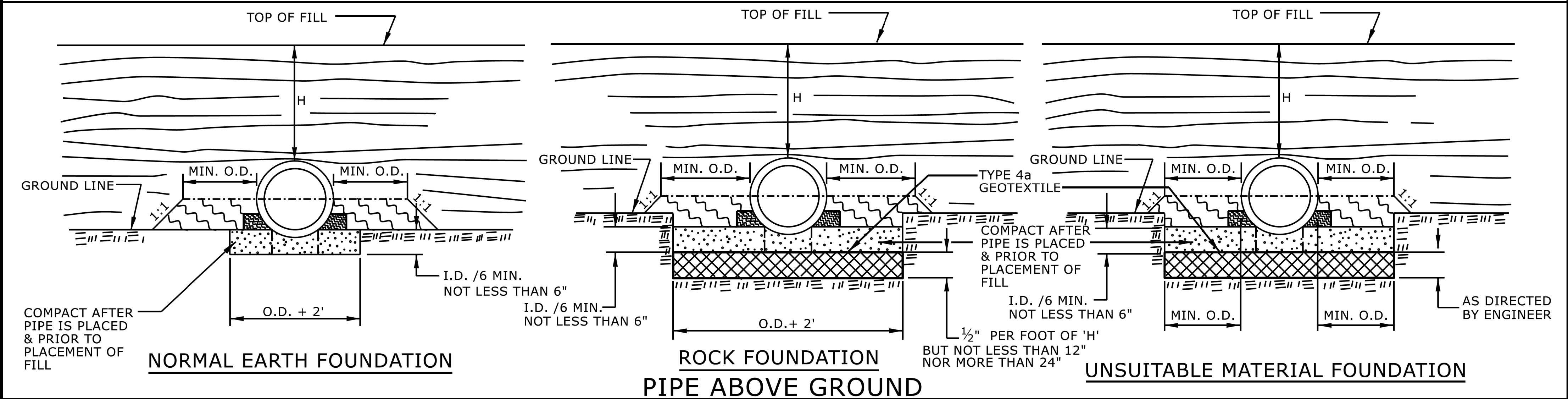
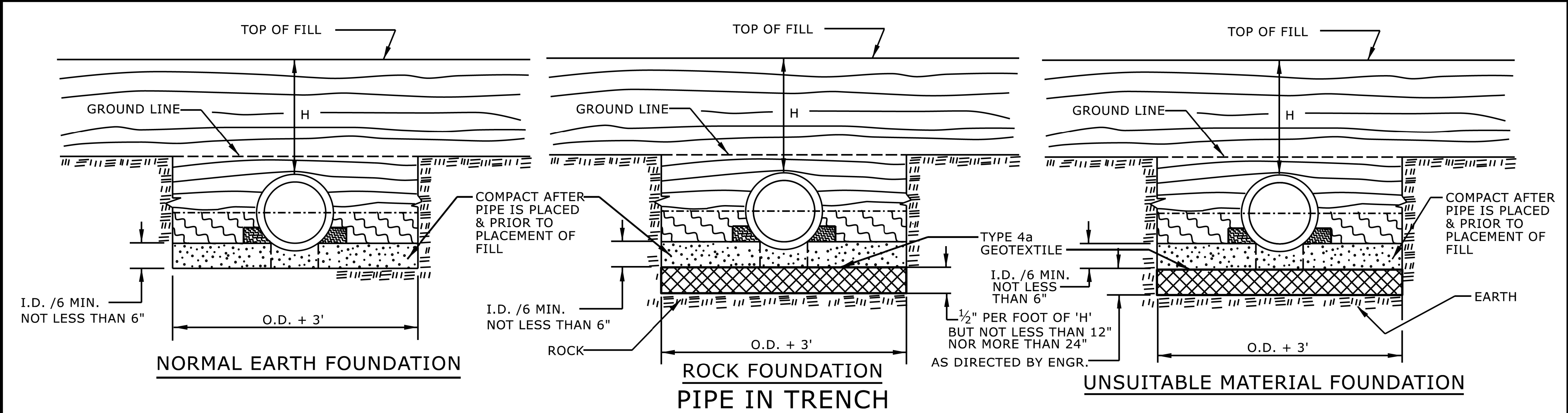
Signed by:
Nicole M. Hackler
588432034164CS... 7/2/2025

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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:



GENERAL NOTES:

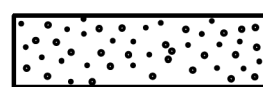
I.D. = THE MAXIMUM HORIZONTAL INSIDE DIAMETER DIMENSION.

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.

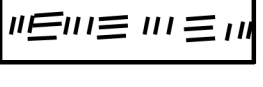
 LOOSELY PLACED SELECT MATERIAL CLASS III OR CLASS II, TYPE 1 FOR PIPE BEDDING. LEAVE SECTION DIRECTLY BENEATH PIPE UNCOMPACTED AS PIPE SEATING AND BACKFILL WILL ACCOMPLISH COMPACTION.

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, BELOW SPRINGLINE.

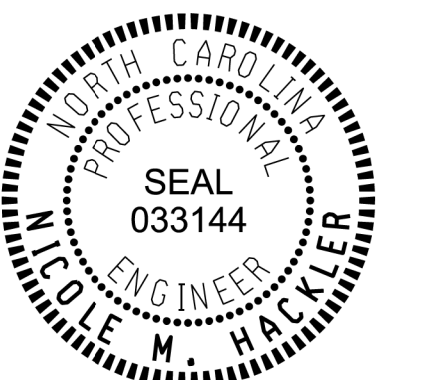
 UNDISTURBED EARTH MATERIAL

 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
RIGID PIPE

SHEET 2 OF 2
300.01



Signed by:
Nicole M. Hackler
5884323034184CS
7/2/2025

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UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

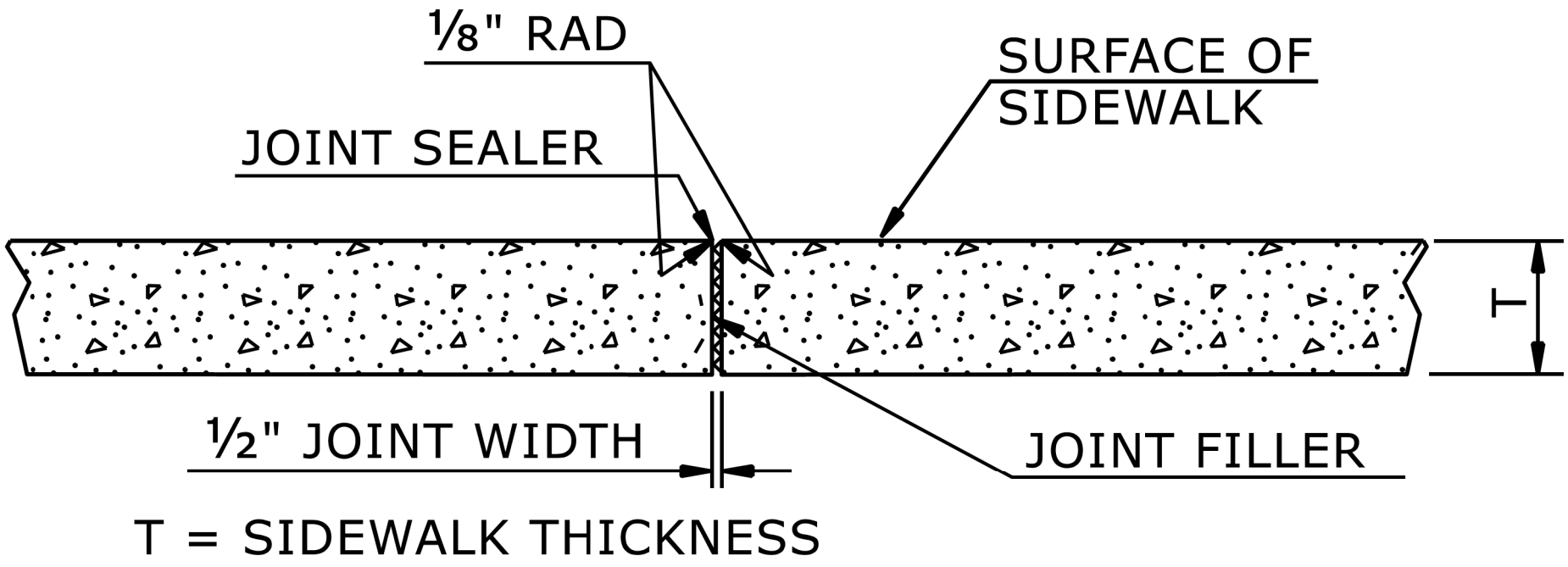
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MODIFIED BY:		DATE:	
CHECKED BY:		DATE:	
FILE SPEC.:			

NOTES:

