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

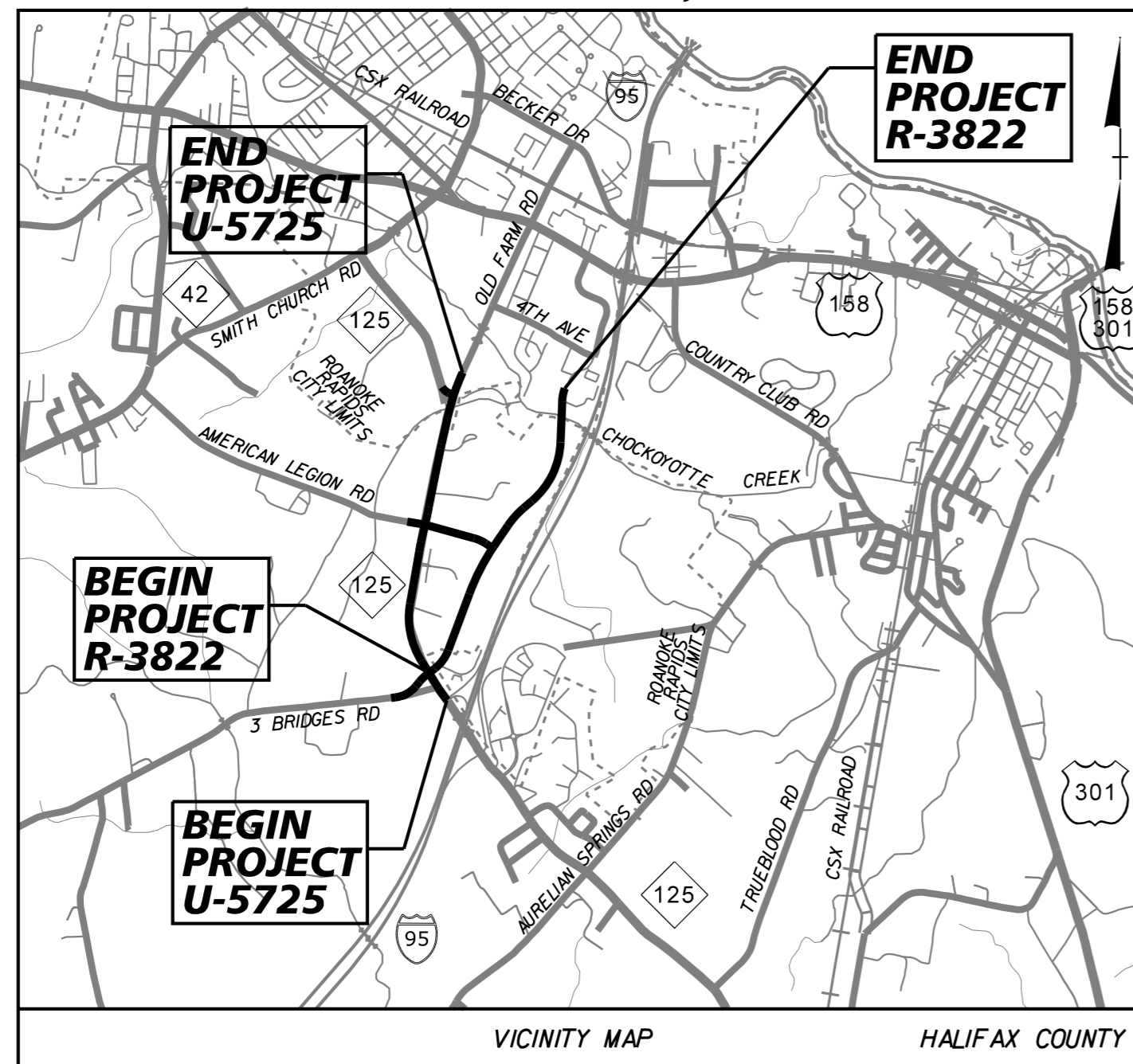
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

HALIFAX COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-5725R-3822	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
50162.1.1		P.E. (U-5725)	
50162.2.1		R/W (U-5725)	
50162.2.2		UTIL. (U-5725)	
37765.1.6		P.E. (R-3822)	
37765.2.5		R/W, UTIL. (R-3822)	
50162.3.1		CONST. (U-5725R-3822)	

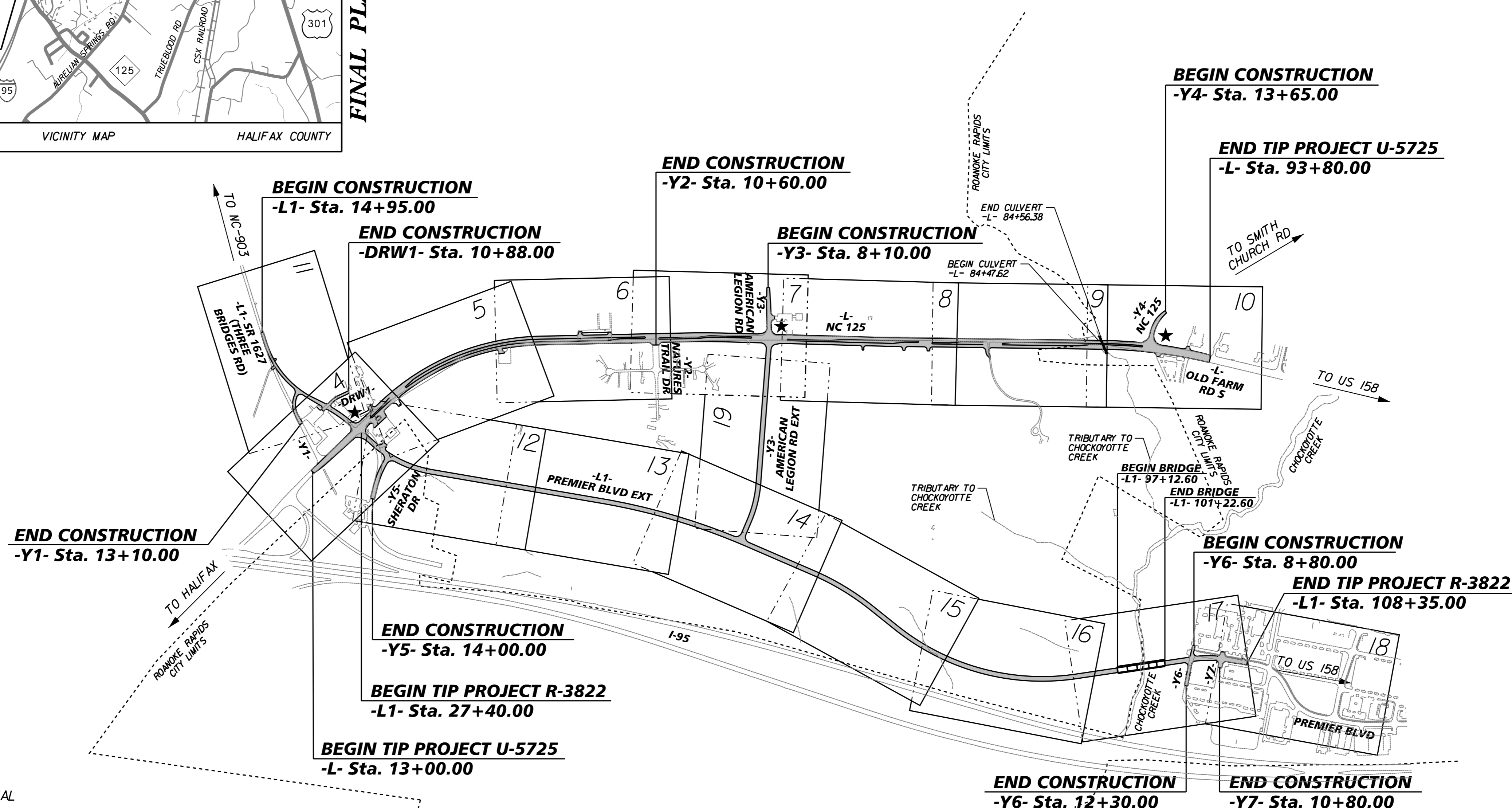
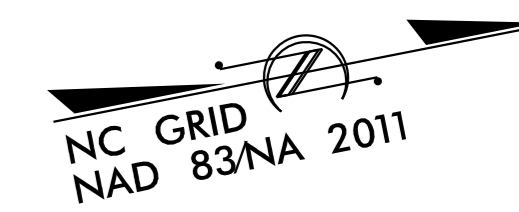
TIP PROJECTS: U-5725/R-3822

CONTRACT: C204149



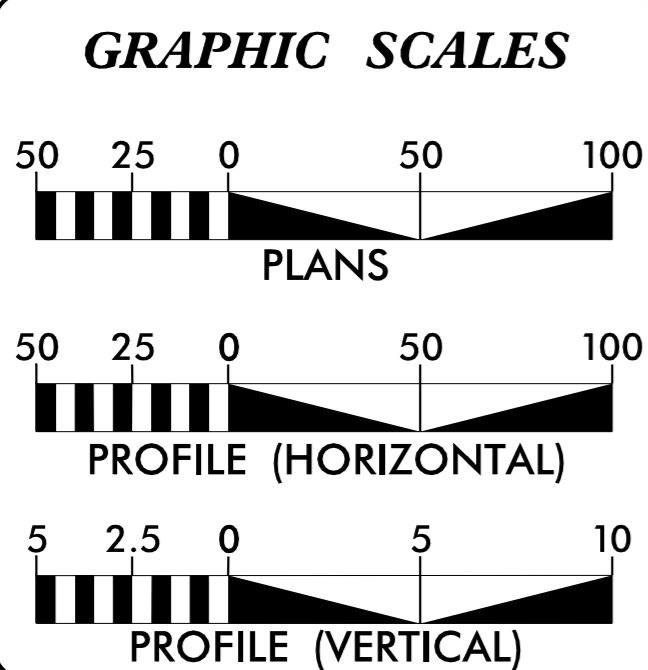
FINAL PLANS

LOCATION: NC 125 FROM I-95 TO OLD FARM ROAD SOUTH, SR 1627 (THREE BRIDGES ROAD) FROM NC 125 TO PREMIER BOULEVARD  
TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNALS, AND STRUCTURES



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

★ PROPOSED TRAFFIC SIGNAL



**U-5725 DESIGN DATA**

AADT 2018 =	10600
AADT 2040 =	15100
K =	10%
D =	55%
T =	3%*
V =	50 MPH
* (TTST 1% + DUAL 2%)	
FUNCTIONAL CLASSIFICATION:	
RURAL ARTERIAL REGIONAL TIER	

**R-3822 DESIGN DATA**

AADT 2018 =	0
AADT 2040 =	3200
K =	8%
D =	55%
T =	3%*
V =	40 MPH
* (TTST 1% + DUAL 2%)	
FUNCTIONAL CLASSIFICATION:	
LOCAL SUB-REGIONAL TIER	

**PROJECT LENGTH**

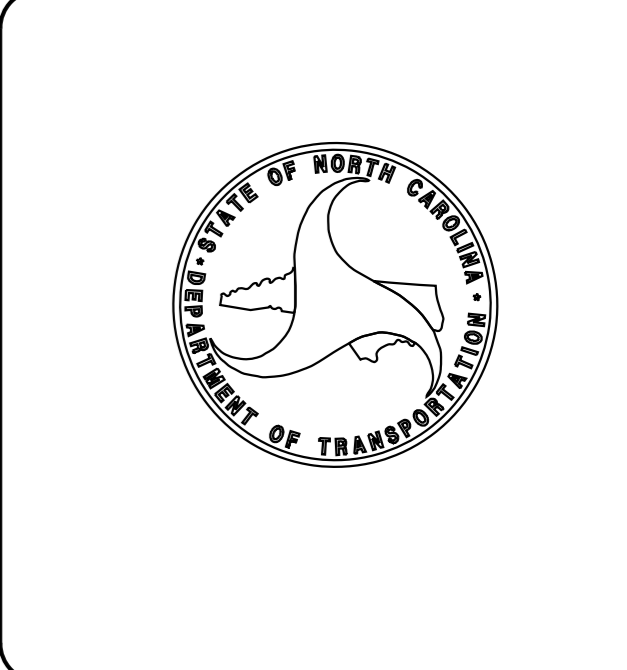
LENGTH ROADWAY	TIP PROJECT R-3822 = 1.455 MILES
LENGTH STRUCTURE	TIP PROJECT R-3822 = 0.078 MILES
TOTAL LENGTH	TIP PROJECT R-3822 = 1.533 MILES
LENGTH ROADWAY	TIP PROJECT U-5725 = 1.530 MILES
TOTAL LENGTH	TIP PROJECT U-5725 = 1.530 MILES

PLANS PREPARED FOR THE NCDOT BY: **Kimley Horn**

2018 STANDARD SPECIFICATIONS	<b>MATTHEW WEST, PE</b> PROJECT ENGINEER
RIGHT OF WAY DATE: APRIL 2018	<b>RACHEL ABROMAITIS, PE</b> PROJECT DESIGN ENGINEER
LETTING DATE: SEPTEMBER 18, 2018	<b>MATT CLARKE, PE</b> PROJECT ENGINEER NCDOT HIGHWAY DIVISION 4

**HYDRAULICS ENGINEER**

DocuSigned by: Bryan T. Vickery 6/29/2018	
SIGNATURE:	P.E.
<b>ROADWAY DESIGN ENGINEER</b>	
DocuSigned by: Matt West 6/28/2018	
SIGNATURE:	P.E.



### INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION
I	TITLE SHEET
IA	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARDS
IB	CONVENTIONAL SYMBOLS
1C-1 THRU 1C-12	SURVEY CONTROL SHEETS
2A-1 THRU 2A-10	TYPICAL SECTIONS, PAVEMENT SCHEDULE, AND MISCELLANEOUS DETAILS
2B-1 THRU 2B-2	ROADWAY DETAILS
2C-1	CURB RAMP DETAILS
2C-2	DETAIL FOR GUARDRAIL STRUCTURE ANCHOR UNITS
2C-3	DETAIL FOR GUARDRAIL INSTALLATION
2C-4	DETAIL FOR 2'-9" CONCRETE CURB & GUTTER
2C-5 THRU 2C-6	DETAILS FOR CURB & GUTTER TRANSITION SECTIONS
2C-7	DETAIL FOR MINIMUM DEPTH CONCRETE CATCH BASIN
2C-8	DETAIL FOR CATCH BASIN STR* 404
2C-9	DETAIL FOR CATCH BASIN STR* 1219
2C-10	COAL COMBUSTION PRODUCT PLACEMENT DETAIL
2C-11	DETAIL FOR TEMPORARY STEEL COVER
2D-1 THRU 2D-2	DRAINAGE DETAILS
3B-1	SUMMARY OF EARTHWORK
3B-2	SUMMARY OF GUARDRAIL AND REMOVAL OF EXISTING ASPHALT PAVEMENT
3D-1 THRU 3D-10	DRAINAGE SUMMARY SHEETS
3G-1	GEOTECHNICAL SUMMARY SHEET
3P-1 THRU 3P-2	PARCEL INDEX SHEETS
4 THRU 19	PLAN SHEETS
20 THRU 30	PROFILE SHEETS
TMP-1 THRU TMP-31	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-17	PAVEMENT MARKING PLANS
EC-1 THRU EC-35	EROSION CONTROL PLANS
RF-1	REFORESTATION PLANS
SIGN-1 THRU SIGN-18	SIGNING PLANS
SIG-1 THRU SIG-13, SCP-1	SIGNALS PLANS
UC-1 THRU UC-16	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-17	UTILITIES BY OTHERS PLANS
X-0	CROSS SECTION INDEX
X-1A THRU X-1C	CROSS SECTION SUMMARY SHEETS
X-1 THRU X-97	CROSS SECTIONS
C-1 THRU C-8	CULVERT PLANS
S-1 THRU S-58	STRUCTURE PLANS

### GENERAL NOTES

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

GRADING AND SURFACING OR RESURFACING AND WIDENING:  
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS, WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING

PAVEMENT  
ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED, GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

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

SUPERELEVATION:  
ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD.NO.225.05 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.560.01

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

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

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

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

TEMPORARY SHORING:  
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "TEMPORARY SHORING".

END BENTS:  
THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:  
UTILITY OWNERS ON THIS PROJECT ARE:  
A) ROANOKE ELECTRIC  
B) DOMINION POWER  
C) HALIFAX COUNTY PUBLIC UTILITIES  
D) ROANOKE RAPIDS SANITARY DISTRICT  
E) PIEDMONT NATURAL GAS  
F) CENTURYLINK  
G) CHARTER SPECTRUM  
H) LUMOS NETWORKS  
I) HALIFAX ACADEMY

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

RIGHT-OF-WAY MARKERS:  
ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

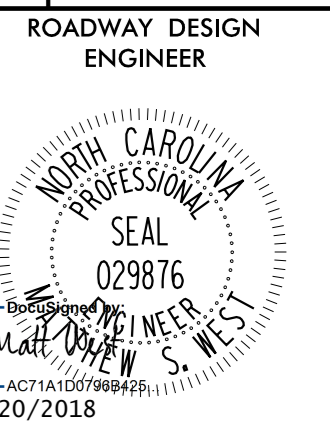
CURB RAMPS:  
CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05 and/or 848.06.

### LIST OF 2018 ROADWAY STANDARD DRAWINGS

2018 ROADWAY ENGLISH STANDARD DRAWINGS EFF. 01-16-2018 REV.

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	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.05	Method of Obtaining Superelevation - Divided Highways
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.03	Cross Pipe End Section - Precast Concrete Section for 18" to 30" Pipe
310.05	Cross Pipe End Section - Prefabricated Steel Section for 18" to 30" Pipe
310.10	Driveway Pipe Construction
DIVISION 4 - MAJOR STRUCTURES	
422.02	Bridge Approach Fills - Type II Modified Approach Fills
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
815.02	Subsurface Drain
816.04	Markers for Drainage Structure and Concrete Pad
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.21	Reinforced Concrete Endwall - for Single 54" Pipe 90 Skew
838.27	Reinforced Concrete Endwall - for Single 60" Pipe 90 Skew
838.45	Notes for Reinforced Concrete Endwall - Std. Dwg 838.21 thru 838.40
838.51	Reinforced Brick Endwall - for Single 54" Pipe 90 Skew
838.57	Reinforced Brick Endwall - for Single 60" Pipe 90 Skew
838.75	Notes for Reinforced Brick Endwall - Std. Dwg 838.51 thru 838.70
838.80	Precast Endwalls - 12" thru 72" Pipe 90 Skew
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	Anchorages 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
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.02	Driveway Turnout - Radius Type
848.05	Curb Ramp - Proposed Curb & Gutter
852.01	Concrete Islands
852.05	Median Curb for Catch Basin - for Use with 1'-6" Curb and Gutter
852.06	Method for Placement of Drop Inlets in Concrete Islands
852.10	Median Construction - with Curb and Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation (Special Detail for Sheet 6 of 8)
862.03	Structure Anchor Units (Special Detail for Type III Anchor Units Sheets 1 of 7 and 2 of 7)
866.02	Woven Wire Fence - with Wood Post
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets



REVISIONS

7/20/2018

# STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

## CONVENTIONAL PLAN SHEET SYMBOLS

### BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Computed Property Corner	----->
Property Monument	□ EDM
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	-----
New Right of Way Line with Pin and Cap	-----
New Right of Way Line with Concrete or Granite RW Marker	-----
New Control of Access Line with Concrete C/A Marker	-----
Existing Control of Access	-----
New Control of Access	-----
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	-----

### 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.*)	----- W
U/G Water Line LOS C (S.U.E.*)	----- W
U/G Water Line LOS D (S.U.E.*)	----- W
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.*)	----- TUL
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
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.

REVISIONS

6/12/99

PROJECT REFERENCE NO.	SHEET NO.
U-5725	1C-1
Location and Surveys	
PROJECT SURVEYOR	

# SURVEY CONTROL SHEET U-5725

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



**DATUM DESCRIPTION**

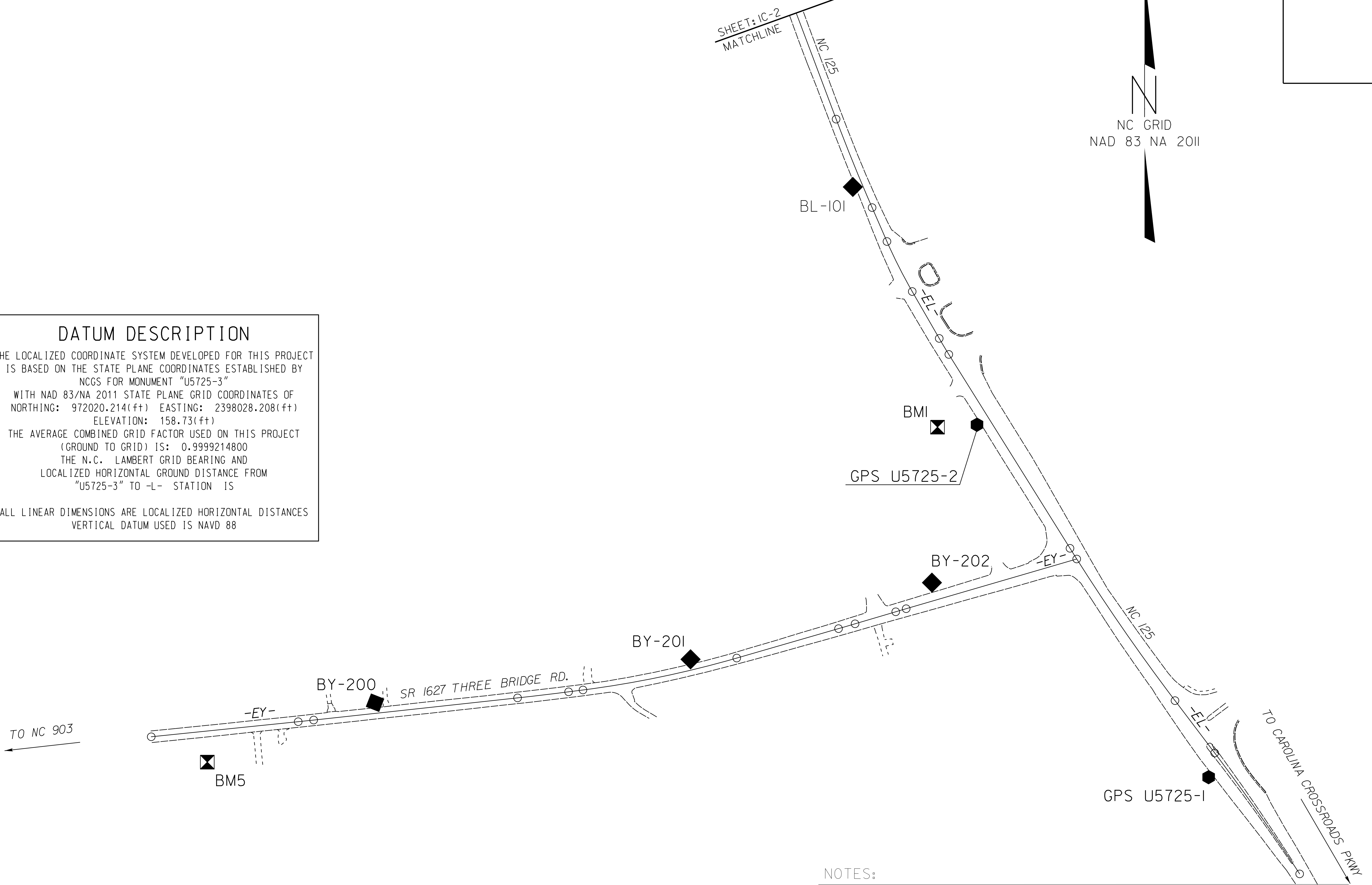
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "U5725-3"

WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF  
 NORTHING: 972020.214(±) EASTING: 2398028.208(±)  
 ELEVATION: 158.73(±)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT  
 (GROUND TO GRID) IS: 0.9999214800  
 THE N.C. LAMBERT GRID BEARING AND  
 LOCALIZED HORIZONTAL GROUND DISTANCE FROM  
 "U5725-3" TO -L- STATION IS

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

REVISIONS



- NOTES:
1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
  2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
  3. NOTE: DRAWING NOT TO SCALE

6/28/2018

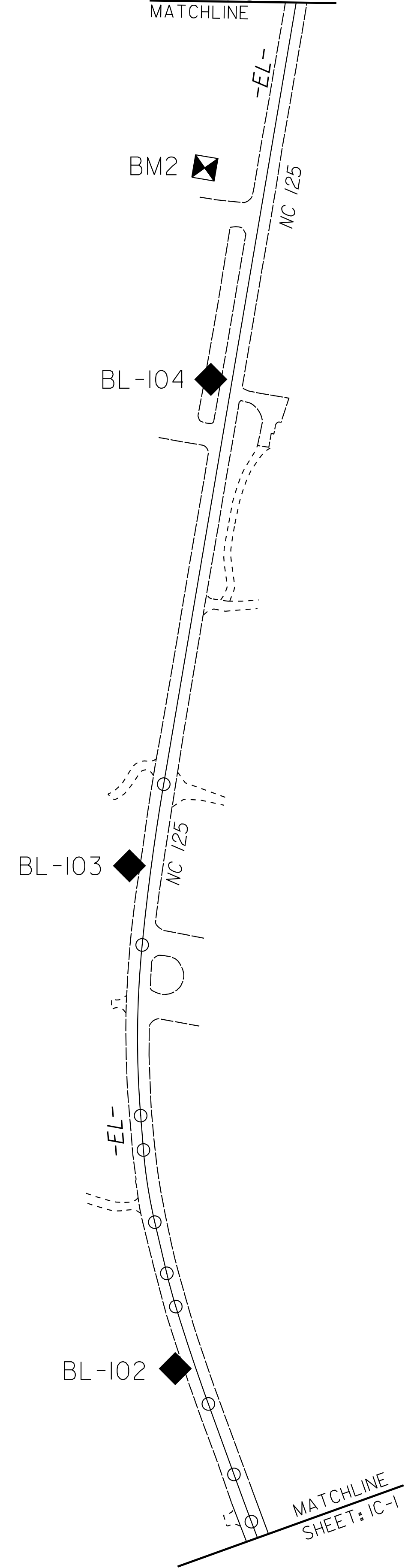
PROJECT REFERENCE NO.	SHEET NO.
U-5725	1C-2
Location and Surveys	

PROJECT SURVEYOR

# SURVEY CONTROL SHEET U-5725

*W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION*

SHEET: 1C-3  
MATCHLINE



**DATUM DESCRIPTION**

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THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999214800

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ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
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6/12/99

REVISIONS

6/28/2018

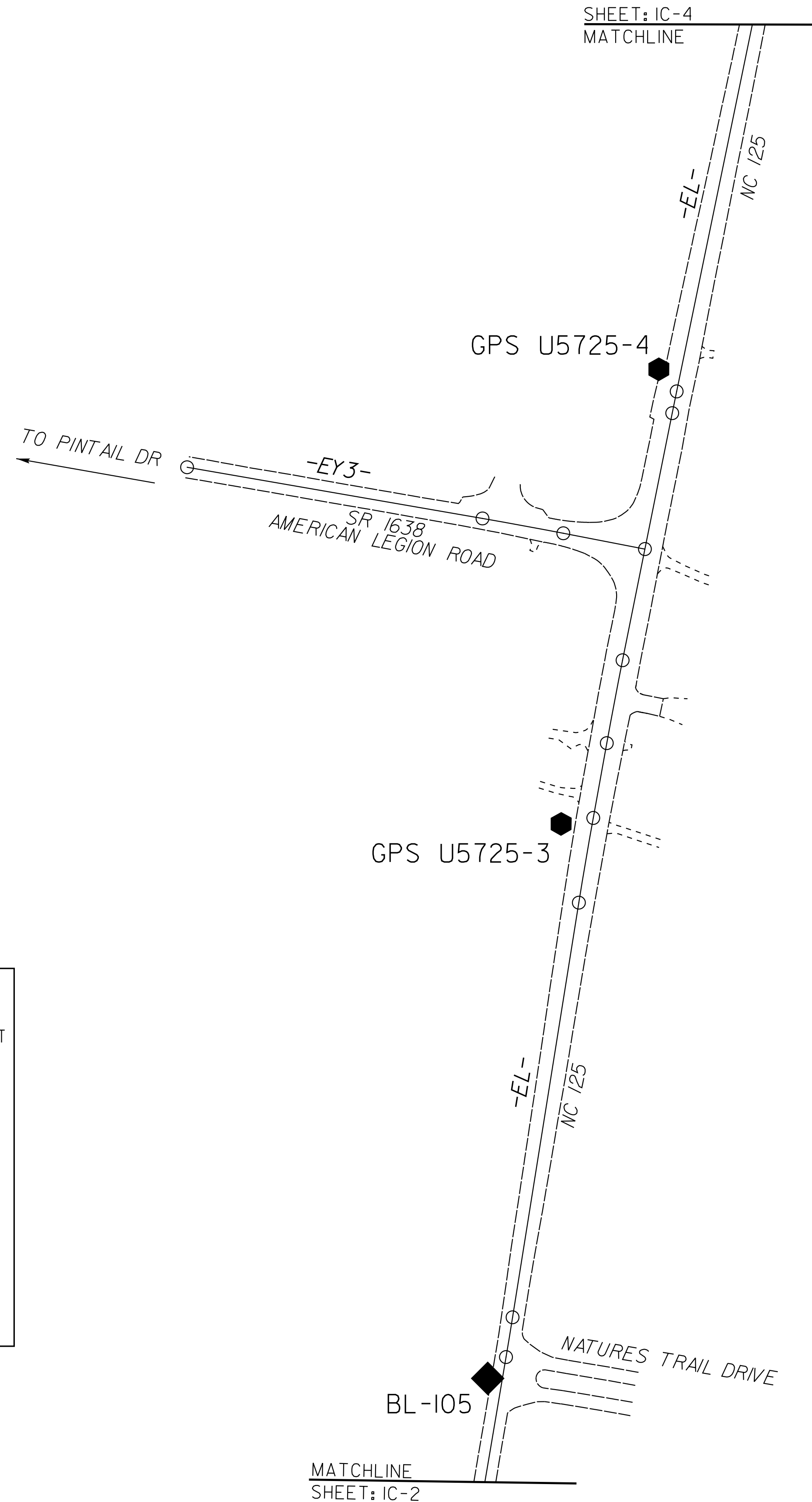
6/12/99

6/28/2018

# SURVEY CONTROL SHEET U-5725

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO. U-5725	SHEET NO. 1C-3
Location and Surveys	
PROJECT SURVEYOR	



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "U5725-3"

WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF  
 NORTHING: 972020.214(ft) EASTING: 2398028.208(ft)  
 ELEVATION: 158.73(ft)

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THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U5725-3" TO -L- STATION IS

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
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**NOTES:**

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REVISIONS

6/12/99

PROJECT REFERENCE NO.	SHEET NO.
U-5725	1C-4
Location and Surveys	
PROJECT SURVEYOR	

# SURVEY CONTROL SHEET U-5725

*W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION*

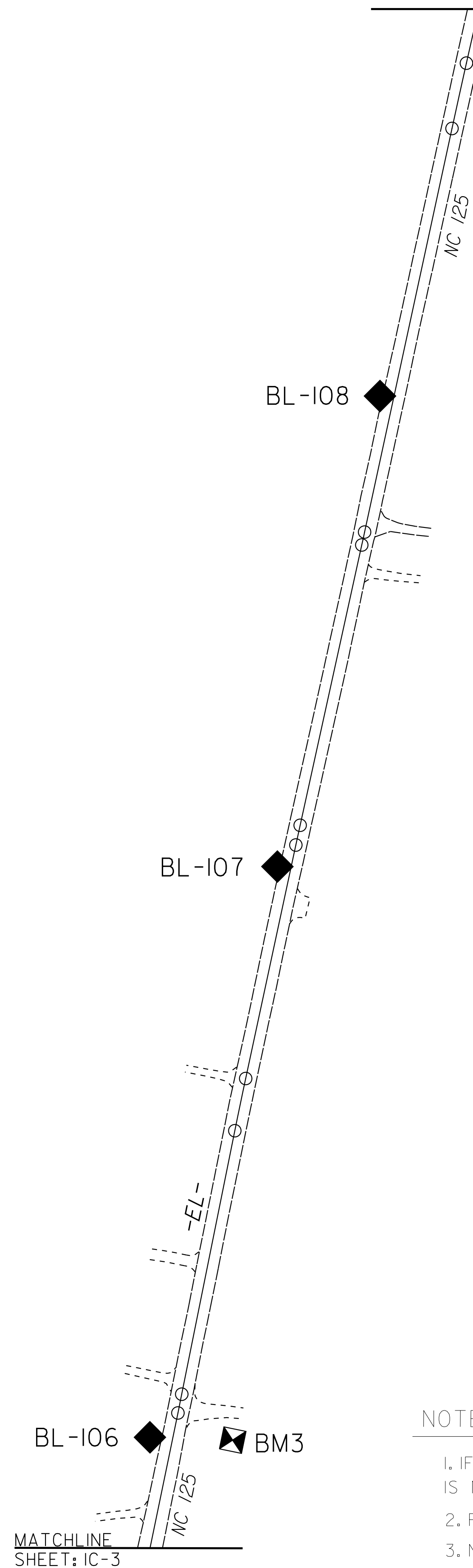
SHEET: IC-5  
MATCHLINE



REVISIONS

### DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "U5725-3"  
 WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF  
 NORTHING: 972020.214(±) EASTING: 2398028.208(±)  
 ELEVATION: 158.73(±)  
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999214800  
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U5725-3" TO -L- STATION IS  
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
 VERTICAL DATUM USED IS NAVD 88



MATCHLINE  
SHEET: IC-3

**NOTES:**

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. NOTE: DRAWING NOT TO SCALE

6/28/2018



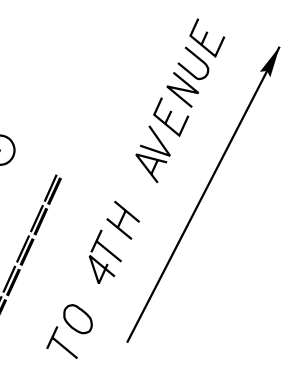
6/12/99

PROJECT REFERENCE NO.	SHEET NO.
U-5725	1C-5
Location and Surveys	
PROJECT SURVEYOR	

# SURVEY CONTROL SHEET U-5725

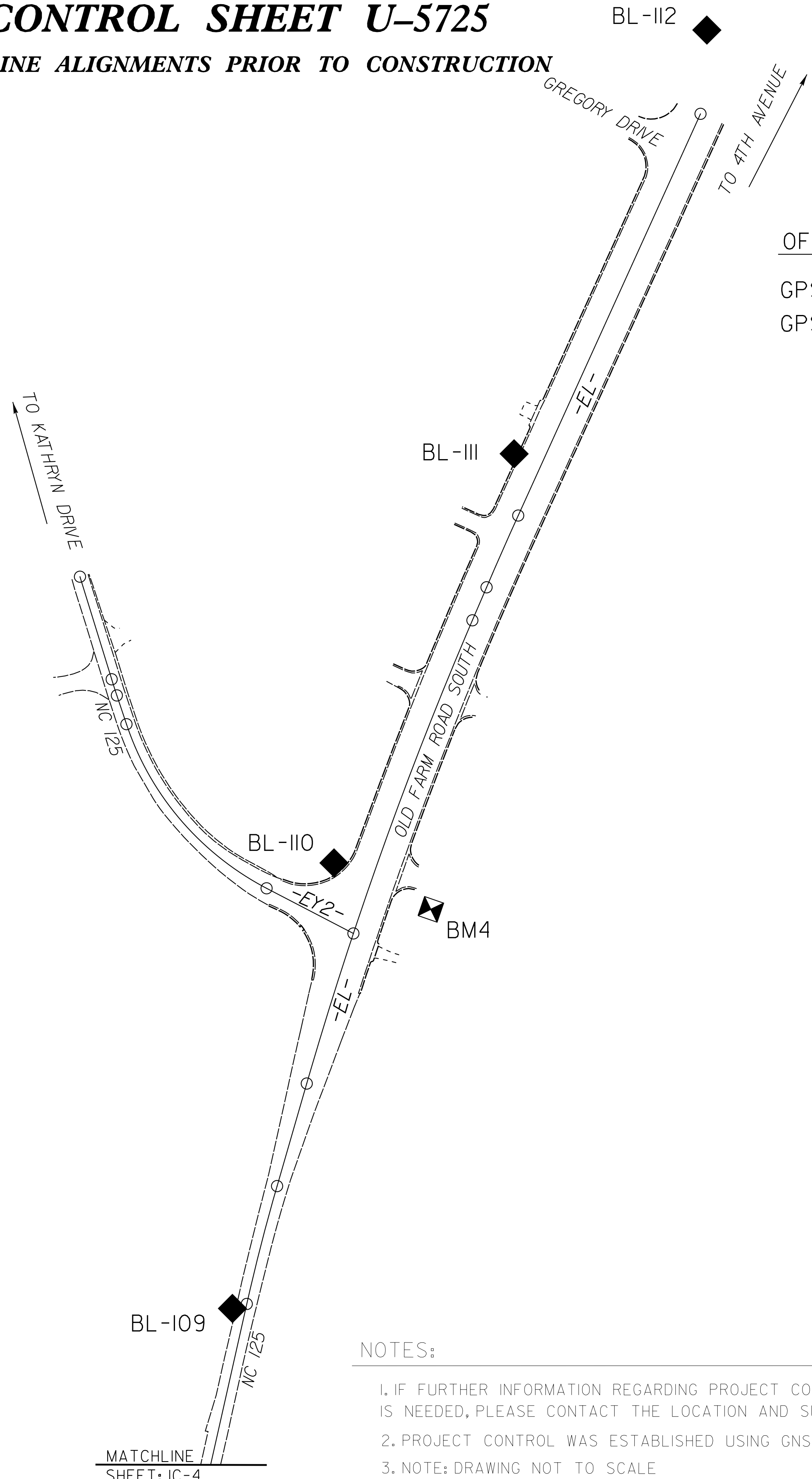
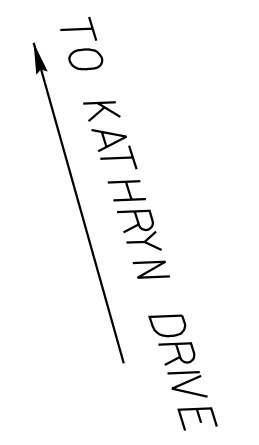
W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BL-II2



OFFSITE PRIMARY CONTROL :

- GPS U5725-5
- GPS U5725-6



### DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "U5725-3"

WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF  
 NORTHING: 972020.214(ft) EASTING: 2398028.208(ft)  
 ELEVATION: 158.73(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999214800

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U5725-3" TO -L- STATION IS

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

### NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. NOTE: DRAWING NOT TO SCALE

MATCHLINE  
SHEET: IC-4

REVISIONS

6/28/2018



# SURVEY CONTROL SHEET U-5725

## W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

### ALIGNMENT DATA

EL POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
PC	967752.342	2398872.992							
CURVE			N 35°05'19.8" W	287.68	04°07'17.8"(LT)	01°25'56.6"	287.74	143.93	4000.00
PT	967987.739	2398707.620							
LINE			N 37°08'58.7" W	127.88					
PC	968089.668	2398630.394							
CURVE			N 34°34'11.1" W	360.10	05°09'35.1"(RT)	01°25'56.6"	360.22	180.23	4000.00
PT	968386.185	2398426.071							
LINE			N 31°59'23.6" W	445.13					
PC	968763.717	2398190.255							
CURVE			N 30°57'00.0" W	36.30	02°04'47.1"(RT)	05°43'46.5"	36.30	18.15	1000.00
PT	968794.845	2398171.589							
LINE			N 29°54'36.5" W	105.35					
PC	968886.166	2398119.055							
CURVE			N 26°46'56.4" W	109.13	06°15'20.3"(RT)	05°43'46.5"	109.18	54.64	1000.00
PT	968983.587	2398069.882							
LINE			N 23°39'16.2" W	72.07					
PC	969049.605	2398040.965							
CURVE			N 22°07'57.9" W	185.90	03°02'36.8"(RT)	01°38'13.3"	185.92	92.98	3500.00
PT	969221.805	2397970.927							
LINE			N 20°36'39.5" W	241.34					
PC	969447.700	2397885.969							
CURVE			N 20°16'05.2" W	59.84	00°41'08.5"(RT)	01°08'45.3"	59.84	29.92	5000.00
PT	969503.832	2397865.241							
LINE			N 19°55'31.0" W	89.12					
PC	969587.620	2397834.869							
CURVE			N 18°31'40.3" W	121.94	02°47'41.4"(RT)	02°17'30.6"	121.95	60.99	2500.00
PT	969703.235	2397796.122							
LINE			N 15°10'29.9" W	40.95	03°54'39.3"(RT)	09°32'57.5"	40.96	20.49	600.00
PC	969742.755	2397785.403							
CURVE			N 13°13'10.3" W	62.50					
PT	969803.603	2397771.109							
LINE			N 08°56'37.5" W	86.78	08°33'05.5"(RT)	09°50'40.7"	86.86	43.51	582.00
PC	969889.332	2397757.617							
CURVE			N 04°40'04.8" W	40.96					
PT	969930.152	2397754.284							
LINE			N 00°30'20.8" E	202.90	10°20'51.2"(RT)	05°05'34.6"	203.17	101.86	1125.00
PC	970133.042	2397756.075							
CURVE			N 07°39'05.7" E	192.71	03°56'38.6"(RT)	02°02'46.6"	192.74	96.41	2800.00
PT	970324.031	2397781.734							
LINE			N 09°37'25.0" E	1089.90					
PC	971398.595	2397963.938							
CURVE			N 09°21'15.5" E	47.01	00°32'19.1"(LT)	01°08'45.3"	47.01	23.50	5000.00
PT	971444.976	2397971.578							
LINE			N 09°05'05.9" E	489.57					
PC	971928.407	2398048.882							
CURVE			N 09°39'31.9" E	100.16	01°08'52.0"(RT)	01°08'45.3"	100.16	50.08	5000.00
PT	972027.147	2398065.687							
LINE			N 10°13'57.9" E	88.64					
PC	972114.379	2398081.433							
CURVE			N 10°47'46.7" E	98.36	01°07'37.7"(RT)	01°08'45.3"	98.36	49.18	5000.00
PT	972210.997	2398099.858							
LINE			N 11°21'35.5" E	293.89					
PC	972499.125	2398157.745							
CURVE			N 11°30'28.3" E	25.83	00°17'45.4"(RT)	01°08'45.3"	25.83	12.91	5000.00
PT	972524.433	2398162.897							
LINE			N 11°39'21.0" E	602.42					
PC	973114.433	2398284.606							
CURVE			N 11°31'26.3" E	23.01	00°15'49.4"(LT)	01°08'45.3"	23.01	11.51	5000.00
PT	973136.984	2398289.204							
LINE			N 11°23'31.6" E	322.60					
PC	973453.229	2398352.925							
CURVE			N 11°45'32.5" E	64.04	00°44'01.8"(RT)	01°08'45.3"	64.04	32.02	5000.00
PT	973515.925	2398365.976							
LINE			N 12°07'33.4" E	286.65					
PC	973796.180	2398426.190							
CURVE			N 12°15'53.7" E	24.25	00°16'40.6"(RT)	01°08'45.3"	24.26	12.13	5000.00
PT	973819.881	2398431.343							
LINE			N 12°24'14.0" E	344.46					
PC	974156.302	2398505.334							
CURVE			N 12°18'45.9" E	15.91	00°10'56.2"(LT)	01°08'45.3"	15.91	7.95	5000.00
PT	974171.842	2398508.726							
LINE			N 12°13'17.8" E	495.66					
PC	974656.270	2398613.654							
CURVE			N 12°27'06.1" E	80.31	00°27'36.5"(RT)	00°34'22.6"	80.31	40.15	10000.00
PT	974734.688	2398630.969							
LINE			N 12°40'54.3" E	287.59					
PC	975015.263	2398694.106							
CURVE			N 14°24'45.1" E	163.10	03°27'41.6"(RT)	02°07'19.4"	163.12	81.59	2700.00
PT	975173.228	2398734.701							
LINE			N 16°08'35.9" E	143.09					
PC	975310.672	2398774.485							
CURVE			N 19°40'31.9" E	659.23	07°03'52.1"(RT)	01°04'15.4"	659.65	330.24	5350.00
PT	975931.410	2398996.442							
LINE			N 23°12'28.0" E	48.17					
PC	975975.686	2399015.426							
CURVE			N 23°48'35.7" E	105.09	01°12'15.4"(RT)	01°08'45.3"	105.09	52.55	5000.00
PT	976071.833	2399057.852							
LINE			N 24°24'43.4" E	591.19					
POT	976610.164	2399302.186							

EY POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	968019.329	2396638.153							
LINE			N 84°08'22.3" E	287.52					
PC	968048.687	2396924.166							
CURVE			N 83°57'59.1" E	30.21	00°20'46.2"(LT)	01°08'45.3"	30.21	15.10	5000.00
PT	968051.862	2396954.208							
LINE			N 83°47'36.0" E	399.16					
PC	968095.018	2397351.034							
CURVE			N 83°13'13.4" E	100.00	01°08'45.2"(LT)	01°08'45.3"	100.00	50.00	5000.00
PT	968106.822	2397450.330							
LINE			N 82°38'50.8" E	28.20					
PC	968110.432	2397478.302							
CURVE			N 78°15'54.9" E	305.64	08°45'51.8"(LT)	02°51'53.2"	305.94	153.27	2000.00
PT	968172.592	2397777.551							
LINE			N 73°52'59.0" E	206.19					
PC	968229.829	2397975.633							
CURVE			N 73°41'27.6" E	33.52	00°23'02.7"(LT)	01°08'45.3"	33.52	16.76	5000.00
PT	968239.241	2398007.801							
LINE			N 73°29'56.3" E	82.53					
PC	968262.681	2398086.928							
CURVE			N 73°37'13.3" E	21.19	00°14'34.0"(RT)	01°08'45.3"	21.19	10.59	5000.00
PT	968268.656	2398107.255							
LINE			N 73°44'30.1" E	345.69					
POT	968365.438	2398439.119							

EY2 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	975989.853	2398470.539							
LINE			S 17°10'09.5" E	143.87					
PC	975852.391	2398513.010							
CURVE			S 17°49'11.2" E	22.71	01°18'03.4"(LT)	05°43'46.5"	22.71	11.35	1000.00
PT	975830.775	2398519.958							
LINE			S 18°28'12.9" E	40.61					
PC	975792.252	2398532.825							
CURVE			S 40°29'54.7" E	289.22	44°03'23.7"(LT)	14°51'37.8"	296.47	156.00	385.56
PT	975572.324	2398720.652							
LINE			S 62°31'36.6" E	131.16					
POT	975511.814	2398837.023							

EY3 POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	972435.997	2397592.176							
LINE			S 80°09'51.5" E	349.50					
PC	972376.294	2397936.538							
CURVE			S 79°36'55.7" E	95.79	01°05'51.5"(RT)	01°08'45.3"	95.79	47.90	5000.00
PT	972359.029	2398030.755							
LINE			S 79°04'00.0" E	96.91					
POT	972340.648	2398125.906							

NOTES:

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- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- NOTE: DRAWING NOT TO SCALE

REVISIONS

6/12/99

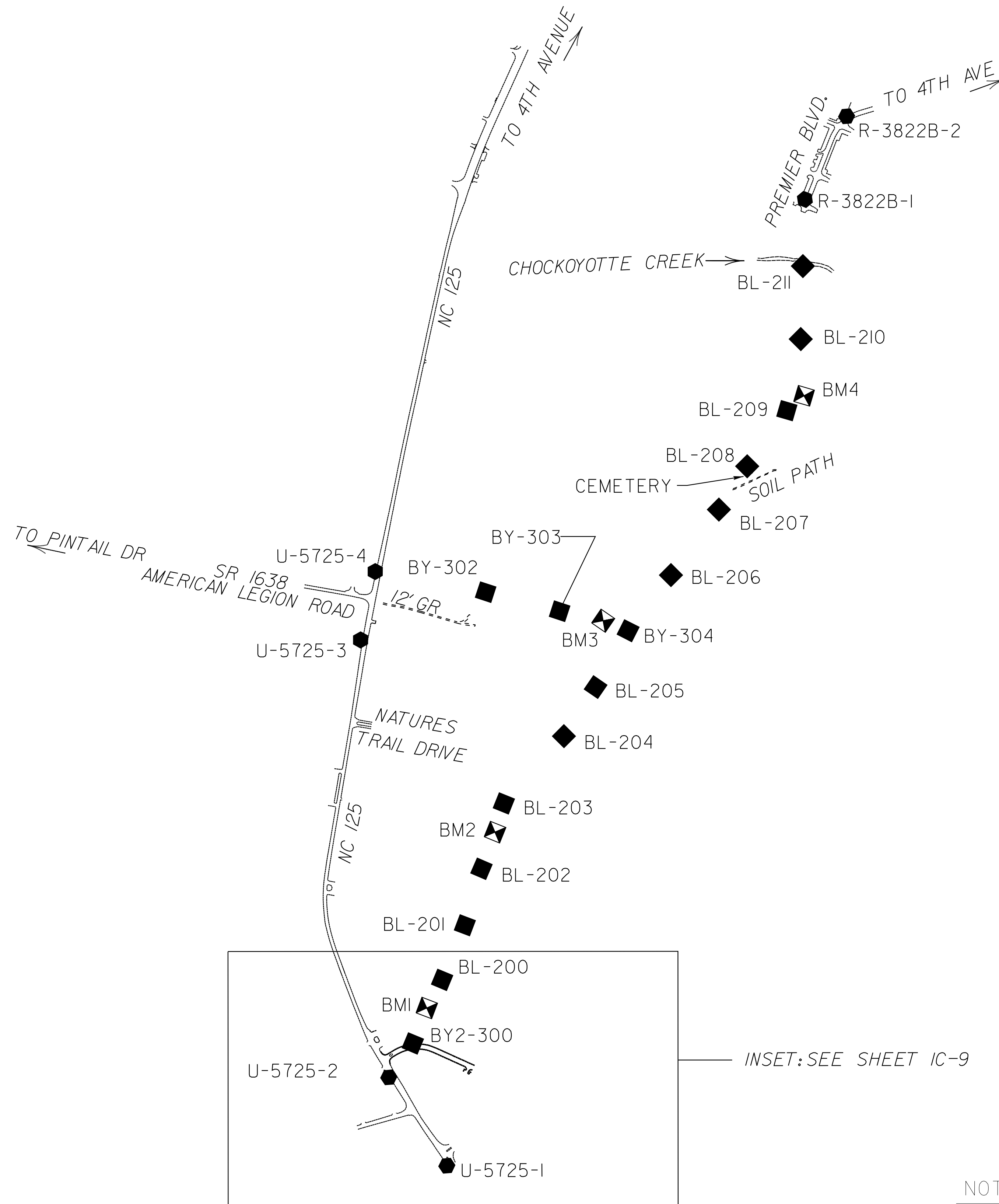
6/28/2008

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-3822A	1C-8
Location and Surveys	
PROJECT SURVEYOR	

# SURVEY CONTROL SHEET R-3822A

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



INSET: SEE SHEET 1C-9

**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "U-5725-3"

WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF  
 NORTHING: 972020.214(ft) EASTING: 2398028.208(ft)  
 ELEVATION: 158.73(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999214800

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U-5725-3" TO -L- STATION IS

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

**NOTES:**

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. NOTE: DRAWING NOT TO SCALE

