

**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

**This file or an individual page
shall not be considered a certified document.**

09.08/2018

I:\3\2018\Q:\RA\9292-0\CAD\U5925\Roadway\Proj\U5925_rdy_tsh.dgn
T:\Tfmcm

TIP PROJECT: U-5925

CONTRACT: C204015

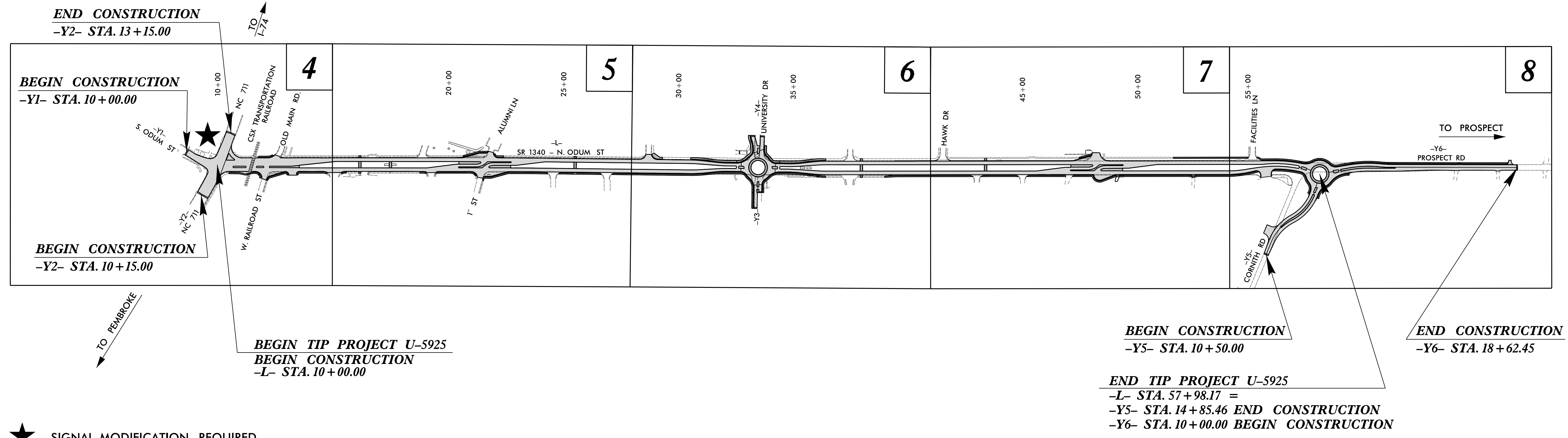
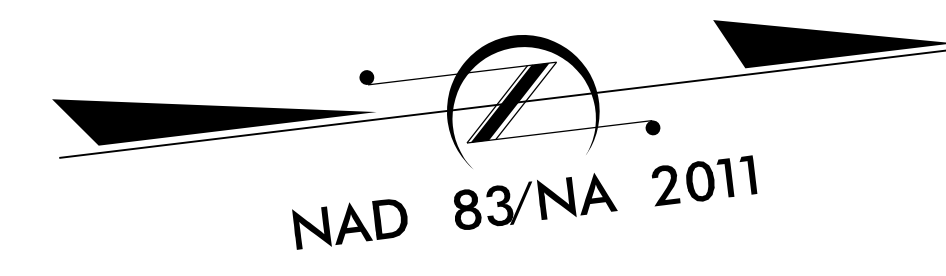
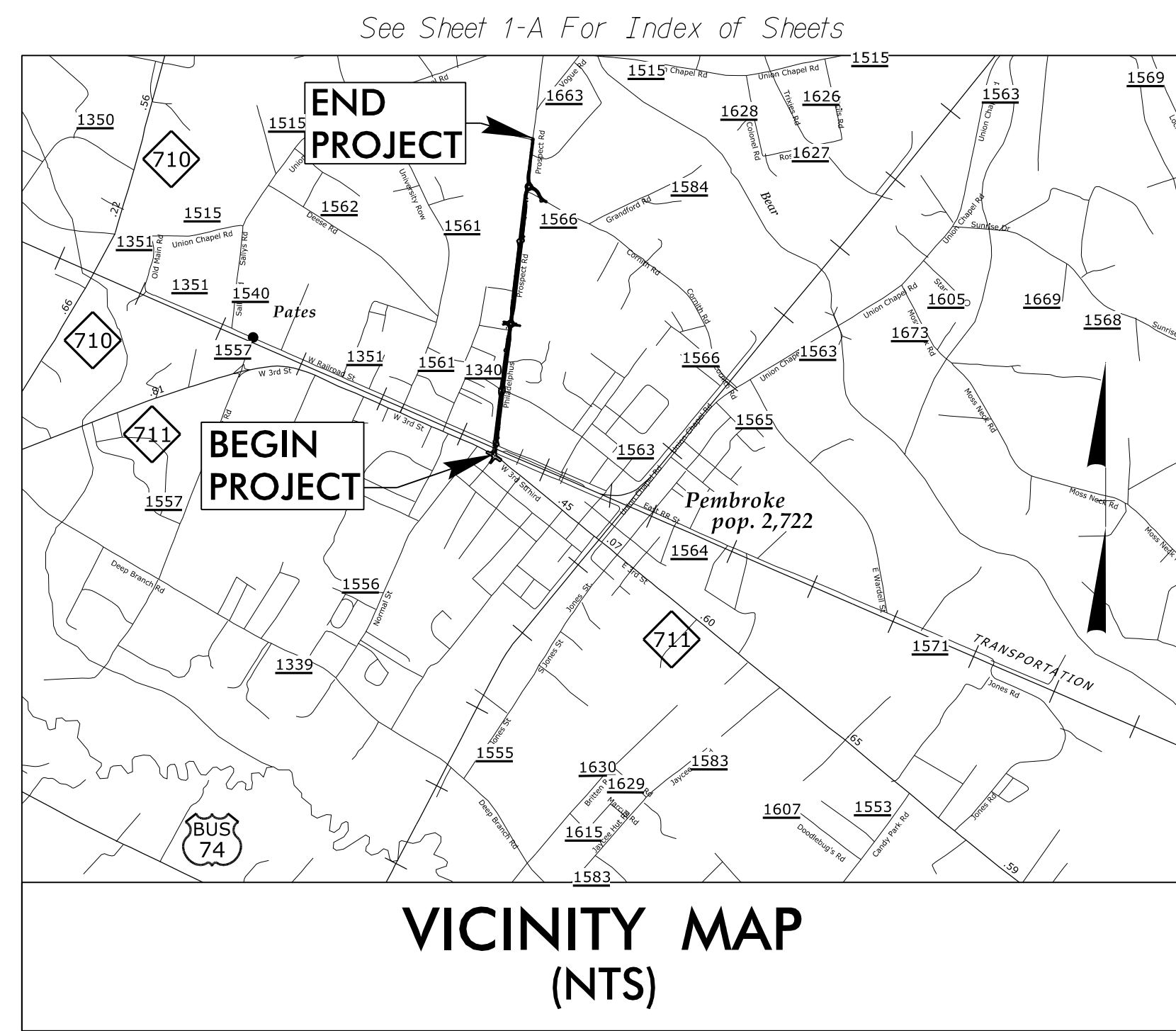
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ROBESON COUNTY

LOCATION: SR 1340 (NORTH ODUM STREET / PROSPECT ROAD), FROM
NC 711 (THIRD STREET) TO SR 1566 (CORNITH ROAD)

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

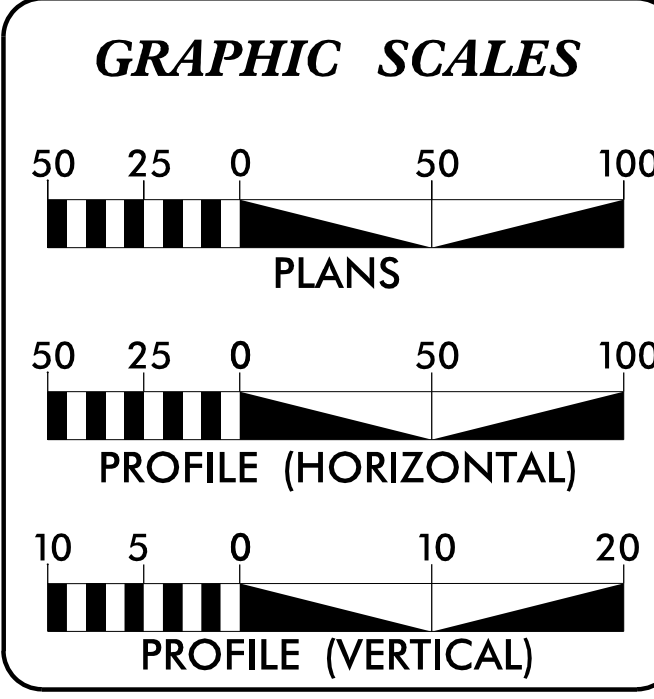
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5925	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46874.1.1		P.E.	
46874.2.1		R / W, UTIL.	
46874.3.1	HSIP-1340(11)	CONST.	



★ SIGNAL MODIFICATION REQUIRED

DIVISION DESIGN CONSTRUCTION - NCDOT DIVISION 6
NCDOT CONTACT: SEAN MATUSZEWSKI

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2017 =	9,640
ADT 2037 =	14,260
K =	11 %
D =	52 %
T =	1 % *
V =	40 MPH
* TTST =	0% DUAL 1%
FUNC CLASS =	
MAJOR COLLECTOR	
REGIONAL TIER	

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT U-5925	=	0.908 MILES
TOTAL LENGTH OF TIP PROJECT U-5925	=	0.908 MILES

Prepared for NCDOT in the Office of:

moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
19191 781-4868 VOICE 19191 781-4869 FAX
NC License NO.: F-0105

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MAY 31, 2017

LETTING DATE:
FEBRUARY 20, 2018

TIM R. REID, P.E.
PROJECT ENGINEER

TRENT E. HUFFMAN, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

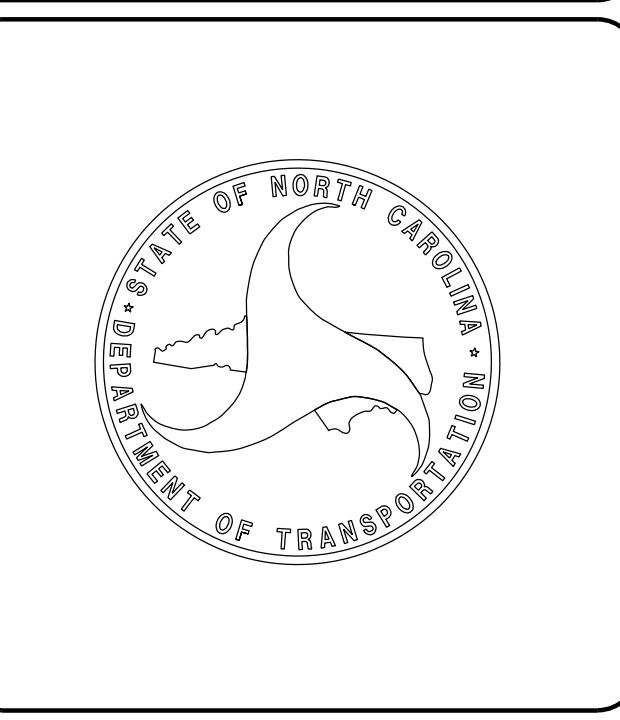
moffatt & nichol

DocuSigned by:
Jeffrey L. Rock
SIGNATURE

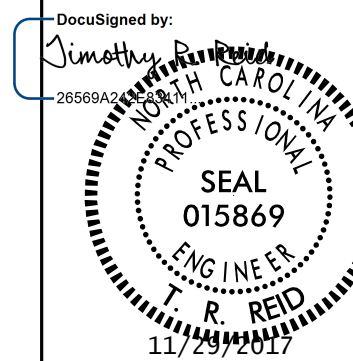
ROADWAY DESIGN ENGINEER

moffatt & nichol

DocuSigned by:
Timothy R. Reid
SIGNATURE



ROADWAY DESIGN ENGINEER



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

EFF. 01-17-2012
REV. 05-24-2017

2012 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, 2012 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 Super-elevation - Two Lane Pavement
225.05	Method of Obtaining Super-elevation - Divided Highways
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 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Super-elevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
838.05	Concrete 'L' Endwall for Single Pipe Culverts - 15" thru 48" Pipe
838.15	Brick 'L' Endwall for Single Pipe Culverts - 15" thru 48" Pipe
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
840.04	Concrete Open Throat Catch Basin - 12" thru 48" Pipe
840.05	Brick Open Throat Catch Basin - 12" thru 48" Pipe
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.17	Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.20	Frames and Wide Slot Flat Grates
840.24	Frames and Narrow Slot Sag Grates
840.26	Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under
840.51	Brick Manhole - 12" thru 36" Pipe
840.52	Precast Manhole - 4', 5' and 6' Diameter
840.53	Precast Manhole with Masonry Base - 12" thru 42" Pipe
840.54	Manhole Frame and Cover
840.72	Pipe Collar
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
848.06	Curb Ramp - Existing Curb & Gutter
852.01	Concrete Islands
852.02	Concrete Mountable Median - for Use with Rigid or Flexible Pavement
852.06	Method for Placement of Drop Inlets in Concrete Islands
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1 THRU 1C-2	SURVEY CONTROL SHEETS
2A-1 THRU 2A-7	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1 THRU 2B-5	INTERSECTION DETAILS
2C-1 THRU 2C-4	ALTERNATIVE CURBE RAMP DETAILS
2C-5	OPEN THROAT CATCH BASIN SPECIAL DETAIL
3B	EARTHWORK SUMMARY, EXISTING APSHALT PAVEMENT REMOVAL SUMMARY
3D-1 THRU 3D-6	DRAINAGE SUMMARY SHEETS
3G-1	GEOTECHNICAL SUMMARY
3P-1	PARCEL INDEX SHEET
4 THRU 8	PLAN SHEETS
9 THRU 12	PROFILE SHEETS
TMP-1 THRU TMP-13	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-7	PAVEMENT MARKING PLANS
EC-1 THRU EC- 13	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-12	SIGNING PLANS
SIG-1 THRU SIG-5	SIGNAL PLANS
UC-1 THRU UC-10	UTILITY CONSTRUCTION PLANS
UD-1 THRU UD-6	UTILITY BY OTHERS PLANS
X THRU X-1A	CROSS SECTION INDEX AND CROSS-SECTION VOLUME SHEET
X-1 THRU X-21	CROSS-SECTIONS

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 05-24-2017

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 IJ.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.05 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. 560.02

SIDE ROADS:

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

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3 FOOT RADIUS OR RADIUS 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 RADIUS NOTED ON PLANS.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE Town of Pamboke, Robeson County, Piedmont Natural Gas Company, Lumbee River EMC, UNC Pamboke, Spectrum, MCNC, AT&T, Duke Energy

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

RIGHT-OF-WAY MARKERS:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PERMANENT STAKING OF ALL PROPOSED RIGHT-OF-WAY AND DRAINAGE EASEMENTS PER NCDOT DIVISION 6 SPECIAL PROVISIONS IN THE CONTRACT.

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.

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

12/2/2016

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Computed Property Corner	-----
Property Monument	□ ECM
Parcel/Sequence Number	①23
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-☠
Potential Contamination Area: Soil	☠-s-☠
Known Contamination Area: Water	☠-w-☠
Potential Contamination Area: Water	☠-w-☠
Contaminated Site: Known or Potential	☠?

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○ S
Well	○ W
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	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	◆
Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	◆
Exist Permanent Easement Pin and Cap	◇
New Permanent Easement Pin and Cap	◆
Vertical Benchmark	⊠
Existing Right of Way Marker	△
Existing Right of Way Line	-----
New Right of Way Line	----- R/W
New Right of Way Line with Pin and Cap	----- R/W ◆
New Right of Way Line with Concrete or Granite R/W Marker	----- R/W ◆
New Control of Access Line with Concrete C/A Marker	----- C/A
Existing Control of Access	----- C/A
New Control of Access	----- C/A
Existing Easement Line	----- E
New Temporary Construction Easement	----- E
New Temporary Drainage Easement	----- TDE
New Permanent Drainage Easement	----- PDE
New Permanent Drainage / Utility Easement	----- DUE
New Permanent Utility Easement	----- PUE
New Temporary Utility Easement	----- TUE
New Aerial Utility Easement	----- AUE

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	----- C
Proposed Slope Stakes Fill	----- F
Proposed Curb Ramp	----- CR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	⊠

VEGETATION:

Single Tree	☀
Single Shrub	☁

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

Hedge	-----
Woods Line	-----
Orchard	☀ ☀ ☀ ☀
Vineyard	□ Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	CONC
Bridge Wing Wall, Head Wall and End Wall	CONC WW
MINOR:	
Head and End Wall	CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	⊙
Storm Sewer	----- S

UTILITIES:

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

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊙
Telephone Pedestal	⊠
Telephone Cell Tower	⊠
U/G Telephone Cable Hand Hole	-----
U/G Telephone Cable LOS B (S.U.E.*)	----- T
U/G Telephone Cable LOS C (S.U.E.*)	----- T
U/G Telephone Cable LOS D (S.U.E.*)	----- T
U/G Telephone Conduit LOS B (S.U.E.*)	----- TC
U/G Telephone Conduit LOS C (S.U.E.*)	----- TC
U/G Telephone Conduit LOS D (S.U.E.*)	----- TC
U/G Fiber Optics Cable LOS B (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS C (S.U.E.*)	----- T FO
U/G Fiber Optics Cable LOS D (S.U.E.*)	----- T FO

WATER:

Water Manhole	⊙
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	-----
U/G Water Line LOS C (S.U.E.*)	-----
U/G Water Line LOS D (S.U.E.*)	-----
Above Ground Water Line	----- A/G Water

TV:

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

GAS:

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

SANITARY SEWER:

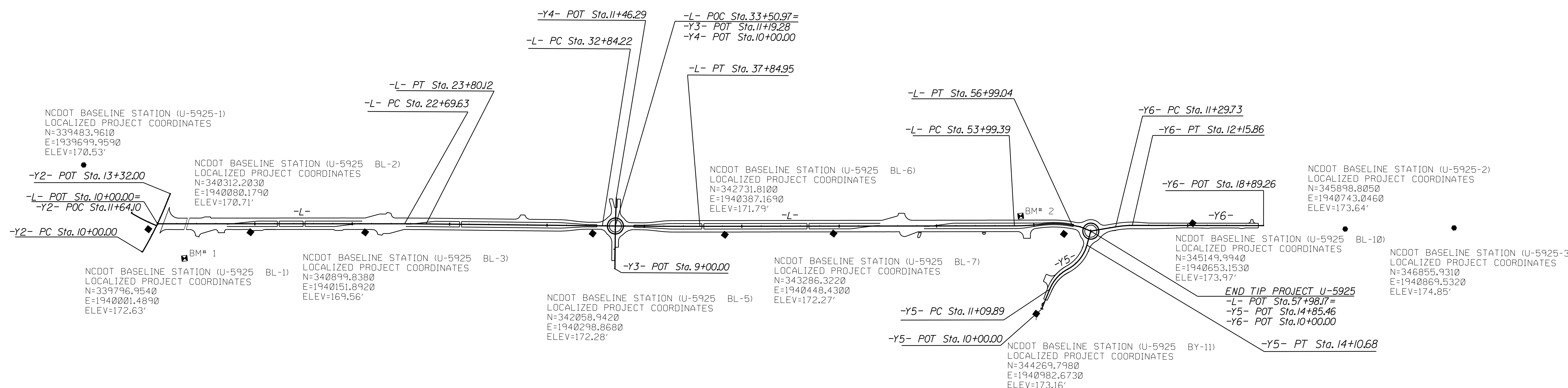
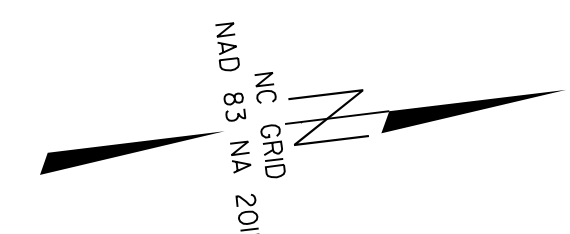
Sanitary Sewer Manhole	⊙
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
SS Forced Main Line LOS B (S.U.E.*)	----- FSS
SS Forced Main Line LOS C (S.U.E.*)	----- FSS
SS Forced Main Line LOS D (S.U.E.*)	----- FSS

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line LOS B (S.U.E.*)	----- 7U/L
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊠ UST
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

SURVEY CONTROL SHEET U-5925

PROJECT REFERENCE NO.	SHEET NO.
U-5925	1C-1
Location and Surveys	



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "U5925-1" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 339483.961(ft) EASTING: 1939699.959(ft) ELEVATION: 170.53(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99991639

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U5925-1" TO -L- STATION 10+00.00 IS N37°36'44.00"E 458.29'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

NOTES:

- ⊙ INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL AND VERTICAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT. PROJECT CONTROL ESTABLISHED USING GNSS (GLOBAL NAVIGATION SATELLITE SYSTEM).
- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION/](https://connect.ncdot.gov/resources/location/)
- THE FILES TO BE FOUND ARE AS FOLLOWS:
U5925_LS_CONTROL.TXT
- SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

NOTE: DRAWING NOT TO SCALE

SURVEY CONTROL SHEET U-5925

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	339846.9984	1939979.6588
PC	22+69.63	341107.3337	1940132.9821
PT	23+80.12	341216.9391	1940146.9308
PC	32+84.22	342113.1613	1940266.0216
PT	37+84.95	342609.9330	1940328.8714
PC	53+99.39	344212.8424	1940521.4801
PRC	55+41.82	344354.9172	1940530.2090
PT	56+99.04	344509.6016	1940554.6558
POT	57+39.17	344547.8141	1940566.9114
POT	57+98.17	344599.2822	1940595.7563

Y5

TYPE	STATION	NORTH	EAST
POT	10+00.00	344301.5922	1940960.0219
PC	11+09.89	344355.2499	1940864.1226
PRC	12+48.42	344457.8347	1940775.1706
PT	14+10.68	344570.7519	1940664.8730
POT	14+85.46	344599.2822	1940595.7563

Y1

TYPE	STATION	NORTH	EAST
PC	10+00.00	339720.6400	1939908.6715
PT	11+44.91	339841.5071	1939988.2645

Y6

TYPE	STATION	NORTH	EAST
POT	10+00.00	344599.2822	1940595.7563
PC	11+29.73	344728.8479	1940589.2964
PT	12+15.86	344814.8158	1940592.4197
POT	18+89.26	345483.1751	1940674.6688

Y2

TYPE	STATION	NORTH	EAST
PC	10+00.00	339752.6792	1940113.8716
PT	12+61.51	339896.8039	1939895.9597
POT	13+32.00	339931.1268	1939834.3875

BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	U-5925 BL1	339796.9540	1940001.4890	172.63	OUTSIDE PROJECT LIMITS	
2	U-5925 BL2	340312.2030	1940080.1790	170.71	14+73.94	43.61 RT
3	U-5925 BL3	340899.8380	1940151.8920	169.56	20+65.93	43.83 RT
4	U-5925 BL4	341485.4730	1940229.6760	171.29	26+57.21	46.65 RT
5	U-5925 BL5	342058.9420	1940298.8680	172.28	32+34.80	39.70 RT
6	U-5925 BL6	342731.8100	1940387.1690	171.79	39+12.91	43.34 RT
7	U-5925 BL7	343286.3220	1940448.4300	172.27	44+70.77	38.01 RT
8	U-5925 BL8	343875.0940	1940517.2130	173.56	50+63.55	36.06 RT
9	U-5925 BL9	344460.5810	1940593.2600	173.62	56+60.30	50.41 RT
10	U-5925 BL10	345149.9940	1940653.1530	173.97	OUTSIDE PROJECT LIMITS	
102	U-5925-2	345898.8050	1940743.0460	173.64	OUTSIDE PROJECT LIMITS	

Y3

TYPE	STATION	NORTH	EAST
POT	9+00.00	342150.4588	1940492.1260
POT	11+19.28	342179.3427	1940274.7597

BY

POINT	DESC.	NORTH	EAST	ELEVATION	Y5 STATION	OFFSET
90	U-5925 BL-9	344460.5810	1940593.2600	173.62	14+34.84	129.16 LT
11	U-5925 BY11	344269.7980	1940982.6730	173.16	OUTSIDE PROJECT LIMITS	

Y4

TYPE	STATION	NORTH	EAST
POT	10+00.00	342179.3427	1940274.7597
POT	11+46.29	342201.6974	1940130.1829

.....
 BM1 ELEVATION = 173.27
 N 339963 E 1940172
 L STATION 11+39.00 177 RIGHT
 R/R SPIKE IN BASE OF 36 INCH OAK TREE

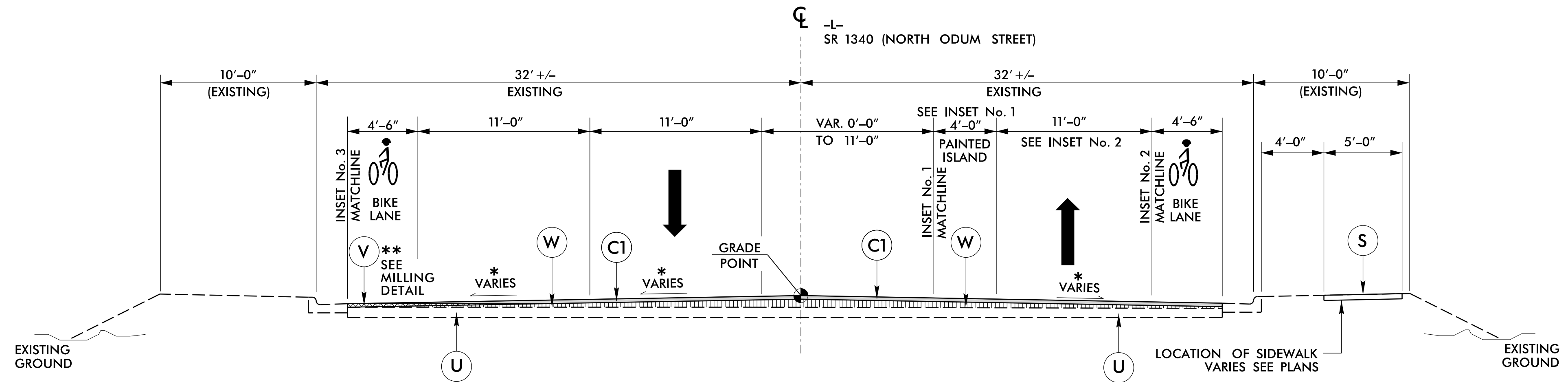
.....
 BM2 ELEVATION = 173.53
 N 344251 E 1940476
 L STATION 54+33.00 50 LEFT
 R/R SPIKE IN BASE OF 20 INCH PINE TREE

NOTE: DRAWING NOT TO SCALE

PROJECT REFERENCE NO. U-5925	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER SEAL 015869 11/29/2017	
<p>4700 FALLS OF NEUSE ROAD, SUITE 300 RALEIGH, NORTH CAROLINA 27609 (919) 781-4626 VOICE (919) 781-4669 FAX NC License# NO. F-0105</p>	
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>	

PAVEMENT SCHEDULE			
(FINAL PAVEMENT DESIGN - DATED 5/16/17)			
A1	7" CONCRETE TRUCK APRON	R1	1'-6" CONCRETE CURB AND GUTTER
C1	PROP. APPROX. 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R2	2'-6" CONCRETE CURB AND GUTTER
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R3	9"x12" CURB
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.	R4	5" MONOLITHIC CONCRETE ISLAND (KEYED IN).
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	S	4" CONCRETE SIDEWALK
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2 1/2" OR GREATER THAN 4" IN DEPTH.	T	EARTH MATERIAL.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	U	EXISTING PAVEMENT.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 3" OR GREATER THAN 5 1/2" IN DEPTH.	V	MILLING BITUMINOUS PAVEMENT. 0" TO 1 1/2" DEPTH. SEE DETAIL.
J1	PROP. 5" AGGREGATE BASE COURSE.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL SHEET NO. 2A-7).