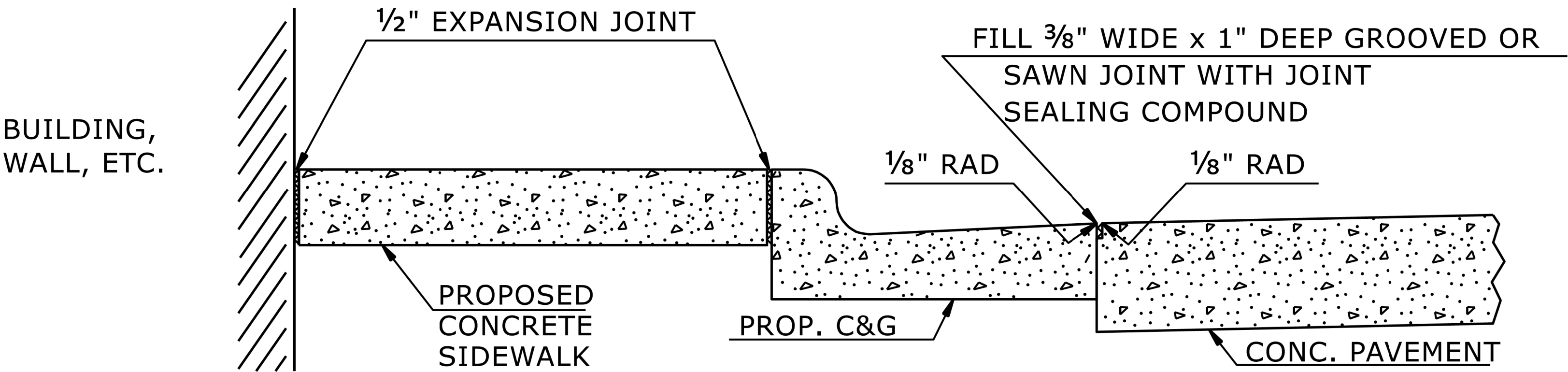
CONSTRUCT STANDARD SIDEWALK 5' WIDE AND 4" THICK UNLESS OTHERWISE DENOTED ON PLANS.

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. Hackler
5884323034164C5... 7/2/2025

SHEET 1 OF 1
848D01

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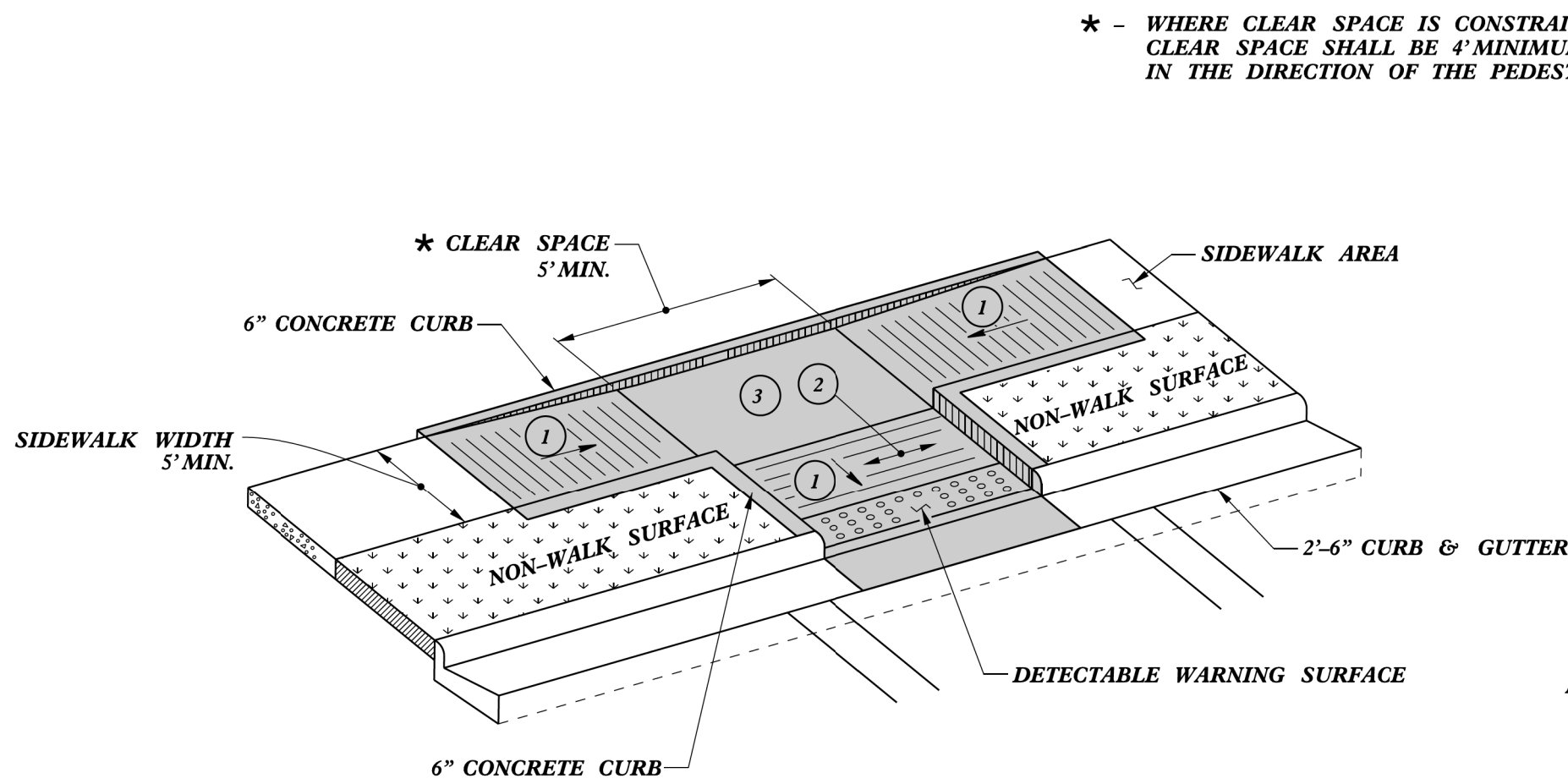
**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**

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

SEE TITLE BLOCK

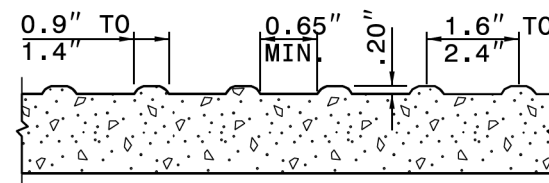
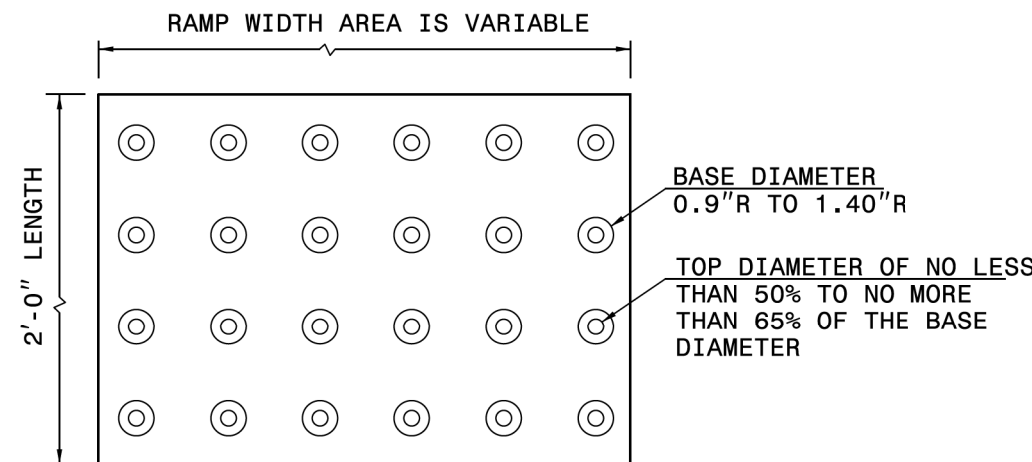
ORIGINAL BY:	S.CALHOUN	DATE:	7-25-2024
MODIFIED BY:		DATE:	
CHECKED BY:		DATE:	
FILE SPEC.:			