REVISIONS

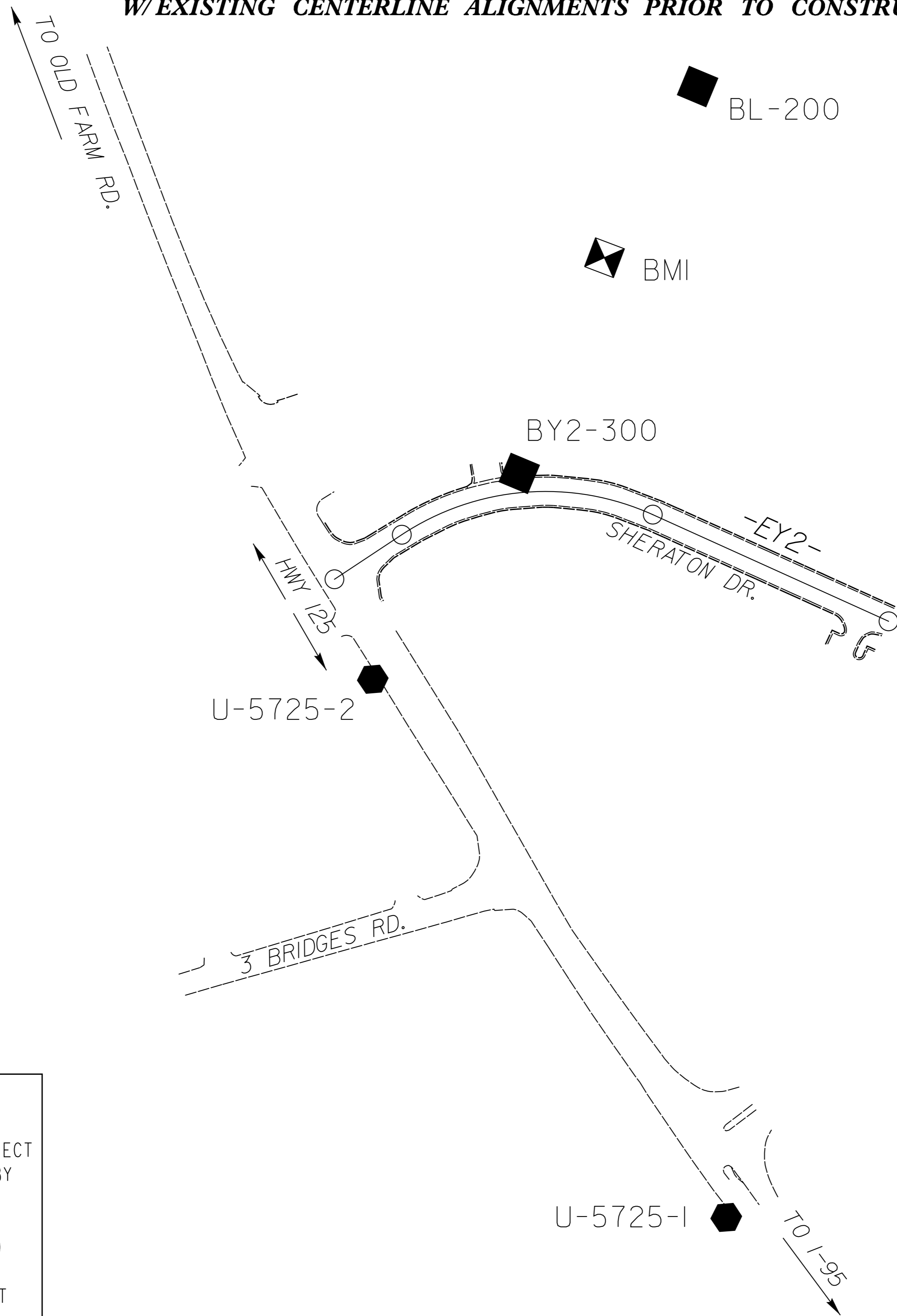
6/28/2018

PROJECT REFERENCE NO.	SHEET NO.
R-3822A	1C-9
Location and Surveys	

PROJECT SURVEYOR

# SURVEY CONTROL SHEET R-3822A

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



INSET FROM SHEET IC-8

## DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "U-5725-3" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF  
 NORTHING: 972020.214(ft) EASTING: 2398028.208(ft)  
 ELEVATION: 158.73(ft)  
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999214800  
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U-5725-3" TO -L- STATION IS  
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES  
 VERTICAL DATUM USED IS NAVD 88

## NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. NOTE: DRAWING NOT TO SCALE

6/2/99

REVISIONS

6/28/2018

6/2/99

PROJECT SURVEYOR

# SURVEY CONTROL SHEET R-3822A

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

## BASELINE DATA

BL	POINT	DESC.	NORTH	EAST	ELEVATION
1		U5725-1	967940.7170	2398695.8120	166.38
2		U5725-2	968626.8400	2398245.0880	154.57
300		U5725-BY2_300	968889.1060	2398431.6940	146.83
200		BL-200	969382.3300	2398659.0300	142.85
201		BL-201	969805.2970	2398835.8850	132.85
202		BL-202	970243.8080	2398966.0630	144.07
203		BL-203	970750.5860	2399139.0270	141.78
204		BL-204	971272.3190	2399605.1870	129.29
205		BL-205	971652.8230	2399851.3950	127.96
304		BY-304	972090.5820	2400104.0670	119.17
206		BL-206	972521.3440	2400436.3650	119.69
207		BL-207	973029.4320	2400808.9730	105.46
208		BL-208	973365.0920	2401028.5430	103.72
209		BL-209	973847.3090	2401360.0700	95.38
210		BL-210	974351.5960	2401444.9090	93.81
211		BL-211	974917.7850	2401461.8140	82.54
B1		R3822B-1	975435.6830	2401477.8390	97.73
B2		R3822B-2	976080.2170	2401801.7960	109.58

## BENCHMARK DATA

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BM1      ELEVATION = 146.62
N 969164      E 2398540
BENCHTIE IN 11" GUM
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BM2      ELEVATION = 148.84
N 970528      E 2399071
BENCHTIE IN 18" OAK
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BM3      ELEVATION = 126.91
N 972168      E 2399911
BENCHTIE IN 36" GUM
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BM4      ELEVATION = 96.05
N 973881      E 2401376
BENCHTIE IN 6" PINE
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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BY	POINT	DESC.	NORTH	EAST	ELEVATION
3		U5725-3	972020.2140	2398028.2080	158.73
4		U5725-4	972550.3050	2398142.0590	148.48
301		BY-301	972251.7000	2398491.0430	148.42
302		BY-302	972390.4490	2398998.6070	142.53
303		BY-303	972242.3850	2399572.0860	128.72
304		BY-304	972090.5820	2400104.0670	119.17

## ALIGNMENT DATA

EY2	POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT		968754.298	2398196.139							
LINE				N 56°30'18.5" E	103.00					
PC		968811.139	2398282.033							
CURVE				N 85°25'27.2" E	321.03	57°50'17.3"(RT)	17°15'40.4"	335.08	183.38	331.93
PT		968836.750	2398602.039							
LINE				S 65°39'24.1" E	329.98					
POT		968700.733	2398902.677							

NOTES:

- IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
- NOTE: DRAWING NOT TO SCALE

REVISIONS

6/28/2018

6/2/99

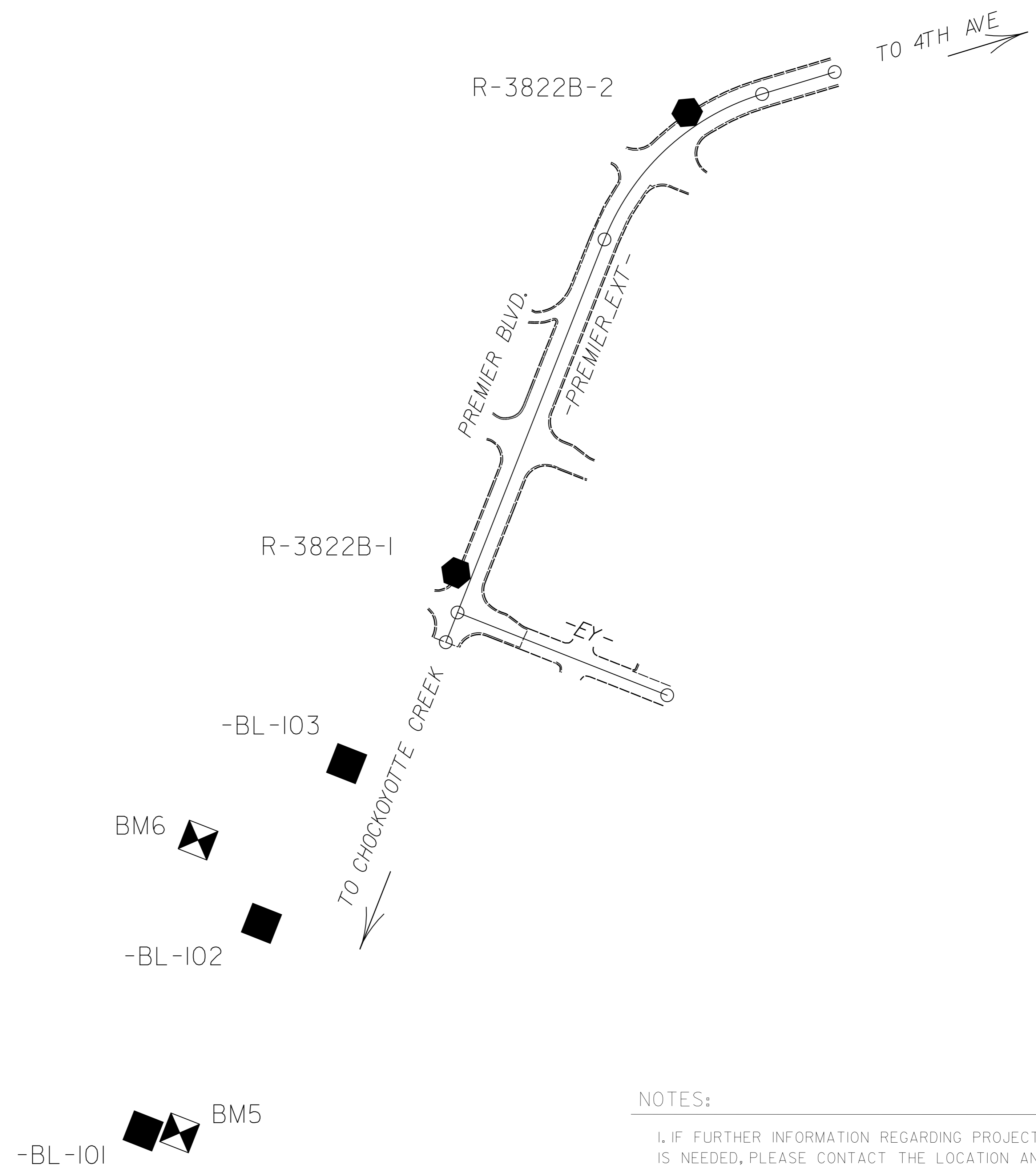
PROJECT REFERENCE NO.	SHEET NO.
R-3822B	1C-11
Location and Surveys	
PROJECT SURVEYOR	

# SURVEY CONTROL SHEET R-3822B

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



REVISIONS



**DATUM DESCRIPTION**

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "U-5725-3"

WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF  
 NORTHING: 972020.214(ft) EASTING: 2398028.208(ft)  
 ELEVATION: 158.73(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999214800

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "U-5725-3" TO -L- STATION IS

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

**NOTES:**

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. NOTE: DRAWING NOT TO SCALE

6/28/2018

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-3822B	1C-12
Location and Surveys	

PROJECT SURVEYOR

# SURVEY CONTROL SHEET R-3822B

W/EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

## BASELINE DATA

## BENCHMARK DATA

BL	POINT	DESC.	NORTH	EAST	ELEVATION
	101	BL-101	974653.8470	2401039.3470	97.80
	102	BL-102	974944.6200	2401205.1660	83.08
	103	BL-103	975168.5980	2401324.7560	100.84
	1	R3822B-1	975435.6830	2401477.8390	97.73
	2	R3328-2	976080.2170	2401801.7960	109.58

