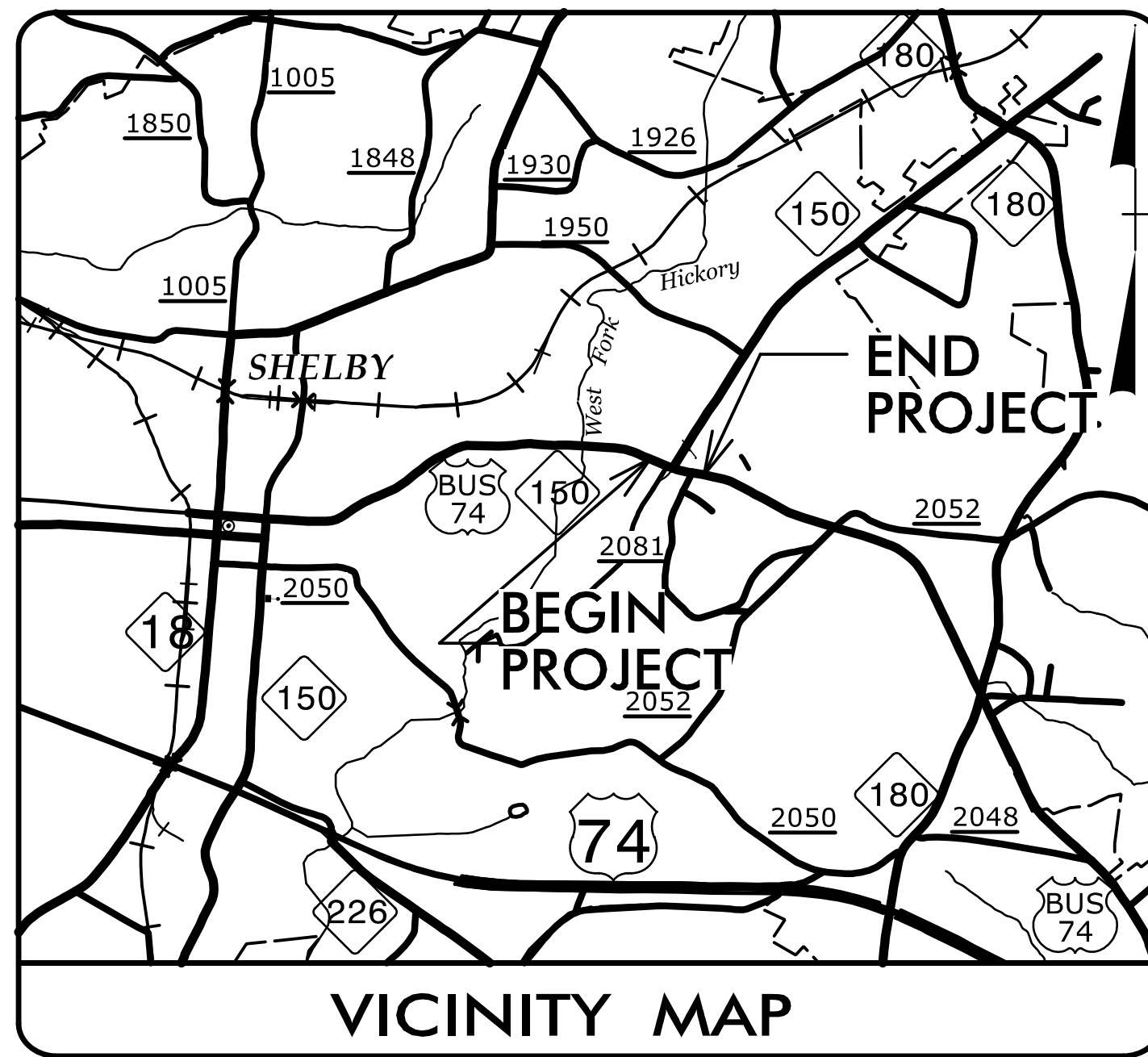


09/08/2019

TIP PROJECT: U-5775

CONTRACT: C204893

See Sheet 1-A For Index of Sheets

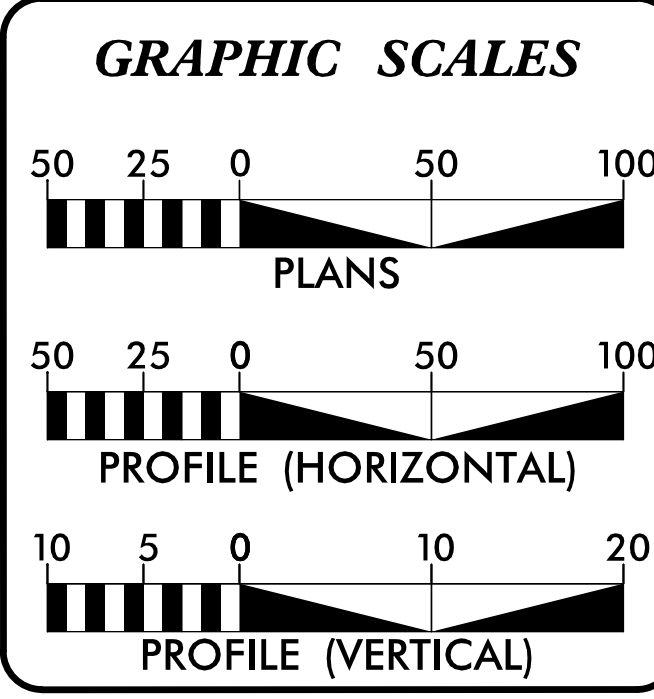
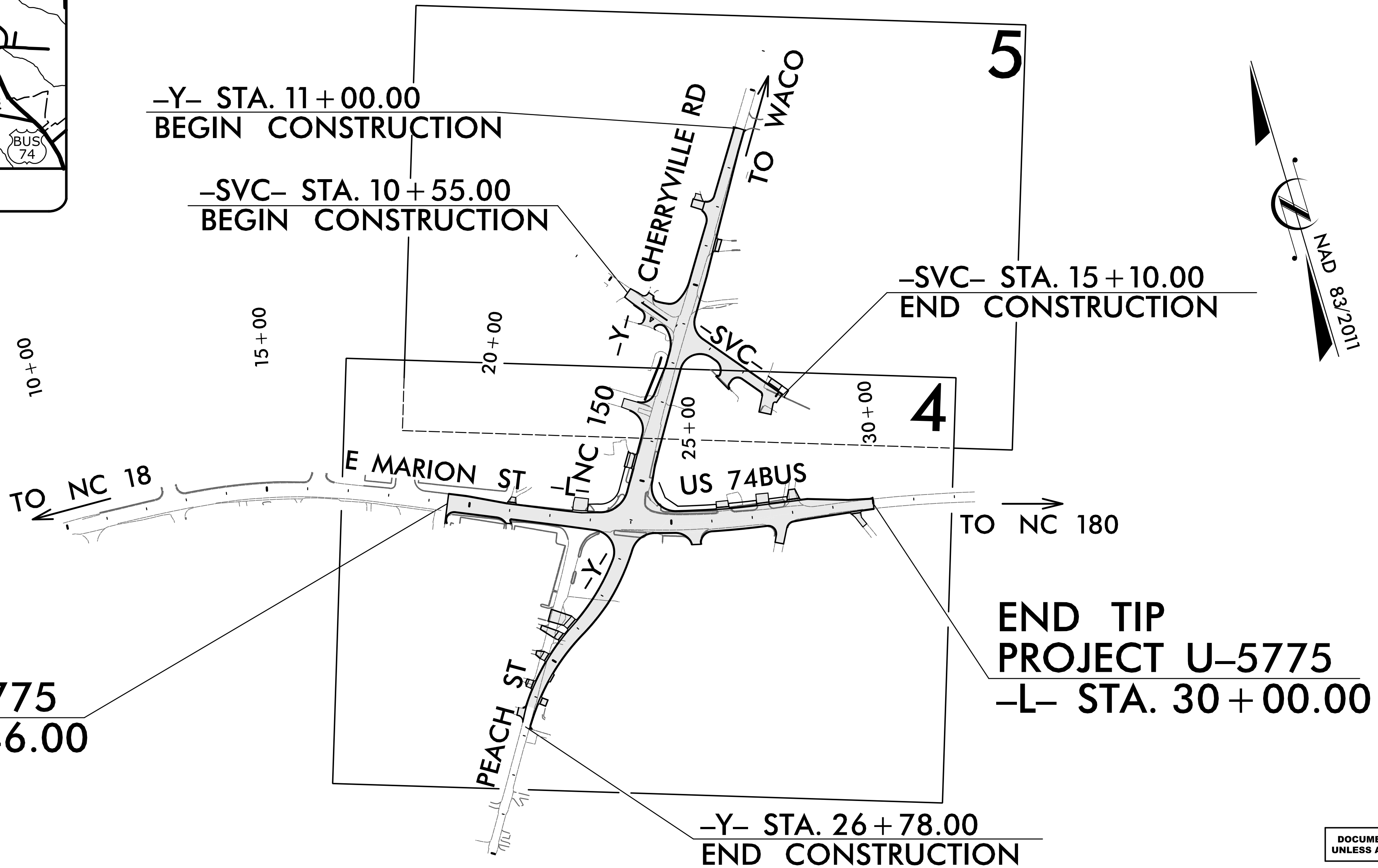


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CLEVELAND COUNTY

LOCATION: REALIGN INTERSECTION OF US 74 BUS (MARION ST) AT NC 150 (CHERRYVILLE RD) AND PEACH ST

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5775	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50186.1.1	N/A	PE	
50186.2.1	N/A	R/W, UTIL.	
50186.3.1	N/A	CONST.	



DESIGN DATA

ADT 2015 =	17,000
ADT 2040 =	21,600
K =	7 %
D =	60 %
T =	3 % *
V =	40 MPH

* TTST = 1% DUAL 2%
FUNC CLASS =
URBAN COLLECTOR
REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U-5775	=	0.200 MILES
TOTAL LENGTH TIP PROJECT U-5775	=	0.200 MILES

NC DOT CONTACT: BRYAN SOWELL, PE

PLANS PREPARED BY: TGS ENGINEERS 201 MARION ST, STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	PLANS PREPARED FOR: NORTH CAROLINA DEPARTMENT OF TRANSPORTATION DIVISION 12 1710 E. MARION ST SHELBY, NC 28151
RIGHT OF WAY DATE: NOVEMBER 1, 2017	JIMMY L. TERRY, PE PROJECT ENGINEER
LETTING DATE: AUGUST 15, 2023	SANDRA G. MELVIN PROJECT DESIGN ENGINEER

2018 STANDARD SPECIFICATIONS

HYDRAULICS ENGINEER

5/10/2023

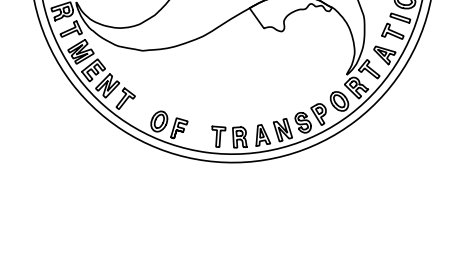
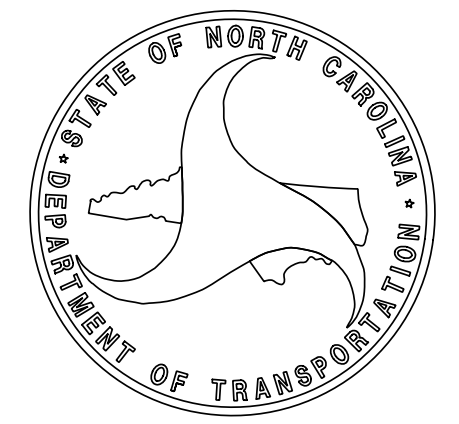
DocuSigned by:
David B. Petty
DAVID B. PETTY
P.E.

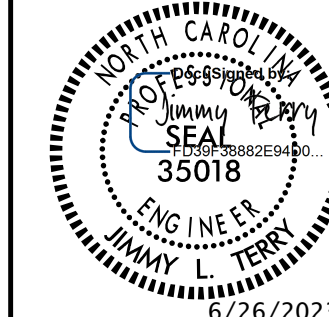
ROADWAY DESIGN ENGINEER

5/10/2023

DocuSigned by:
Jimmy L. Terry
JIMMY L. TERRY
P.E.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



PROJECT REFERENCE NO. <i>U-5775</i>	SHEET NO. <i>1-A</i>
ROADWAY DESIGN ENGINEER	
	

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

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-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2C-1	SPECIAL DETAIL - CONCRETE ELONGATED THROAT CATCH BASIN
2C-2	SPECIAL DETAIL - SPECIAL DI
2C-3	SPECIAL DETAIL - CURB RAMP - DIRECTIONAL RAMPS
2C-4	SPECIAL DETAIL - HANDRAIL RAIL ADJACENT RETAINING WALL
2C-5	GUARDRAIL INSTALLATION (SPECIAL DETAIL FOR SHEET 6 OF 8)
2C-6	SPECIAL DETAIL - GUARDRAIL AT-1 END UNIT
3B-1	EARTHWORK SUMMARY, ASPHALT PAVEMENT BREAKING AND REMOVAL SUMMARY
3D-1 THRU 3D-3	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
3P-1	PARCEL INDEX SHEET
4 THRU 5	PLAN SHEETS
6 THRU 7	PROFILE SHEETS
RW01 THRU RW05	SURVEY CONTROL SHEETS
TMP-1 THRU TMP-6	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-3	PAVEMENT MARKING PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-4	SIGNING PLANS
SIG.0.0 THRU SIG.3.9	SIGNAL PLANS
M1 THRU M8	STANDARD METAL POLE DETAILS
UC-1 THRU UC-7	UTILITIES CONSTRUCTION PLANS
UO-1 THRU UO-3	UTILITIES BY OTHERS PLANS
X-1A	CROSS-SECTION INDEX SHEET
X-1B	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-14	CROSS-SECTIONS
W-1 THRU W-2	RETAINING WALL #1

GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS
EFFECTIVE: 01-16-2018
REVISED:

**GRADE LINE:
GRADING AND SURFACING:**
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED 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.

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

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

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

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

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

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

SUBSURFACE PLANS:
NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY, BROADPLEX, SPECTRUM, AT&T, MCNC, CITY OF SHELBY GAS/POWER/WATER/SEWER, AND RST COMMUNICATION
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 848.05 and/or 848.06.

STANDARD DRAWINGS

EFF. 01-16-2018
REV.

2018 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	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
310.10	Driveway Pipe Construction
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.45	Precast Drainage Structure
840.54	Manhole Frame and Cover
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb & Gutter
852.01	Concrete Islands
862.01	Guardrail Placement
862.02	Guardrail Installation
876.02	Guide for Rip Rap at Pipe Outlets

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	(23)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-
Existing Historic Property Boundary	-HPB-
Known Contamination Area: Soil	-S-S-
Potential Contamination Area: Soil	-S-S-
Known Contamination Area: Water	-W-W-
Potential Contamination Area: Water	-W-W-
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	-JS-
Buffer Zone 1	-BZ 1-
Buffer Zone 2	-BZ 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	-C-
Proposed Slope Stakes Fill	-F-
Proposed Curb Ramp	_____
Existing Metal Guardrail	_____
Proposed Guardrail	_____
Existing Cable Guiderail	_____
Proposed Cable Guiderail	_____
Equality Symbol	⊕
Pavement Removal	_____
VEGETATION:	
Single Tree	○
Single Shrub	○
Hedge	_____

Woods Line	_____
Orchard	_____
Vineyard	_____

EXISTING STRUCTURES:

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

UTILITIES:

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

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	⊙
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	⊕
H-Frame Pole	●
U/G Power Line Test Hole (SUE - LOS A)*	⊕
U/G Power Line (SUE - LOS B)*	_____
U/G Power Line (SUE - LOS C)*	_____
U/G Power Line (SUE - LOS D)*	_____

TELEPHONE:

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

WATER:

Water Manhole	⊙
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line Test Hole (SUE - LOS A)*	⊕
U/G Water Line (SUE - LOS B)*	_____
U/G Water Line (SUE - LOS C)*	_____
U/G Water Line (SUE - LOS D)*	_____
Above Ground Water Line	_____

TV:

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

GAS:

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

SANITARY SEWER:

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

MISCELLANEOUS:

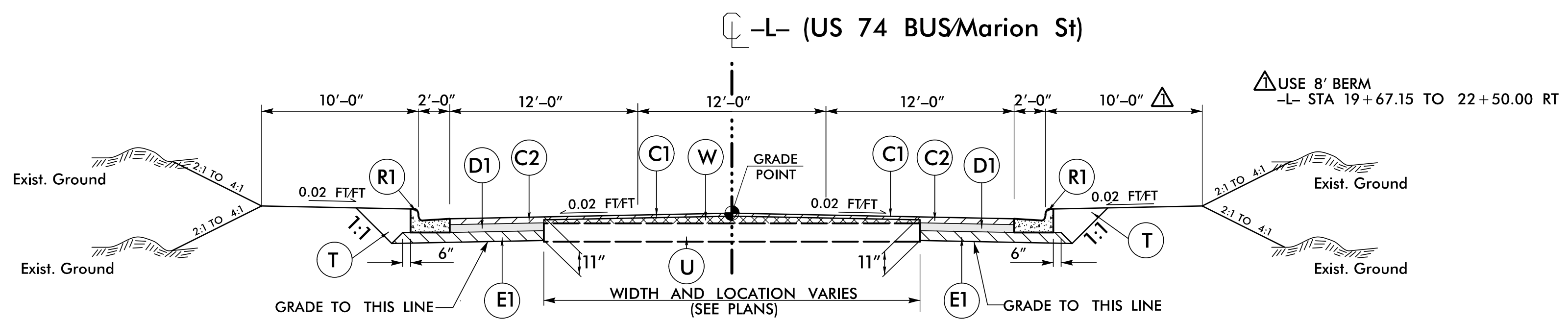
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line (SUE - LOS B)*	_____
U/G Tank; Water, Gas, Oil	_____
Underground Storage Tank, Approx. Loc.	_____
A/G Tank; Water, Gas, Oil	_____
Geoenvironmental Boring	⊕
Abandoned According to Utility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

6/2/2019

PAVEMENT SCHEDULE

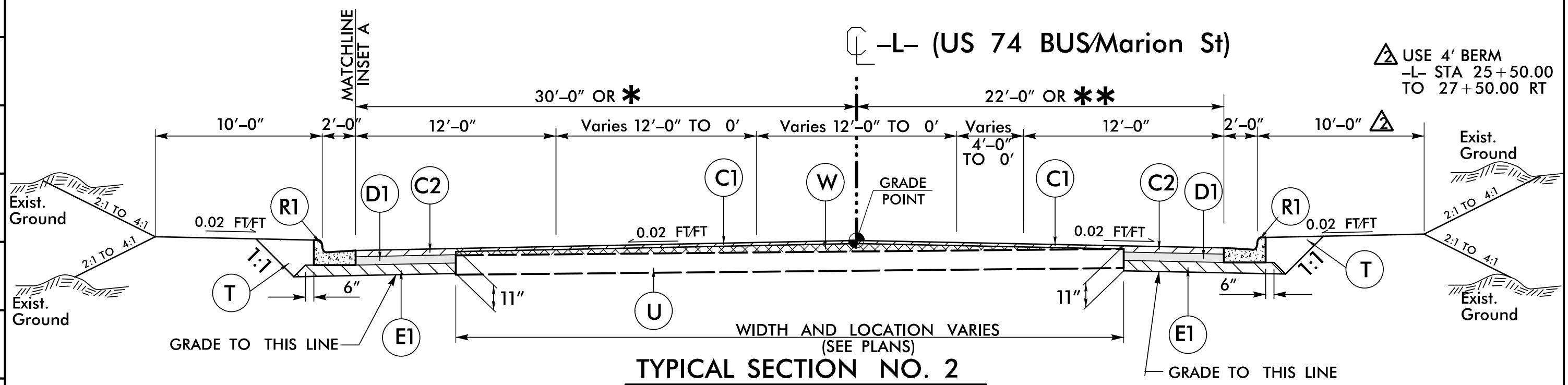
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE 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 1/2" 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. 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 1/2" IN DEPTH.
R1	2'-6" CONCRETE CURB AND GUTTER.
R2	8" X 12" CONCRETE CURB
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING EXISTING PAVEMENT, SEE SHEET 2A-2 FOR DETAIL
W	WEDGING EXISTING PAVEMENT, SEE THIS SHEET FOR DETAILS
Y1	4" CONCRETE WITH WELDED WIRE MESH

PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



TYPICAL SECTION NO. 1

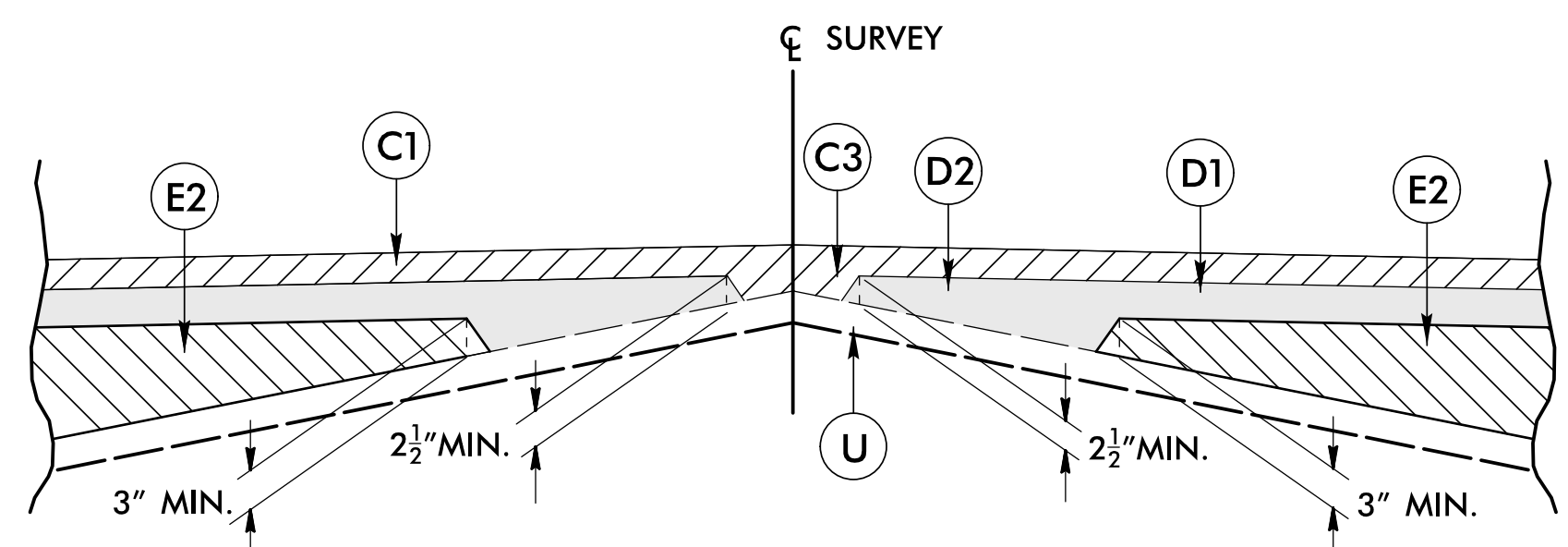
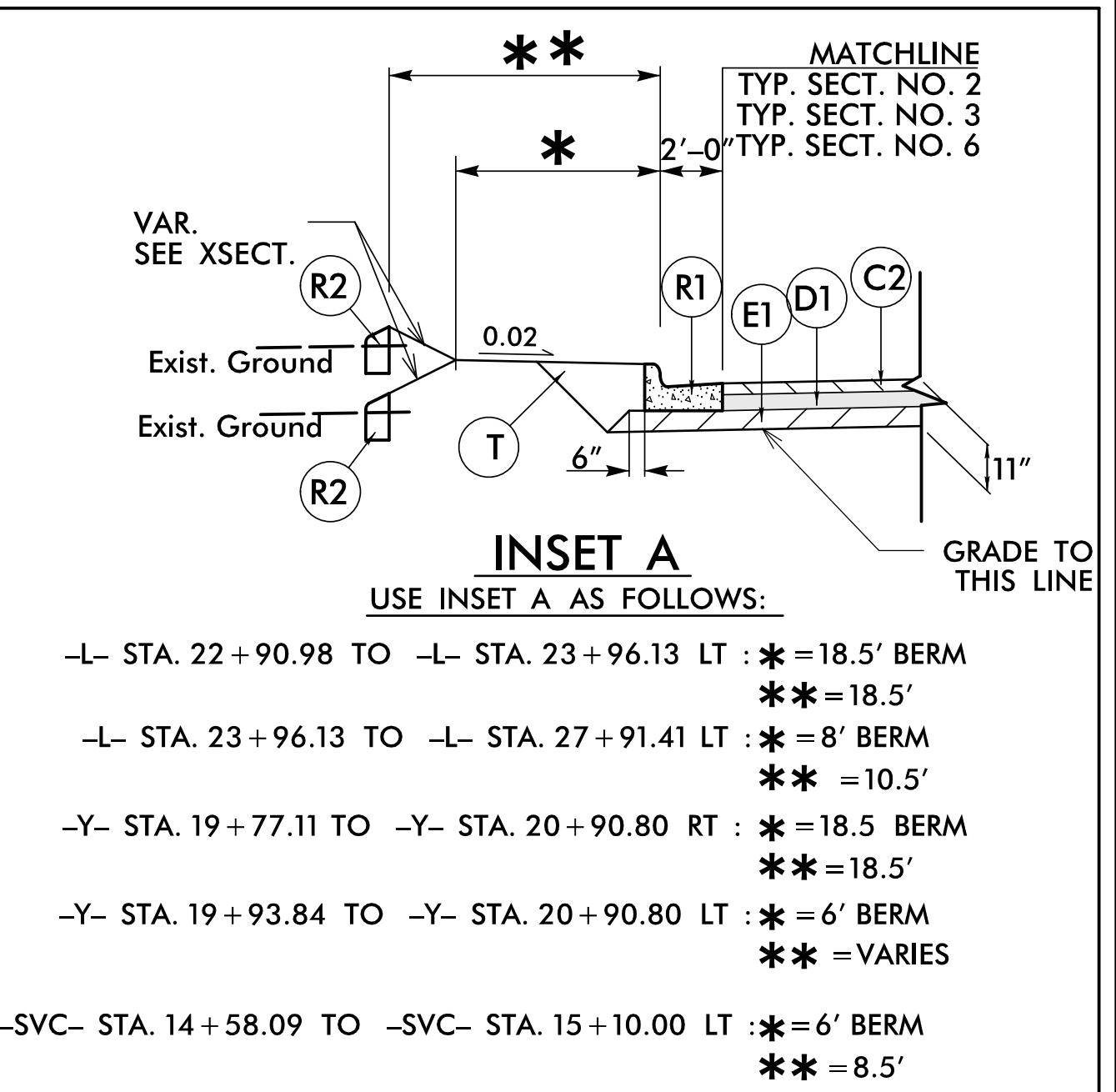
USE TYPICAL SECTION NO. 1
 -L- STA. 19+67.15 TO -L- STA. 22+30.00 RT
 -L- STA. 20+90.00 TO -L- STA. 23+96.13 LT
 NOTE: TRANSITION BETWEEN EXISTING AND TYP. SECT. NO. 1
 -L- STA. 19+46.00 TO -L- STA. 19+67.15 RT
 -L- STA. 19+46.00 TO -L- STA. 20+90.00 LT



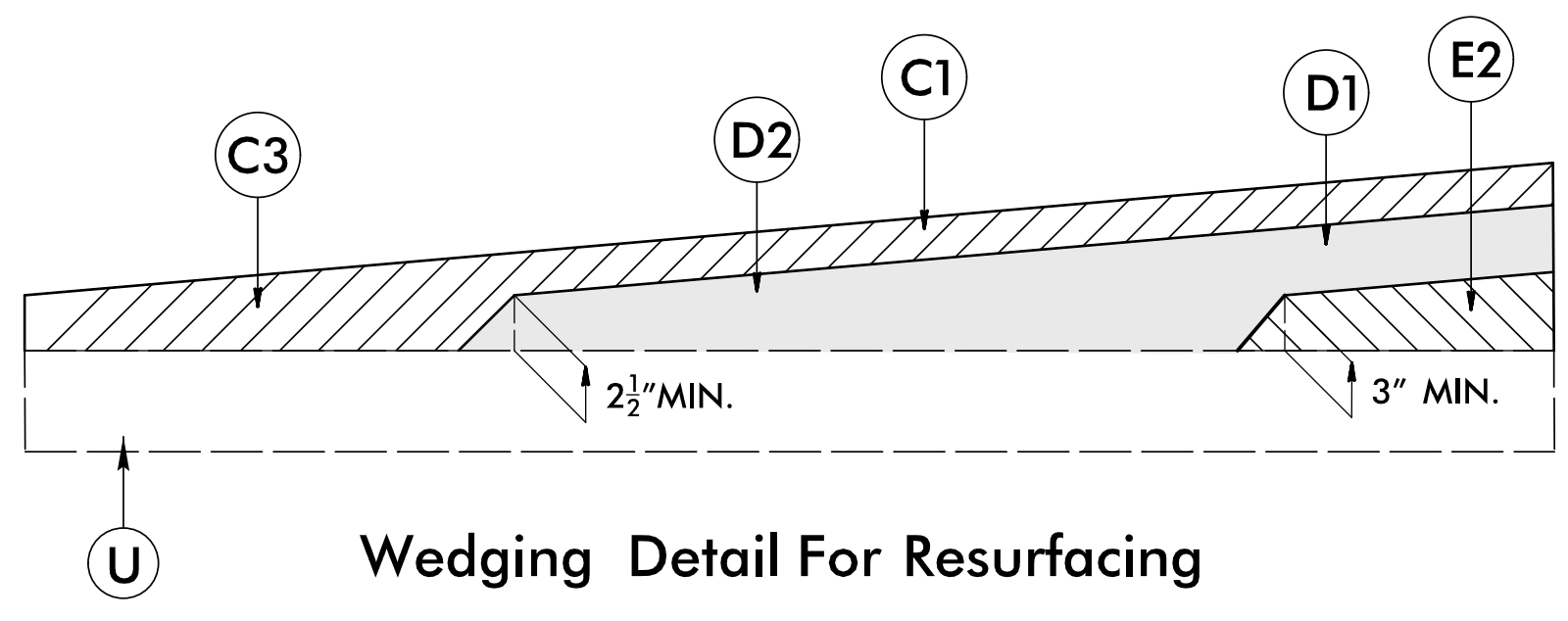
TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
 -L- STA. 22+30.00 TO -L- STA. 30+00.00 RT
 -L- STA. 23+96.13 TO -L- STA. 30+00.00 LT

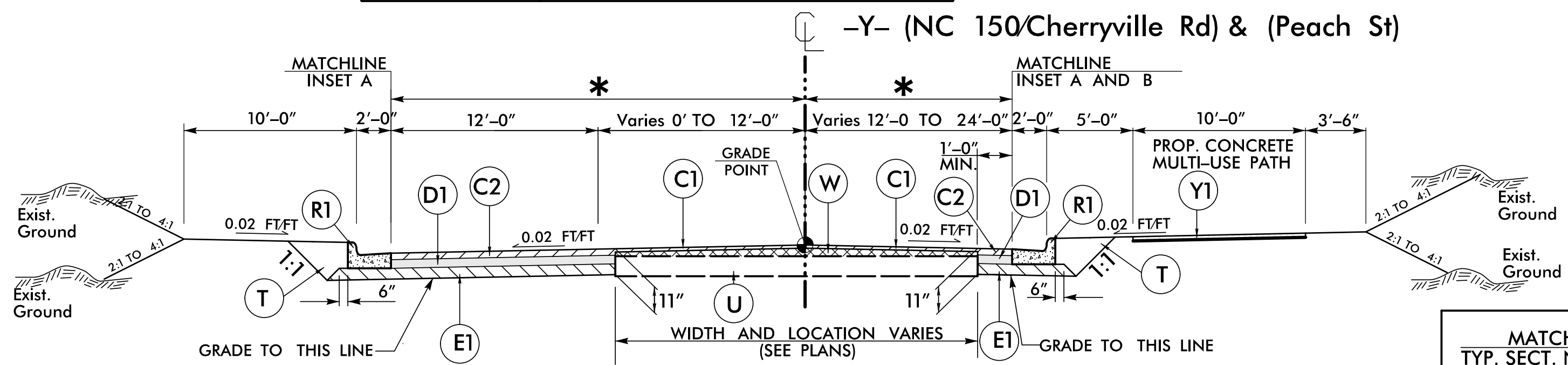
*	STA. TO STA.
30'-0"	-L- STA. 23+96.13 TO -L- STA. 27+67.00 LT
30'-0" TO 12'-0"	-L- STA. 27+67.00 TO -L- STA. 29+40.00 LT
12'-0" TO EXISTING	-L- STA. 29+40.00 TO -L- STA. 30+00.00 LT
**	
18'-0" TO 22'-0"	-L- STA. 22+30.00 TO -L- STA. 23+30.00 RT
22'-0"	-L- STA. 23+30.00 TO -L- STA. 26+74.00 RT
22'-0" TO 12'-0"	-L- STA. 26+74.00 TO -L- STA. 29+27.00 RT
12'-0" TO EXISTING	-L- STA. 29+27.00 TO -L- STA. 30+00.00 RT



Detail Showing Method of Wedging



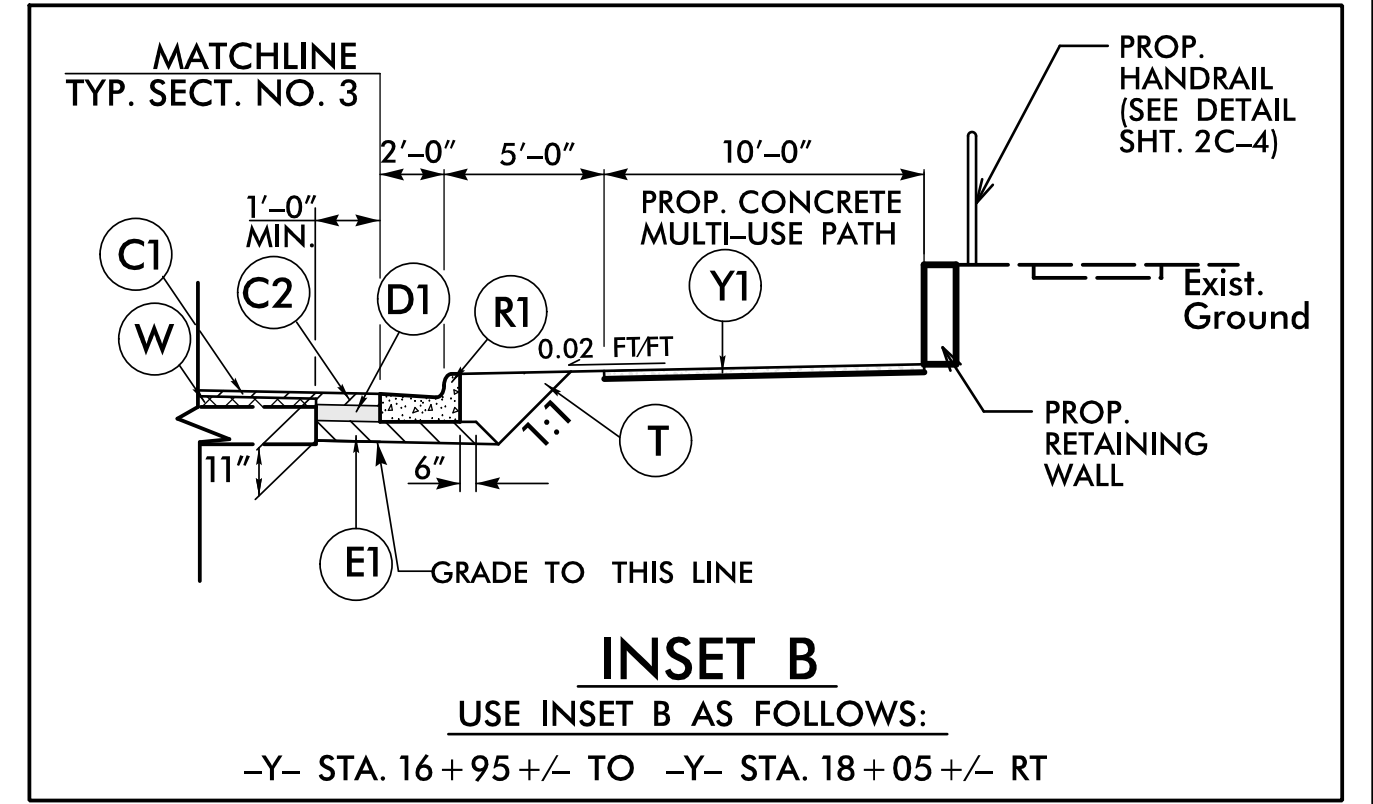
Wedging Detail For Resurfacing



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

*	STA. TO STA.
12'-0" TO EXISTING	-Y- STA. 11+00.00 TO -Y- STA. 11+51.00
12'-0"	-Y- STA. 11+51.00 TO -Y- STA. 17+10.00 RT
	-Y- STA. 25+06.06 TO -Y- STA. 26+28.00 RT
12'-0" TO 24'-0"	-Y- STA. 11+51.00 TO -Y- STA. 14+71.00 LT
	-Y- STA. 17+10.00 TO -Y- STA. 18+10.00 RT
24'-0"	-Y- STA. 14+71.00 TO -Y- STA. 20+90.80 LT
	-Y- STA. 18+10.00 TO -Y- STA. 20+90.80 RT
14'-7" TO 12'-0"	-Y- STA. 25+58.84 TO -Y- STA. 26+28.00 LT



INSET B

USE INSET B AS FOLLOWS:

-Y- STA. 16+95+/- TO -Y- STA. 18+05+/- RT

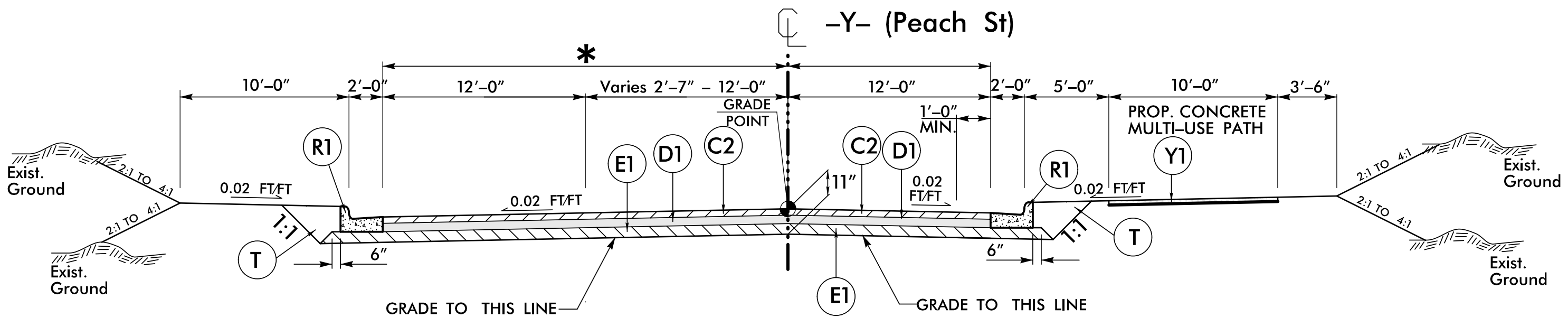
PROJECT REFERENCE NO. U-5775	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER JIMMY L. HARRIS 9/11/2023	PAVEMENT DESIGN ENGINEER MATTHEW BREWER 5/11/2023
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

5/1/2023 U-5775-Roadway-Proj-U-5775-Rdy-typ.dgn
 User: jlharris

6/2/2023

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C
R1	2'-6" CONCRETE CURB AND GUTTER.
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING EXISTING PAVEMENT, SEE THIS SHEET FOR DETAIL
W	WEDGING EXISTING PAVEMENT, SEE SHEET 2A-1 FOR DETAILS
Y1	4" CONCRETE WITH WELDED WIRE MESH