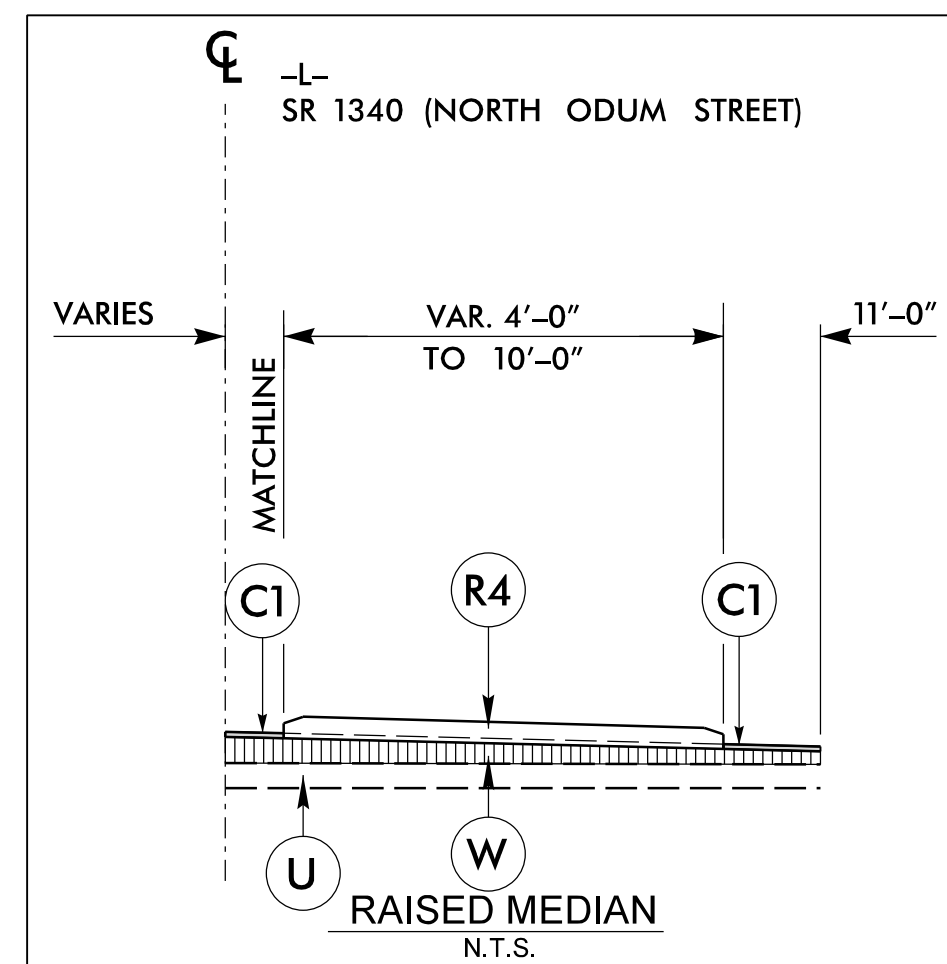
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



TYPICAL SECTION No. 1

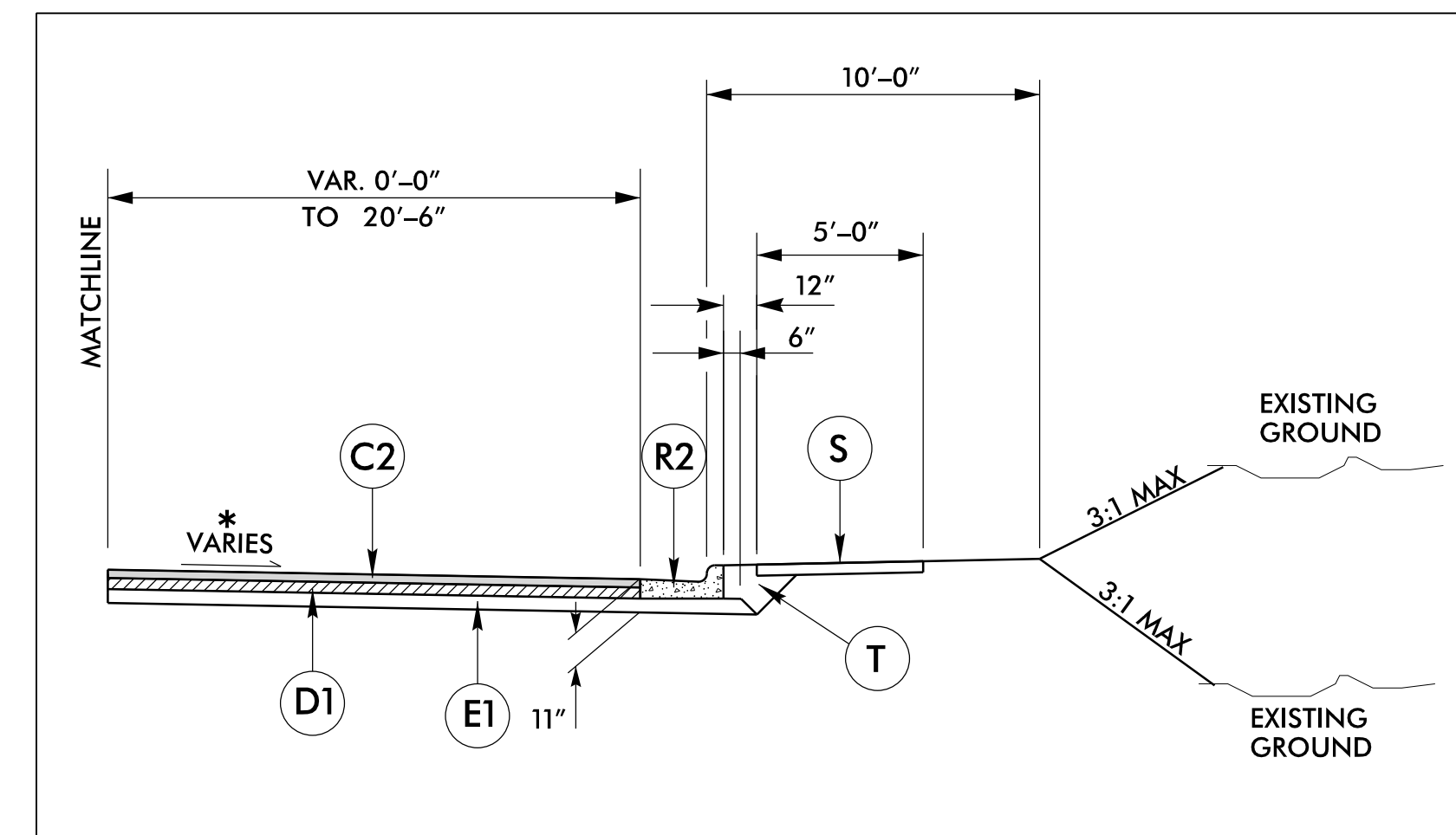
-L- STA. 10+00.00 TO STA. 13+56.62

- * CROSS SLOPES VARY, SEE X-SECTIONS
- ** FOR MILLING SEE INSET No. 3, SEE SHEET 2A-2



INSET No. 1

TO BE USED IN CONJUNCTION WITH TYPICAL SECTION No. 1
-L- STA. 12+25.93 TO STA. 13+56.62



INSET No. 2

TO BE USED IN CONJUNCTION WITH TYPICAL SECTION No. 1
-L- STA. 12+12.63 TO STA. 13+00.00

6/2/2017

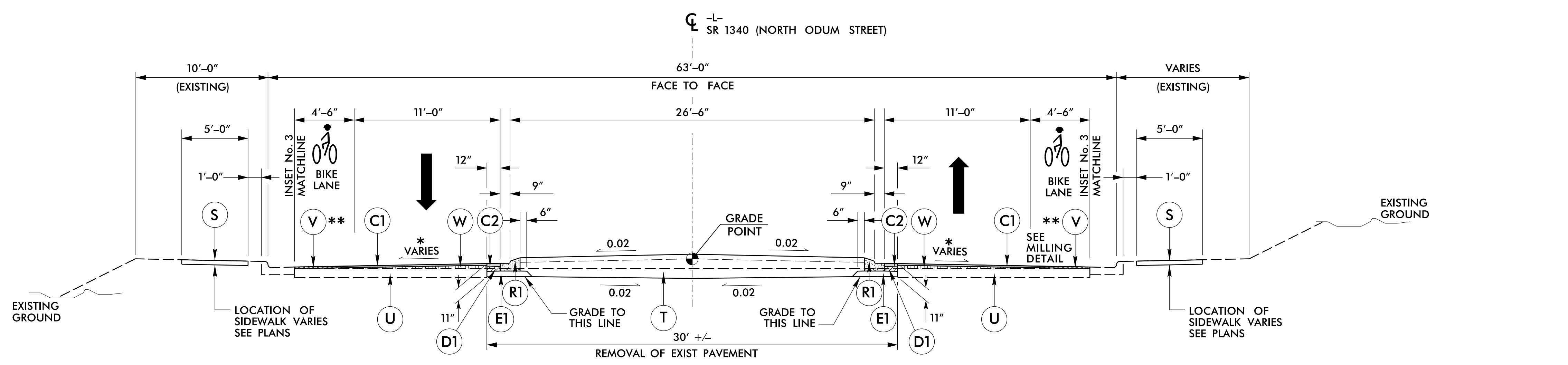
PROJECT REFERENCE NO. U-5925	SHEET NO. 2A-2
ROADWAY DESIGN ENGINEER SEAL 015869 11/29/2017	

4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4669 FAX
NC LICENSE NO.: F-0105

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

C1	1 1/2" S9.5B
C2	3" S9.5B
D1	4" I19.0B
E1	5" B25.0B
R1	1'-6" CONC C&G
R2	2'-6" CONC C&G
R4	5" CONC ISL (KEYED IN)
S	4" CONC SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT
V	MILLING
W	WEDGING

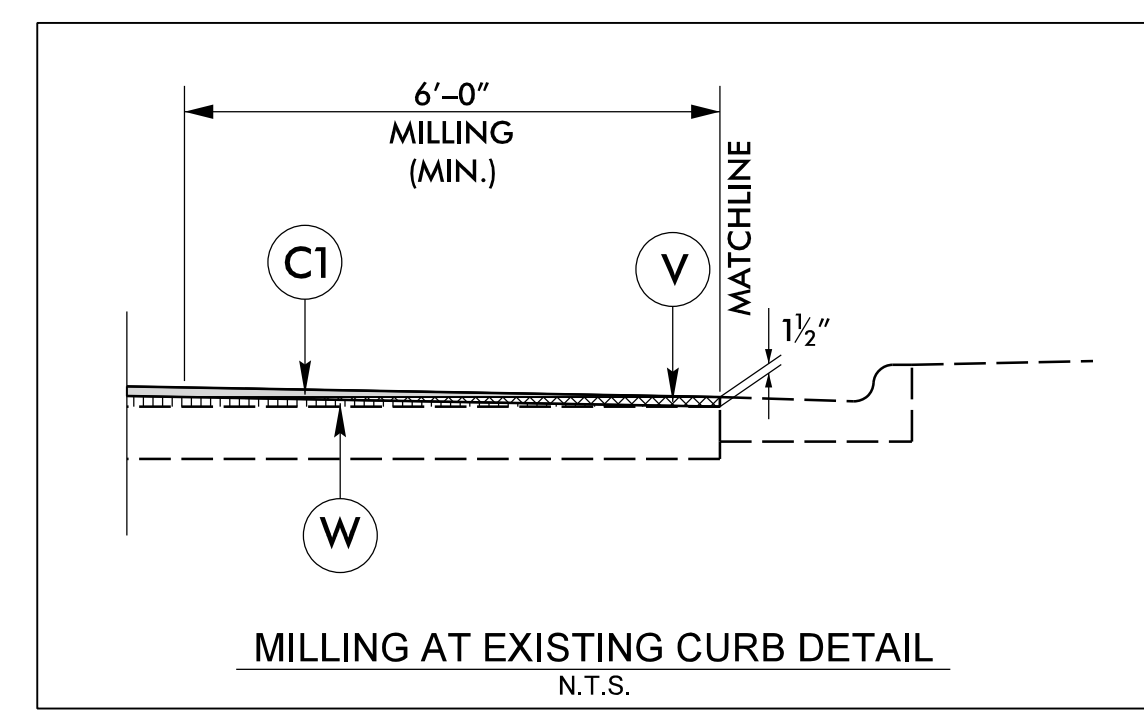
NOTE: PAVEMENT EDGE SLOPES ARE 1:1
UNLESS SHOWN OTHERWISE.



TYPICAL SECTION No. 2

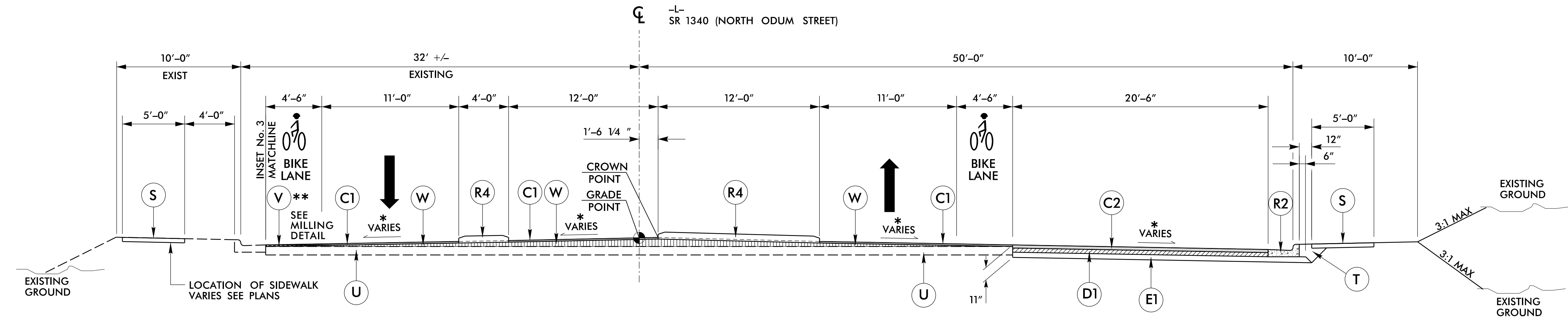
- L- STA. 13+56.62 TO STA. 20+50.61
- L- STA. 22+75.62 TO STA. 32+91.97
- L- STA. 34+09.97 TO STA. 47+10.61
- L- STA. 49+35.61 TO STA. 57+39.17

* CROSS SLOPES VARY, SEE X-SECTIONS
** FOR MILLING SEE INSET No. 3



INSET No. 3

TO BE USED IN CONJUNCTION WITH TYPICAL SECTION No. 1, 2 & 3



TYPICAL SECTION No. 3

- L- STA. 20+50.61 TO STA. 21+63.11 (MIRROR)
- L- STA. 21+63.11 TO STA. 22+75.62
- L- STA. 47+10.61 TO STA. 48+23.11 (MIRROR)
- L- STA. 48+23.11 TO STA. 49+35.61

* CROSS SLOPES VARY, SEE X-SECTIONS
** FOR MILLING SEE INSET No. 3

I:\17\2017\05\F6\292-01\CADD\U5925\Roadway\Proj\U5925_rdy_tjy.dgn

6/2/2017

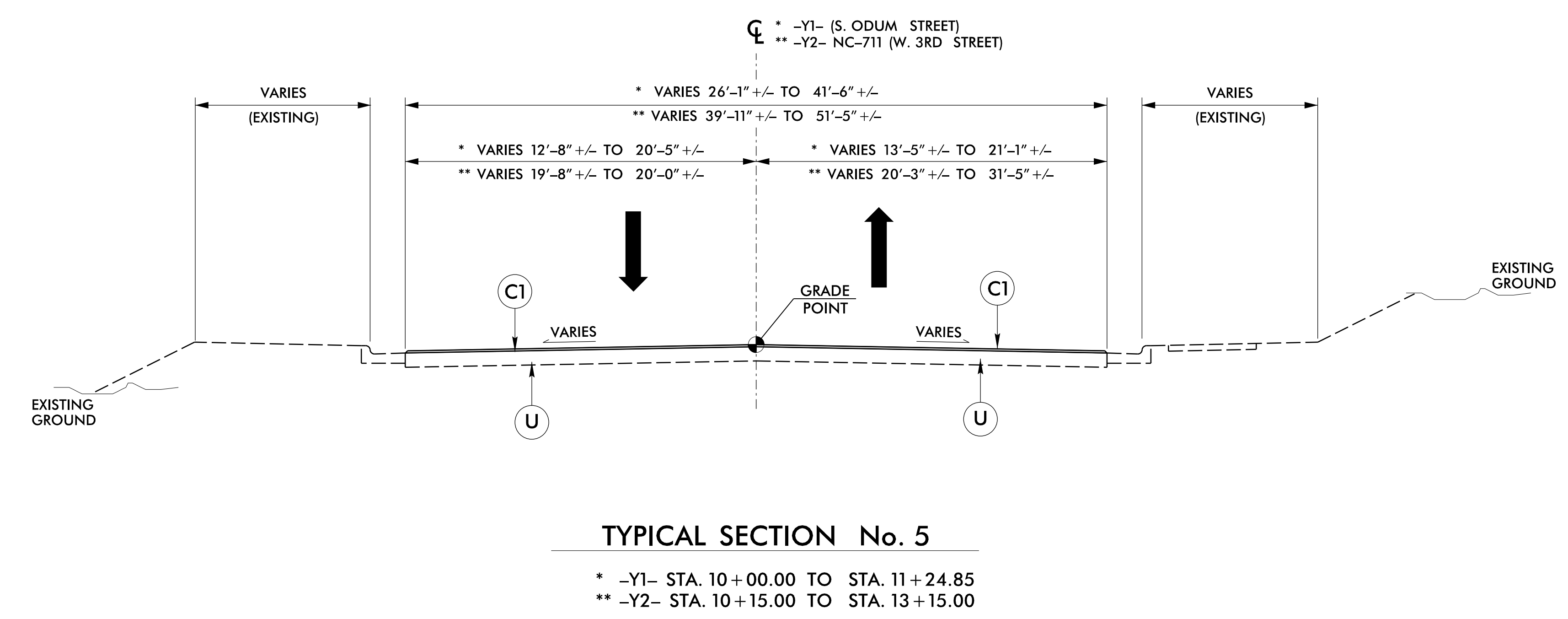
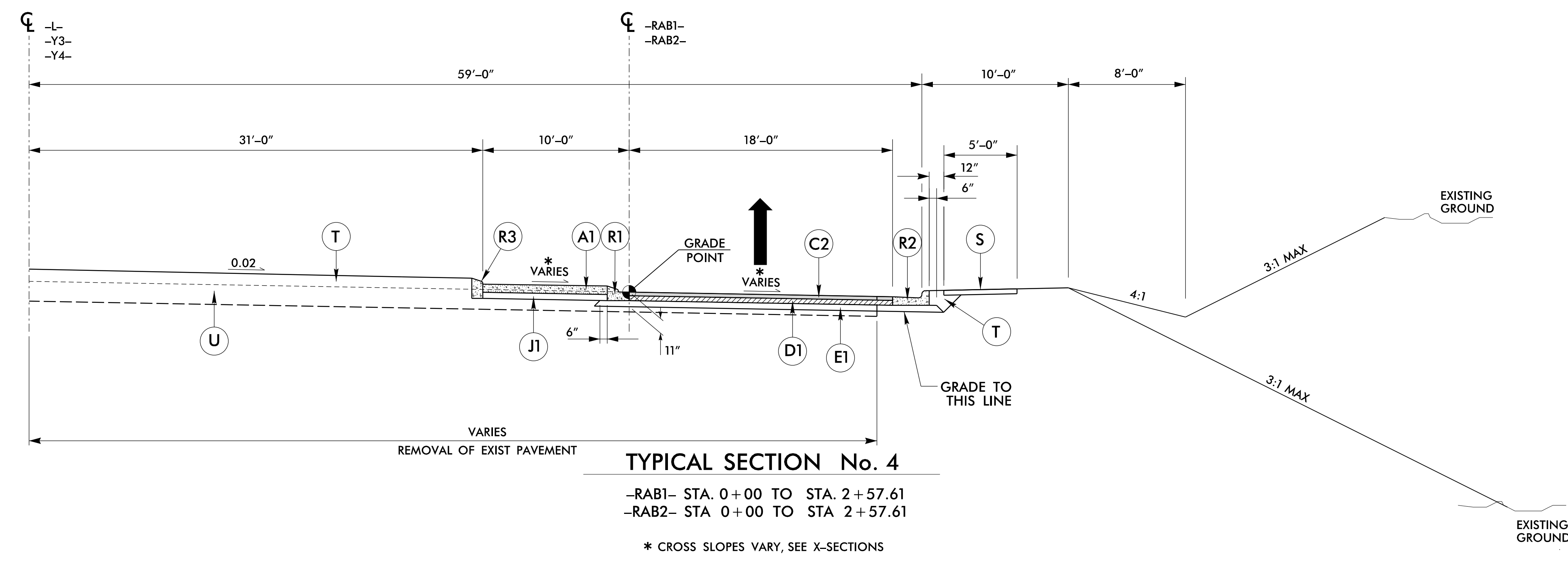
PROJECT REFERENCE NO. U-5925	SHEET NO. 2A-3
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 015869 11/29/2017	

4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4669 FAX
NC LICENSE NO.: F-0105

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

A1	7" TRUCK APRON
C1	1 1/2" S9.5B
C2	3" S9.5B
D1	4" I19.0B
E1	5" B25.0B
E2	VAR. DEPTH B25.0B
J1	5" ABC
R1	1'-6" CONC C&G
R2	2'-6" CONC C&G
R3	9"x12" CURB
S	4" CONC SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT

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



I:\212017\05-14-17\05-14-17-01\CADD\U5925\Roadway\Proj\U5925_rdy_tj.p.dgn

6/2/2017

I:\7/2017\05\F6\02\292-01\CADD\U5925\Roadway\Proj\U5925_rdy_tj.p.dgn
 11/29/2017

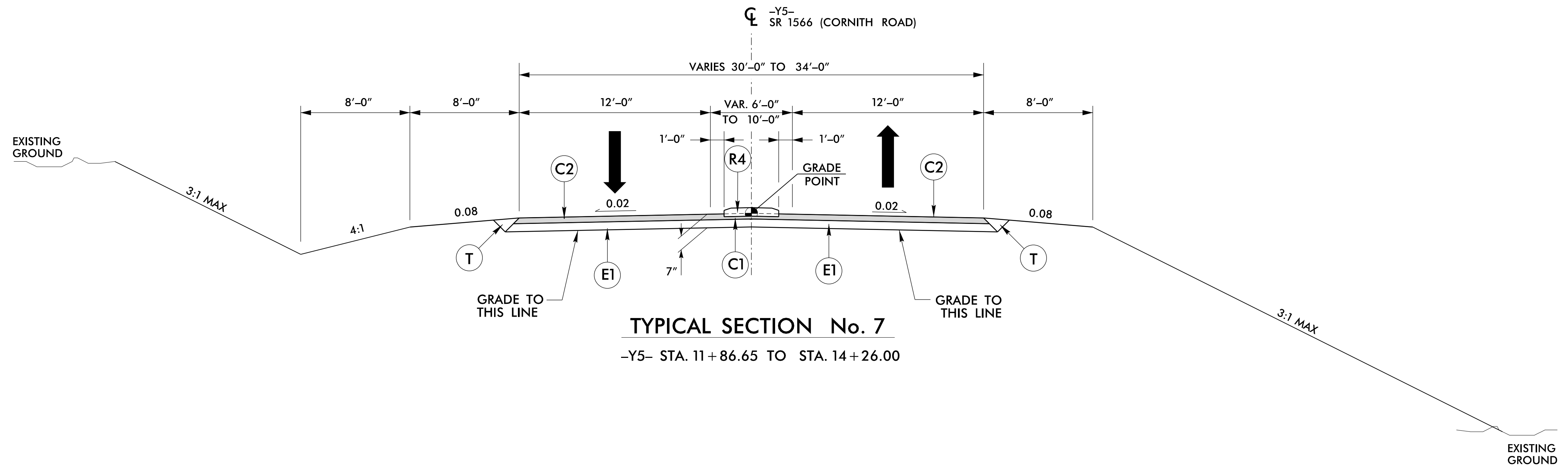
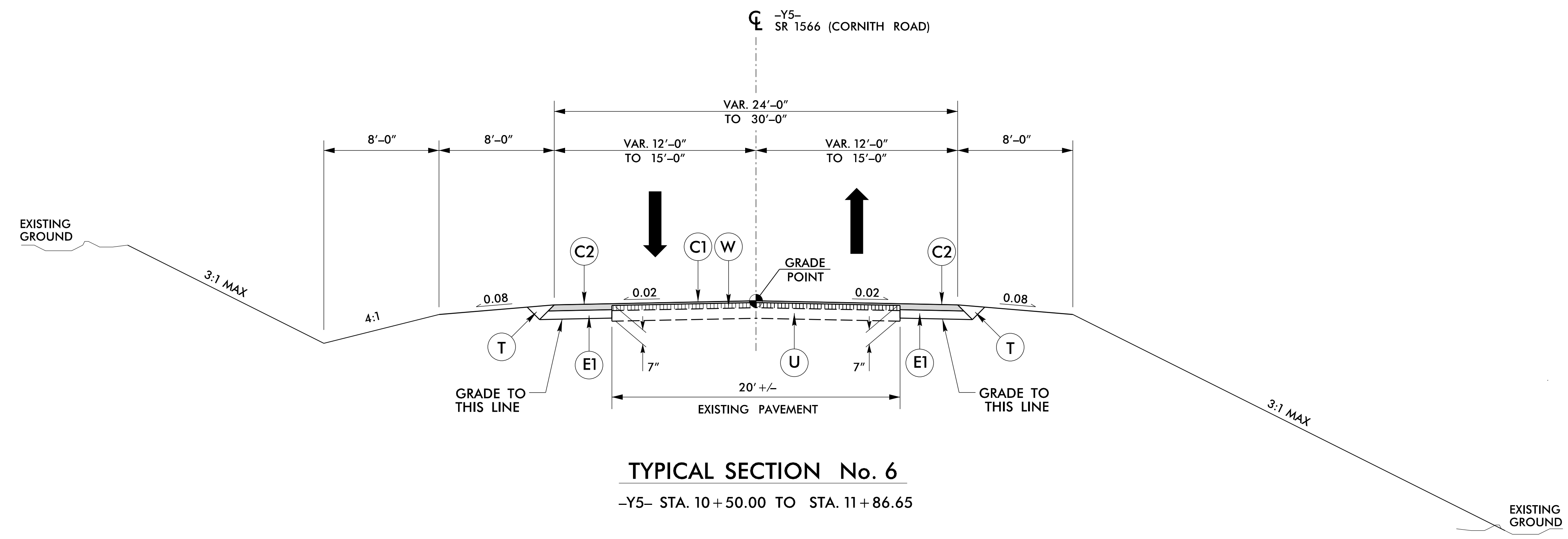
PROJECT REFERENCE NO. U-5925	SHEET NO. 2A-4
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 015869 11/29/2017	