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BM5          ELEVATION = 93.85
N 974651     E 2401091
6" PINE
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BM6          ELEVATION = 90.56
N 975061     E 2401116
BENCHTIE IN 8" DOUBLE OAK
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

```

## ALIGNMENT DATA

EY

POINT	N	E	BEARING	DIST
POT	975380.098	2401479.914		
LINE			S 68°27'52.9" E	315.77
POT	975264.186	2401773.644		

PREMIER\_EXT

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	975338.467	2401463.509							
LINE			N 21°30'24.2" E	606.29					
PC	975902.544	2401685.781							
CURVE			N 47°19'11.1" E	300.45	51°37'33.7"(RT)	16°36'26.9"	310.86	166.88	345.00
PT	976106.222	2401906.657							
LINE			N 73°07'57.9" E	106.17					
POT	976137.029	2402008.264							


- NOTES:
- IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
  - PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
  - NOTE: DRAWING NOT TO SCALE

REVISIONS

6/28/2018




5/14/99




421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, N.C. 27601. NC LICENSE #F-0102

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

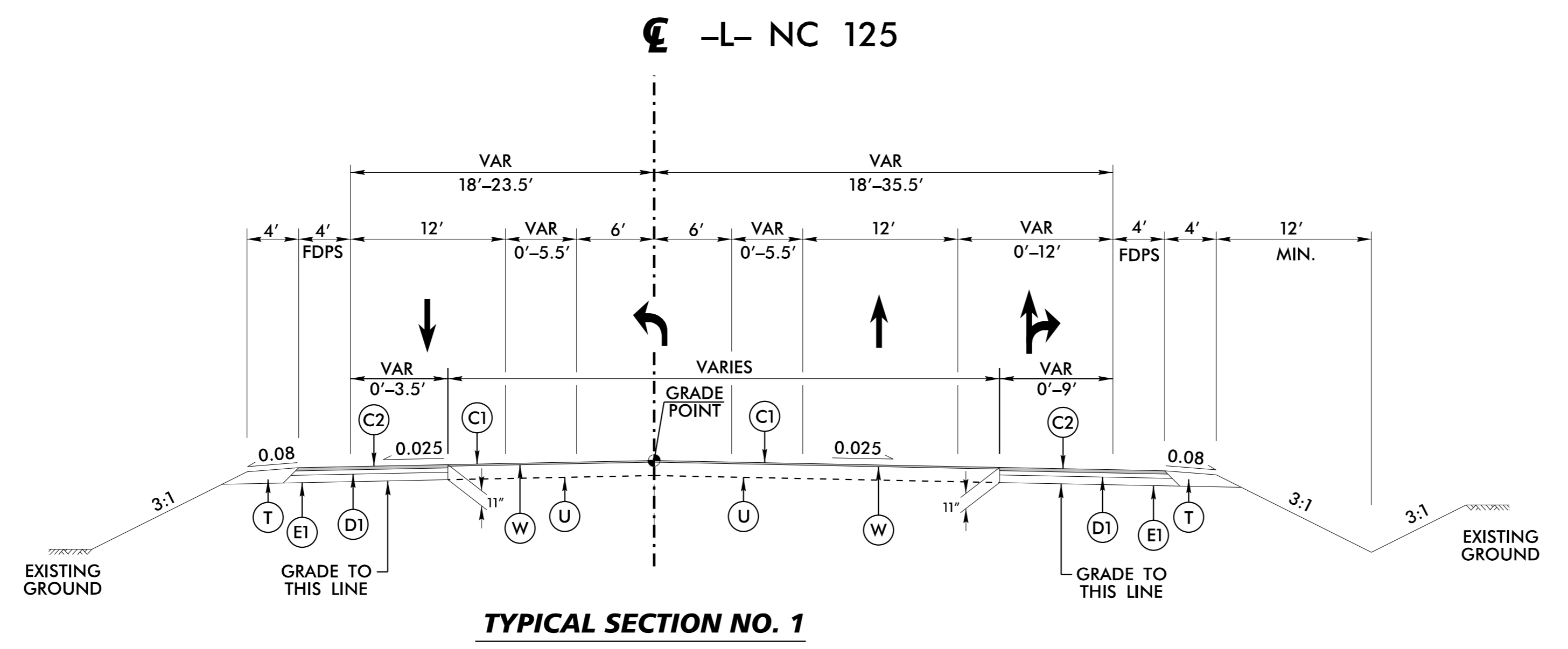


6/28/2018

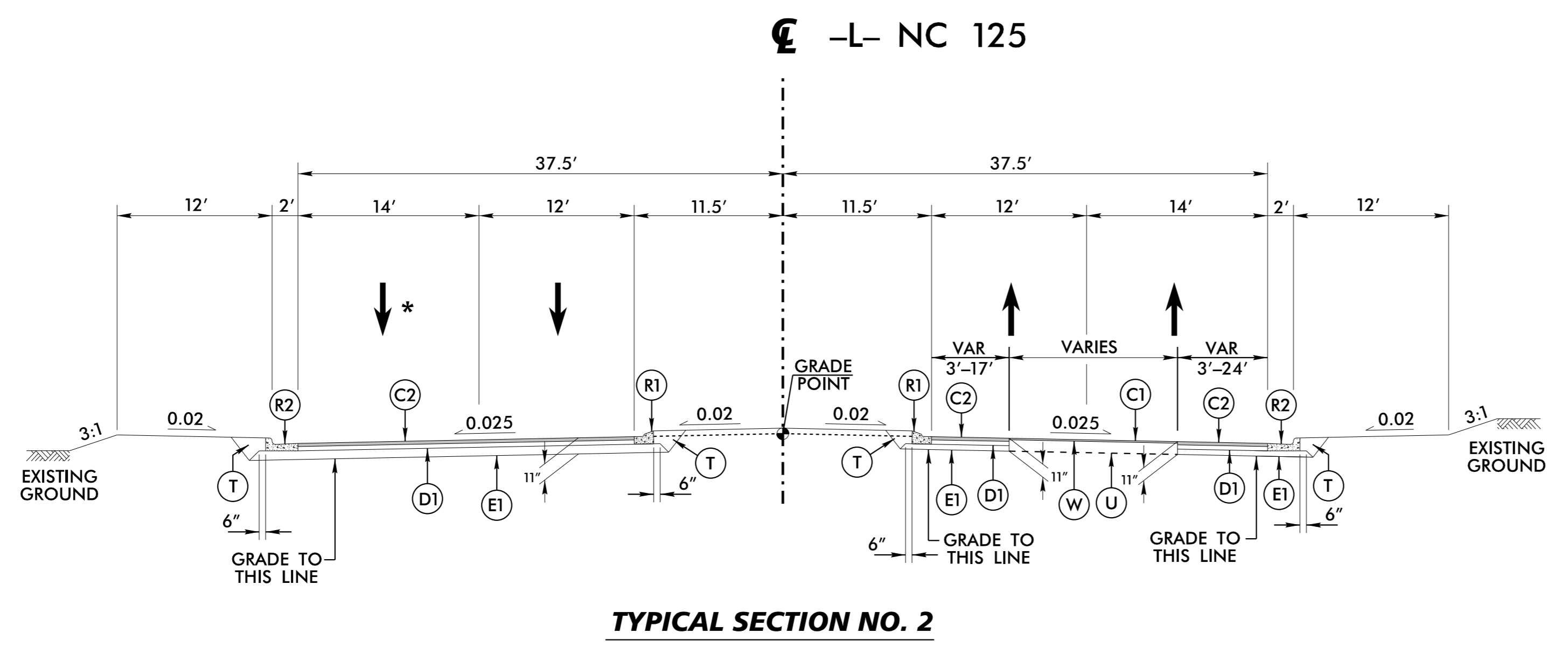


6/28/2018

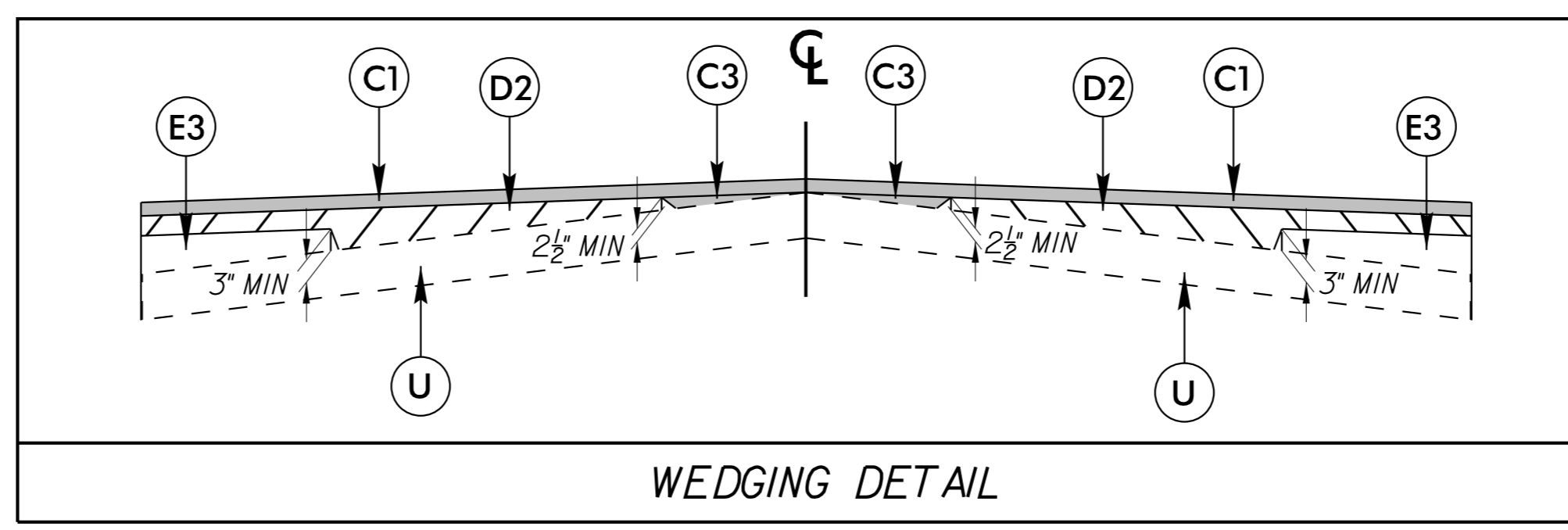
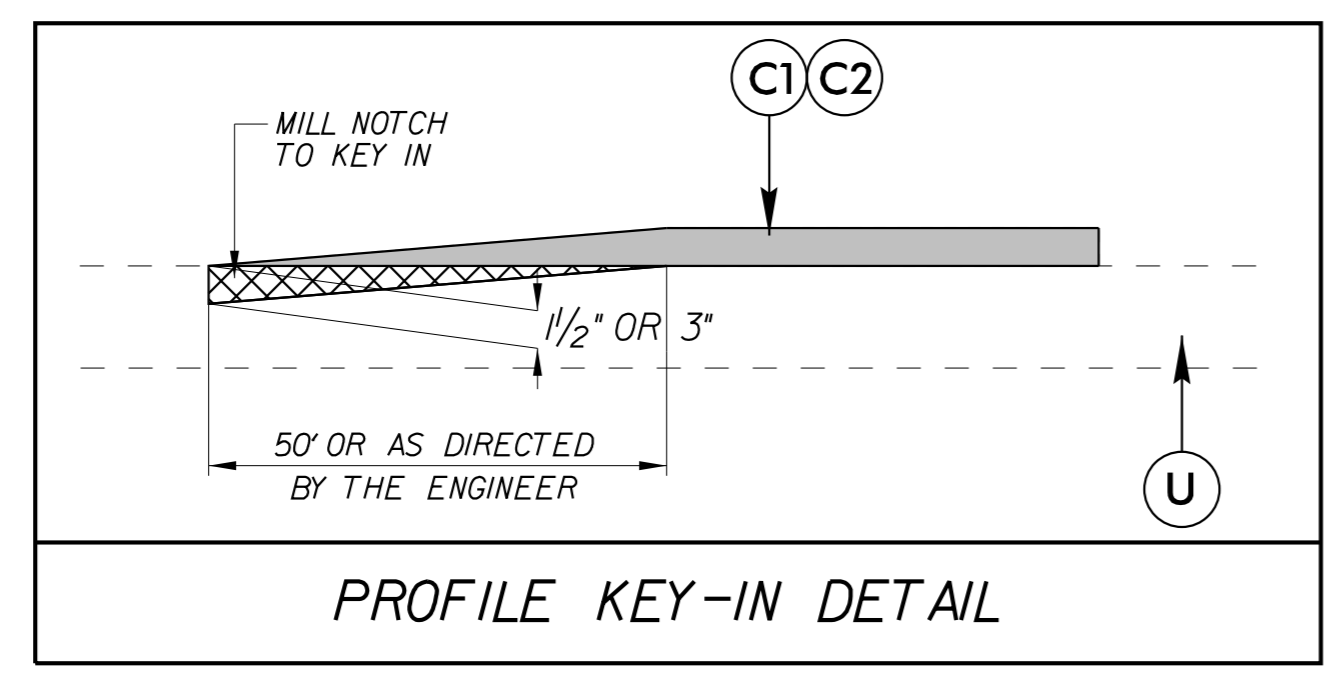
DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.



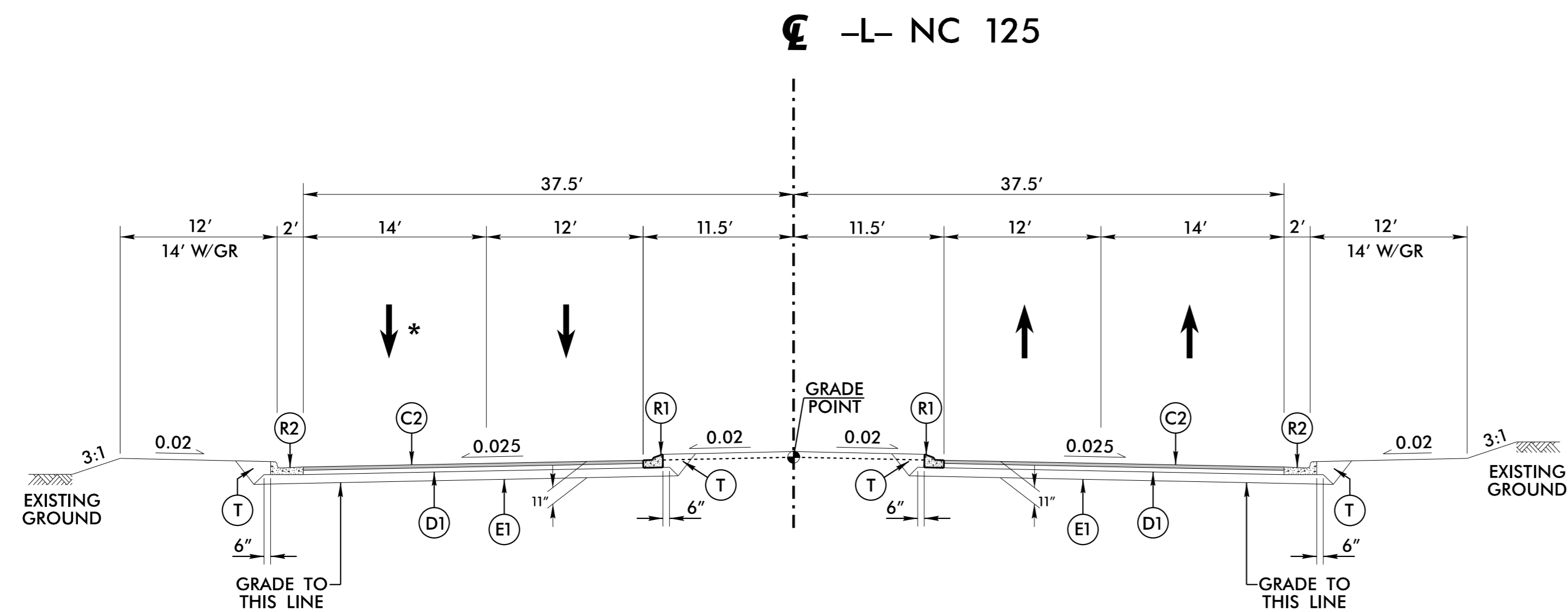
<b>PAVEMENT SCHEDULE</b> (PAVEMENT DESIGN)	
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN ONE LAYER
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	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 OR LESS THAN 1.5" 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 TO EXCEED 4" IN DEPTH OR LESS THAN 2.5" IN DEPTH.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
E3	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 5.5" IN DEPTH OR LESS THAN 3" IN DEPTH.
J1	PROPOSED 6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER.
R2	2'-6" CONCRETE CURB AND GUTTER.
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	PROPOSED 4" CONCRETE SIDEWALK
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	VARIABLE DEPTH ASPHALT PAVEMENT



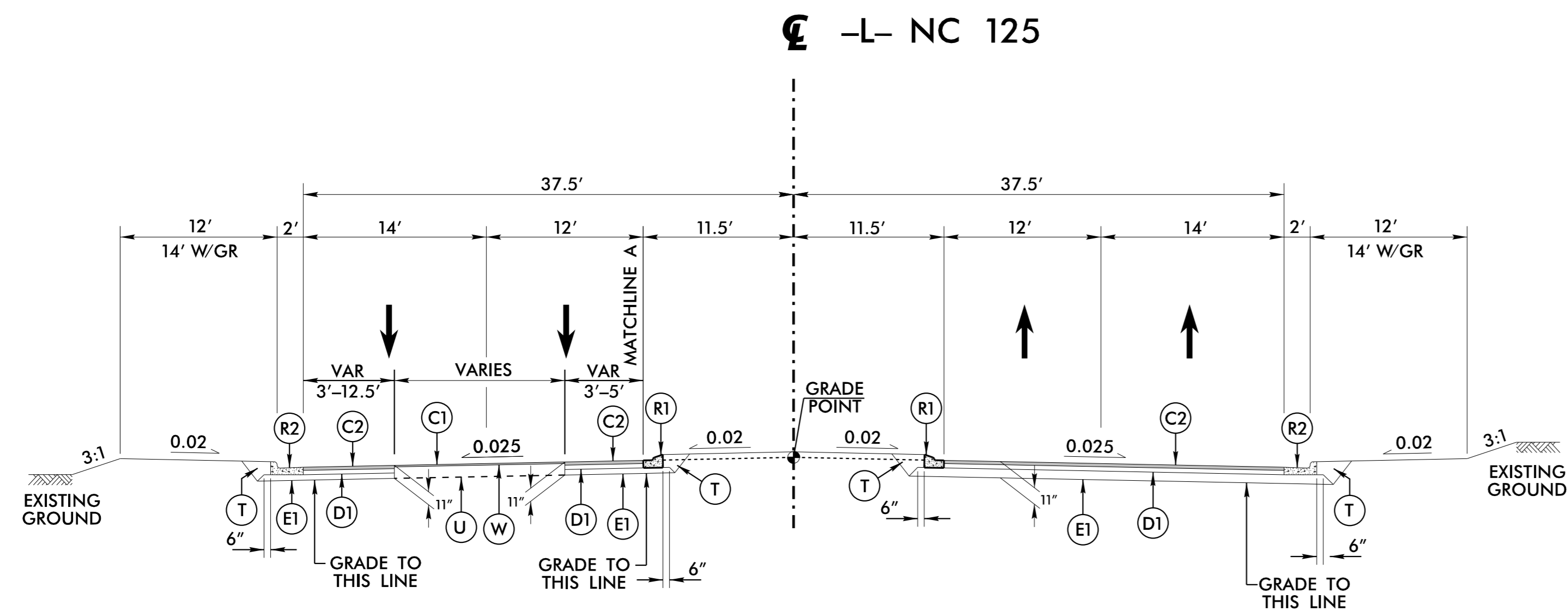
REVISIONS

5/14/99

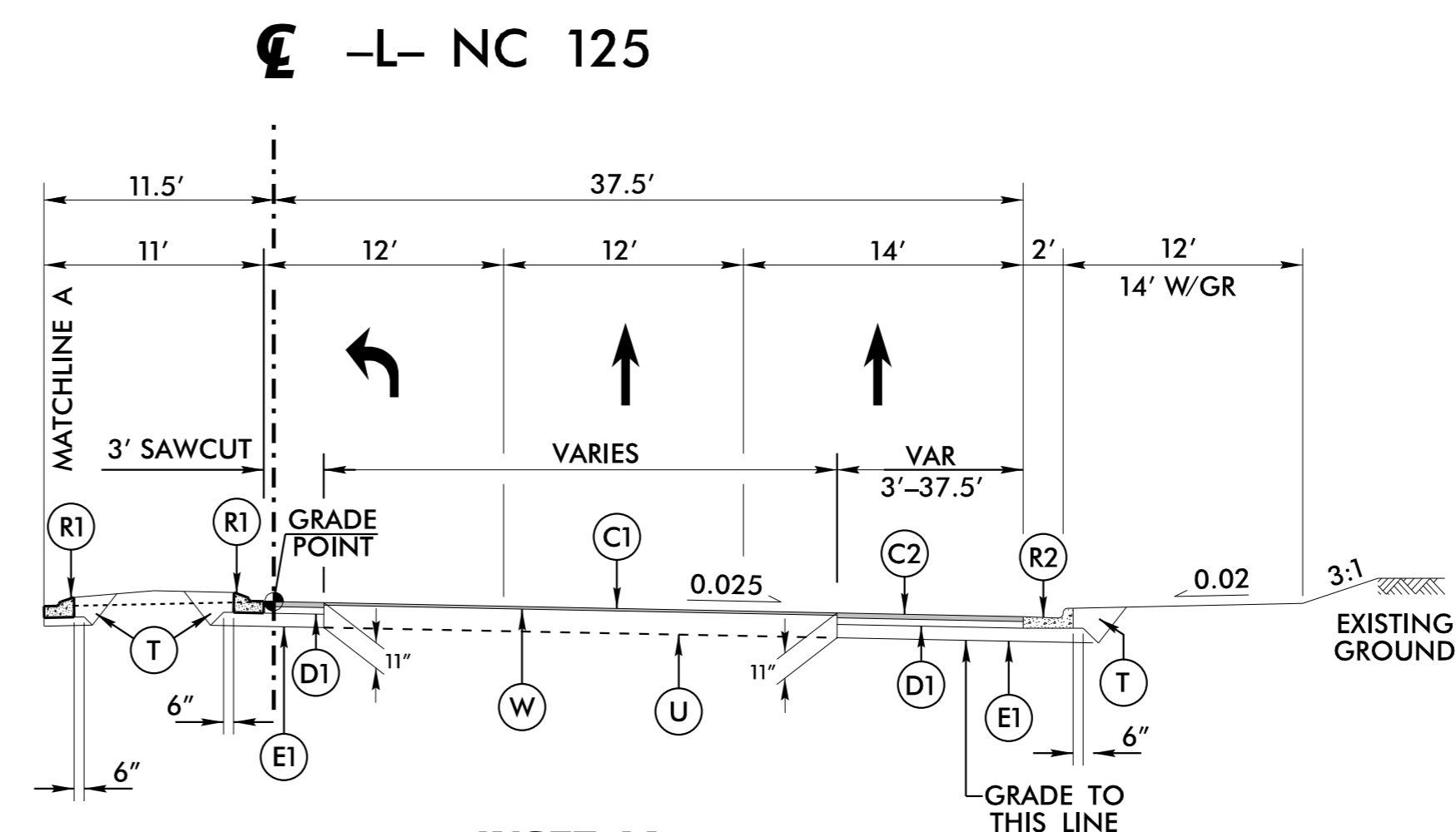
PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**TYPICAL SECTION NO. 3**  
-L- STA 23+67.00 TO STA 27+40.00  
\* RIGHT TURN ONLY: -L- STA 18+29.18 TO 24+95



**TYPICAL SECTION NO. 4**  
-L- STA 55+90.19 TO STA 87+90.00



**INSET 4A**  
-L- STA 84+25.00 TO STA 87+90.00

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  3. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.

**PAVEMENT SCHEDULE**

C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING

REVISIONS

5/14/99

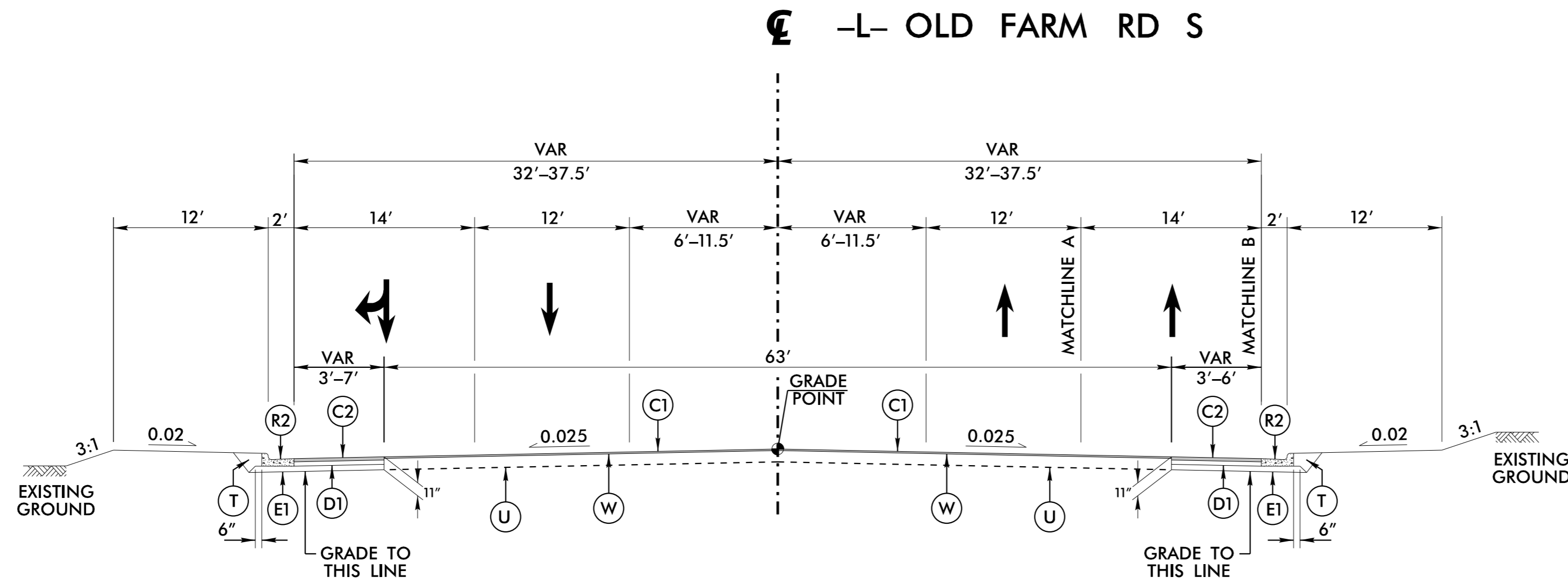
REVISIONS

**Kimley Horn**

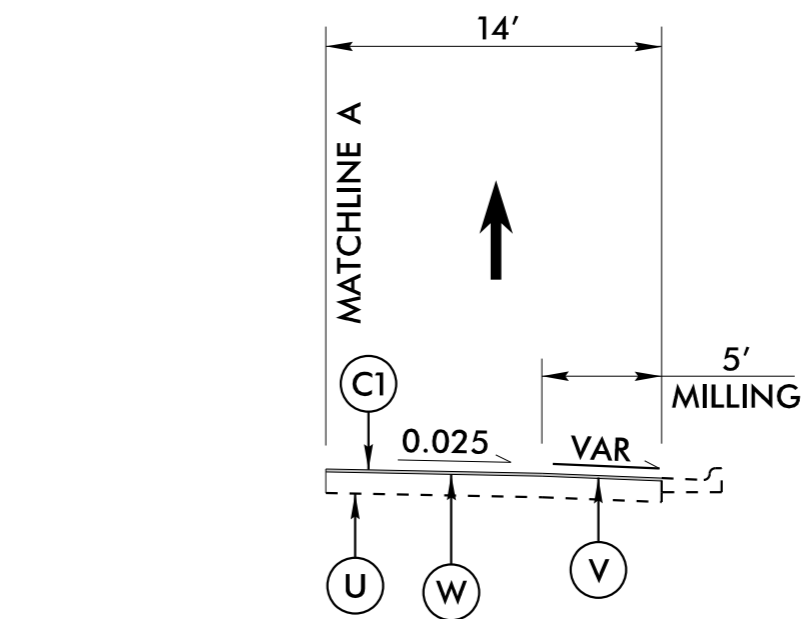
421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, N.C. 27601. NC LICENSE #F-0102

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-3
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

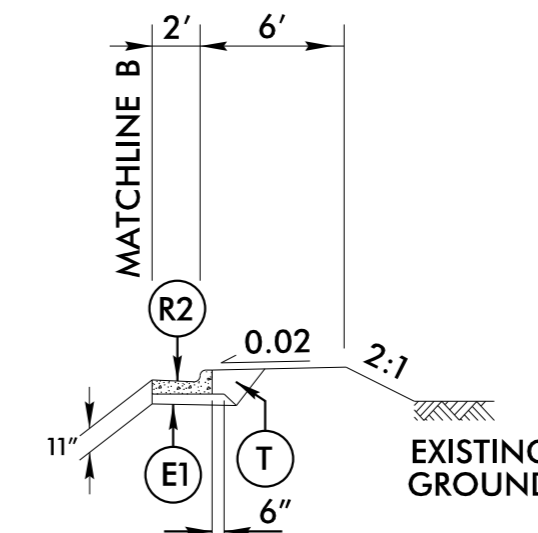
**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



**TYPICAL SECTION NO. 5**  
**-L- STA 87+90.00 TO STA 93+80.00**



**INSET 5A**  
**-L- STA 91+66.00 TO STA 93+80.00**

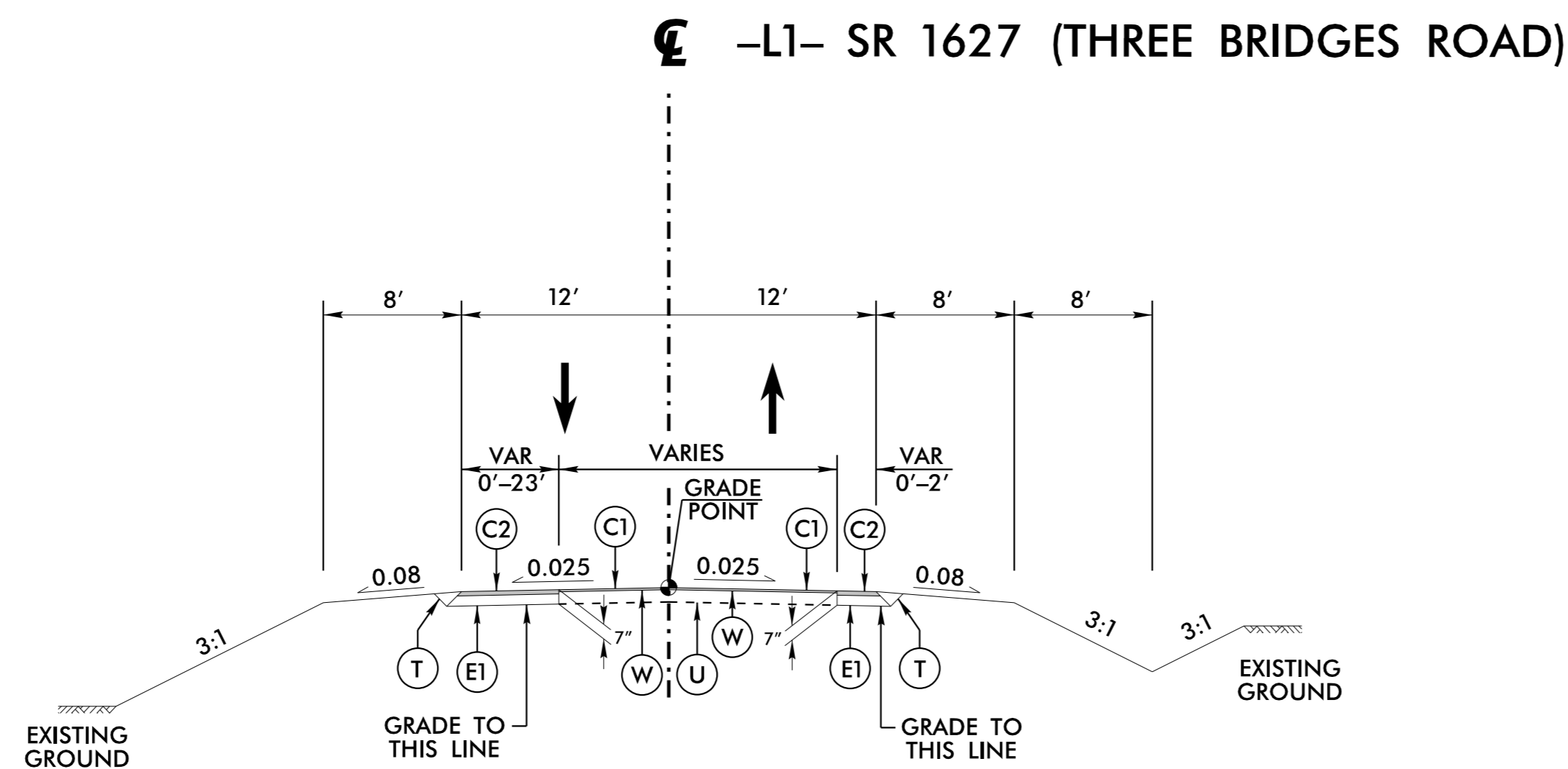


**INSET 5B**  
**-L- STA 89+60.00 TO 91+60.20**

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  3. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.

**PAVEMENT SCHEDULE**

C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE 119.0C
D2	VAR. TYPE 119.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING



**TYPICAL SECTION NO. 6**  
**-L1- STA 14+95.00 TO STA 18+00.00**

5/14/19

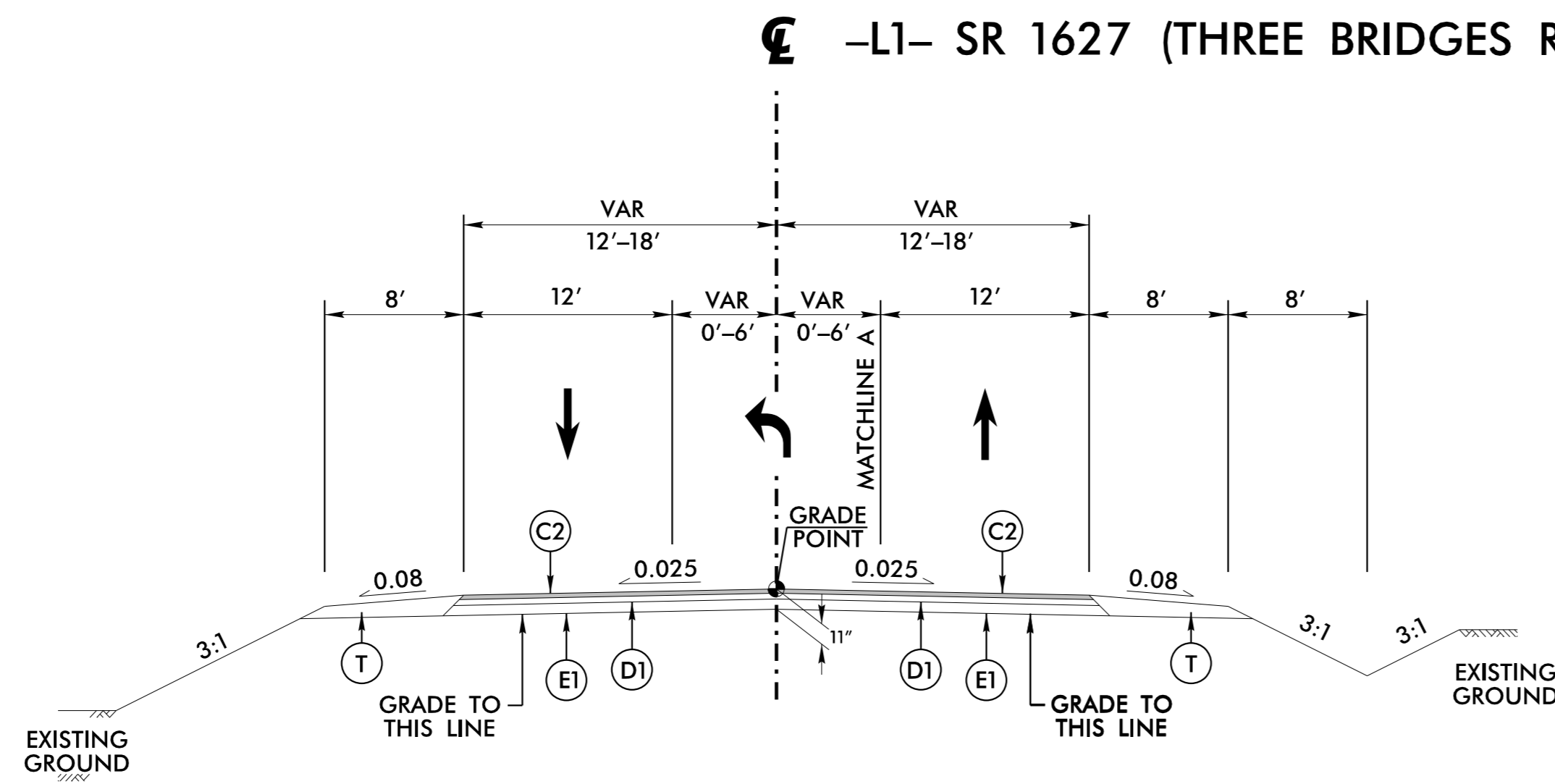
REVISIONS

**Kimley Horn**

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RALEIGH, N.C. 27601. NC LICENSE #F-0102

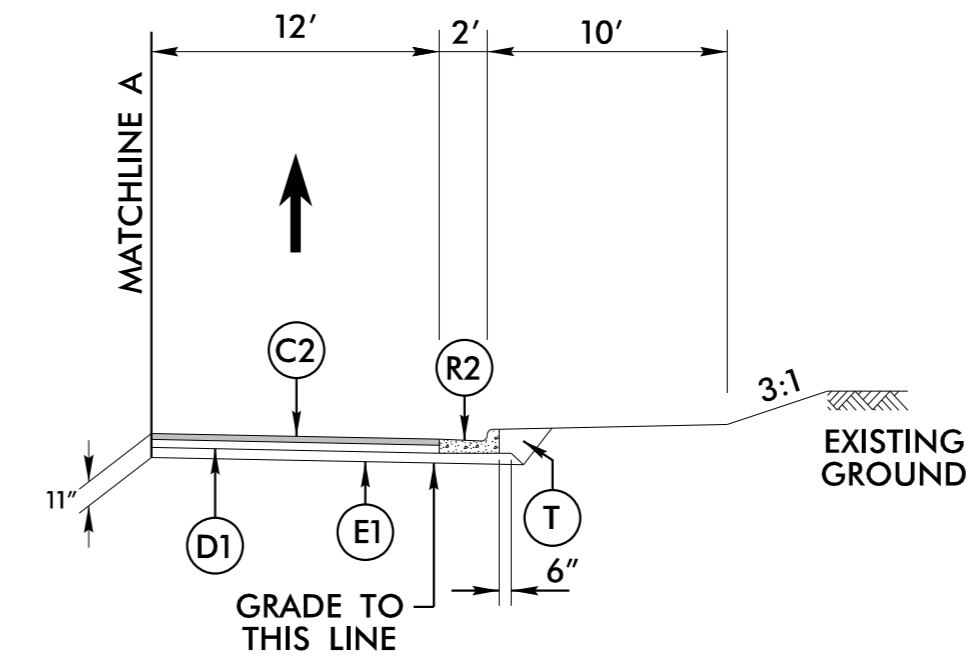
PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-4
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

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



**TYPICAL SECTION NO. 7**

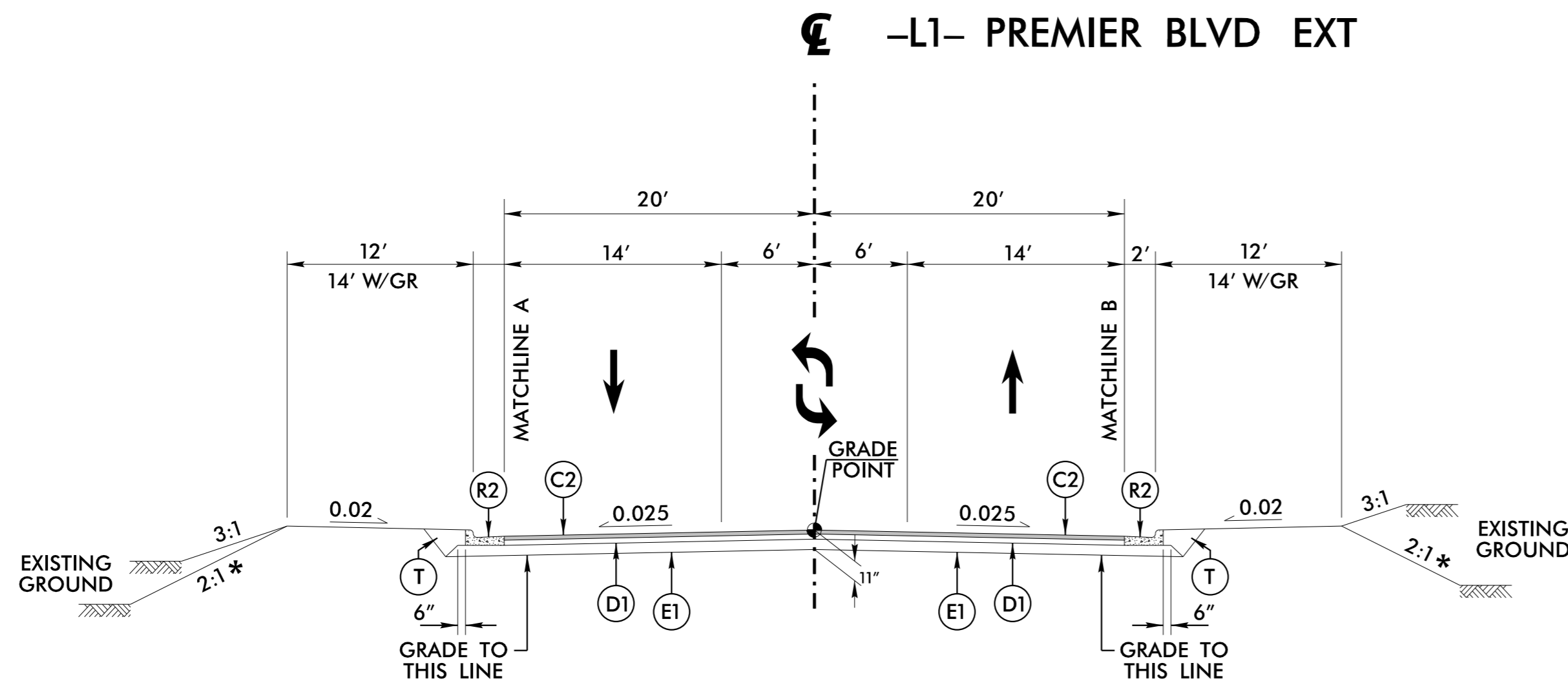
**-L1- STA 18+00.00 TO STA 26+72.21**



**INSET 7A**

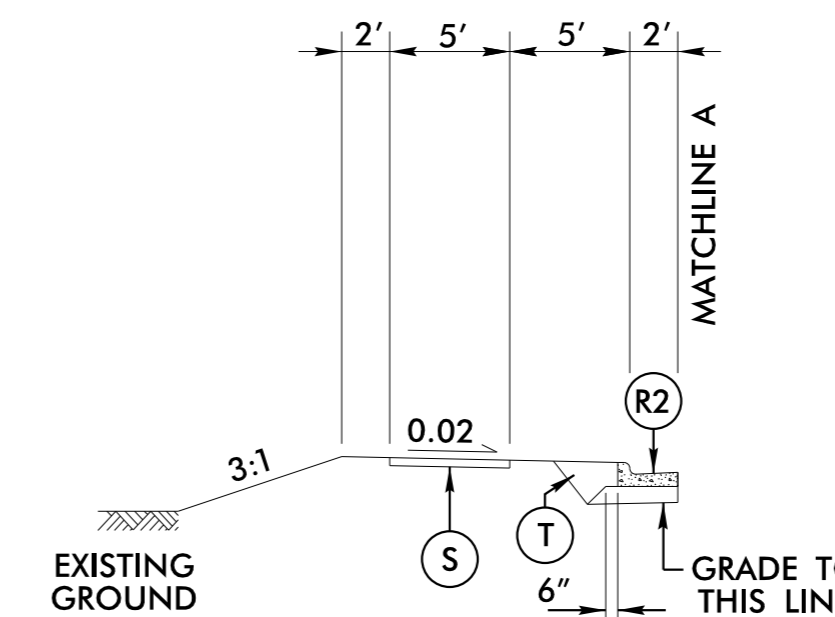
**-L1- STA 21+00.00 TO 26+72.21**

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  3. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.



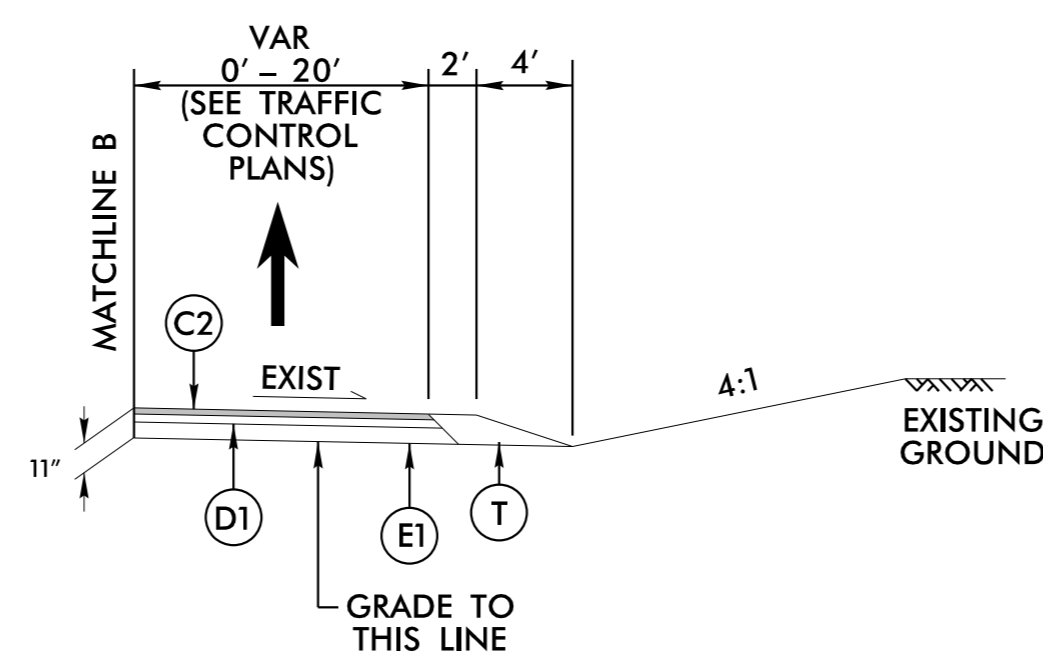
**TYPICAL SECTION NO. 8**

**-L1- STA 27+40.00 TO STA 97+12.60 (BEGIN BRIDGE)**  
**-L1- STA 101+22.60 (END BRIDGE) TO STA 106+00.00**



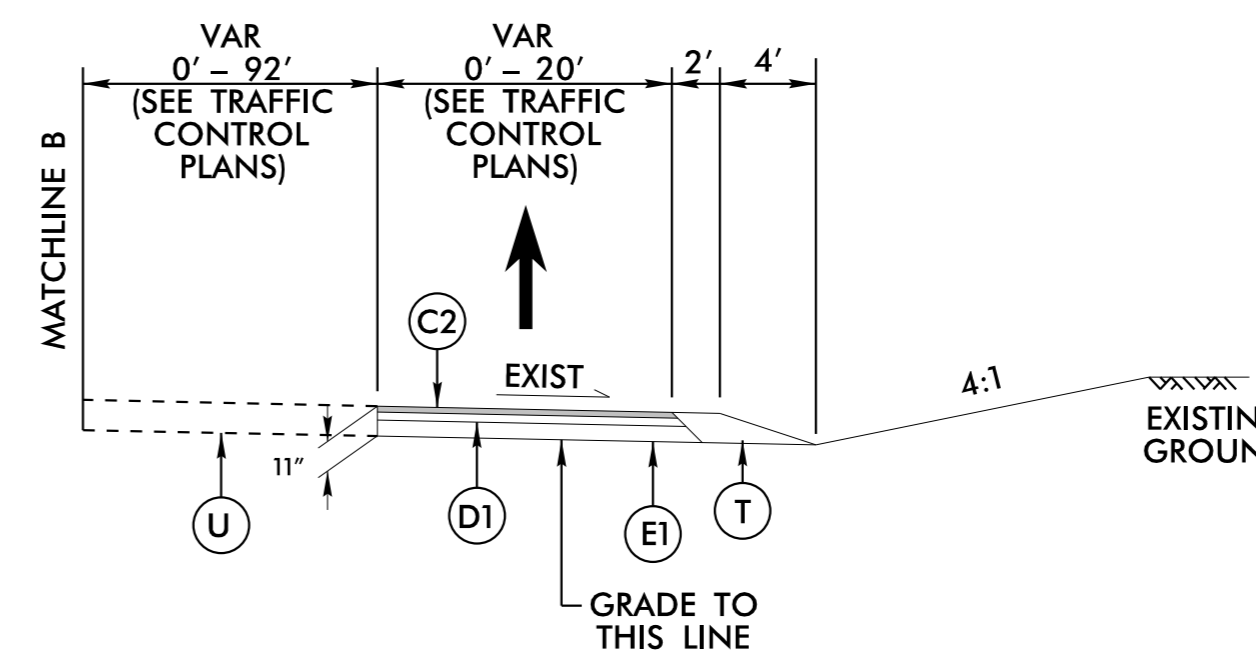
**INSET 8A**

**-L1- STA 101+22.60 (END BRIDGE) TO STA 106+00.00**



**INSET 8B**

**-L1- STA 28+63.10 TO STA 29+23.50**



**INSET 8C**

**-L1- STA 29+23.50 TO STA 30+16.14**

\* **-L1- STA 79+50.00 TO STA 80+00.00 (LT)**  
\* **-L1- STA 81+50.00 TO STA 82+50.00 (LT)**  
\* **-L1- STA 82+00.00 TO STA 82+50.00 (RT)**

**NOTE: TEMPORARY WIDENING SHOWN ON TRAFFIC CONTROL PLANS, PHASE I  
SEE SHEET TMP-4A**

**NOTE: TEMPORARY WIDENING SHOWN ON TRAFFIC CONTROL PLANS, PHASE I  
SEE SHEET TMP-4A**

**PAVEMENT SCHEDULE**

C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING

5/14/99

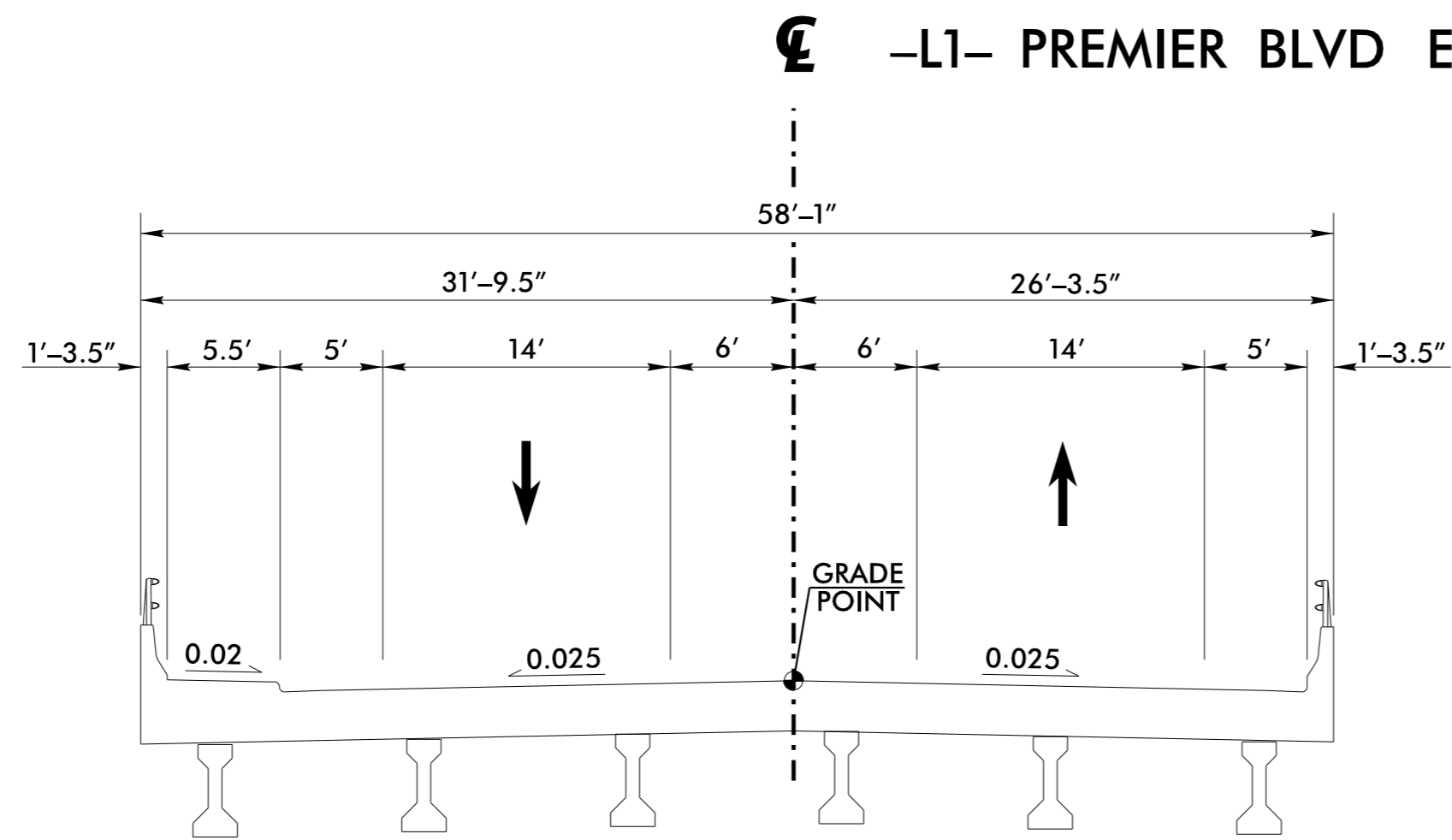
REVISIONS

**Kimley Horn**

421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, N.C. 27601. NC LICENSE #F-0102

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-5
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

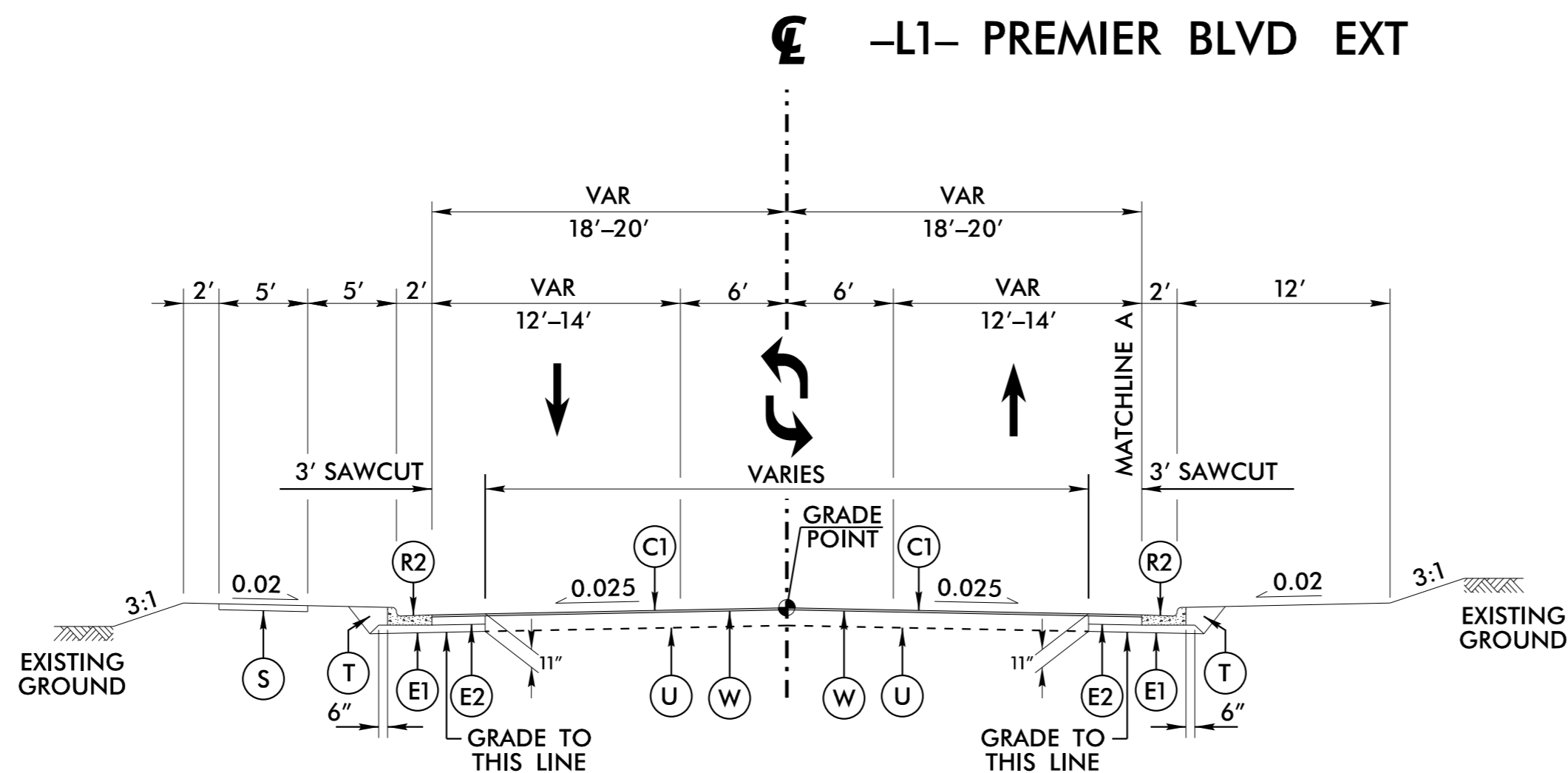
**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



**TYPICAL SECTION NO. 9**

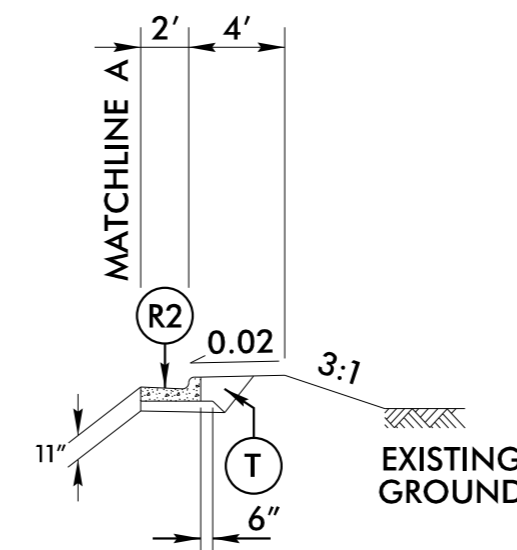
**-L1- STA 97+12.60 TO STA 101+22.60**

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  3. SEE PARTIAL SECTIONS FOR LANE TAPER LOCATIONS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.



**TYPICAL SECTION NO. 10**

**-L1- STA 106+00.00 TO STA 108+35.00**



**INSET 10A**

**-L- STA 106+50.00 TO STA 108+35.00**

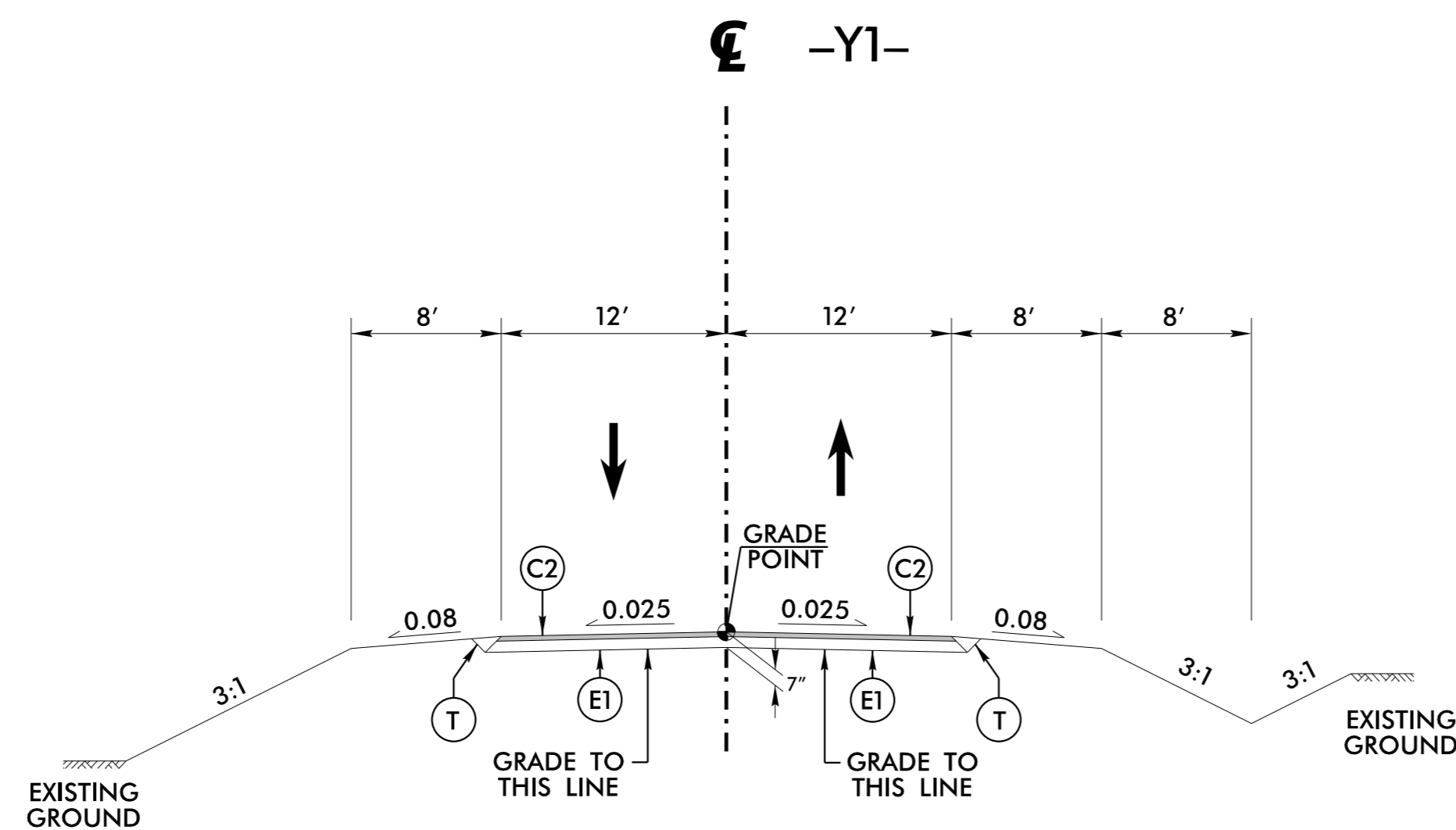
**PAVEMENT SCHEDULE**

C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING

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REVISIONS

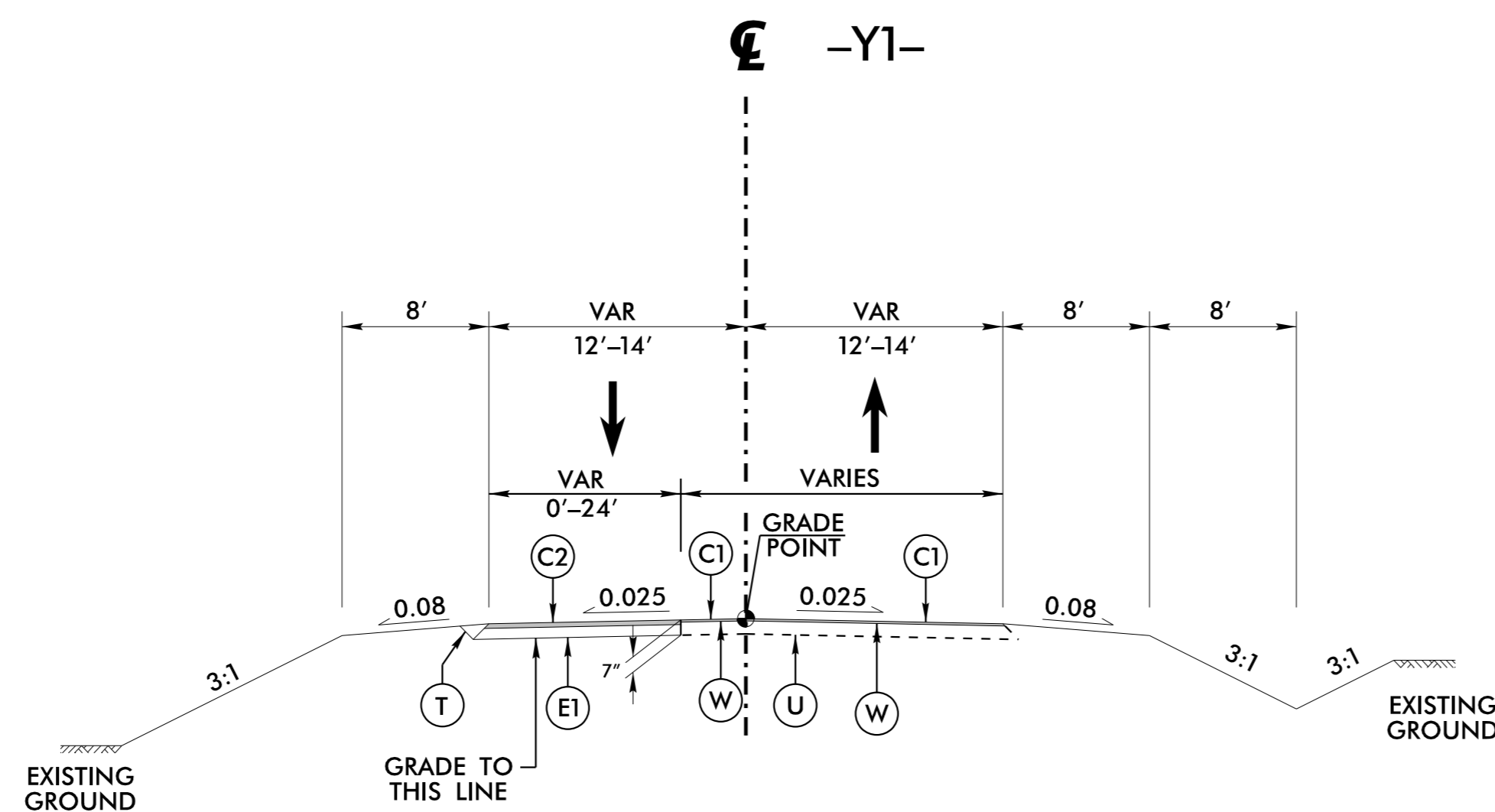
PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-6
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**TYPICAL SECTION NO. 11**

**-Y1- STA 10+12.05 TO STA 11+28.75**

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  3. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.



**TYPICAL SECTION NO. 12**

**-Y1- STA 11+28.75 TO STA 13+10.00**

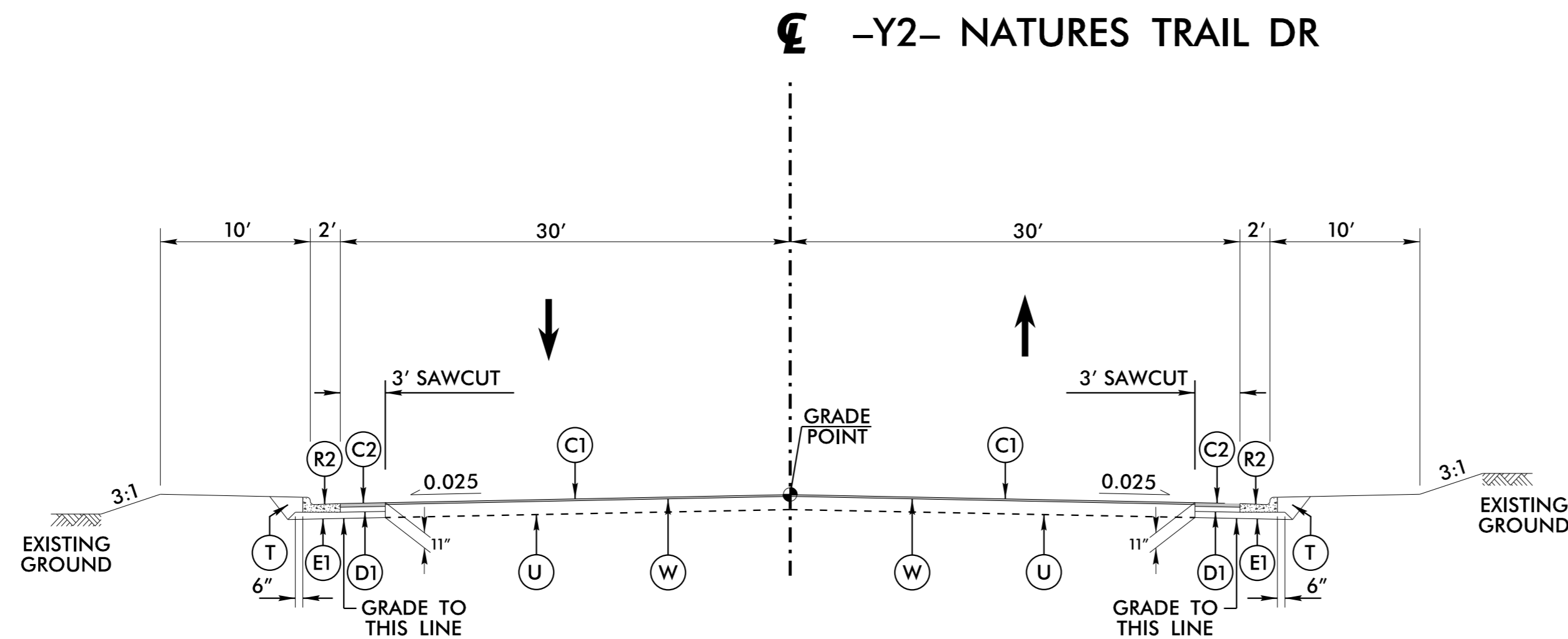
**PAVEMENT SCHEDULE**

C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING

5/14/99

REVISIONS

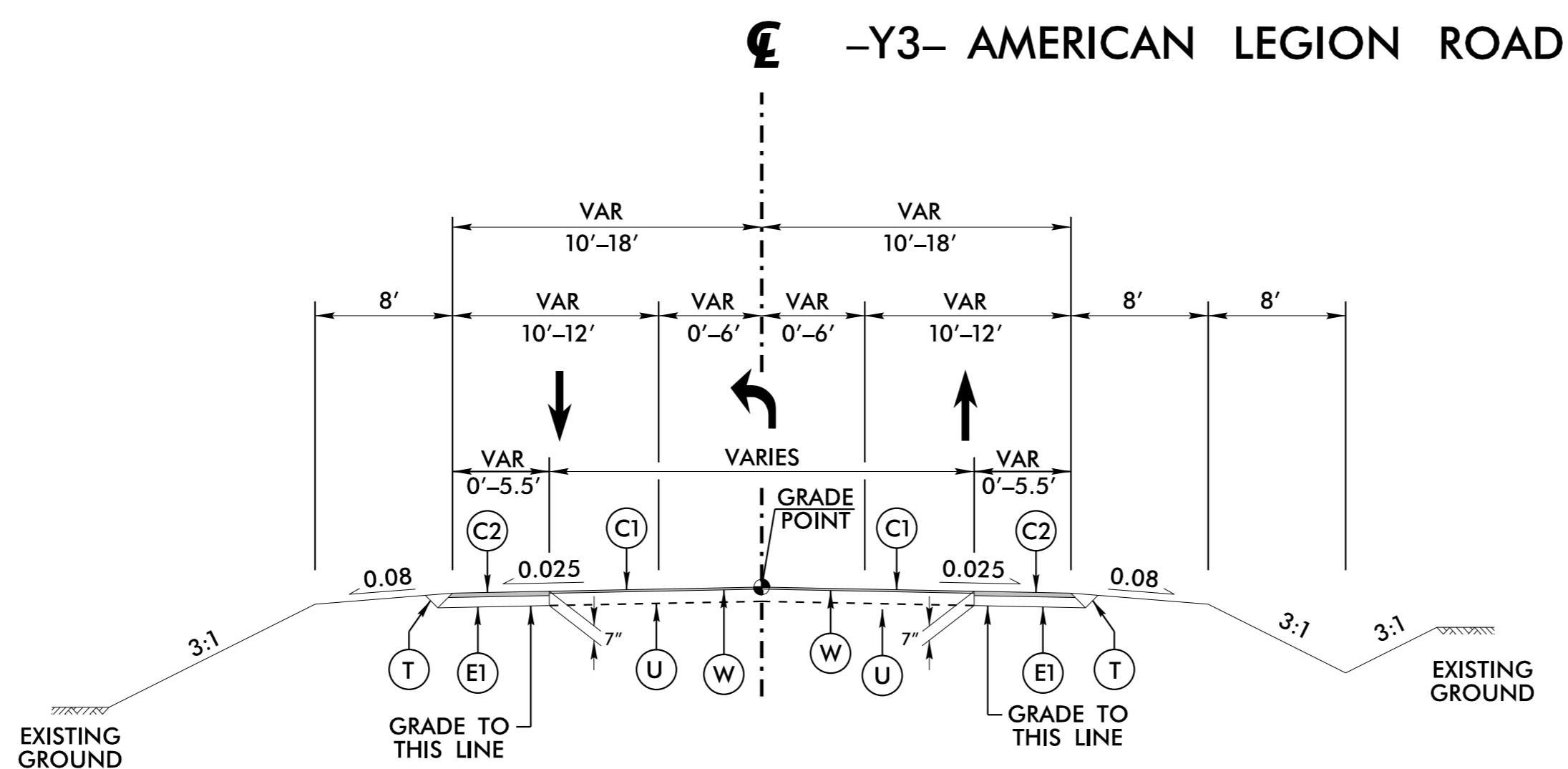
PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-7
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**TYPICAL SECTION NO. 13**

**-Y2- STA 10+37.50 TO STA 10+60.00**

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  3. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.



**TYPICAL SECTION NO. 14**

**-Y3- STA 8+10.00 TO STA 12+12.45**

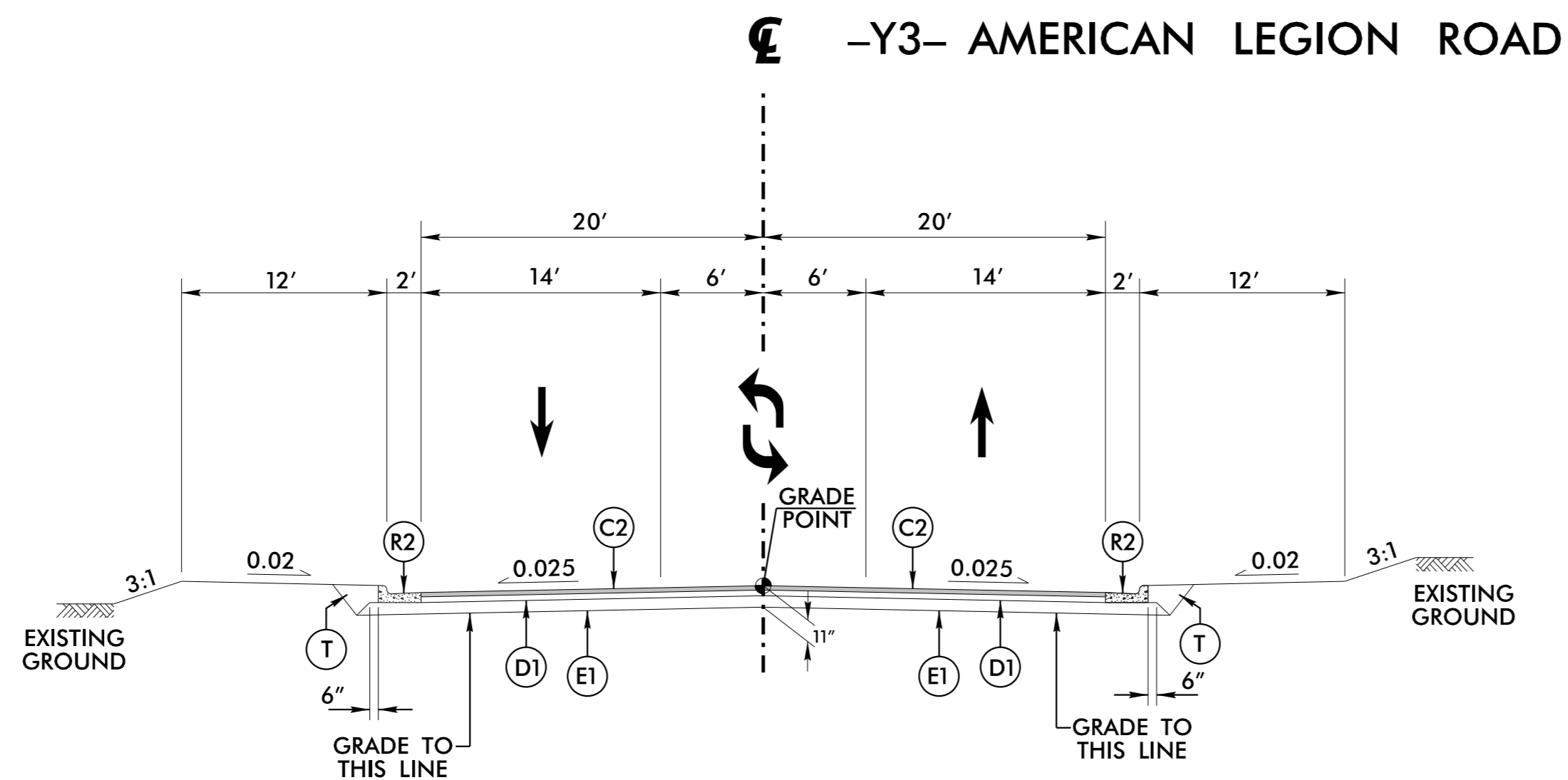
**PAVEMENT SCHEDULE**

C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE 119.0C
D2	VAR. TYPE 119.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING

5/14/99

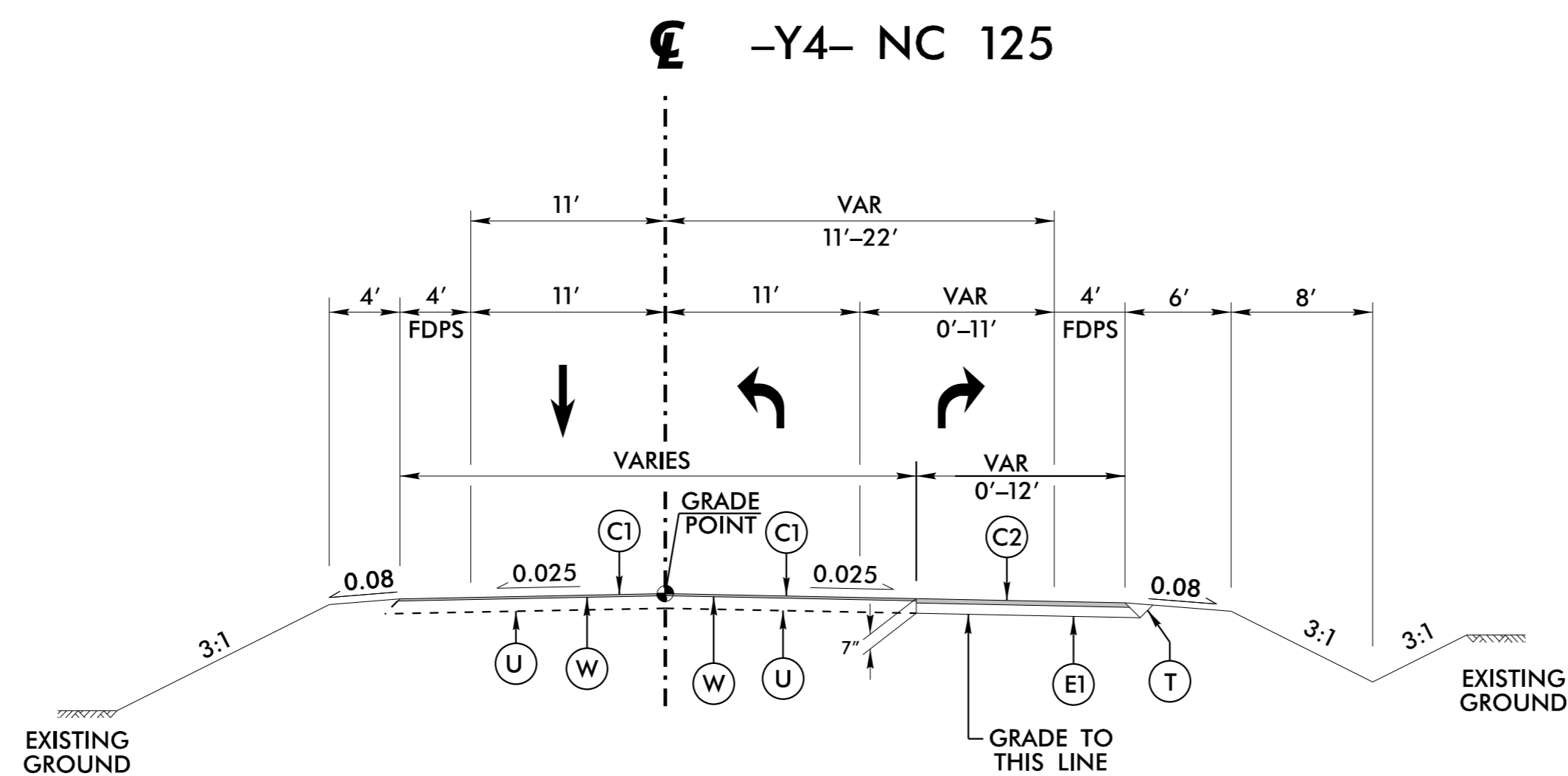
REVISIONS

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-8
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**TYPICAL SECTION NO. 15**  
**-Y3- STA 12+87.54 TO STA 29+98.59**

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  3. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.



**TYPICAL SECTION NO. 16**  
**-Y4- STA 13+65.00 TO STA 16+75.33**

**PAVEMENT SCHEDULE**

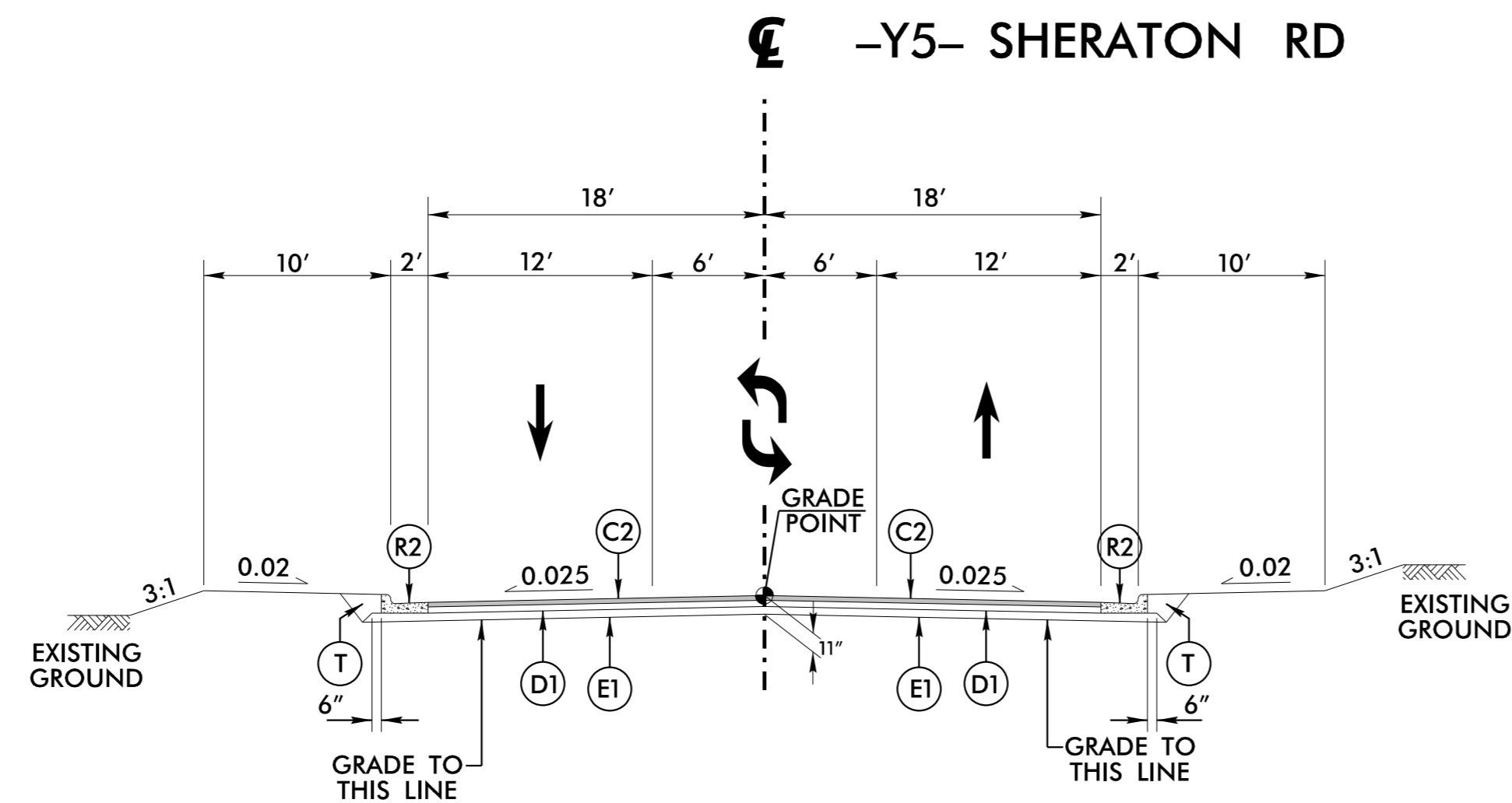
C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING



5/14/99

REVISIONS

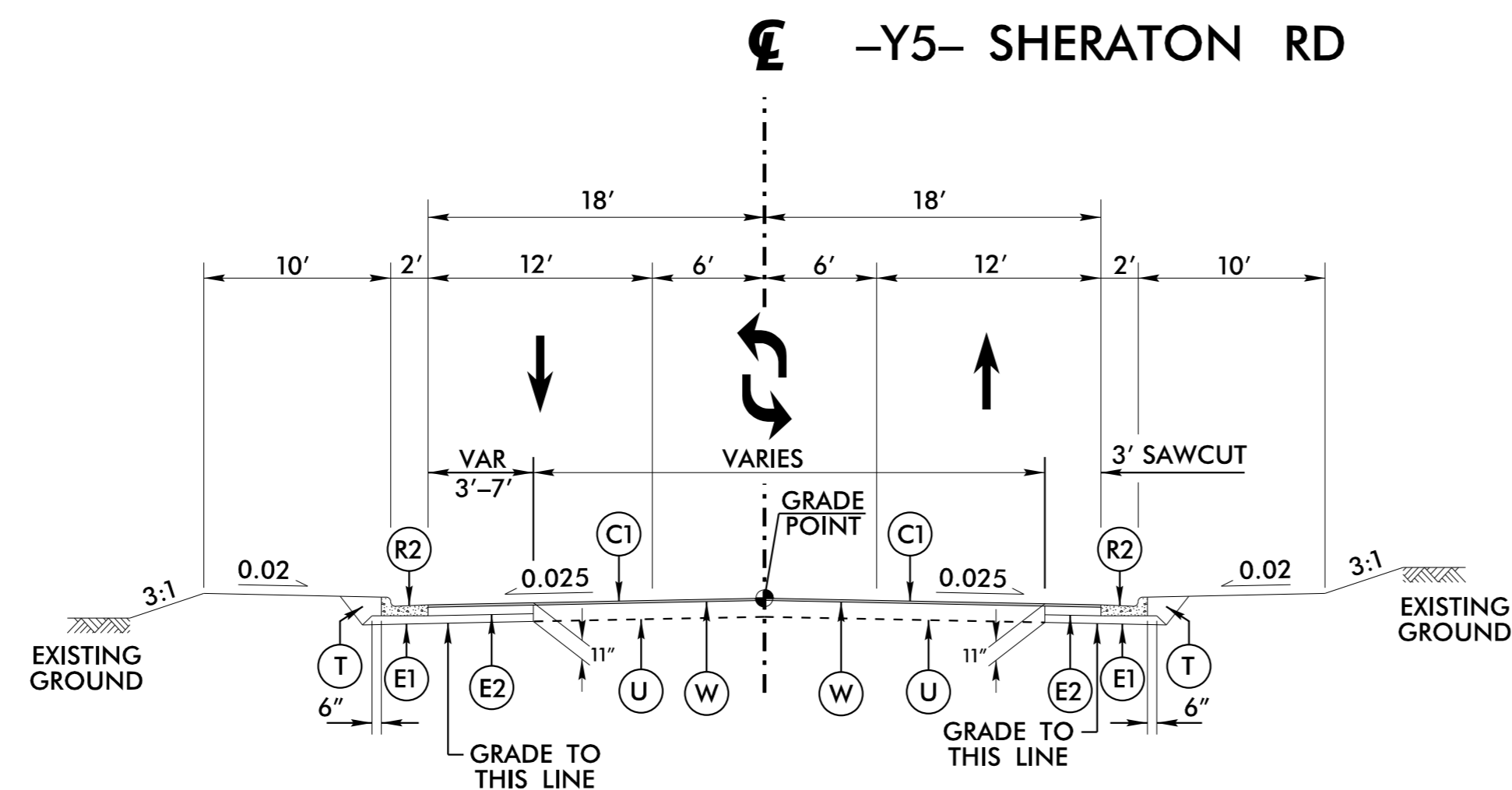
PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-9
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	



**TYPICAL SECTION NO. 17**

**-Y5- STA 10+20.00 TO STA 12+00.00**

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  3. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.



**TYPICAL SECTION NO. 18**

**-Y5- STA 12+00.00 TO STA 14+00.00**


**PAVEMENT SCHEDULE**

C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE 119.0C
D2	VAR. TYPE 119.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING

5/14/99


REVISIONS

6/28/2018




421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, N.C. 27601. NC LICENSE #F-0102

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2A-10
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

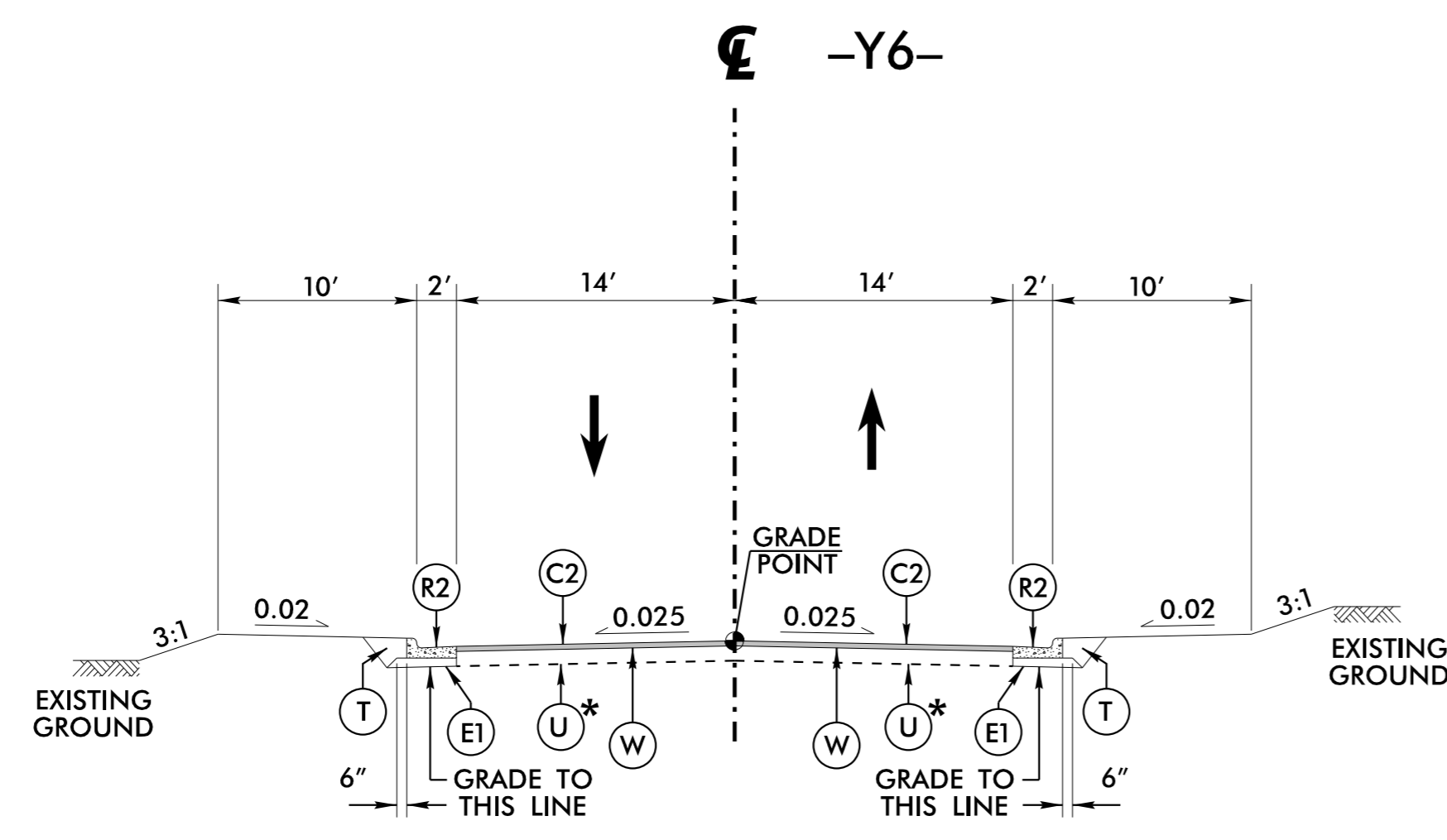


Matthew S. West  
Professional Engineer  
6/28/2018

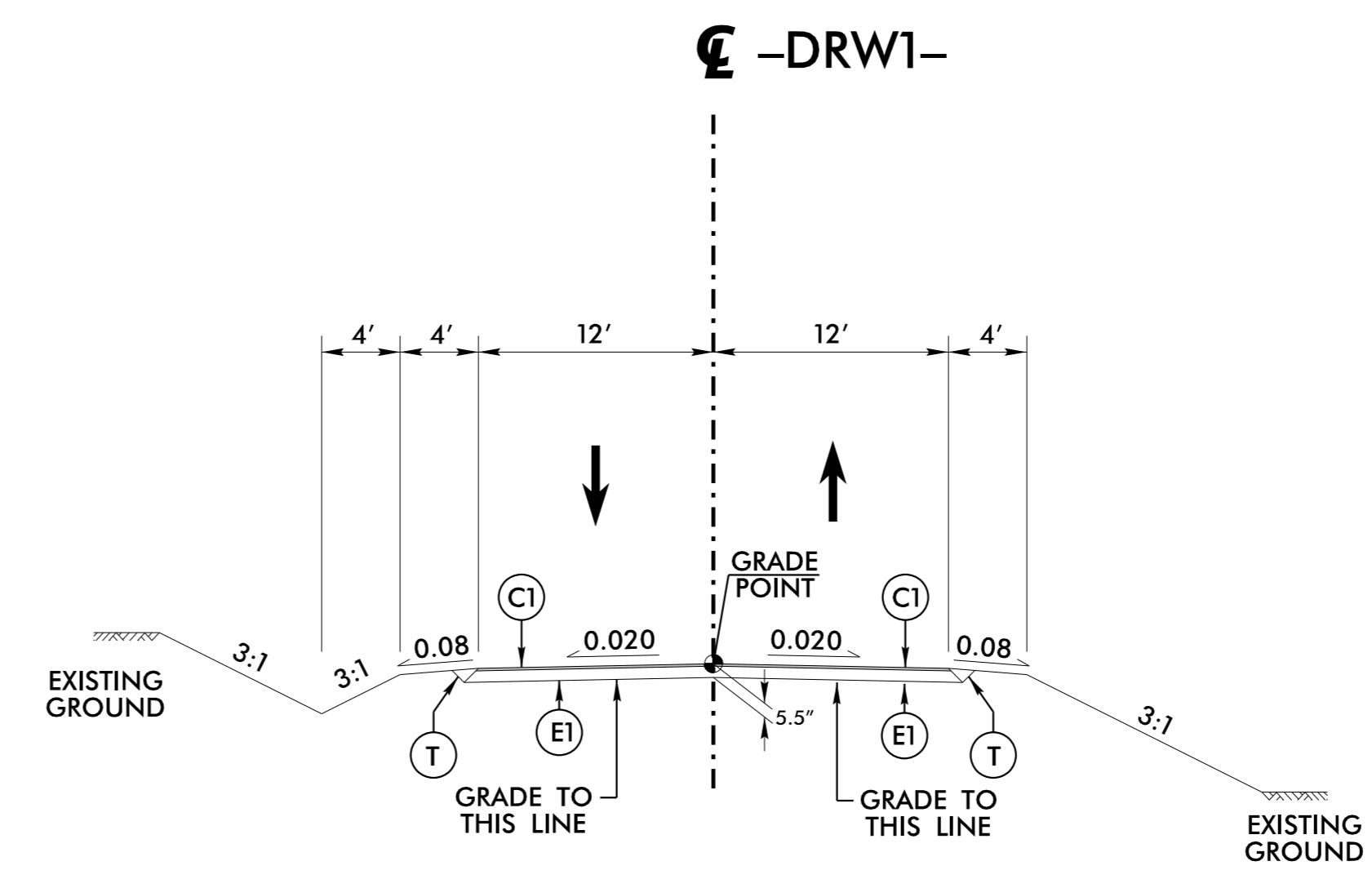


Matthew S. West  
Professional Engineer  
6/28/2018

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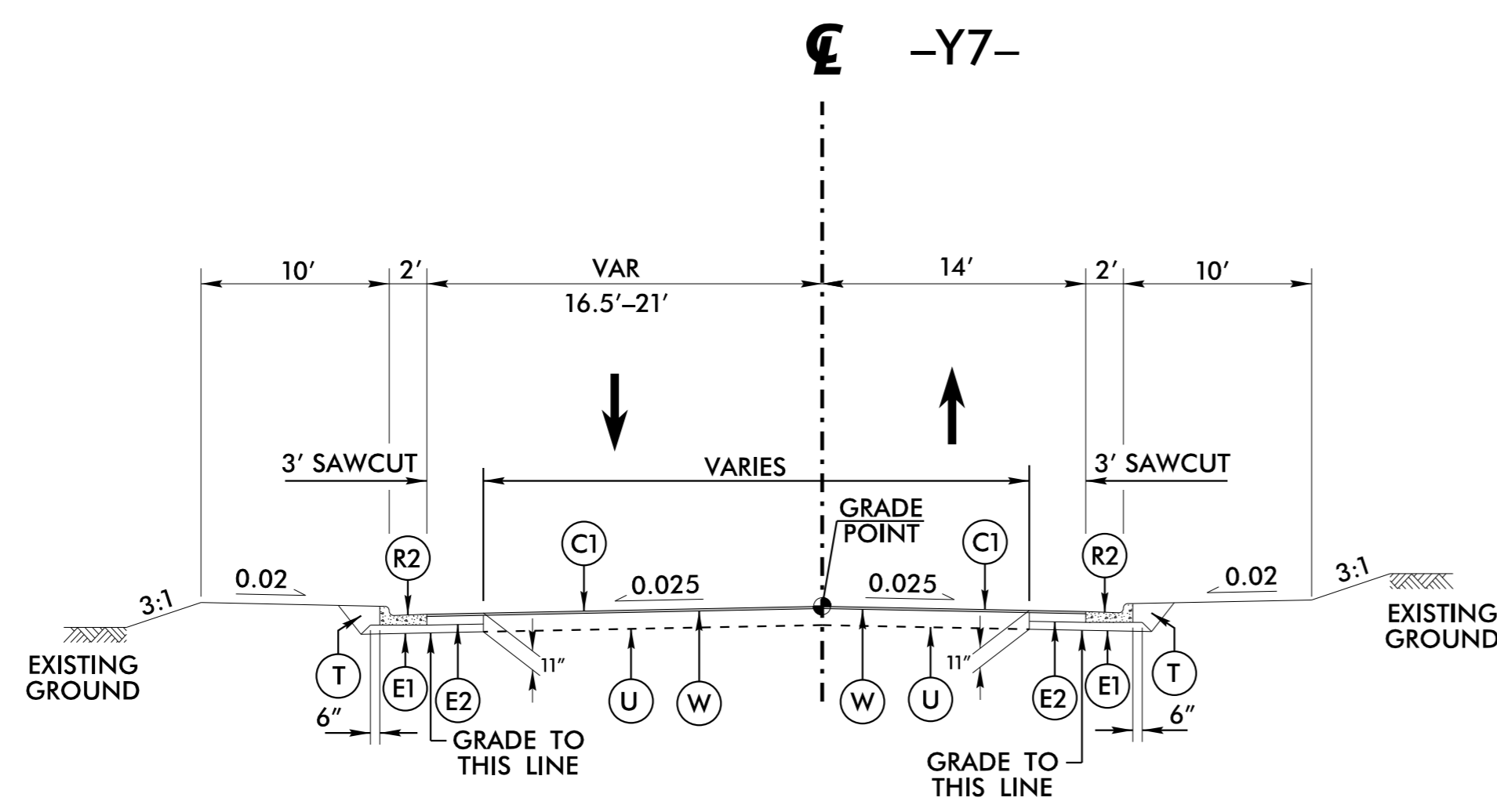


**TYPICAL SECTION NO. 19**  
**-Y6- STA 8+80.00 TO STA 9+78.86**  
**-Y6- STA 10+21.14 TO STA 12+30.00**  
**\* GRAVEL PAVEMENT STRUCTURE**

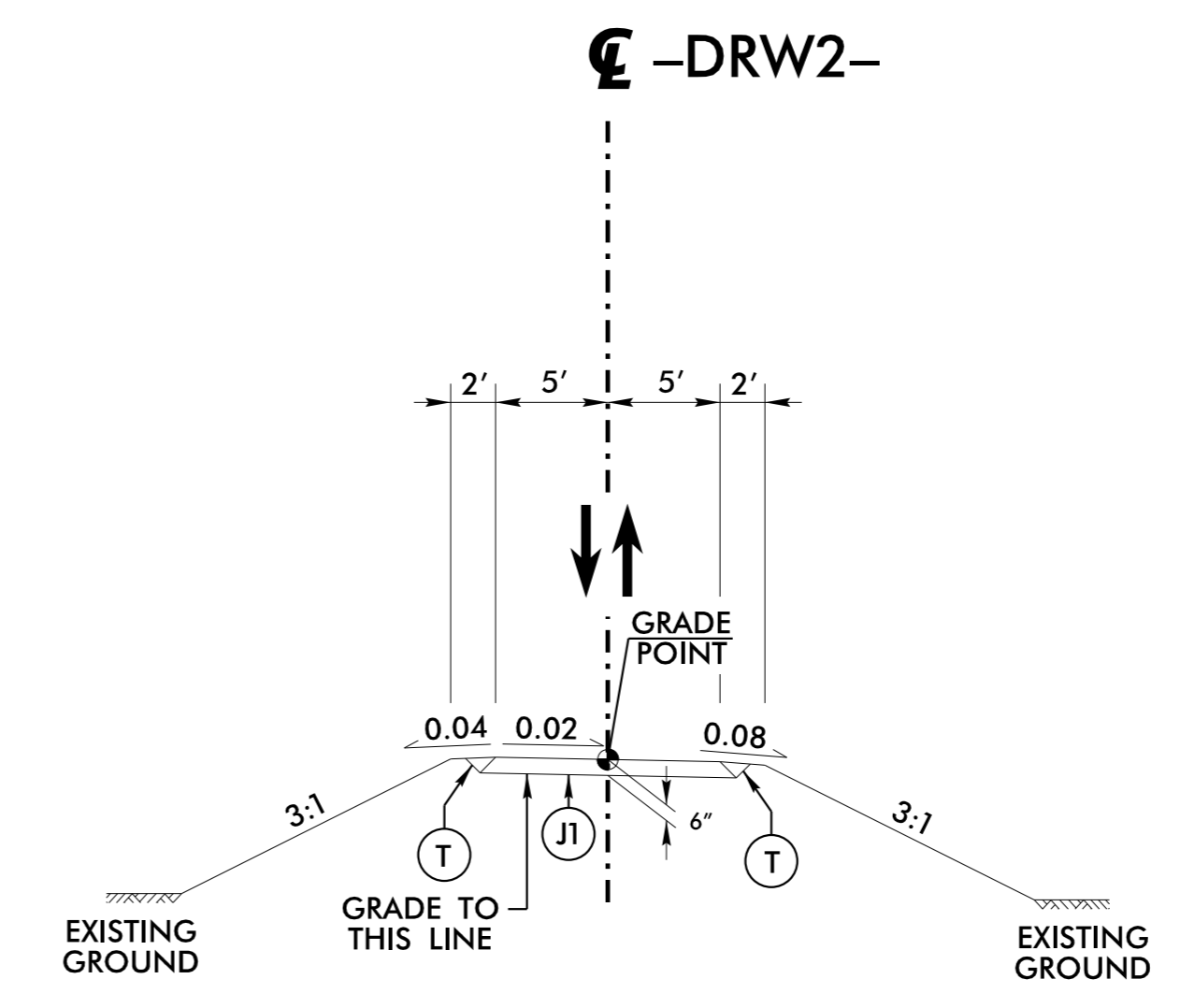


**TYPICAL SECTION NO. 21**  
**-DRW1- STA 10+88.00 TO STA 12+99.19**

- TYPICAL SECTION NOTES:**
1. SEE PLAN SHEETS FOR SPECIFIC MEDIAN ISLAND LOCATIONS AND TYPES.
  2. SEE PARTIAL SECTIONS FOR EXCEPTIONS TO STATION LIMITS.
  4. SEE PLAN SHEETS FOR LANE TAPER LOCATIONS.
  5. PAVEMENT EDGE SLOPES 1:1 UNLESS OTHERWISE INDICATED.



**TYPICAL SECTION NO. 20**  
**-Y7- STA 10+20.06 TO STA 10+80.00**



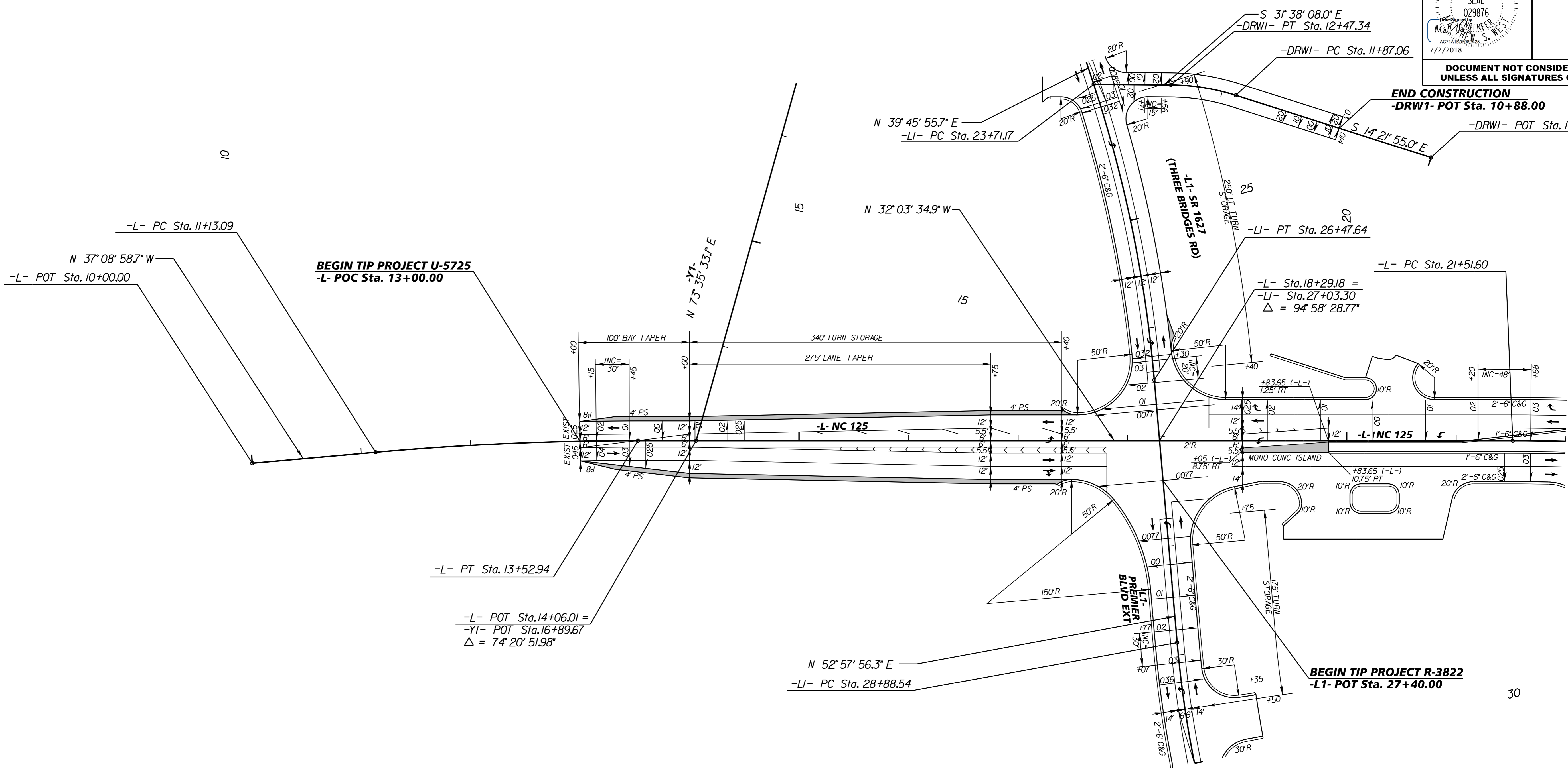
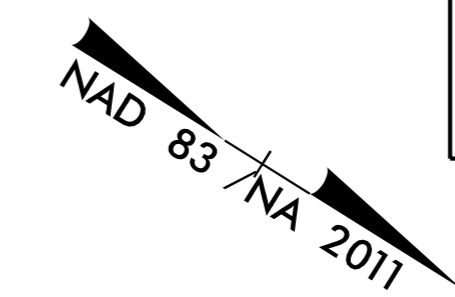
**TYPICAL SECTION NO. 22**  
**-DRW2- STA 10+55.02 TO STA 12+10.00**

**PAVEMENT SCHEDULE**

C1	1.5" TYPE S9.5C
C2	3" TYPE S9.5C
C3	VAR. TYPE S9.5C
D1	4" TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	4" TYPE B25.0C
E2	5.5" TYPE B25.0C
E3	VAR. TYPE B25.0C
J1	6" AGGREGATE BASE COURSE
R1	1'-6" CONCRETE CURB AND GUTTER
R2	2'-6" CONCRETE CURB AND GUTTER
R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V	MILLING ASPHALT PAVEMENT 1.5" DEPTH
W	WEDGING

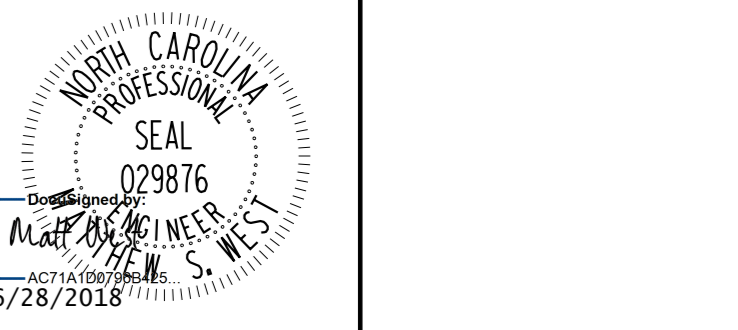


**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**

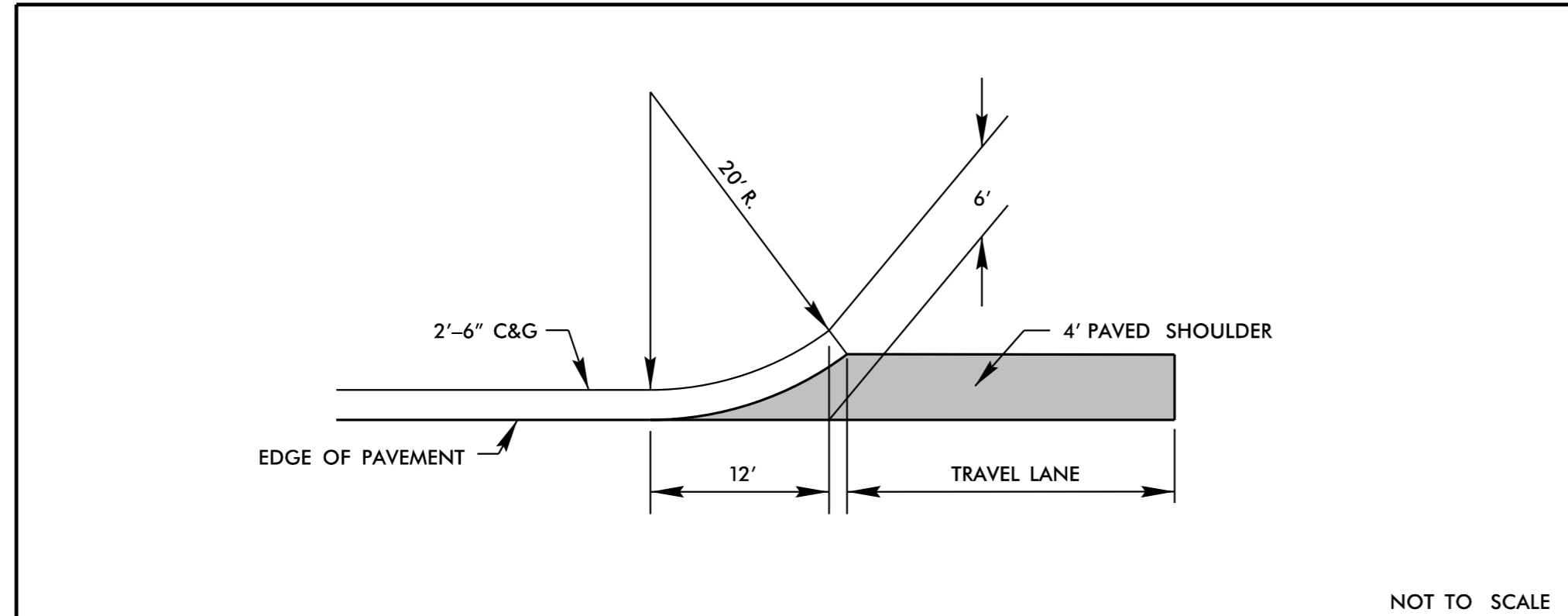


REVISIONS

2017 ADT	-L1- SR 1627 (THREE BRIDGES RD)	DHV = 10%
2040 ADT	2800	DIR = 55%
	3900	TTST = 1%
		DUAL = 2%
	1000	
	1400	
	1800	
	2200	
	2600	
	3000	
	3400	
	3800	
	4200	
	4600	
	5000	
	5400	
	5800	
	6200	
	6600	
	7000	
	7400	
	7800	
	8200	
	8600	
	9000	
	9400	
	9800	
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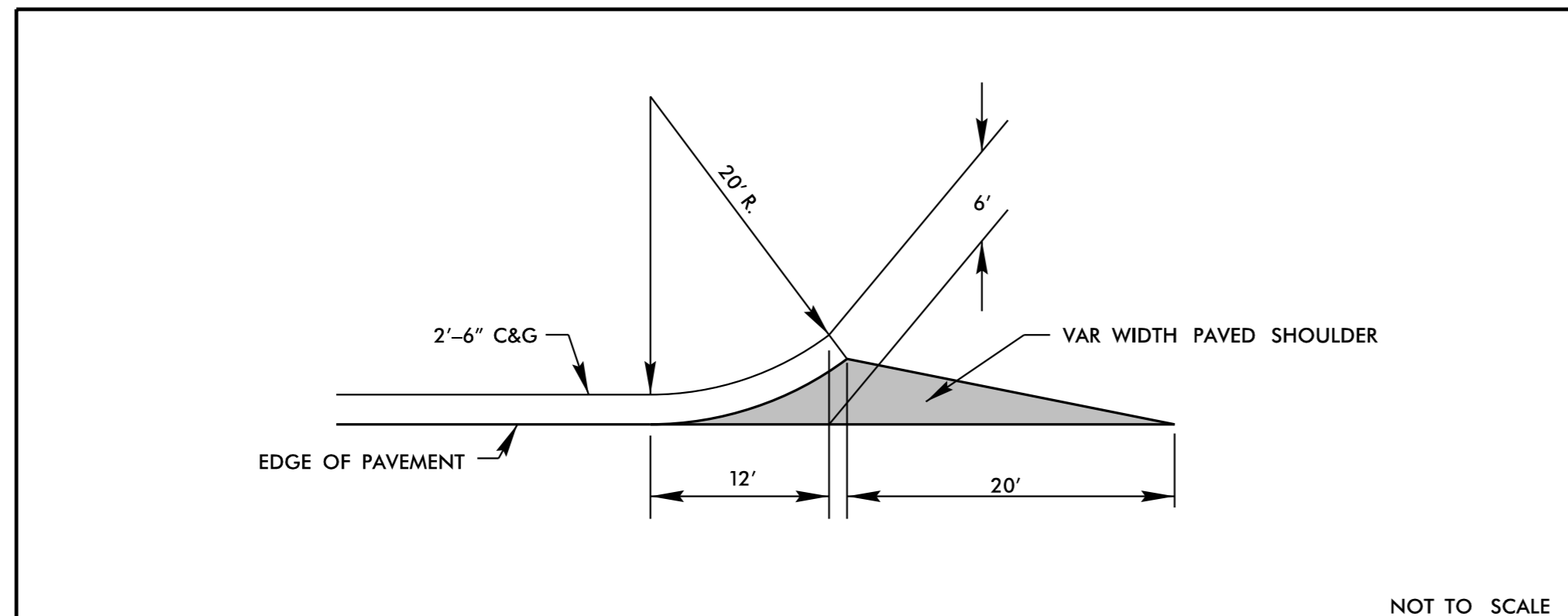


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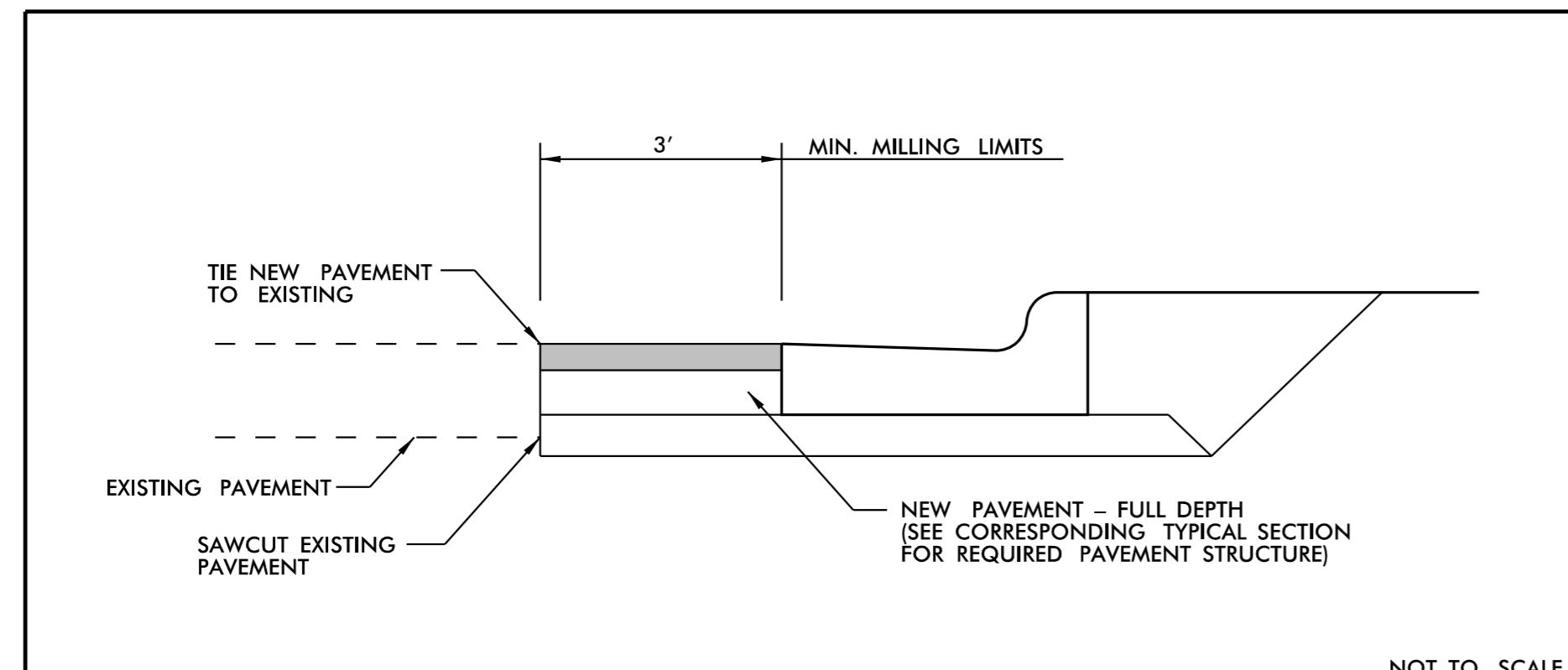
**DETAIL 1 - CURB & GUTTER FLARE TYPE 1**

NOT TO SCALE



**DETAIL 2 - CURB & GUTTER FLARE TYPE 2**

NOT TO SCALE

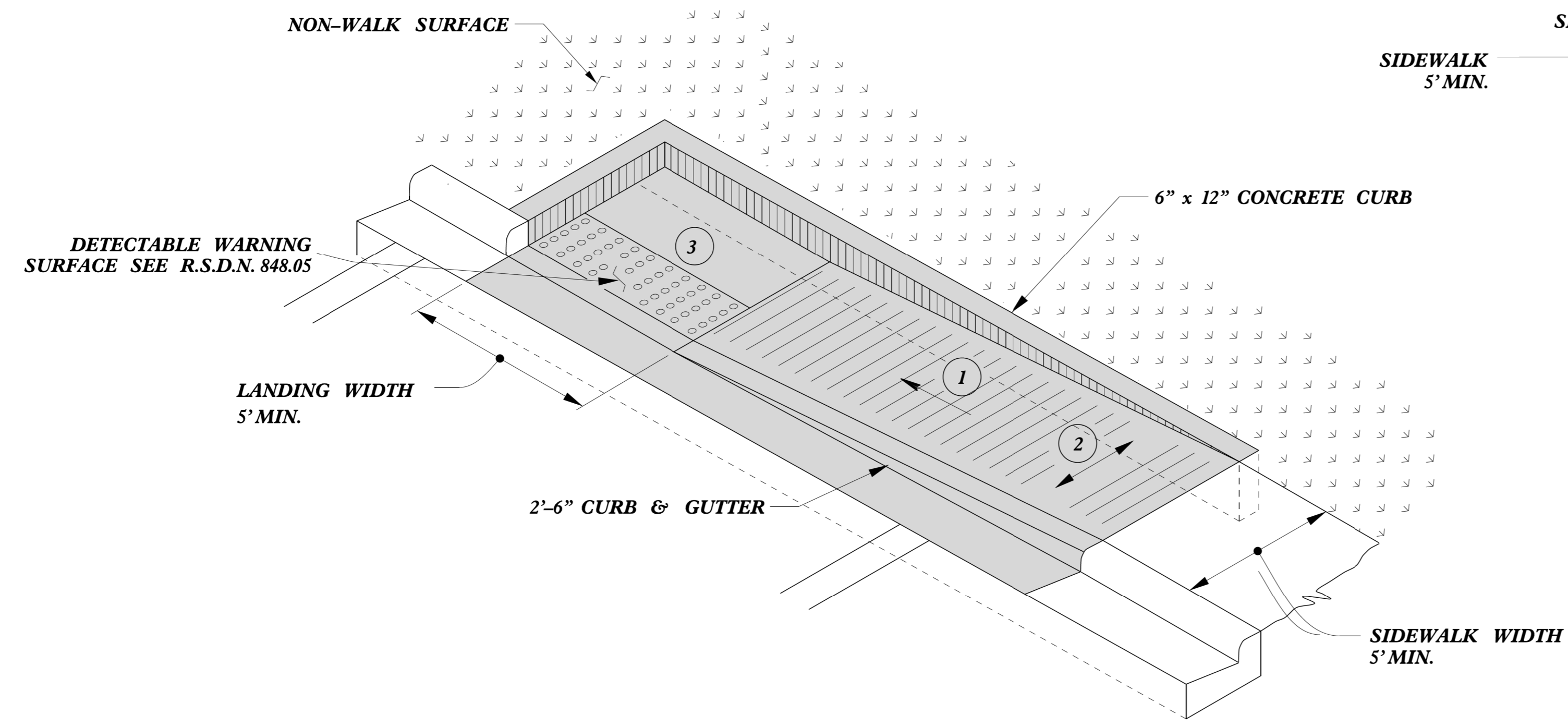


**DETAIL 3 - MINIMUM WIDENING AND SAWCUT DIMENSIONS**

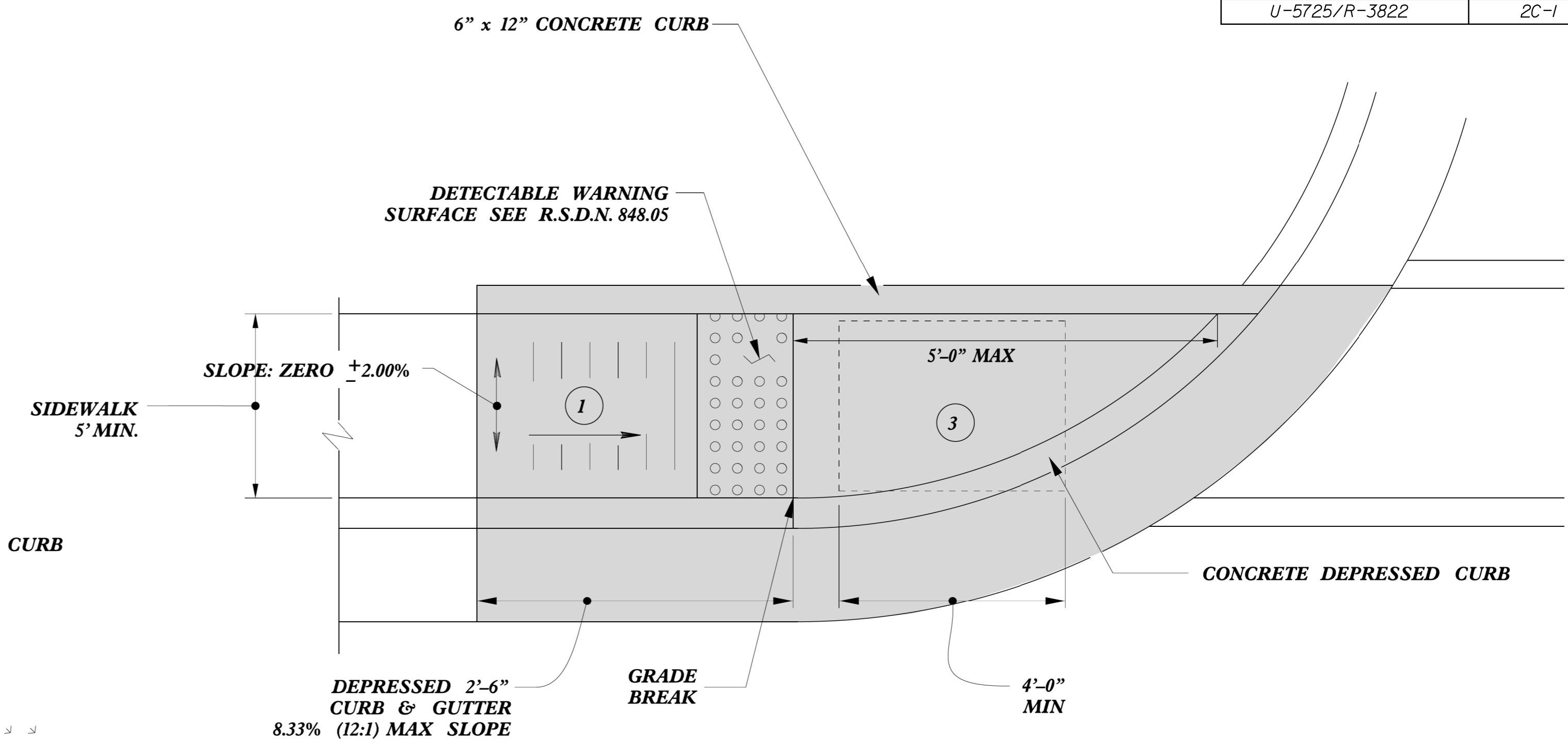
NOT TO SCALE

REVISIONS

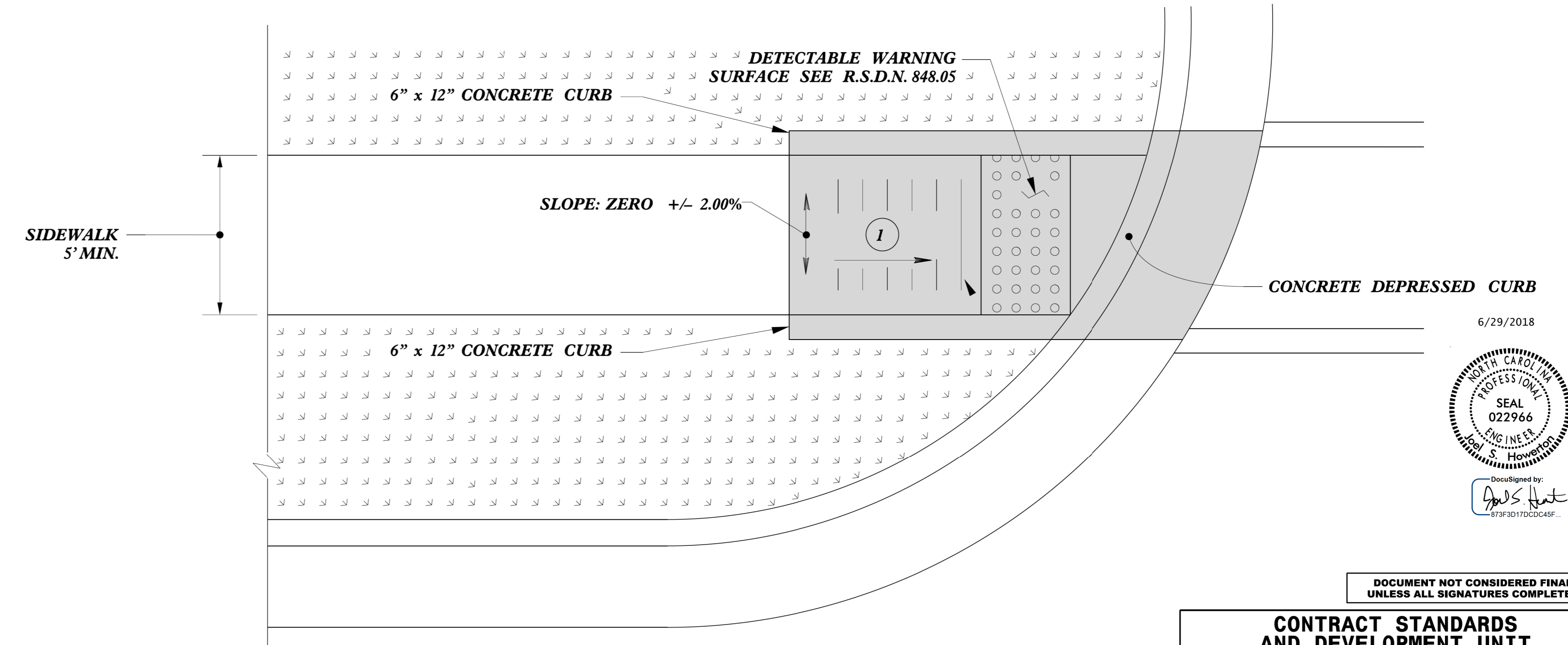
6/28/2018



**TYPE 1A**



**TYPE 1**

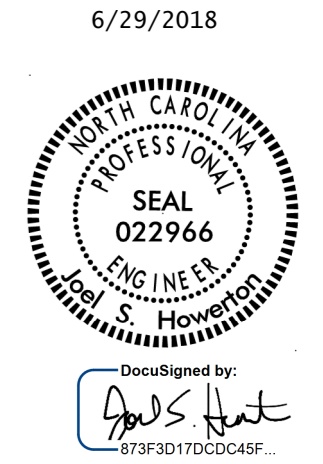


**TYPE 1 Modified**

- 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



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950	FAX 919-250-4119
<b>CURB RAMPS</b>	
Directional Ramps	
ORIGINAL BY: J.S. HOWERTON	DATE: 7/7/11
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: stds/2012CurbRamp/CurbRampDetails.dgn	

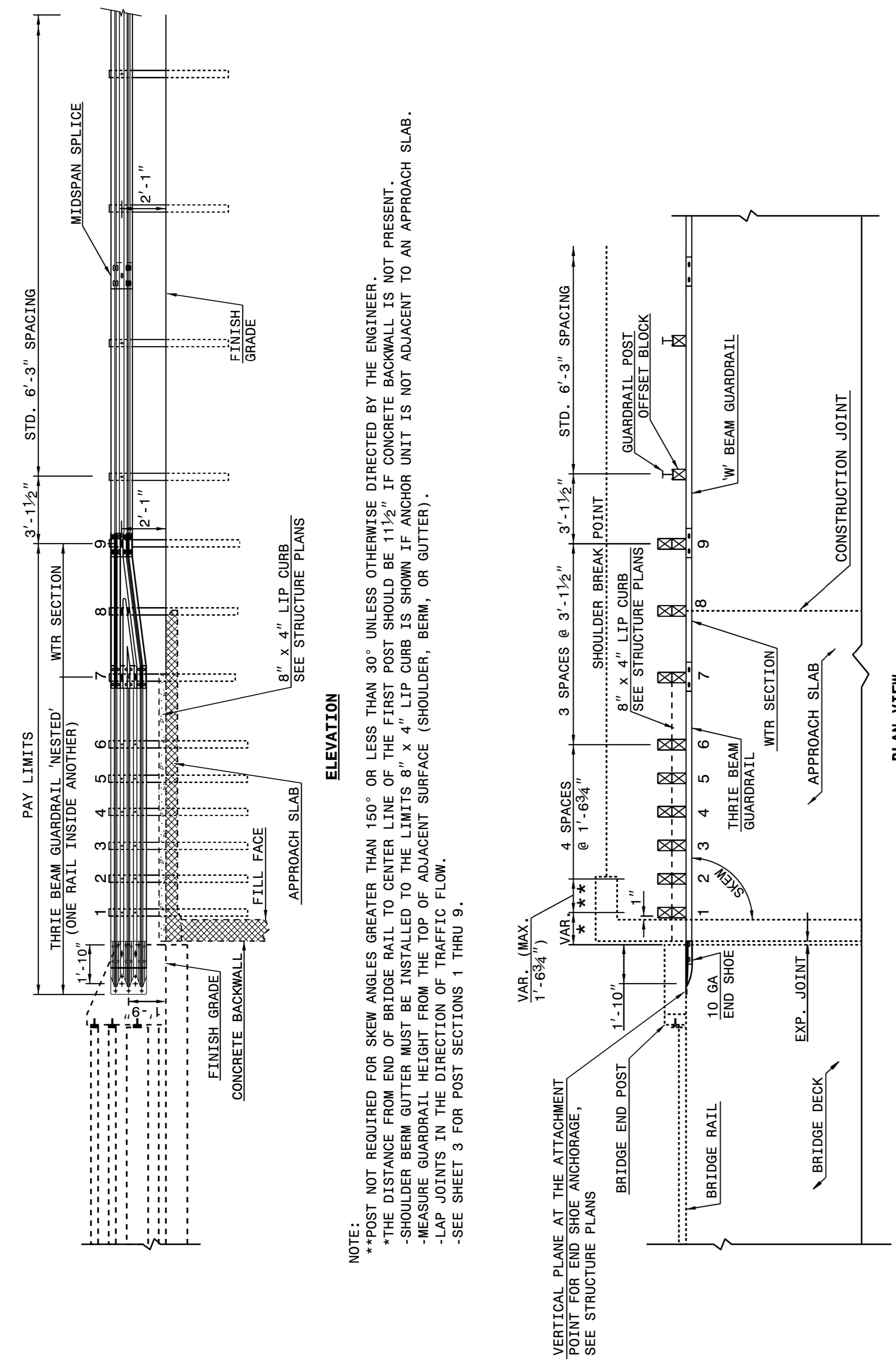
5/14/99  
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I:\DEC-2017\0336  
 S:\Contracts\Special Details\Standard Drawings\Details in Lieu of Standard Drawings\Division 8\0862d0301.dgn  
 Jhowerton AT CSD-292595

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

ROADWAY DETAIL DRAWING FOR STRUCTURE ANCHOR UNITS GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE

SHEET 1 OF 7  
**862D03**



**NOTE:**  
 \*\*POST NOT REQUIRED FOR SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.  
 \*THE DISTANCE FROM END OF BRIDGE RAIL TO CENTER LINE OF THE FIRST POST SHOULD BE 11½" IF CONCRETE BACKWALL IS NOT PRESENT.  
 -SHOULDER BERM GUTTER MUST BE INSTALLED TO THE LIMITS 8" x 4" LIP CURB IS SHOWN IF ANCHOR UNIT IS NOT ADJACENT TO AN APPROACH SLAB.  
 -MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE (SHOULDER, BERM, OR GUTTER).  
 -LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.  
 -SEE SHEET 3 FOR POST SECTIONS 1 THRU 9.

**GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE**

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

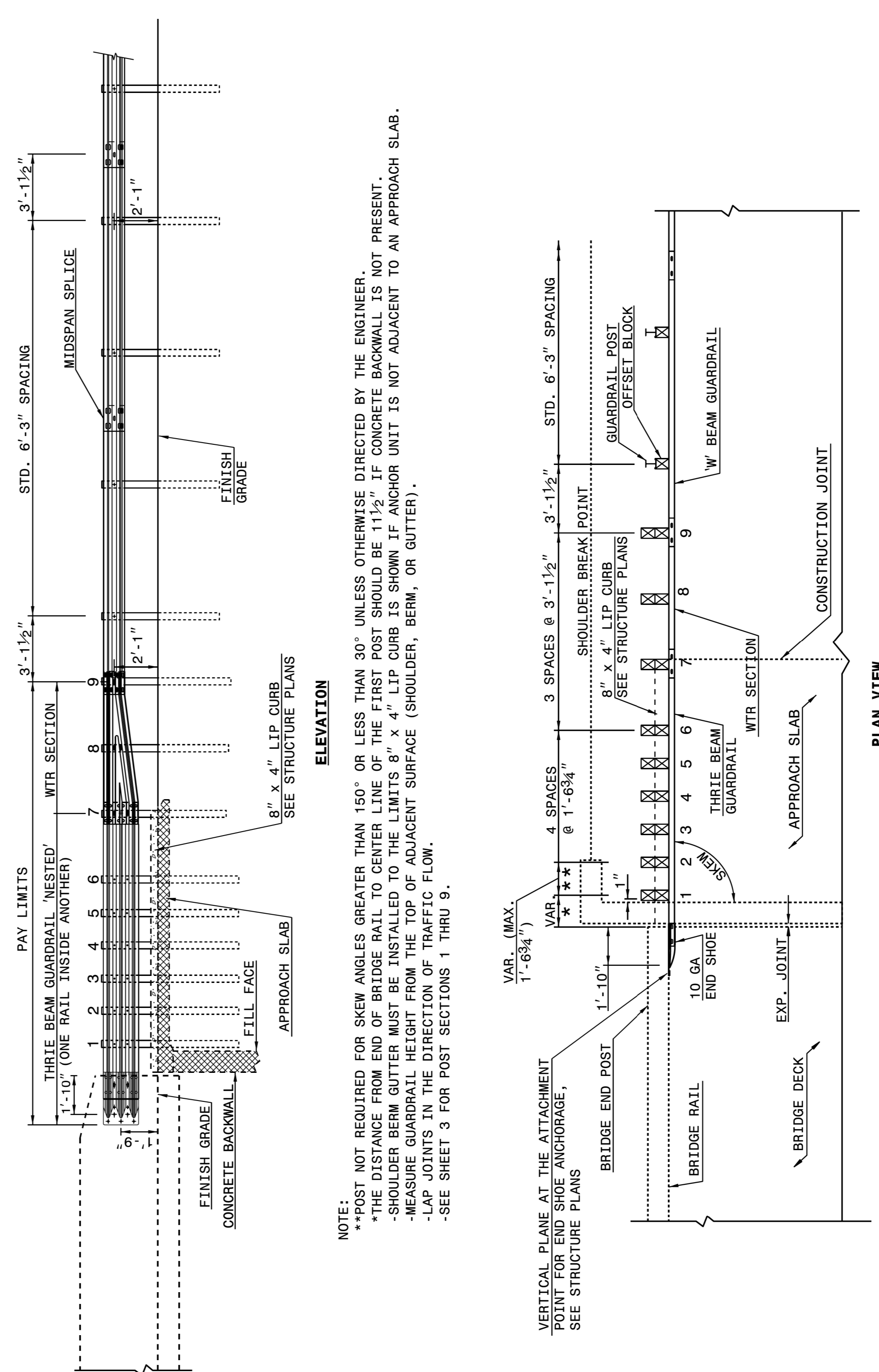
ROADWAY DETAIL DRAWING FOR STRUCTURE ANCHOR UNITS GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE

SHEET 1 OF 7  
**862D03**

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

ROADWAY DETAIL DRAWING FOR STRUCTURE ANCHOR UNITS GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE - SUB REGIONAL TIER

SHEET 2 OF 7  
**862D03**



**NOTE:**  
 \*\*POST NOT REQUIRED FOR SKEW ANGLES GREATER THAN 150° OR LESS THAN 30° UNLESS OTHERWISE DIRECTED BY THE ENGINEER.  
 \*THE DISTANCE FROM END OF BRIDGE RAIL TO CENTER LINE OF THE FIRST POST SHOULD BE 11½" IF CONCRETE BACKWALL IS NOT PRESENT.  
 -SHOULDER BERM GUTTER MUST BE INSTALLED TO THE LIMITS 8" x 4" LIP CURB IS SHOWN IF ANCHOR UNIT IS NOT ADJACENT TO AN APPROACH SLAB.  
 -MEASURE GUARDRAIL HEIGHT FROM THE TOP OF ADJACENT SURFACE (SHOULDER, BERM, OR GUTTER).  
 -LAP JOINTS IN THE DIRECTION OF TRAFFIC FLOW.  
 -SEE SHEET 3 FOR POST SECTIONS 1 THRU 9.

**GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE - SUB REGIONAL TIER**

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

ROADWAY DETAIL DRAWING FOR STRUCTURE ANCHOR UNITS GUARDRAIL ANCHOR UNIT, TYPE III FOR ATTACHMENT TO RAIL ON BRIDGE - SUB REGIONAL TIER

SHEET 2 OF 7  
**862D03**

6/29/2018



DocuSigned by:  
 J. S. Howerton  
 875F3D17DCC649F

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

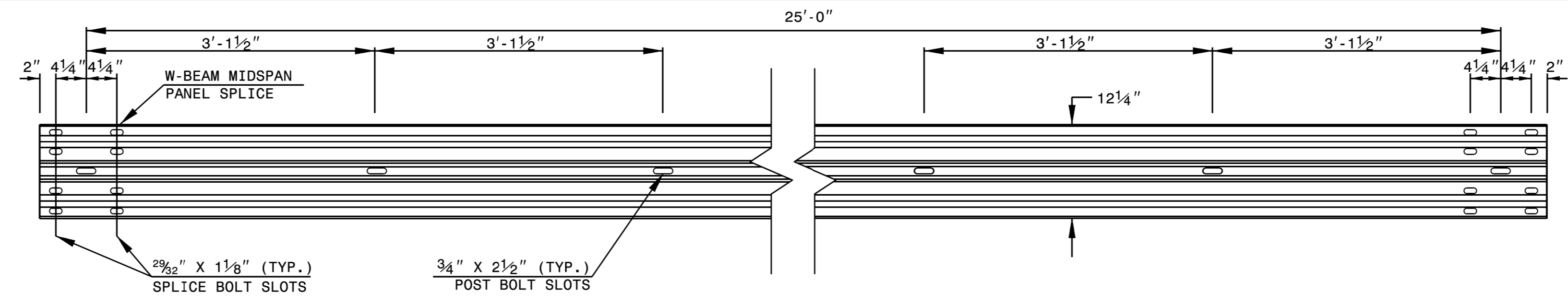
**SEE TITLE BLOCK**

ORIGINAL BY: J. HOWERTON DATE: 06-22-12  
 MODIFIED BY: DATE:  
 CHECKED BY: DATE:  
 FILE SPEC.:

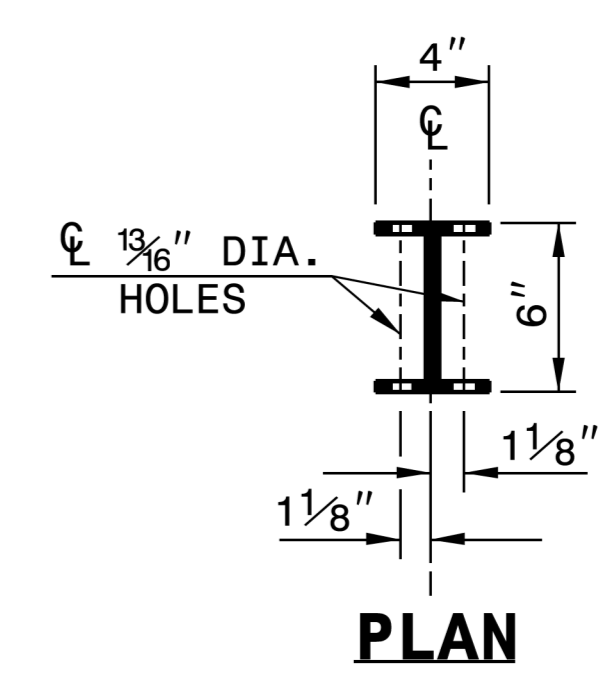
STATE OF NORTH CAROLINA  
DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

ROADWAY DETAIL DRAWING FOR  
**GUARDRAIL INSTALLATION**

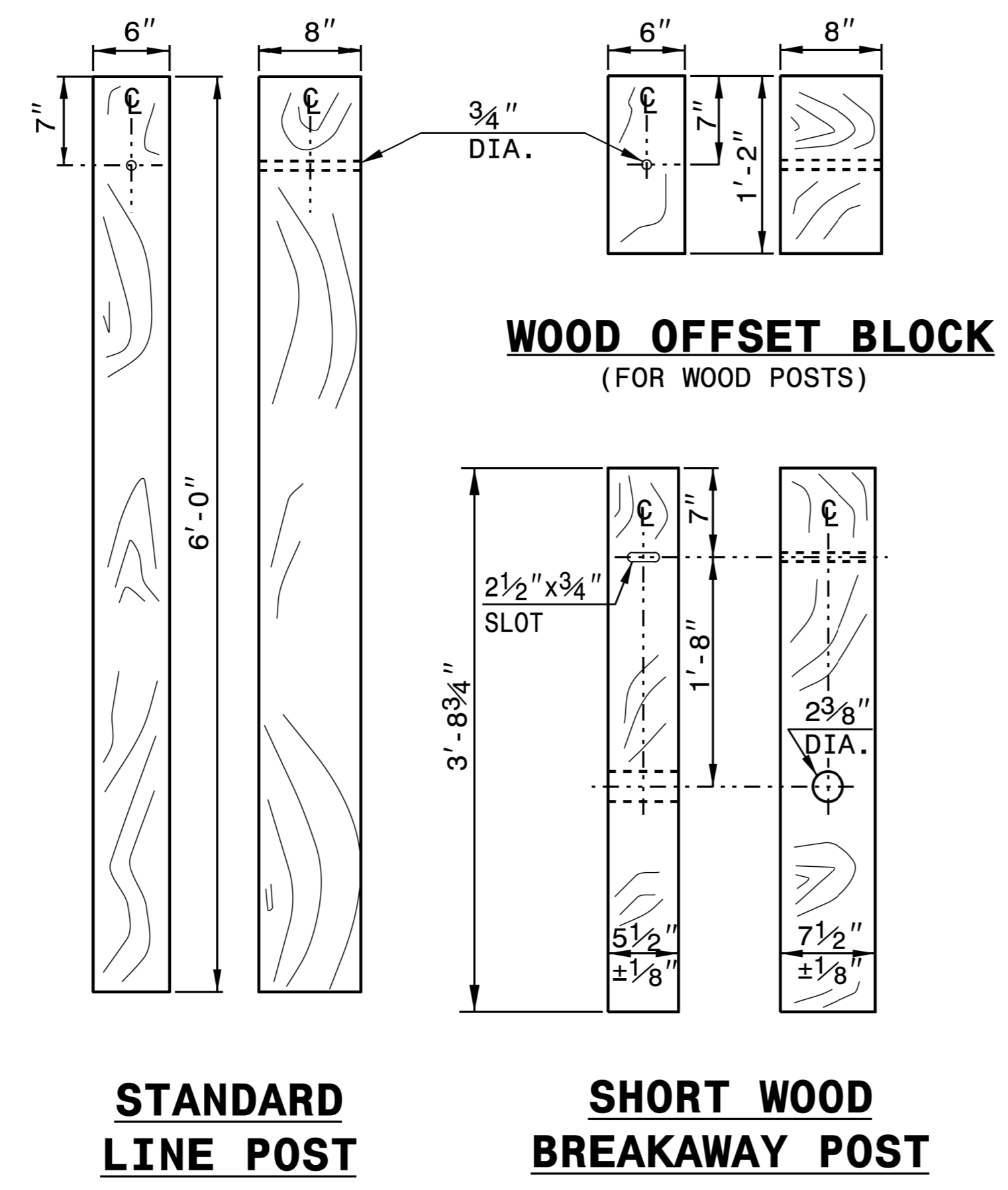
SHEET 6 OF 8  
**862D02**



**STANDARD W-BEAM GUARDRAIL**

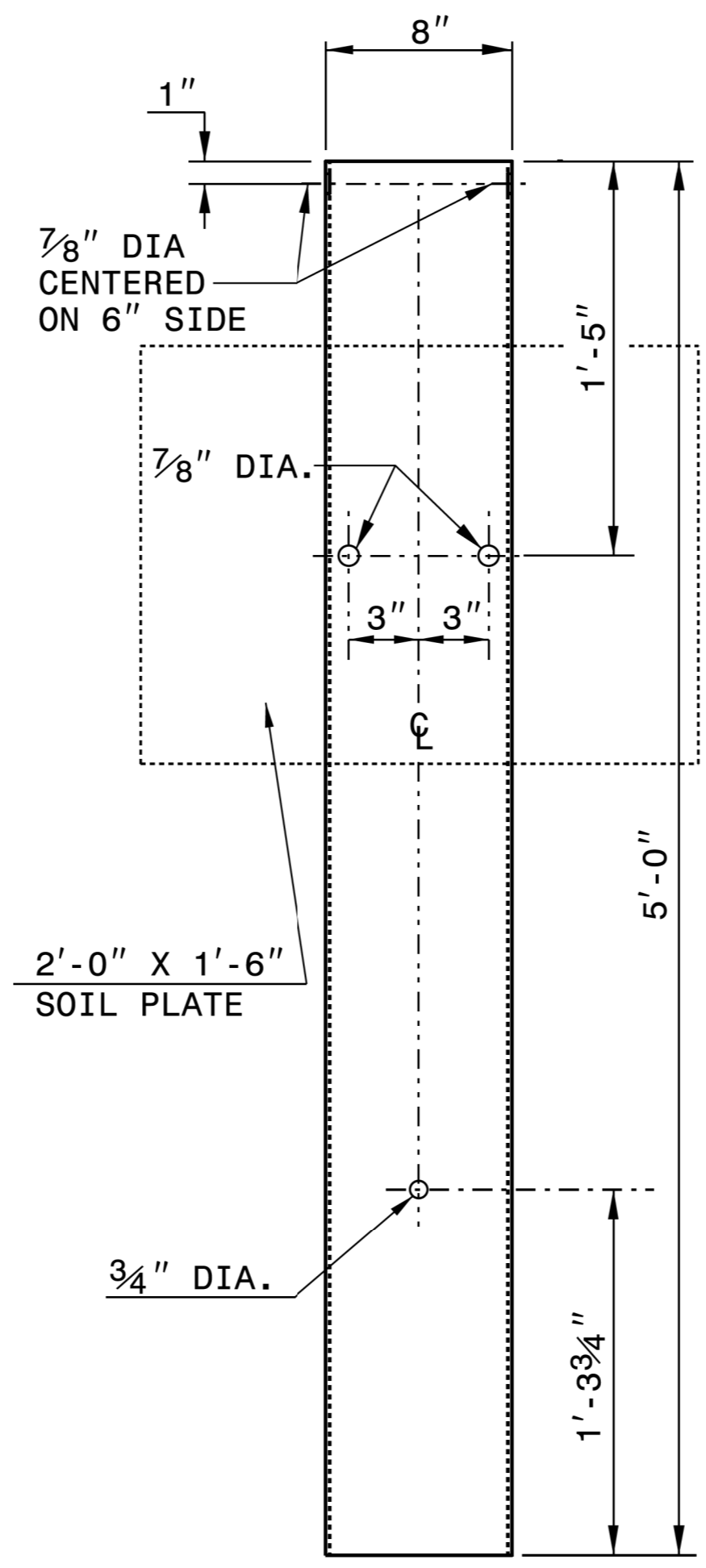


**PLAN**



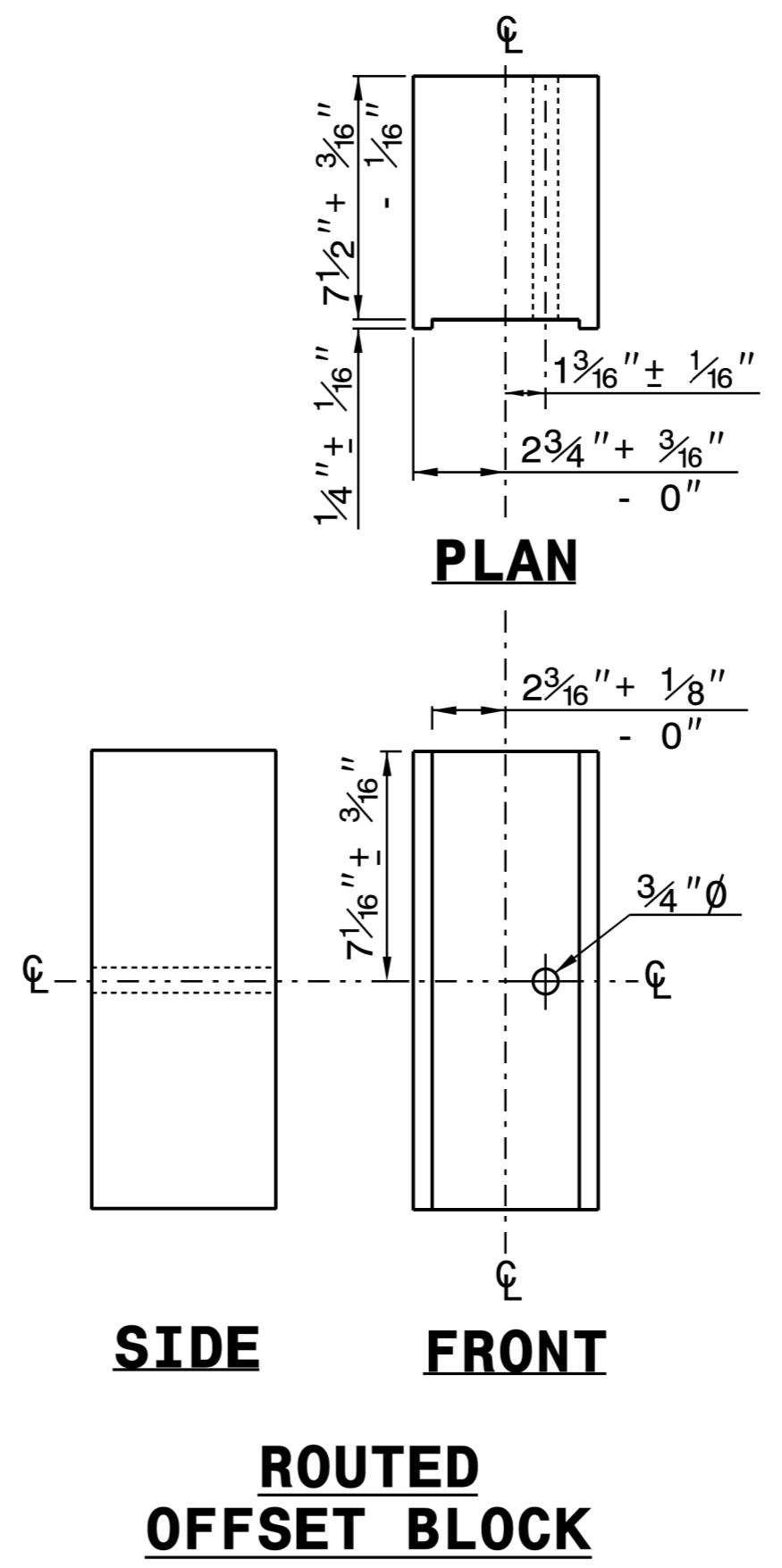
**STANDARD LINE POST**

**SHORT WOOD BREAKAWAY POST**



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

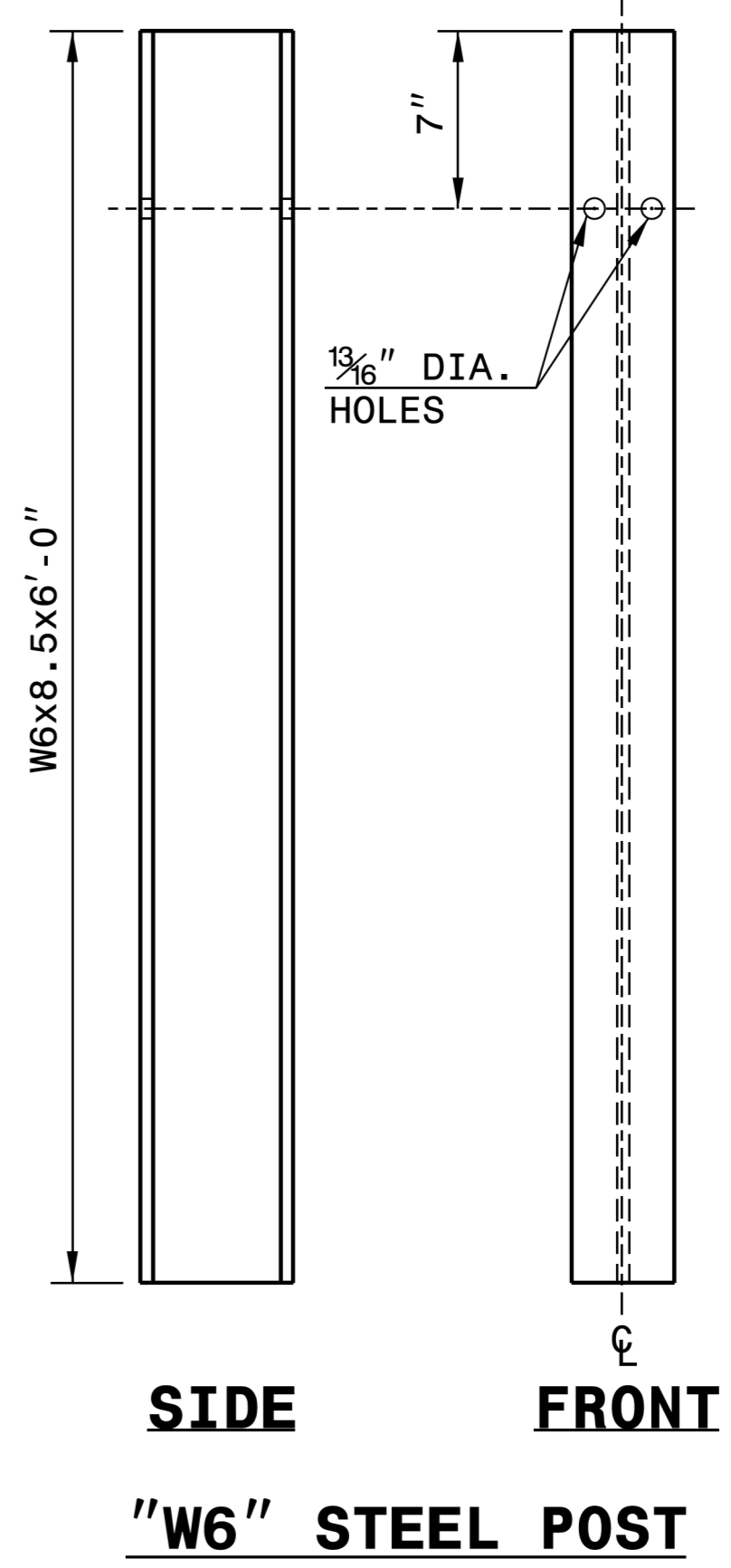
**SYSTEM PARTS**



**SIDE**

**FRONT**

**ROUTED OFFSET BLOCK**



**SIDE**

**FRONT**

**"W6" STEEL POST**

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.

ENGLISH DETAIL DRAWING FOR  
**2'-9" CONCRETE CURB & GUTTER**

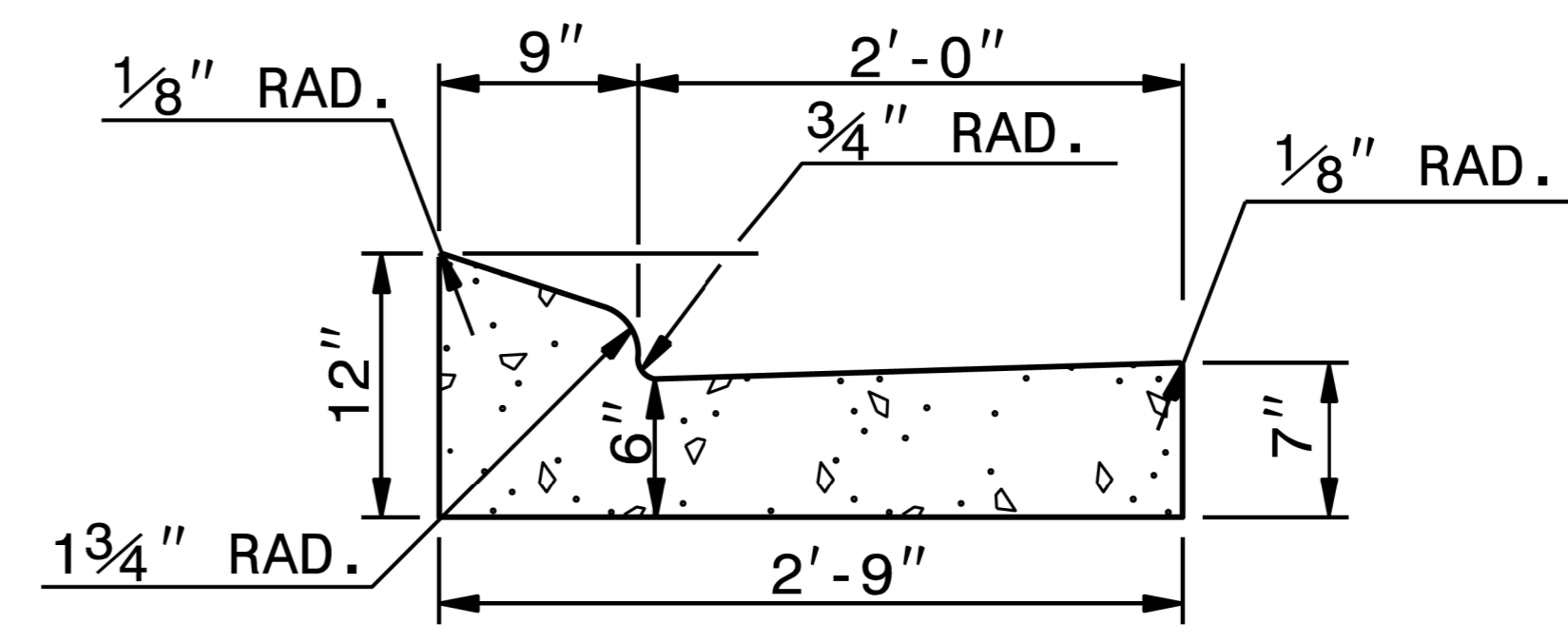
SHEET 1 OF 1  
**846D01**

- GENERAL NOTES:
- PLACE CONTRACTION JOINTS AT 10' INTERVALS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
  - JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
  - CONTRACTION JOINTS MAY BE INSTALLED WITH THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. MAKE NON-TEMPLATE FORMED JOINTS A MIN. OF 1½" DEEP.
  - FILL ALL CONSTRUCTION JOINTS WITH JOINT FILLER AND SEALER.
  - SPACE EXPANSION JOINTS AT 90' INTERVALS AND ADJACENT TO ALL RIGID OBJECTS.
  - SEE RDWY. STD. DWG. NO. 846.01, SHEET 2 OF 3 FOR PLACEMENT IN SUPERELEVATIONS. (USE 2'-6" CURB AND GUTTER RATES)

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DEPT. OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
RALEIGH, N.C.

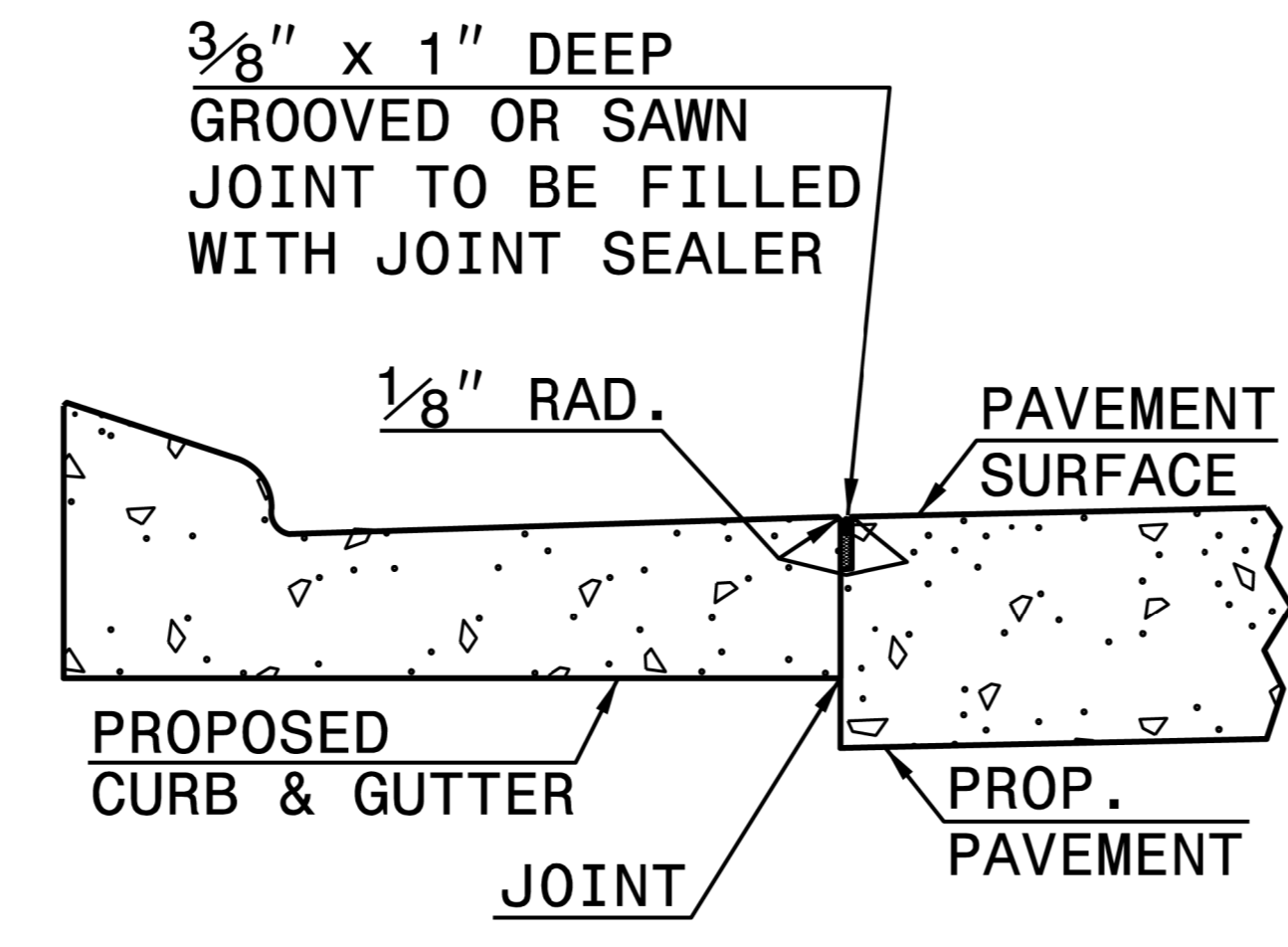
ENGLISH DETAIL DRAWING FOR  