PROJECT REFERENCE NO.	SHEET NO.
U-4913A	20-4

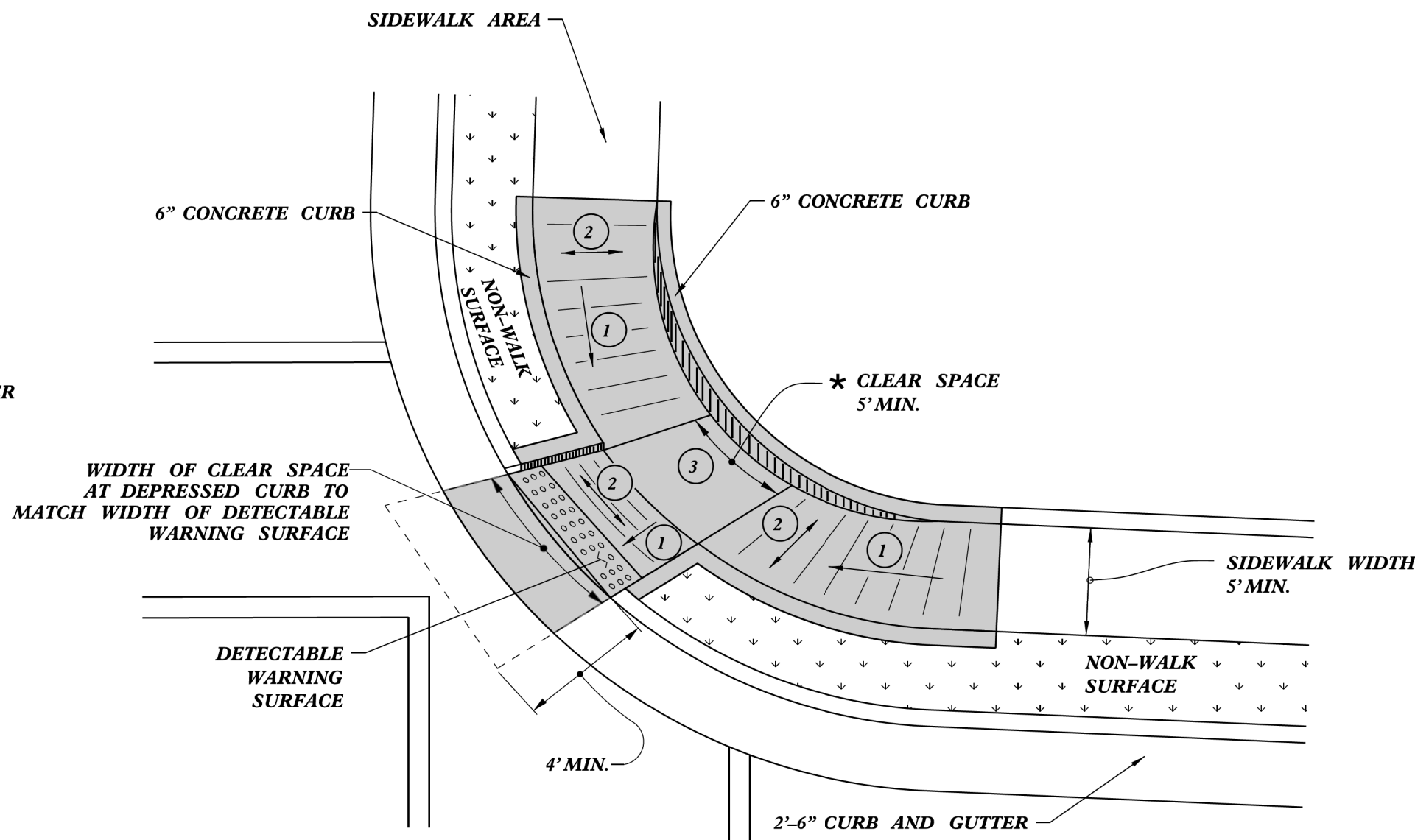


TYPE 3

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



**TYPE 3 MODIFIED
INSTALLATION IN A RADIUS**

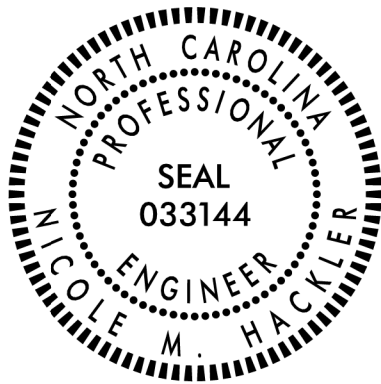
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00%.

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 OF 13
848D06



Signed by:
Nicole M. Hickler
588432034164CS...

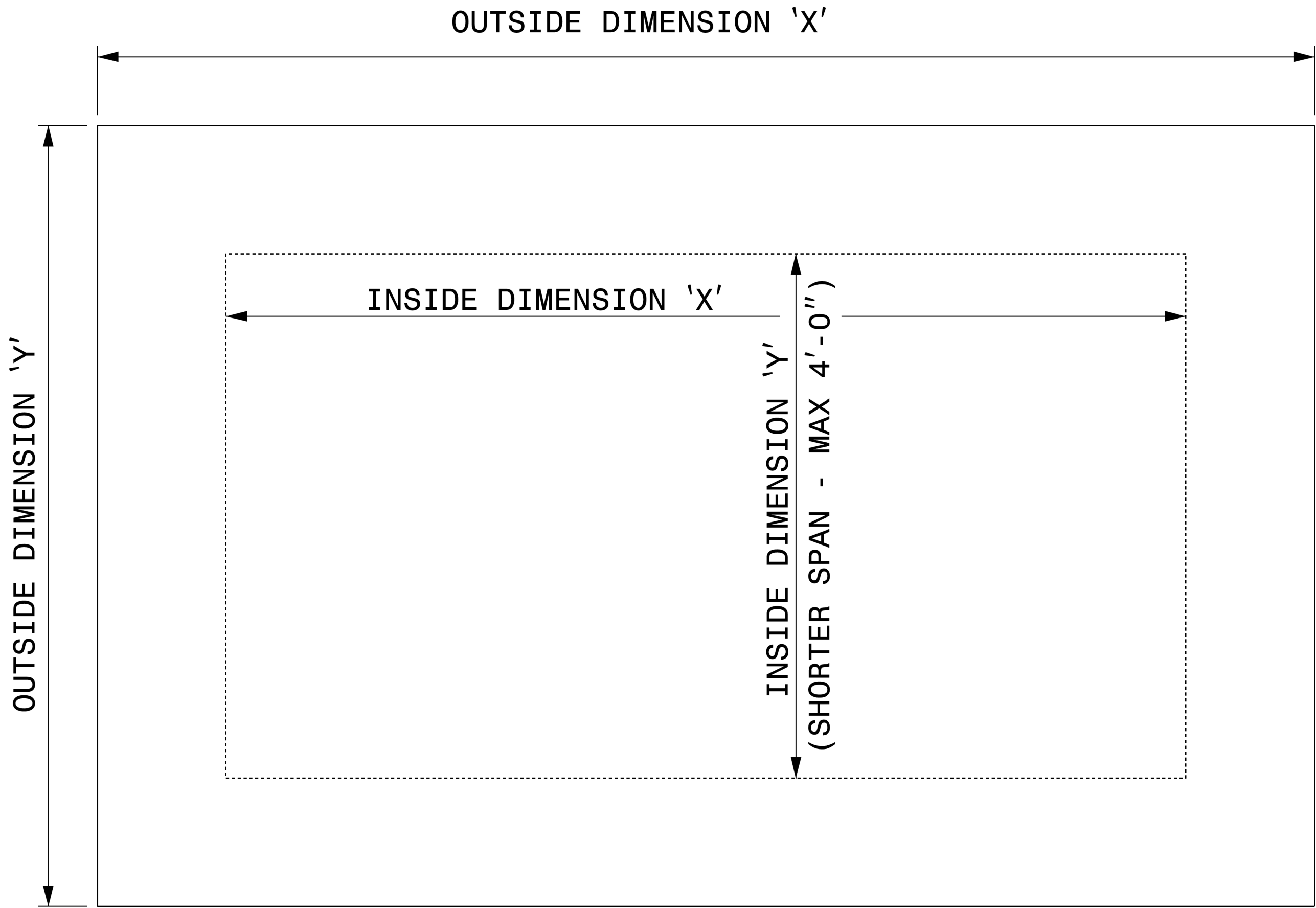
7/2/2025

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

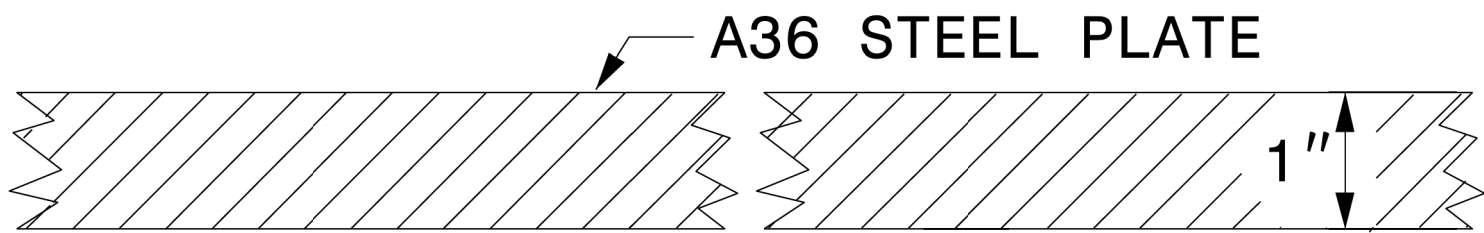
SEE TITLE BLOCK

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MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: special_details\nmhackler\0609.dgn