4700 FALLS OF NEUSE ROAD, SUITE 300
 WALEGUE, NORTH CAROLINA 27659
 (919) 781-4626 VOICE (919) 781-4669 FAX
 NC License# NO. F-0105

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

C1	1 1/2" S9.5B
C2	3" S9.5B
E1	5" B25.0B
R4	5" CONC ISL (KEYED IN)
T	EARTH MATERIAL
U	EXIST PAVEMENT
W	WEDGING

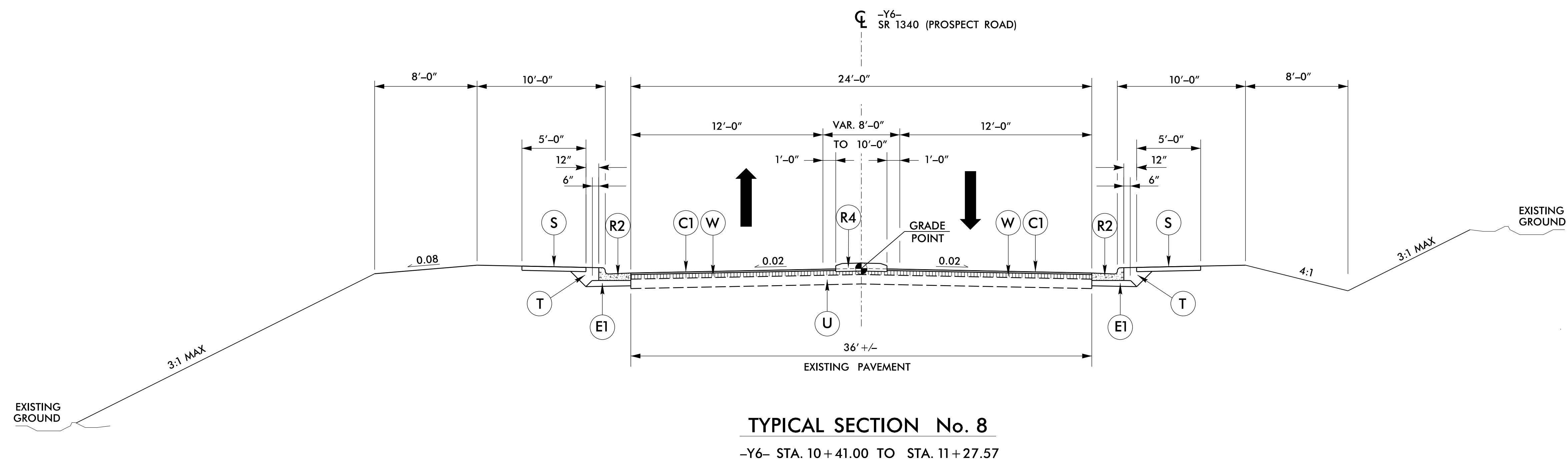
NOTE: PAVEMENT EDGE SLOPES ARE 1:1
 UNLESS SHOWN OTHERWISE.



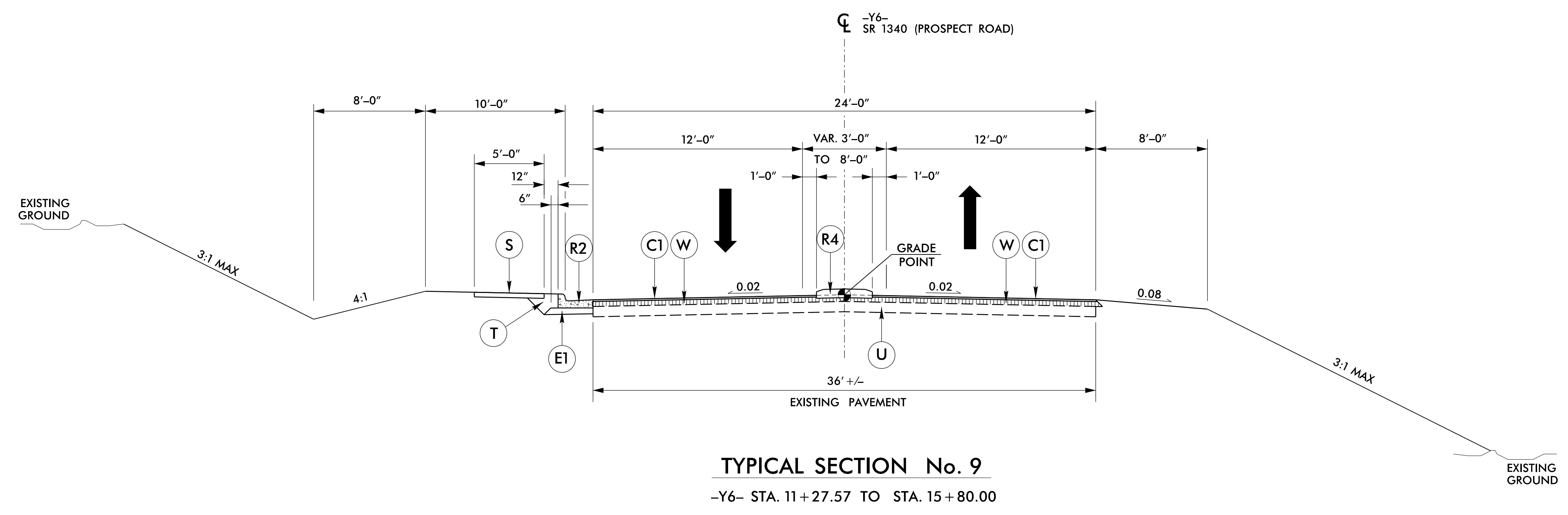
**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

C1	1 1/2" S9.5B
E1	5" B25.0B
R2	2'-6" CONC C&G
R4	5" CONC ISL (KEYED IN)
S	4" CONC SIDEWALK
T	EARTH MATERIAL
U	EXIST PAVEMENT
W	WEDGING

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



TYPICAL SECTION No. 8
 -Y6- STA. 10 + 41.00 TO STA. 11 + 27.57



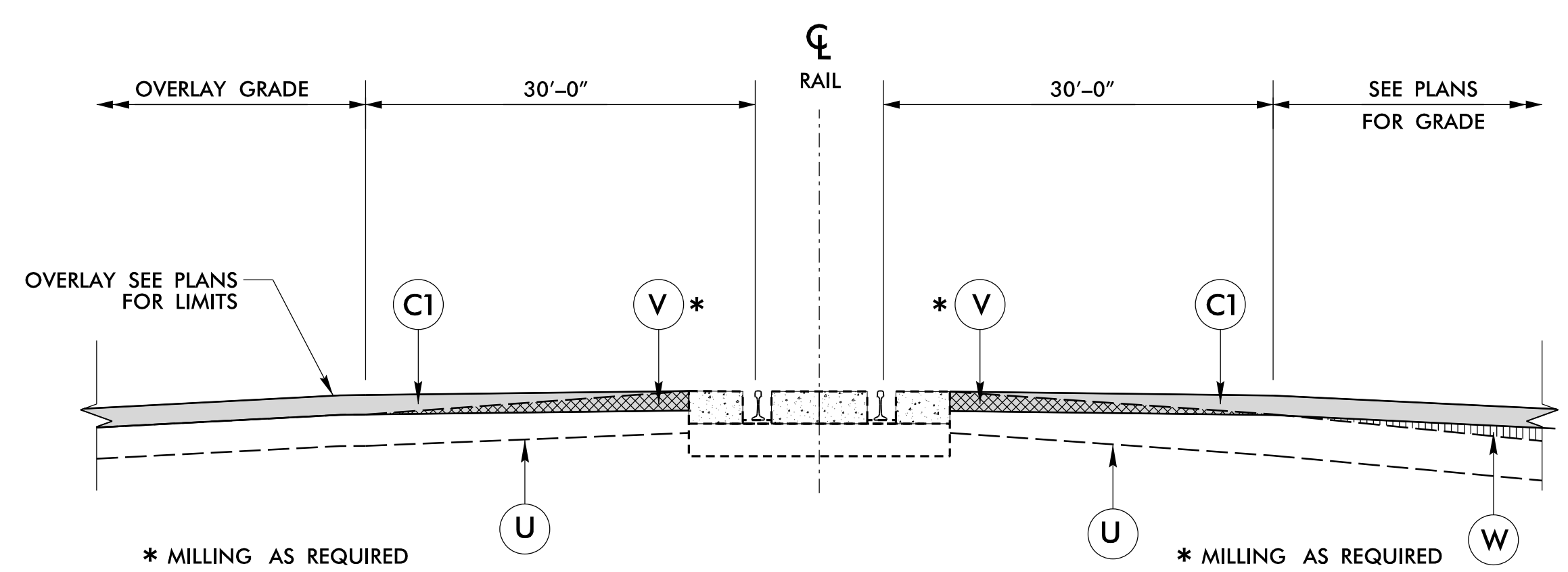
TYPICAL SECTION No. 9
 -Y6- STA. 11 + 27.57 TO STA. 15 + 80.00

I:\7\2017\15\F6\292-01\CADD\U5925\Roadway\Proj\U5925_rdy_tj.p.dgn
 11/29/2017 10:56:11 AM
 jcooper

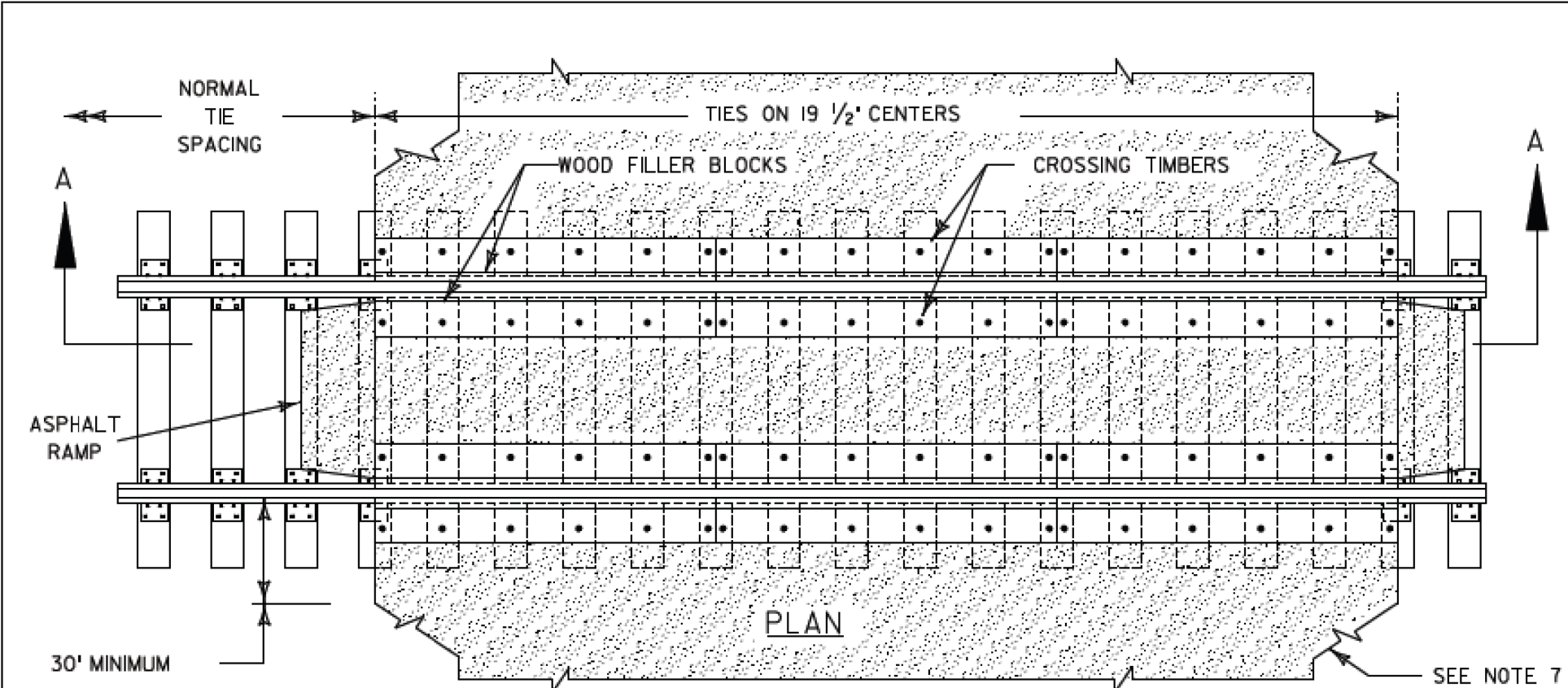
**DOCUMENT NOT CONSIDERED FINAL
 UNLESS ALL SIGNATURES COMPLETED**

C1	1 1/2" S9.5B
U	EXIST PAVEMENT
V	MILLING
W	WEDGING

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

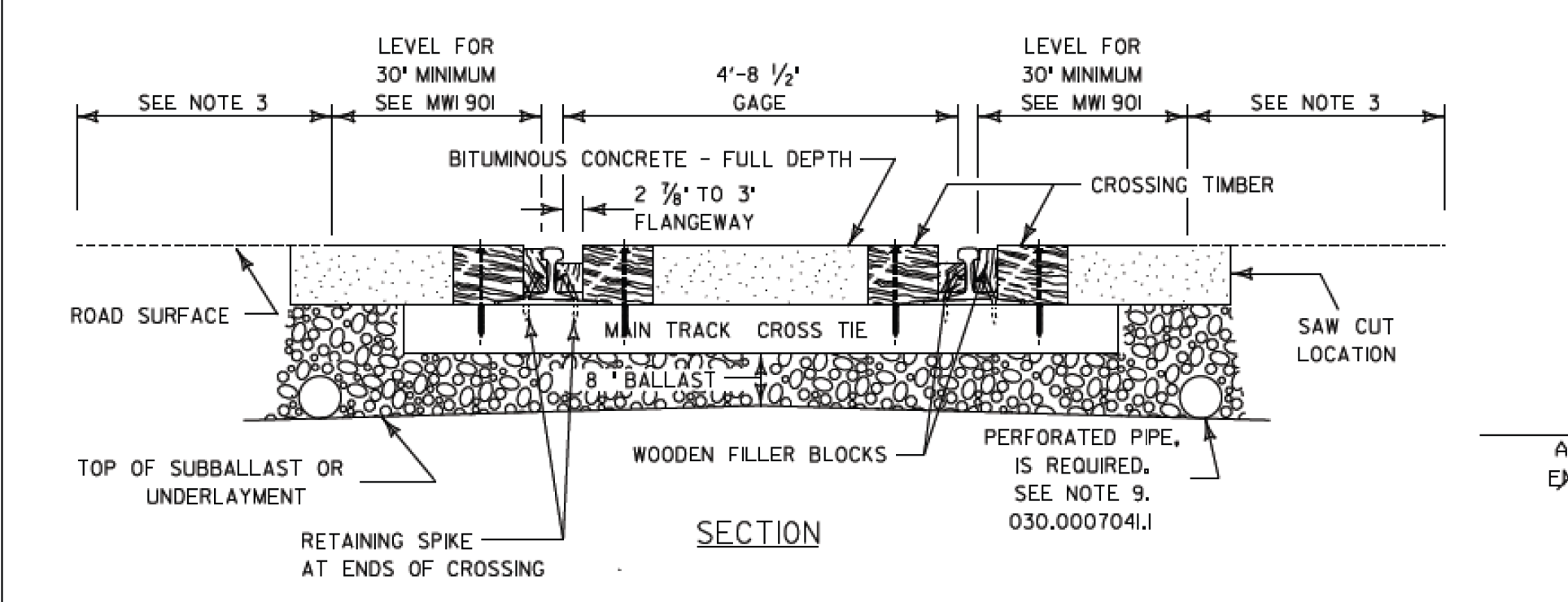
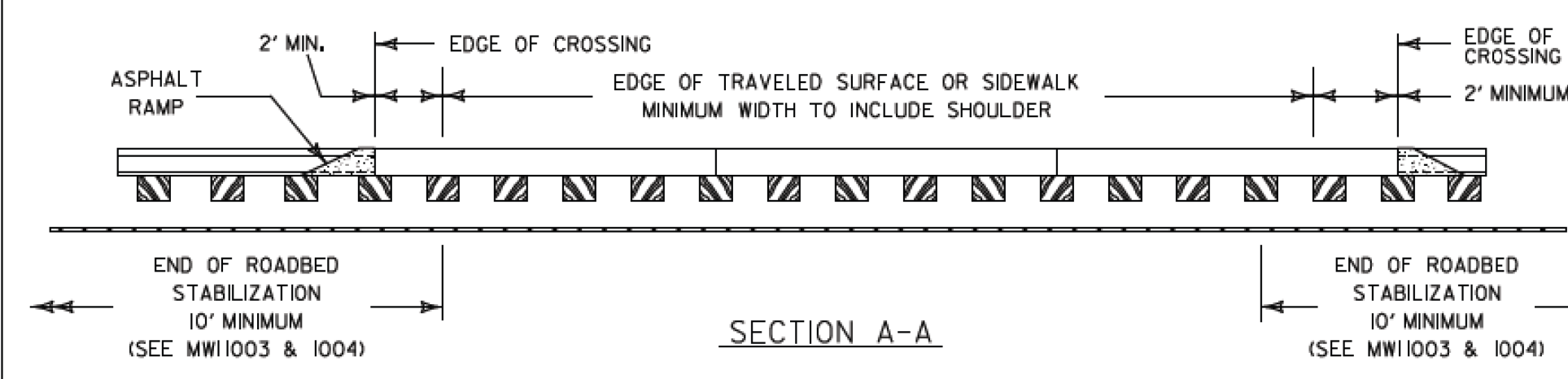


TYPICAL SECTION No. 10
 RAIL CROSSING DETAIL
 SEE CSX STANDARD DETAIL THIS SHEET



NOTES
 2536
 SHEET 1

- MWI 901 (LATEST REVISION) IS TO BE USED IN CONJUNCTION WITH THIS DRAWING.
- FOR NEW CONSTRUCTION, HIGHWAY SHOULD INTERSECT RAILROAD AT OR NEARLY RIGHT ANGLES.
- FOR NEW CONSTRUCTION, HIGHWAY SURFACE SHOULD NOT BE MORE THAN 3" HIGHER OR LOWER THAN TOP OF THE NEAR RAIL 30' FROM THE RAIL ALONG THE ROAD CENTERLINE, UNLESS TRACK SUPERELEVATION DICTATES OTHERWISE.
- USE STATE D.O.T. SPECIFICATIONS FOR BITUMINOUS CONCRETE AND ASPHALT SPRAY TACK COAT FOR THE STATE IN WHICH THE CROSSING IS LOCATED.
- CROSSINGS SHOULD BE CONTINUOUS BETWEEN ROADWAY OR SIDEWALK EDGES. IF NOT PRACTICABLE, ADEQUATE DRAINAGE MUST BE PROVIDED BETWEEN CROSSING AREAS TO ELIMINATE WATER POCKETS.
- SLOPE PAVING TO RETURN TO ORIGINAL PAVEMENT SURFACE. LENGTH OF TRANSITION WILL DEPEND ON LOCAL CONDITIONS. USE A RUNOFF OF 1 IN. PER 10 FT. WHERE PRACTICABLE.
- IF ROADBED STABILIZATION IS REQUIRED, EXTEND IT 10 FT. BEYOND EDGE OF CROSSING UNDER TRACK.
- DRILL CROSSING TIMBERS OVER EACH TIE FOR TIMBER SCREW 1 1/16" DIA. WITH 2 1/2" DIA. x 1' COUNTERSINK.
- PERFORATED PIPE TO BE INSTALLED WHERE OUTFALL IS PERMITTED TO PROVIDE POSITIVE DRAINAGE FROM TRACK STRUCTURE AND SUBGRADE. USE MIN. 4" DIA. PIPE AND LOCATE AT LEAST 12' BEYOND THE END OF TIE.



ORDERING INFORMATION		
ITEM NO.	RAIL WGT.	DESCRIPTION
042 306015	115	CROSSING TIMBER / WOOD FILLER. ORDER BY "TRACK FEET" IN APPROXIMATE 8 FT. INCREMENTS.
042 1320132	132	EACH "TRACK FOOT" INCLUDES 4 TIMBER SECTIONS AND 4 FILLER BLOCK PIECES.
042 1360136	136	DELIVERED IN 8'- 1/2' LONG SECTIONS.
042 1360140	140	
042 1360141	141	
013 8230080	ALL	SCREW, TIMBER 3/8"x 12" WITH TORX SQUARE WASHER HEAD.



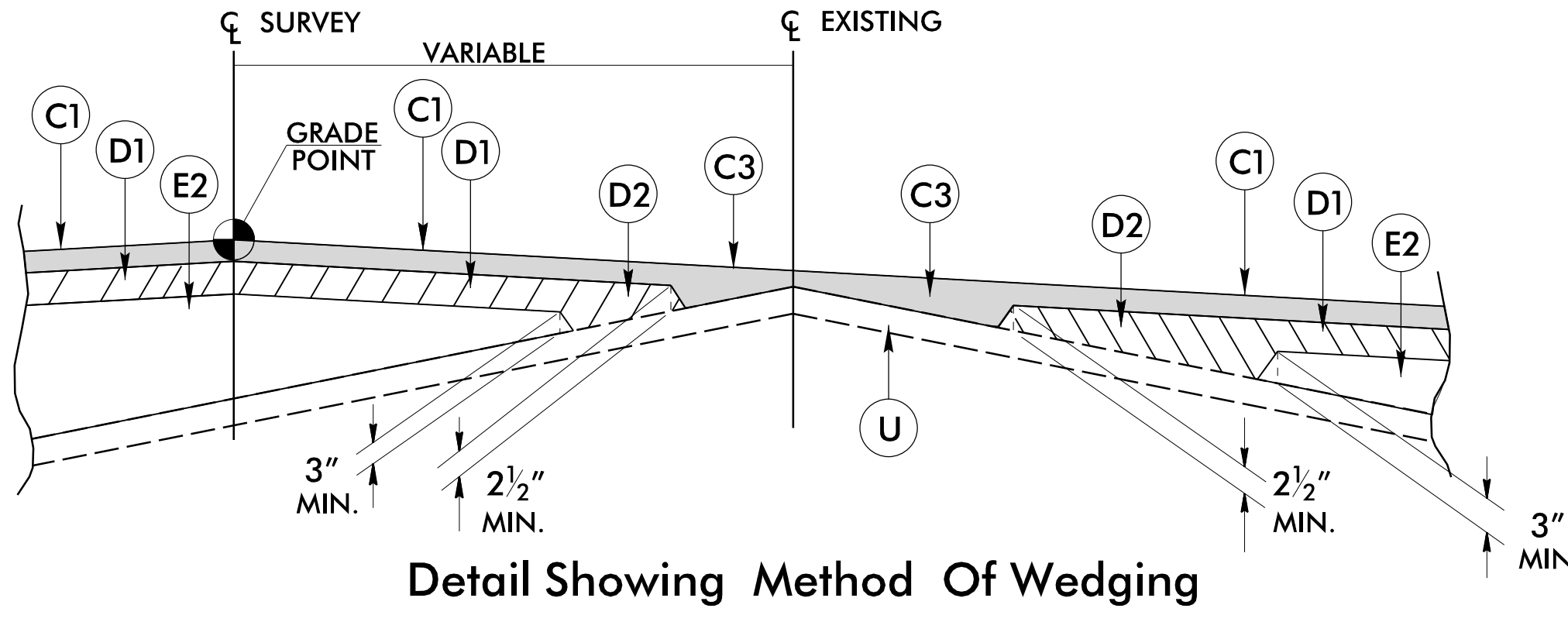
**NORMAL DUTY ROAD CROSSING
 TIMBER AND ASPHALT ON WOOD TIES**

APPROVED - DIRECTOR ENGINEERING STANDARDS
 APPROVED - CHIEF ENGINEER ENGINEERING SERVICES

PREPARED BY: M. E. AUSTIN
 ISSUED: MARCH 22, 2005
 REVISED: APRIL 7, 2016

U:\7\2017\05\16\292-01\CADD\U5925\Roadway\Proj\U5925_rdy_tup.dgn
 05/16/17 09:29 AM
 jreid

PROJECT REFERENCE NO. U-5925	SHEET NO. 2A-7
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 015869 J. R. RED 11/29/2017	
4700 FALLS OF NEUSE ROAD, SUITE 300 WALEGUA NORTH CAROLINA 27659 (919) 781-4626 VOICE (919) 781-4669 FAX PE 7-0105	
moffatt & nichol	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
C1	1 1/2" S9.5B
C3	VAR. DEPTH S9.5B
D1	4" I19.0B
D2	VAR. DEPTH I19.0B
E1	5" B25.0B
E2	VAR. DEPTH B25.0B
U	EXIST PAVEMENT



Detail Showing Method Of Wedging

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

MILLING AT PAVEMENT TIE-INS

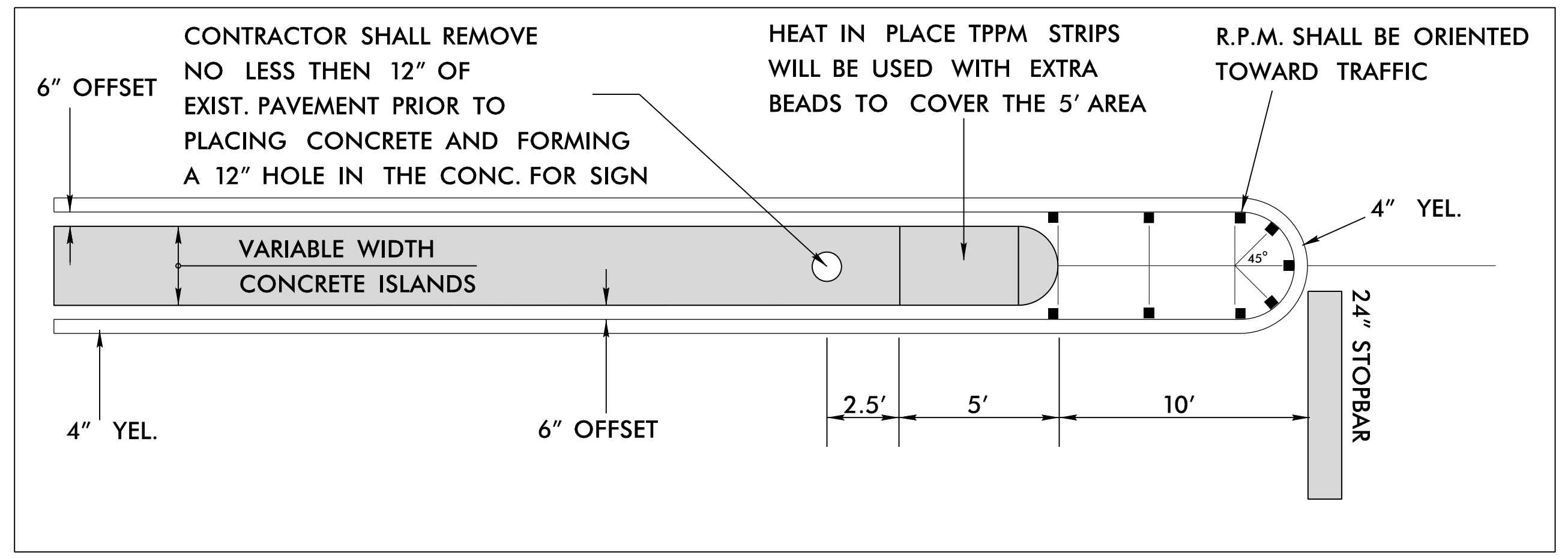
NOTES TO CONTRACTOR

For surface mixes over 1" in thickness, mill the existing pavement in accordance with the following sketch as directed by the Engineer.