**2'-9" CONCRETE CURB & GUTTER**

SHEET 1 OF 1  
**846D01**

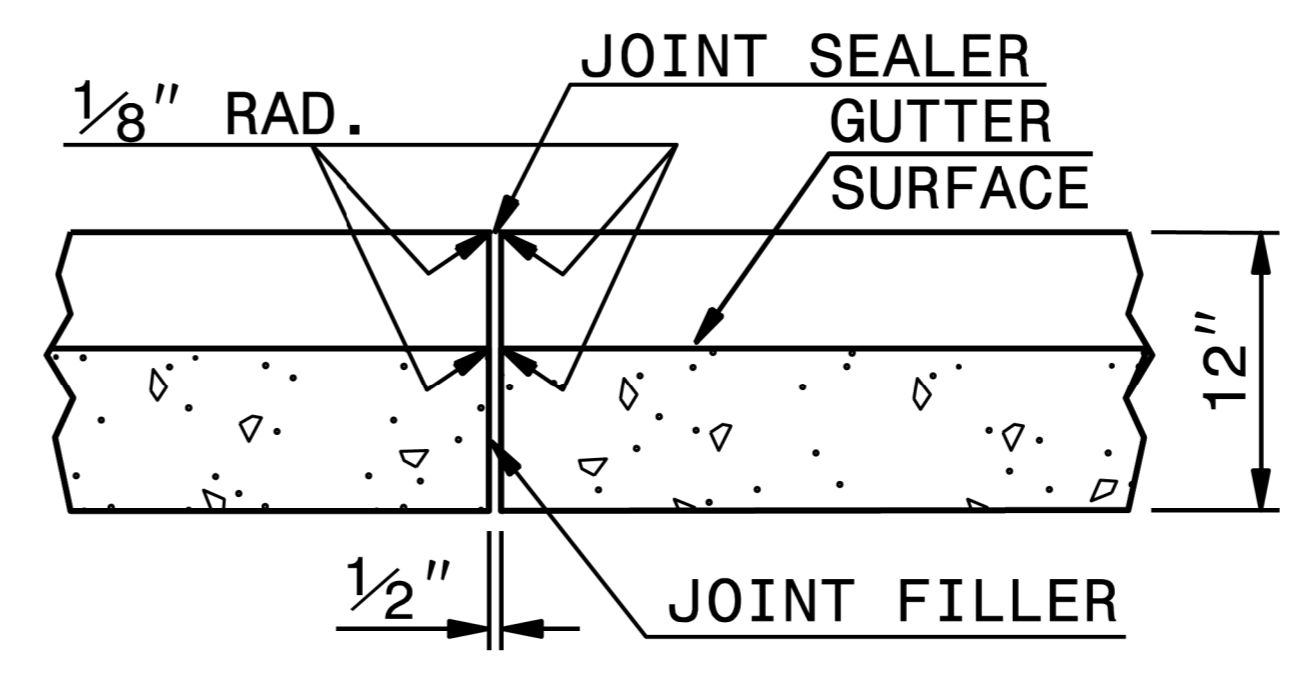


**2'-9" CURB AND GUTTER**

**SECTION VIEW OF CURB AND GUTTER**



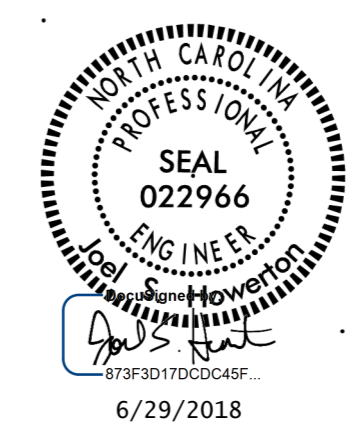
**LONGITUDINAL JOINT**



**TRANSVERSE EXPANSION JOINT IN CURB AND GUTTER**

**SECTION VIEW OF JOINTS**

SYTIME  
LVA  
CJUSERNAME



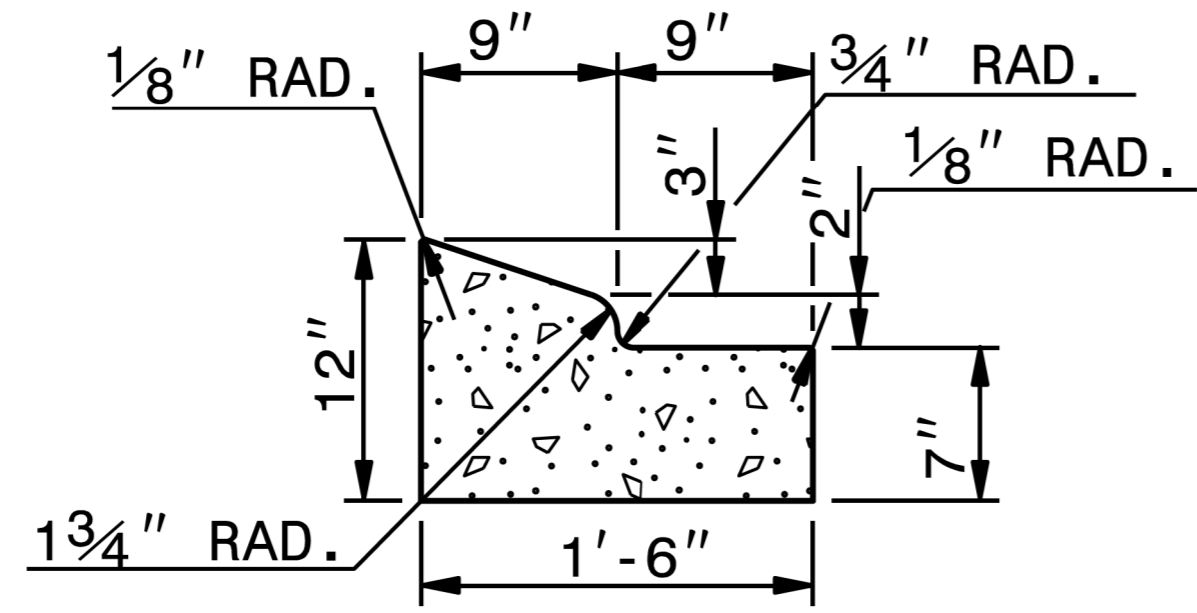
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**CONTRACT STANDARDS AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

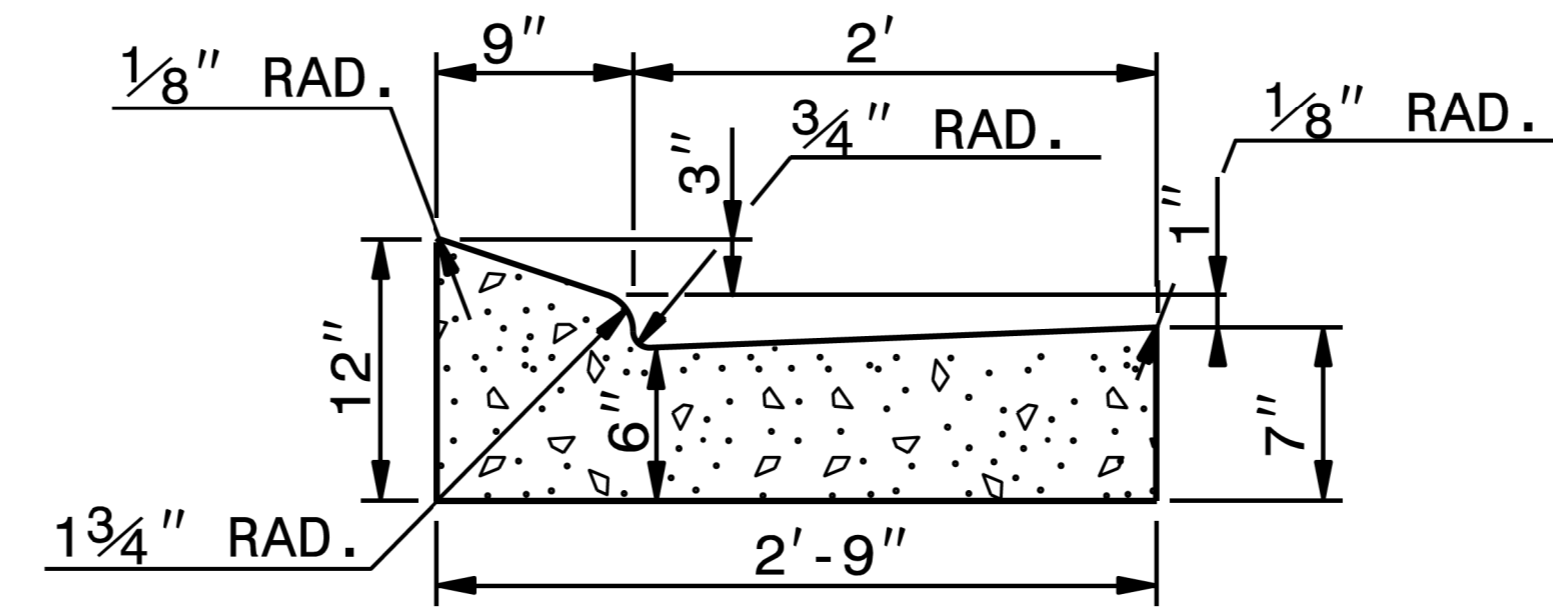
**SEE PLATE FOR TITLE**

ORIGINAL BY: STD. 846.01 DATE: \_\_\_\_\_  
 MODIFIED BY: E.E. WARD DATE: 8-15-00  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: /usr/details/stand/c&g2-9'.dgn





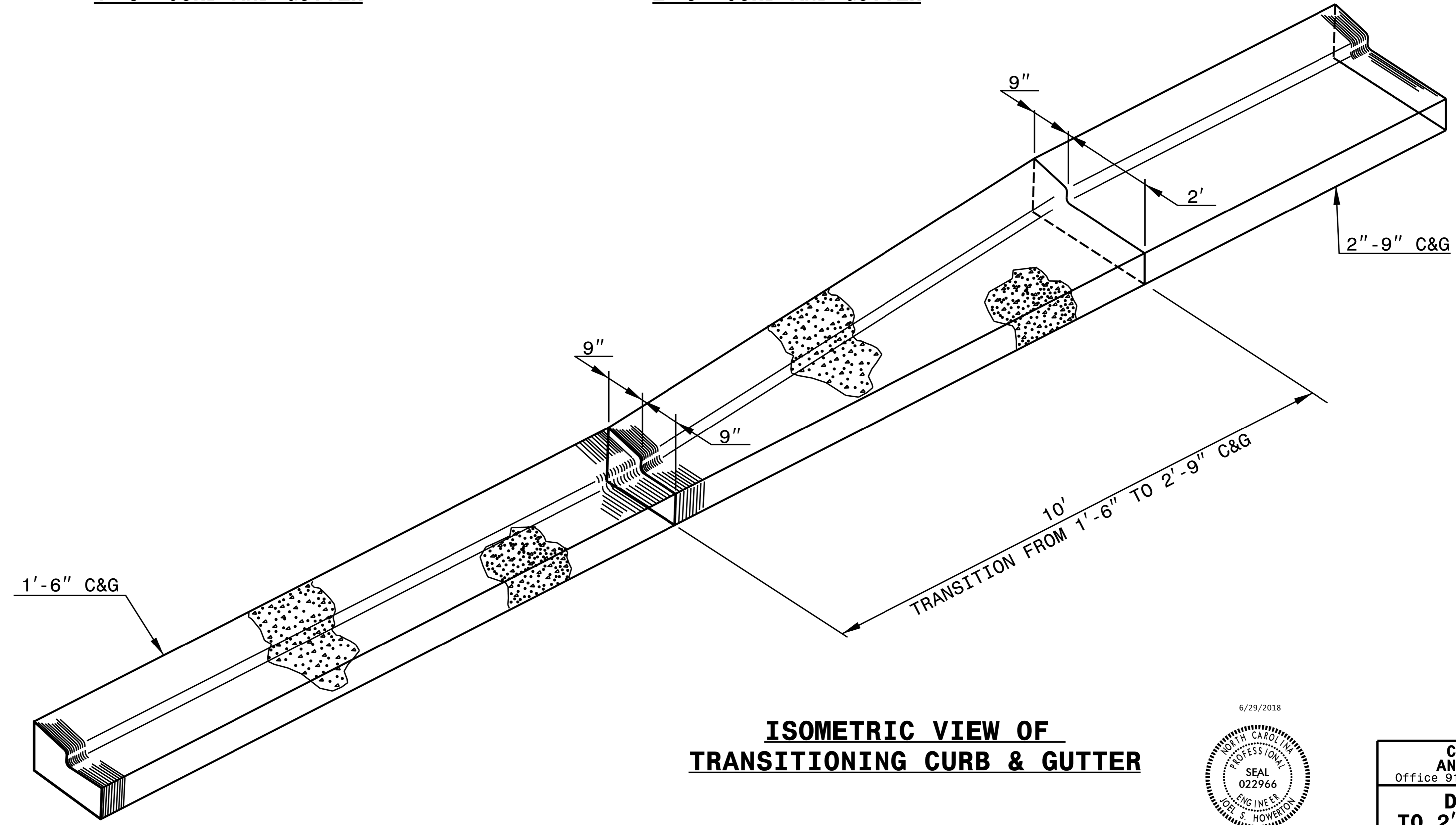
**1'-6" CURB AND GUTTER**



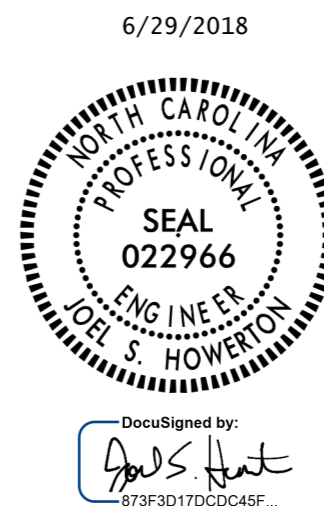
**2'-9" CURB AND GUTTER**

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

SEE ROADWAY PLANS FOR LOCATION OF CURB TRANSITION.



**ISOMETRIC VIEW OF  
TRANSITIONING CURB & GUTTER**

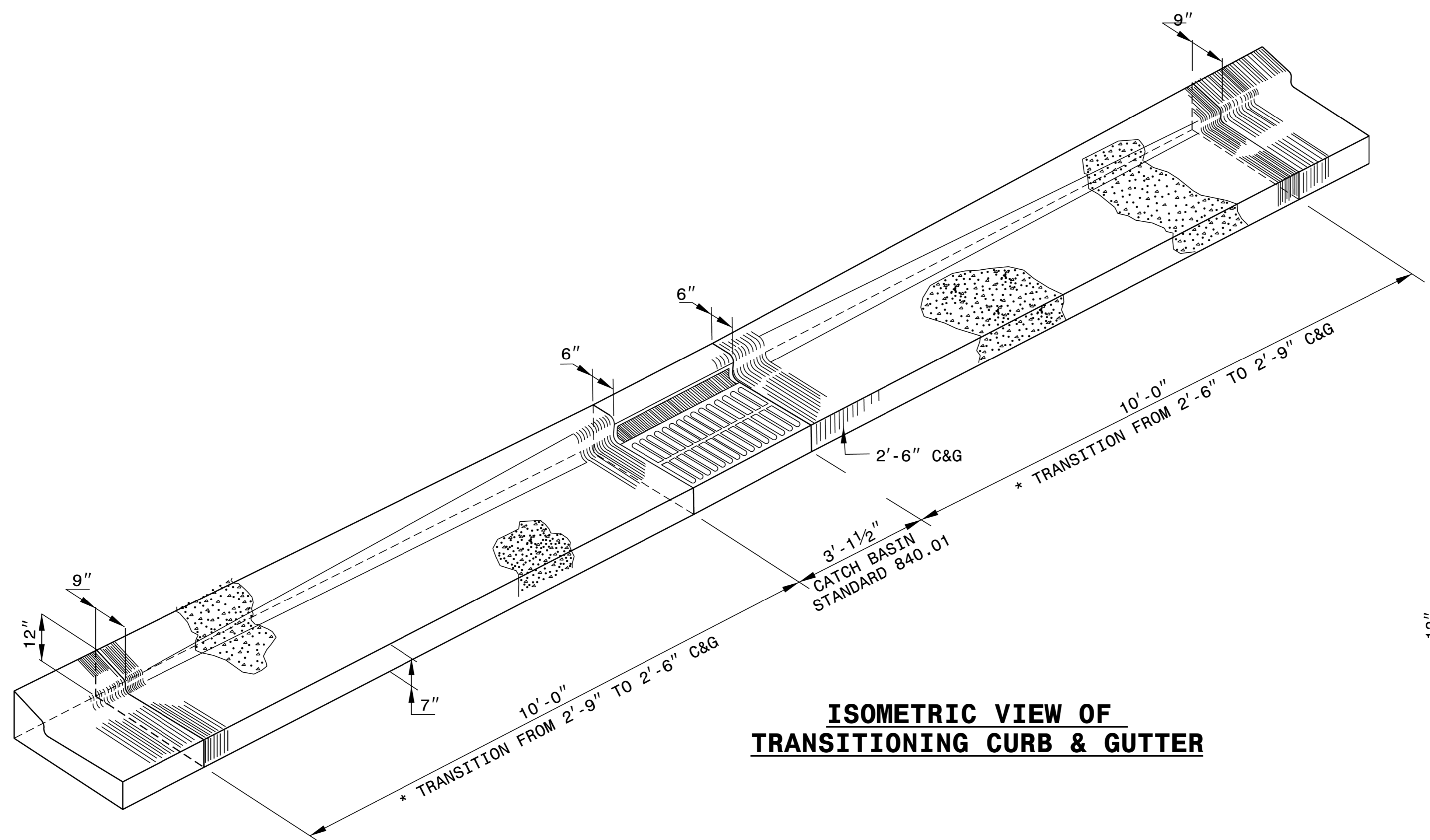


6/29/2018

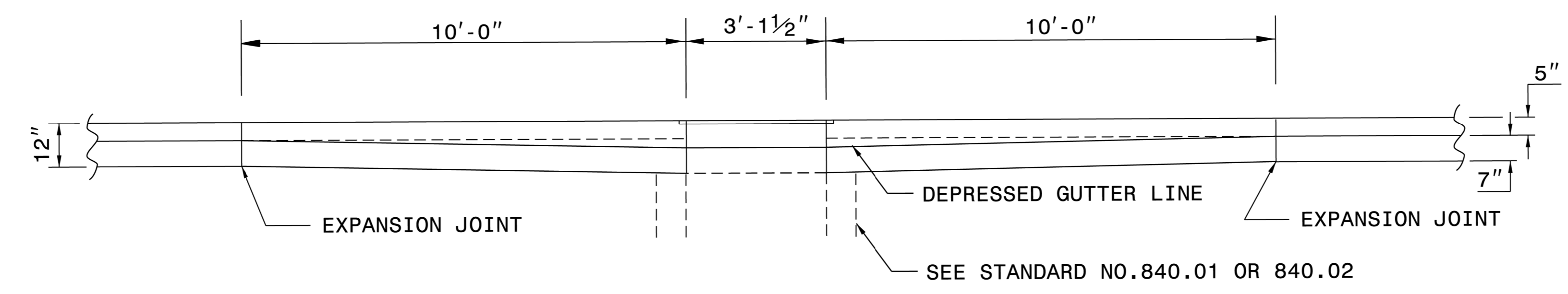
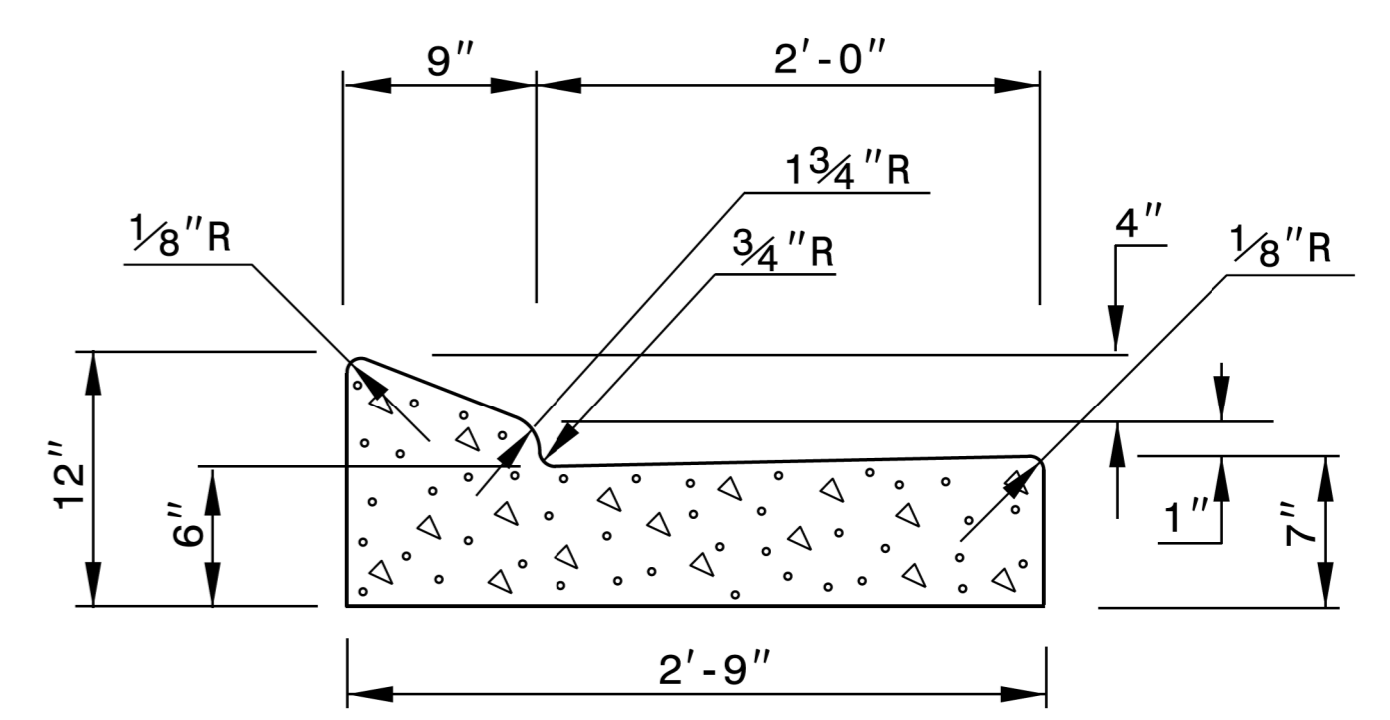
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b> Office 919-707-6950 FAX 919-250-4119	
<b>DETAIL OF 1'-6" TO 2'-9" CURB &amp; GUTTER TRANSITION SECTION</b>	
ORIGINAL BY: T.S.SPELL	DATE: NOV. 26, 2001
MODIFIED BY: T.S.SPELL	DATE: FEB. 12, 2007
CHECKED BY:	DATE:
FILE SPEC.: usr/eric/details/stand/cnrtransit.dgn	

6/29/2018 11:58:58 AM C:\PROJECTS\2007\200702\20070201\20070201.dwg



NOTE: SEE STD.DWG. 846.01 FOR  
2'-6" CURB AND GUTTER  
INFORMATION.



\* MAINTAIN THE EDGE OF PAVEMENT. TRANSITION THE CURB ALONG THE  
BACK OF THE CURB.



DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED

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

**DETAIL OF 2'-9"  
TO 2'-6" CURB & GUTTER  
TRANSITION SECTION**

ORIGINAL BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 MODIFIED BY: tspell DATE: july 14,2009  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: s:eric/usr/details/stand/cqtranst.dgn

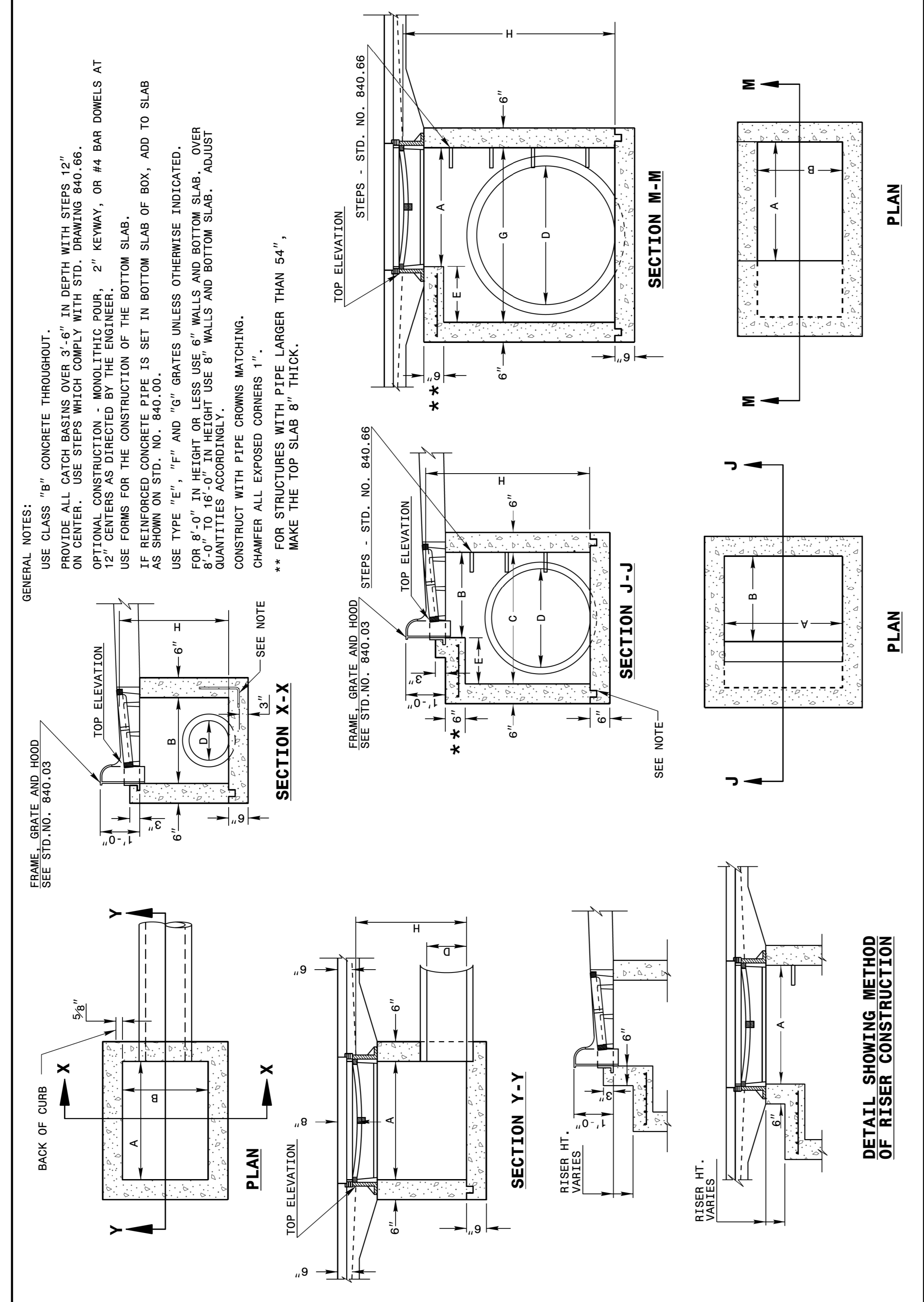
24 APR 2018 11:11 C:\projects\contracts\Special Details\ericward\usr\details\stand\c&g transition sections.dgn jhowerton AT CSO-262595

5/14/99

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

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

SHEET 1 OF 2 840D02



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

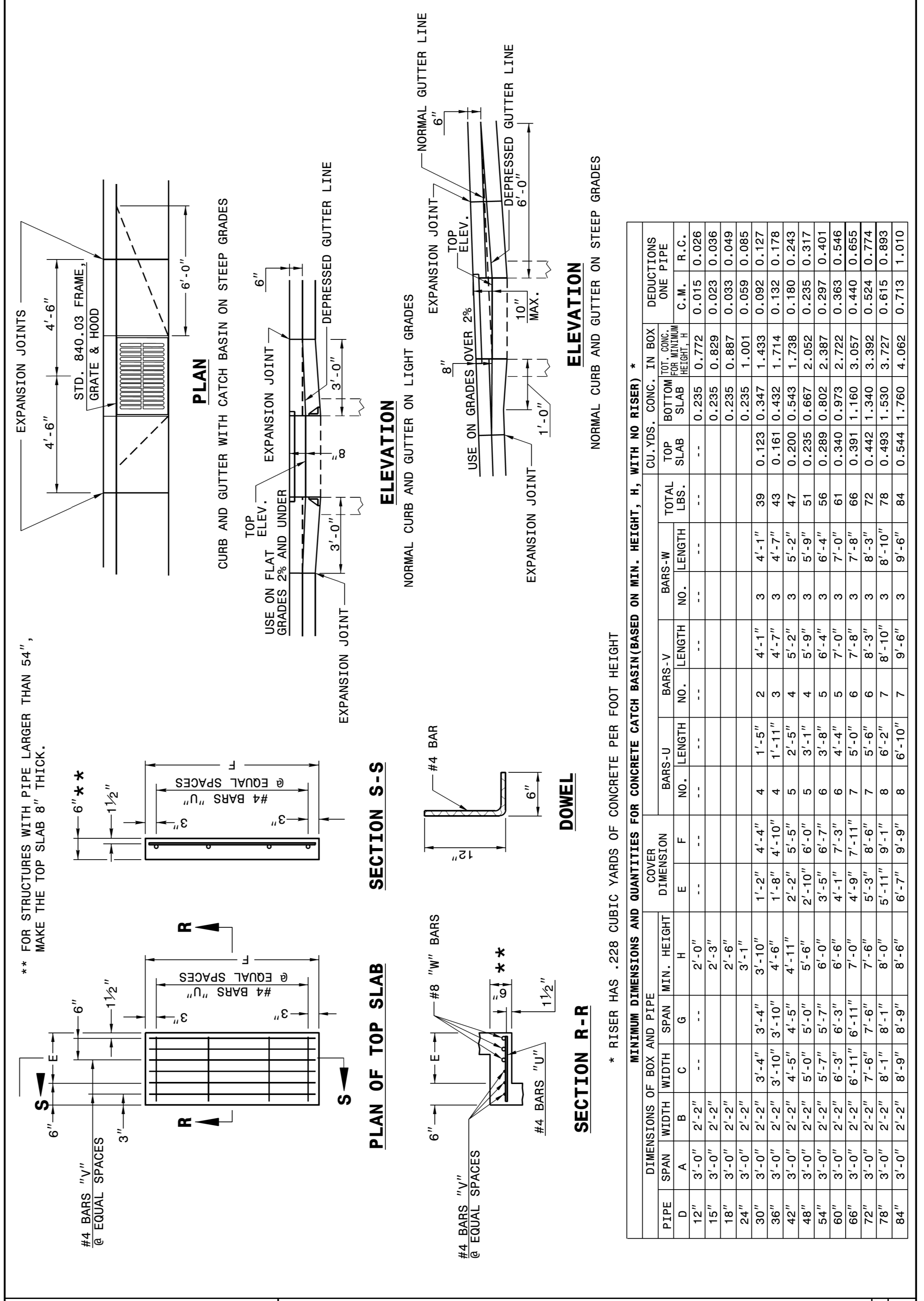
ENGLISH DETAIL DRAWING FOR MINIMUM DEPTH CONCRETE CATCH BASIN 12" THRU 84" PIPE

SHEET 1 OF 2 840D02

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

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

SHEET 2 OF 2 840D02



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

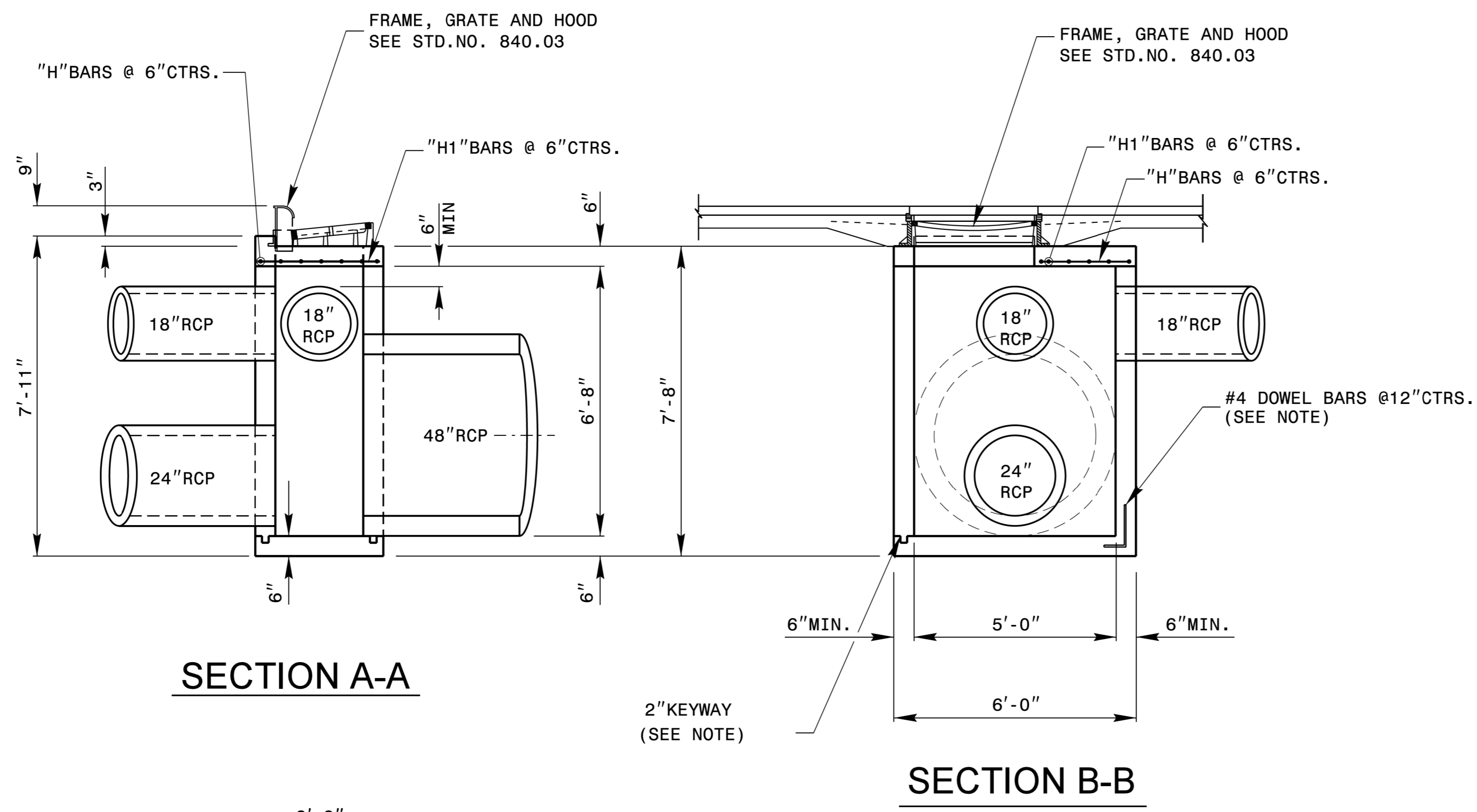
ENGLISH DETAIL DRAWING FOR MINIMUM DEPTH CONCRETE CATCH BASIN 12" THRU 84" PIPE

SHEET 2 OF 2 840D02

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

**SEE PLATE FOR TITLE**

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



**GENERAL NOTES:**

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.

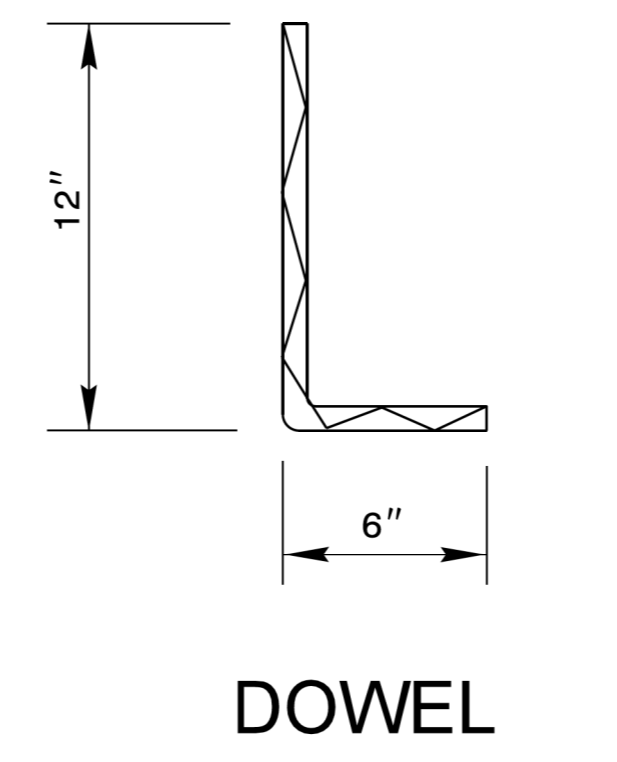
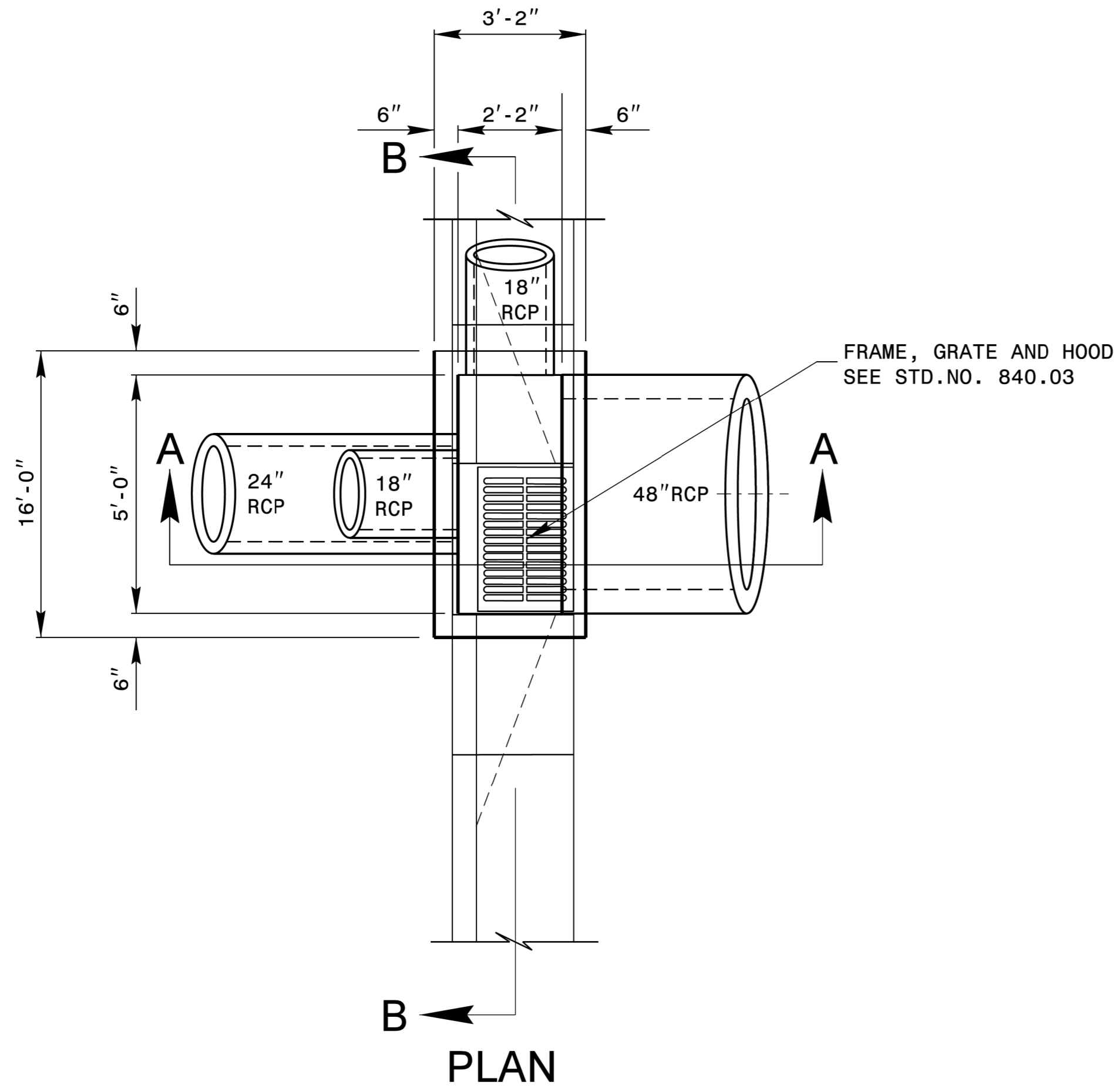
INSTALL CATCH BASIN IN POSITION AS DIRECTED BY THE ENGINEER. CUT AND BEND ALL REBAR CROSSING THIS OPENING TO ALLOW 2" MINIMUM CONCRETE COVERAGE.

CHAMFER ALL EXPOSED CORNERS 1".

2" MINIMUM CONCRETE COVERAGE ON ALL REBAR.

DIMENSIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

BILL OF MATERIAL				
REINF. STEEL				
BAR	SIZE	LENGTH	NO.	WEIGHT
H1	#4	2'-10"	6	11
H	#4	2'-2"	7	10
DOWEL (OPTION)			14	
REINF. STEEL LBS.				21
TOTAL CON./R.C. CU. YDS.				2.6
DEDUCTION FOR 1-48" RCP'S				-0.4
DEDUCTION FOR 1-24" RCP				-0.1
DEDUCTION FOR 2-18" RCP				-0.1
CON./R.C. CU. YDS.				2.0



6/29/2018



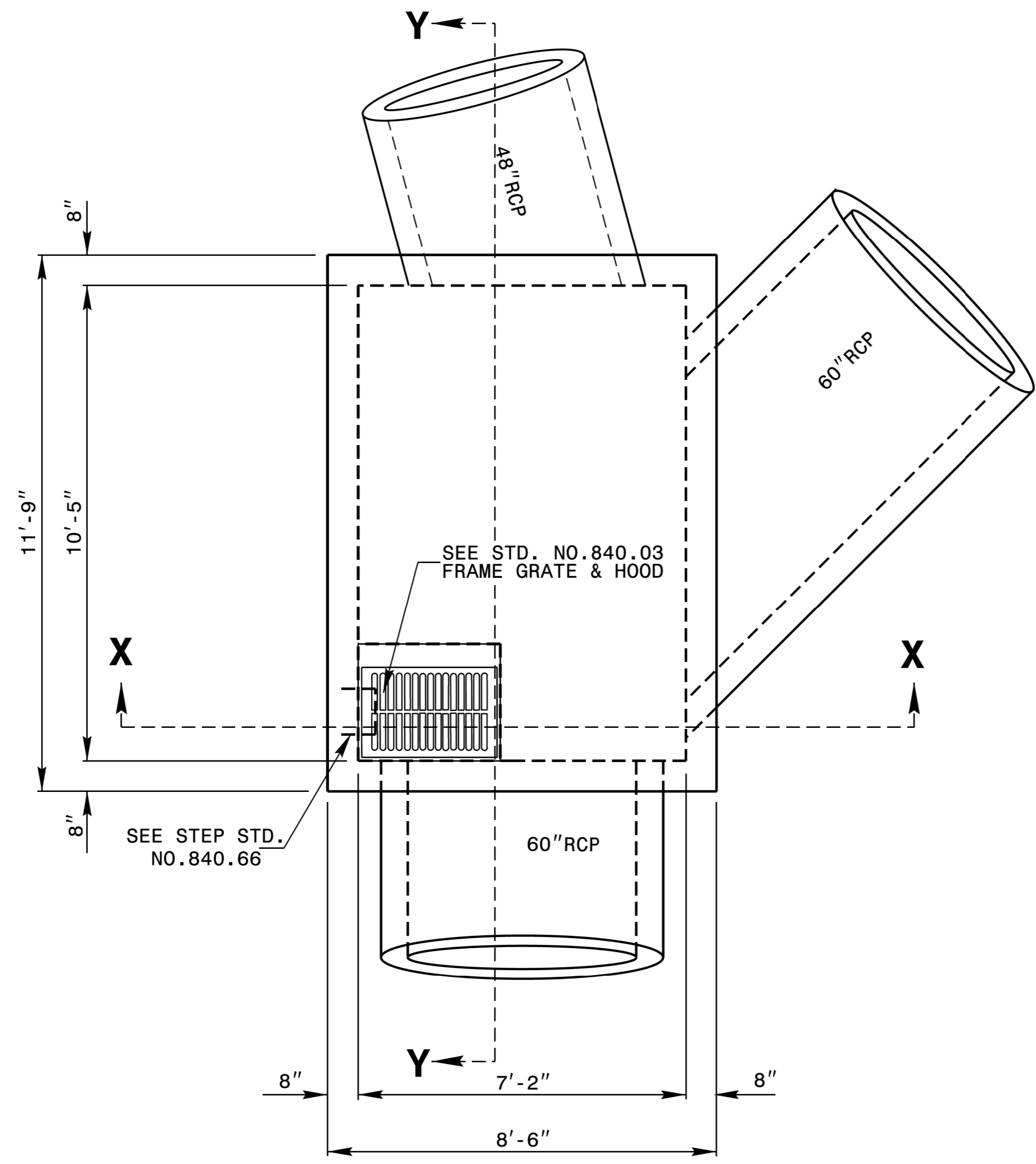
DocuSigned by:  
Joe S. Howerton

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

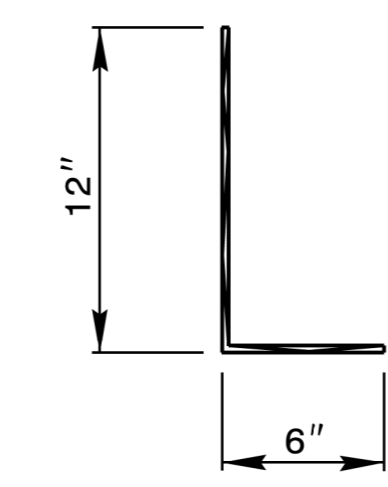
**CONTRACTS STANDARDS  
AND DEVELOPMENT UNIT**  
Office 919-707-6950 FAX 919-250-4119

**DETAIL OF CATCH BASIN  
STR# 404**

ORIGINAL BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 MODIFIED BY: KKEMPF DATE: 4-10-18  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: details/kkemp/english/u5725\_48\_2x60cb.dgn



**PLAN VIEW**



**DOWEL**  
SEE NOTE

**GENERAL NOTES:**

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.

INSTALL CATCH BASIN IN POSITION AS DIRECTED BY THE ENGINEER. CUT AND BEND ALL REBAR CROSSING THIS OPENING TO ALLOW 2" MINIMUM CONCRETE COVERAGE.

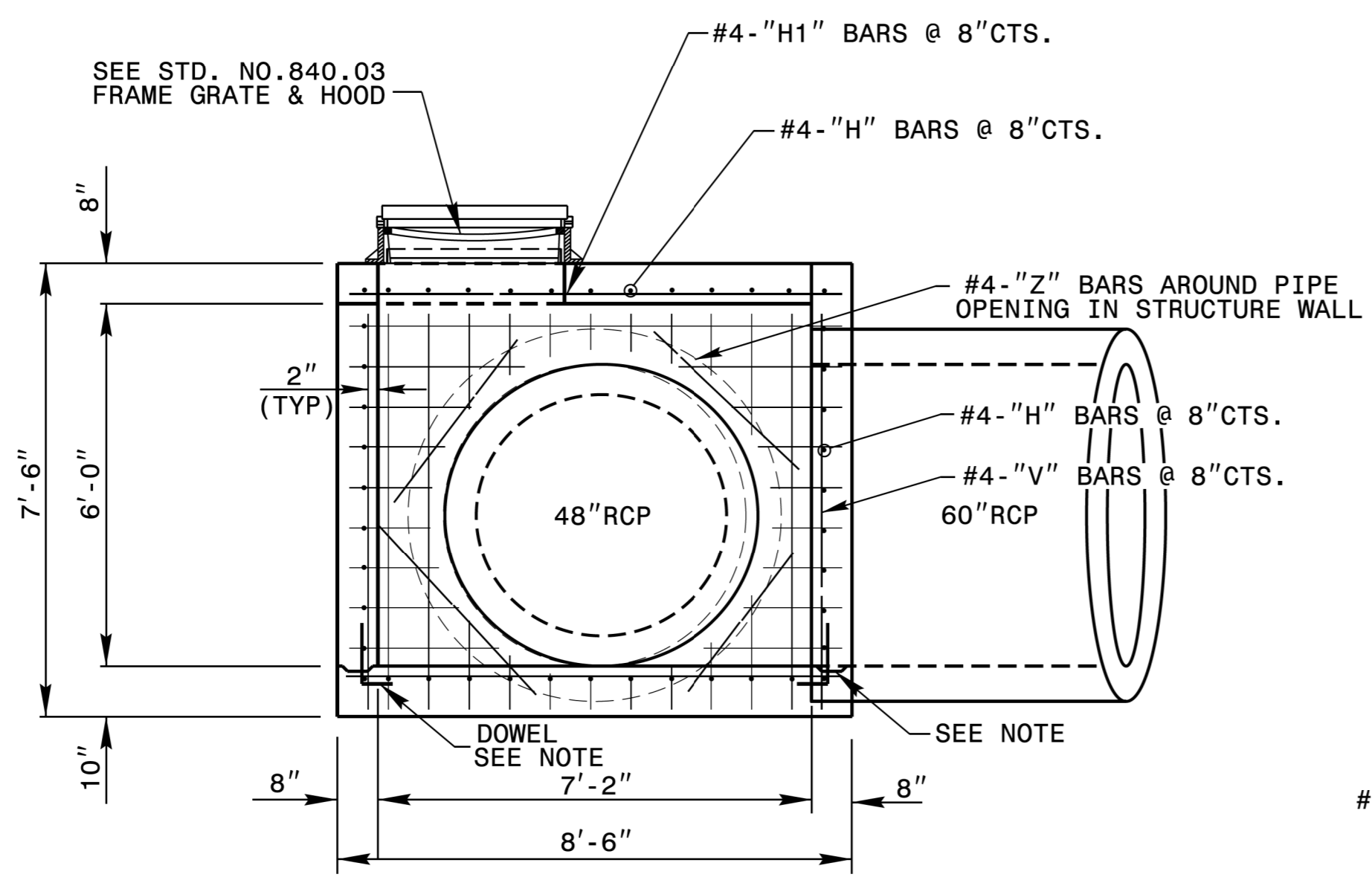
CHAMFER ALL EXPOSED CORNERS 1".

2" MINIMUM CONCRETE COVERAGE ON ALL REBAR.

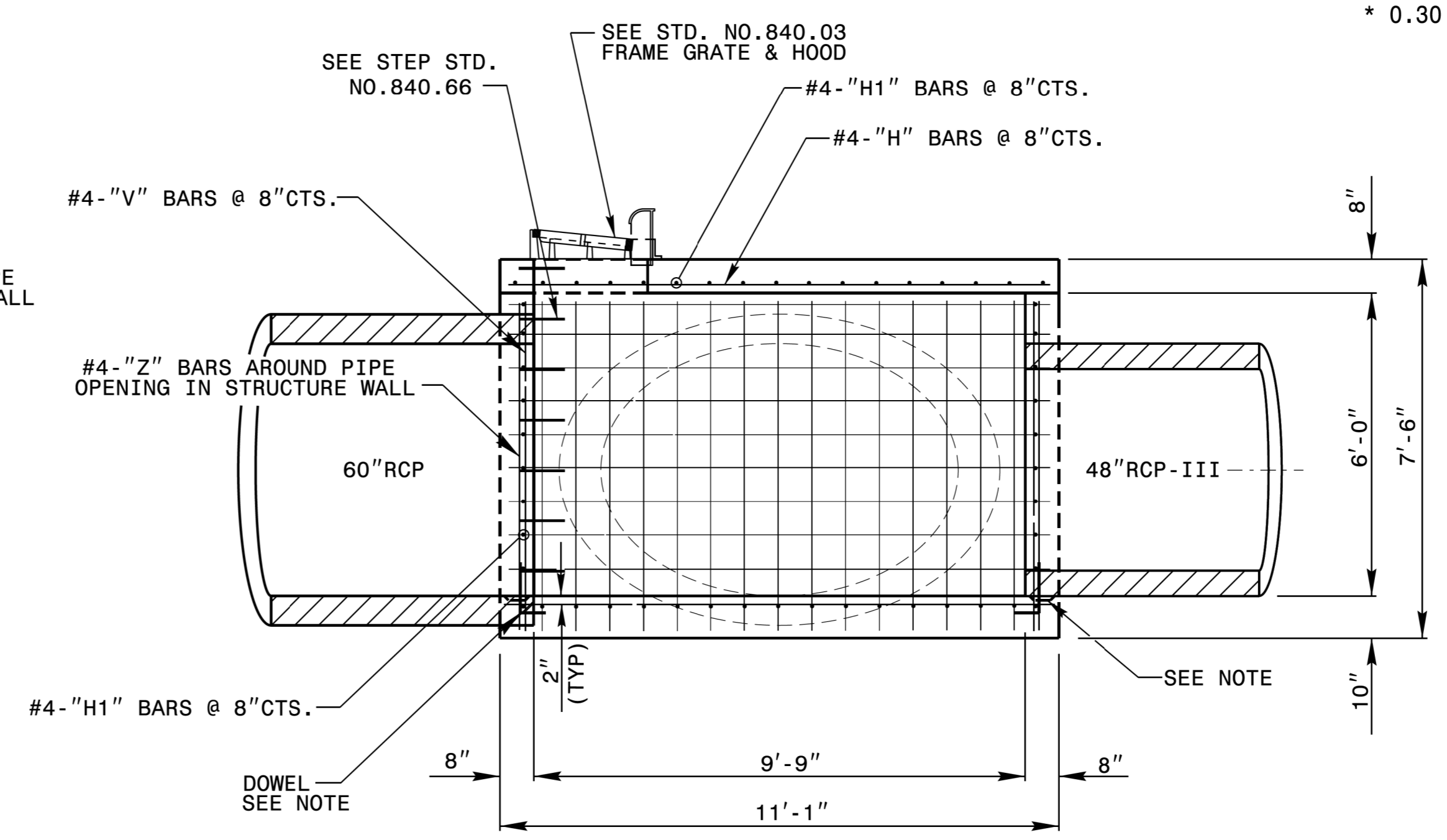
DIMENSIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.

BILL OF MATERIAL				
REINF. STEEL				
BAR	SIZE	LENGTH	NO.	WEIGHT
H	10'-9"	#4	46	330
H1	8'-2"	#4	52	284
V	6'-6"	#4	56	243
Z	4'-0"	#4	12	32
DOWEL (OPTION)			34	
REINF. STEEL LBS.				889
TOTAL CONC. (CU. YDS.)				10.9
CONCRETE DEDUCTION FOR 2-60"RCP PIPES, AND 1-48"RCP (CU. YDS.)				-2.3
TOTAL CONC. (CU. YDS.)				8.6

\* 0.30 CU. YD. PER FOOT OF RISER HEIGHT



**SECTION X-X**



**SECTION Y-Y**



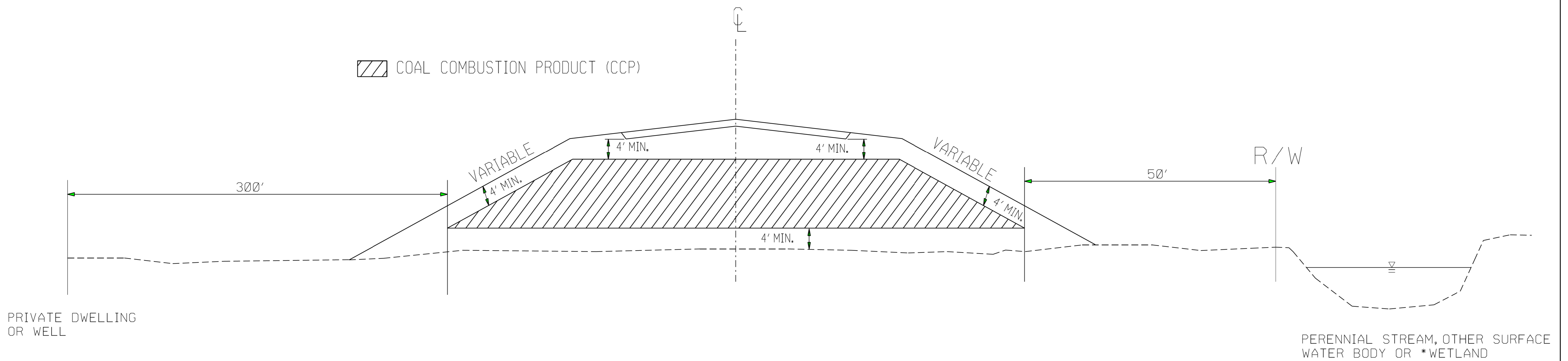
**DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED**

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

**DETAIL OF CATCH BASIN STR# 1219**

ORIGINAL BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 MODIFIED BY: KKEMPF DATE: 4-10-18  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: details/kkempf/english/u5725\_48\_2x60cb.dgn

# COAL COMBUSTION PRODUCT PLACEMENT



COAL COMBUSTION PRODUCT (CCP)

PRIVATE DWELLING OR WELL

PERENNIAL STREAM, OTHER SURFACE WATER BODY OR \*WETLAND

\*(OBTAIN PERMISSION FROM ARMY CORPS OF ENGINEERS)

PLACE CCP IN HATCHED AREA IN ACCORDANCE WITH THE PROJECT SPECIAL PROVISIONS

PLACE CCP A MINIMUM OF 5' ABOVE SEASONAL HIGH GROUND WATER

PLACE AT LOCATIONS AS APPROVED BY THE ENGINEER

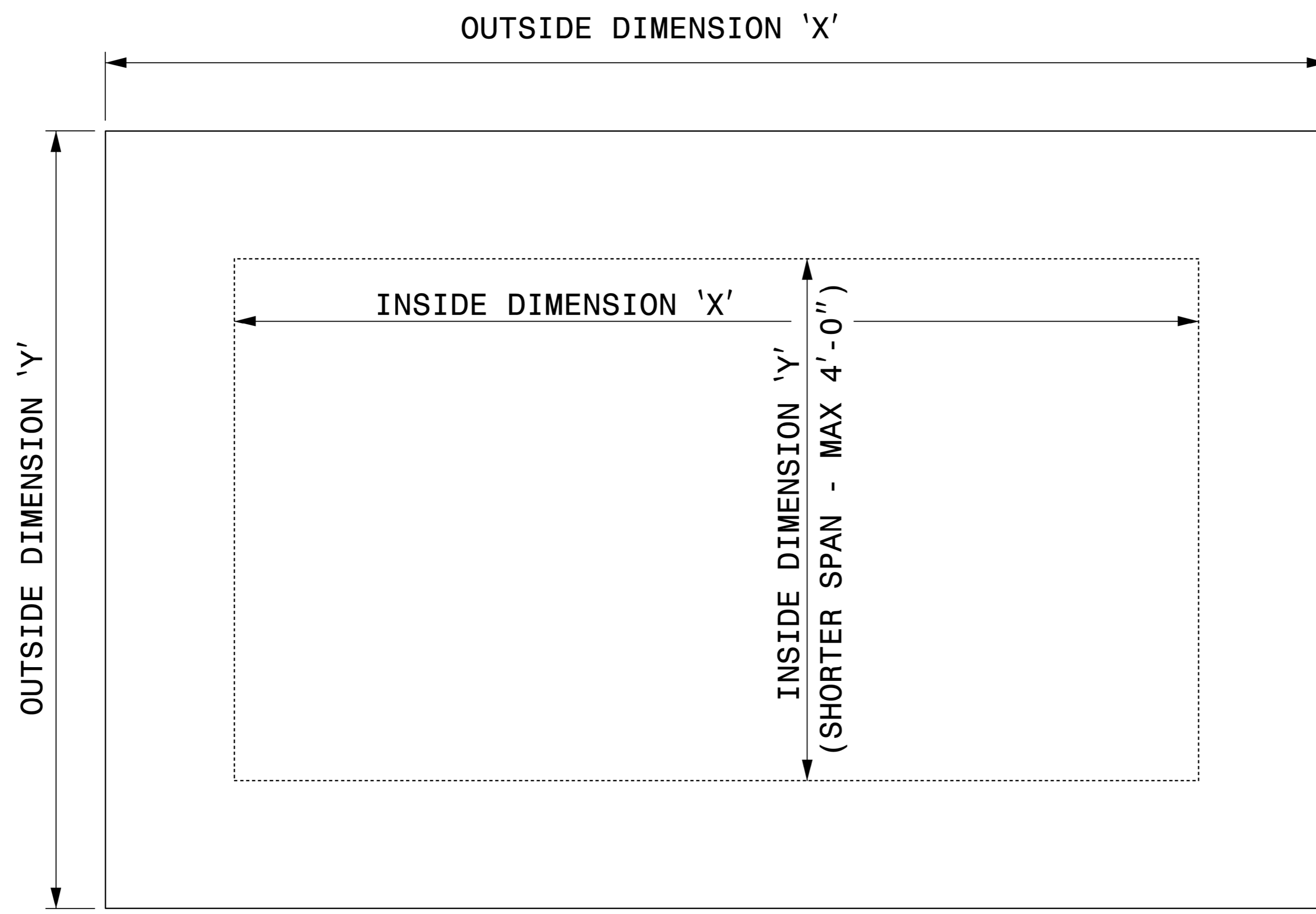
PLACE SOIL BORROW MATERIAL ON THE OUTSIDE OF CCP AS EACH LIFT OF CCP IS PLACED

07-SEP-2017 08:21 S:\Contracts\Special Details\Jhower-ton\Coal Combustion Product Detail.dgn Jhower-ton AT CSD-292595

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

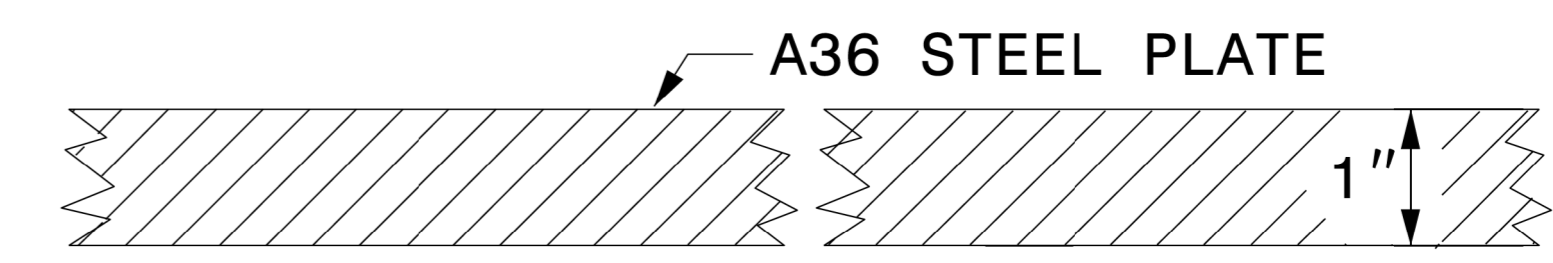


<b>CONTRACT STANDARDS AND DEVELOPMENT UNIT</b>	
Office 919-707-6950 FAX 919-250-4119	
<b>COAL COMBUSTION PRODUCT PLACEMENT DETAIL</b>	
ORIGINAL BY: J.S.H.	DATE: 3/16/15
MODIFIED BY:	DATE:
CHECKED BY:	DATE:
FILE SPEC.: joel/coal_combustion_material_detail.dgn	



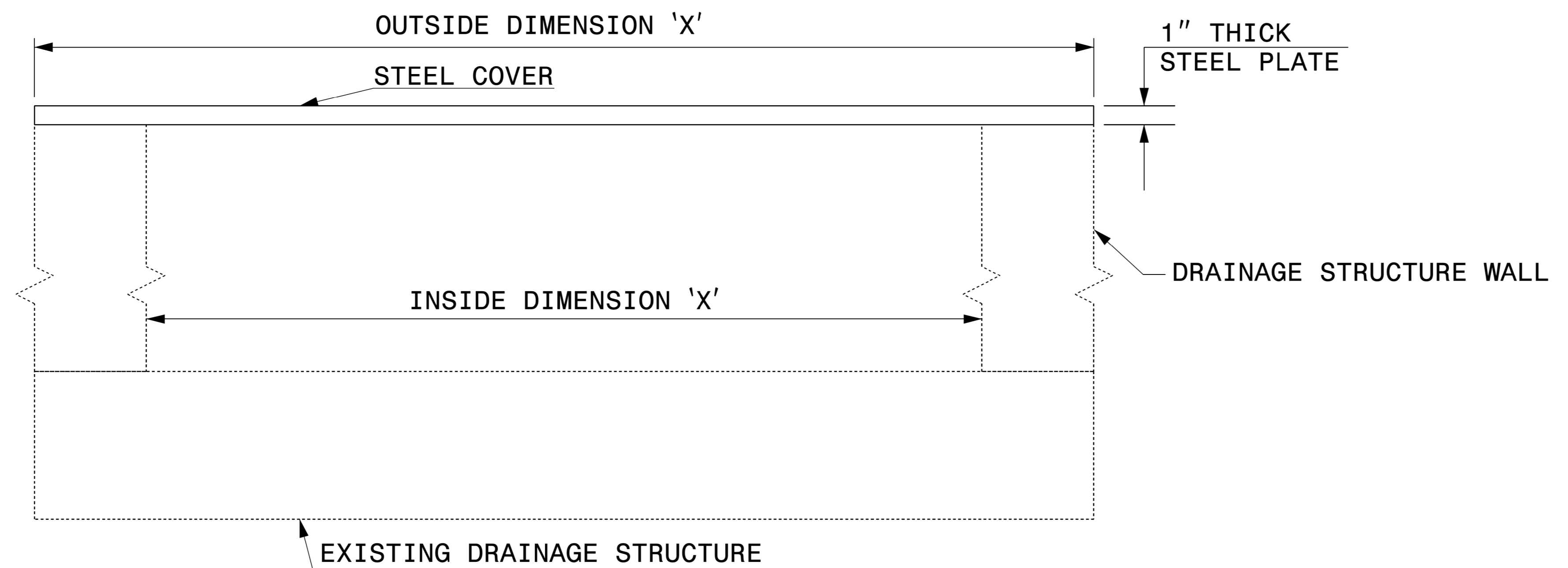
**GENERAL NOTES:**

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



**SECTION VIEW OF STEEL TOP PLATE**

**PLAN VIEWS**



**ELEVATION VIEWS**

6/29/2018



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

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

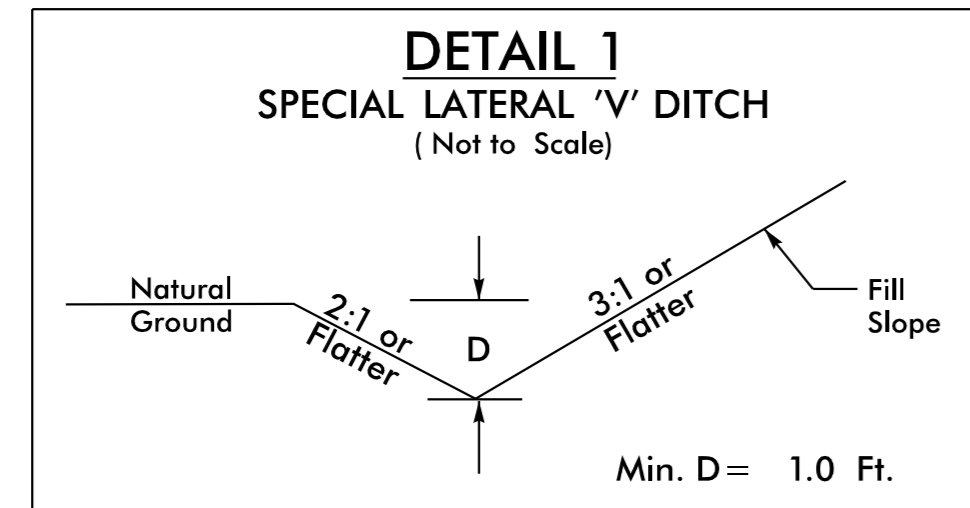
**DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE**

ORIGINAL BY: E.E. WARD DATE: 2-2-98  
 MODIFIED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 FILE SPEC.: eric:\usr\details\metric\stand\stlcvr2.dgn

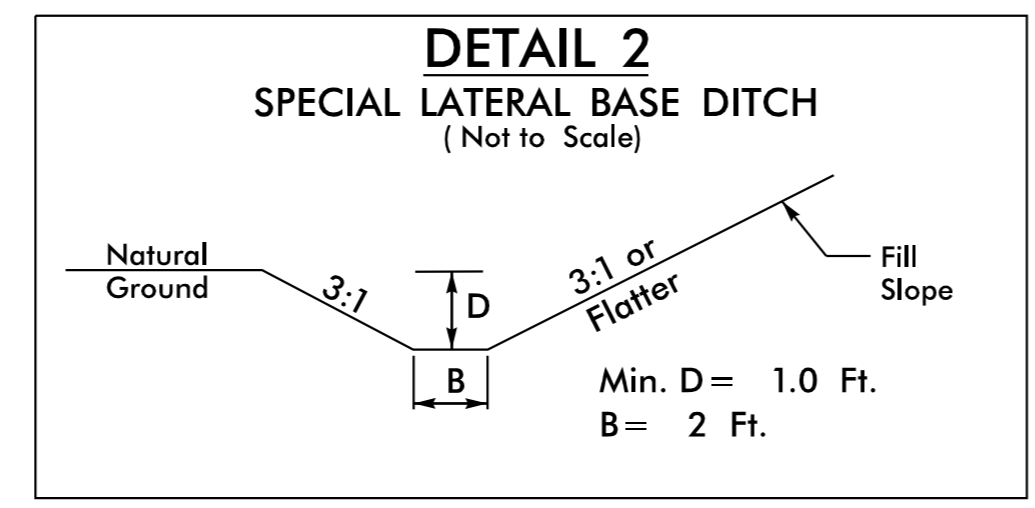
PLT  
MPL  
C:\p1  
4/23/2018  
1:54:12 PM  
Eric S. Howerton  
Professional Engineer  
022966  
6/29/2018

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2D-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

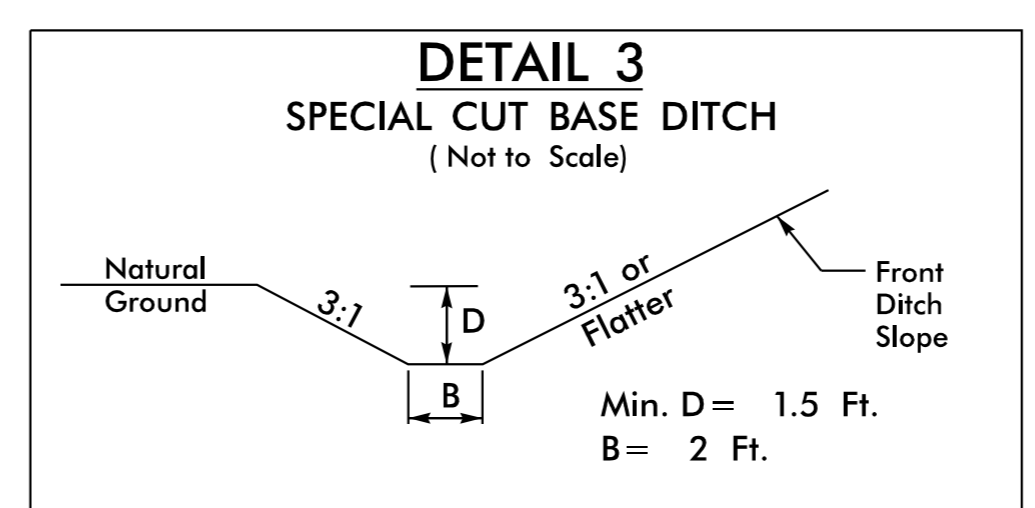
**DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED**



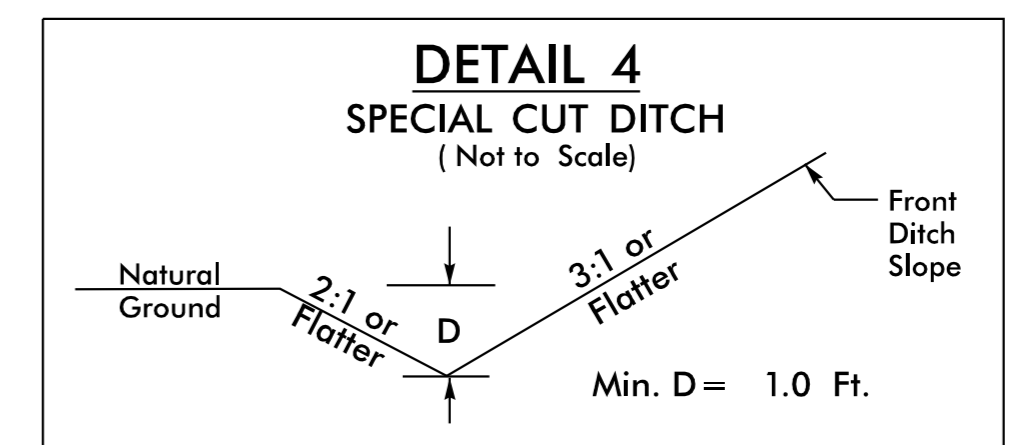
- FROM STA. 13+00 TO STA. 16+37 -L- (RT)
- FROM STA. 13+00 TO STA. 16+37 -L- (LT)
- FROM STA. 16+37 TO STA. 17+50 -L- (LT)
- FROM STA. 21+00 TO STA. 24+00 -L- (LT)
- FROM STA. 21+00 TO STA. 26+00 -L- (RT)
- FROM STA. 26+00 TO STA. 28+00 -L- (LT)