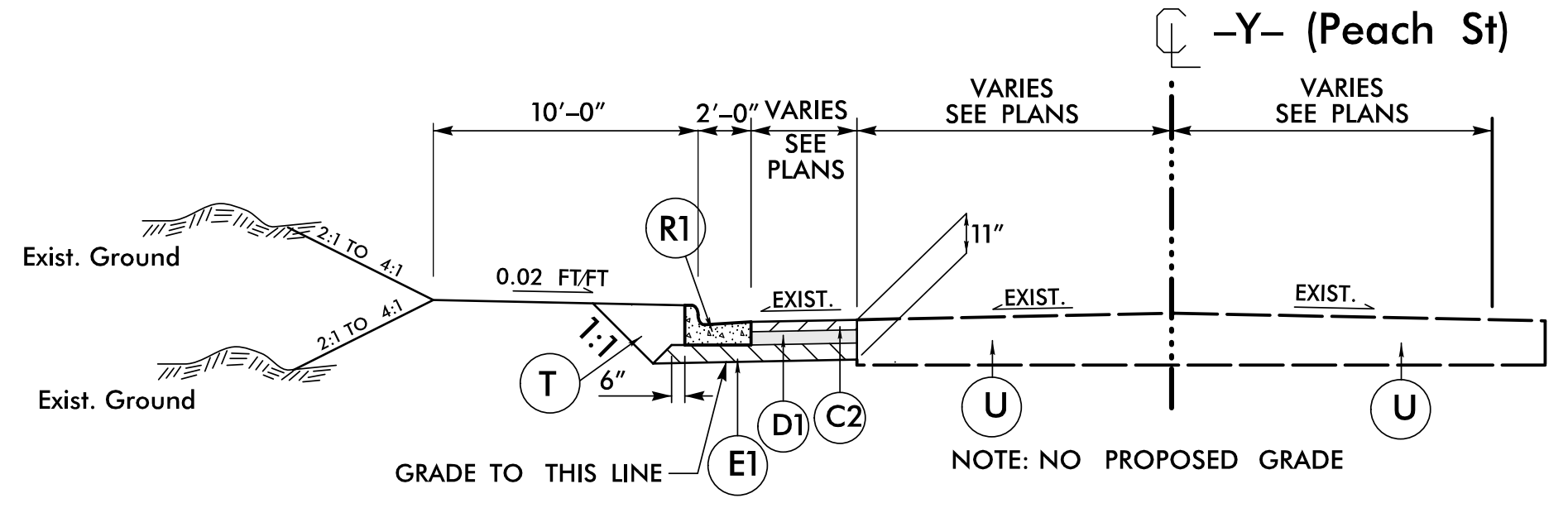
PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



TYPICAL SECTION NO. 4

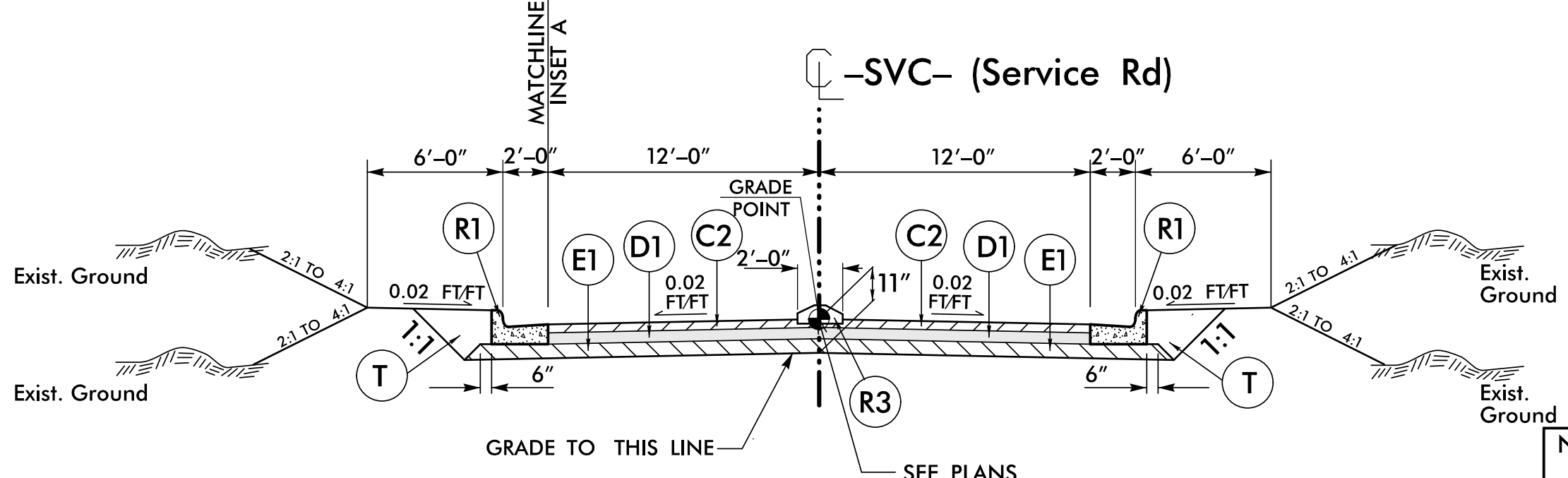
USE TYPICAL SECTION NO. 4

*	STA. TO STA.
24'-0"	-Y- 21+27.71 TO -Y- STA. 23+08.00 LT
24'-0" TO 14'-7"	-Y- 23+08.00 TO -Y- STA. 25+58.84 LT
12'-0"	-Y- 21+27.71 TO -Y- STA. 25+06.06 RT



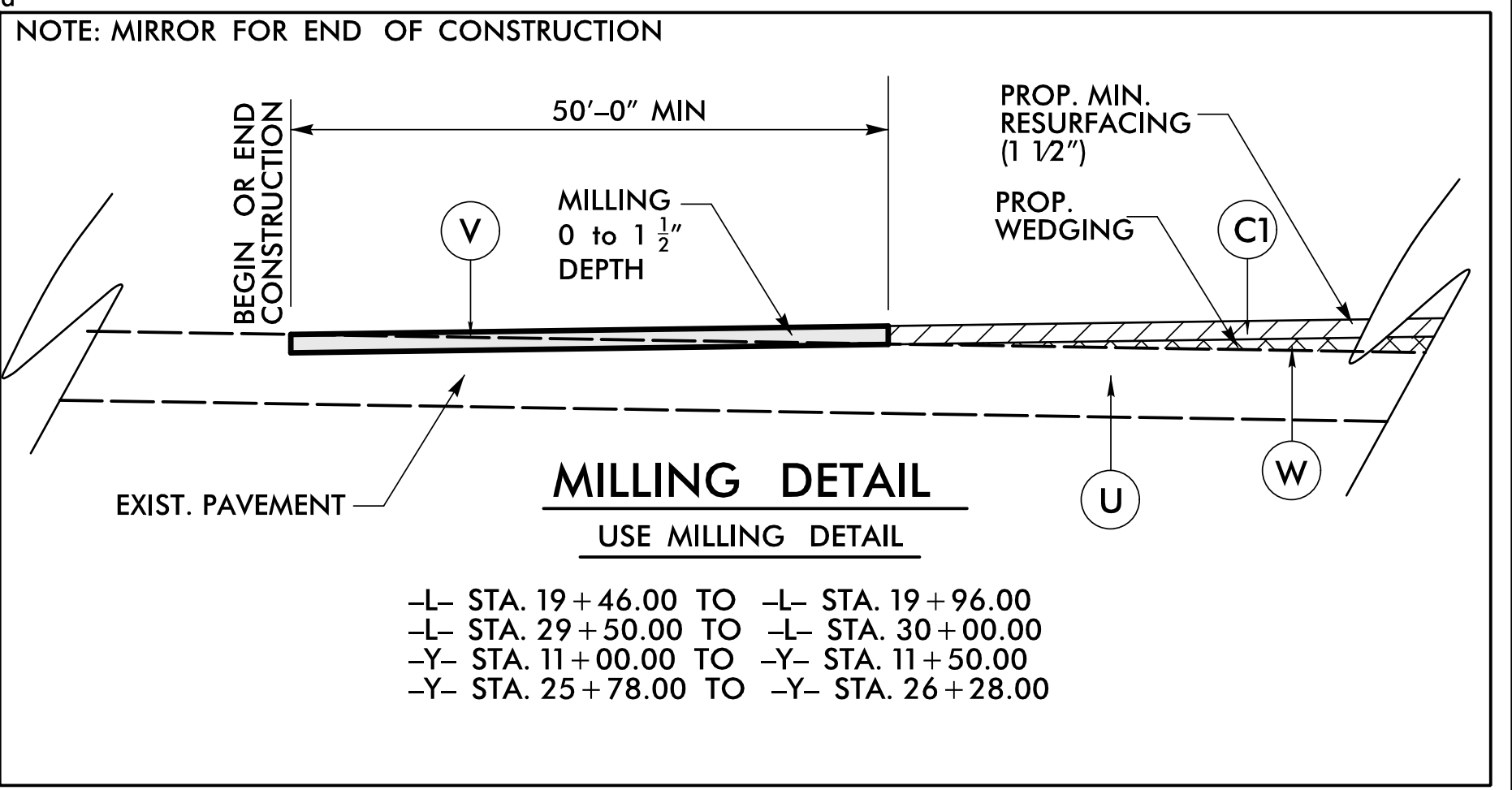
TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5
-Y- STA. 26+28.00 TO -Y- STA. 26+78.00 LT



TYPICAL SECTION NO. 6

USE TYPICAL SECTION NO. 6
-SVC- STA. 10+55.00 TO -SVC- STA. 12+02.51
-SVC- STA. 12+40.66 TO -SVC- STA. 15+10.00



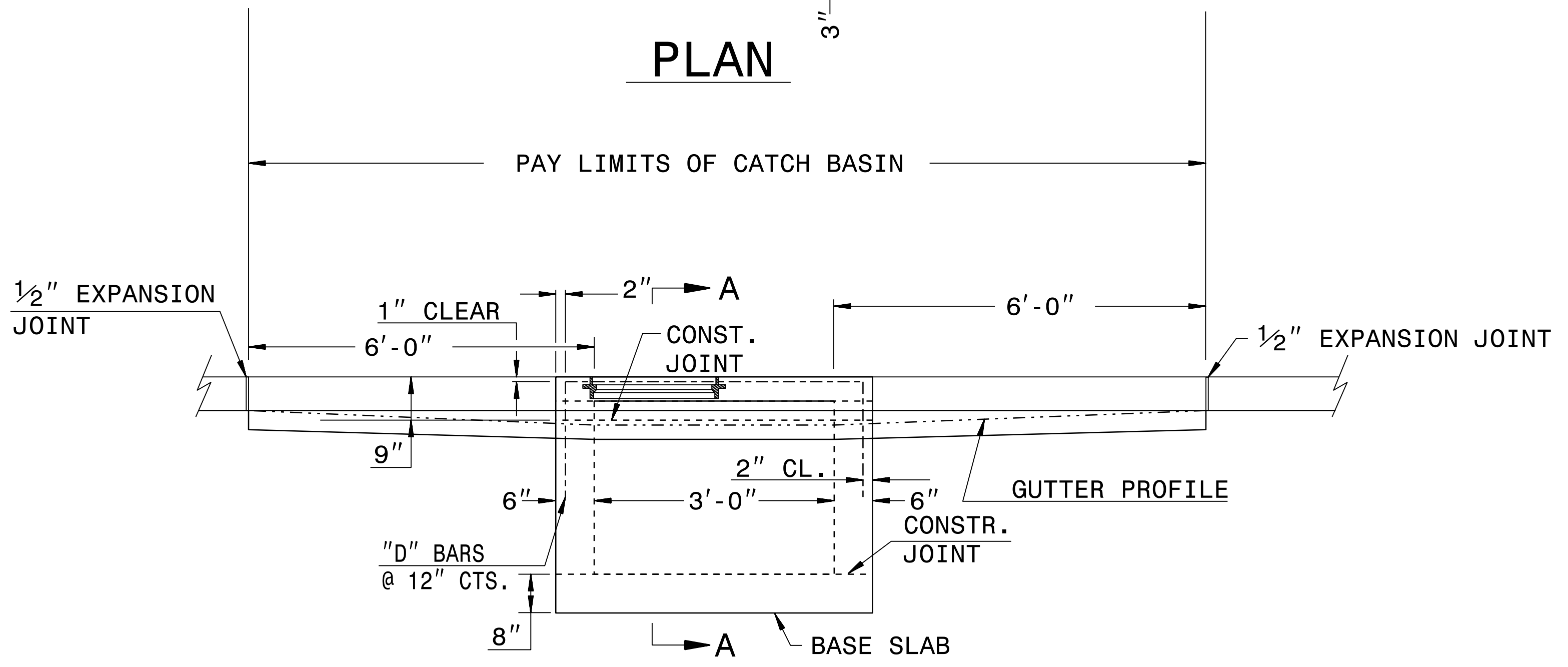
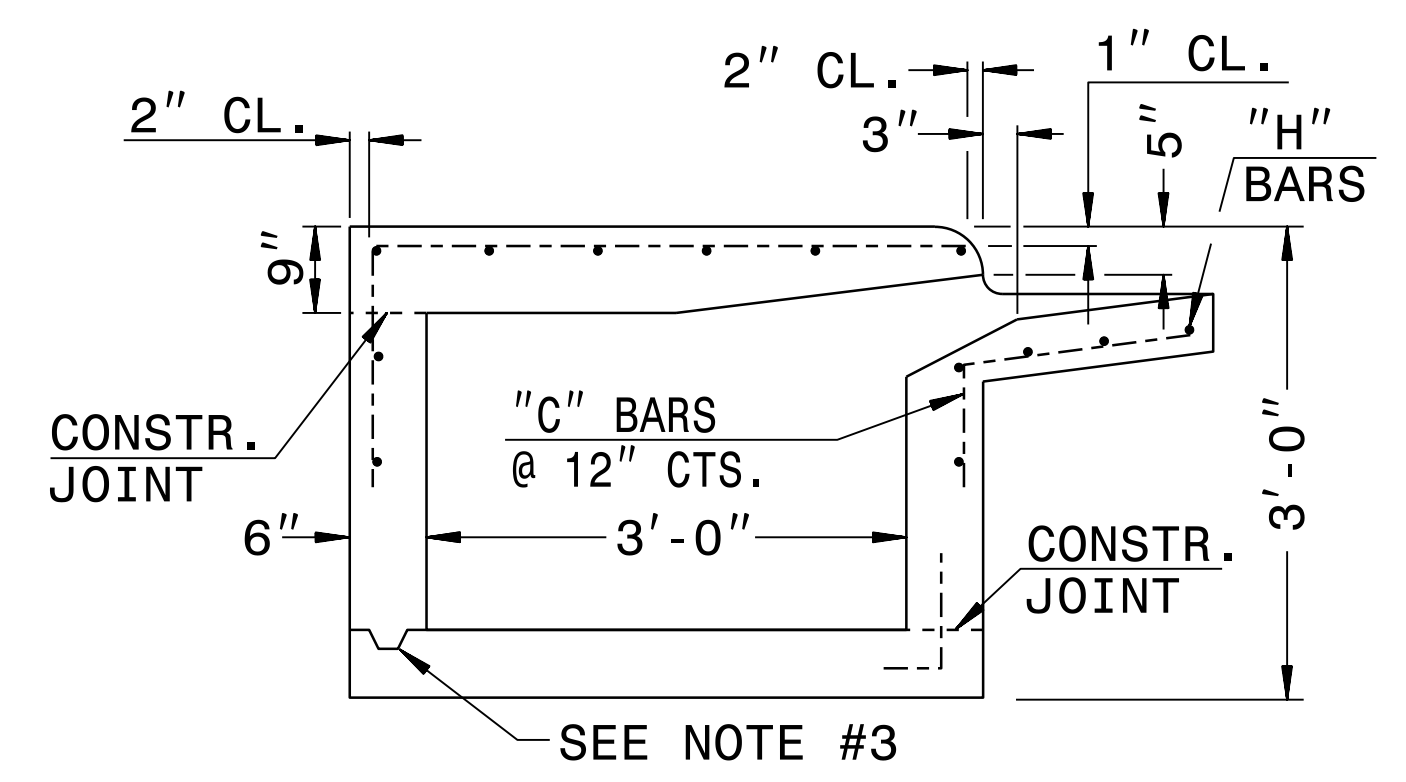
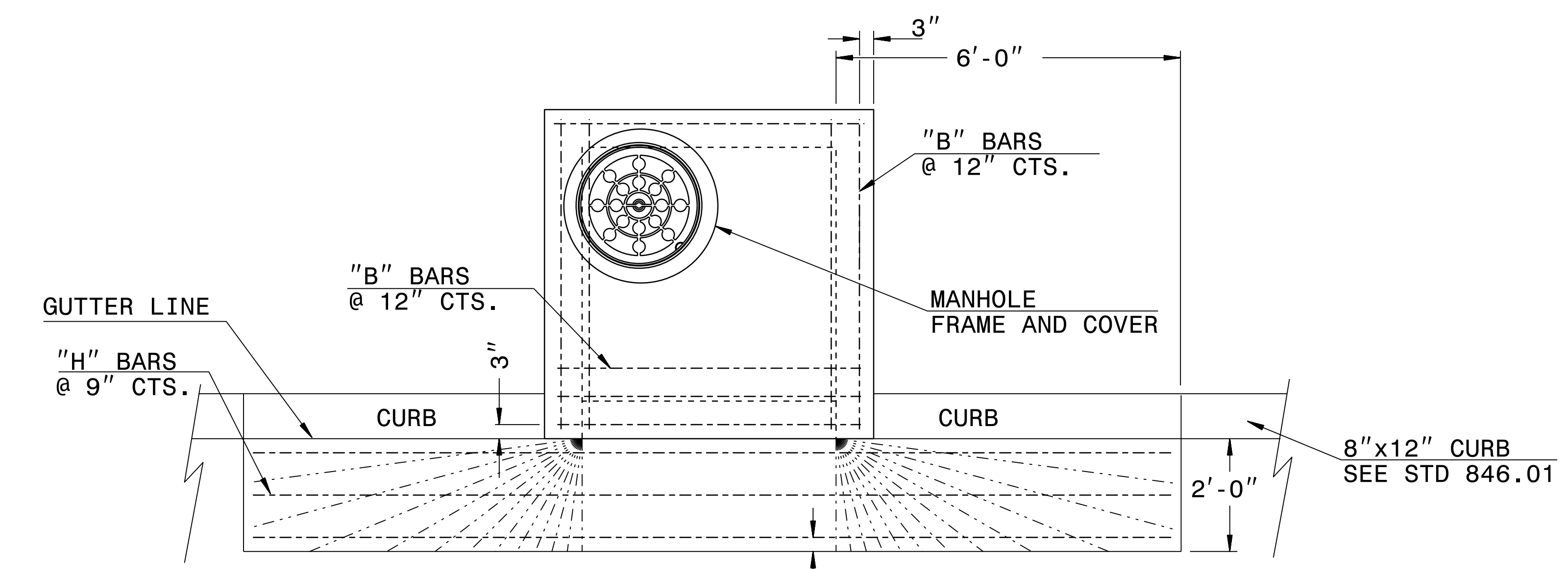
NOTE: MIRROR FOR END OF CONSTRUCTION

USE MILLING DETAIL

-L- STA. 19+46.00 TO -L- STA. 19+96.00
-L- STA. 29+50.00 TO -L- STA. 30+00.00
-Y- STA. 11+00.00 TO -Y- STA. 11+50.00
-Y- STA. 25+78.00 TO -Y- STA. 26+28.00

PROJECT REFERENCE NO. U-5775	SHEET NO. 2A-2
ROADWAY DESIGN ENGINEER 	PAVEMENT DESIGN ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH (704) 476-0003 CORP. LICENSE NO.: C-0275	

5:\K\6067\U-5775\Roadway\Proj\U-5775_Rdy_tjy.dgn
 User: tjbrett



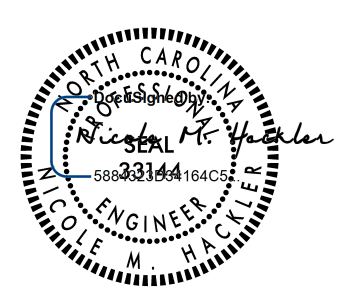
BILL OF MATERIALS

BAR	QTY	SIZE	LENGTH	WEIGHT
B	8	#4	3'-8"	20
C	4	#4	2'-8"	7
D	12	#4	1'-3"	10
H	3	#4	14'-8"	29
TOTAL REINF. STEEL (lbs.)				66
TOTAL CONC. CU. YDS.				1.3

NO DEDUCTIONS HAVE BEEN MADE TO ACCOMMODATE PIPES OR CATCH BASIN OPENING.