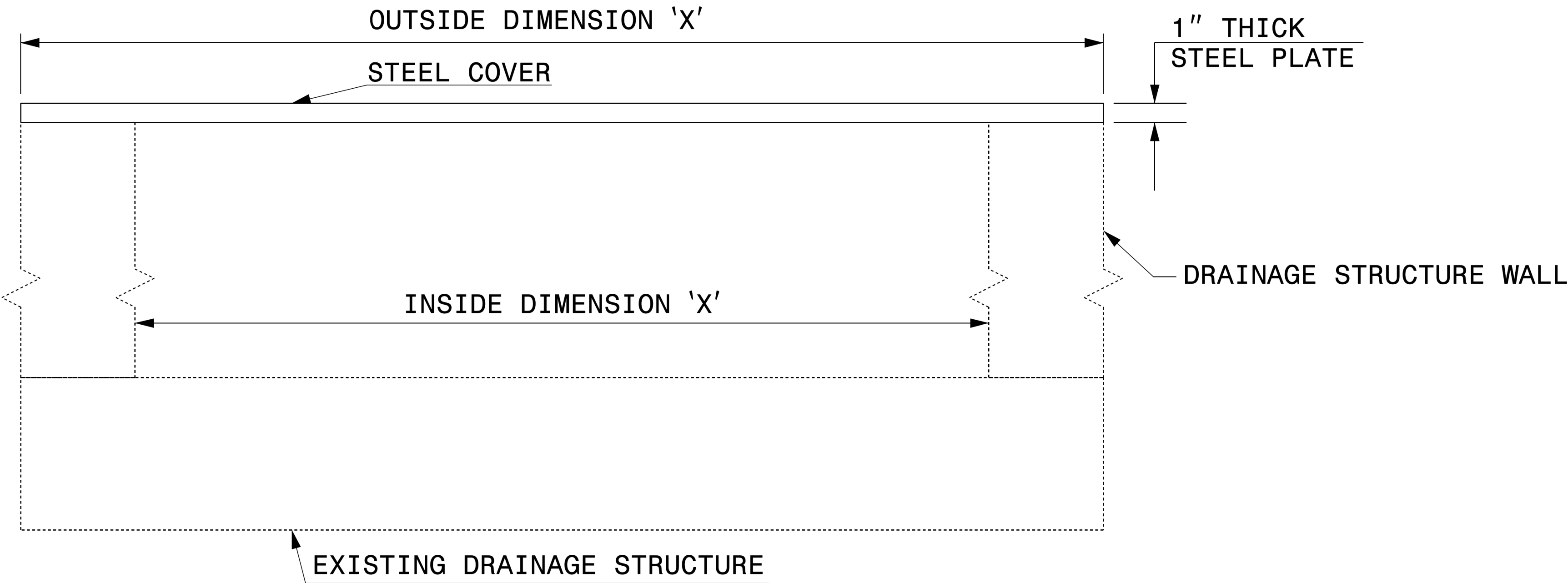
GENERAL NOTES:

- 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
- QUANTITIES 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. Hatcher
5884323D34164C5 7/2/2025

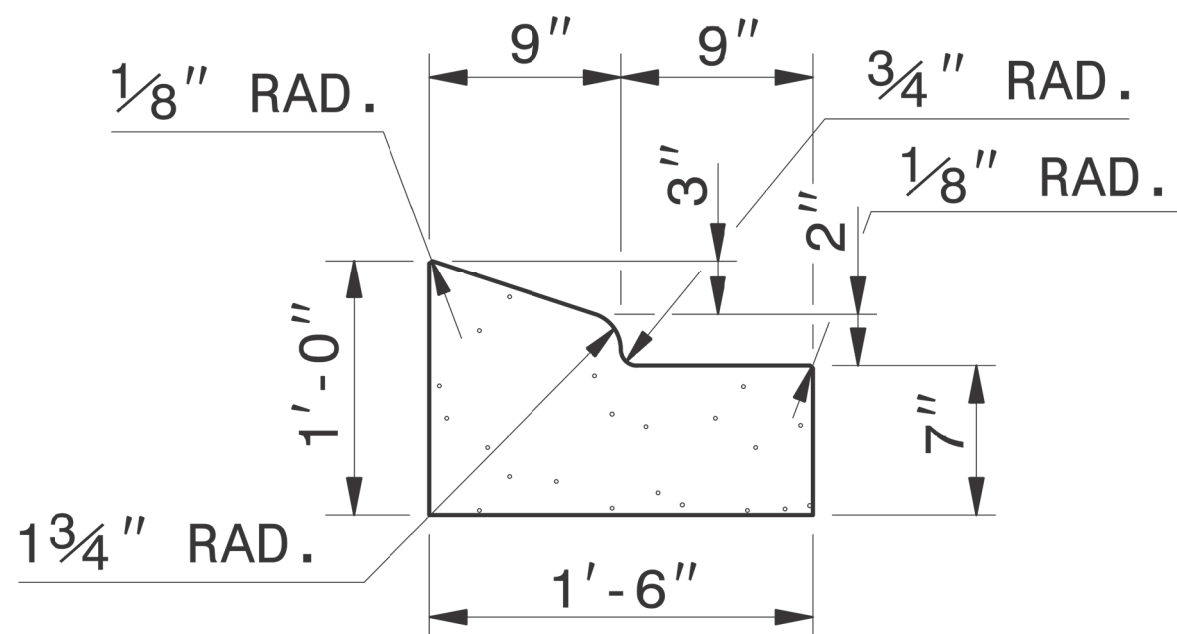
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

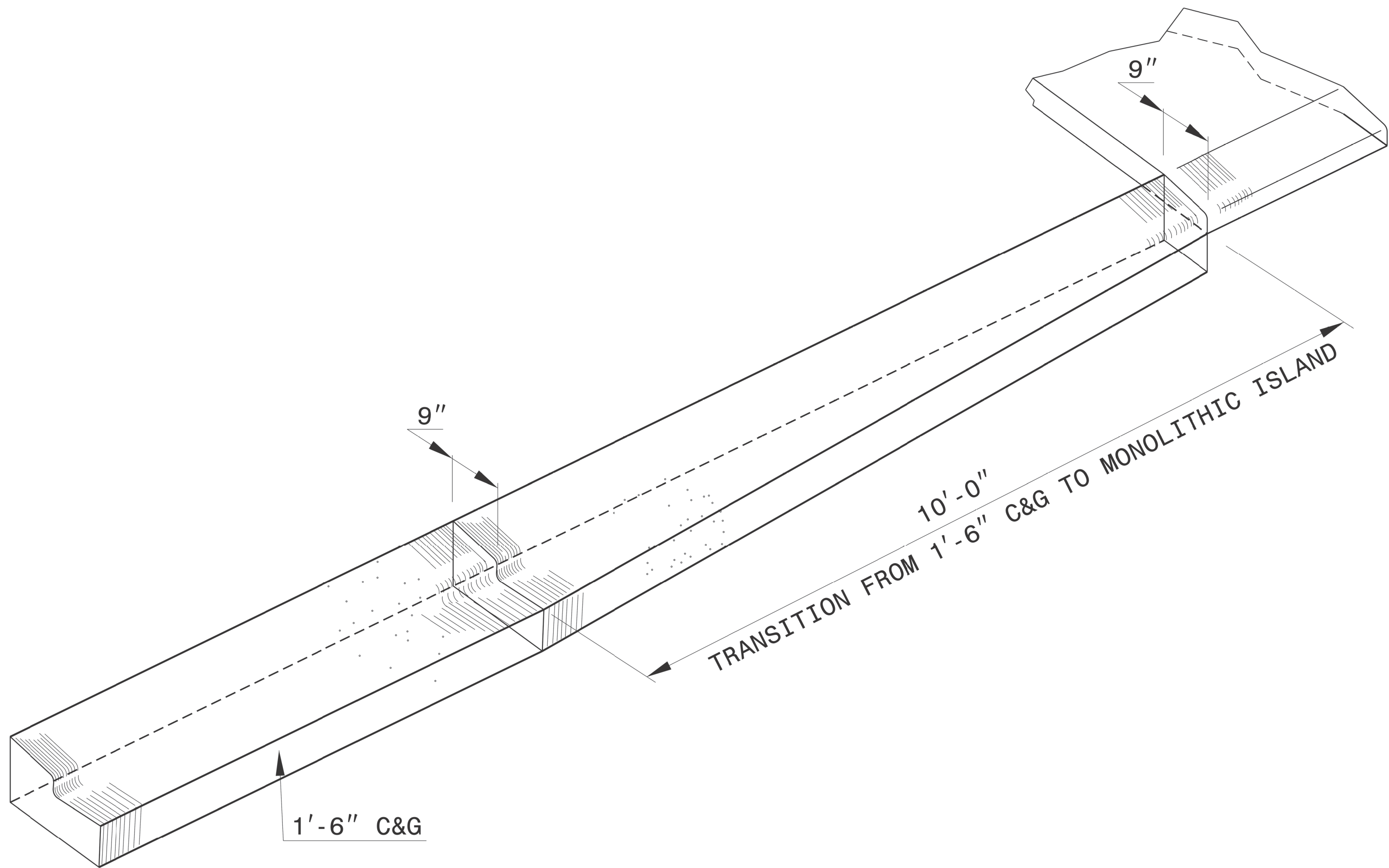
PROJECT REFERENCE NO.	SHEET NO.
U-4913A	20-6