Locations shall include ties into existing concrete pavement, at bridge approaches where the bridge will not be resurfaced, and at the beginning and ending point of each resurfacing map.

Perform the work in accordance with Section 607 of the January 2012 North Carolina Department of Transportation Standard Specifications for Roads and Structures. Resurfacing will be accomplished at the same time as the milling operation.

CONCRETE ISLAND TREATMENT



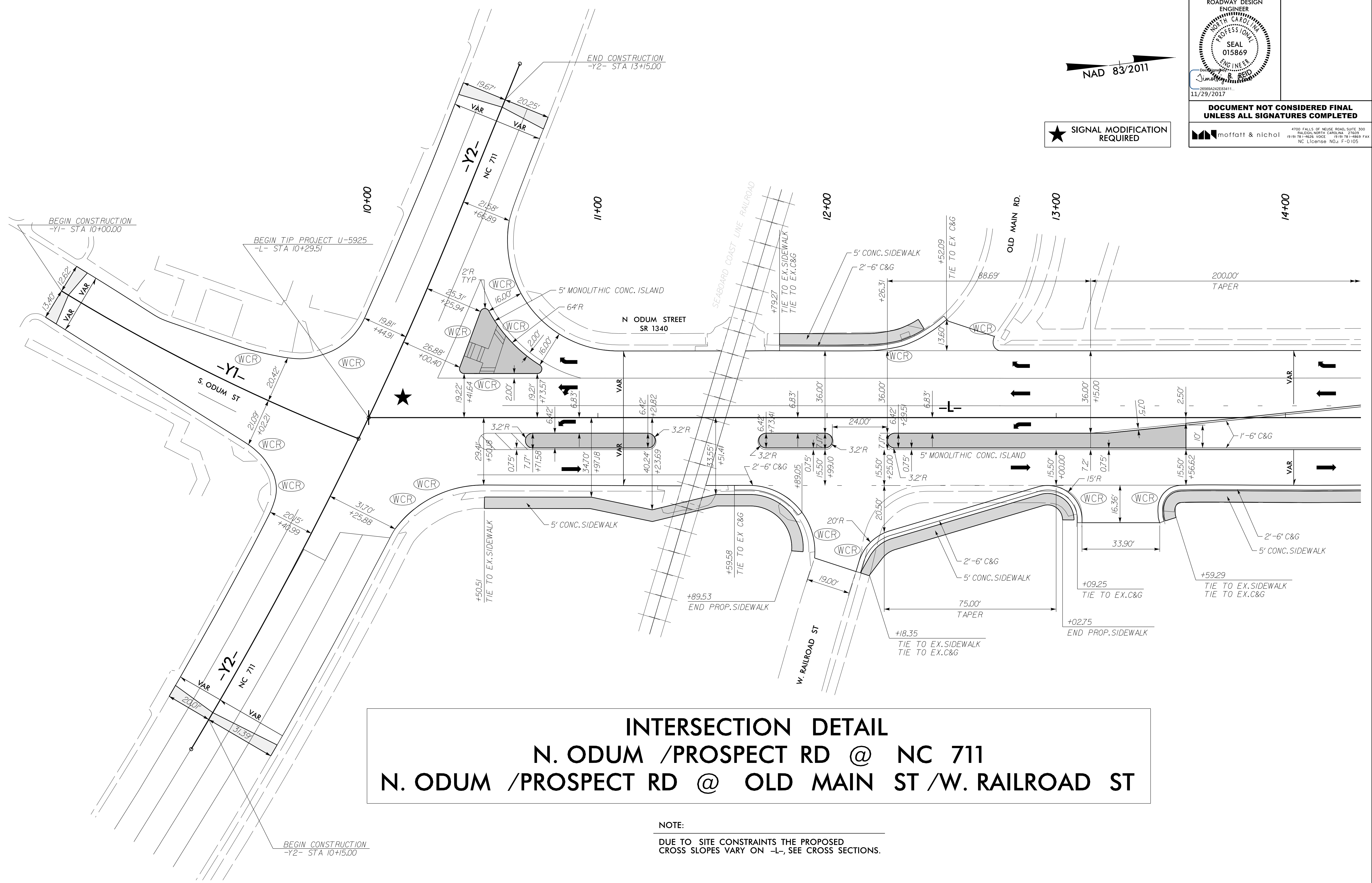
I:\2017\05\26\92-01\CADD\U5925\Roadway\Proj\U5925_rdy_tup.dgn
 11/29/2017 10:56:59 AM J.R.Red

5/14/99



PROJECT REFERENCE NO. U-5925	SHEET NO. 2B-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>	

★ SIGNAL MODIFICATION REQUIRED

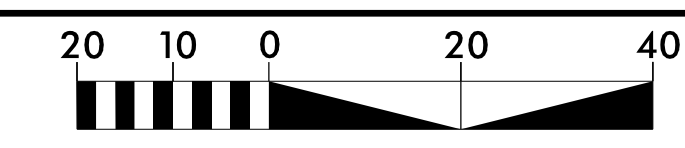


INTERSECTION DETAIL
N. ODUM / PROSPECT RD @ NC 71
N. ODUM / PROSPECT RD @ OLD MAIN ST / W. RAILROAD ST

NOTE:
 DUE TO SITE CONSTRAINTS THE PROPOSED
 CROSS SLOPES VARY ON -L-, SEE CROSS SECTIONS.

I:\2017\12\27\170517\Roadway\Prospect Rd\U5925_rdy_psh_2B-1.dgn
 12/27/17 10:51:17 AM
 12/27/17 10:51:17 AM
 12/27/17 10:51:17 AM

5/14/19



PROJECT REFERENCE NO. U-5925	SHEET NO. 2B-2
RW SHEET NO.	

ROADWAY DESIGN ENGINEER

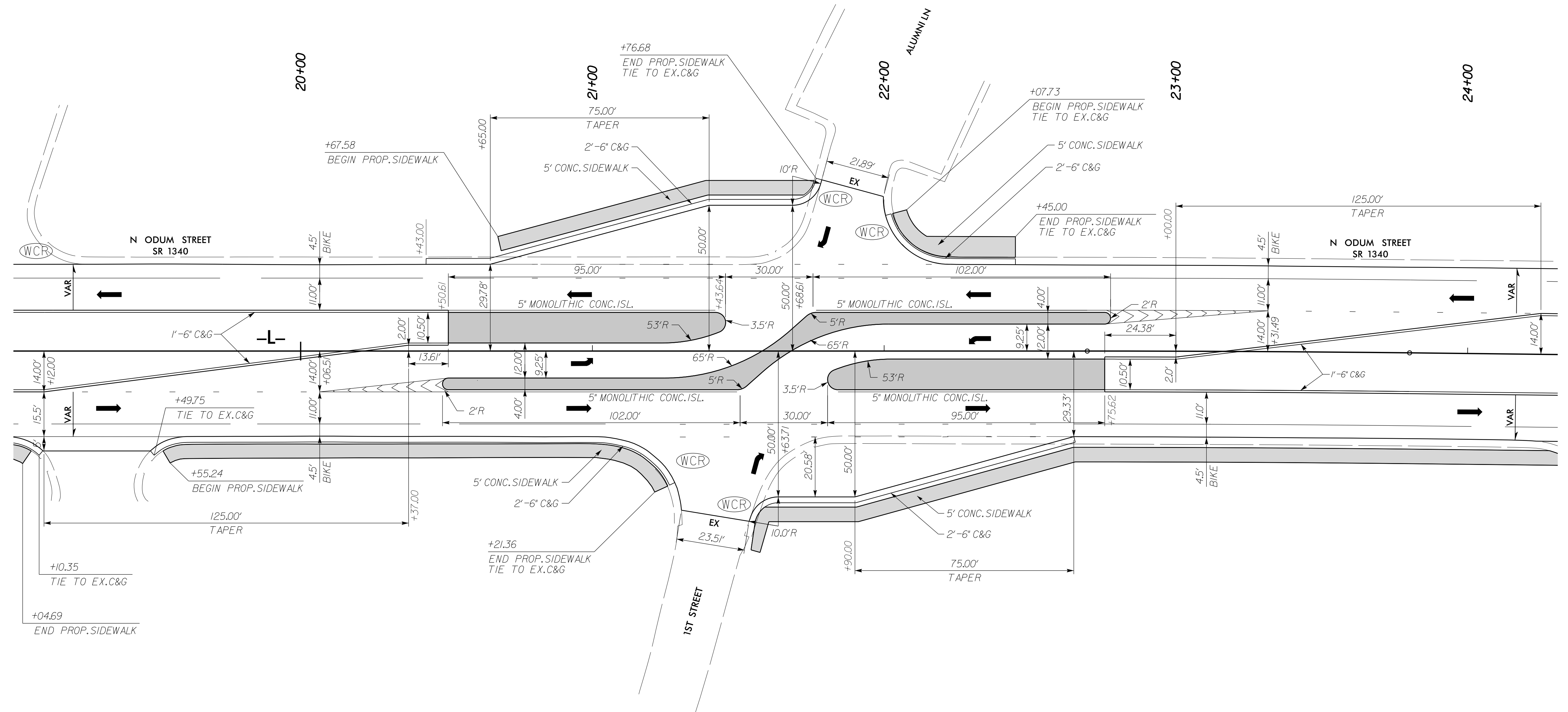
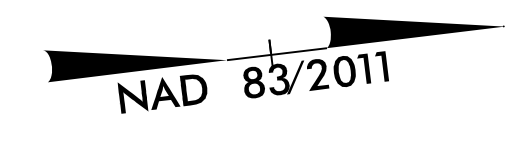
11/29/2017

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27619
(919) 781-4626 VOICE (919) 781-4669 FAX
NC License NO.: F-0105

INTERSECTION DETAIL

N. ODUM / PROSPECT RD @ ALUMNI LN / FIRST ST

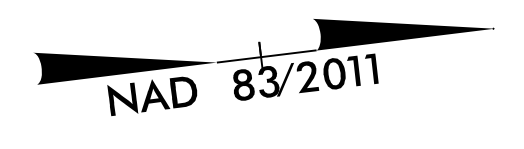
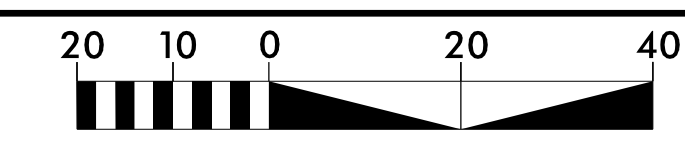


NOTE:
DUE TO SITE CONSTRAINTS THE PROPOSED CROSS SLOPES VARY ON -L-, SEE CROSS SECTIONS.

FOR PLAN VIEW SEE SHEET 5

1292-01\CAD\1\6591\Roadway\Proj\5925_rdy_psh_2B-2.dgn
 11/29/17 10:59:11 AM
 11/29/17 10:59:11 AM

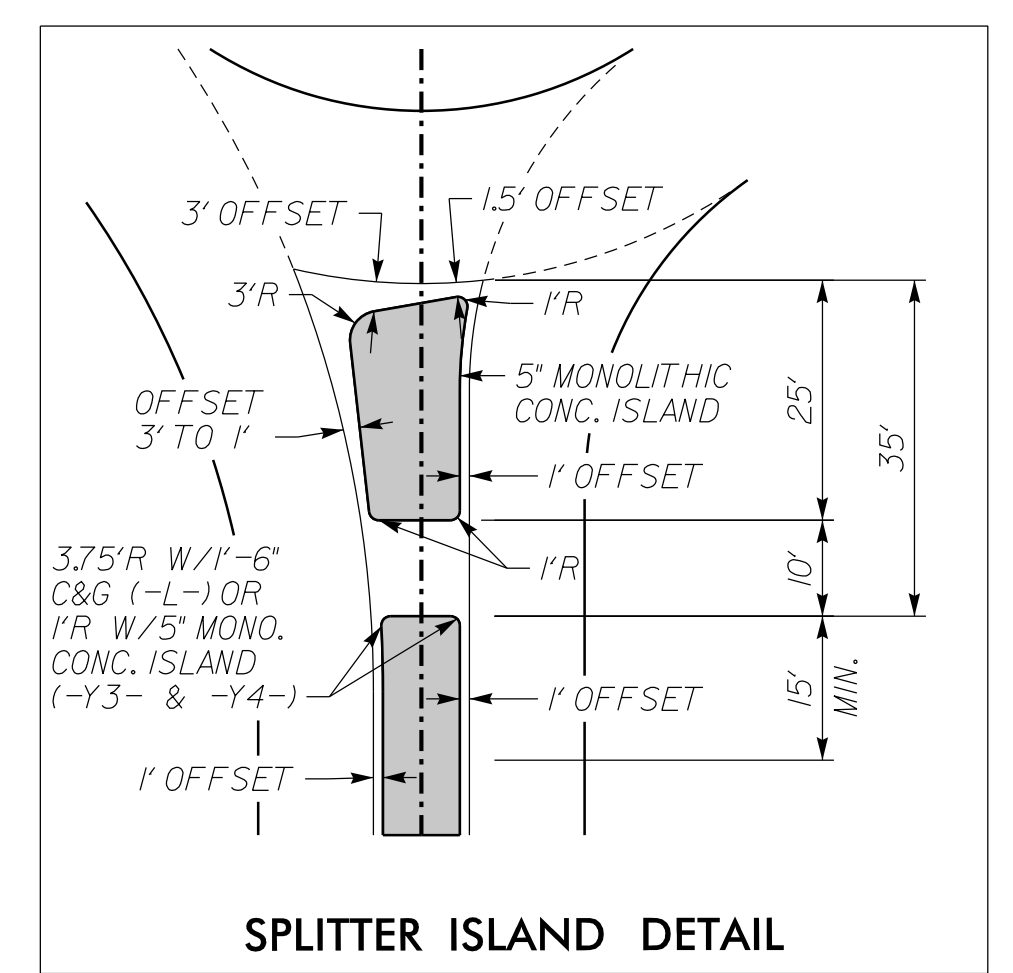
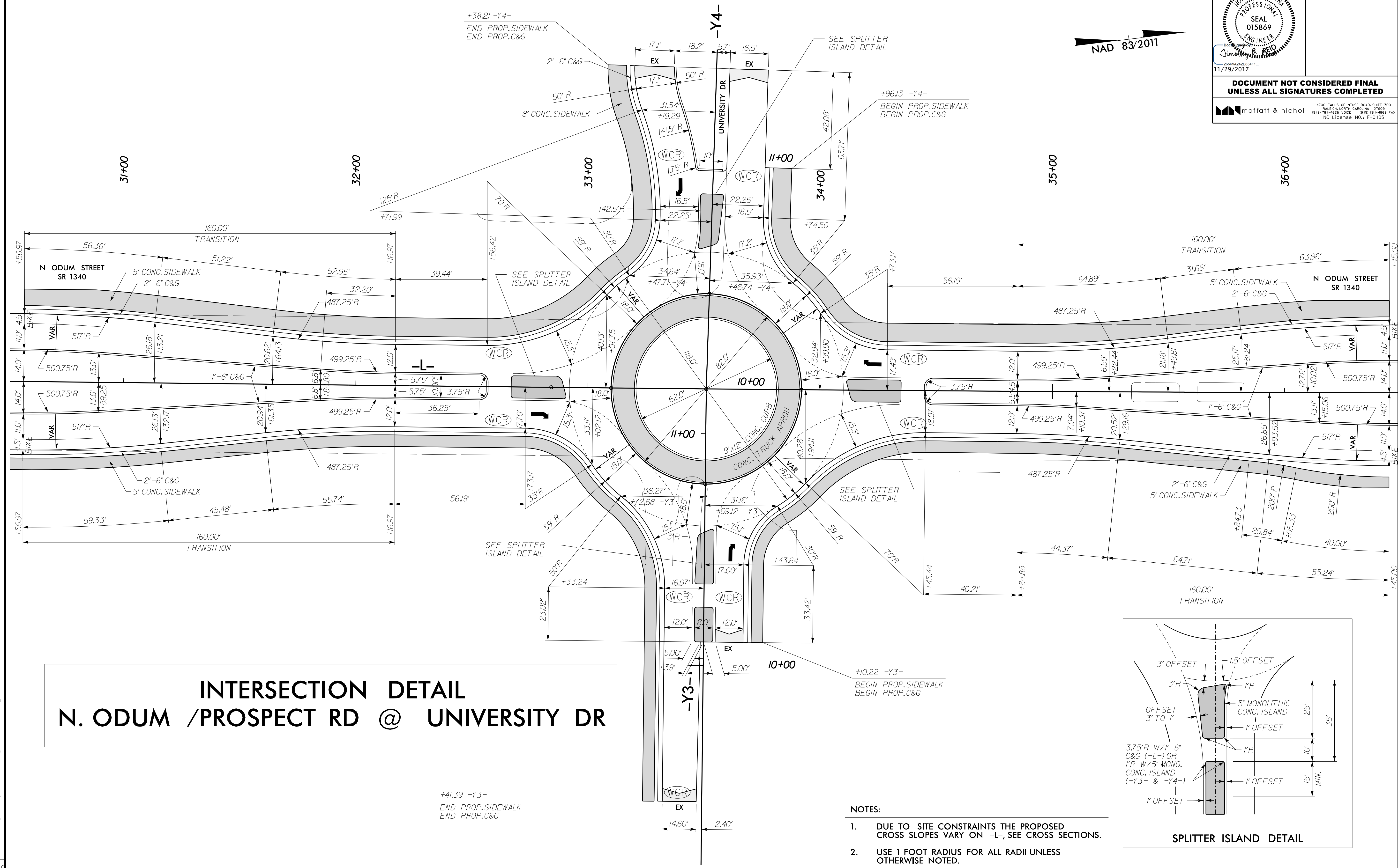
5/14/09



PROJECT REFERENCE NO. U-5925	SHEET NO. 2B-3
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>	

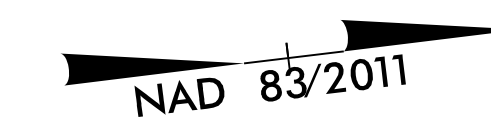
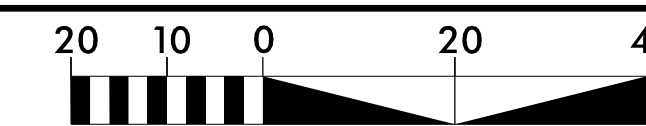
INTERSECTION DETAIL

N. ODUM / PROSPECT RD @ UNIVERSITY DR



- NOTES:**
- DUE TO SITE CONSTRAINTS THE PROPOSED CROSS SLOPES VARY ON -L-, SEE CROSS SECTIONS.
 - USE 1 FOOT RADIUS FOR ALL RADII UNLESS OTHERWISE NOTED.

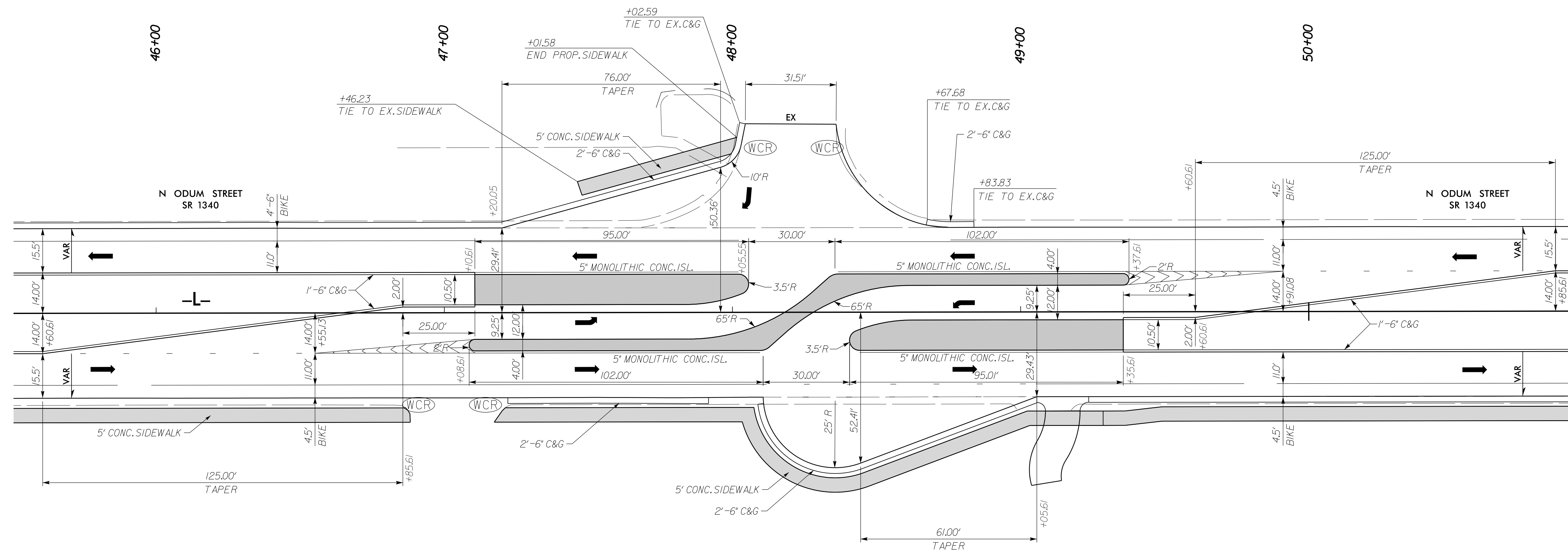
I:\Projects\2008\01\Roadway\Proj\U5925_rdy_psh_2B-3.dgn



PROJECT REFERENCE NO. U-5925	SHEET NO. 2B-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

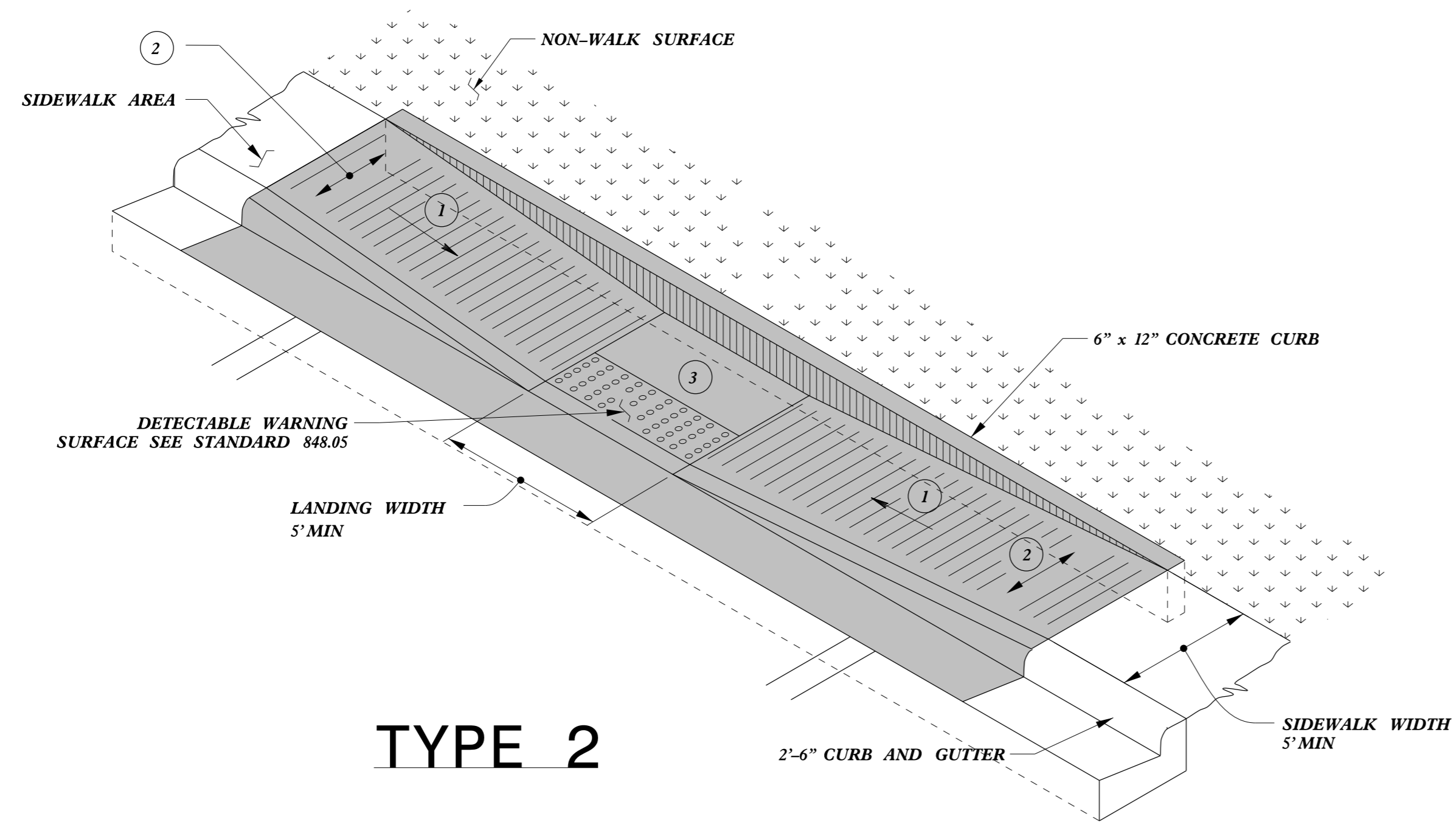
INTERSECTION DETAIL

N. ODUM / PROSPECT RD @ APARTMENT ENTRANCE BETWEEN HAWK DR AND FACILITIES DR



NOTE:
DUE TO SITE CONSTRAINTS THE PROPOSED
CROSS SLOPES VARY ON -L-, SEE CROSS SECTIONS.