22-MAY-2017 15:22 S:\Contracts\Special Details\kempf\english\5775 840d06 Elongated Throat Catch Basin.dgn kempf AT CSD-292596

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

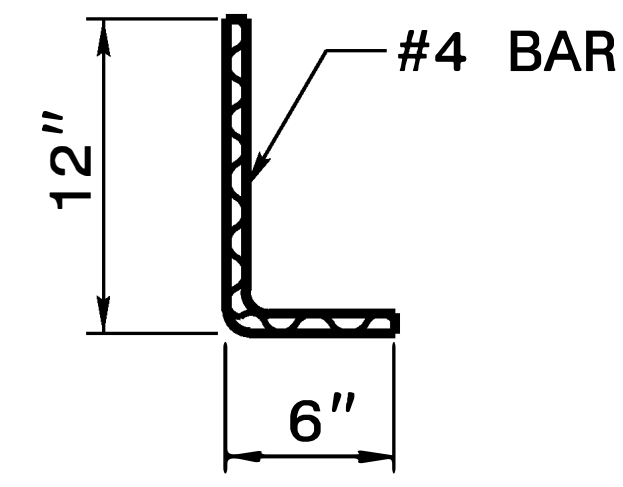
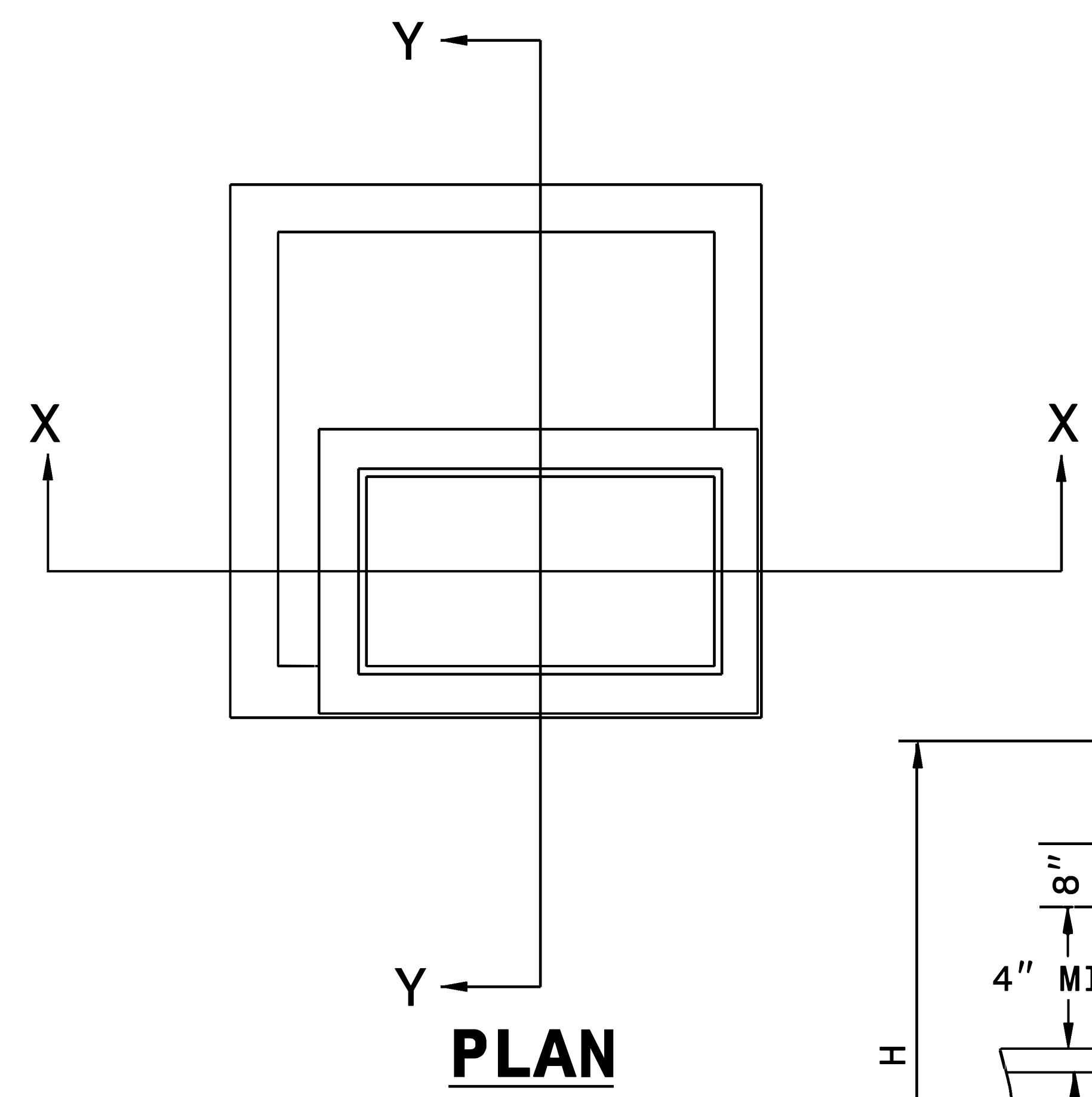


5/10/2023

CONTRACT SERVICES AND DEVELOPMENT UNIT
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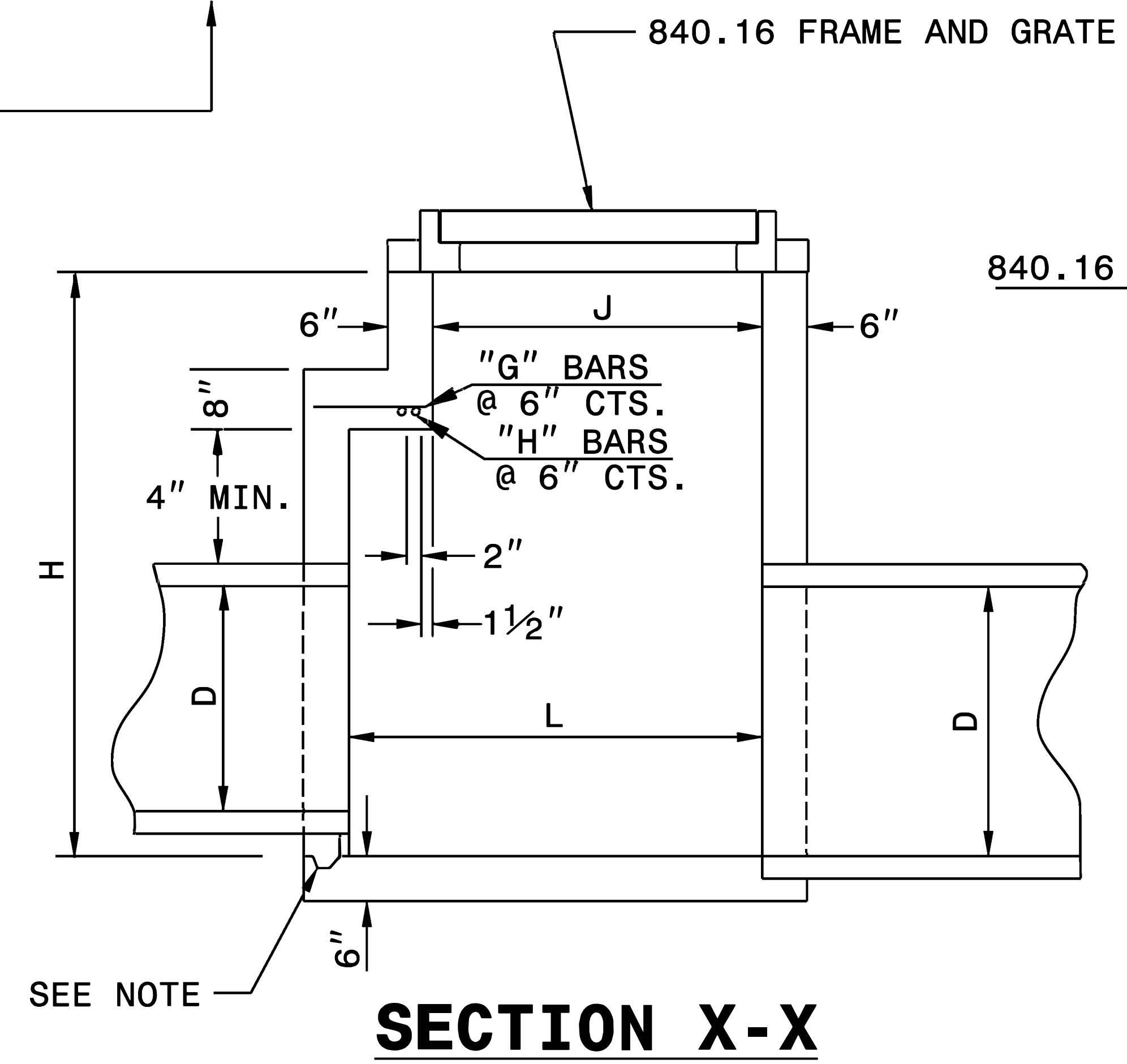
CONCRETE ELONGATED THROAT CATCH BASIN

ORIGINAL BY: KAK DATE: 4-2017
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC.: u5775_840d06 elongated throat catch basin.dgn

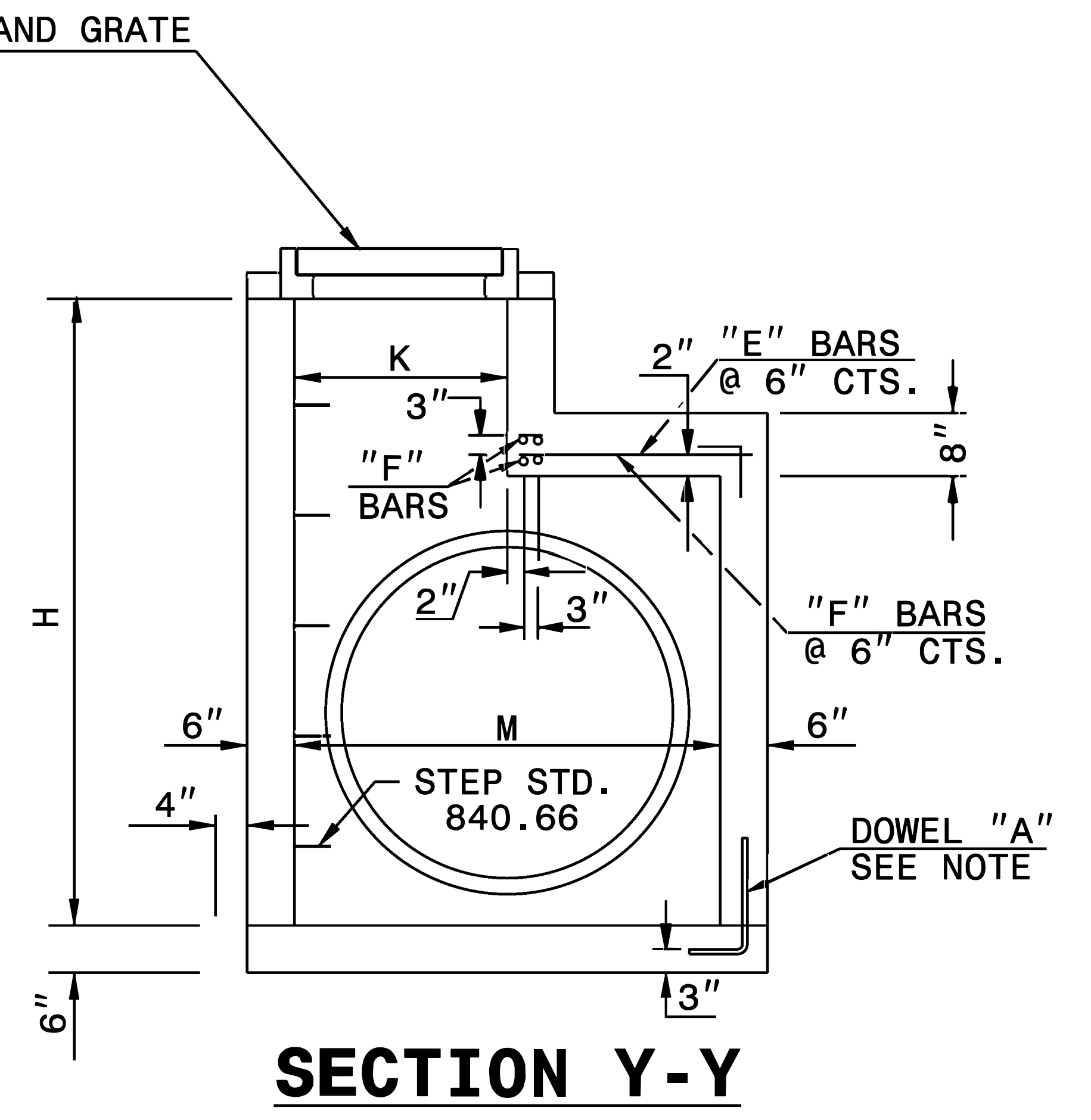


DOWEL

GENERAL NOTES:
 USE CLASS "B" CONCRETE THROUGHOUT.
 PROVIDE ALL DROP INLETS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
 OPTIONAL CONSTRUCTION - MONOLITHIC POUR 2" KEYWAY OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
 USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
 IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
 CONSTRUCT WITH PIPE CROWNS MATCHING.
 INSTALL 2" WEEPHOLES AS DIRECTED BY THE ENGINEER.
 INSTALL STONE DRAINS, OF A MINIMUM OF 1 CUBIC FOOT OF NO. 78M STONE IN A POROUS FABRIC BAG OR WRAP, AT EACH WEEP HOLE OR AS DIRECTED BY THE ENGINEER.
 CHAMFER ALL EXPOSED CORNERS 1".
 DRAWING NOT TO SCALE.
 DIMENSIONS MAY BE FIELD ADJUSTED AS DIRECTED BY THE ENGINEER.



SECTION X-X

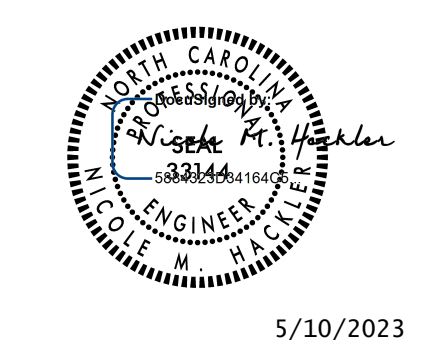


SECTION Y-Y

MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE DROP INLET (BASED ON MIN. HEIGHT, H)

DIMENSIONS OF BOX AND PIPE						REINFORCING STEEL - NO. 4 BARS								CU YDS CONC. IN BOX				DEDUCTIONS FOR ONE PIPE		
PIPE	SPAN	WIDTH	SPAN	WIDTH	HEIGHT	BARS E		BARS F		BARS G		BARS H		TOTAL	BOTTOM SLAB	H	H PER FT HT	TOTAL	C.S.	R.C.
D	J	K	L	M	H	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	NO.	LENGTH	LBS.						
12"	3'-0"	2'-0"	3'-8"	2'-0"	3'-9"	—	—	—	—	—	—	—	—	—	0.362	0.926	0.247	1.288	0.015	0.024
15"	3'-0"	2'-0"	3'-8"	2'-0"	4'-0"	—	—	—	—	—	—	—	—	—	0.362	0.988	0.247	1.350	0.023	0.036
18"				2'-0"	4'-3"	—	—	—	—	—	—	—	—	—	0.362	1.050	0.247	1.412	0.033	0.049
24"				2'-10"	4'-9"	8	1'-5"	6	4'-9"	—	—	—	—	27	0.444	1.362	0.278	1.806	0.059	0.085
30"				3'-8"	3'-5"	8	2'-0"	7	4'-9"	—	—	—	—	33	0.502	1.644	0.288	2.146	0.092	0.127
36"				4'-0"	4'-0"	8	2'-5"	8	4'-11"	4	0'-9"	2	4'-11"	47	0.560	1.931	0.321	2.525	0.132	0.178
42"				4'-10"	4'-10"	10	3'-1"	9	5'-7"		1'-5"	3	5'-7"	67	0.704	2.500	0.370	3.282	0.180	0.243
48"				5'-4"	5'-4"	11	3'-7"	10	6'-1"		1'-11"	4	6'-1"	87	0.823	3.013	0.407	3.920	0.235	0.317
54"				6'-0"	6'-0"	12	4'-1"	11	6'-7"		2'-5"	5	6'-7"	107	0.951	3.589	0.444	4.677	0.297	0.401
60"				6'-6"	6'-6"	13	4'-9"	12	7'-3"		3'-1"	6	7'-3"	135	1.311	4.539	0.494	5.775	0.367	0.495
66"				7'-2"	7'-2"	14	5'-4"	14	7'-10"		3'-7"	7	7'-10"	168	1.136	5.061	0.537	6.506	0.444	0.599
72"	3'-0"	2'-0"	7'-8"	7'-8"	8'-9"	15	5'-11"	15	8'-5"	4	4'-3"	8	8'-5"	199	1.500	5.860	0.580	7.473	0.528	0.713

\$\$\$\$\$\$SYTIME\$\$\$\$\$\$
 \$\$\$\$\$\$PLANS\$\$\$\$\$\$
 \$\$\$\$\$\$DATE\$\$\$\$\$\$
 \$\$\$\$\$\$USER\$\$\$\$\$\$
 \$\$\$\$\$\$PRINTER\$\$\$\$\$\$