- FROM STA. 27+50 TO STA. 30+64 -L- (RT)
- FROM STA. 31+00 TO STA. 35+00 -L- (LT)
- FROM STA. 48+50 TO STA. 49+00 -L- (RT)
- FROM STA. 49+00 TO STA. 49+75 -L- (RT)
- FROM STA. 54+00 TO STA. 55+00 -L- (LT)
- FROM STA. 57+00 TO STA. 63+50 -L- (RT)
- FROM STA. 58+00 TO STA. 60+50 -L- (LT)
- FROM STA. 69+00 TO STA. 74+00 -L- (RT)
- FROM STA. 84+20 TO STA. 87+75 -L- (LT)
- FROM STA. 89+30 TO STA. 91+50 -L- (LT)
- FROM STA. 11+00 -Y3- (LT) TO STA. 57+25 -L- (LT)
- FROM STA. 14+50 TO STA. 15+25 -L1- (LT)
- FROM STA. 14+50 TO STA. 15+40 -L1- (RT)
- FROM STA. 15+40 TO STA. 17+50 -L1- (RT)
- FROM STA. 18+50 TO STA. 20+50 -L1- (RT)
- FROM STA. 11+50 TO STA. 12+50 -Y1- (RT)
- FROM STA. 10+80 TO STA. 12+00 -Y5- (RT)
- FROM STA. 21+50 TO STA. 23+00 -L1- (RT)
- FROM STA. 34+00 TO STA. 36+00 -L1- (LT)
- FROM STA. 41+50 TO STA. 42+50 -L1- (LT)
- FROM STA. 42+50 TO STA. 46+50 -L1- (LT)
- FROM STA. 54+40 TO STA. 59+00 -L1- (LT)
- FROM STA. 29+25 -Y3- (RT) TO STA. 59+00 -L1- (LT)
- FROM STA. 65+50 TO STA. 67+00 -L1- (LT)
- FROM STA. 68+00 TO STA. 70+50 -L1- (LT)
- FROM STA. 76+50 TO STA. 79+50 -L1- (RT)
- FROM STA. 80+50 TO STA. 81+50 -L1- (LT)
- FROM STA. 82+50 TO STA. 88+50 -L1- (LT)
- FROM STA. 88+50 TO STA. 90+50 -L1- (LT)
- FROM STA. 90+50 TO STA. 95+50 -L1- (LT)
- FROM STA. 8+00 TO STA. 11+50 -Y3- (RT)
- FROM STA. 23+50 TO STA. 25+50 -Y3- (RT)
- FROM STA. 26+00 TO STA. 29+25 -Y3- (RT)
- FROM STA. 11+15 TO STA. 11+50 -DRW2- (LT)



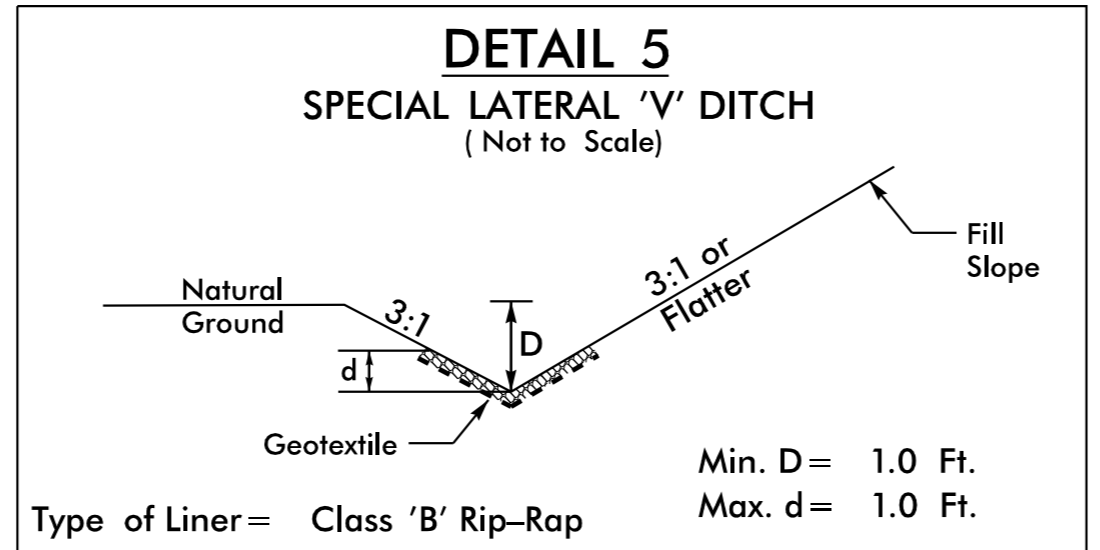
- FROM STA. 28+00 TO STA. 31+00 -L- (LT)
- FROM STA. 63+50 TO STA. 65+50 -L- (RT)
- FROM STA. 81+00 TO STA. 81+50 -L- (RT)
- FROM STA. 20+50 TO STA. 23+50 -Y3- (RT)



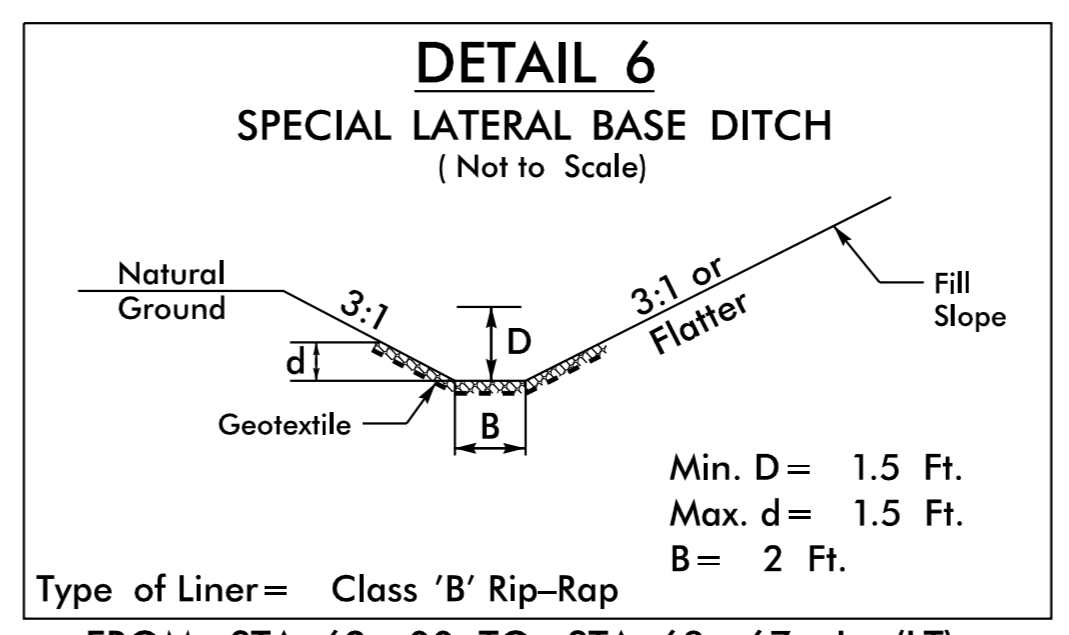
- FROM STA. 65+50 TO STA. 68+50 -L- (RT)
- FROM STA. 76+00 TO STA. 81+00 -L- (RT)



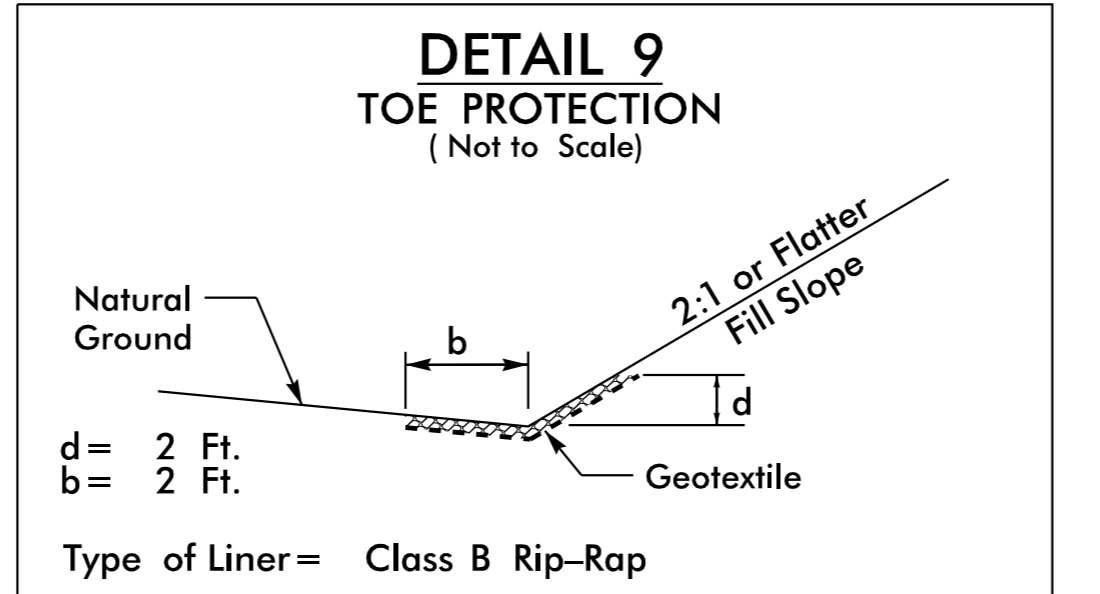
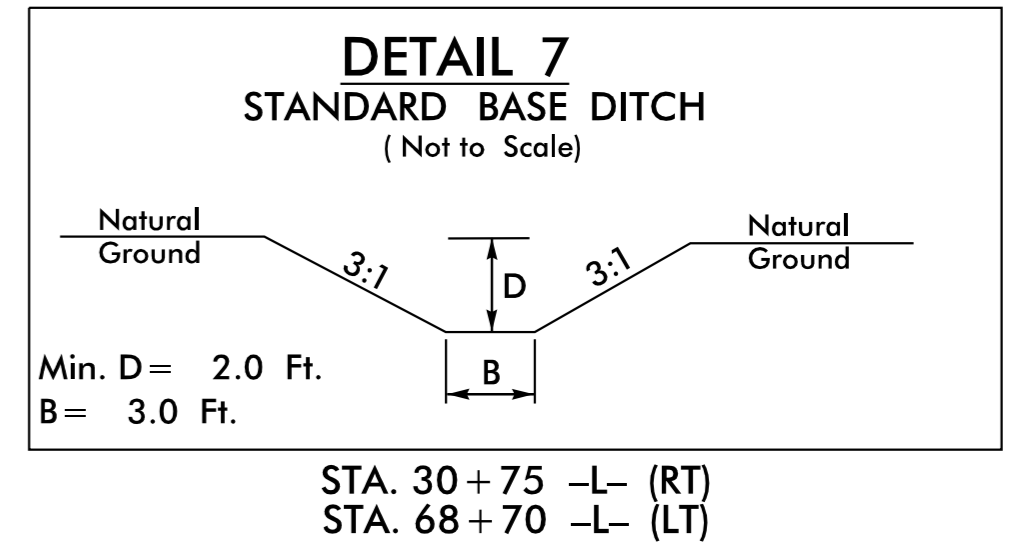
- FROM STA. 24+50 -L1- TO STA. 19+00 -L- (LT)
- FROM STA. 12+00 TO STA. 14+00 -Y5- (RT)
- FROM STA. 11+07 TO STA. 12+50 -DRW1- (LT)
- FROM STA. 30+50 TO STA. 34+00 -L1- (LT)
- FROM STA. 46+50 TO STA. 47+50 -L1- (LT)
- FROM STA. 47+50 TO STA. 50+00 -L1- (LT)
- FROM STA. 70+50 TO STA. 77+00 -L1- (LT)
- FROM STA. 70+50 TO STA. 75+00 -L1- (RT)
- FROM STA. 75+75 TO STA. 76+50 -L1- (RT)
- FROM STA. 17+50 TO STA. 20+27 -Y3- (LT)
- FROM STA. 20+27 TO STA. 21+00 -Y3- (LT)



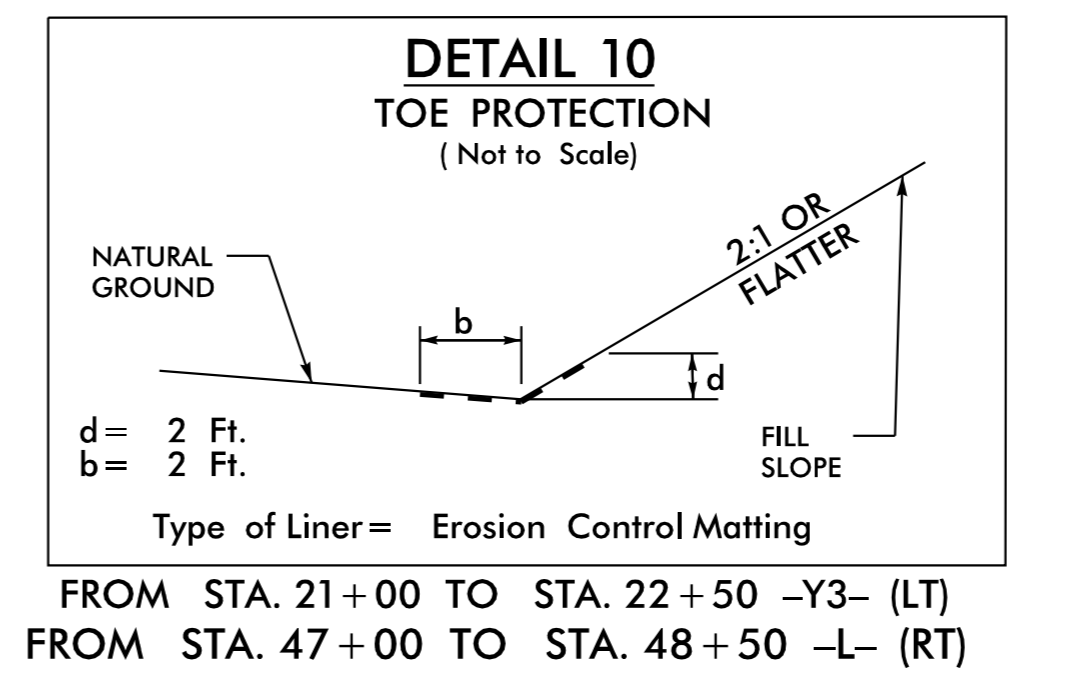
- Type of Liner = Class 'B' Rip-Rap
- FROM STA. 60+50 TO STA. 62+00 -L- (LT)
  - FROM STA. 16+00 TO STA. 16+25 -Y4- (RT)
  - FROM STA. 40+50 TO STA. 41+50 -L1- (LT)
  - FROM STA. 53+50 TO STA. 56+00 -L1- (RT)
  - FROM STA. 79+50 TO STA. 81+50 -L1- (RT)
  - FROM STA. 80+00 TO STA. 80+50 -L1- (LT)



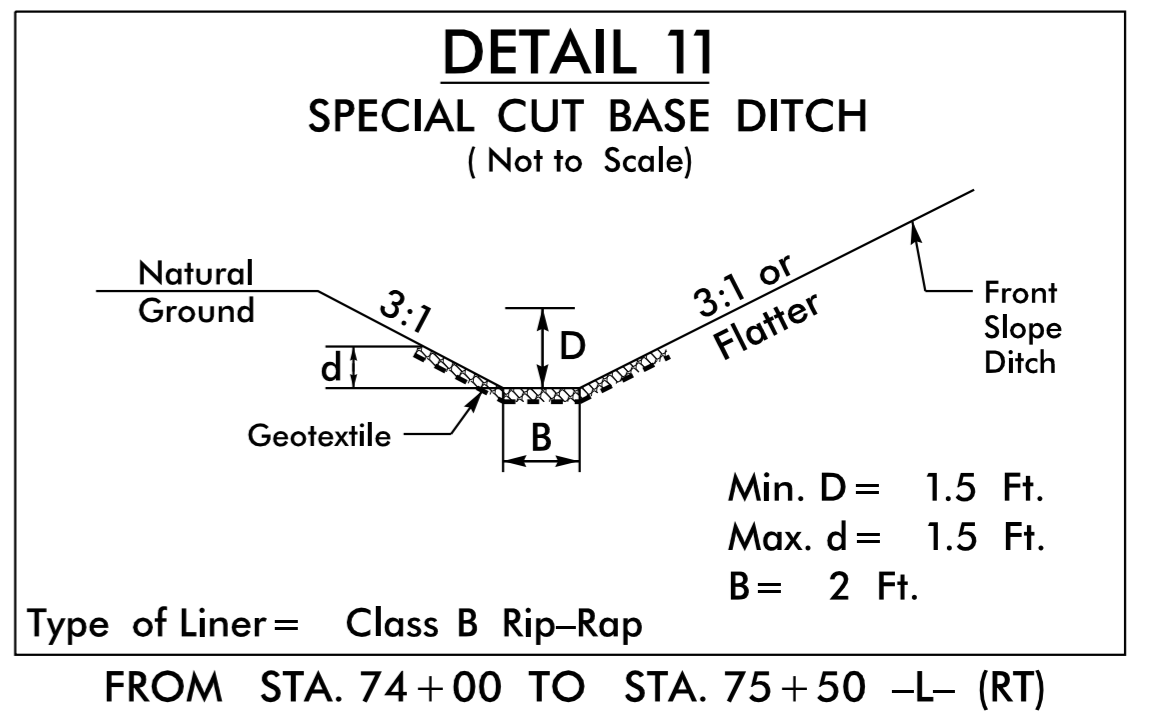
- Type of Liner = Class 'B' Rip-Rap
- FROM STA. 62+00 TO STA. 68+67 -L- (LT)



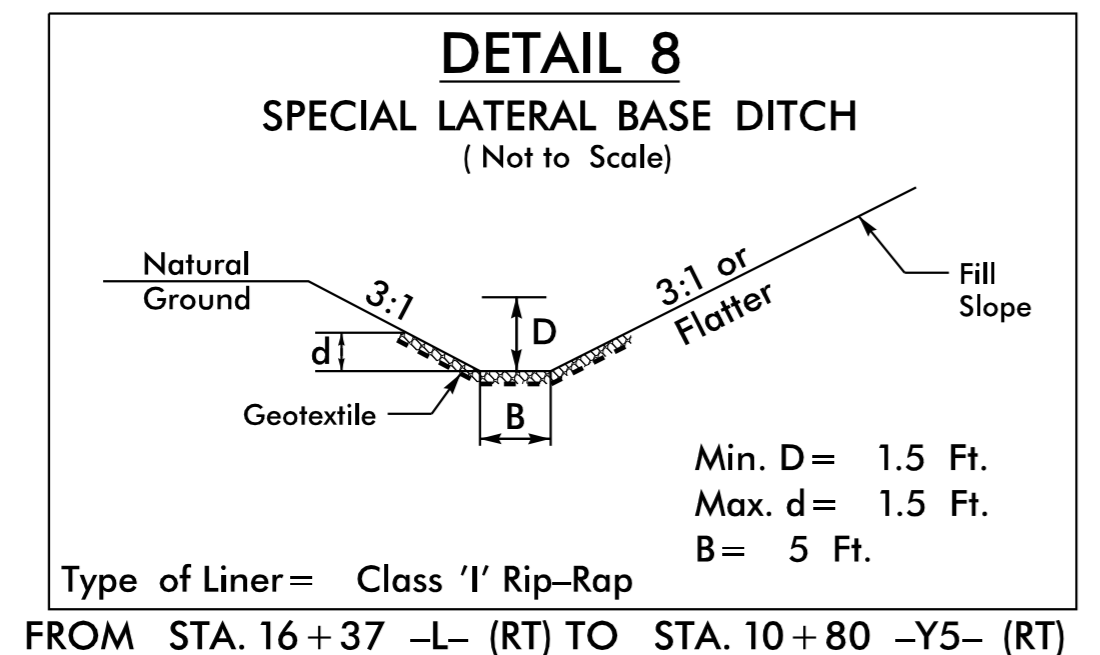
- Type of Liner = Class B Rip-Rap
- FROM STA. 78+00 TO STA. 84+10 -L- (LT)
  - FROM STA. 82+00 TO STA. 84+75 -L- (RT)
  - FROM STA. 39+25 TO STA. 40+00 -L1- (RT)
  - FROM STA. 40+10 TO STA. 41+00 -L1- (RT)
  - FROM STA. 96+00 TO STA. 97+00 -L1- (LT)
  - FROM STA. 101+35 TO STA. 102+00 -L1- (LT)



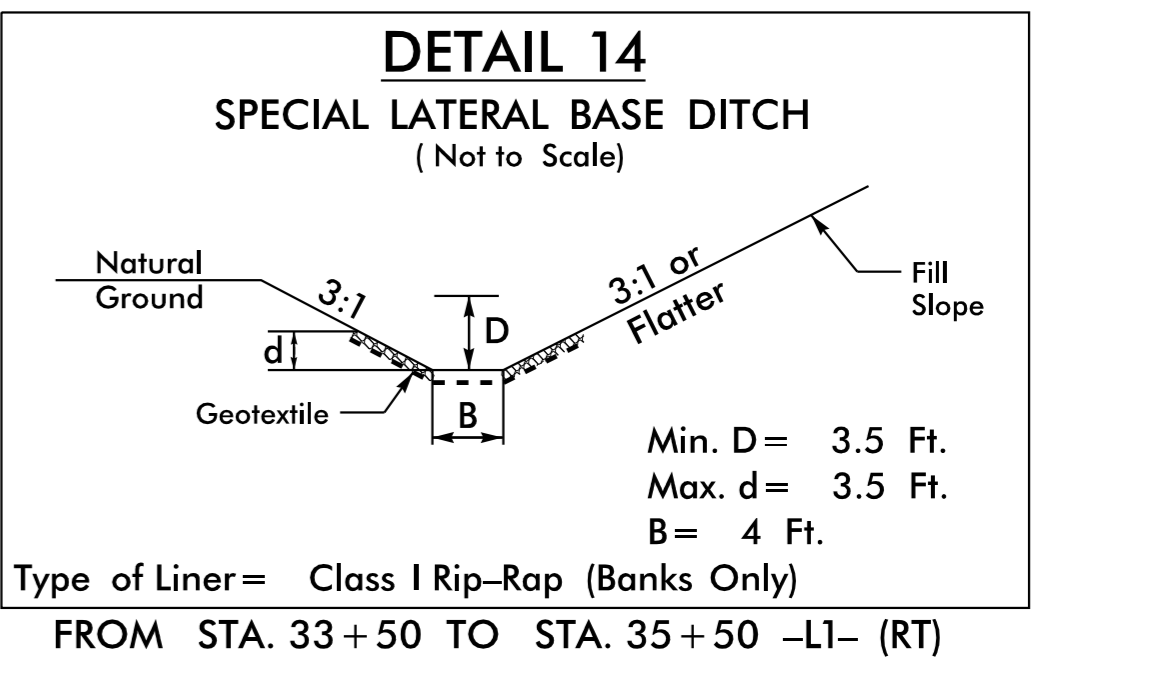
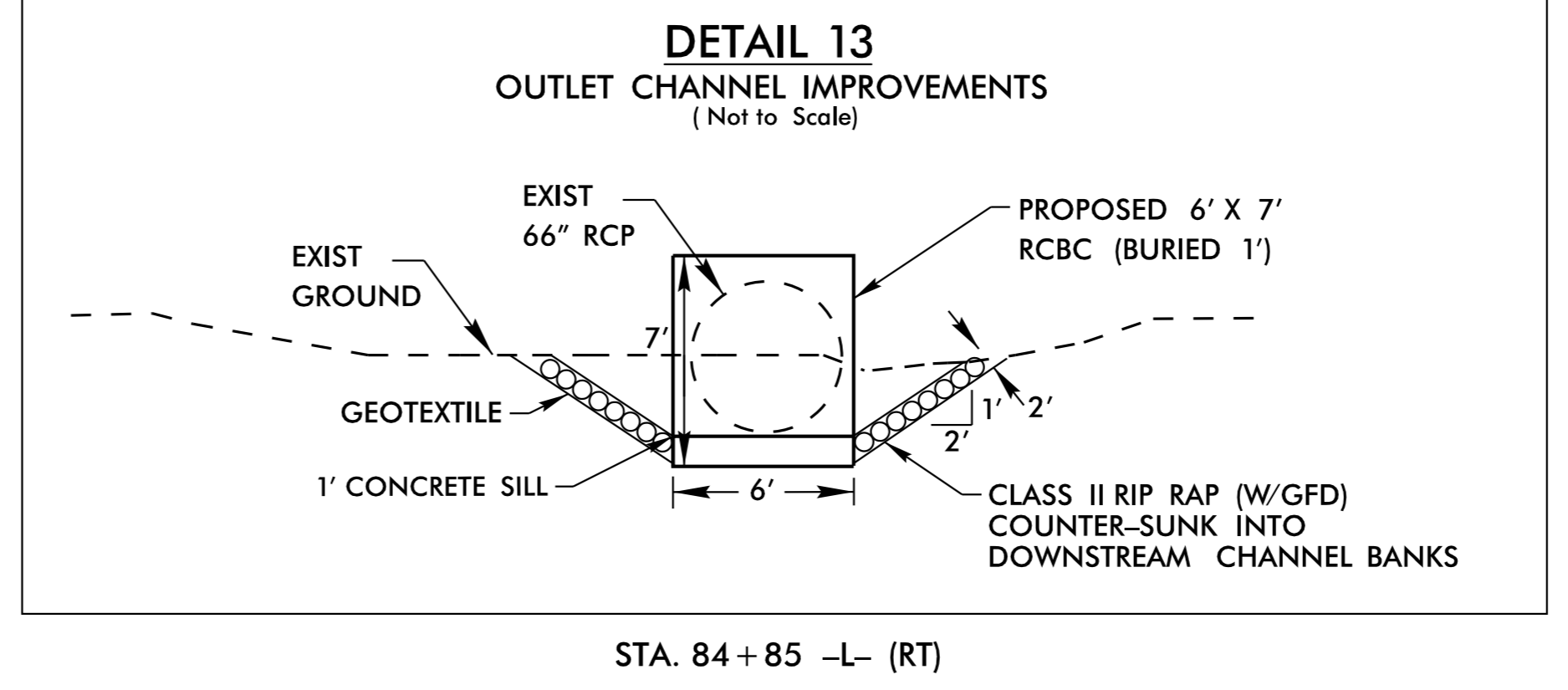
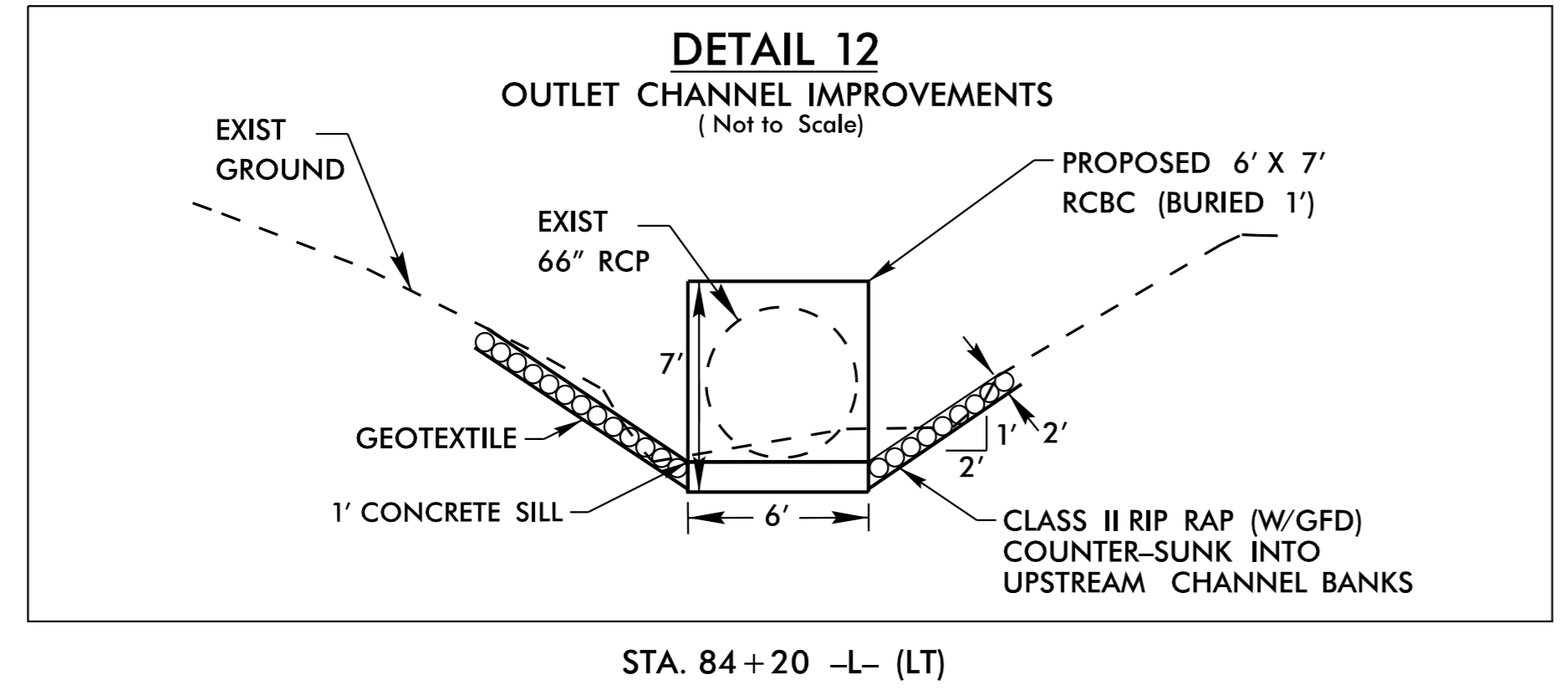
- Type of Liner = Erosion Control Matting
- FROM STA. 21+00 TO STA. 22+50 -Y3- (LT)
  - FROM STA. 47+00 TO STA. 48+50 -L- (RT)



- Type of Liner = Class B Rip-Rap
- FROM STA. 74+00 TO STA. 75+50 -L- (RT)



- Type of Liner = Class 'I' Rip-Rap
- FROM STA. 16+37 -L- (RT) TO STA. 10+80 -Y5- (RT)



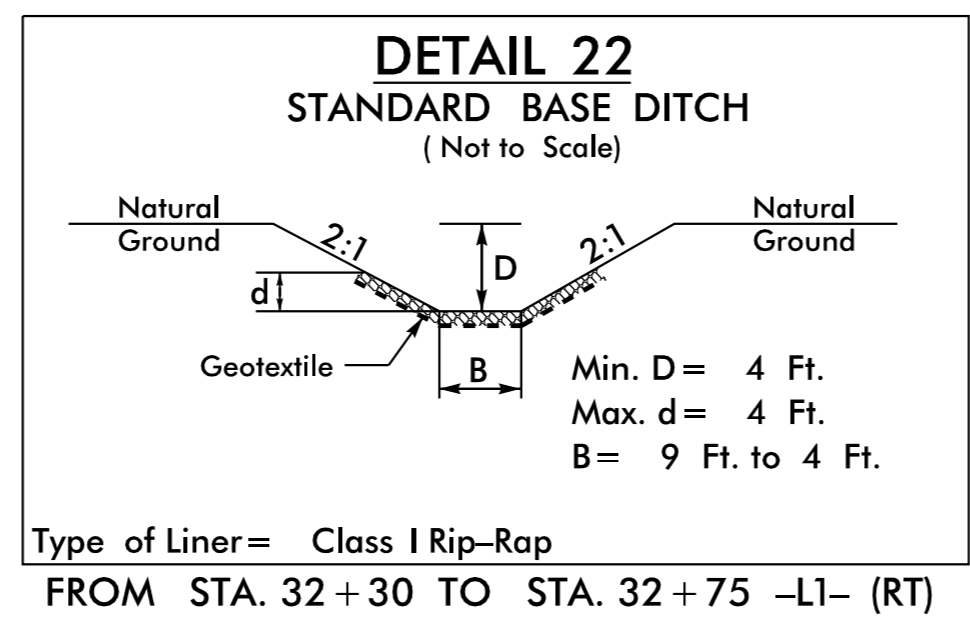
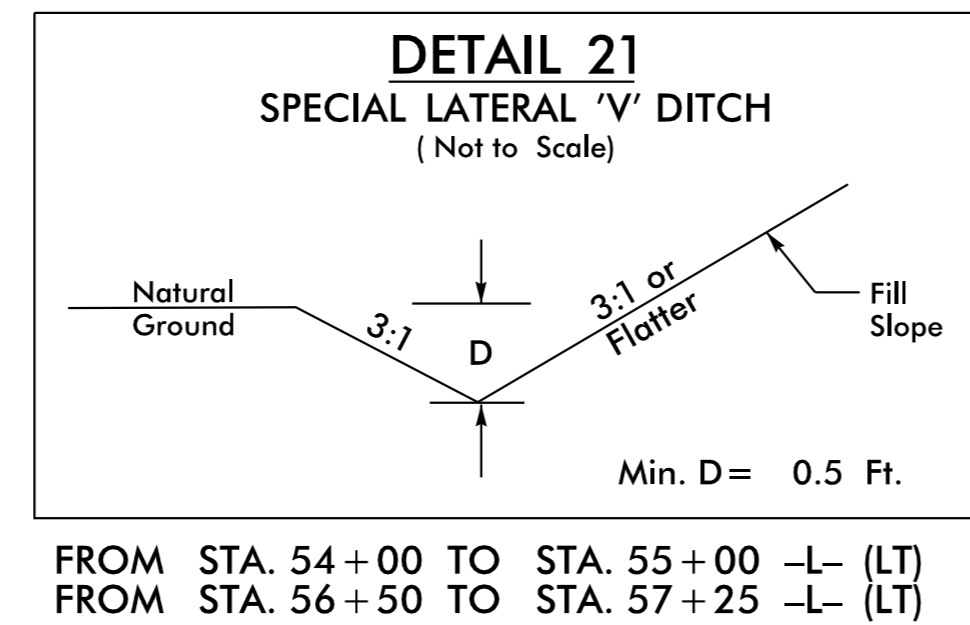
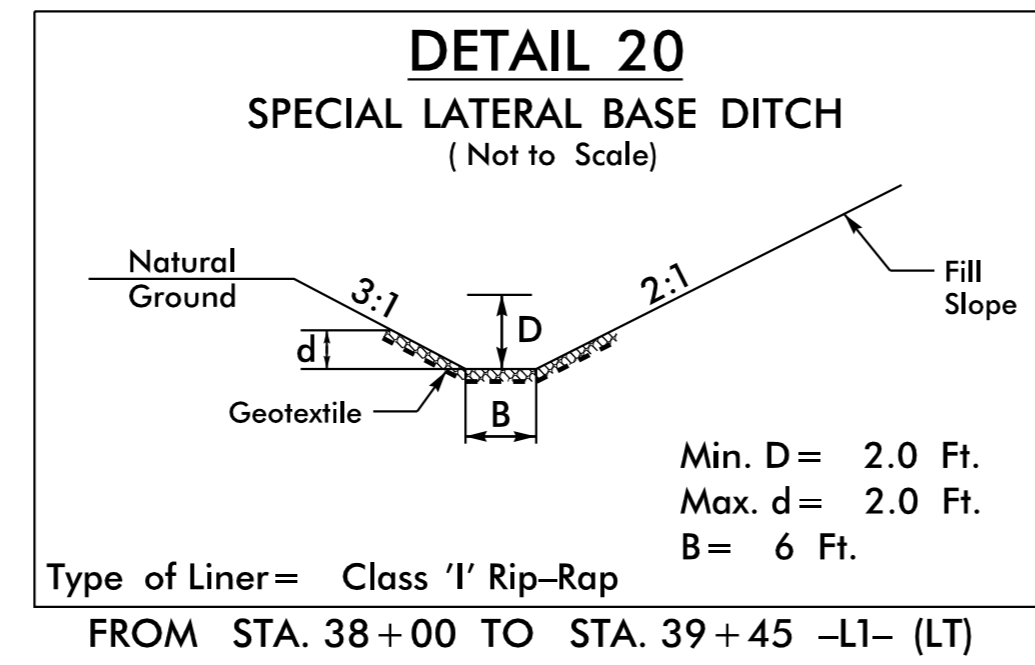
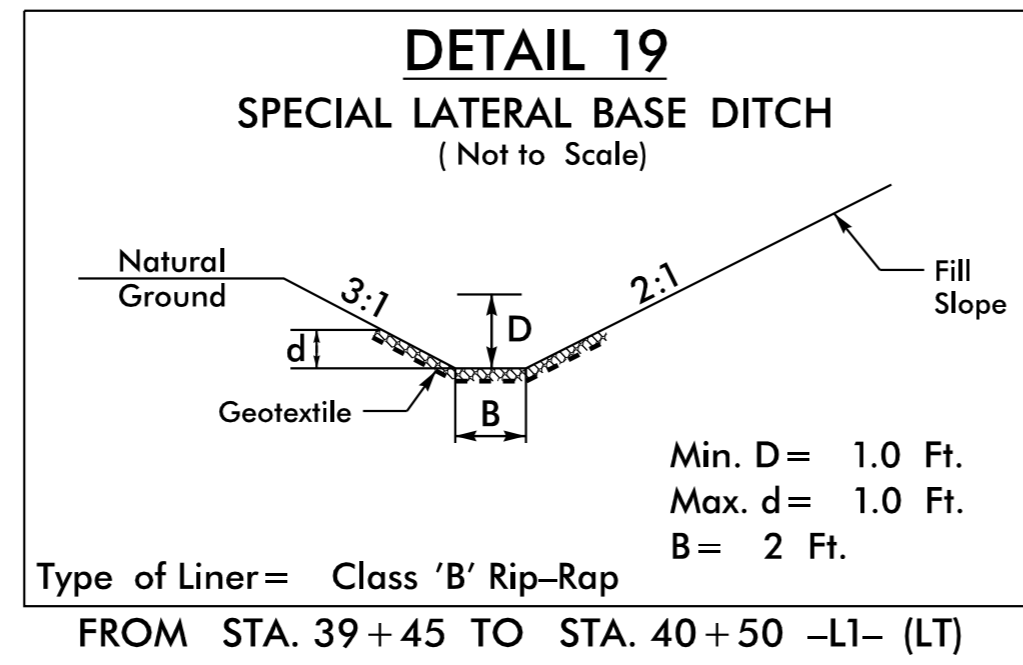
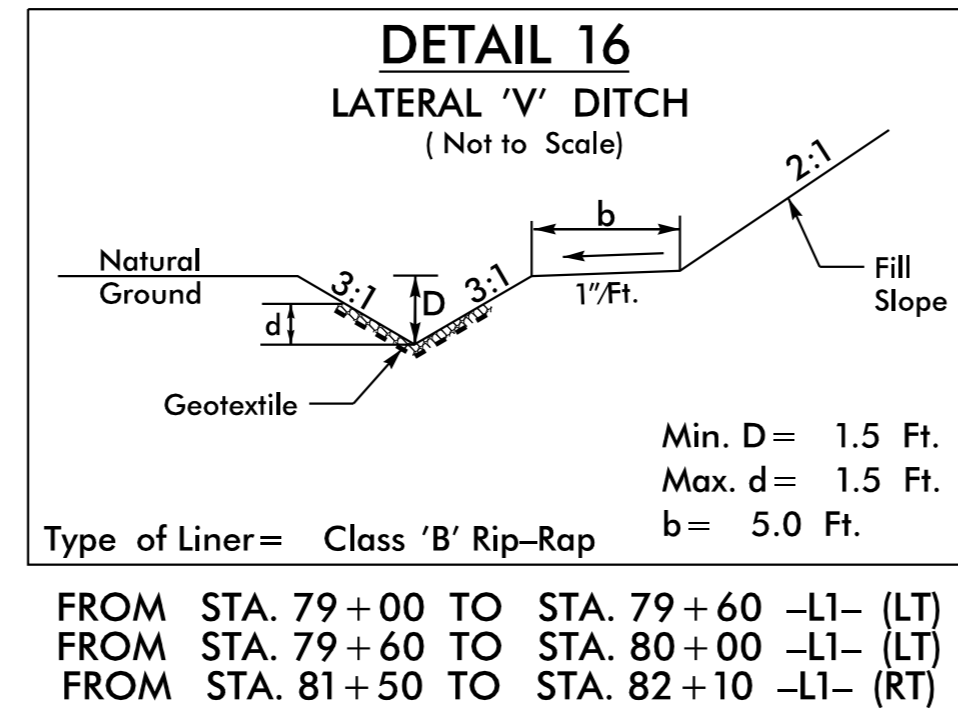
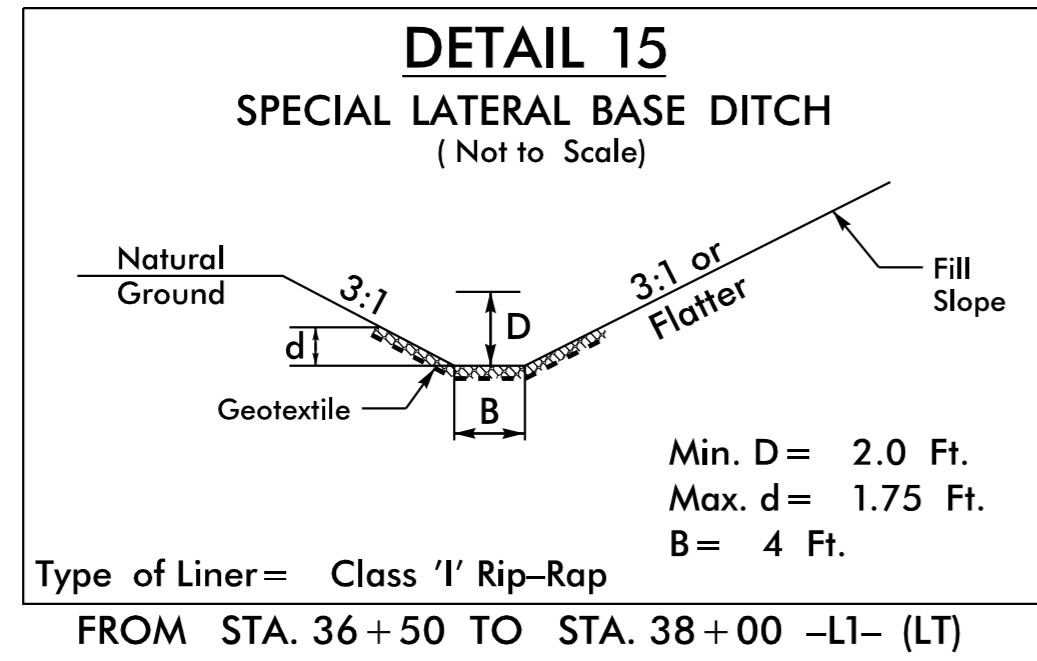
- Type of Liner = Class I Rip-Rap (Banks Only)
- FROM STA. 33+50 TO STA. 35+50 -L1- (RT)

REVISIONS

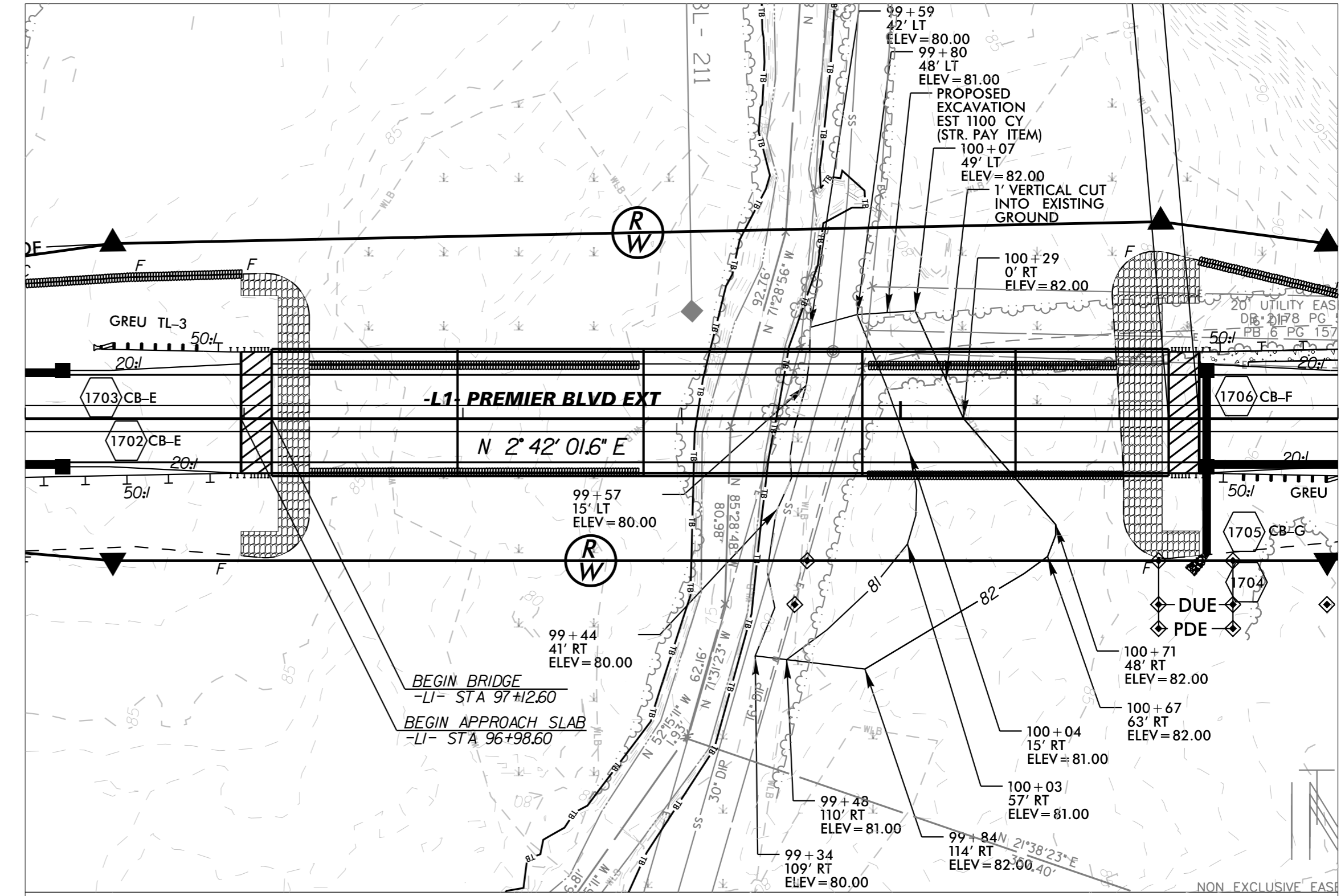


5/14/19

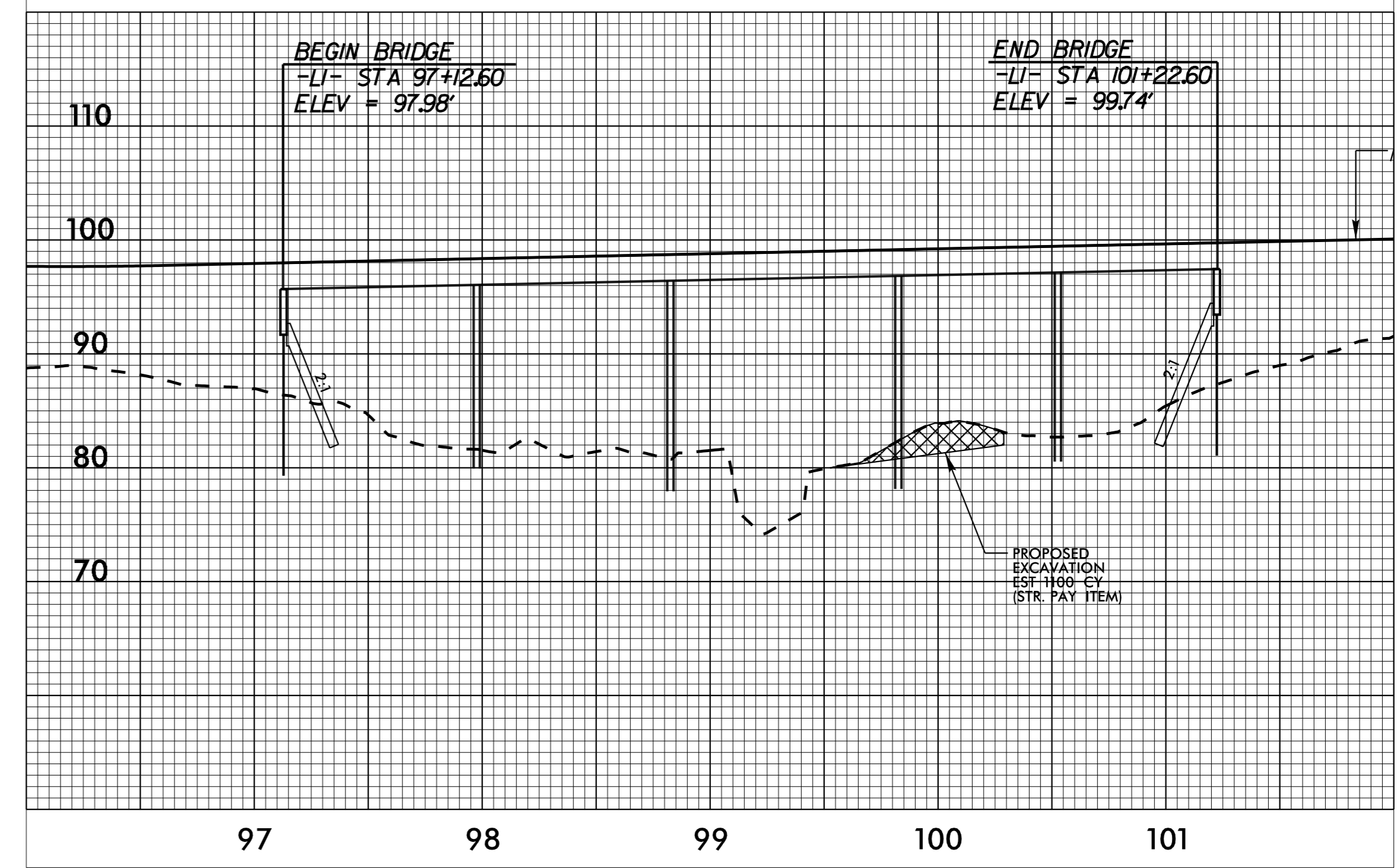
PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 2D-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



**DETAIL 18**  
BRIDGE GRADING DETAIL  
Scale: 1" = 50'  
PLAN VIEW



PROFILE VIEW



Deck Drain Summary Sheet

Station	Alignment	Location	Deck Drain Dia. (FT)
101+17.6	L1	RT and LT	0.33
101+02.6	L1	RT and LT	0.33
100+87.6	L1	RT and LT	0.33
100+72.6	L1	RT and LT	0.33
100+57.6	L1	RT and LT	0.33
100+47.6	L1	RT and LT	0.33
100+32.6	L1	RT and LT	0.33
100+17.6	L1	RT and LT	0.33
100+02.6	L1	RT and LT	0.33
99+87.6	L1	RT and LT	0.33
98+77.6	L1	RT and LT	0.33
98+62.6	L1	RT and LT	0.33
98+47.6	L1	RT and LT	0.33
98+32.6	L1	RT and LT	0.33
98+17.6	L1	RT and LT	0.33
98+02.6	L1	RT and LT	0.33
97+92.6	L1	RT and LT	0.33
97+77.6	L1	RT and LT	0.33
97+62.6	L1	RT and LT	0.33
97+47.6	L1	RT and LT	0.33
97+32.6	L1	RT and LT	0.33
97+17.6	L1	RT and LT	0.33
Deck Drains Required on Bridge =			44

REVISIONS

6/28/2018

**U-5725/R-3822 SUMMARY OF EARTHWORK**  
 IN CUBIC YARDS

REVISIONS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT EXCAVATION	EMBT + %	BORROW	WASTE
<b>SECTION 1</b>					
-L- (LT) STA 13+00.00 TO 56+00.00	2360	1932	21574	19339	2057
-L- (RT) STA 13+00.00 TO 56+00.00	1167	1422	10691	9562	1460
-LI- STA 14+95.00 TO STA 26+72.21	2281	4209	2323	240	4407
-Y1- STA 10+12.05 TO STA 13+10.00	17		674	657	
-Y2- STA 10+37.50 TO STA 10+60.00	5		19	14	
-DRW1- STA 10+88.00 TO STA 12+99.19	127		270	143	
<b>SUBTOTAL (SECTION 1)</b>	<b>5957</b>	<b>7563</b>	<b>35551</b>	<b>29955</b>	<b>7924</b>
<b>SECTION 2</b>					
-L- (LT) STA 56+00.00 TO 93+80.00	2223	901	11666	9641	1099
-L- (RT) STA 56+00.00 TO 93+80.00	7355	5792	12385	8907	9669
-Y3- STA 8+10.00 TO STA 12+12.54	88		600	512	
-Y4- STA 13+65.00 TO STA 16+75.33	114		725	611	
-DRW2- STA 10+50.00 TO STA 12+10.00	6		566	560	
<b>SUBTOTAL (SECTION 2)</b>	<b>9786</b>	<b>6693</b>	<b>25942</b>	<b>20231</b>	<b>10768</b>
<b>SECTION 3</b>					
-LI- STA 27+40.00 TO 61+50.00	6172	4320	46431	41510	5571
-Y5- STA 10+20.00 TO 14+00.00	792	190	511	0	471
<b>SUBTOTAL (SECTION 3)</b>	<b>6964</b>	<b>4510</b>	<b>46942</b>	<b>41510</b>	<b>6042</b>
<b>SECTION 4</b>					
-LI- STA 61+50.00 TO 97+12.60	10869	5928	86776	77594	7615
-LI- BRIDGE APPROACH END BENT			319	319	
-Y3- STA 12+87.54 TO 29+98.59	3607	2752	22619	19243	2983
<b>SUBTOTAL (SECTION 4)</b>	<b>14476</b>	<b>8680</b>	<b>109714</b>	<b>97156</b>	<b>10598</b>
<b>SECTION 5</b>					
-LI- BRIDGE TRAILING END BENT			588	588	
-LI- STA 101+22.60 TO 108+35.00	71	592	8805	8734	592
-Y6- STA 8+80.00 TO 9+78.86	16		596	580	
-Y6- STA 10+21.14 TO 12+30.00	46	229	948	902	229
-Y7- STA 10+20.06 TO 10+80.00	14		30	16	
<b>SUBTOTAL (SECTION 5)</b>	<b>147</b>	<b>821</b>	<b>10967</b>	<b>10820</b>	<b>821</b>
<b>TOTAL</b>	<b>37330</b>	<b>28267</b>	<b>229116</b>	<b>199672</b>	<b>36153</b>
EARTH WASTE TO REPLACE BORROW				-281	-281
ADDITIONAL UNDERCUT		4000	5000	5000	4000
ESTIMATED SHOULDER MATERIAL			650	650	
<b>PROJECT TOTALS</b>	<b>37330</b>	<b>32267</b>	<b>234766</b>	<b>205041</b>	<b>39872</b>
EST.5% FOR REPLACING TOPSOIL ON BORROW PITS				10252	
<b>GRAND TOTALS</b>	<b>37330</b>	<b>32267</b>	<b>234766</b>	<b>215293</b>	<b>39872</b>
SAY	37400	32300	215300		

UNCLASSIFIED EXCAVATION - ACCEPTABLE, BUT NOT TO BE USED IN TOP 3' OF EMBANKMENT OR BACKFILL (PER GEOTECH)  
 -L- (LT) 56+75 TO 58+25 (12 CY), -L- (RT) 56+75 TO 58+25 (85 CY),  
 -L- (RT) 74+25 TO 76+25 (1421 CY), -Y3- 16+75 TO 20+75 (2670 CY)

PAVEMENT STRUCTURE VOLUME = 32,220 CY

6/28/2018





DL64031

COMPUTED BY: DWT DATE: 4/4/18  
CHECKED BY: DATE:

PROJECT NO. SHEET NO.  
U-5725/R-3822 3D-2

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

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

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

Table with columns for Line & Station, Offset, Structure Number, Invert Elevation, Pipe Type (Drainage Pipe, C.S. Pipe, R.C. Pipe Class III/IV), Quantities for Drainage Structures, Frame/Grates/Hood, Concrete Transitional Section, and Remarks. Includes a SHEET TOTALS row at the bottom.