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**



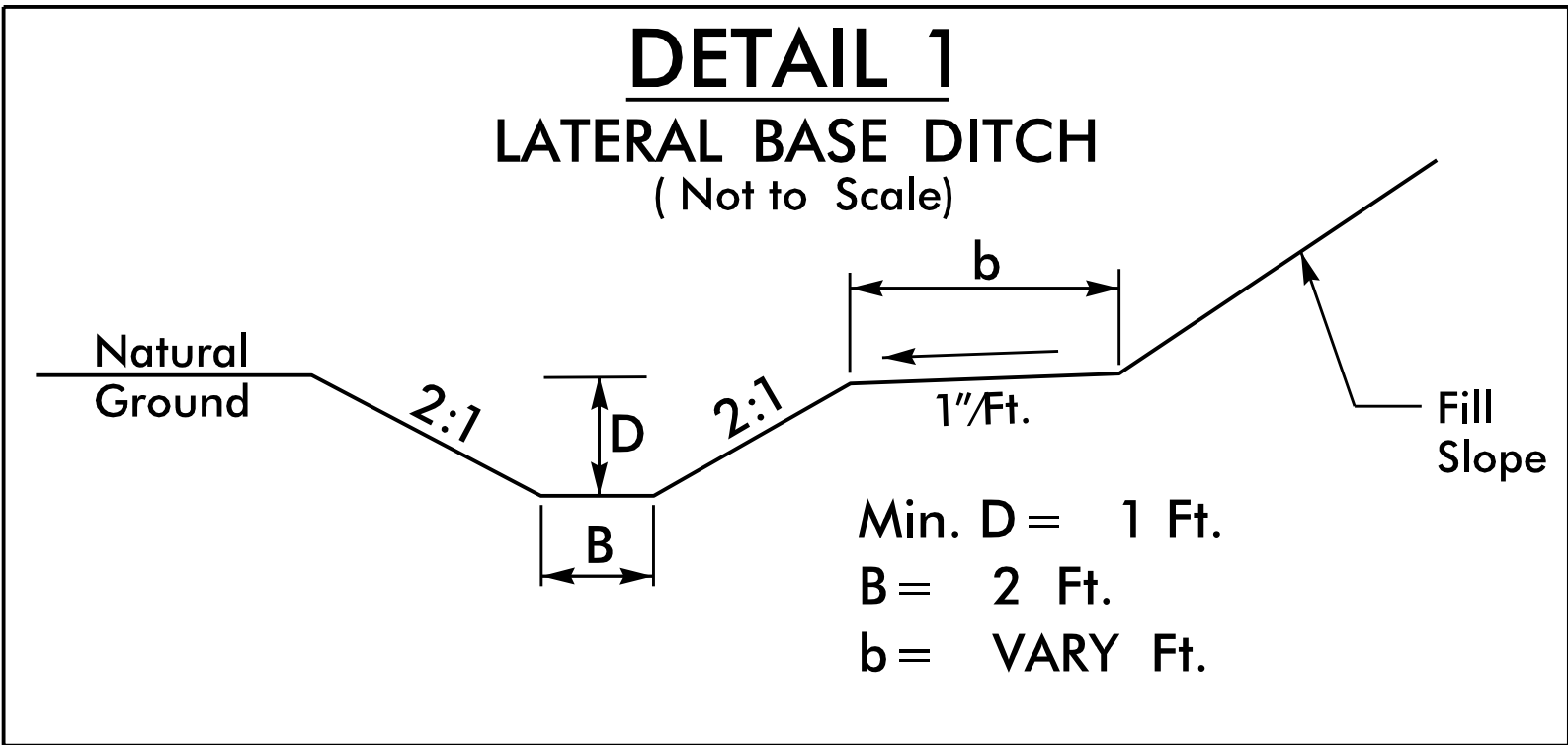
Signed by:
Nicole M. Hickler
5884323034164C... 7/2/2025

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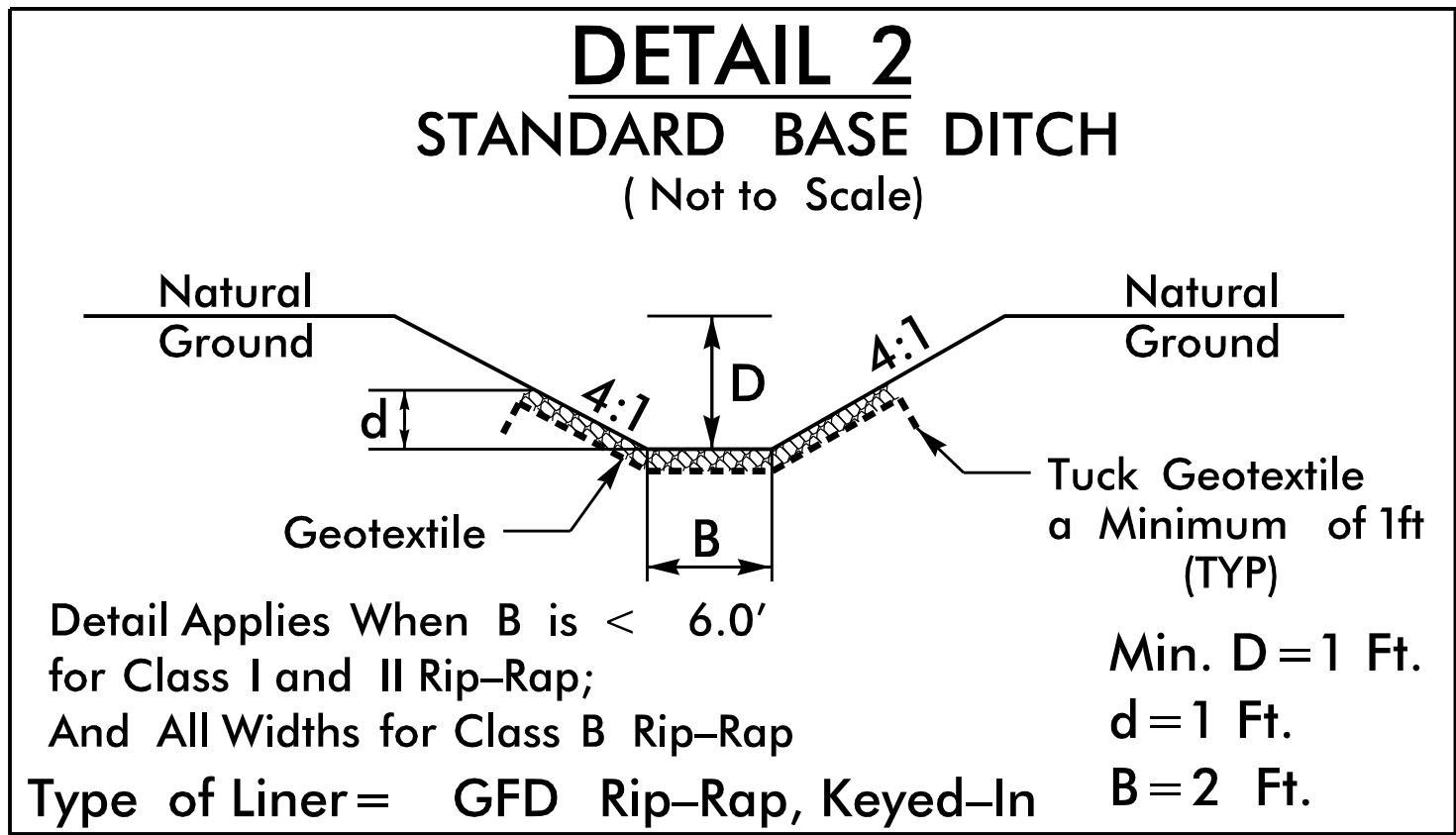
**CONTRACTS STANDARDS
AND DEVELOPMENT UNIT**
Office 919-707-6950 FAX 919-250-4119