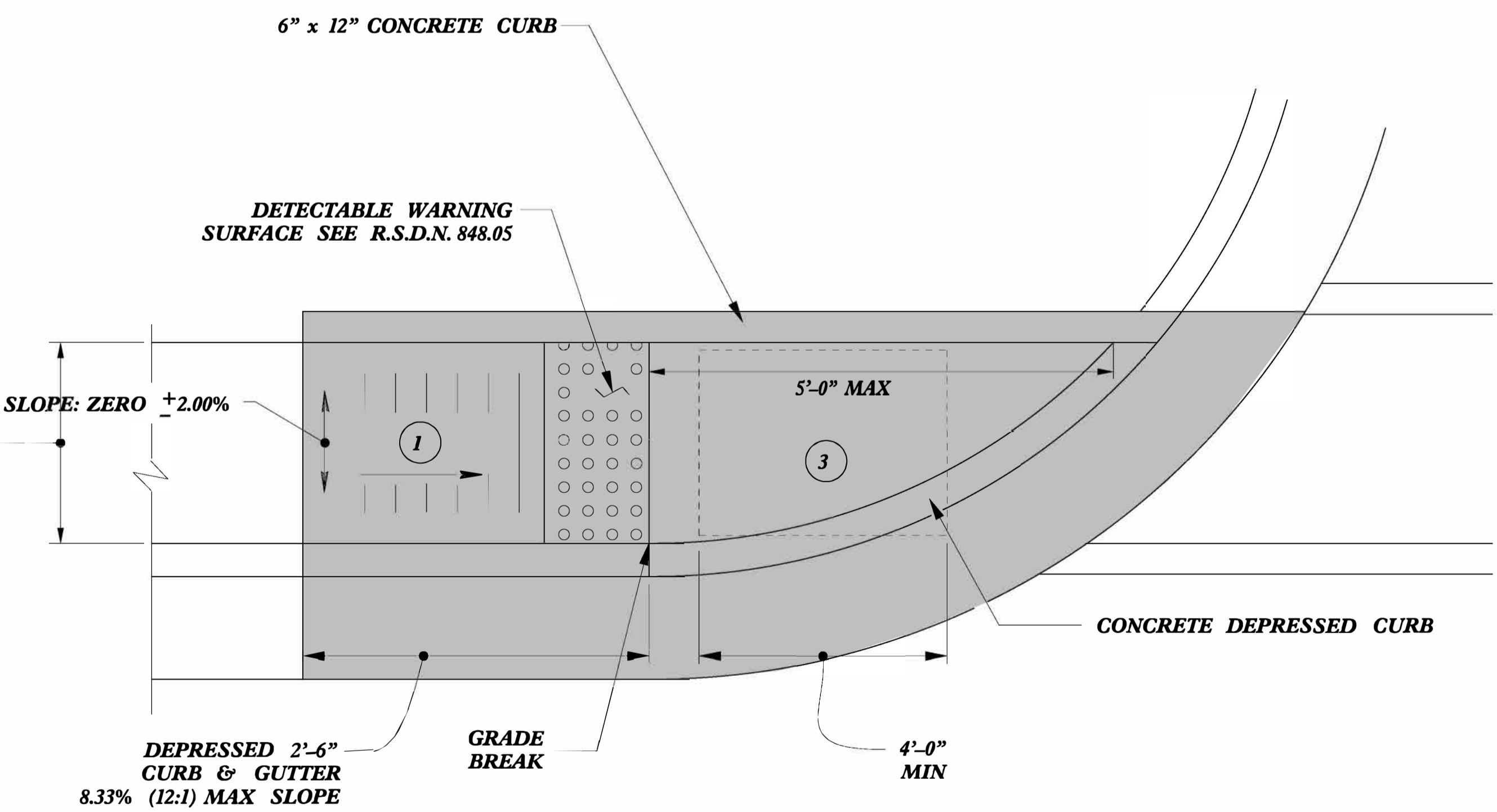
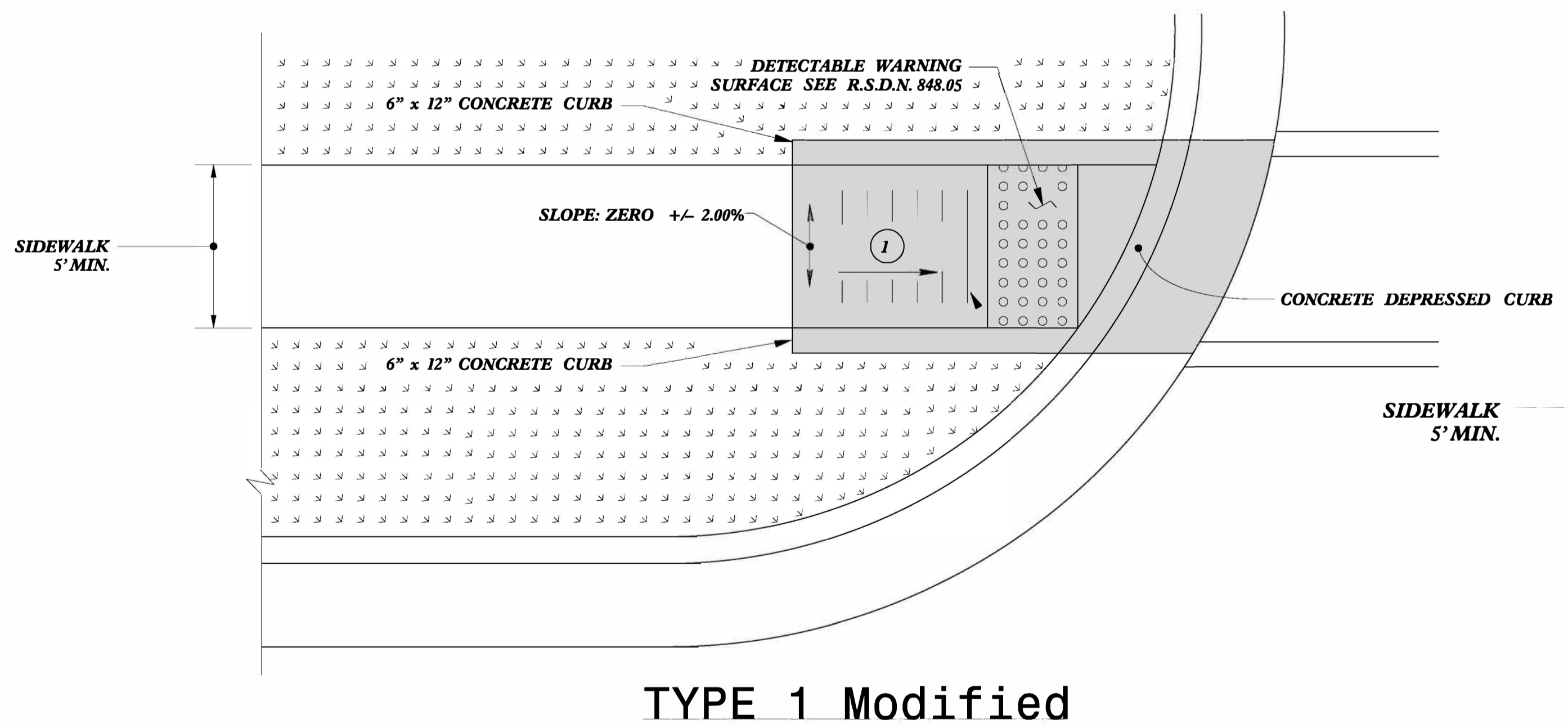
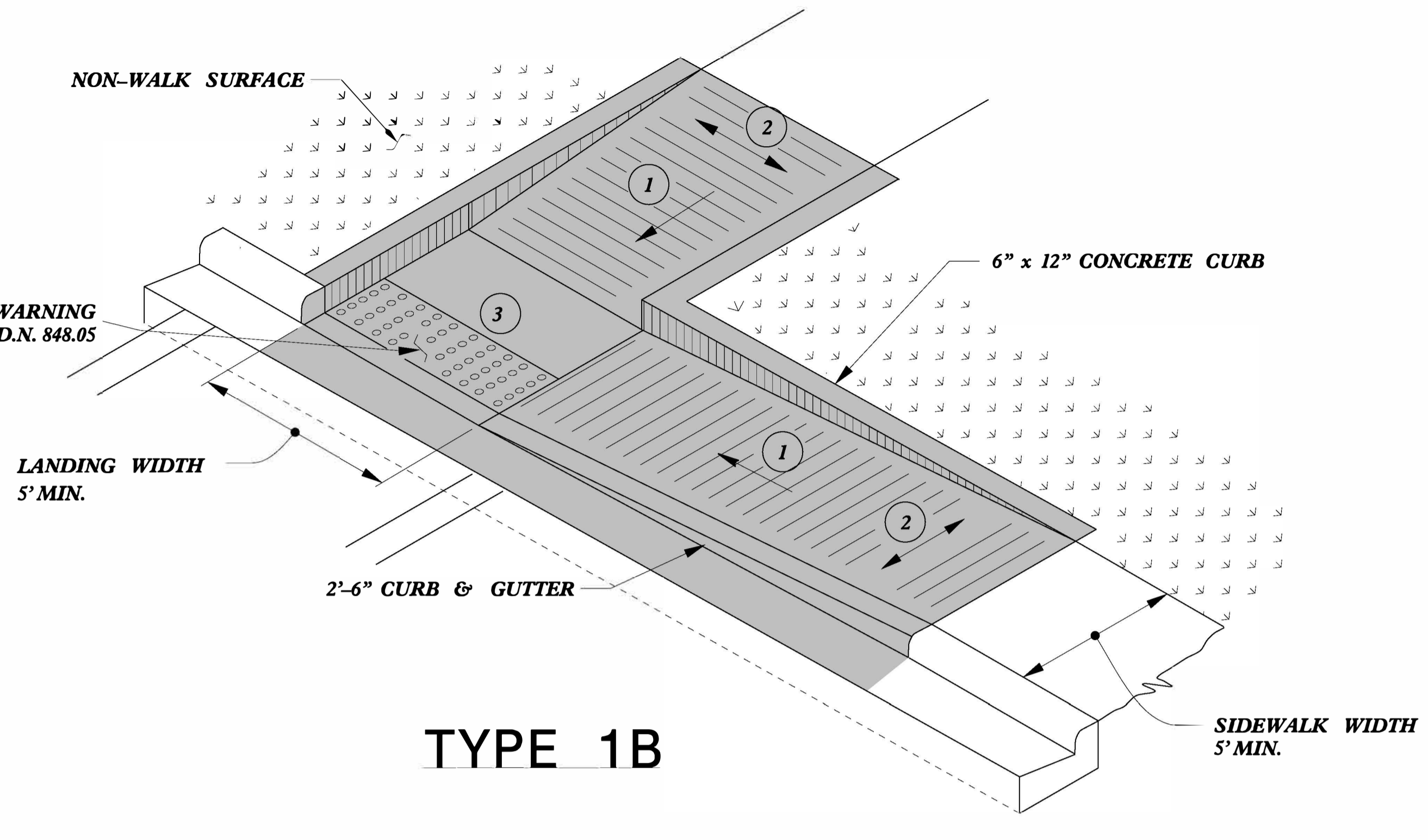
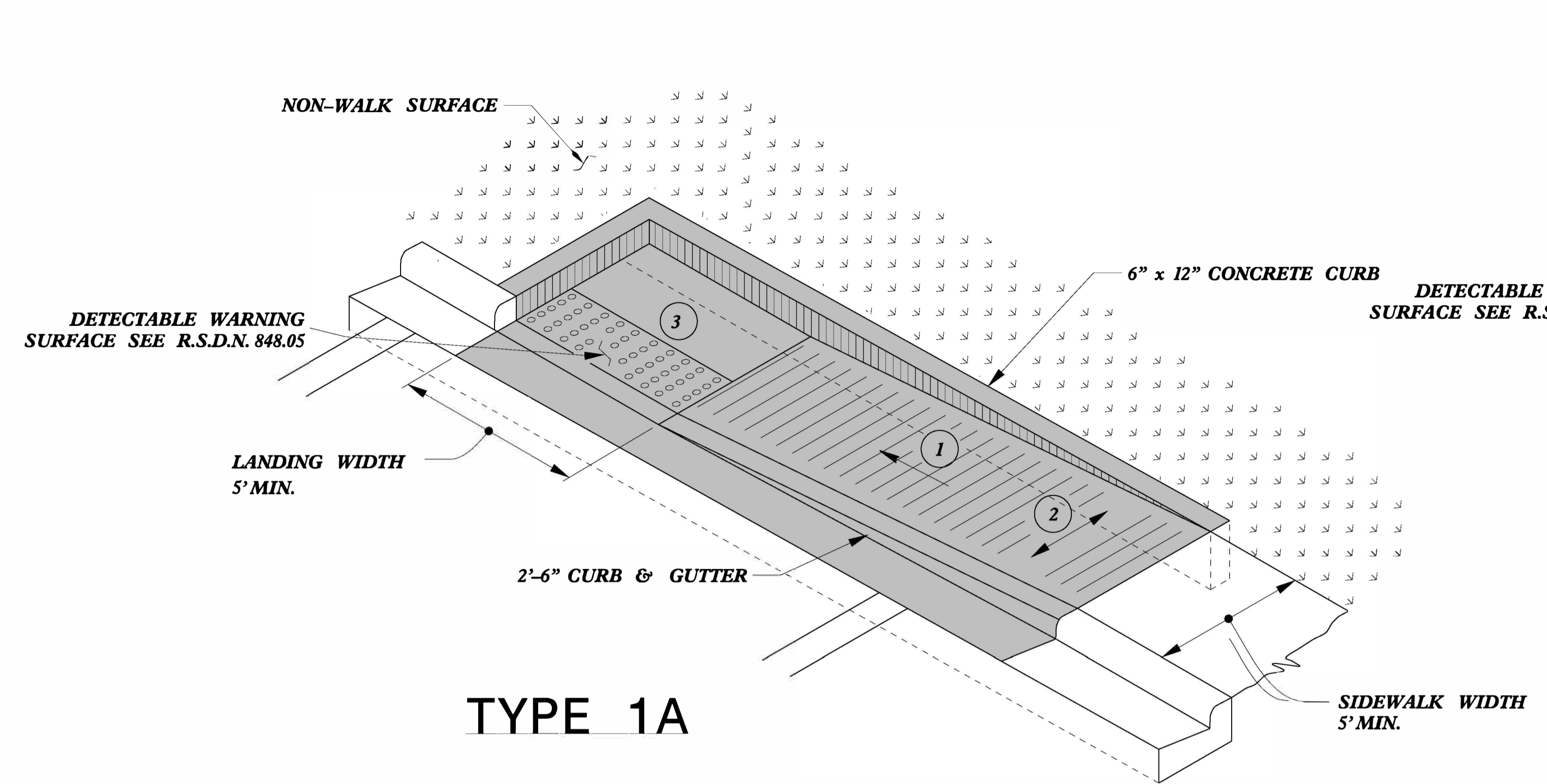
5/10/2023

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

SPECIAL DI 840D14

ORIGINAL BY: J. HOWERTON DATE: 04/11/17
 MODIFIED BY: DATE:
 CHECKED BY: DATE:
 FILE SPEC.: detail/jhowerton/840d14 di 30 rcc.dgn

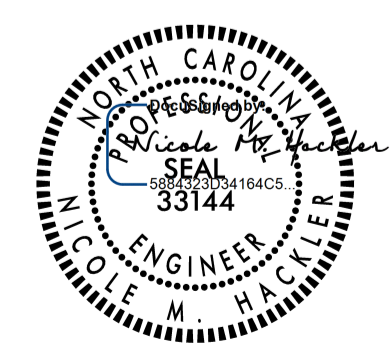


- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



PAY LIMITS FOR 1 CURB RAMP

REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES



5/10/2023

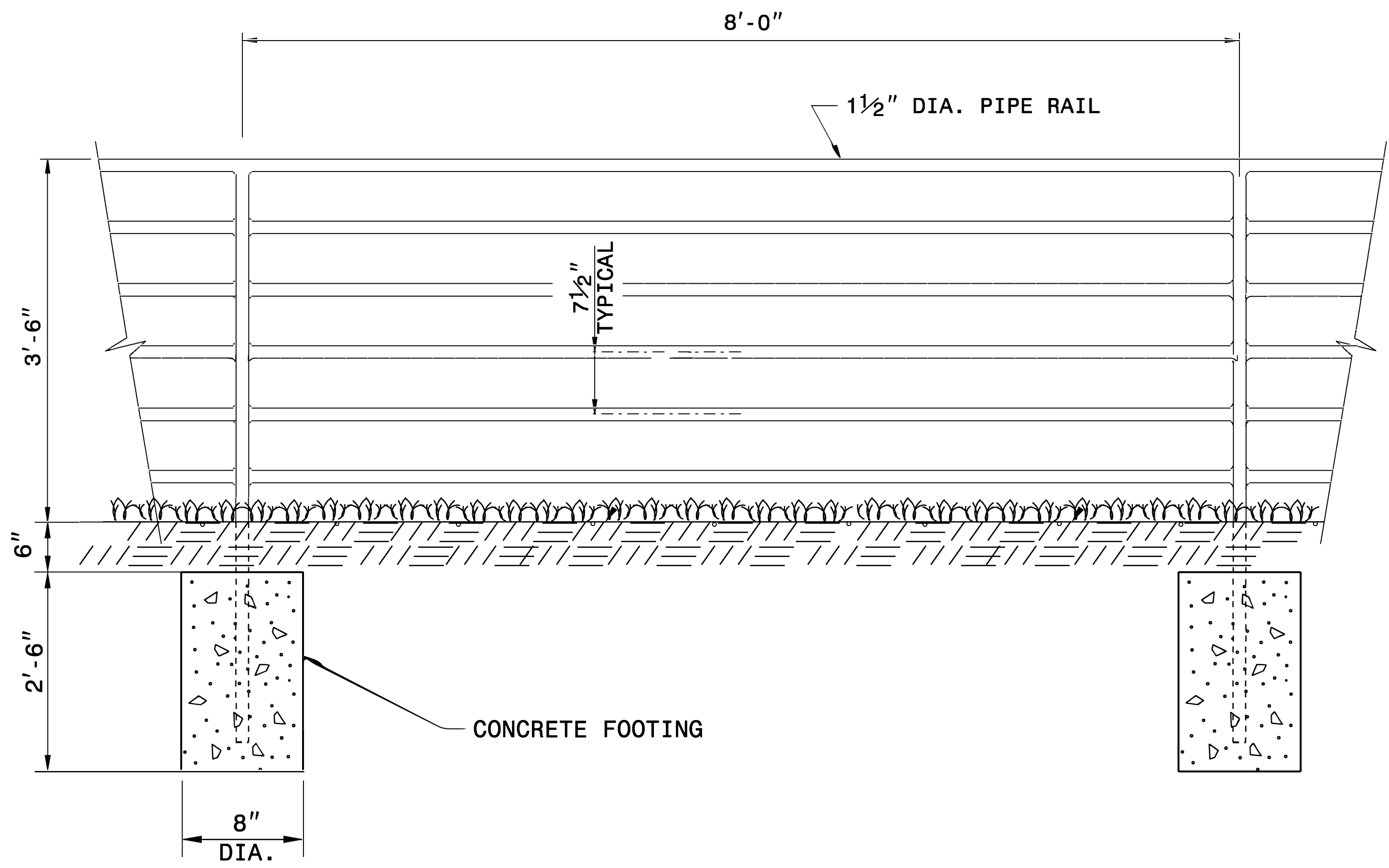
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

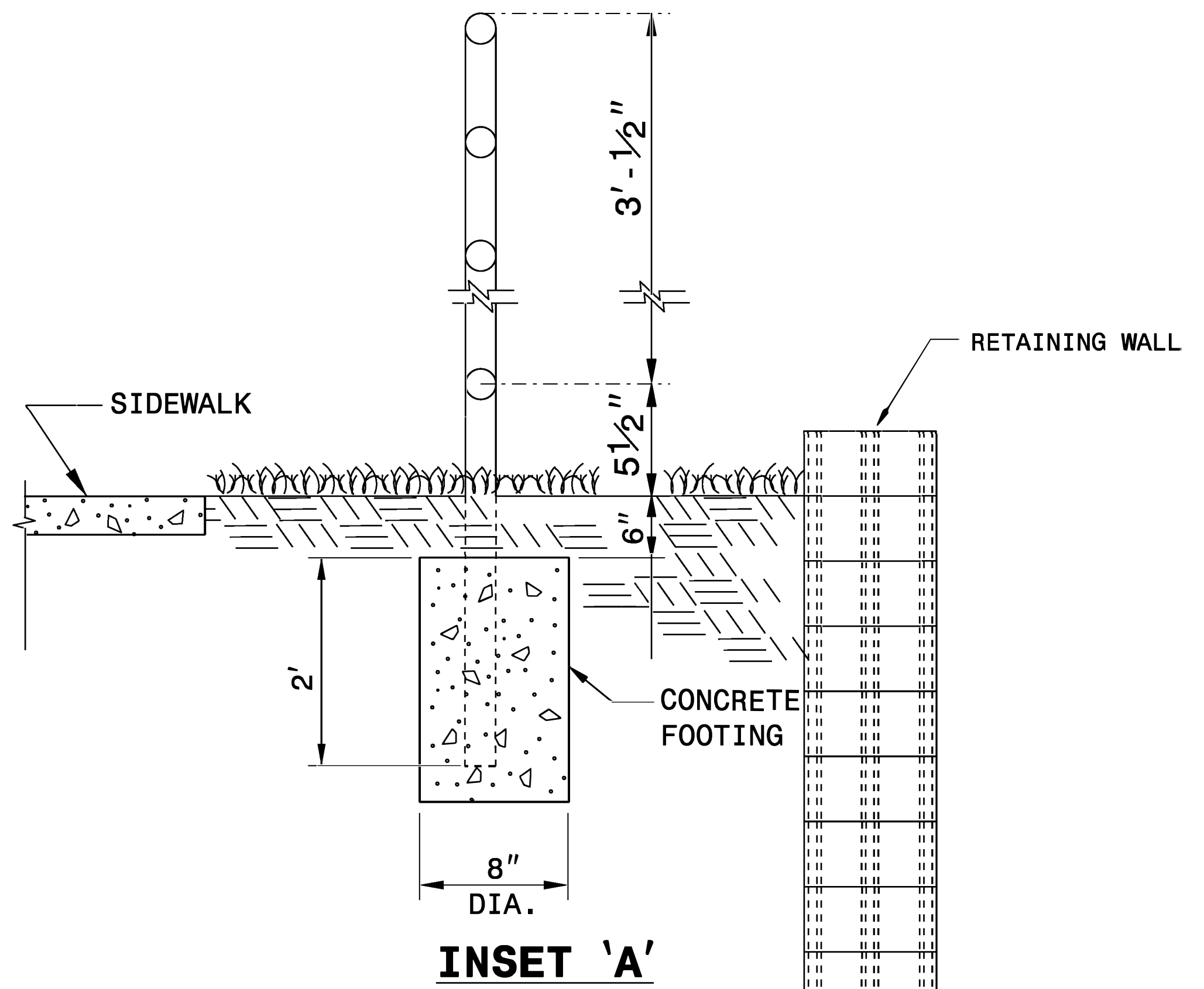
CURB RAMPS
 Directional Ramps

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
 MODIFIED BY: _____ DATE: _____
 CHECKED BY: _____ DATE: _____
 FILE SPEC: stds/2012CurbRamp/CurbRampDetails.dgn

C:\TEMP\6666\DWG\2012CurbRamp\CurbRampDetails.dgn
 USER: JSH
 PLOT DATE: 5/10/2023 10:00 AM

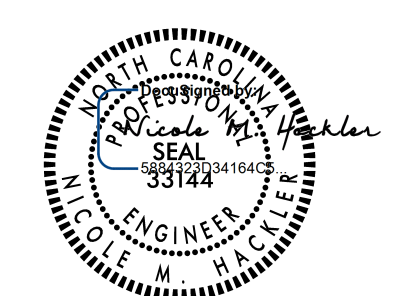


ELEVATION OF HANDRAIL



NOTES:

- CONSTRUCT PROPOSED STEEL PIPE RAIL OF 1 1/2" DIAMETER SCHEDULE 40 PLAIN END GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A53.
- REPAIR GALVANIZING IN ACCORDANCE WITH SECTION 1076 OF THE NCDOT STANDARD SPECIFICATIONS.
- PAINT, IF REQUIRED BY THE ENGINEER, IN ACCORDANCE WITH SECTION 1080 OF THE STANDARD SPECIFICATIONS.
- WELD IN ACCORDANCE WITH ARTICLE 1072-18 OF THE STANDARD SPECIFICATIONS.
- USE CLASS 'B' CONCRETE FOR HANDRAIL FOOTINGS.
- PLACEMENT OF HANDRAIL IN RELATION TO RETAINING WALL AND SIDEWALK MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.