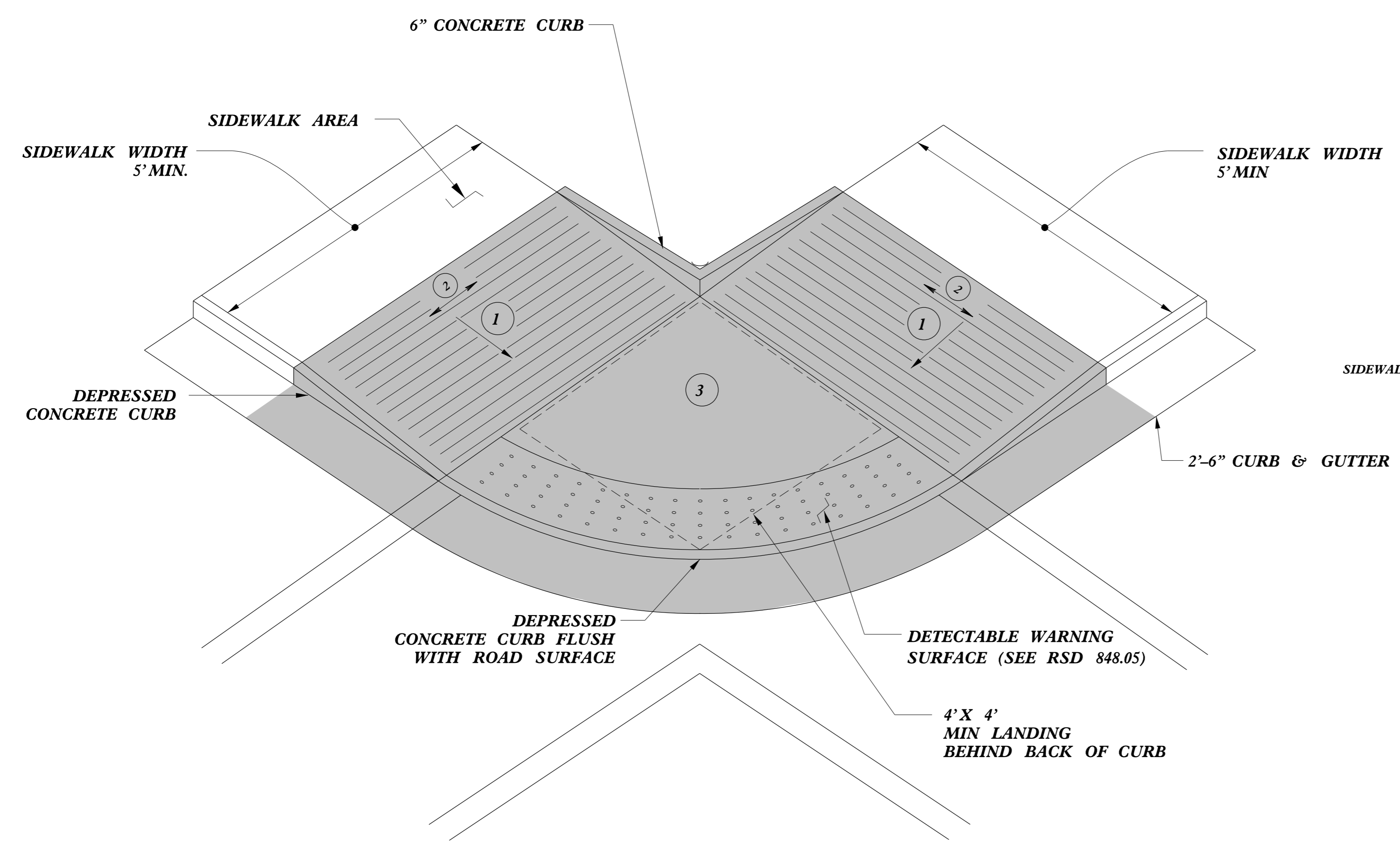
I:\Projects\2019\1292-01\CAD\1\Roadway\Pro\1\5925_rdy_psh_2B-4.dgn



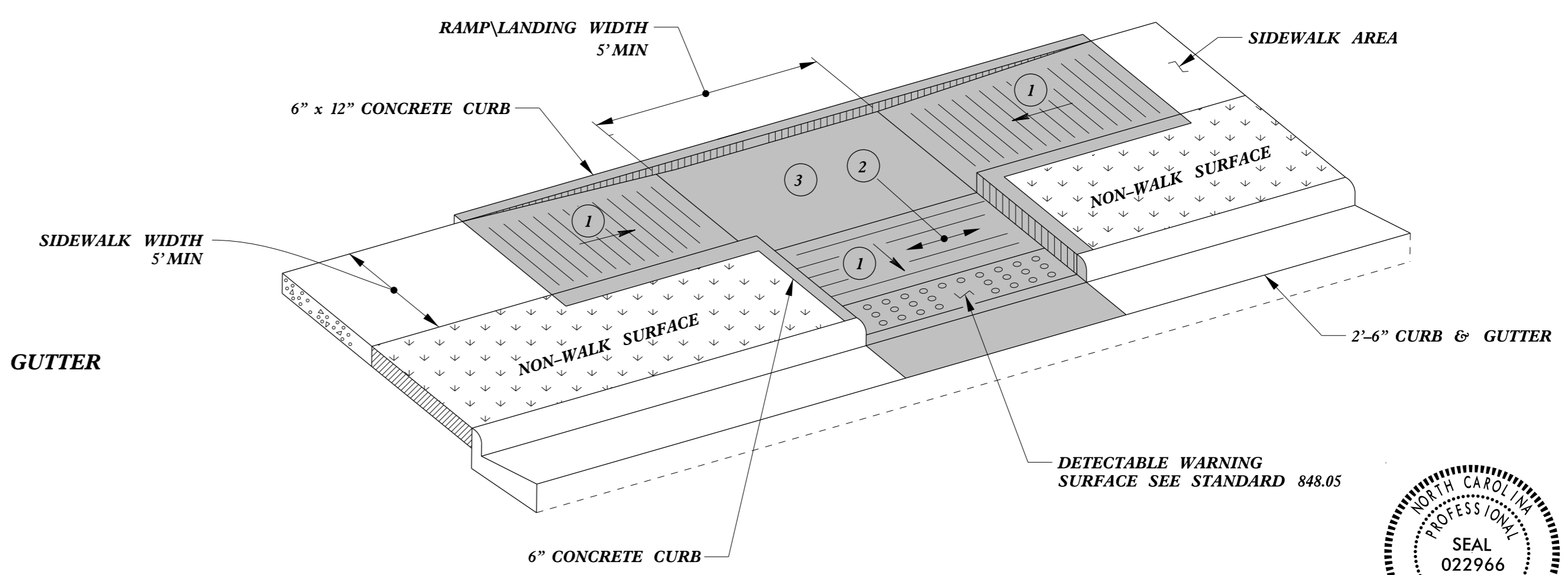
TYPE 2

PAY LIMITS FOR 1 CURB RAMP

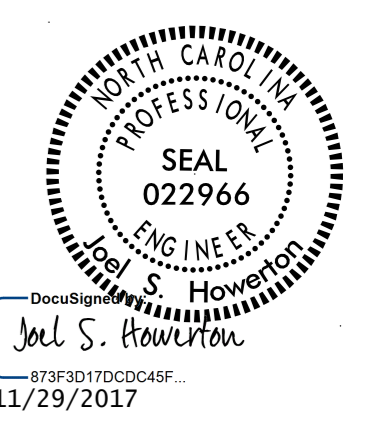
- 1 8.33% (12:1) MAX RAMP SLOPE
- 2 CROSS SLOPE: 2.00%
- 3 CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.



TYPE 2A



TYPE 3



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

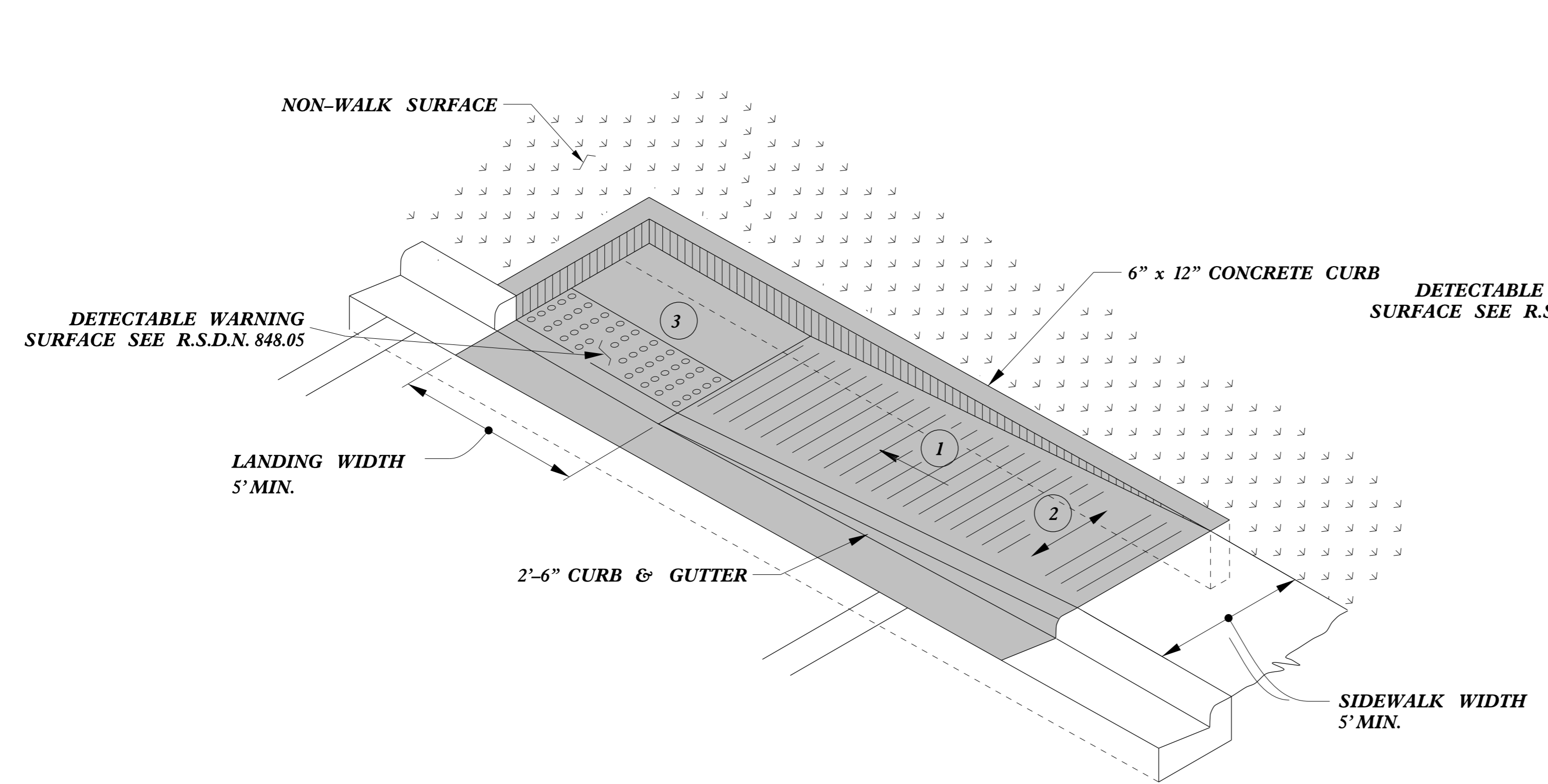
CURB RAMPS
Parallel Ramps

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

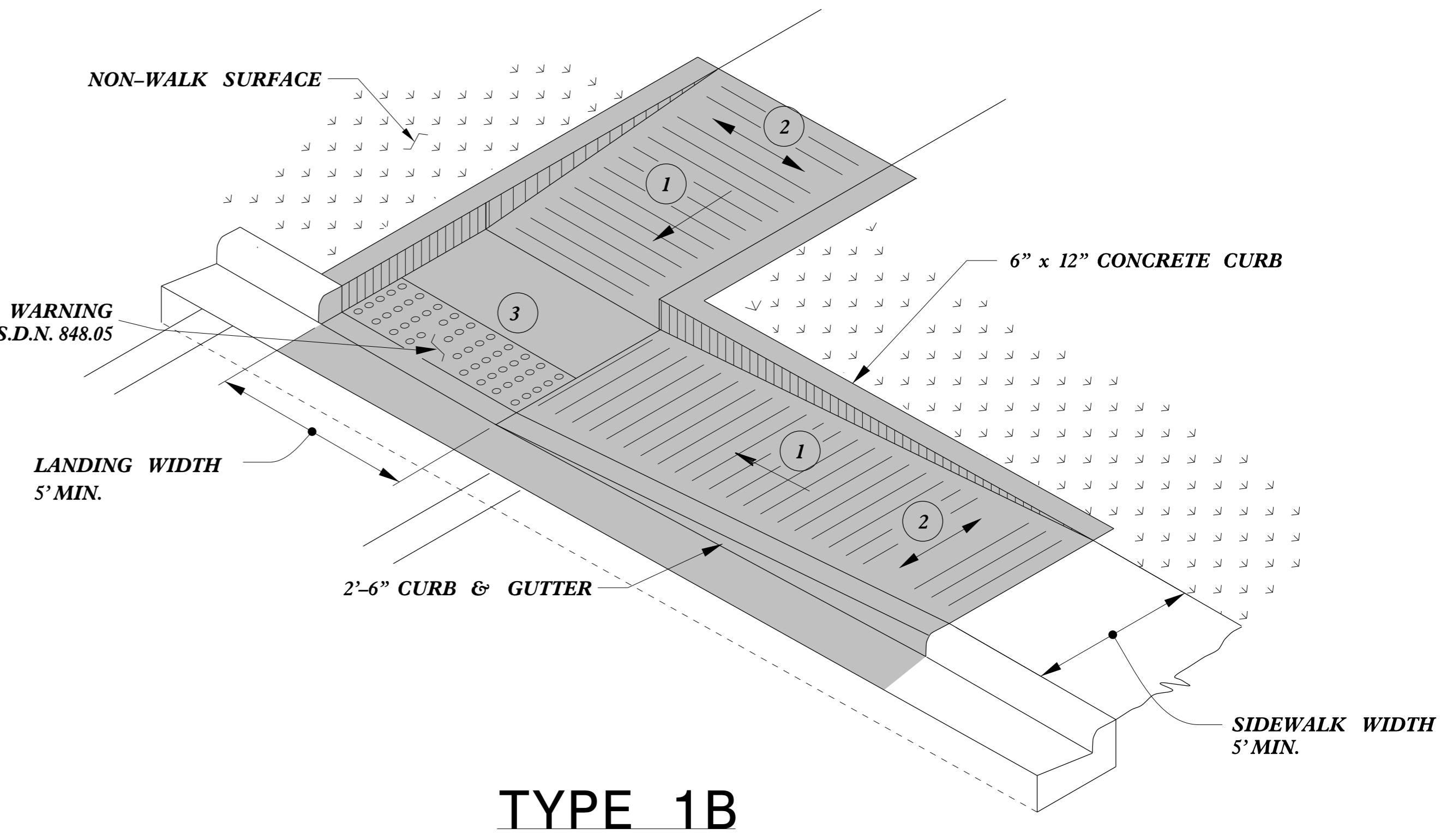
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

5/14/99
C:\ME\DWG\CON\CON\USER\NAME

5/14/99



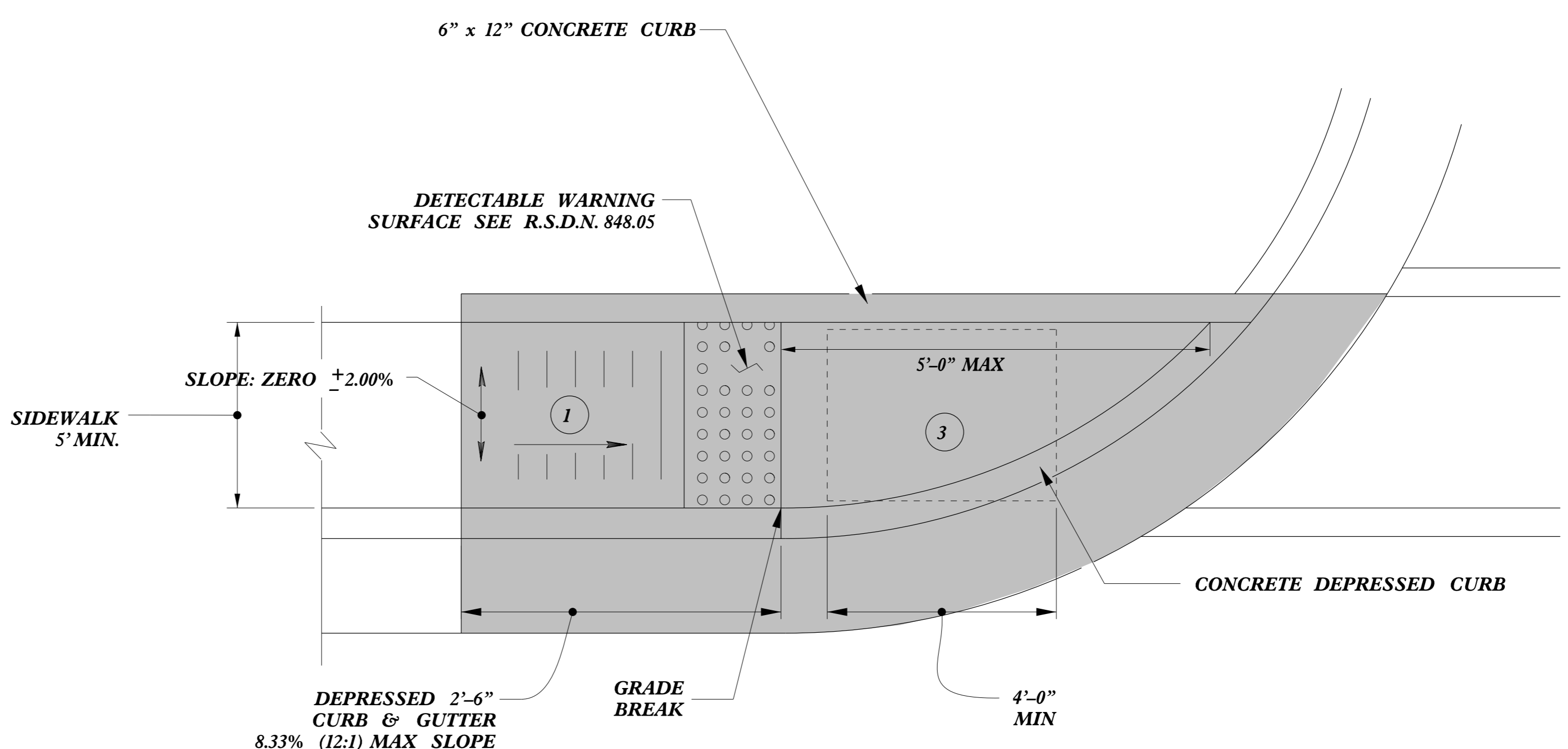
TYPE 1A



TYPE 1B

PAY LIMITS FOR 1 CURB RAMP

- 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.



TYPE 1



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

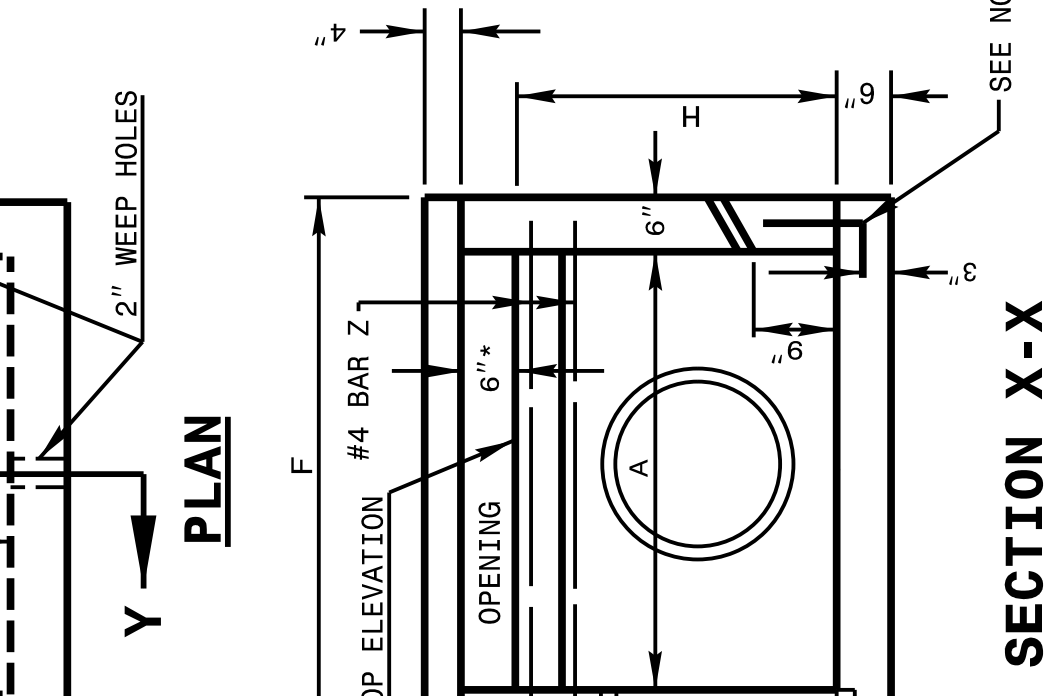
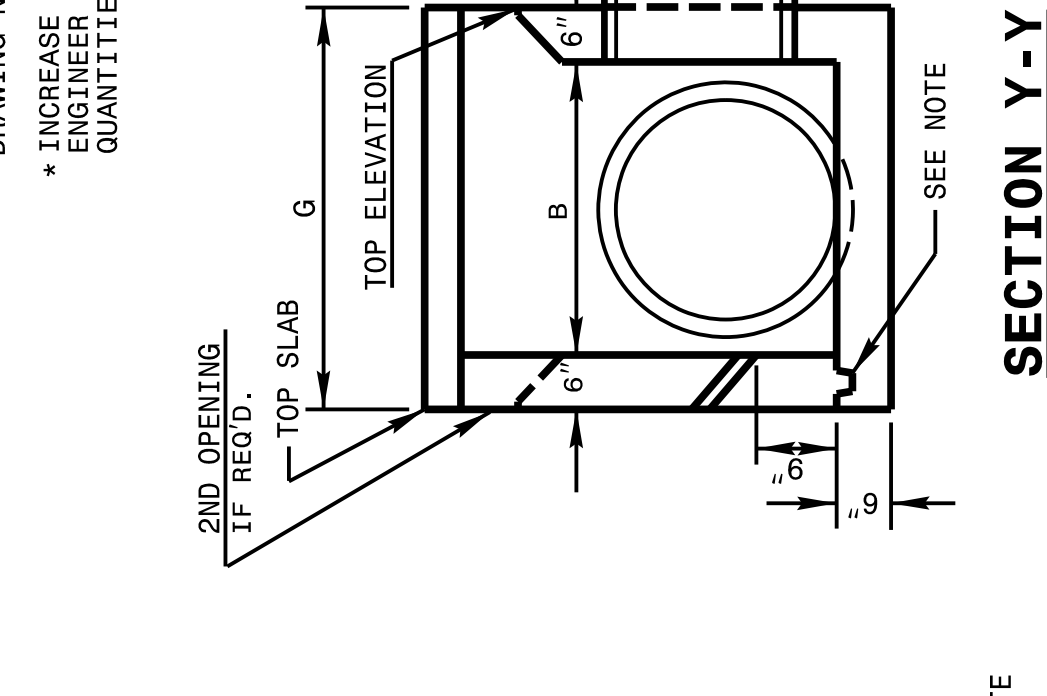
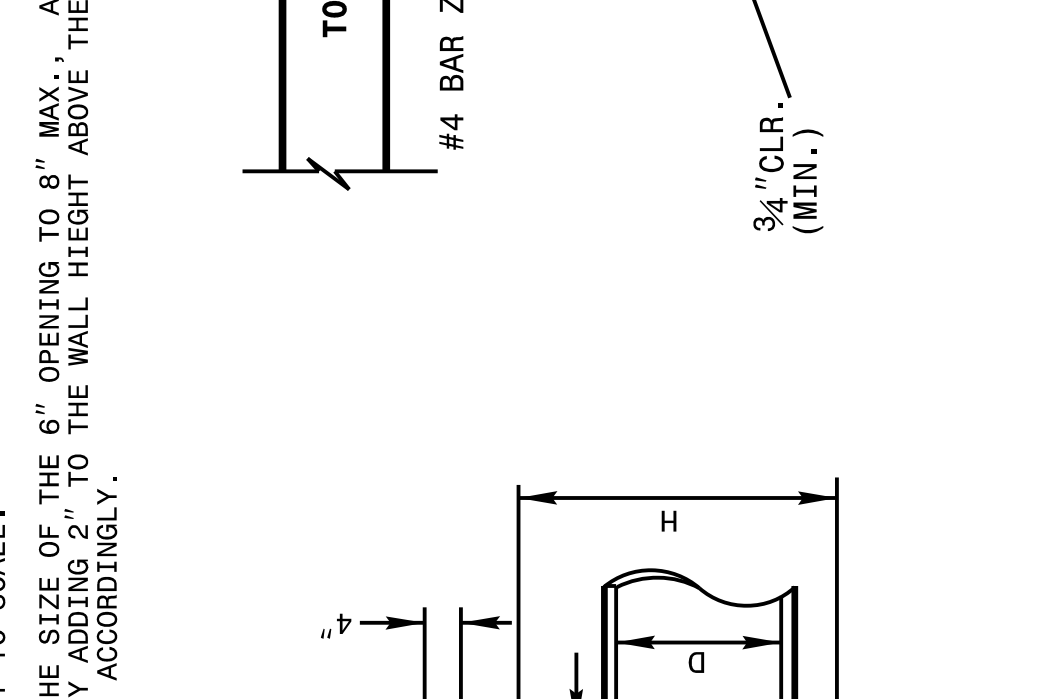
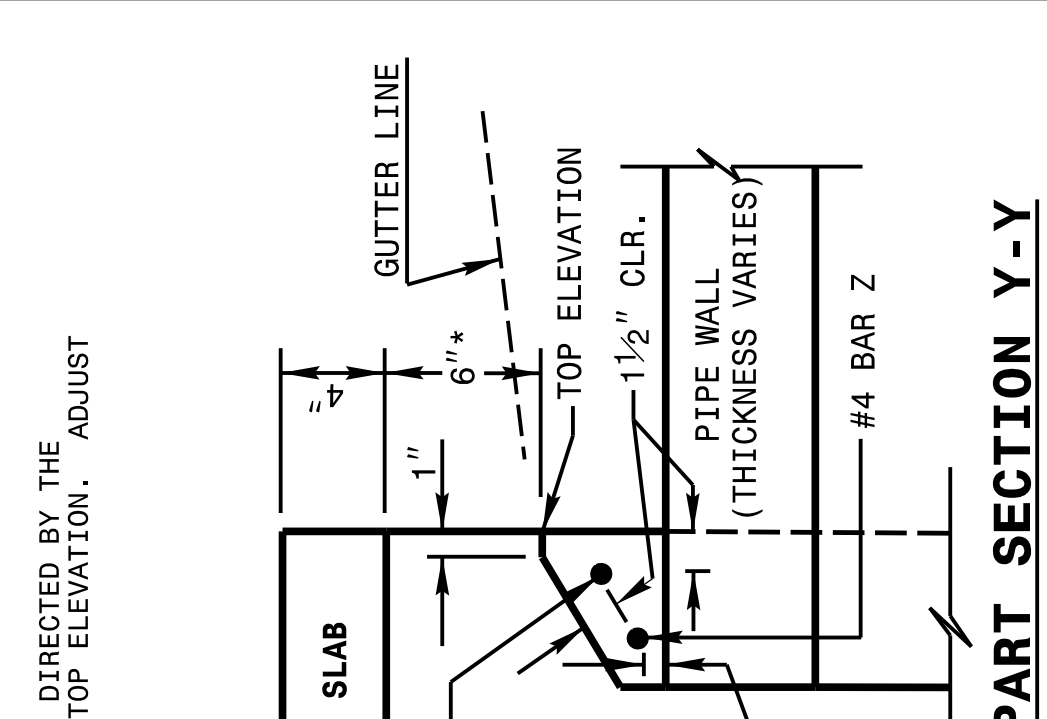
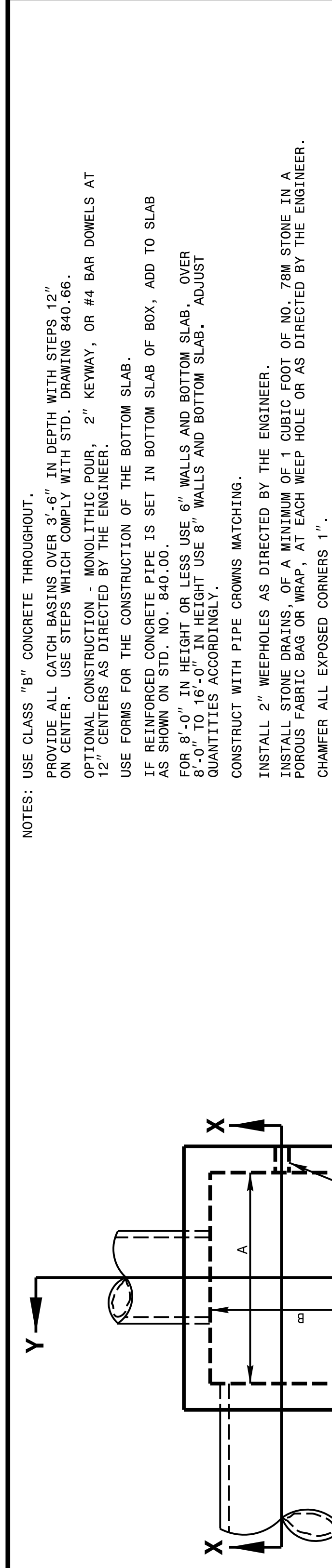
REFER TO ROADWAY STANDARD DRAWING NUMBER 848.05 SHEET 3 OF 3 FOR ALL RAMP NOTES