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

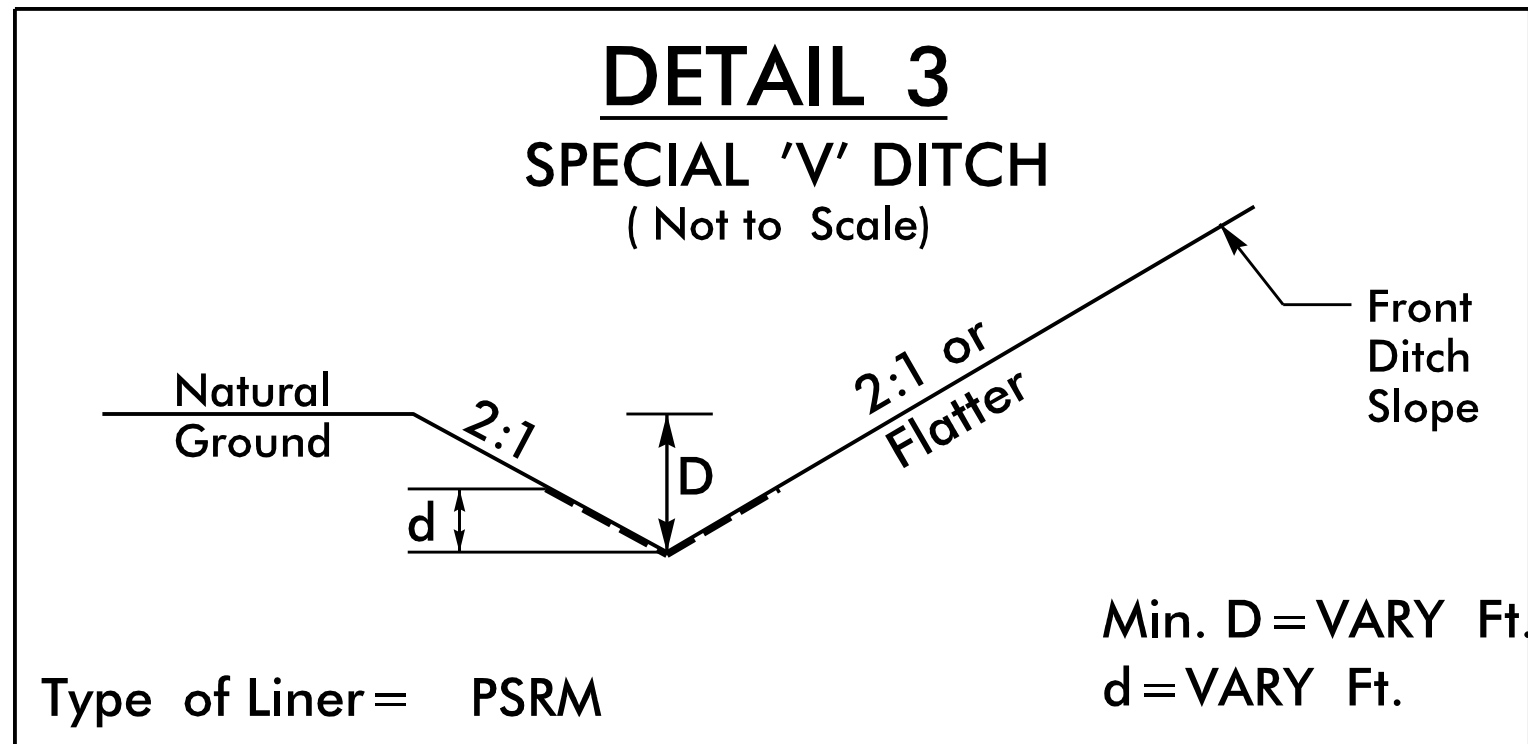
ORIGINAL BY:	DATE:
MODIFIED BY: KKEMPF	DATE: 09-24-14
CHECKED BY:	DATE:
FILE SPEC.: kkempf/english/curb_gutter_transition.dgn	



FROM -L- STA. 14+05 (LT) TO -L- STA. 15+28 (LT)
FROM -L- STA. 23+92 (LT) TO -L- STA. 24+60 (LT)
FROM -L- STA. 24+60 (LT) TO -L- STA. 25+07 (LT)



FROM -L- STA. 9+26 (RT) TO -L- STA. 9+92 (RT)
FROM -L- STA. 25+07 (LT) TO -L- STA. 26+85 (LT)



FROM -L- STA. 28+90 (LT) TO -L- STA. 31+93 (LT)

U-4913A
2D-1

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MECKLENBURG COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

SEAL
037923
J. R. HORN
MASTER'S OF MECHANICAL ENGINEERING
7/8/2025

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HYDRAULICS
ENGINEER

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PREPARED BY

Kimley Horn

REVISIONS

SEE SHEET 2C-5 FOR TEMPORARY
STEEL PLATE COVER DETAIL

REMOVAL OF EXISTING
ASPHALT PAVEMENT SUMMARY
IN SQUARE YARDS

LINE	STATION	STATION	LOCATION	SQUARE YARDS
L	17+60	21+83	LT	212.29
L	24+18	26+89	LT	606.81
L	33+99	34+84	RT	237.51
			TOTAL	1,057
			SAY	1,100

BREAKING OF EXISTING
ASPHALT PAVEMENT SUMMARY
IN SQUARE YARDS

LINE	STATION	STATION	LOCATION	SQUARE YARDS
L	9+37	36+56	LT/RT	11741.86
Y2	10+36	10+80	LT/RT	212.78
Y4	10+98	12+68	LT/RT	745.50
Y5	10+49	11+05	LT/RT	238.67
			TOTAL	12,939
			SAY	12,940

CONCRETE SIDEWALK REMOVAL SUMMARY
IN SQUARE YARDS

LINE	STATION	STATION	LOCATION	YARDS
L	20+31	22+60	LT	131
L	23+56	27+00	LT	179
Y4	11+53	12+20	LT	22
			TOTAL	332
			SAY	400

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT EXCAVATION	EMBANKMENT	BORROW	WASTE
PHASE 1					
-L- RT 09+37.00 TO 37+43.00	2259		3149	890	1500
-RDBT- 11+66.38 TO 13.95.84	1061		1576	515	0
-Y1- LT-RT 10+22.00 TO 10+60.85	246	600	62	0	784
-Y3- LT-RT 12+13.00 TO 23+50.00	4118	350	4761	643	350
-Y6- LT-RT 10+33.55 TO 10+91.41	64		237	173	0
SUMMARY (PHASE 1)	7748	950	9785	3721	2634
PHASE 2					
-L- LT 09+37.00 TO 37+43.00	626		1676	1050	0
-RDBT- 10+00.00 TO 11+66.38	51		2510	2459	0
-Y2- LT-RT 10+22.00 TO 10+80.38	93	50	30	0	63
-Y4- LT-RT 11+57.77 TO 12+67.50	134	100	5	0	129
-Y5- LT-RT 10+33.75 TO 11+05.00	106	50	127	71	50
SUMMARY (PHASE 2)	1009	200	4348	3580	242
PHASE 3					
-Y3- LT-RT 23+50.00 TO 31+38.00	7885	450	1031	0	7304
SUMMARY (PHASE 3)	7885	450	1031	0	7304
SUMMARY (PHASE1, PHASE2 AND PHASE3)					
	16643	1400	15164	7301	10180
ADDITIONAL UNDERCUT		400		460	400
WASTE IN LIEU OF BORROW				-75	-75
PROJECT TOTALS	16643	1800	15624	7686	10505
EST 5% TO REPLACE TOP SOIL ON BORROW PIT				384	
GRAND TOTALS	16643	1800		8070	
SAY	16650	1800		8100	

* UNCLASSIFIED EXCA VATION - ACCEPTABLE, BUT NOT TO BE USED IN TOP 3' OF EMBANKMENT OR BACKFILL (8,250CY):

-Y3- 24+25.00 TO -L- 31+20.00 (8,250 CY)

EST. SHALLOW UNDERCUT - 2825 CY

EST. DRAINAGE DITCH EXCAVATION -120 CY

EST. SELECT GRANULAR MATERIAL -1800 CY

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)

[illegible]

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

SHEET TOTALS (48" or Less)

[illegible]

C.A.A.	CORRUGATED ALUMINUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E	HIGH DENSITY POLYETHYLENE
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
P.V.C.	POLYVINYL CHLORIDE
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT

U-4913A	
	3D-3

See "Standard Specifications For Roads and Structures, Section 300-5".

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

[illegible][illegible]

(9-17-24)

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

SUMMARY OF SUBSURFACE DRAINAGE

LINE	Station	Station	Location LT/RT/CL	Drain Type* UD/BD/SD	LF
CONTINGENCY				SD	200
				TOTAL LF:	200

*UD = Underdrain
*BD = Blind Drain
*SD = Subsurface Drain

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	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
-L-	10+00	16+75	ASU (1)	12	900	1800	2700		
-L-	21+50	26+00	ASU (1)	12		2600	6000		
-L-	26+00	32+25	ASU (1)	12	1000	2000	3000		
-Y2-	10+22	11+10	ASU (1)	12	50	100	150		
-Y3-	10+00	18+00	ASU (1)	12		2800	6250		
-Y3-	28+75	31+20	ASU (1)	12	300	600	900		
-Y4-	10+80	12+68	ASU (1)	12	75	150	225		
-Y5-	10+00	11+05	ASU (1)	12	50	100	150		
CONTINGENCY			ASU (1)	12	250	500	750		
CONTINGENCY			ASU (1)	12	200	400	600		
CONTINGENCY			AST					250	
			TOTAL CY/TONS/SY:		2825	11050**	20725**	250	0

*ASU(1/2) = Aggregate Subgrade (Type 1 or 2)
*AST = Aggregate Stabilization
**Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Subgrade 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.