5/10/2023

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

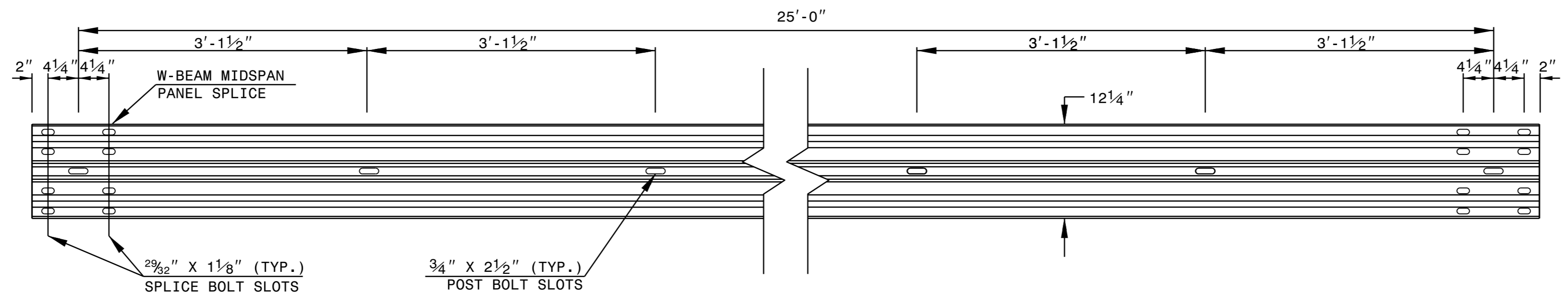
CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
PROPOSED PEDESTRIAN SAFETY RAIL	
ORIGINAL BY: E.E. WARD	DATE: 12-99
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: jhowerton/handrail adjacent to sidewalk.dgn	

I3-AUG-2018 07:40
 S:\Contracts\Special Details\Howerton\Handrail Adjacent to Sidewalk.dgn
 Howerton AT USD-292595

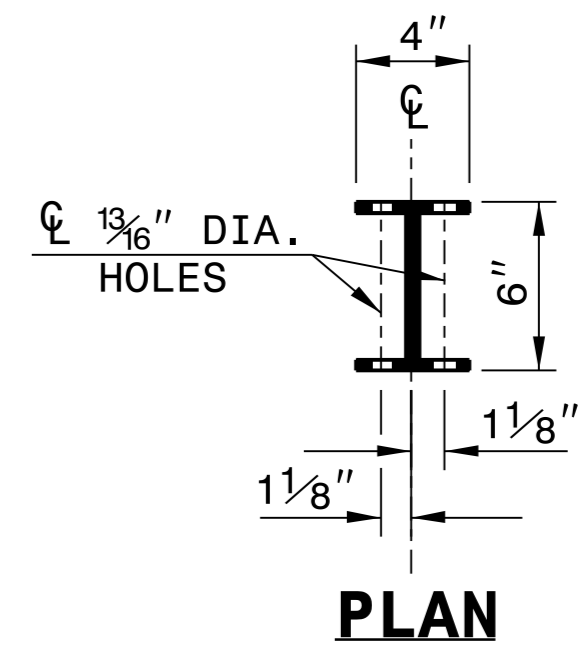
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