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

DL64031

COMPUTED BY: DWT DATE: 4/4/18  
CHECKED BY: DATE:

PROJECT NO. SHEET NO.  
U-5725/R-3822 3D-3

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

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

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

Table with columns: LINE & STATION, OFFSET, STRUCTURE NUMBER, TOP ELEVATION, INVERT ELEVATION, MINIMUM REQUIRED SLOPE, Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC), C. S. PIPE, R. C. PIPE CLASS III, R. C. PIPE CLASS IV, ENDWALLS, REINFORCED ENDWALLS, DRAINAGE STRUCTURE, QUANTITIES FOR DRAINAGE STRUCTURES, FRAME, GRATES, AND HOOD, CONCRETE TRANSITIONAL SECTION, PIPE REMOVAL, and REMARKS. Includes a SHEET TOTALS row at the bottom.

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







DL64031

COMPUTED BY: DWT DATE: 4/4/18  
CHECKED BY: DATE:

PROJECT NO. SHEET NO.  
U-5725/R-3822 3D-6

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

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

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

Table with columns for Line & Station, Offset, Structure Number, Invert Elevation, Minimum Required Slope, Pipe Material (Drainage Pipe, C.S. Pipe, R.C. Pipe Class III/IV), Quantities for Drainage Structures, Frame/Grates/Hood, Concrete Transitional Section, and Remarks. Includes a SHEET TOTALS row at the bottom.

ABBREVIATIONS table listing materials like C.A.A., C.B., C.S., D.I., G.D.I., H.D.P.E., J.B., M.H., N.S., P.V.C., R.C., T.B.D.I., T.B.J.B., W.S.

REMARKS









COMPUTED BY: Paul Weaver DATE: 2/7/18  
 CHECKED BY: Shafiq Rahman DATE: 2/8/18

PROJECT NO.  
 U-5725/R-3822

SHEET NO.  
 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
-L-	77+75	82+75	LT or RT	SD	500
-L1-	101+30	103+25	LT or RT	SD	195
-L1-	71+25	81+75	RT	SD	1200
CONTINGENCY				SD	1000
<b>TOTAL LF:</b>					2895

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

### SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	Station	Station	Aggregate Type* ASU/AST	Aggregate Thickness INCHES	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
CONTINGENCY			ASU		1500	2500	4500		
<b>TOTAL CY/TONS/SY:</b>					1500	2500**	4500**	0	0

\*ASU = Aggregate Subgrade  
 \*AST = Aggregate Stabilization  
 \*\*Total tons of "Class IV Subgrade Stabilization" and total square yards of "Geotextile for Soil Stabilization" are only the estimated quantities for ASU/AST and may only represent a portion of the subgrade stabilization and geotextile quantities shown in the Item Sheets of the Proposal.

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PARCEL INDEX SHEET

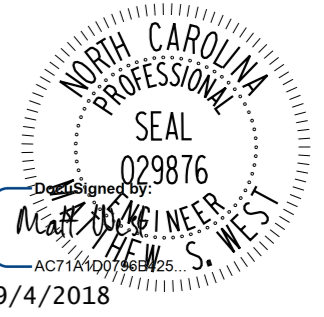
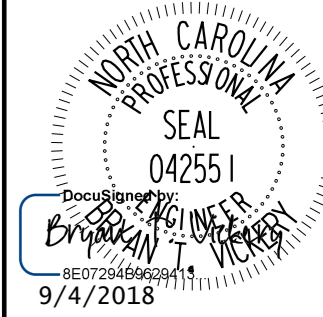
PARCEL No.	SHEET No.	PROPERTY OWNER NAME	DEED BOOK
1	4, 11	Raymond Garner	DB 2356 PG 641
1A	4	Blue Dog Group, LLC	DB 2444 PG 151
2	4	Wilbur Overton	DB 1637 PG 401
3	4, 11	State of North Carolina Highway Patrol Station	DB 724 PG 185
4	4	Frank Edwards	DB 1849 PG 366
5	4	Roanoke Amaranth Comm. Health Group	DB 1585 PG 49, DB 1092 PG 66
6	4, 5, 12	New Dixie Oil Corporation	DB 1661 PG 204
7	4, 5, 11	Dennis Garner	DB 274 PG 209
8	4, 5	Reinco Corp	DB 1648 PG 210
9	5, 12	Feth LLC	DB 2414 PG 72
10	5	Reinco Corp	DB 1648 PG 210
11	5, 6, 12	Blue Dog Group, LLC	DB 2444 PG 151
12	5, 6	Richard Turner	Unknown
13	6	Sharon Finney	MB 11 PG 27
14	6	Estate Developers LLC	DB 2431 PG 85
15	6	Augustus Turner	DB 686 PG 301
16	6	Mystique Management, LLC	DB 2189 PG 251
17	6	Herbert Garner	DB 1043 PG 189
18	6	Harold Shoemaker	DB 2018 PG 614
19	6	Wilbur Ricks	DB 2224 PG 272
20	6	Anthony Dickens	DB 644 PG 561
21	6	Jo-Ann Johnson	DB 2286 PG 26
22	6	Berry Jones	DB 2088 PG 90
23	6, 7	Donald Driver	DB 2078 PG 322
23A	7	Unknown	Unknown
24	7	Annie Hamilton	DB 644 PG 554
25	7	Jerry Congleton	DB 2199 PG 123
26	7	Jerry Congleton	DB 1802 PG 338
27	7	Quincey Adams	DB 1626 PG 199
28	7	Robert Rawlings	DB 1711 PG 331
29	7	Hubert Morris	DB 2239 PG 158
30	7	Alphonzo Dixon	DB 2040 PG 484
31	7	Timothy Glasgow	DB 1262 PG 355
32	7	Fletcher Carter	DB 1041 PG 156
33	7, 19	Willie Moseley	DB 1317 PG 230

PARCEL No.	SHEET No.	PROPERTY OWNER NAME	DEED BOOK
33A	7	Willie Moseley	DB 1317 PG 230
34	7, 14	Minton Family LLC	DB 2435 PG 1
35	7, 8	Halifax County	DB 2430 PG 32
36	7, 8	Rocky Run Educational Association	Unknown
37	8	Edward Dickens	DB 277 PG 76
38	8	Edward Dickens	DB 277 PG 76
39	8	Nathaniel Long	DB 1911 PG 39
40	8	Edward Dickens	DB 277 PG 76
41	8	Edward Dickens	DB 277 PG 76
42	8	Quillan Long	DB 2330 PG 450
43	8	Edward Dickens	DB 1065 PG 63
44	7, 8	Otis Long Jr.	DB 2124 PG 339
45	8	Edward Dickens	DB 1896 PG 633
46	8	James Kearney	DB 1713 PG 82
47	8	B.O.B.F.O.F., LLC	DB 2497 PG 149
48	8	Tony Kearney	DB 2088 PG 498
49	8	Beulah Turner	DB 1697 PG 244
50	8, 9	Emma Long	DB 1911 PG 44, DB 1199 PG 2234
51	8, 9	First Christian Church	DB 1906 PG 501
52	9	Willie Long	DB 1199 PG 234
53	9	Rider Farms LLC	DB 2262 PG 642
54	9, 10	Rider Farms LLC	DB 2262 PG 642
55	9, 10	Masaki Inc.	DB 2430 PG 17, DB 1991 PG 325
56	9, 10	Rider Farms LLC	DB 2262 PG 642
57	10	Rider Farms LLC	DB 2262 PG 642
58	10	Citizens Community Bank	DB 2178 PG 531
59	10	Cross Creek Corner, LLC	DB 2117 PG 130
60	10	Nancy Elias	DB 2043 PG 609
61	10	Nancy Elias	DB 2262 PG 515
62	11	Elizabeth Story	DB 2025 PG 129
63	11	Romine Branch	DB 2403 PG 42
64	11	Undine Garner	DB 2352 PG 48
65	12	Blue Dog Group, LLC	PB 6 PG20P, 113G, DB 2444 PG 151
65A	12	Blue Dog Group, LLC	PB 6 PG20P, 113G, DB 2444 PG 151
65B	4, 12	Blue Dog Group, LLC	PB 6 PG20P, 113G, DB 2444 PG 151

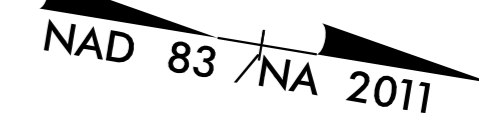






PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

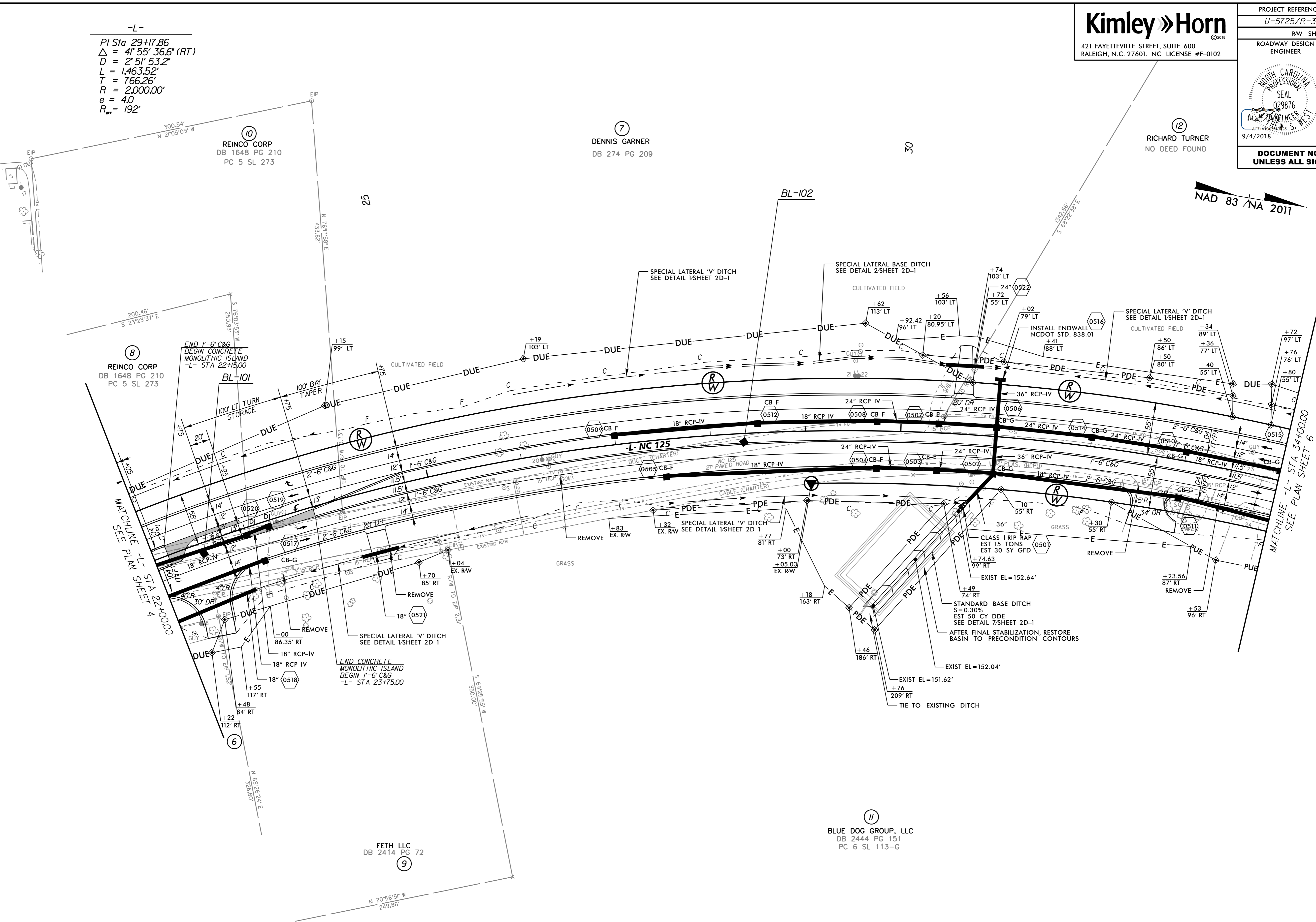
-L-  
 PI Sta 29+17.86  
 $\Delta = 41' 55" 36.6" (RT)$   
 $D = 2' 51" 53.2"$   
 $L = 1,463.52'$   
 $T = 766.26'$   
 $R = 2,000.00'$   
 $e = 4.0$   
 $R_w = 192'$



REVISIONS

5/14/19

9/4/2018



MATCHLINE -L- STA 22+00.00  
SEE PLAN SHEET 4

MATCHLINE -L- STA 34+00.00  
SEE PLAN SHEET 6

REINCO CORP  
DB 1648 PG 210  
PC 5 SL 273

DENNIS GARNER  
DB 274 PG 209

RICHARD TURNER  
NO DEED FOUND

REINCO CORP  
DB 1648 PG 210  
PC 5 SL 273

FETH LLC  
DB 2414 PG 72

BLUE DOG GROUP, LLC  
DB 2444 PG 151  
PC 6 SL 113-G

NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.  
SEE SHEET NO. 20 FOR -L- PROFILE

5/14/1999

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL          UNLESS ALL SIGNATURES COMPLETED</b>	

NAD 83 / NA 2011

ANTHONY DICKENS  
DB 644 PG 561

-L-  
 PI Sta 29+17.86  
 $\Delta = 4^{\circ} 55' 36.6''$  (RT)  
 $D = 2^{\circ} 51' 53.2''$   
 $L = 1,463.52'$   
 $T = 766.26'$   
 $R = 2,000.00'$   
 $e = 4.0$   
 $R_w = 192'$

12 RICHARD TURNER  
NO DEED FOUND

14 ESTATE DEVELOPERS LLC  
DB 2431 PG 85

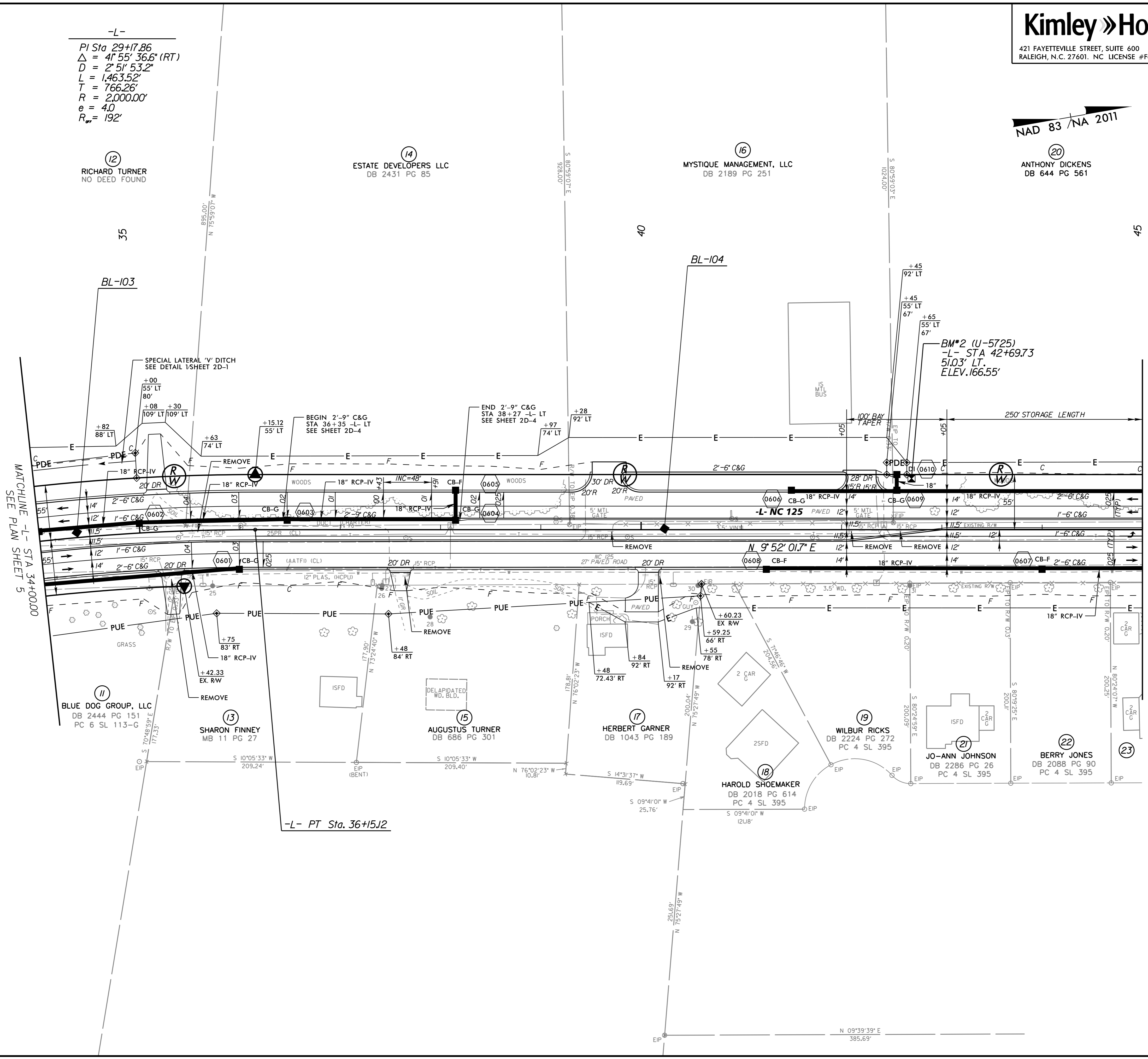
16 MYSTIQUE MANAGEMENT, LLC  
DB 2189 PG 251

20 ANTHONY DICKENS  
DB 644 PG 561

REVISIONS

MATCHLINE -L- STA 34+00.00  
SEE PLAN SHEET 5

MATCHLINE -L- STA 45+00.00  
SEE PLAN SHEET 7



11 BLUE DOG GROUP, LLC  
DB 2444 PG 151  
PC 6 SL 113-G

13 SHARON FINNEY  
MB 11 PG 27

15 AUGUSTUS TURNER  
DB 686 PG 301

17 HERBERT GARNER  
DB 1043 PG 189

18 HAROLD SHOEMAKER  
DB 2018 PG 614  
PC 4 SL 395

19 WILBUR RICKS  
DB 2224 PG 272  
PC 4 SL 395



21 JO-ANN JOHNSON  
DB 2286 PG 26  
PC 4 SL 395

22 BERRY JONES  
DB 2088 PG 90  
PC 4 SL 395

-L- PT Sta. 36+15.12

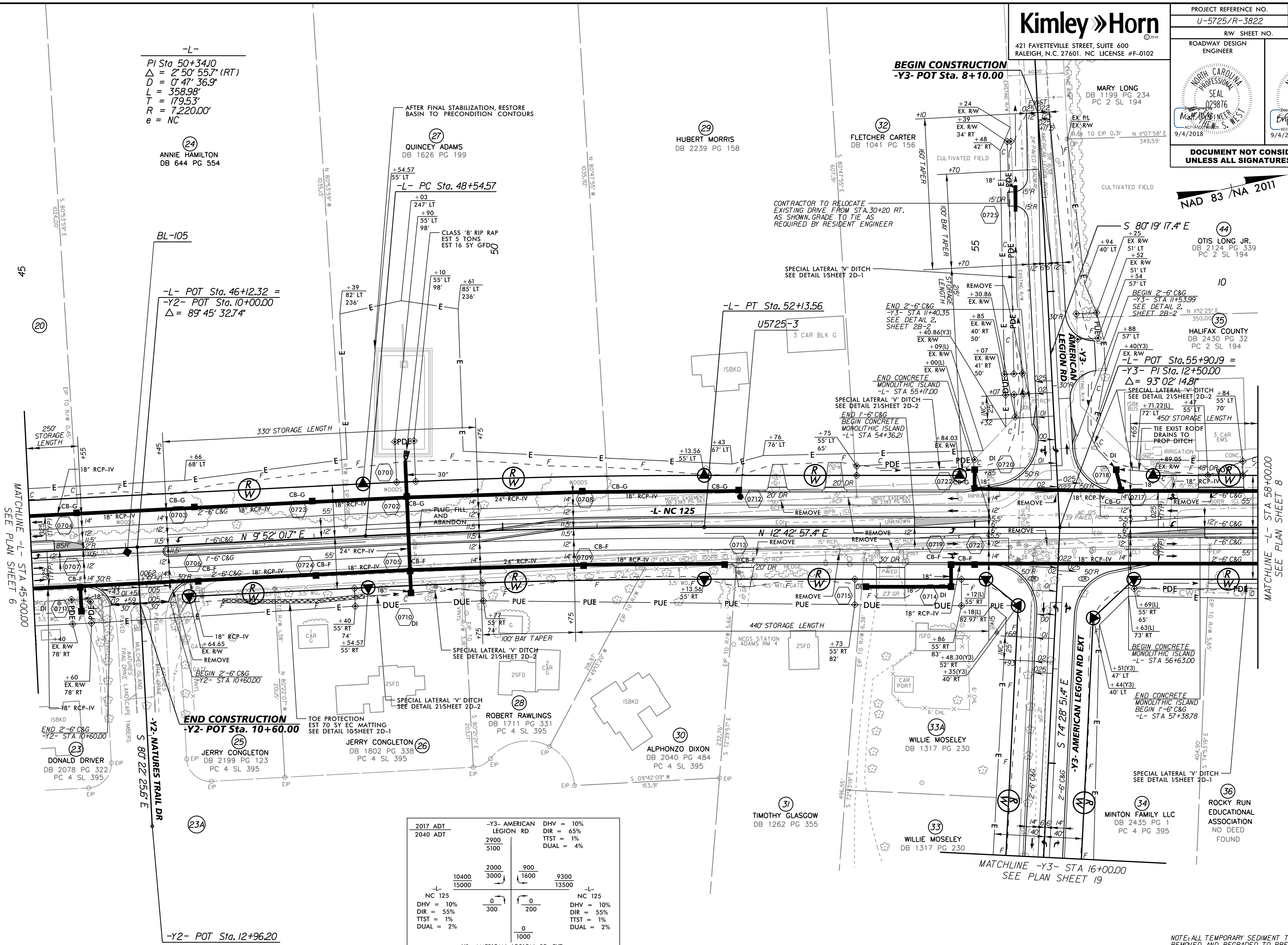
NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.  
 SEE SHEET NO. 21 FOR -L- PROFILE

9/4/2018

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 7
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029876 MAY 15, 2018 9/4/2018	 NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 042551 MAY 15, 2018 9/4/2018

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