PARCEL INDEX SHEET

PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAMES
1	4,7	Mathews SF Land Owner LLC
3	5	Farhad Ebrahimi; Farshid Ebrahimi
5	5	Well Pappas Mathews Land Onwer LLC
6	5	Well Pappas Mathews Land Onwer LLC
7	6	Well Pappas Mathews Land Onwer LLC
8	6	Well Pappas Mathews Land Onwer LLC
10	8	Well Pappas Mathews Land Owner LLC
11	8	Well Pappas Mathews Land Owner LLC

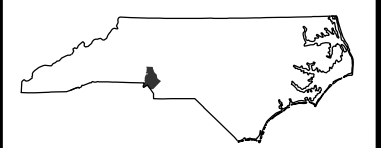
RIGHT OF WAY DATA SHEET

PARCEL NO.	PROPERTY OWNERS NAMES	TOTAL AREA (AC)	AREA TAKEN (AC)	AREA REMAINING (AC)	ROW AREA TAKEN (AC)	TEMPORARY CONSTRUCTION EASEMENT (AC)	PERMANENT UTILITY EASEMENT (AC)
1	Mathews SF Land Owner LLC	24.3891	0.0055	24.3836			0.0055
3	Farhad Ebrahimi; Farshid Ebrahimi	0.5692	0.2072	0.3620	0.1602	0.0470	
5	Well Pappas Mathews Land Owner LLC	5.0767	0.0133	5.0634	0.0133		
6	Well Pappas Mathews Land Owner LLC	3.0074	0.0120	2.9954	0.0120		
7	Well Pappas Mathews Land Owner LLC	1.9864	0.0606	1.9258			0.0606
8	Well Pappas Mathews Land Owner LLC	2.7195	0.0295	2.6900			0.0295
10	Well Pappas Mathews Land Onwer LLC	6.4958	0.1661	6.3297	0.0536	0.1125	
11	Well Pappas Mathews Land Onwer LLC	3.3228	0.1548	3.1680	0.0702	0.0846	

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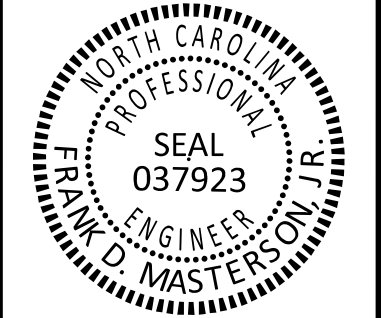
3P-1

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MECKLENBURG COUNTY



ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEER



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UNLESS ALL SIGNATURES COMPLETED

HYDRAULICS
ENGINEER



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PREPARED BY



REVISIONS

CUR DATA -L-
 Plc 13+61.31
 $\Delta c = 02^{\circ}53'43.7''$ (LT)
 $D = 01^{\circ}11'37.2''$
 $L_c = 242.57$
 $T_c = 121.31$
 $R = 4,800$

SEE SHEETS 9 & 10 FOR -L- PROFILE
SEE SHEET 10 FOR -Y1- PROFILE
SEE SHEET 10 FOR -Y2- PROFILE

MATCH LINE -L- STA 19+50.00 SEE SHEET 005

REVISIONS

U-4913A

5

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MECKLENBURG COUNTY

ROADWAY DESIGN UNIT
ROADWAY DESIGN
ENGINEER

SEAL

037923

WILLIAM M. JONES, JR.

PROFESSIONAL ENGINEER

7/8/2025

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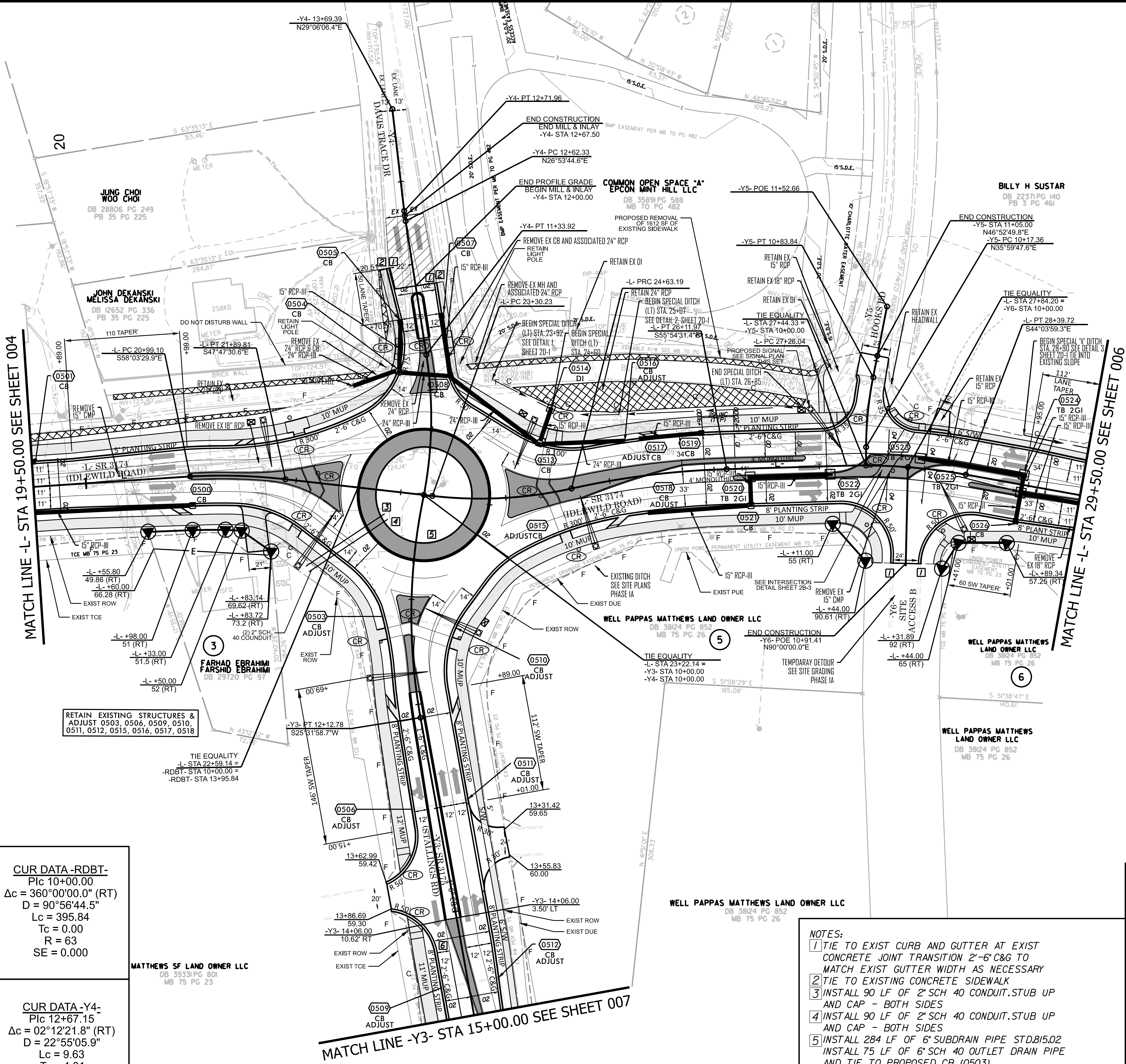
7/8/2025

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PREPARED BY

Kimley » Horn

CUR DATA -L- Plc 21+44.57 $\Delta c = 09^{\circ}37'28.5''$ (RT) D = 10°36'37.2" Lc = 90.71 Tc = 45.46 R = 540 SE = 0.020	CUR DATA -L- Plc 23+97.33 $\Delta c = 19^{\circ}02'45.0''$ (LT) D = 14°19'26.2" Lc = 132.97 Tc = 67.10 R = 400 SE = 0.020	
CUR DATA -L- Plc 25+37.81 $\Delta c = 10^{\circ}55'44.2''$ (RT) D = 07°20'44.2" Lc = 148.78 Tc = 74.62 R = 780 SE = 0.020	CUR DATA -L- Plc 27+83.09 $\Delta c = 11^{\circ}50'32.1''$ (RT) D = 10°25'02.7" Lc = 113.68 Tc = 57.04 R = 550 SE = 0.040	CUR DATA -RDBT- Plc 10+00.00 $\Delta c = 360^{\circ}00'00.0''$ (RT) D = 90°56'44.5" Lc = 395.84 Tc = 0.00 R = 63 SE = 0.000
CUR DATA -Y3- Plc 11+07.74 $\Delta c = 22^{\circ}09'57.4''$ (LT) D = 10°25'02.7" Lc = 212.78 Tc = 107.74 R = 550 SE = 0.000	CUR DATA -Y4- Plc 10+67.63 $\Delta c = 19^{\circ}40'28.4''$ (LT) D = 14°41'28.4" Lc = 133.92 Tc = 67.63 R = 390 SE = 0.000	CUR DATA -Y4- Plc 12+67.15 $\Delta c = 02^{\circ}12'21.8''$ (RT) D = 22°55'05.9" Lc = 9.63 Tc = 4.81 R = 250 SE = 0.000



- NOTES:
- 1

TIE TO EXIST CURB AND GUTTER AT EXIST CONCRETE JOINT TRANSITION 2'-6" C&G TO MATCH EXIST GUTTER WIDTH AS NECESSARY
- 2

TIE TO EXISTING CONCRETE SIDEWALK
- 3

INSTALL 90 LF OF 2" SCH 40 CONDUIT, STUB UP AND CAP - BOTH SIDES
- 4

INSTALL 90 LF OF 2" SCH 40 CONDUIT, STUB UP AND CAP - BOTH SIDES
- 5

INSTALL 284 LF OF 6" SUBDRAIN PIPE STD.B15.02
INSTALL 75 LF OF 6" SCH 40 OUTLET DRAIN PIPE AND TIE TO PROPOSED CB (0503)
- 6