DATE PLOTTED: 11/29/2017 10:58:58 AM
 USER: JHOWERTON
 PLOTTER: HP DesignJet 2450

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

ROADWAY DETAIL DRAWING FOR
**MINIMUM DEPTH
CONCRETE OPEN THROAT CATCH BASIN**
12" THRU 48" PIPE

SHEET 1 OF 2
840D04



MIN. DIMENSIONS AND QUANTITIES FOR CONCRETE CATCH BASIN (BASED ON MIN. HEIGHT, H)

PIPE DIMS OF BOX & PIPE	REINFORCING			TOP & BOT. SLAB DIMENSIONS			CU. YDS. CONC. IN BOX			TOTAL QUANTITIES BOX & SLABS			DEDUCTION ONE PIPE	NET ONE THROAT OPENING					
	SPAN	WIDTH	HEIGHT	NO.	LENGTH	NO.	LENGTH	F	G	TOP SLAB BOT. SLAB	WALL/FT. HT.	REF. 10 ³			MIN. H	C. S.	R. C.		
12"	3'-6"	2'-3"	1'-10"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.046	0.015	0.032	0.046
15"	3'-6"	2'-3"	2'-11"	4	3'-0"	6	4'-3"	2	4'-3"	4'-6"	3'-3"	0.181	0.271	0.250	27	1.108	0.023	0.036	0.046
18"	4'-0"	2'-8"	2'-4"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.379	0.033	0.049	0.053
24"	4'-0"	2'-8"	2'-10"	5	3'-5"	7	4'-9"	2	4'-9"	5'-0"	3'-8"	0.226	0.340	0.284	35	1.521	0.059	0.085	0.053
30"	4'-0"	3'-6"	3'-6"	5	4'-3"	9	4'-9"	2	4'-9"	4'-6"	4'-6"	0.278	0.417	0.315	43	1.916	0.092	0.127	0.053
36"	4'-6"	4'-0"	3'-6"	5	4'-9"	10	5'-3"	2	5'-3"	5'-0"	5'-0"	0.340	0.510	0.352	51	2.390	0.132	0.178	0.059
42"	5'-0"	4'-6"	4'-4"	5	5'-3"	12	5'-9"	2	5'-9"	6'-0"	5'-6"	0.407	0.611	0.389	64	2.914	0.180	0.243	0.066
48"	5'-0"	5'-0"	4'-10"	5	5'-9"	13	5'-9"	2	5'-9"	6'-0"	6'-0"	0.444	0.666	0.407	68	3.298	0.235	0.317	0.066

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

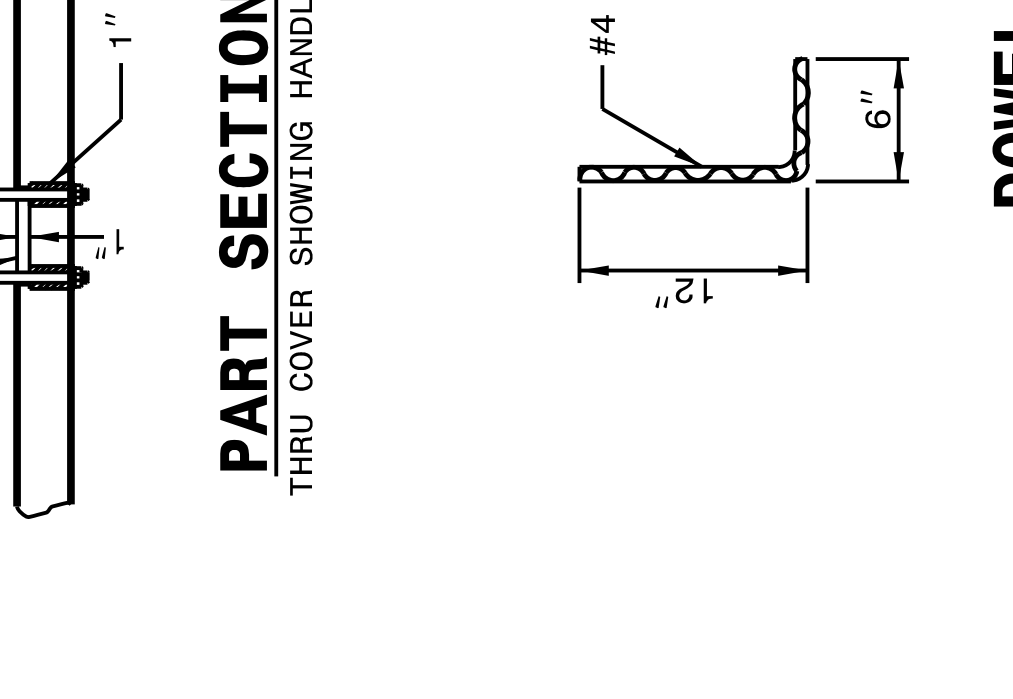
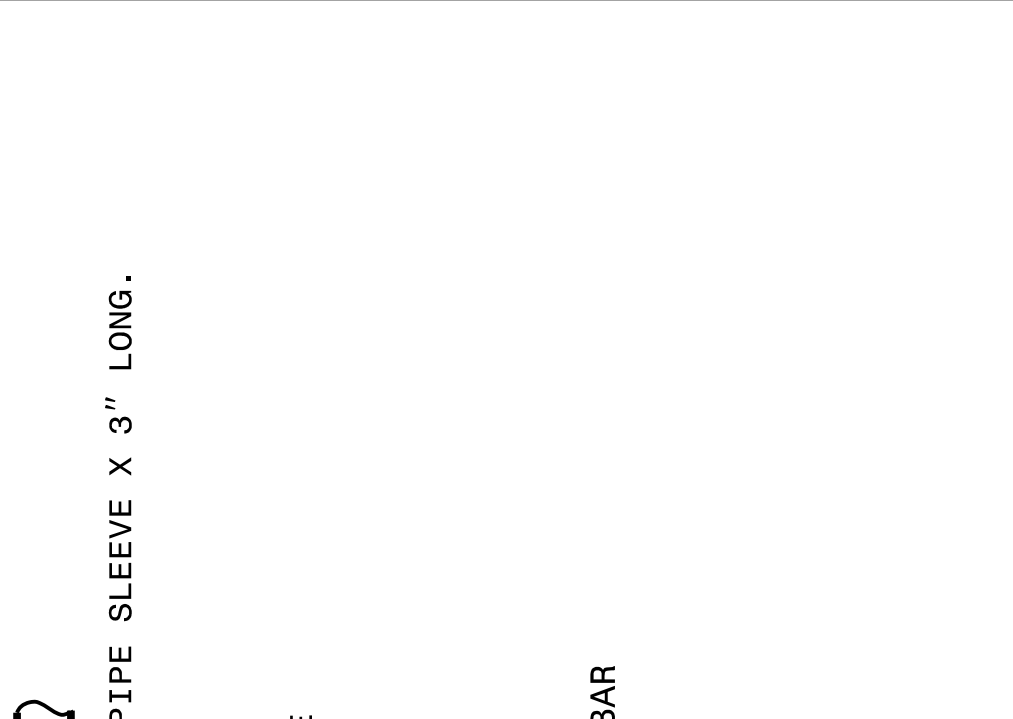
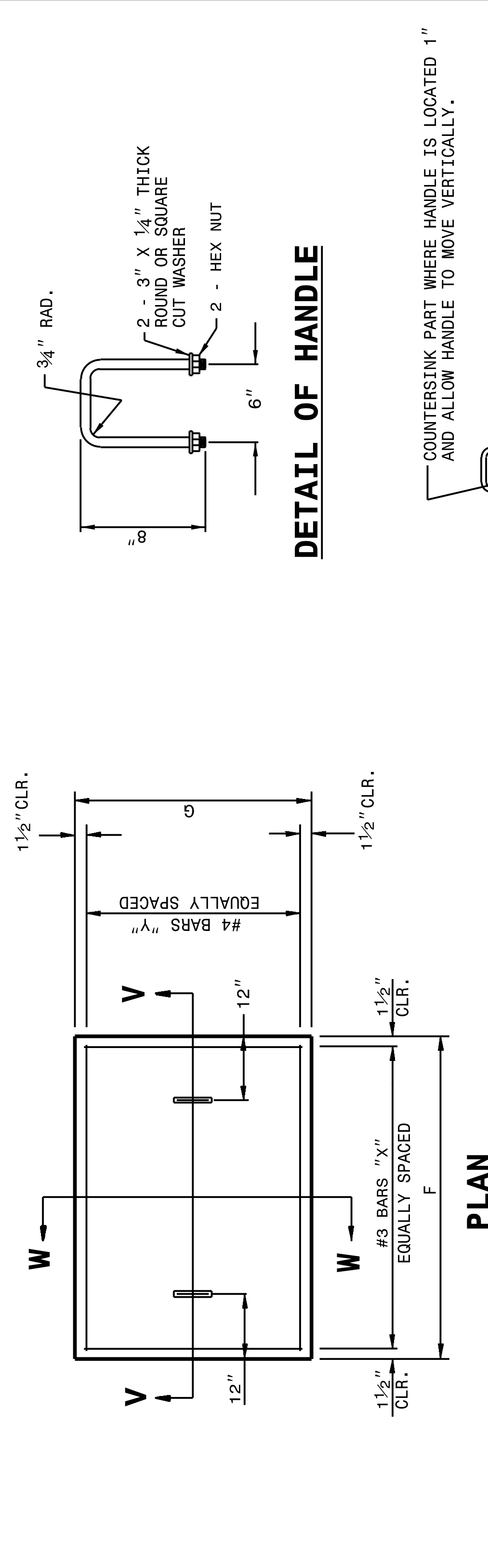
ROADWAY DETAIL DRAWING FOR
**MINIMUM DEPTH
CONCRETE OPEN THROAT CATCH BASIN**
12" THRU 48" PIPE

SHEET 1 OF 2
840D04

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

ROADWAY STANDARD DRAWING FOR
**MINIMUM DEPTH
CONCRETE OPEN THROAT CATCH BASIN**
12" THRU 48" PIPE

SHEET 2 OF 2
840D04



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

ROADWAY STANDARD DRAWING FOR
**MINIMUM DEPTH
CONCRETE OPEN THROAT CATCH BASIN**
12" THRU 48" PIPE

SHEET 2 OF 2
840D04

NOTES: USE CLASS "B" CONCRETE THROUGHOUT.
PROVIDE ALL CATCH BASINS OVER 3'-6" IN DEPTH WITH STEPS 12" ON CENTER. USE STEPS WHICH COMPLY WITH STD. DRAWING 840.66.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #4 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
USE FORMS FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BOTTOM SLAB OF BOX, ADD TO SLAB AS SHOWN ON STD. NO. 840.00.
FOR 8'-0" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB. OVER 8'-0" TO 16'-0" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. ADJUST QUANTITIES ACCORDINGLY.
CONSTRUCT WITH PIPE CROWNS MATCHING.
INSTALL 2" WEEP HOLES 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.
* INCREASE THE SIZE OF THE 6" OPENING TO 8" MAX. AS DIRECTED BY THE ENGINEER BY ADDING 2" TO THE WALL HEIGHT ABOVE THE TOP ELEVATION. ADJUST QUANTITIES ACCORDINGLY.

DETAIL OF HANDLE
COUNTERSINK PART WHERE HANDLE IS LOCATED 1" AND ALLOW HANDLE TO MOVE VERTICALLY.

PART SECTION THRU COVER SHOWING HANDLE

DOWEL

PLAN
PRECAST OR CAST IN PLACE TOP SLAB

SECTION V-V

SECTION W-W

PROFESSIONAL SEAL
Jael S. Howerton
11/29/2017

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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

SEE TITLE BLOCK

ORIGINAL BY: K. KEMPF DATE: 9-21-17
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC.: kkempf\eng1ish\U5925_840d04.dgn

12/06/07

COMPUTED BY: G. MODLIN DATE: 9/12/07
 CHECKED BY: T. HUFFMAN DATE: 9/5/2017

PROJECT REFERENCE NO. U-5925
 SHEET NO. 3B

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK
 (IN CUBIC YARDS)

STATION	STATION	UNCL. EXCAV.	EMBANK. + %	BORROW	WASTE
-L-					
11+00	41+00	1,359	2,429	1,070	0
SUBTOTALS:		1,359	2,429	1,070	0
-L-					
41+00	57+00	573	1,385	812	0
-Y5-					
11+00	14+50	12,221	84	0	12,137
-Y6-					
10+00	18+50	338	1,365	1,027	0
SUBTOTALS:		13,132	2,834	1,839	12,137
PROJECT TOTALS:		14,491	5,263	2,909	12,137
WASTE IN LIEU OF BORROW				-2,909	-2,909
GRAND TOTALS:		14,491			9,229
SAY:		14,500			9,300

EST 200 CY UNDERCUT - PER GEOTECH RECOMMENDATION LETTER DATED MARCH 17, 2017
 EST 200 CY SELECT GRANULAR MATERIAL - PER GEOTECH RECOMMENDATION LETTER DATED MARCH 17, 2017
 EST 400 CY SHALLOW UNDERCUT - PER GEOTECH RECOMMENDATION LETTER DATED MARCH 17, 2017
 EST 1,400 SY GEOTEXTILE FOR SOIL STABILIZATION - PER GEOTECH RECOMMENDATION LETTER DATED MARCH 17, 2017
 EST 800 TONS CLASS IV SUBGRADE STABILIZATION - PER GEOTECH RECOMMENDATION LETTER DATED MARCH 17, 2017
 EST 100 TONS INCIDENTAL STONE - PER DIVISION

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

REMOVAL OF EXISTING ASPHALT PAVEMENT

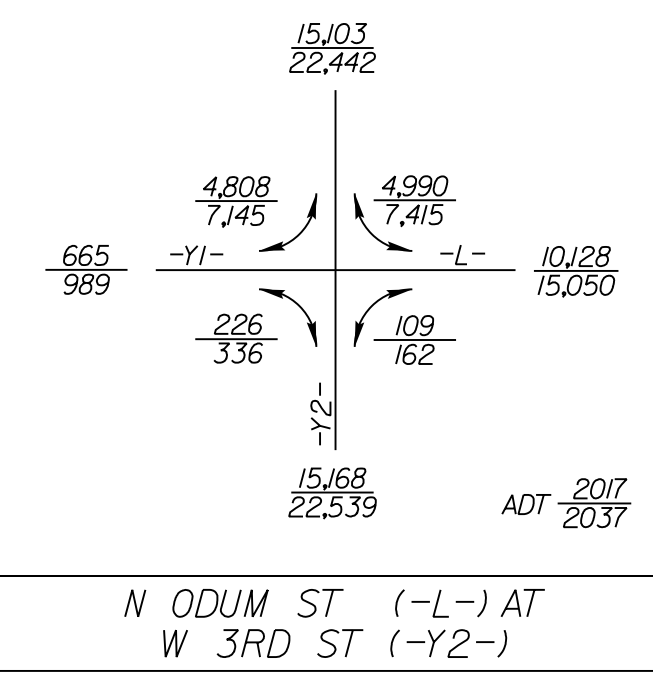
SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ³
-L-	12+12	12+15	RT	0.89
-L-	12+91	13+12	RT	2.44
-L-	13+43	14+80	RT	16.67
-L-	13+57	16+16	CL	719.11
-L-	15+38	15+61	RT	2.67
-L-	16+24	17+49	CL	414.78
-L-	17+57	20+51	CL	844.11
-L-	20+00	22+45	LT	3.22
-L-	22+76	25+52	CL	763.78
-L-	25+60	32+58	CL	2,104.67
-L-	28+85	29+35	LT	6.67
-L-	30+57	32+97	LT	213.11
-L-	30+66	33+01	RT	227.33
-L-	34+01	36+45	LT	229.56
-L-	34+05	36+45	RT	211.22
-L-	34+44	37+96	CL	949.78
-L-	38+04	43+36	CL	1,772.44
-L-	43+44	47+11	CL	1,066.11
-L-	49+03	55+34	RT	197.22
-L-	49+36	57+06	CL	2,001.33
-L-	55+79	57+36	RT	449.33
-L-	56+16	57+47	LT	59.22
-RAB1-	0+00	2+58	LT	615.78
-RAB2-	0+00	2+58	LT	232.56
-Y3-	9+41	10+63	LT	113.00
-Y3-	10+10	10+66	RT	75.00
-Y4-	10+46	11+38	LT	165.00
-Y5-	11+75	14+42	LT	472.67
-Y6-	10+41	18+15	LT	381.33
-Y6-	11+50	15+69	RT	97.33
TOTAL:				14,408.33
SAY:				14,410

MILLING ASPHALT PAVEMENT
 (0" TO 1 1/2" DEPTH)

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD ³
-L-	12+00	12+50	LT & RT	120.89
-L-	12+50	13+50	LT & RT	288.22
-L-	13+50	21+00	LT & RT	2,809.22
-L-	21+00	21+50	LT & RT	247.89
-L-	21+50	22+00	LT & RT	223.78
-L-	22+00	31+00	LT & RT	2,675.00
-L-	31+00	31+75	LT & RT	119.33
-L-	32+25	32+75	LT & RT	45.11
-L-	34+25	35+50	LT & RT	202.33
-L-	35+50	36+50	LT & RT	115.89
-L-	36+50	47+50	LT & RT	3,244.78
-L-	47+50	48+50	LT & RT	232.22
-L-	48+50	49+00	LT & RT	82.78
-L-	49+00	49+50	LT & RT	156.78
-L-	49+50	54+50	LT & RT	1,967.56
-L-	54+50	56+00	LT & RT	249.11
-L-	56+00	57+98	LT & RT	242.89
-Y6-	10+75	11+75	LT & RT	79.00
TOTAL:				13,102.78
SAY:				13,800

I:\17\2017\15\16\12\92-01\CADD\U5925-Roadway\Proj\U5925_rdy_psh_3B.dgn
 12/06/07
 T.Huffman

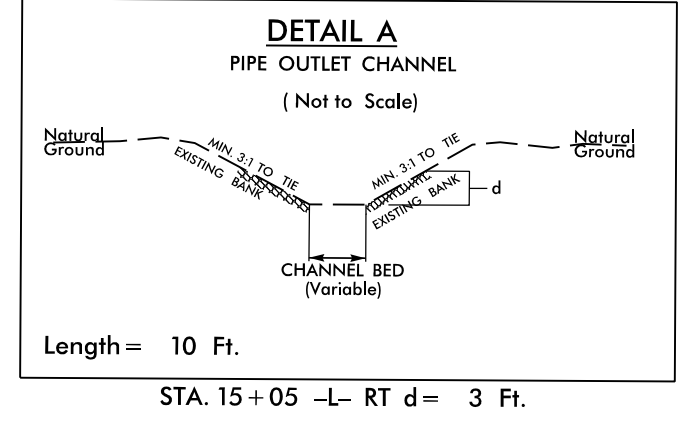
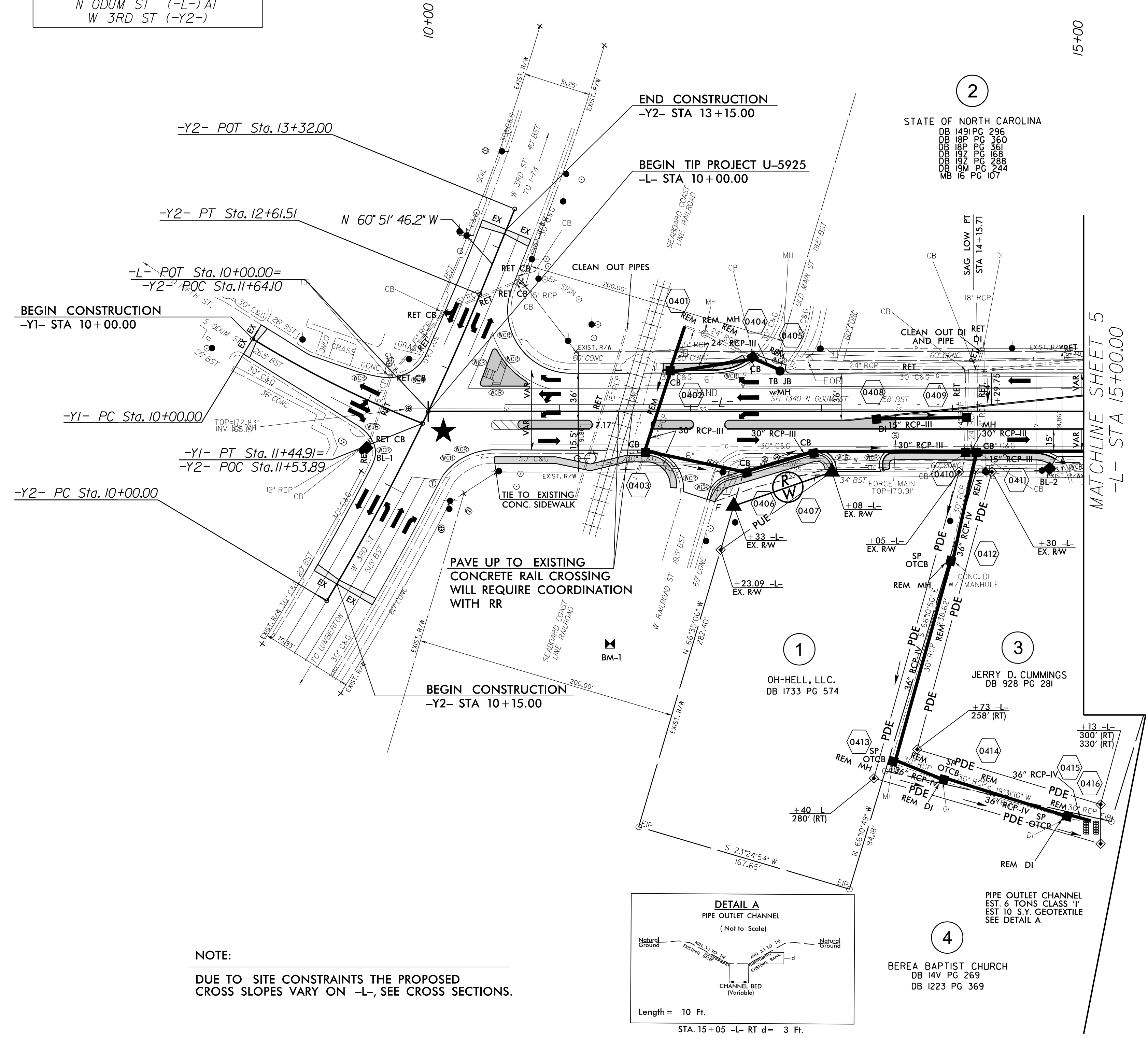
PROJECT REFERENCE NO. U-5925		SHEET NO. 4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER SEAL 015869 JIMMY L. REED		HYDRAULICS ENGINEER SEAL 026696 JEFFREY L. REED	
11/29/2017		11/29/2017	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
moffatt & nichol		4700 FALLS OF NEUSE ROAD, SUITE 300 RALEIGH, NORTH CAROLINA 27609 (919) 781-4626 VOICE (919) 781-4969 FAX NC License No.: F-0105	



-Y1-
 PI Sta 10+72.64
 $\Delta = 10^{\circ} 03' 49.2''$ (LT)
 D = 6' 56" 41.8"
 L = 144.9'
 T = 72.64'
 R = 825.00'

-Y2-
 PI Sta 11+31.01
 $\Delta = 8^{\circ} 41' 10.0''$ (LT)
 D = 3' 19" 17.4"
 L = 261.5'
 T = 131.0'
 R = 1,725.00'

★ SIGNAL MODIFICATION REQUIRED



NOTE:
 DUE TO SITE CONSTRAINTS THE PROPOSED CROSS SLOPES VARY ON -L-, SEE CROSS SECTIONS.