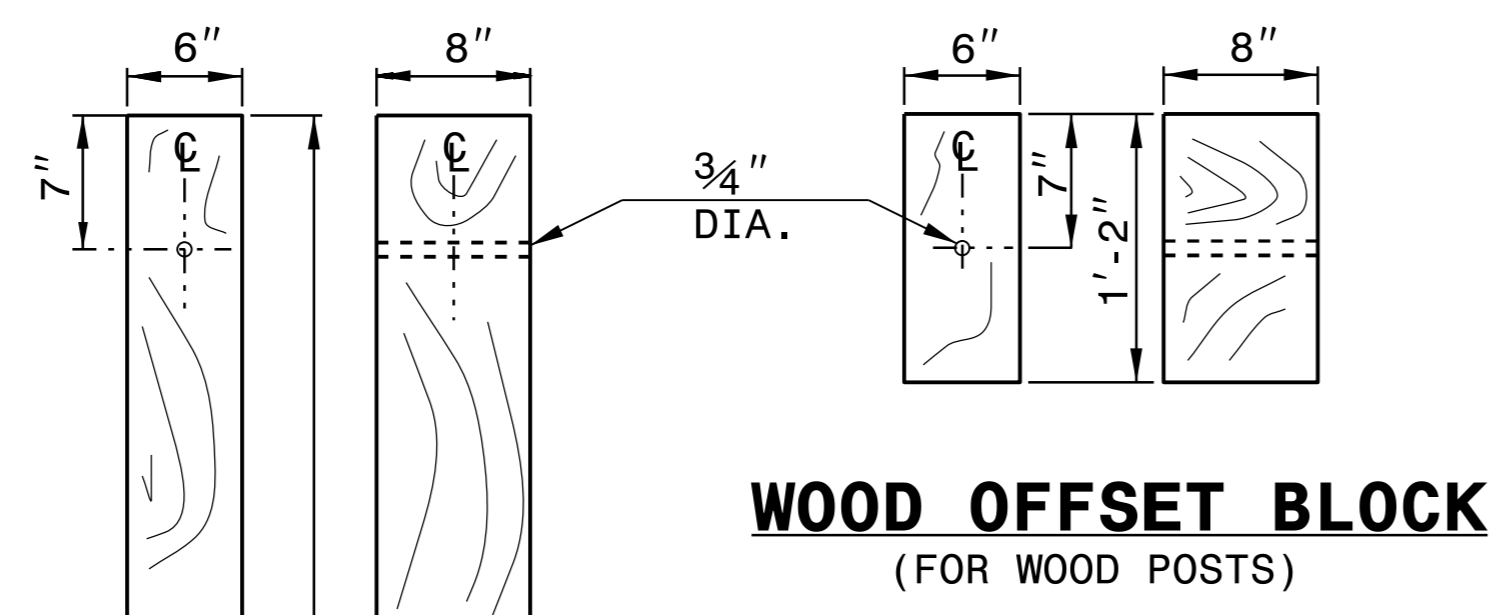
SHEET 6 OF 8
862D02



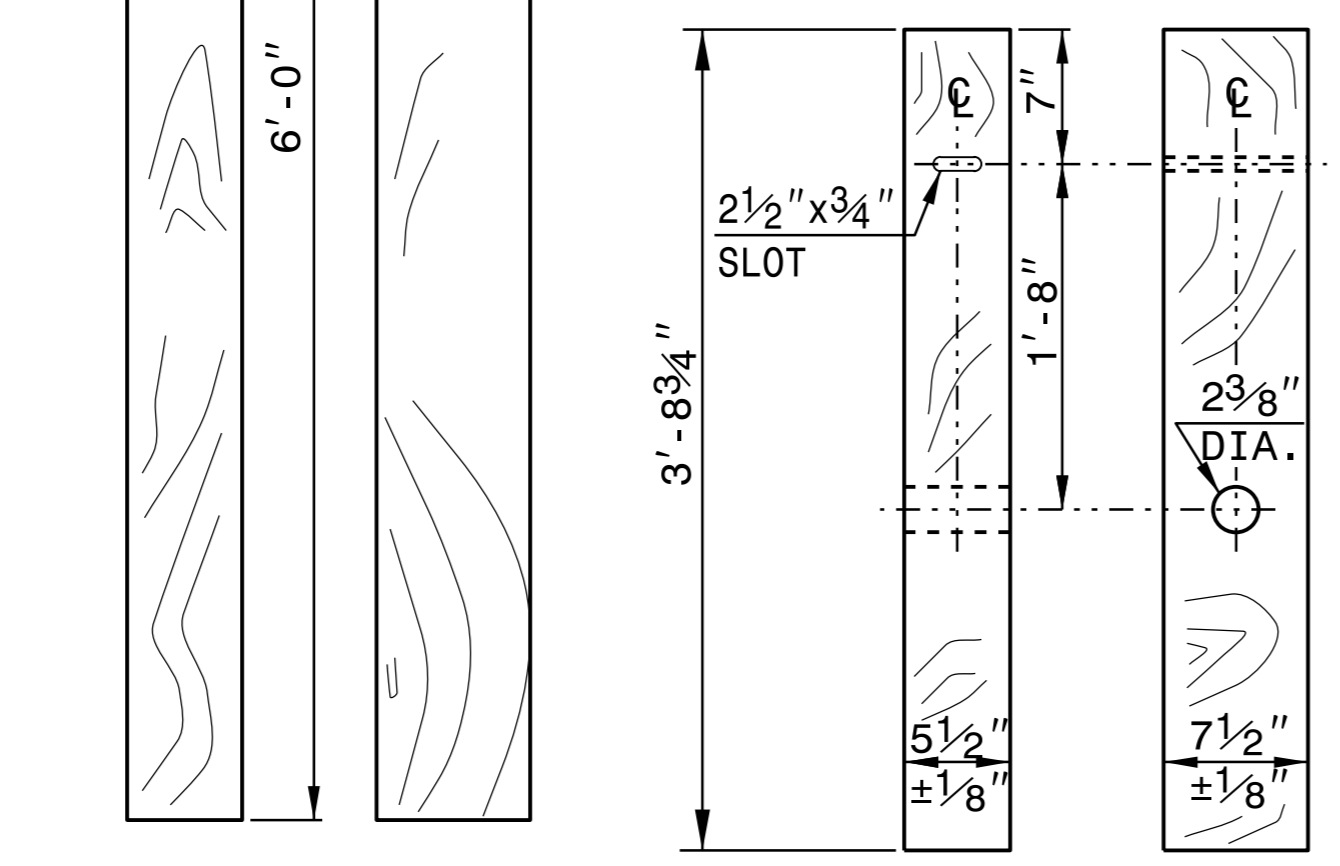
STANDARD W-BEAM GUARDRAIL



PLAN

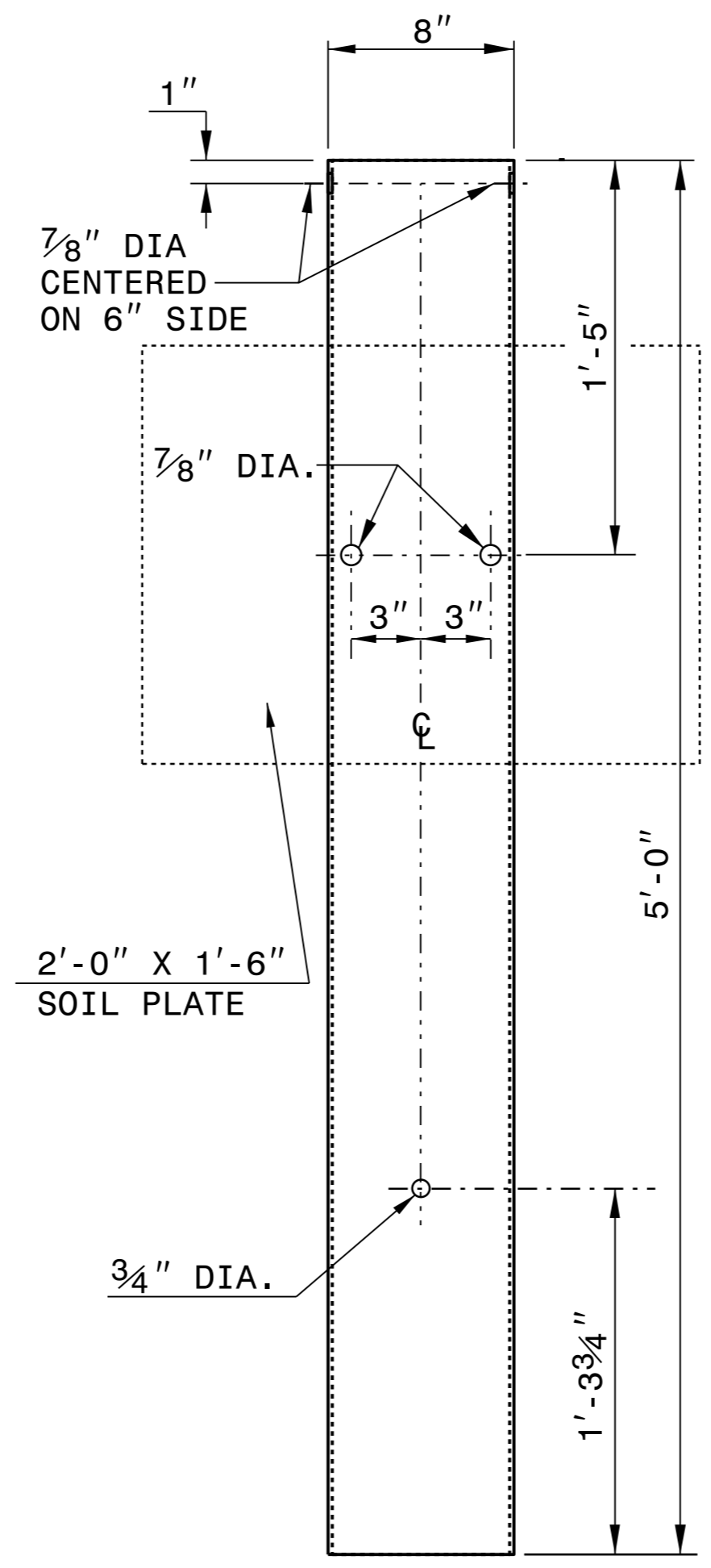


**WOOD OFFSET BLOCK
(FOR WOOD POSTS)**

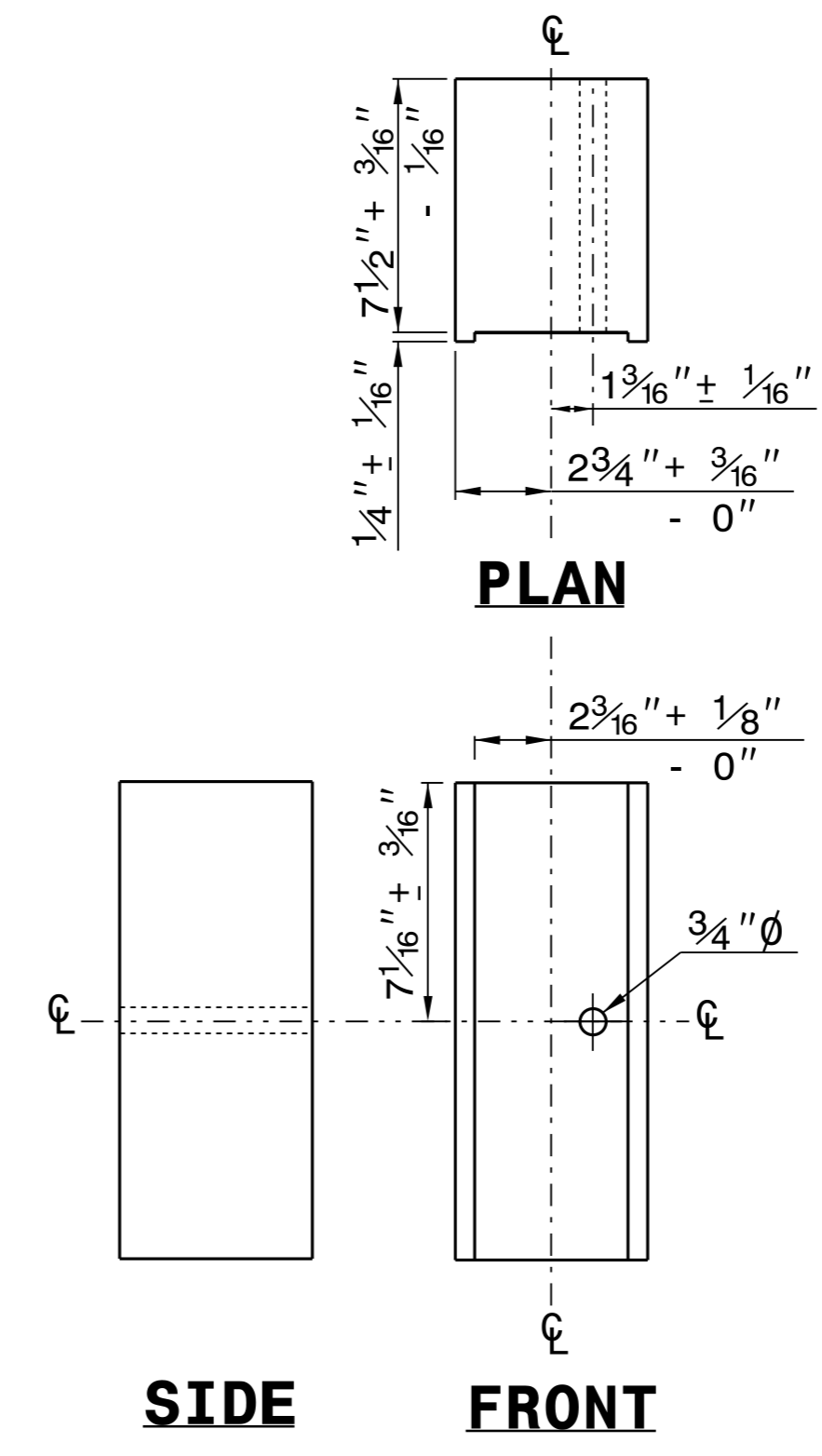


**STANDARD
LINE POST**

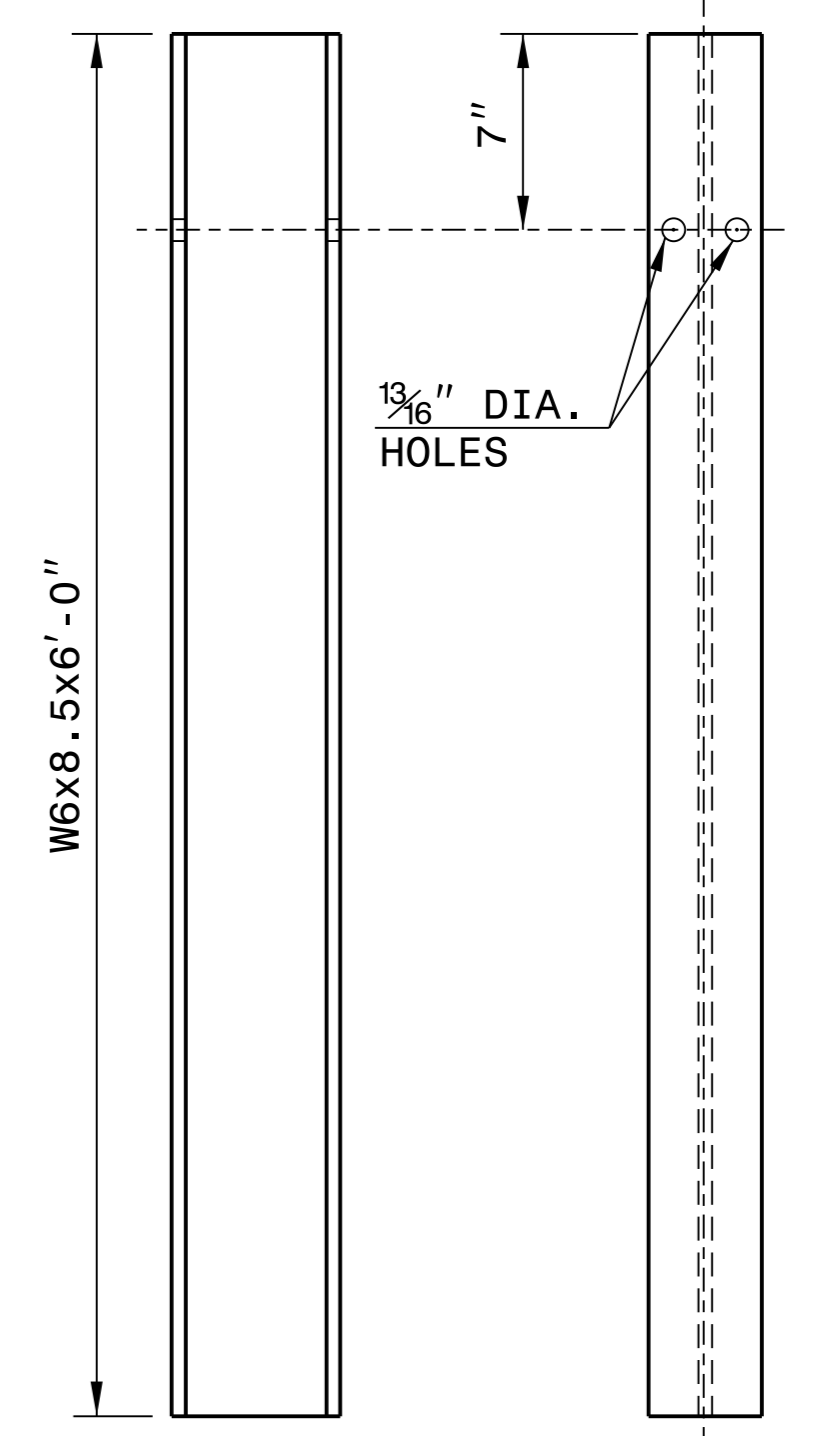
**SHORT WOOD
BREAKAWAY POST**



**STEEL TUBE
TS 6"x8"x0.1875"**



**SIDE
FRONT
ROUTED
OFFSET BLOCK**



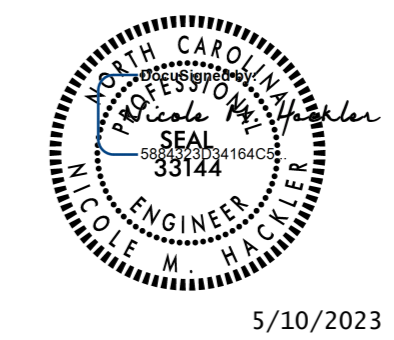
**SIDE
FRONT
"W6" STEEL POST**

SYSTEM PARTS

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

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET 6 OF 8
862D02



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

SEE TITLE BLOCK

ORIGINAL BY: J. HOWERTON DATE: 3-7-2018
MODIFIED BY: DATE: _____
CHECKED BY: DATE: _____
FILE SPEC.: _____

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

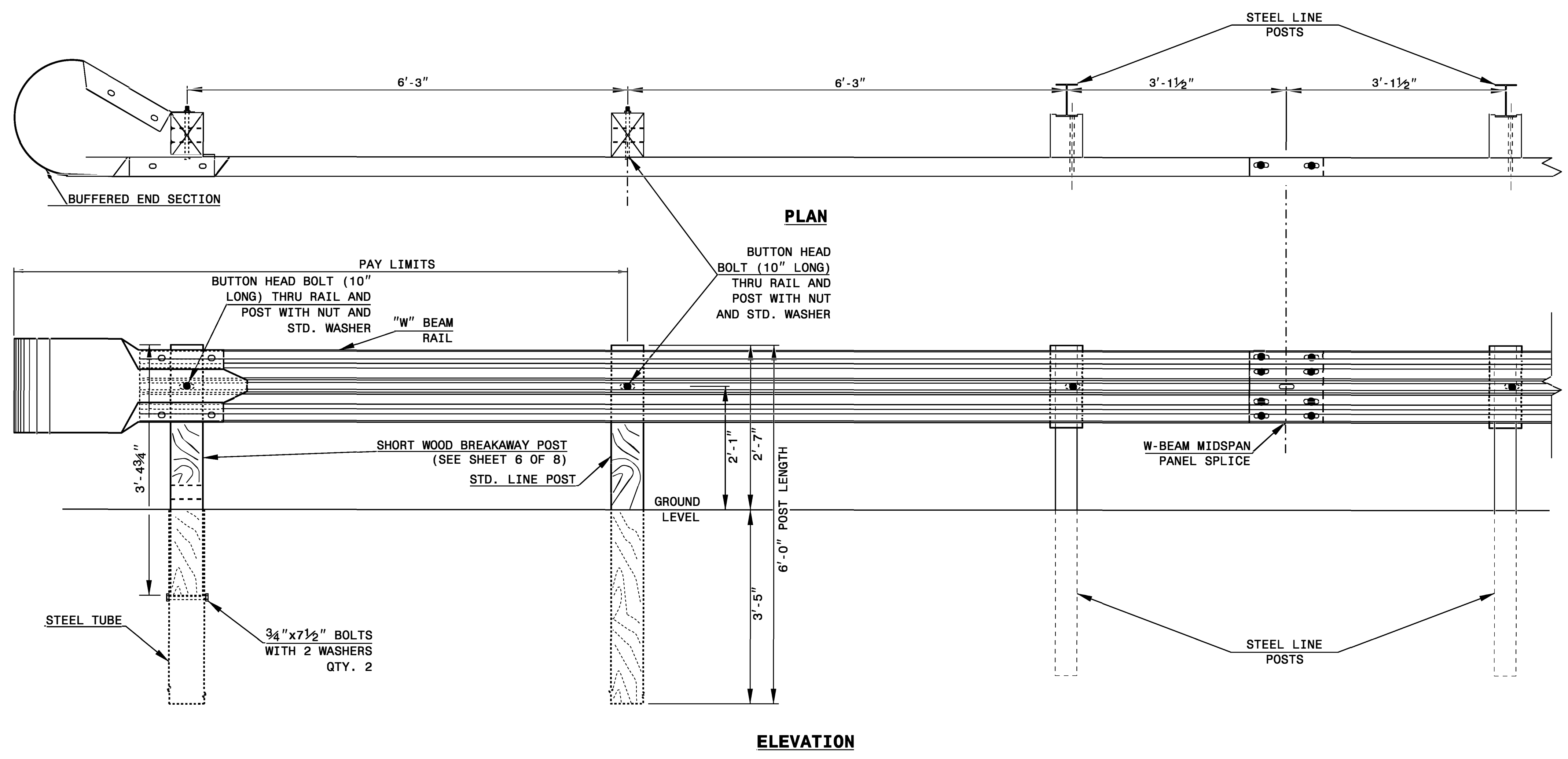
ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET OF

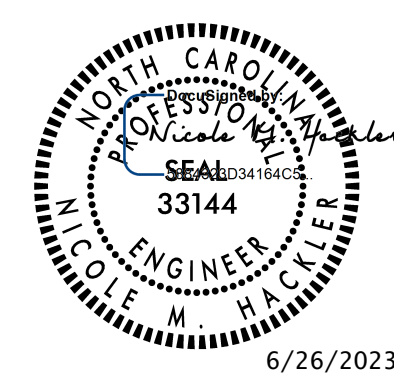
STATE OF
NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR
GUARDRAIL INSTALLATION

SHEET OF



TRAILING END UNIT ASSEMBLY
A.T. - 1 SYSTEM



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CONTRACTS STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950	FAX 919-250-4119
A.T. - 1 SYSTEM	
ORIGINAL BY: _____	DATE: _____
MODIFIED BY: _____	DATE: _____
CHECKED BY: _____	DATE: _____
FILE SPEC.: _____	

COMPUTED BY: SGM DATE: 4/21/2023
 CHECKED BY: JLT DATE: 4/24/2023

PROJECT NO. SHEET NO.
 U-5775 3B-1

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- 19+46.00	-L- 30+00.00	618	840	222	
-Y- 11+00.00	-Y- 20+90.80	536	1,528	992	
-Y- 21+27.71	-Y- 26+78.00	275	2,711	2,436	
-SVC- 10+55.00	-SVC- 12+02.51	183	15		168
-SVC- 12+40.66	-SVC- 15+10.00	707	170		537
TOTALS:		2,319	5,264	3,650	705
WASTE IN LIEU OF BORROW				-705	-705
PROJEECT TOTALS:		2,319	5,264	2,945	0
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				147	
GRAND TOTALS:		2,319	5,264	3,092	
SAY:		2,400		3,200	

Approximate quantities only. Unclassified excavation, borrow excavation, fine grading, clearing and grubbing, removal of existing pavement will be paid for at the lump sum price for "Grading".

PAVEMENT REMOVAL SUMMARY

IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
-L-	19+46	22+25	RT	153.78			
-L-	19+46	23+36	LT	100.69			
-L-	24+61	25+44	RT	46.93			
Exist Peach St Rt of -L- Sta 22+73				796.11			
Exist Service Rd Rt of -Y- Sta 16+07				416.71			
TOTAL				1514.22			
SAY				1520			

EST. DDE = 18 CUBIC YARDS
 EST. SHALLOW UNDERCUT = 100 CUBIC YARDS
 SELECT GRANULAR MATERIAL = 400 CUBIC YARDS
 ESTIMATED 400 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION O THE RESIDENT ENGINEER.

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL
 TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
 FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL
 W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL

GUARDRAIL SUMMARY

G = GATING IMPACT ATTENUATOR TYPE 350
 NG = NON-GATING IMPACT ATTENUATOR TYPE 350

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL WIDTH	FLARE LENGTH		W		ANCHORS						TERMINAL SECTION (EA)		IMPACT ATTENUATOR TYPE 350		SINGLE FACED CONCRETE BARRIER	REMOVE EXISTING GUARDRAIL	REMOVE & STOCKPILE EXISTING GUARDRAIL	REMARKS			
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GRAU 350	M-350	XIII	AT-1	VI MOD			G					NG		
-SVC-	15+14.53		CL	28.00																											
			TOTAL	28.00																											
			SAY	37.5																											

Additional Guardrail Posts : say 2 each

COMPUTED BY: DMB DATE: 3/30/23
 CHECKED BY: REK DATE: 3/30/23

(2-3-23)

PROJECT NO.	SHEET NO.
U-5775	3G-1

**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	400
				TOTAL LF:	400

*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
			CONTINGENCY	ASU(1)	12	100	200	300	
				TOTAL CY/TONS/SY:		100	200**	300**	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.

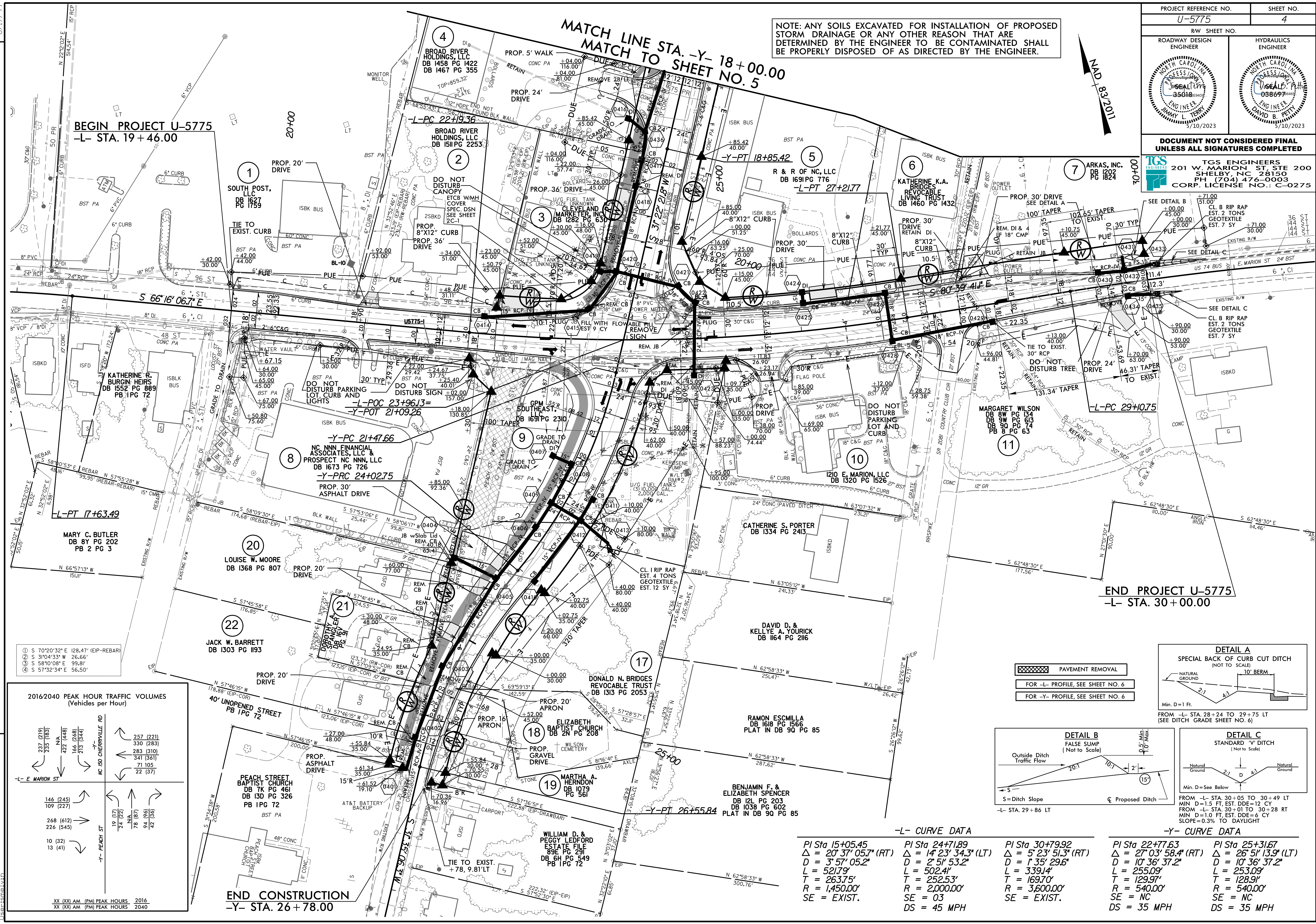
PROJECT REFERENCE NO. U-5775	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NOTE: ANY SOILS EXCAVATED FOR INSTALLATION OF PROPOSED STORM DRAINAGE OR ANY OTHER REASON THAT ARE DETERMINED BY THE ENGINEER TO BE CONTAMINATED SHALL BE PROPERLY DISPOSED OF AS DIRECTED BY THE ENGINEER.



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

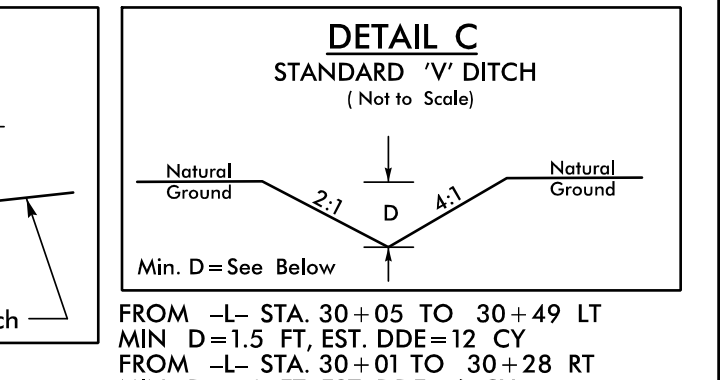
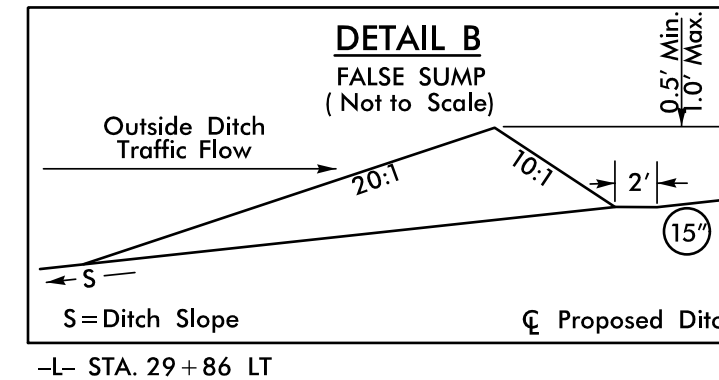
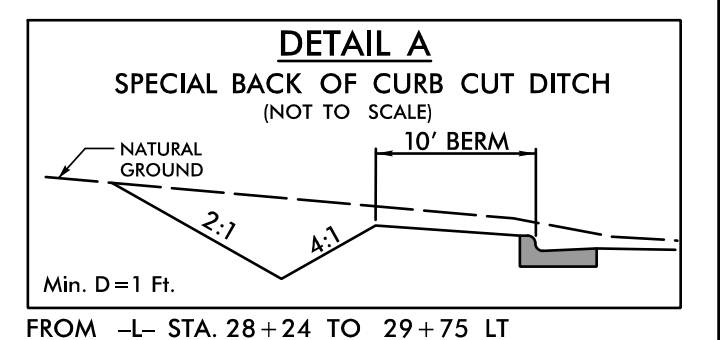
TGS ENGINEERS
201 W. MARION ST. STE 200
SHELBY, NC 28150
PH (704) 476-0003
CORP. LICENSE NO.: C-0275



REVISIONS

- ① S 70°20'32" E 128.47' (EIP-REBAR)
- ② S 31°04'33" W 26.66'
- ③ S 58°10'08" E 99.81'
- ④ S 57°32'34" E 56.50'

Direction	2016 AM	2016 PM	2040 AM	2040 PM
NC 150 CHERRYVILLE RD	237 (219)	235 (183)	N/A	N/A
NC 150 CHERRYVILLE RD	227 (248)	166 (248)	213 (344)	257 (221)
NC 150 CHERRYVILLE RD	213 (344)	213 (344)	213 (344)	213 (344)
NC 150 CHERRYVILLE RD	71 (105)	71 (105)	71 (105)	71 (105)
NC 150 CHERRYVILLE RD	22 (37)	22 (37)	22 (37)	22 (37)
NC 150 CHERRYVILLE RD	146 (245)	109 (227)	19 (17)	24 (22)
NC 150 CHERRYVILLE RD	268 (612)	226 (545)	78 (87)	54 (96)
NC 150 CHERRYVILLE RD	10 (32)	13 (41)	54 (96)	42 (36)



-L- CURVE DATA		-Y- CURVE DATA	
PI Sta 15+05.45	PI Sta 24+71.89	PI Sta 30+79.92	PI Sta 22+77.63
$\Delta = 20^\circ 37' 05.7''$ (RT)	$\Delta = 14^\circ 23' 51.3''$ (LT)	$\Delta = 5^\circ 23' 51.3''$ (RT)	$\Delta = 27^\circ 03' 58.4''$ (RT)
$D = 3^\circ 57' 05.2''$	$D = 1^\circ 35' 29.6''$	$D = 1^\circ 35' 29.6''$	$D = 10^\circ 36' 37.2''$
$L = 521.79'$	$L = 502.41'$	$L = 339.14'$	$L = 255.09'$
$T = 263.75'$	$T = 252.53'$	$T = 169.70'$	$T = 128.97'$
$R = 1,450.00'$	$R = 2,000.00'$	$R = 3,600.00'$	$R = 540.00'$
$SE = EXIST.$	$SE = 03$	$SE = EXIST.$	$SE = NC$
	$DS = 45$ MPH		$DS = 35$ MPH