INSTALL 217 LF OF 6" SUBDRAIN PIPE STD.B15.02
INSTALL 64 LF OF 6" SCH 40 OUTLET DRAIN PIPE AND TIE TO PROPOSED CB (0509)

PROP. MILL & OVERLAY

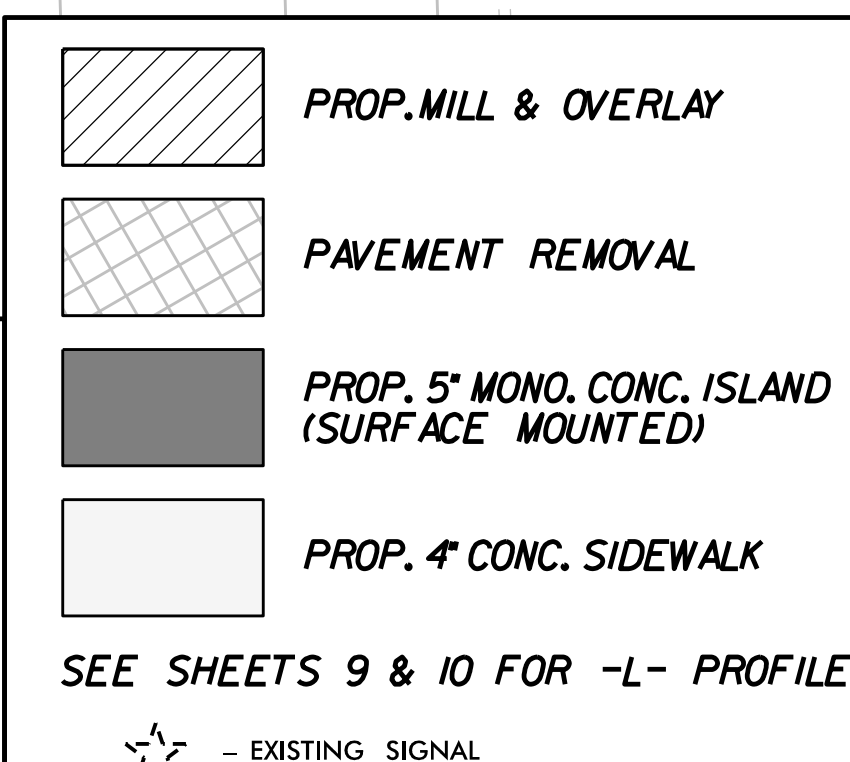
PAVEMENT REMOVAL

PROP. 5" MONO. CONC. ISLAND (SURFACE MOUNTED)

PROP. 4" CONC. SIDEWALK

SEE SHEETS 9 & 10 FOR -L- PROFILE
SEE SHEETS 10 & 11 FOR -Y3- PROFILE
SEE SHEET 11 FOR -Y4- PROFILE
SEE SHEET 11 FOR -Y5- PROFILE
SEE SHEET 11 FOR -Y6- PROFILE
SEE SHEET 11 FOR -RDBT- PROFILE

REVISIONS



CUR DATA -Y3-
P/c 18+34.63
 $\Delta c = 55^\circ 46' 01.1''$ (LT)
D = 09°39'43.3"
Lc = 577.18
Tc = 313.76
R = 593
SE = 0.020

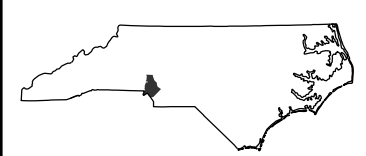
CUR DATA -Y3-
P/c 25+27.06
 $\Delta c = 51^\circ 41' 50.9''$ (RT)
D = 09°37'46.4"
Lc = 536.86
Tc = 288.26
R = 595
SE = 0.000



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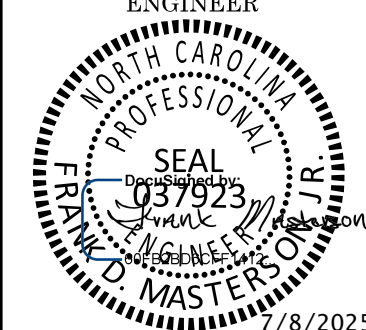
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NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
MECKLENBURG COUNTY



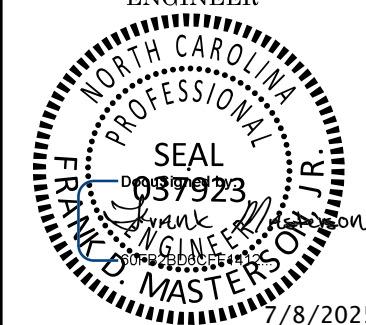
ROADWAY DESIGN UNIT

ROADWAY DESIGN
ENGINEER



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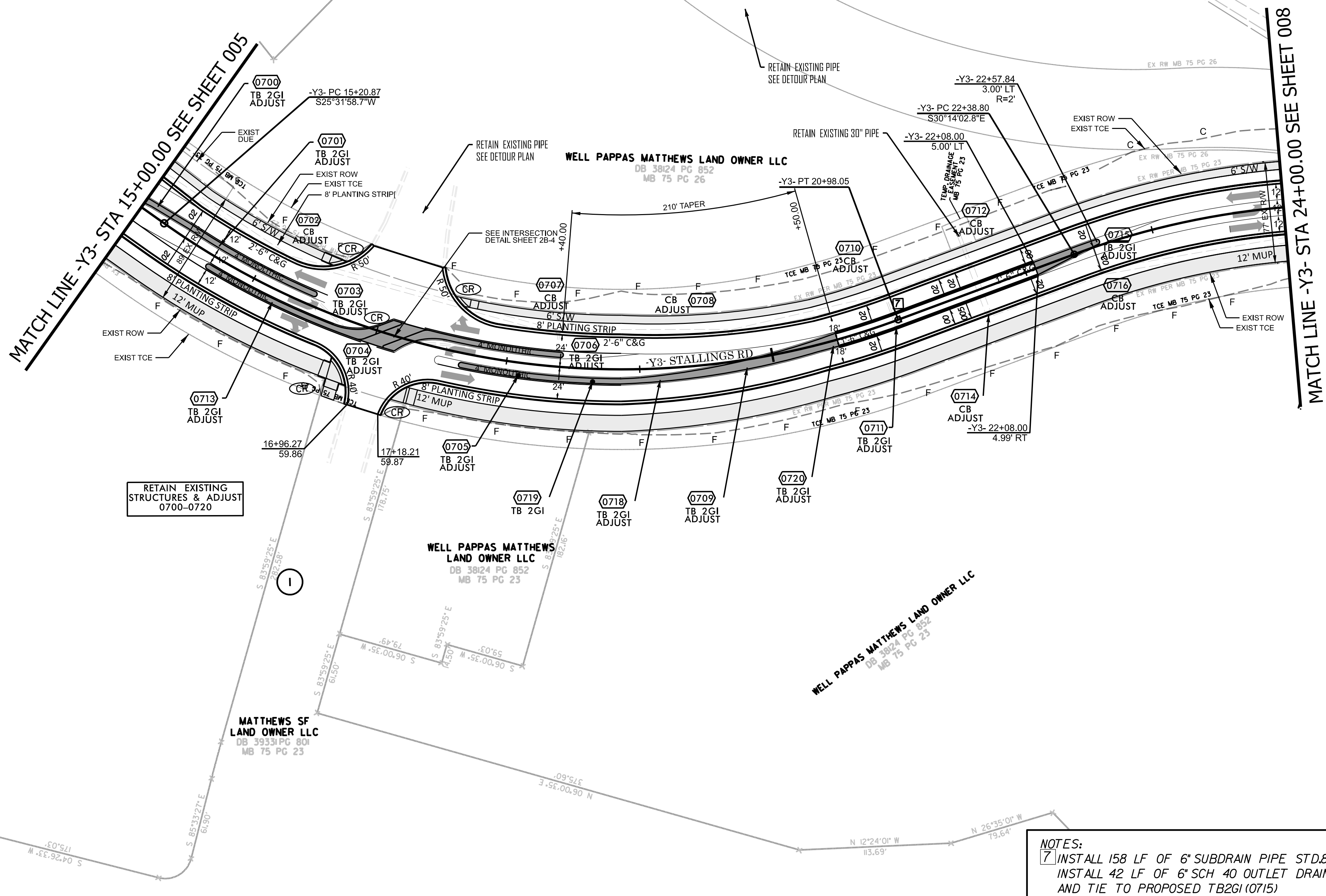
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ENGINEER



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PREPARED BY

Kimley Horn



- PROP. MILL & OVERLAY
- PAVEMENT REMOVAL
- PROP. 5" MONO. CONC. ISLAND (SURFACE MOUNTED)
- PROP. 4" CONC. SIDEWALK

NOTES:
7. INSTALL 158 LF OF 6" SUBDRAIN PIPE STD.B15.02
INSTALL 42 LF OF 6" SCH 40 OUTLET DRAIN PIPE
AND TIE TO PROPOSED TB2GI(0715)

SEE SHEETS 10 & 11 FOR -Y3- PROFILE

REVISIONS