STATE OF NORTH CAROLINA

DB 1491	PG 296
DB 1818	PG 360
DB 0592	PG 364
DB 0597	PG 368
DB 0598	PG 368
DB 0599	PG 368
DB 0600	PG 368
DB 0601	PG 368
DB 0602	PG 368
DB 0603	PG 368
DB 0604	PG 368
DB 0605	PG 368
DB 0606	PG 368
DB 0607	PG 368
DB 0608	PG 368
DB 0609	PG 368
DB 0610	PG 368
DB 0611	PG 368
DB 0612	PG 368
DB 0613	PG 368
DB 0614	PG 368
DB 0615	PG 368
DB 0616	PG 368
DB 0617	PG 368
DB 0618	PG 368
DB 0619	PG 368
DB 0620	PG 368
DB 0621	PG 368
DB 0622	PG 368
DB 0623	PG 368
DB 0624	PG 368
DB 0625	PG 368
DB 0626	PG 368
DB 0627	PG 368
DB 0628	PG 368
DB 0629	PG 368
DB 0630	PG 368
DB 0631	PG 368
DB 0632	PG 368
DB 0633	PG 368
DB 0634	PG 368
DB 0635	PG 368
DB 0636	PG 368
DB 0637	PG 368
DB 0638	PG 368
DB 0639	PG 368
DB 0640	PG 368
DB 0641	PG 368
DB 0642	PG 368
DB 0643	PG 368
DB 0644	PG 368
DB 0645	PG 368
DB 0646	PG 368
DB 0647	PG 368
DB 0648	PG 368
DB 0649	PG 368
DB 0650	PG 368
DB 0651	PG 368
DB 0652	PG 368
DB 0653	PG 368
DB 0654	PG 368
DB 0655	PG 368
DB 0656	PG 368
DB 0657	PG 368
DB 0658	PG 368
DB 0659	PG 368
DB 0660	PG 368
DB 0661	PG 368
DB 0662	PG 368
DB 0663	PG 368
DB 0664	PG 368
DB 0665	PG 368
DB 0666	PG 368
DB 0667	PG 368
DB 0668	PG 368
DB 0669	PG 368
DB 0670	PG 368
DB 0671	PG 368
DB 0672	PG 368
DB 0673	PG 368
DB 0674	PG 368
DB 0675	PG 368
DB 0676	PG 368
DB 0677	PG 368
DB 0678	PG 368
DB 0679	PG 368
DB 0680	PG 368
DB 0681	PG 368
DB 0682	PG 368
DB 0683	PG 368
DB 0684	PG 368
DB 0685	PG 368
DB 0686	PG 368
DB 0687	PG 368
DB 0688	PG 368
DB 0689	PG 368
DB 0690	PG 368
DB 0691	PG 368
DB 0692	PG 368
DB 0693	PG 368
DB 0694	PG 368
DB 0695	PG 368
DB 0696	PG 368
DB 0697	PG 368
DB 0698	PG 368
DB 0699	PG 368
DB 0700	PG 368

1 OH-HELL, LLC.
DB 1733 PG 574

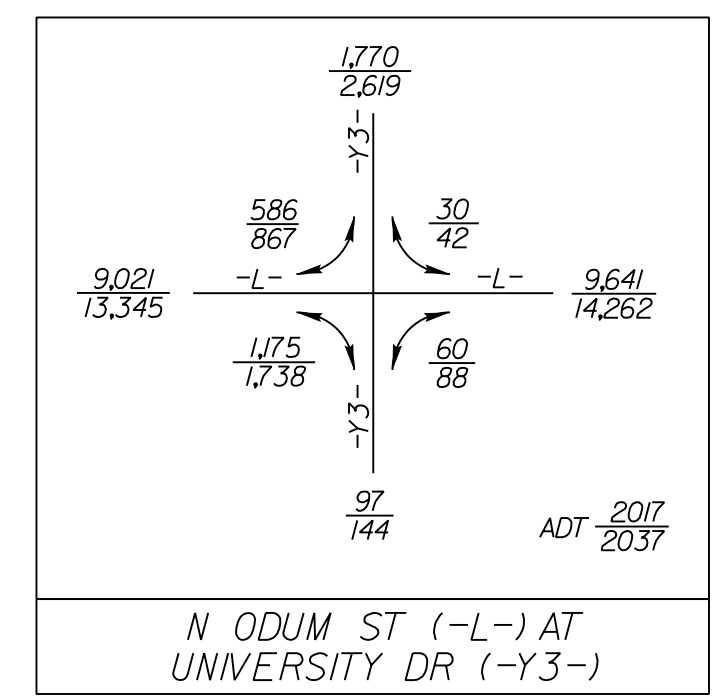
2 JERRY D. CUMMINGS
DB 928 PG 281

3 BEREBA BAPTIST CHURCH
DB 14V PG 269
DB 1223 PG 369

FOR -L- PROFILE SEE SHEET 9
 FOR INTERSECTION DETAIL SEE SHEET 2B-1

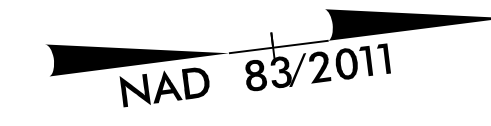
5/14/17

PROJECT REFERENCE NO. U-5925	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 015869 JIMOTHY R. REDD 11/29/2017	HYDRAULICS ENGINEER SEAL 026696 JEFFREY L. RECK 11/29/2017
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
moffatt & nichol 4700 FALLS OF NEUSE ROAD, SUITE 300 RALEIGH, NORTH CAROLINA 27609 (919) 781-4626 VOICE (919) 781-4669 FAX NC License No. F-0 105	



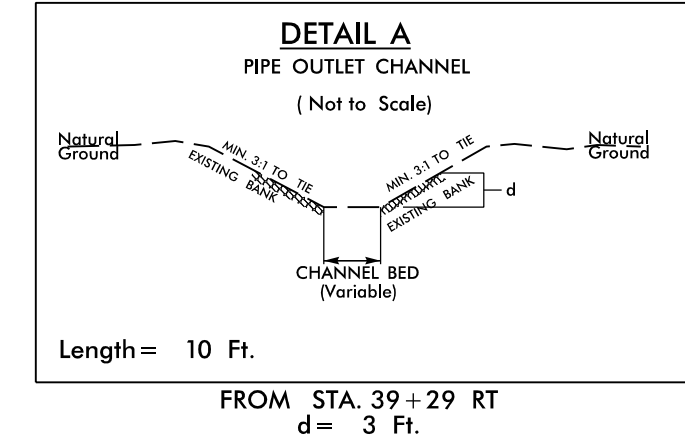
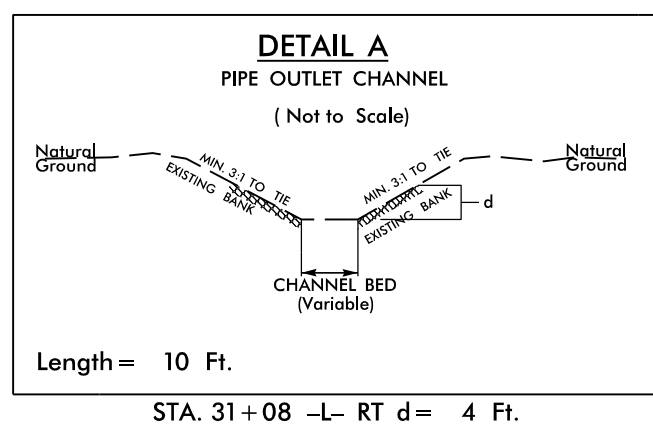
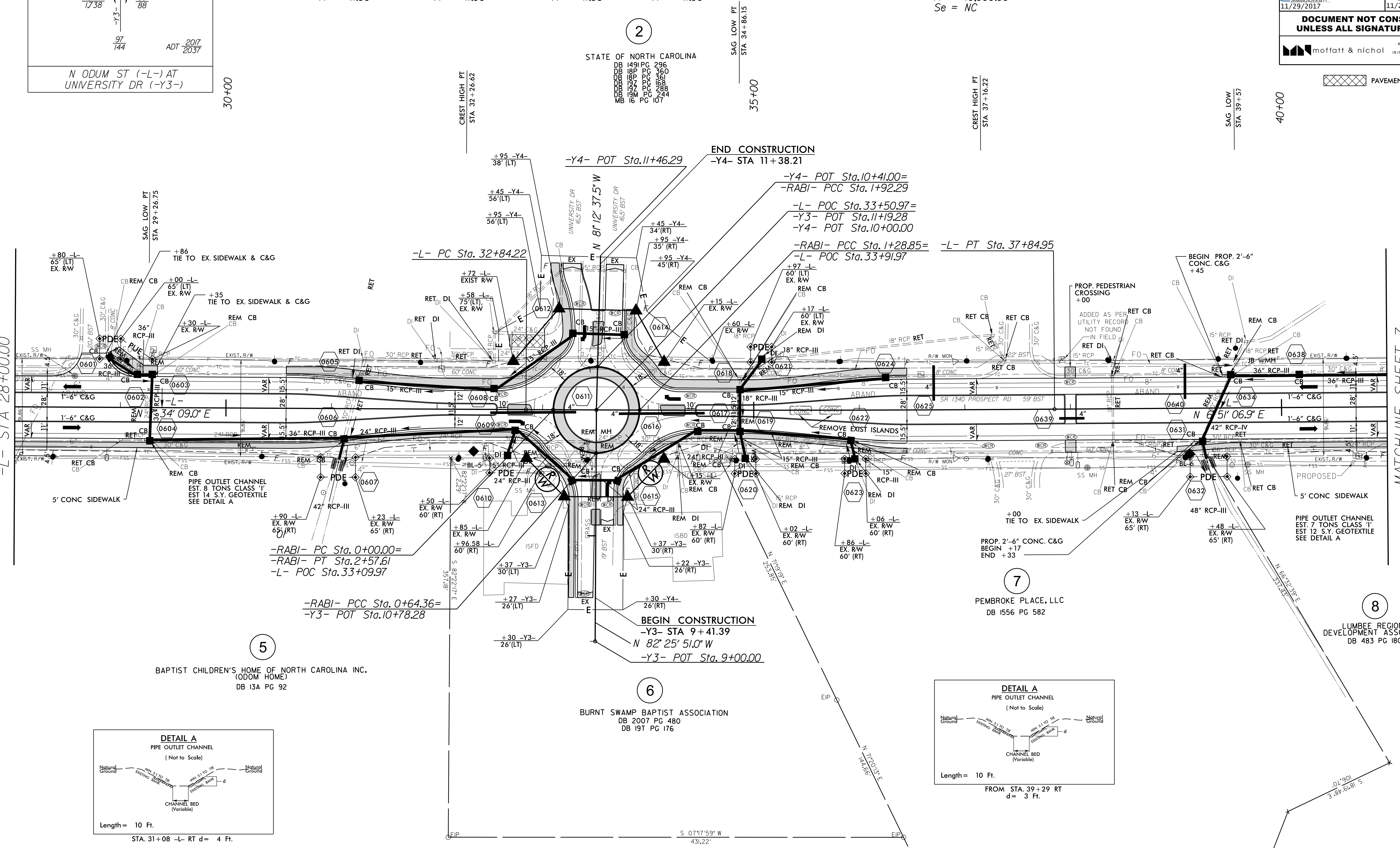
-RABI-			
PI Sta 0+40.95	PI Sta 1+05.44	PI Sta 2+34.22	PI Sta 1+68.90
$\Delta = 89^{\circ} 56' 01.8" (LT)$	$\Delta = 90^{\circ} 07' 30.2" (LT)$	$\Delta = 91^{\circ} 17' 11.7" (LT)$	$\Delta = 88^{\circ} 39' 16.3" (LT)$
D = 139' 44' 44.9"	D = 139' 44' 44.9"	D = 139' 44' 44.9"	D = 139' 44' 44.9"
L = 64.36'	L = 64.49'	L = 65.32'	L = 63.44'
T = 40.95'	T = 41.09'	T = 41.93'	T = 40.05'
R = 41.00'	R = 41.00'	R = 41.00'	R = 41.00'

-L-	
PI Sta 35+34.59	$\Delta = 0^{\circ} 43' 02.1" (LT)$
D = 500.73'	L = 500.73'
T = 250.37'	R = 40,000.00'
Se = NC	



MATCHLINE SHEET 5
-L- STA 28+00.00

MATCHLINE SHEET 7
-L- STA 41+00.00

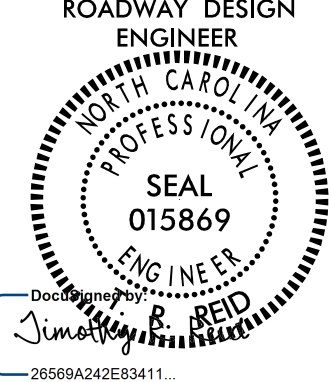
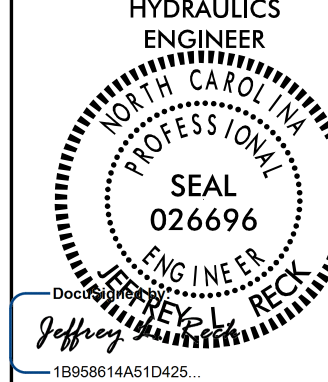



NOTE:
DUE TO SITE CONSTRAINTS THE PROPOSED
CROSS SLOPES VARY ON -L-, SEE CROSS SECTIONS.

FOR -L- PROFILE SEE SHEET 10
FOR -RABI- PROFILE SEE SHEET 12
FOR -Y3- PROFILE SEE SHEET 11
FOR -Y4- PROFILE SEE SHEET 11
FOR INTERSECTION DETAIL SEE SHEET 2B-3

I:\17\16925\Roadway\Proj\U5925_rdy_psh_06.dgn
 9/29/2017 10:52:15 AM

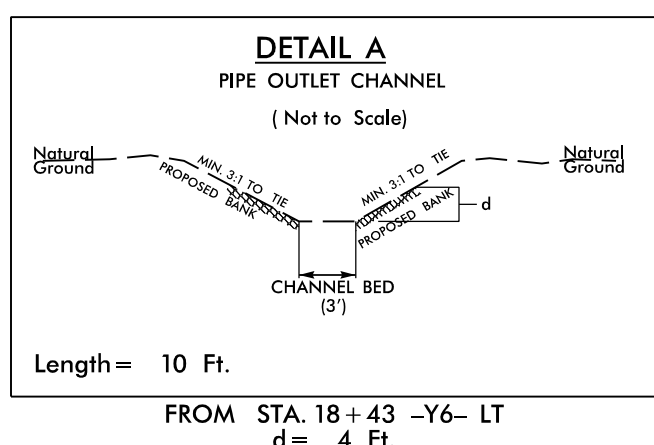
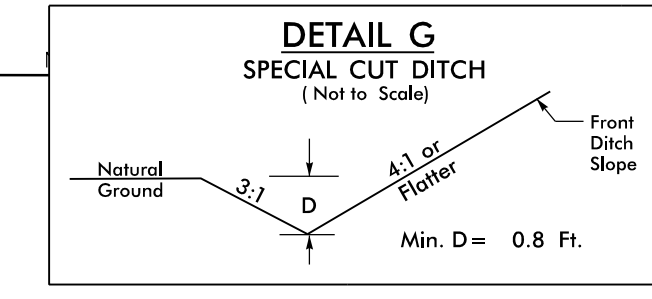
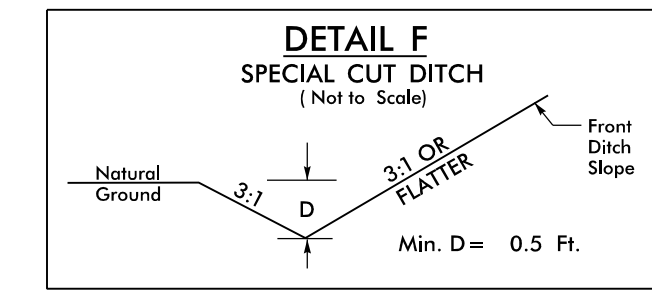
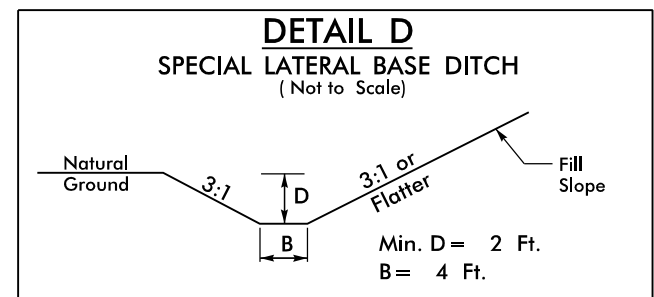
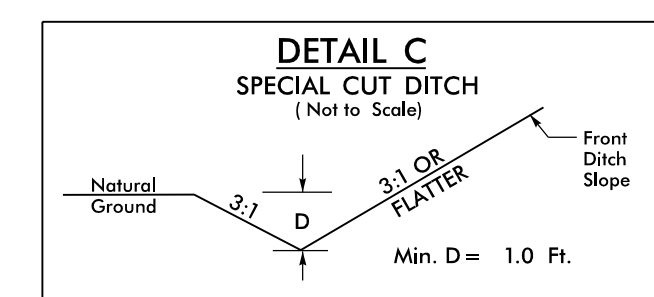
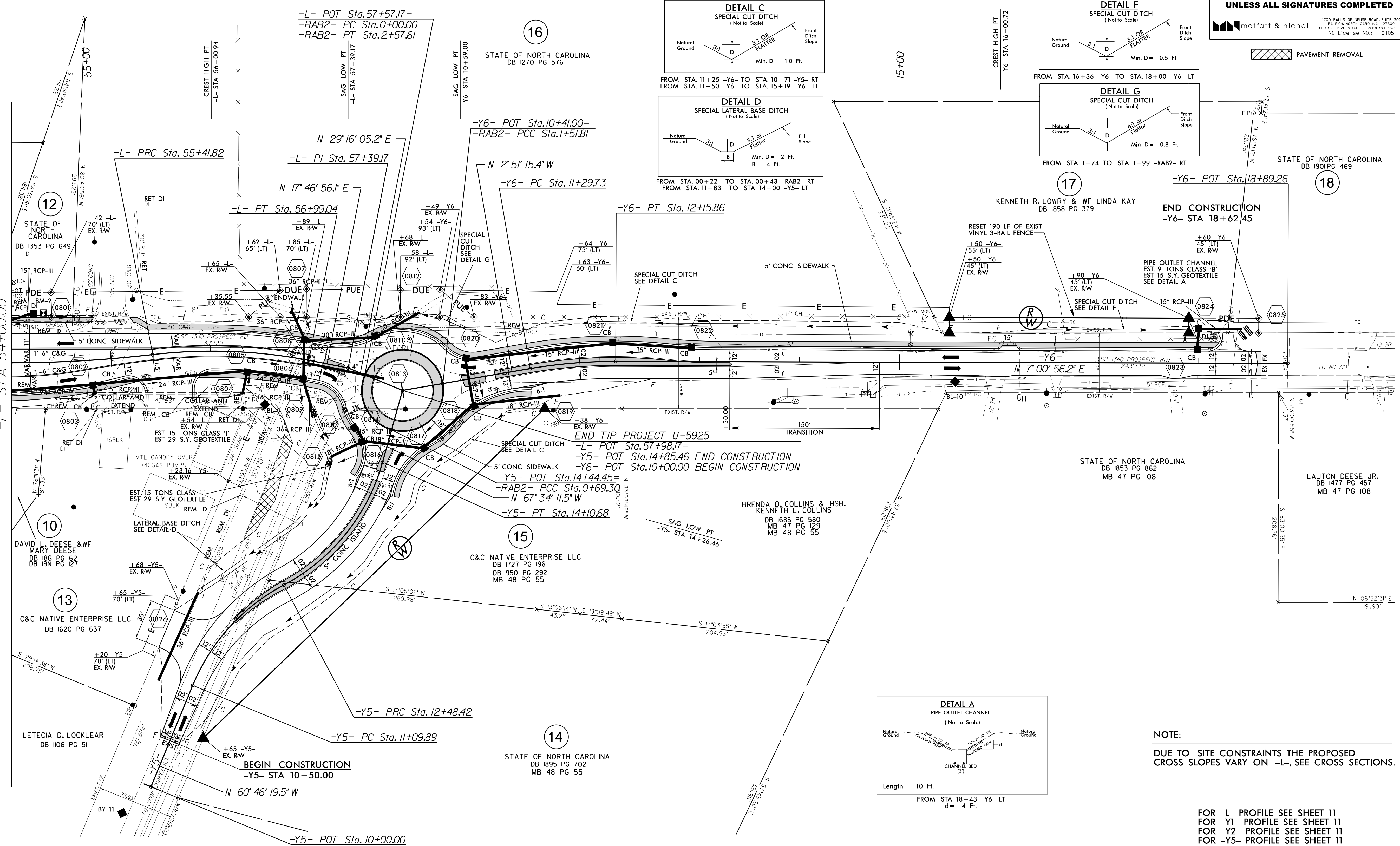
5/14/2017

PROJECT REFERENCE NO. U-5925	SHEET NO. 8
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 015869 Jeffrey L. Beck	HYDRAULICS ENGINEER SEAL 026696 Jeffrey L. Beck
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED  	
 4700 FALLS OF NEUSE ROAD, SUITE 300 WAKEFORD, NORTH CAROLINA 27889 (919) 781-4626 VOICE (919) 781-4669 FAX NC License No. F-0105	

-L- PI Sta 54+70.68 PI Sta 56+21.05 $\Delta = 6^{\circ} 40' 20.4" (LT)$ $\Delta = 17^{\circ} 36' 09.5" (RT)$ $D = 4^{\circ} 41' 05.5"$ $D = 11^{\circ} 11' 45.8"$ $L = 142.42'$ $L = 157.22'$ $T = 71.29'$ $T = 79.24'$ $R = 1,223.00'$ $R = 511.75'$ $Se = NC$ $Se = NC$		-RAB2- PI Sta 0+46.22 PI Sta 1+34.03 PI Sta 2+94.12 $\Delta = 96^{\circ} 50' 52.5" (LT)$ $\Delta = 115^{\circ} 17' 44.4" (LT)$ $\Delta = 147^{\circ} 51' 23.1" (LT)$ $D = 139^{\circ} 44' 44.9"$ $D = 139^{\circ} 44' 44.9"$ $D = 139^{\circ} 44' 44.9"$ $L = 69.30'$ $L = 82.50'$ $L = 105.80'$ $T = 46.22'$ $T = 64.73'$ $T = 142.31'$ $R = 41.00'$ $R = 41.00'$ $R = 41.00'$		-Y5- PI Sta 11+82.07 PI Sta 13+34.32 $\Delta = 39^{\circ} 41' 11.9" (RT)$ $\Delta = 46^{\circ} 29' 03.9" (LT)$ $D = 28^{\circ} 38' 52.4"$ $D = 28^{\circ} 38' 52.4"$ $L = 138.53'$ $L = 162.26'$ $T = 72.18'$ $T = 85.89'$ $R = 200.00'$ $R = 200.00'$ $Se = NC$ $Se = NC$		-Y6- PI Sta 11+72.90 $\Delta = 9^{\circ} 52' 11.6" (RT)$ $D = 11^{\circ} 27' 33.0"$ $L = 86.13'$ $T = 43.17'$ $R = 500.00'$ $Se = NC$
--	--	--	--	---	--	---

NAD 83/2011

MATCHLINE SHEET 7
-L- STA 54+00.00



NOTE:
DUE TO SITE CONSTRAINTS THE PROPOSED CROSS SLOPES VARY ON -L-, SEE CROSS SECTIONS.