END CONSTRUCTION
-Y- STA. 26+78.00

END PROJECT U-5775
-L- STA. 30+00.00

BEGIN PROJECT U-5775
-L- STA. 19+46.00

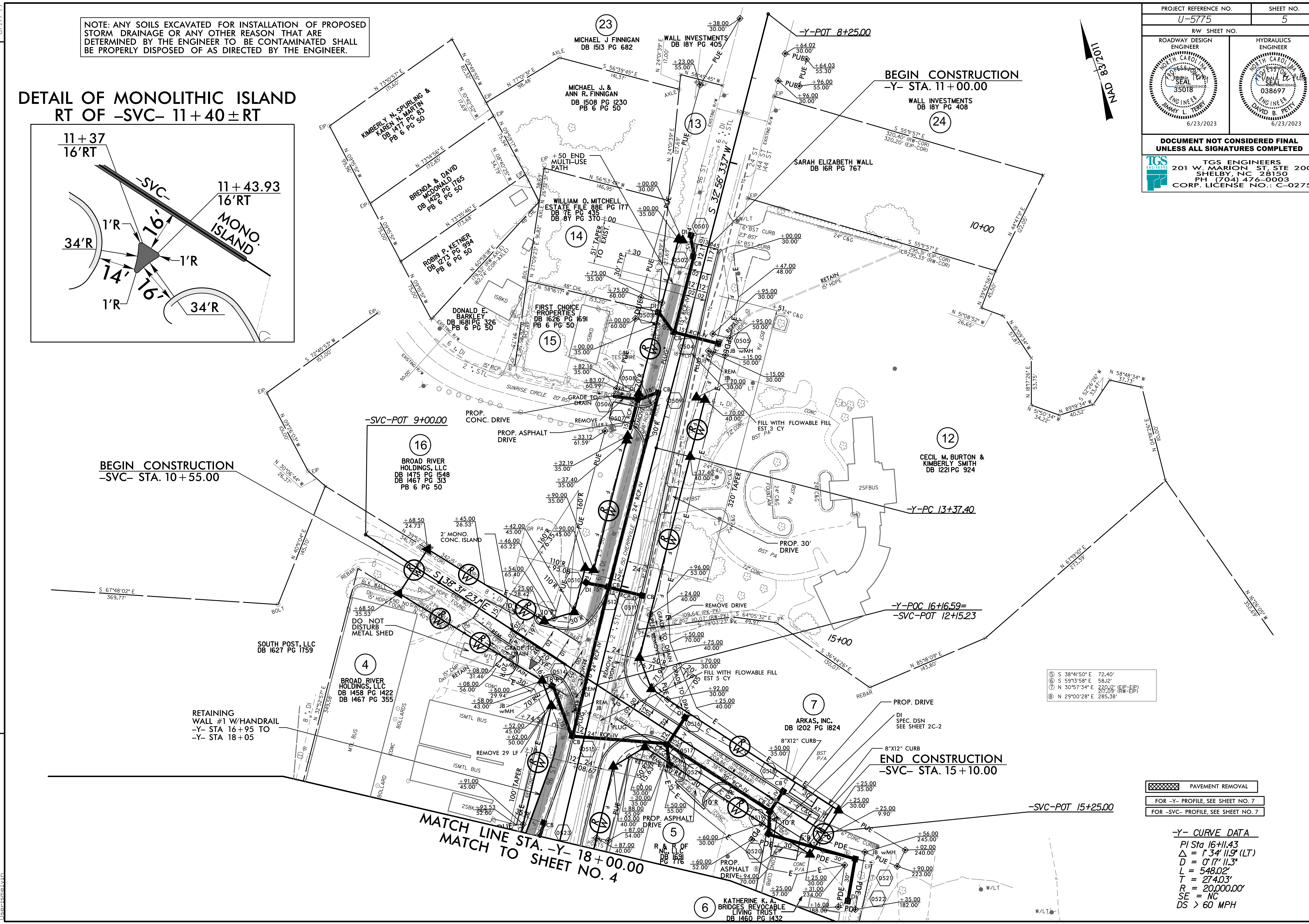
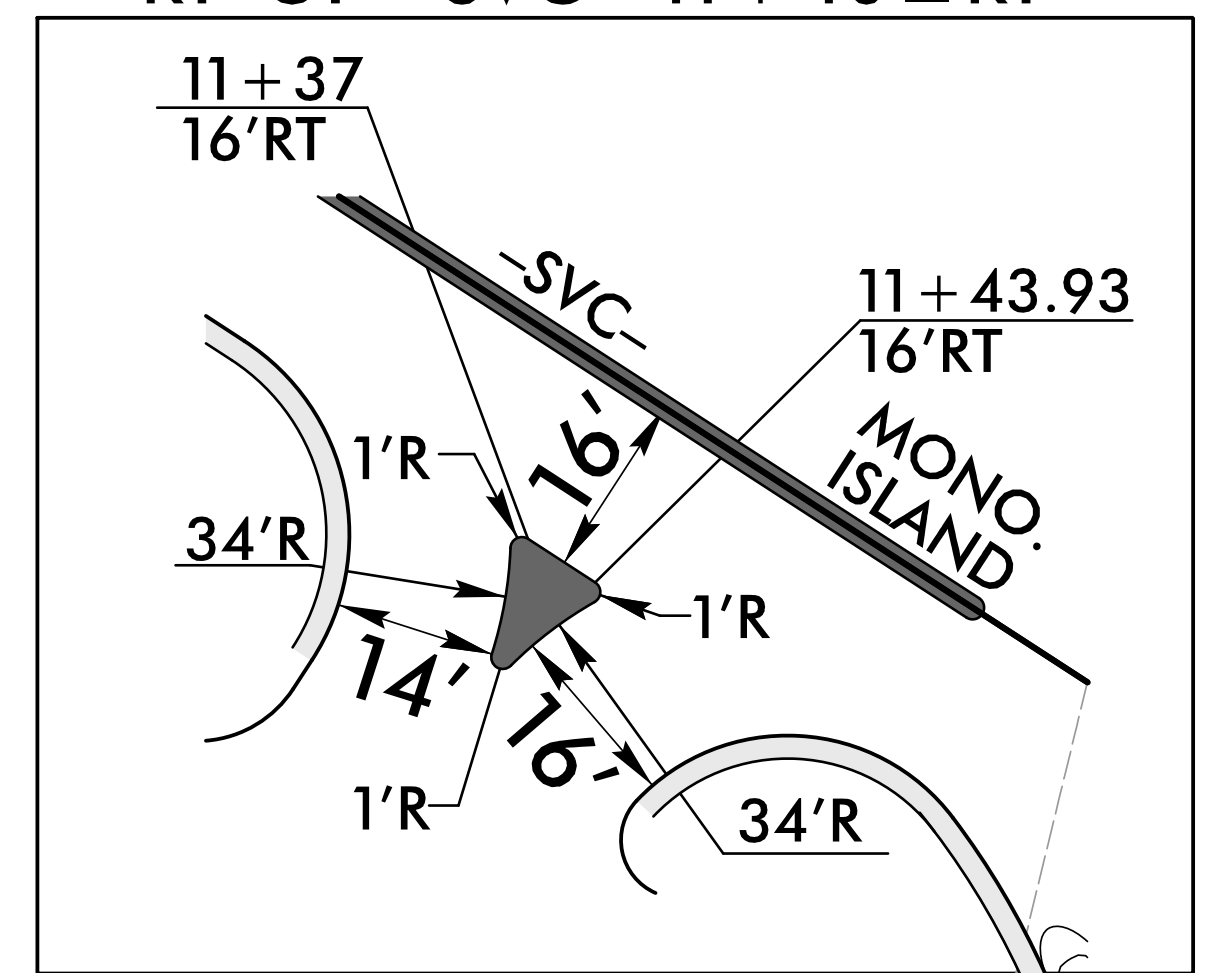
MATCH LINE STA. -Y- 18+00.00
MATCH TO SHEET NO. 5

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PROJECT REFERENCE NO. U-5775	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER JIMMY L. TERRY 35018	HYDRAULICS ENGINEER DAVID B. PERRY 038697
6/23/2023	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
TGS ENGINEERS 201 W. MARION ST. STE 200 SHELBY, NC 28150 PH: (704) 476-0003 CORP. LICENSE NO.: C-0275	

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DETAIL OF MONOLITHIC ISLAND RT OF -SVC- 11+40± RT



- 5 S 38°41'50" E 72.40'
- 6 S 59°13'58" E 58.12'
- 7 N 30°57'34" E 220.12' (EIP-EIP)
217.09' (RW-EIP)
- 8 N 29°00'28" E 285.38'

PAVEMENT REMOVAL
FOR -Y- PROFILE, SEE SHEET NO. 7
FOR -SVC- PROFILE, SEE SHEET NO. 7

-Y- CURVE DATA
 P/ Sta 16+11.43
 $\Delta = 1' 34" 11.9"$ (LT)
 $D = 0' 17" 11.3"$
 $L = 548.02'$
 $T = 274.03'$
 $R = 20,000.00'$
 $SE = NC$
 $DS > 60$ MPH

REVISIONS

6/23/2023
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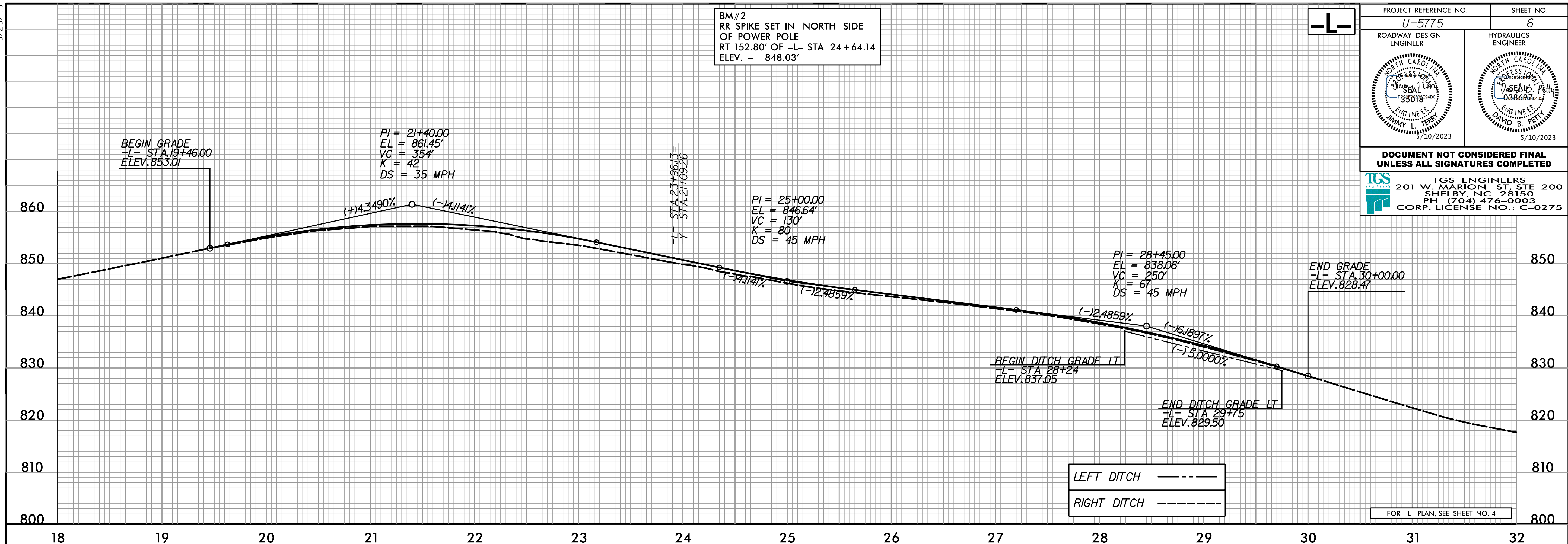
5/28/23

-L-

PROJECT REFERENCE NO. U-5775	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TGS ENGINEERS
 201 W. MARION ST. STE 200
 SHELBY, NC 28150
 PH (704) 476-0003
 CORP. LICENSE NO.: C-0275



BM#2
 RR SPIKE SET IN NORTH SIDE
 OF POWER POLE
 RT 152.80' OF -L- STA 24+64.14
 ELEV. = 848.03'

BEGIN GRADE
 -L- STA 19+46.00
 ELEV. 853.01

PI = 21+40.00
 EL = 861.45'
 VC = 354'
 K = 42
 DS = 35 MPH

PI = 25+00.00
 EL = 846.64'
 VC = 130'
 K = 80
 DS = 45 MPH

PI = 28+45.00
 EL = 838.06'
 VC = 250'
 K = 67
 DS = 45 MPH

END GRADE
 -L- STA 30+00.00
 ELEV. 828.47

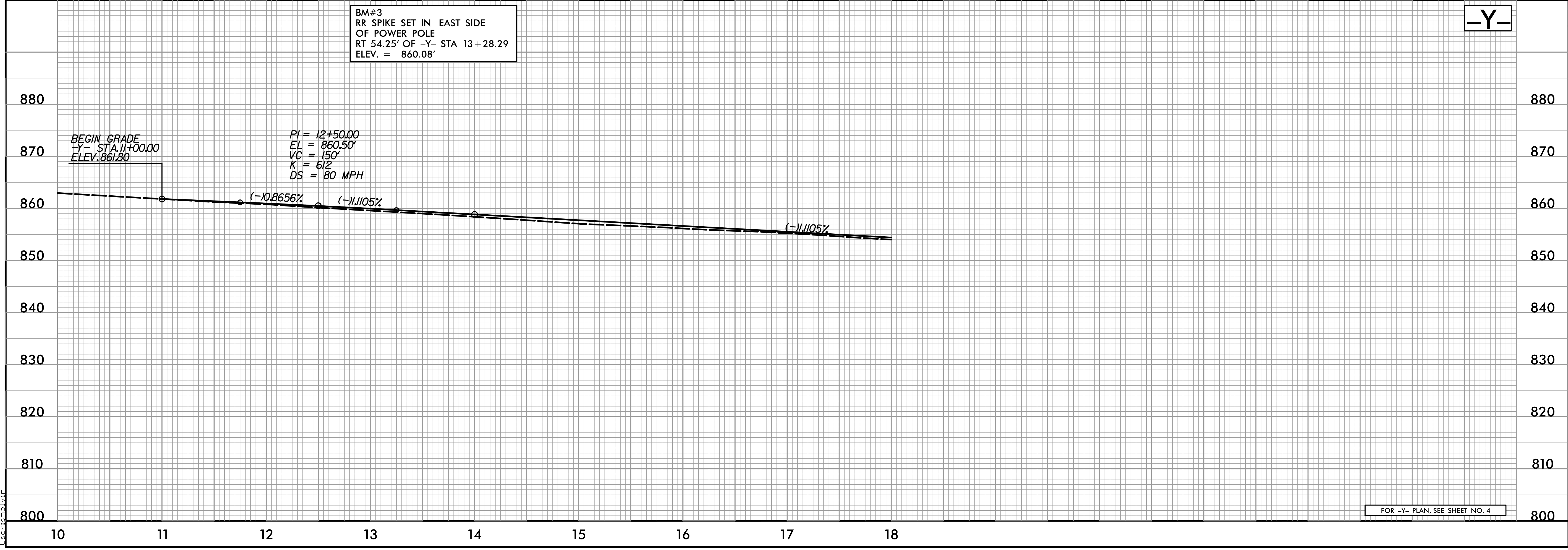
BEGIN DITCH GRADE LT
 -L- STA 28+24
 ELEV. 837.05

END DITCH GRADE LT
 -L- STA 29+75
 ELEV. 829.50

LEFT DITCH
 RIGHT DITCH

FOR -L- PLAN, SEE SHEET NO. 4

-Y-



BM#3
 RR SPIKE SET IN EAST SIDE
 OF POWER POLE
 RT 54.25' OF -Y- STA 13+28.29
 ELEV. = 860.08'

BEGIN GRADE
 -Y- STA 11+00.00
 ELEV. 861.80

PI = 12+50.00
 EL = 860.50'
 VC = 150'
 K = 612
 DS = 80 MPH

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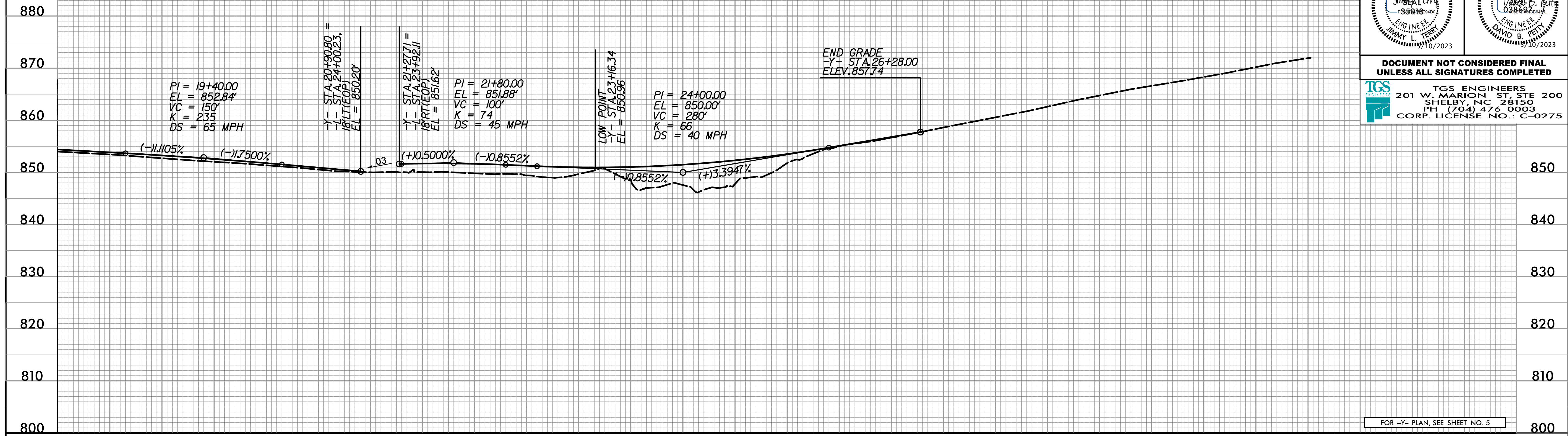
FOR -Y- PLAN, SEE SHEET NO. 4

5/28/24

BM#3
RR SPIKE SET IN EAST SIDE
OF POWER POLE
RT 54.25' OF -Y- STA 13+28.29
ELEV. = 860.08'

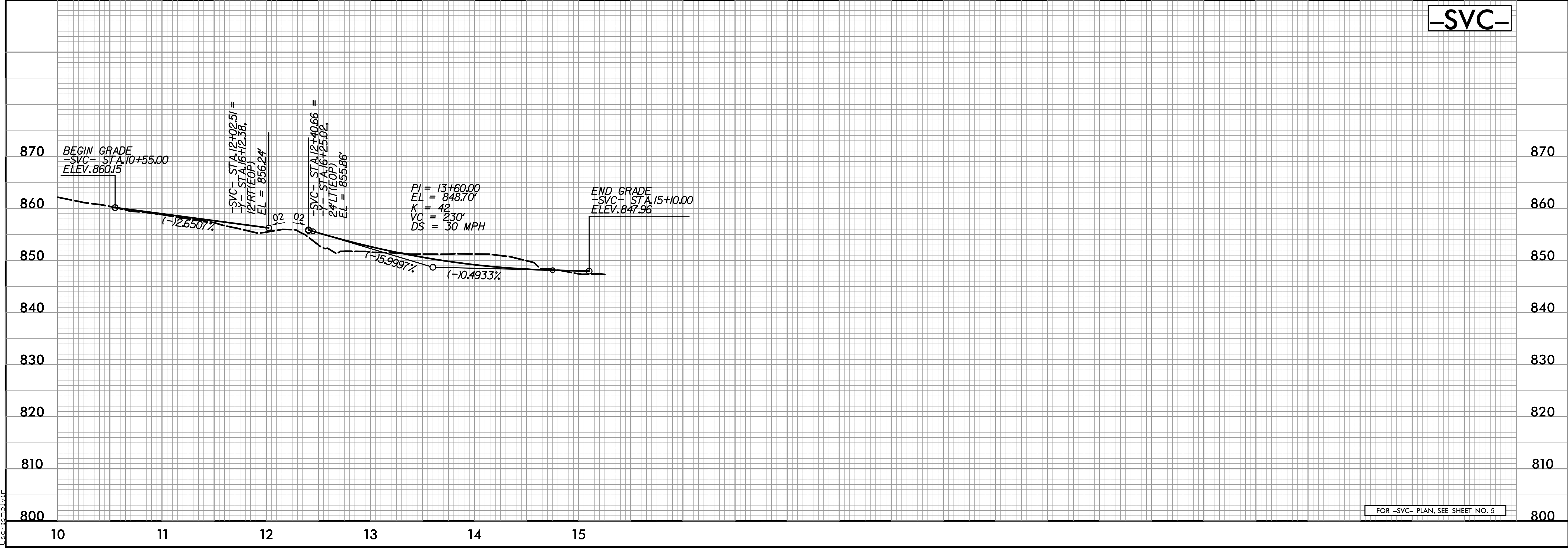
-Y-

PROJECT REFERENCE NO. U-5775	SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
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FOR -Y- PLAN, SEE SHEET NO. 5

-SVC-



FOR -SVC- PLAN, SEE SHEET NO. 5

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