FOR -L- PROFILE SEE SHEET 11
 FOR -Y1- PROFILE SEE SHEET 11
 FOR -Y2- PROFILE SEE SHEET 11
 FOR -Y5- PROFILE SEE SHEET 11
 FOR -Y6- PROFILE SEE SHEET 12
 FOR -RAB2- PROFILE SEE SHEET 12
 FOR INTERSECTION DETAIL SEE SHEET 2B-5

U:\17\017\017\Roadway\Proj\U5925_rdy_psh_08.dgn

5/28/2017

PROJECT REFERENCE NO. U-5925	SHEET NO. 9
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 015869 11/29/2017	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 026696 11/29/2017

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

N. ODUM ST

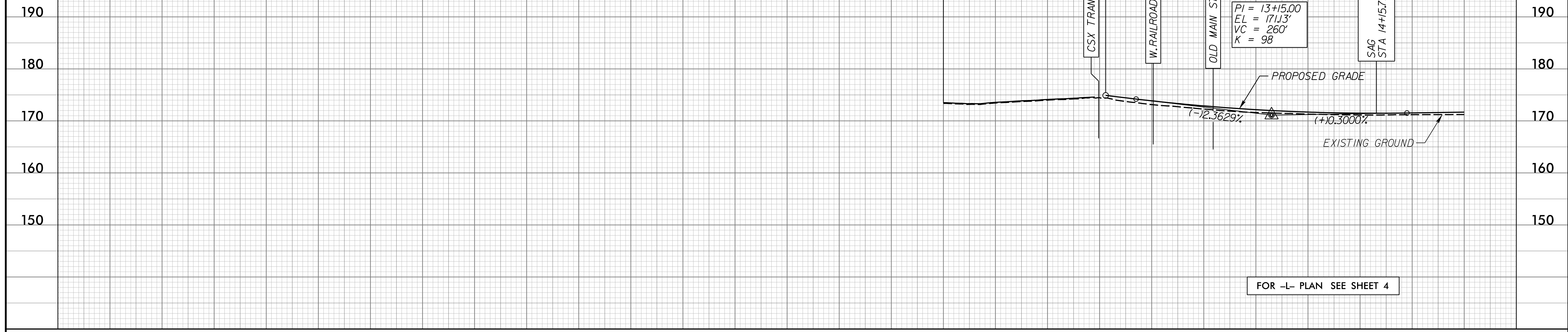
BEGIN TIP PROJECT U-5925
BEGIN RESURFACING
-L- STA 10+00.00

BMI ELEVATION = 173.27
N 339963 E 1940172
-L- STA 11+39.00 177' RT
RR SPIKE IN BASE OF 36" OAK TREE

BEGIN GRADE
-L- STA 11+55.80
EL = 174.89

PI = 13+15.00
EL = 171.13'
VC = 260'
K = 98

SAG STA 14+15.71



N. ODUM ST

PI = 17+00.00
EL = 172.28'
VC = 300'
K = 500

CREST
STA 17+00.00

PI = 20+88.00
EL = 171.12'
VC = 450'
K = 750

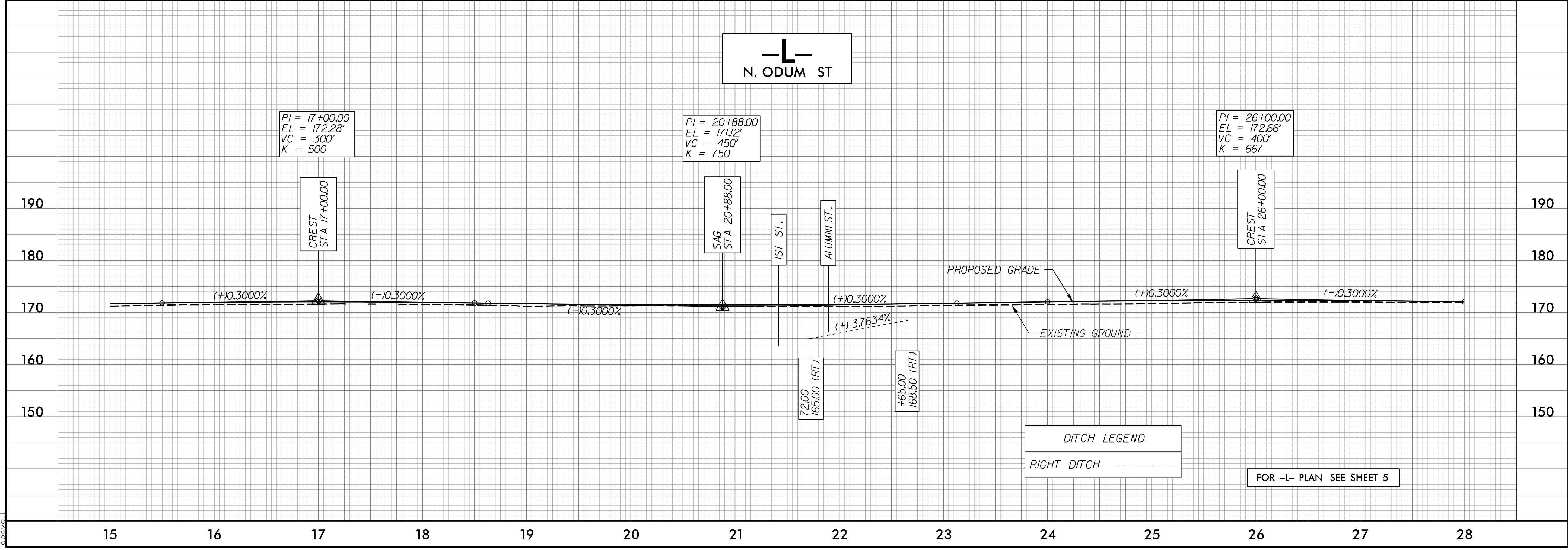
SAG STA 20+88.00

1ST ST.

ALUMNI ST.

PI = 26+00.00
EL = 172.66'
VC = 400'
K = 667

CREST
STA 26+00.00



DITCH LEGEND
RIGHT DITCH -----

FOR -L- PLAN SEE SHEET 5

I:\17\2017\15\F66\292-01\CADD\U5925-Roadway\Proj\U5925_rdy_psh_pf1_09.dgn

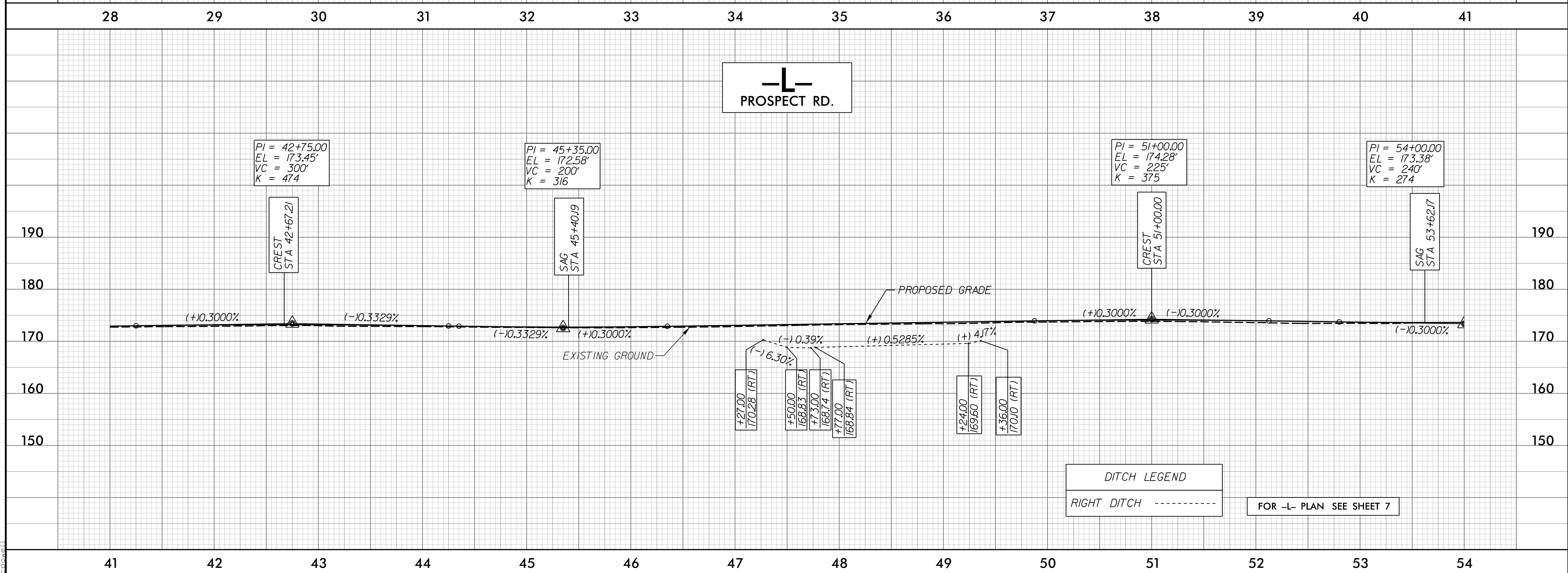
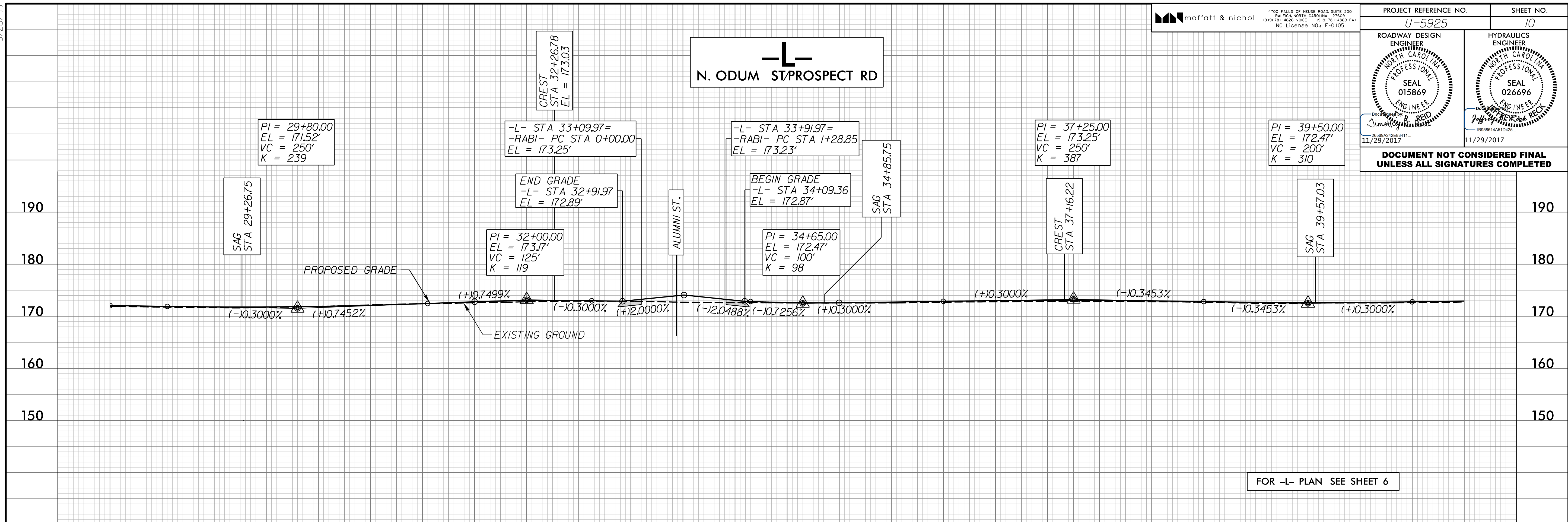
5/28/2017



4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
919/781-4888 VOICE 919/781-4889 FAX
NC LICENSE NO.: F-0105

PROJECT REFERENCE NO. U-5925	SHEET NO. 10
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 015869 11/29/2017	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 026696 11/29/2017

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

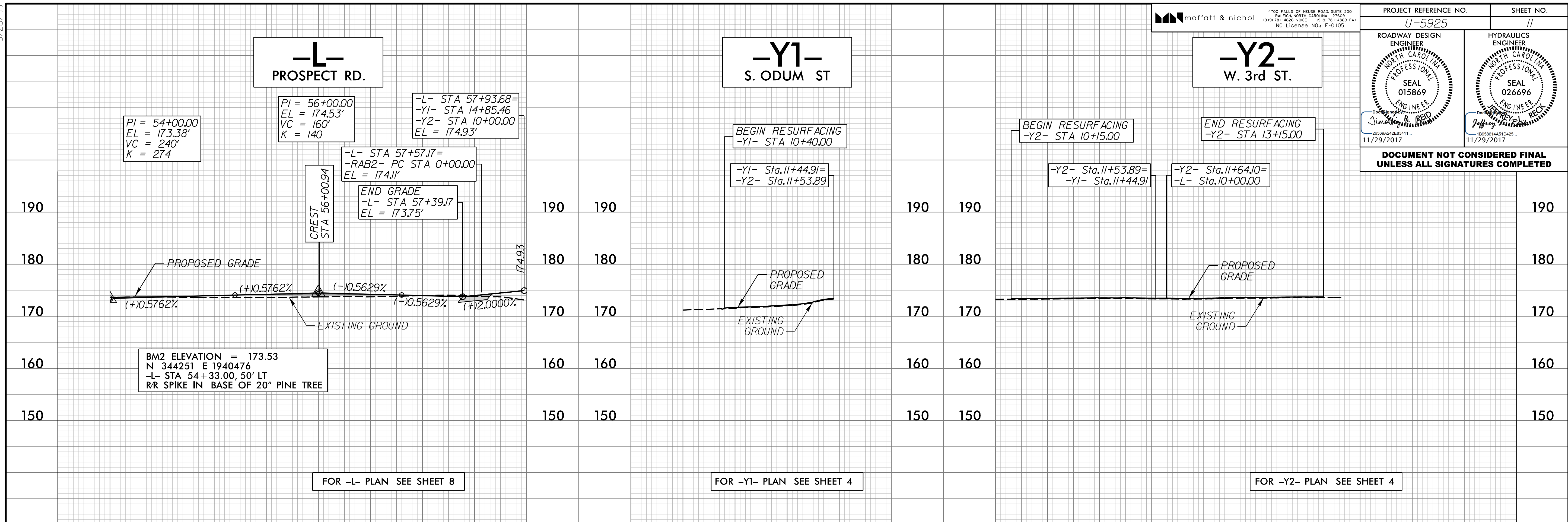


I:\7/2017\05\F66\292-01\CADD\U5925\Roadway\Proj\U5925_rdy_psh.plt_10.dgn

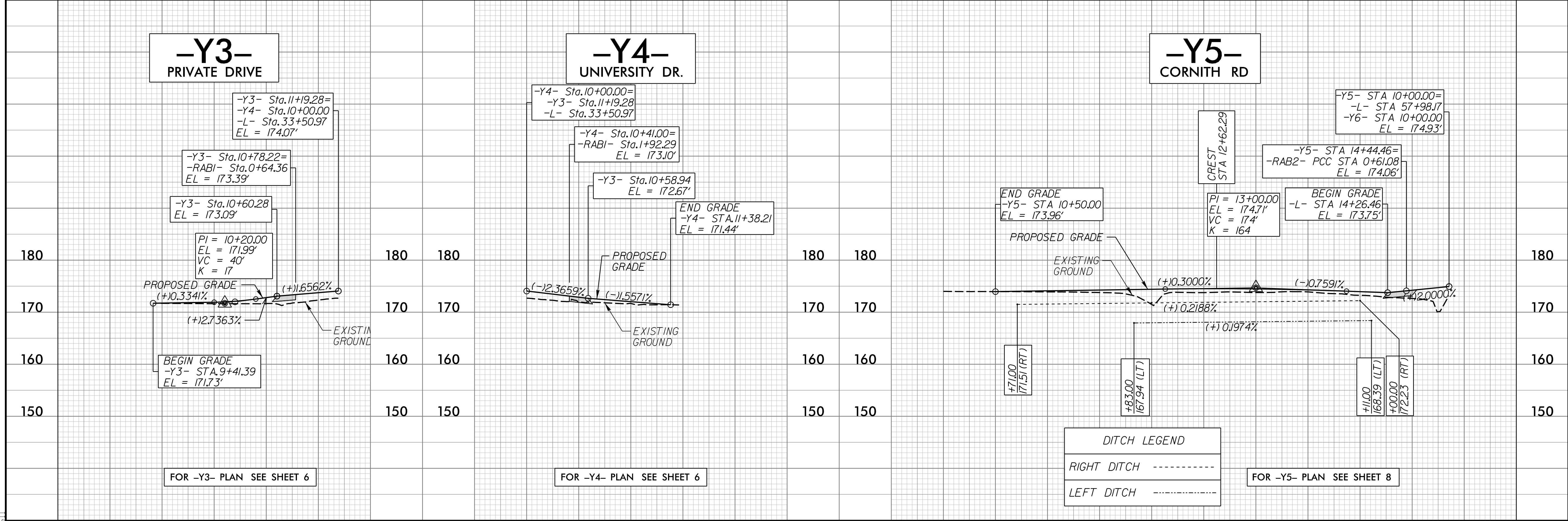
5/28/2017

PROJECT REFERENCE NO. U-5925	SHEET NO. 11
ROADWAY DESIGN ENGINEER JIMMY R. BEID NORTH CAROLINA PROFESSIONAL SEAL 015869 11/29/2017	HYDRAULICS ENGINEER JEFFREY L. BECK NORTH CAROLINA PROFESSIONAL SEAL 026696 11/29/2017

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



54 55 56 57 58 10 11 12 10 11 12 13 14



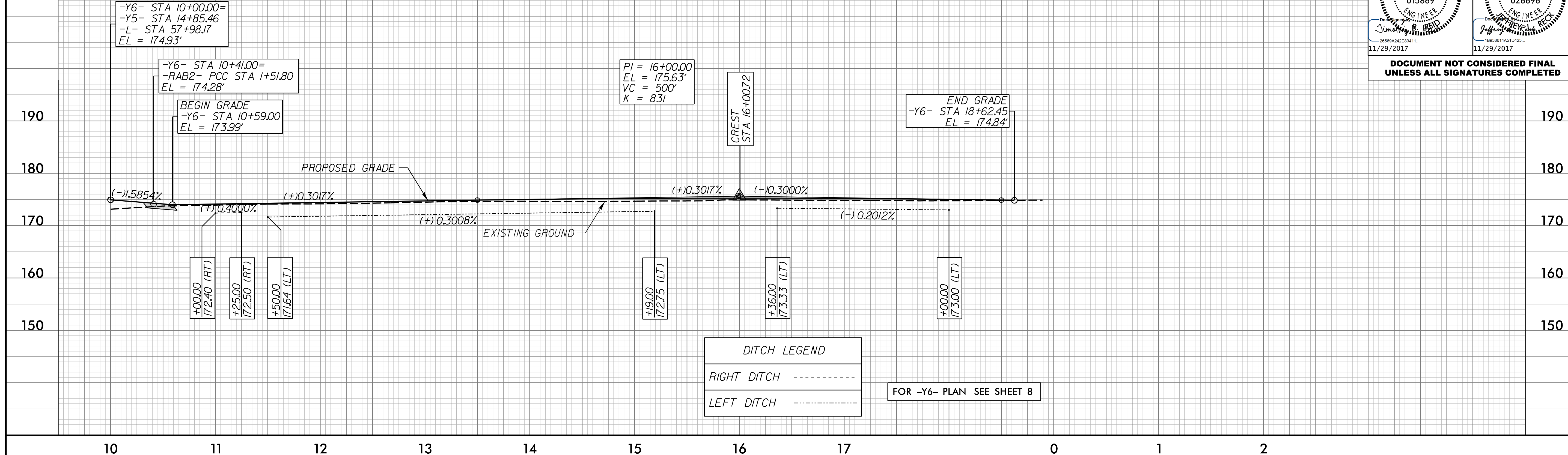
9 10 11 10 11 12 10 11 12 13 14 15

I:\17\2017\16\16\292-01\CADD\U5925\Roadway\Proj\U5925_rdy_psh.plt.dgn

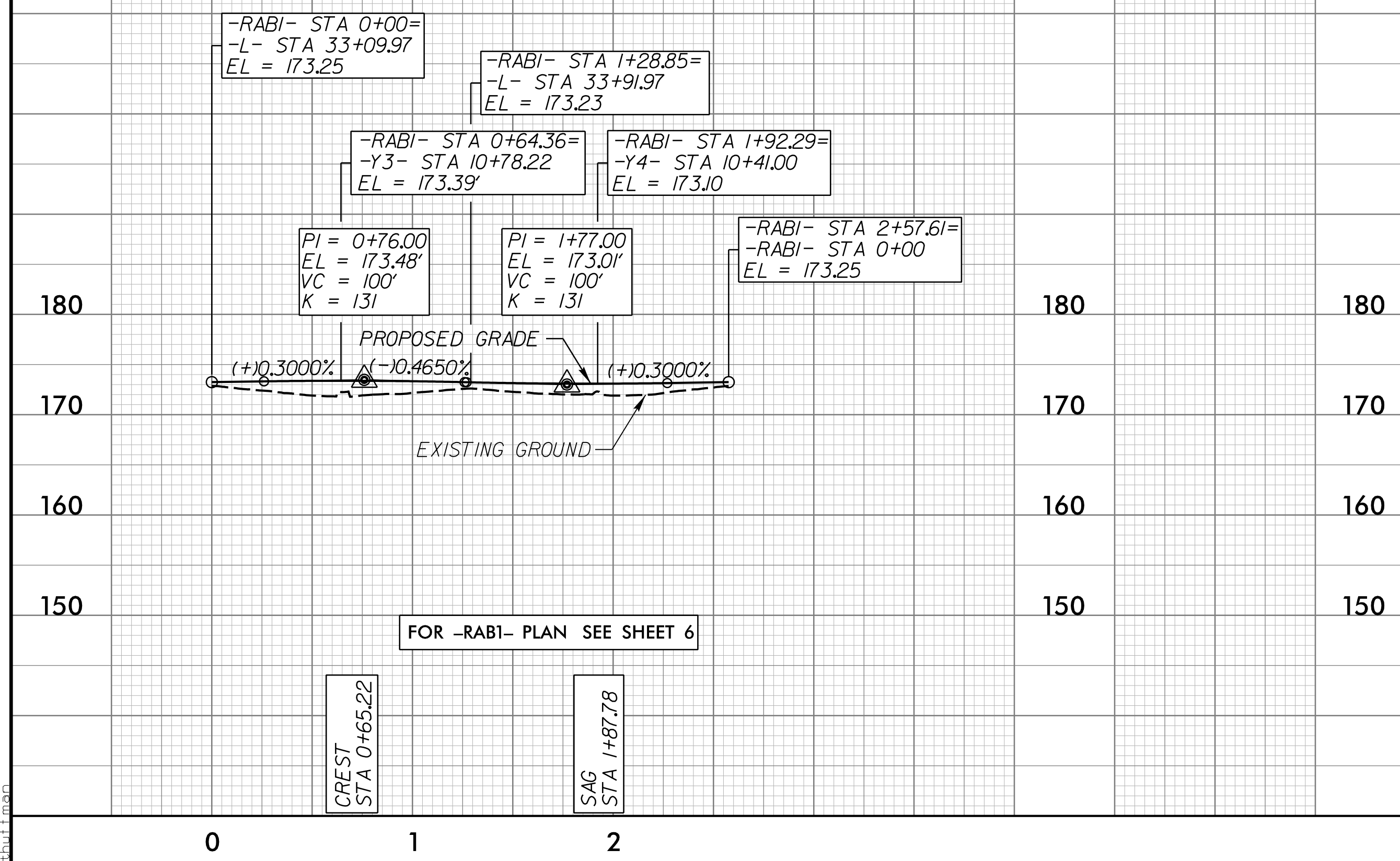
PROJECT REFERENCE NO. U-5925	SHEET NO. 12
ROADWAY DESIGN ENGINEER SEAL 015869 11/29/2017	HYDRAULICS ENGINEER SEAL 026696 11/29/2017

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

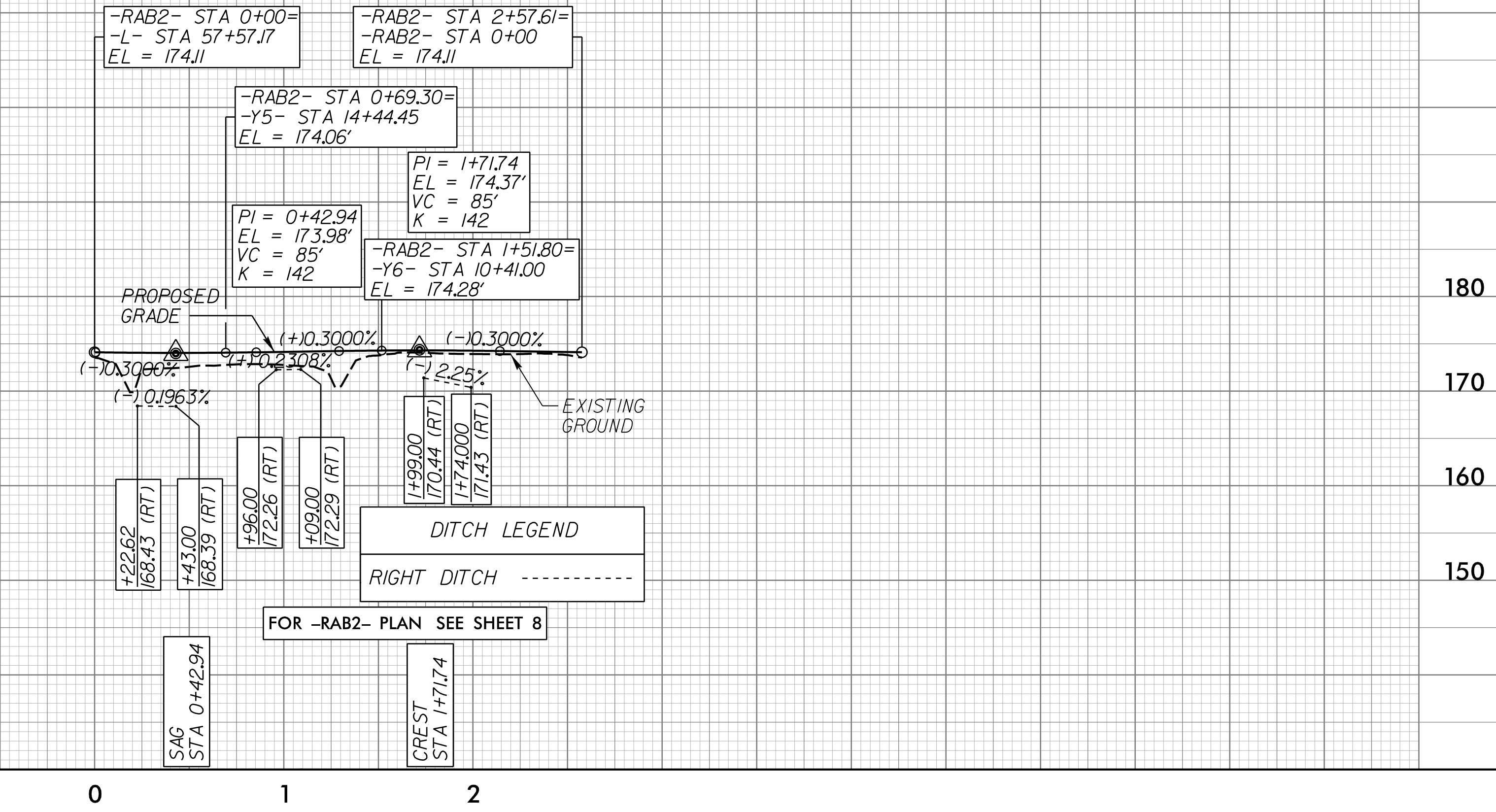
-Y6- PROSPECT RD.



-RAB1-



-RAB2-



1/22/2017 10:46:59 AM I:\CADD\U5925\Roadway\Proj\U5925_rdy_psh.plt.dgn