NAD 83 / NA 2011



-L-  
 PI Sta 50+34.10  
 $\Delta = 2^\circ 50' 55.7''$  (RT)  
 $D = 0' 47' 36.9''$   
 $L = 358.98'$   
 $T = 179.53'$   
 $R = 7,220.00'$   
 $e = NC$

-L- POT Sta. 46+12.32 =  
 -Y2- POT Sta. 10+00.00  
 $\Delta = 89^\circ 45' 32.74''$

**END CONSTRUCTION**  
 -Y2- POT Sta. 10+60.00

**BEGIN CONSTRUCTION**  
 -Y3- POT Sta. 8+10.00

MATCHLINE -Y3- STA 16+00.00  
 SEE PLAN SHEET 19

MATCHLINE -L- STA 58+00.00  
 SEE PLAN SHEET 8

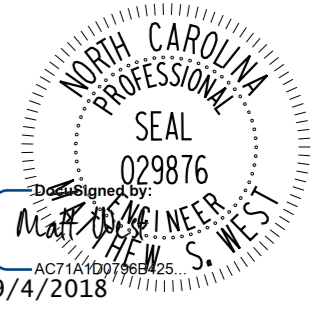
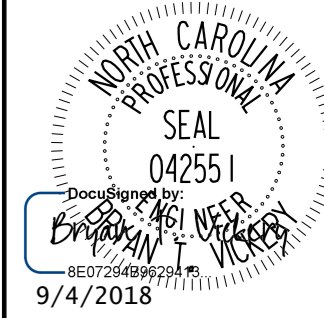
2017 ADT 2040 ADT	-Y3- AMERICAN LEGIION RD	DHV = 10% DIR = 65% TTST = 1% DUAL = 4%
10400 15000	2900 5100	
	2000 3000	900 1600
	10400 15000	9300 13500
-L- NC 125 DHV = 10% DIR = 55% TTST = 1% DUAL = 2%	0 300	0 200
	0 1000	
	-Y3- AMERICAN LEGION RD EXT	DHV = 10% DIR = 55% TTST = 1% DUAL = 2%

NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.  
**SEE SHEET NO. 21 FOR -L- PROFILE**  
**SEE SHEET NO. 28 FOR -Y2- PROFILE**  
**SEE SHEET NO. 28 FOR -Y3- PROFILE**

REVISIONS

5/14/19

9/14/2018

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

-L-  
 PI Sta 66+10.81  
 $\Delta = 0^{\circ} 49' 23.0''$  (LT)  
 $D = 0^{\circ} 40' 26.6''$   
 $L = 122.10'$   
 $T = 61.05'$   
 $R = 8,500.00'$   
 $e = NC$

MARY LONG  
 DB 1199 PG 234  
 PC 2 SL 194

OTIS LONG JR.  
 DB 2124 PG 339  
 PC 2 SL 194

NATHANIEL LONG  
 DB 1911 PG 39

QUILLAN LONG  
 DB 2330 PG 450

NATHANIEL LONG  
 DB 1911 PG 39

JAMES KEARNEY  
 DB 1713 PG 82  
 PLAT 2016 PG 13  
 (PARCEL 1)

TONY KEARNEY  
 DB 2088 PG 498  
 PC 6 SL 128-1

BEULAH TURNER  
 DB 1697 PG 244  
 PC 6 SL 11-0  
 (PARCEL C)

EMMA LONG  
 DB 1911 PG 44  
 DB 1199 PG 234  
 (TRACT 2)  
 PC 2 SL 194

HALIFAX COUNTY  
 DB 2430 PG 32  
 PC 2 SL 194

SPECIAL LATERAL 'V' DITCH  
 W/CLASS 'B' RIP RAP  
 EST 70 TONS  
 EST 150 SY GFD  
 SEE DETAIL 5/SHEET 2D-1

450' LT TURN STORAGE  
 18" RCP-IV

REMOVE  
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 18" RCP-IV

SPECIAL LATERAL 'V' DITCH  
 W/CLASS 'B' RIP RAP  
 EST 290 TONS  
 EST 249 SY GFD  
 SEE DETAIL 6/SHEET 2D-1

100' BAY TAPER

REMOVE  
 18" RCP-IV

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 18" RCP-IV

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 18" RCP-IV

SPECIAL LATERAL 'V' DITCH  
 W/CLASS 'B' RIP RAP  
 EST 290 TONS  
 EST 249 SY GFD  
 SEE DETAIL 6/SHEET 2D-1

REMOVE  
 18" RCP-IV

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 18" RCP-IV

SPECIAL LATERAL 'V' DITCH  
 W/CLASS 'B' RIP RAP  
 EST 290 TONS  
 EST 249 SY GFD  
 SEE DETAIL 6/SHEET 2D-1

REMOVE  
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SPECIAL LATERAL 'V' DITCH  
 W/CLASS 'B' RIP RAP  
 EST 290 TONS  
 EST 249 SY GFD  
 SEE DETAIL 6/SHEET 2D-1

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SPECIAL LATERAL 'V' DITCH  
 W/CLASS 'B' RIP RAP  
 EST 290 TONS  
 EST 249 SY GFD  
 SEE DETAIL 6/SHEET 2D-1

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SPECIAL LATERAL 'V' DITCH  
 W/CLASS 'B' RIP RAP  
 EST 290 TONS  
 EST 249 SY GFD  
 SEE DETAIL 6/SHEET 2D-1

REMOVE  
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 18" RCP-IV

SPECIAL LATERAL 'V' DITCH  
 W/CLASS 'B' RIP RAP  
 EST 290 TONS  
 EST 249 SY GFD  
 SEE DETAIL 6/SHEET 2D-1

REMOVE  
 18" RCP-IV

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 18" RCP-IV

REMOVE  
 18" RCP-IV

MATCHLINE -L- STA 58+00.00  
SEE PLAN SHEET 7

MATCHLINE -L- STA 71+00.00  
SEE PLAN SHEET 9

15

BM#3 (U-5725)  
 -L- STA 63+58.30  
 48.17' RT.  
 ELEV. 136.78'

-L- PT Sta. 66+71.86  
 +71.86  
 55' RT

B.O.B.F.O.F., LLC  
 DB 2497 PG 149  
 PC 6 SL 27-H

FIRST CHRISTIAN CHURCH  
 DB 1906 PG 501  
 PC 6 SL 80-N

NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.  
**SEE SHEET NO. 22 FOR -L- PROFILE**

REVISIONS

5/14/199

9/4/2018

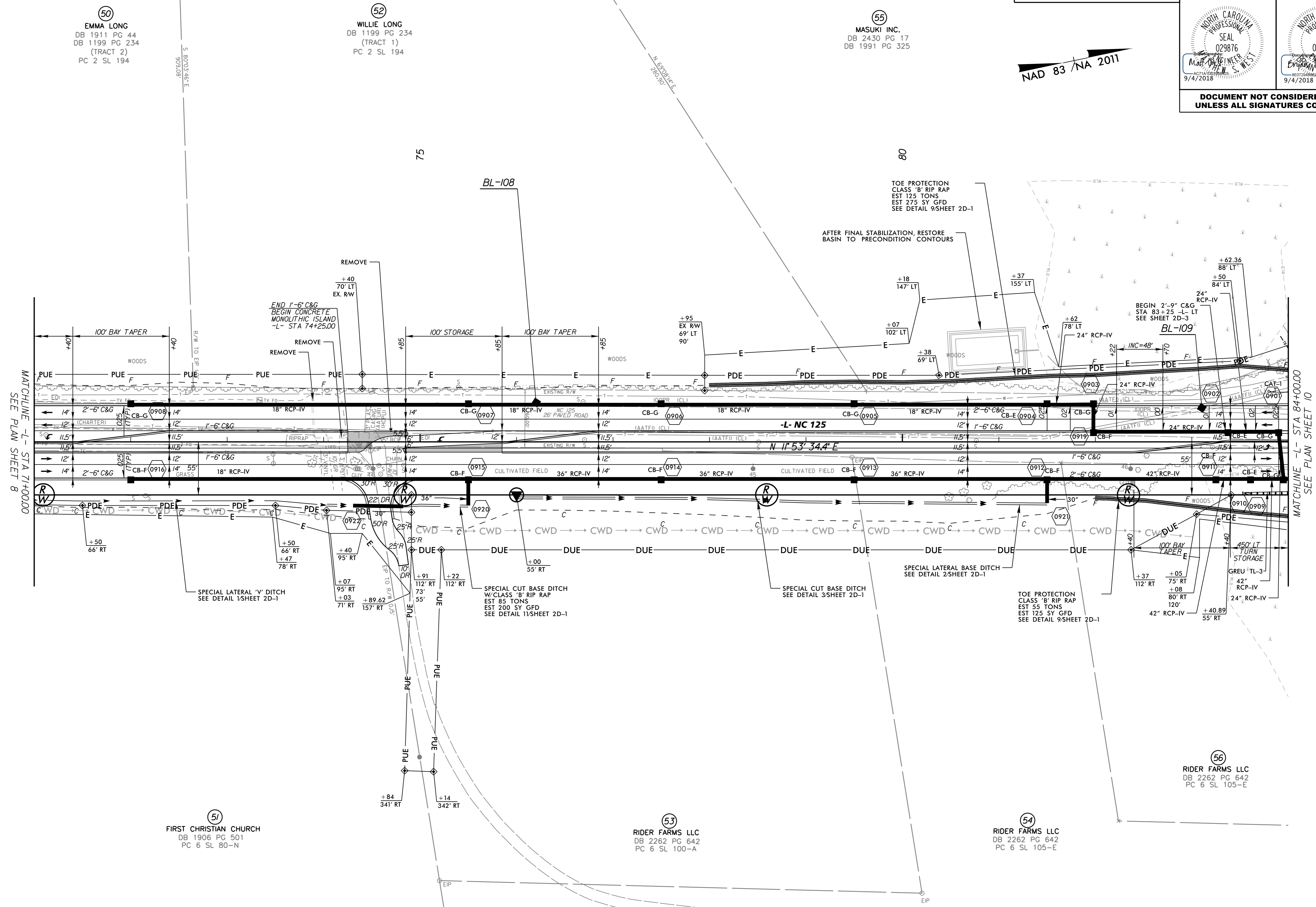
5/14/1999

# Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, N.C. 27601. NC LICENSE #F-0102

PROJECT REFERENCE NO. U-5725/R-3822		SHEET NO. 9	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

NAD 83 / NA 2011



REVISIONS

MATCHLINE -L- STA 7+00.00  
SEE PLAN SHEET 8

MATCHLINE -L- STA 84+00.00  
SEE PLAN SHEET 10

50  
EMMA LONG  
DB 1911 PG 44  
DB 1199 PG 234  
(TRACT 2)  
PC 2 SL 194

52  
WILLIE LONG  
DB 1199 PG 234  
(TRACT 1)  
PC 2 SL 194

55  
MASUKI INC.  
DB 2430 PG 17  
DB 1991 PG 325

51  
FIRST CHRISTIAN CHURCH  
DB 1906 PG 501  
PC 6 SL 80-N

53  
RIDER FARMS LLC  
DB 2262 PG 642  
PC 6 SL 100-A

54  
RIDER FARMS LLC  
DB 2262 PG 642  
PC 6 SL 105-E

56  
RIDER FARMS LLC  
DB 2262 PG 642  
PC 6 SL 105-E

NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.  
**SEE SHEET NO. 22 FOR -L- PROFILE**

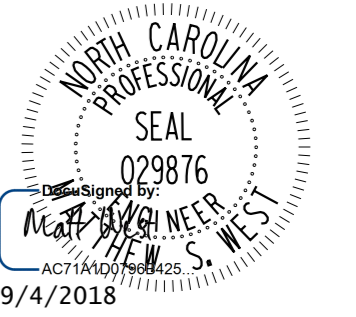
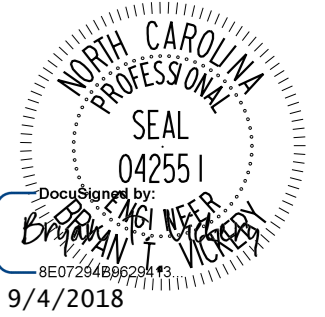
9/14/2018



5/14/99

# Kimley Horn

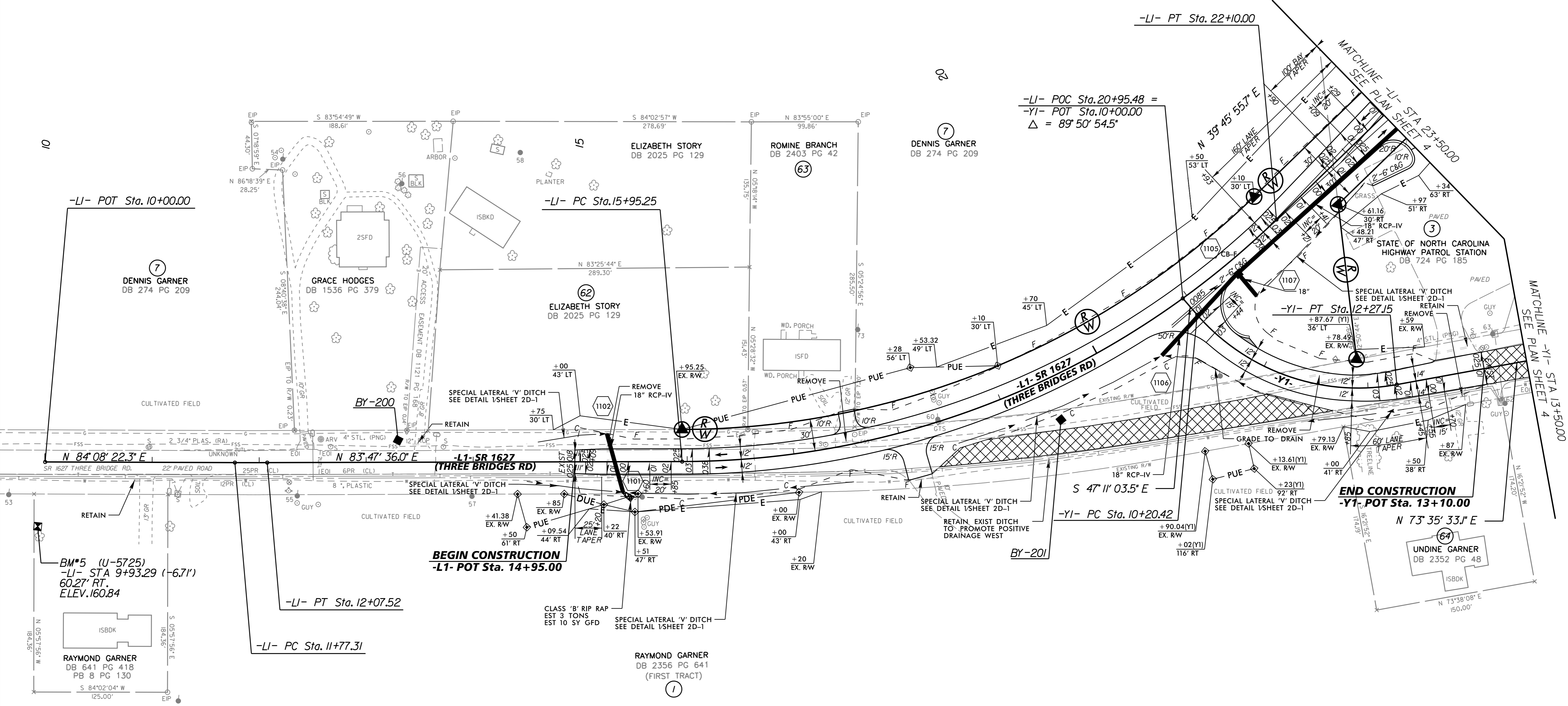
421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, N.C. 27601. NC LICENSE #F-0102

PROJECT REFERENCE NO. U-5725/R-3822		SHEET NO. II	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

-LI-		-YI-	
PI Sta 11+92.42	PI Sta 19+18.70	PI Sta 11+34.09	PI Sta 11+34.09
$\Delta = 0' 20' 46.2" (LT)$	$\Delta = 44' 01' 40.4" (LT)$	$\Delta = 59' 13' 23.4" (LT)$	$\Delta = 59' 13' 23.4" (LT)$
$D = 1' 08' 45.3"$	$D = 7' 09' 43.3"$	$D = 28' 38' 52.4"$	$D = 28' 38' 52.4"$
$L = 30.21'$	$L = 614.75'$	$L = 206.73'$	$L = 206.73'$
$T = 15.10'$	$T = 323.45'$	$T = 113.67'$	$T = 113.67'$
$R = 5,000.00'$	$R = 800.00'$	$R = 200.00'$	$R = 200.00'$
	$e = 3.8$	$e = 3.0$	$e = 3.0$
	$R_{min} = 76'$	$R_{min} = 15'$	$R_{min} = 15'$

NAD 83 / NA 2011

REVISIONS

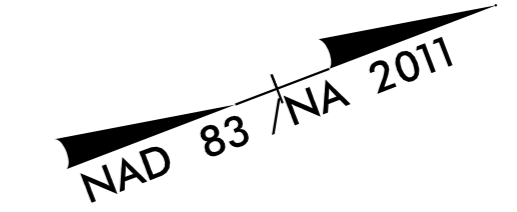


NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.

SEE SHEET NO. 23 FOR -L1- PROFILE  
SEE SHEET NO. 27 FOR -Y1- PROFILE

9/4/2018

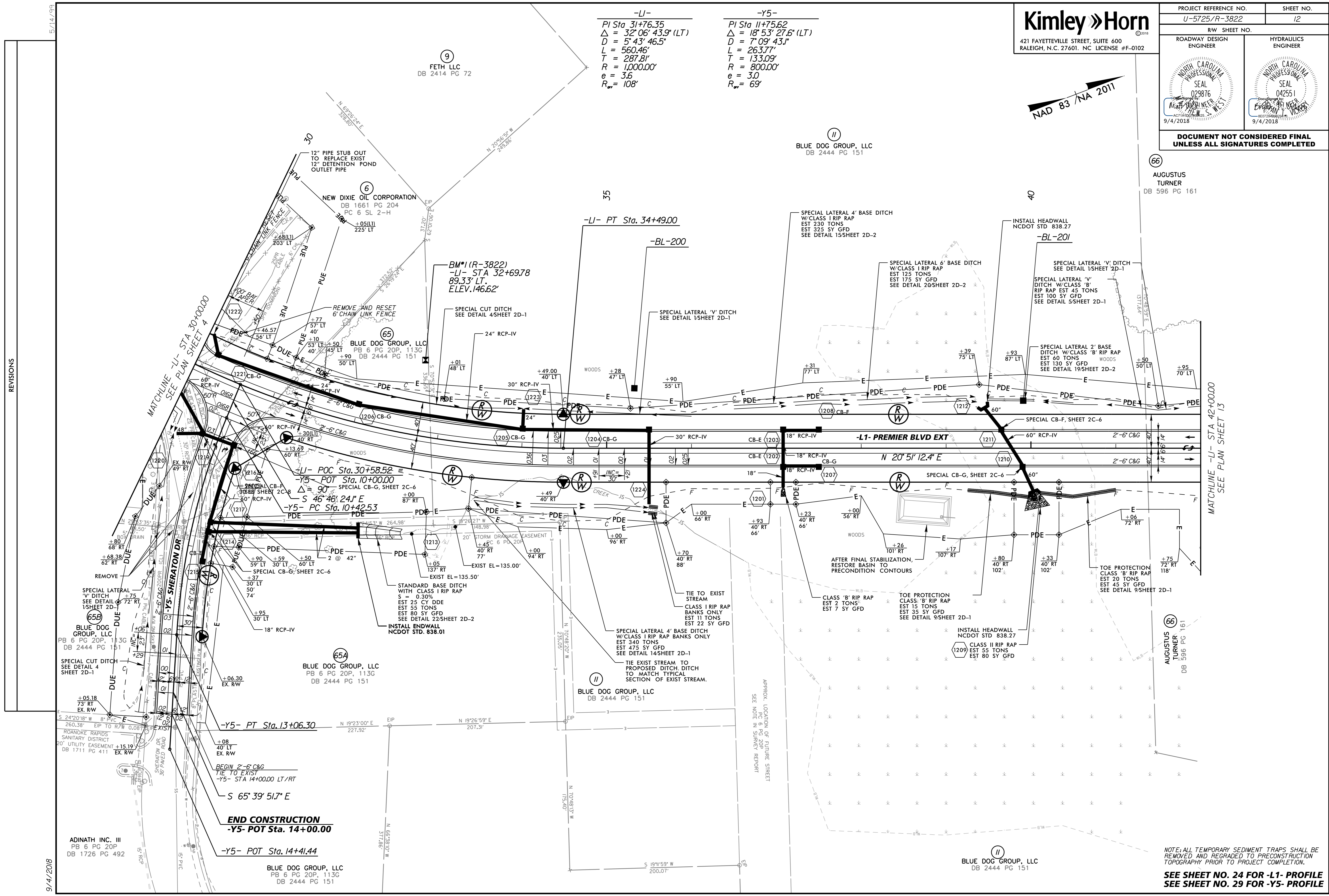




PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 12
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

-LI-  
 PI Sta 31+76.35  
 $\Delta = 32^{\circ}06'43.9''$  (LT)  
 $D = 5^{\circ}43'46.5''$   
 $L = 560.46'$   
 $T = 287.81'$   
 $R = 1,000.00'$   
 $e = 3.6'$   
 $R_{\text{min}} = 108'$

-Y5-  
 PI Sta 11+75.62  
 $\Delta = 18^{\circ}53'27.6''$  (LT)  
 $D = 7^{\circ}09'43.1''$   
 $L = 263.77'$   
 $T = 133.09'$   
 $R = 800.00'$   
 $e = 3.0'$   
 $R_{\text{min}} = 69'$



5/14/19

9/14/2018

9  
FETH LLC  
DB 2414 PG 72

11  
BLUE DOG GROUP, LLC  
DB 2444 PG 151

66  
AUGUSTUS  
TURNER  
DB 596 PG 161

65A  
BLUE DOG GROUP, LLC  
PB 6 PG 20P, 113G  
DB 2444 PG 151

11  
BLUE DOG GROUP, LLC  
DB 2444 PG 151

11  
BLUE DOG GROUP, LLC  
DB 2444 PG 151

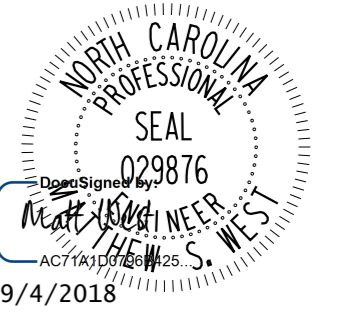
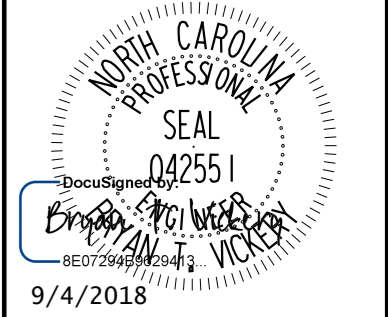
ADINATH INC. III  
PB 6 PG 20P  
DB 1726 PG 492

BLUE DOG GROUP, LLC  
PB 6 PG 20P, 113G  
DB 2444 PG 151

5/14/99

-LI-  
 PI Sta 55+85.50  
 $\Delta = 13^{\circ} 41' 29.0''$  (RT)  
 $D = 1' 02' 30.3''$   
 $L = 1,314.28'$   
 $T = 660.28'$   
 $R = 5,500.00'$   
 $e = NC$

**Kimley»Horn**  
 421 FAYETTEVILLE STREET, SUITE 600  
 RALEIGH, N.C. 27601. NC LICENSE #F-0102

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 9/4/2018	 9/4/2018
<b>DOCUMENT NOT CONSIDERED FINAL          UNLESS ALL SIGNATURES COMPLETED</b>	

66  
 AUGUSTUS TURNER  
 DB 596 PG 161

68  
 ANNE MARIA K EDWARDS  
 SEE NOTE IN SURVEY REPORT  
 DB 2246 PG 640  
 PC 4 PG 395

68  
 ANNE MARIA K EDWARDS  
 SEE NOTE IN SURVEY REPORT  
 DB 2246 PG 640  
 PC 4 PG 395

67  
 COLLIER INVESTMENTS, INC  
 SEE NOTE IN SURVEY REPORT  
 DB 1970 PG 168  
 PC 4 PG 395

68  
 ANNE MARIA K EDWARDS  
 SEE NOTE IN SURVEY REPORT  
 DB 2246 PG 640  
 PC 4 PG 395

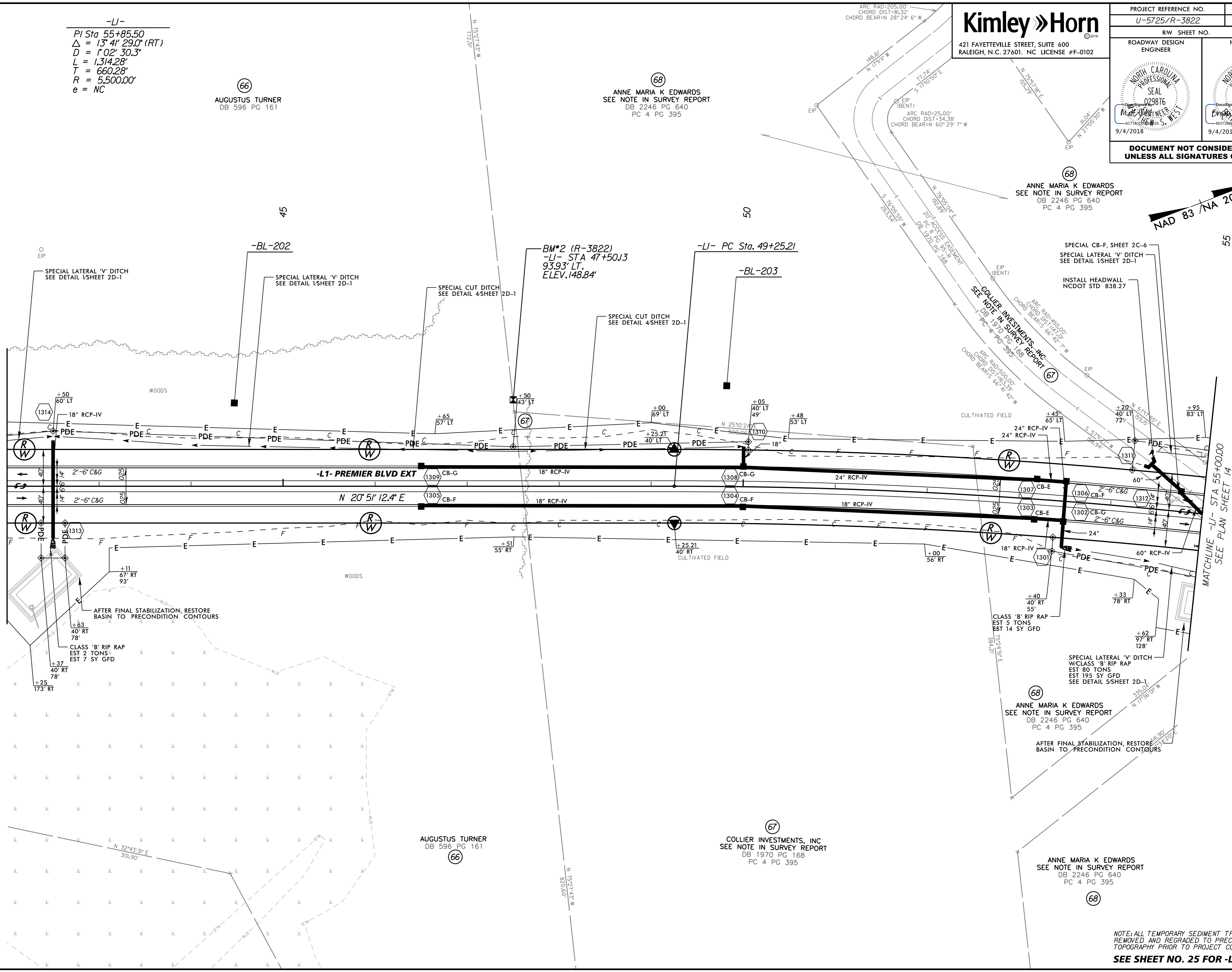
68  
 ANNE MARIA K EDWARDS  
 SEE NOTE IN SURVEY REPORT  
 DB 2246 PG 640  
 PC 4 PG 395

NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.  
**SEE SHEET NO. 25 FOR -L1- PROFILE**

REVISIONS

MATCHLINE -LI- STA 42+00.00  
SEE PLAN SHEET 12

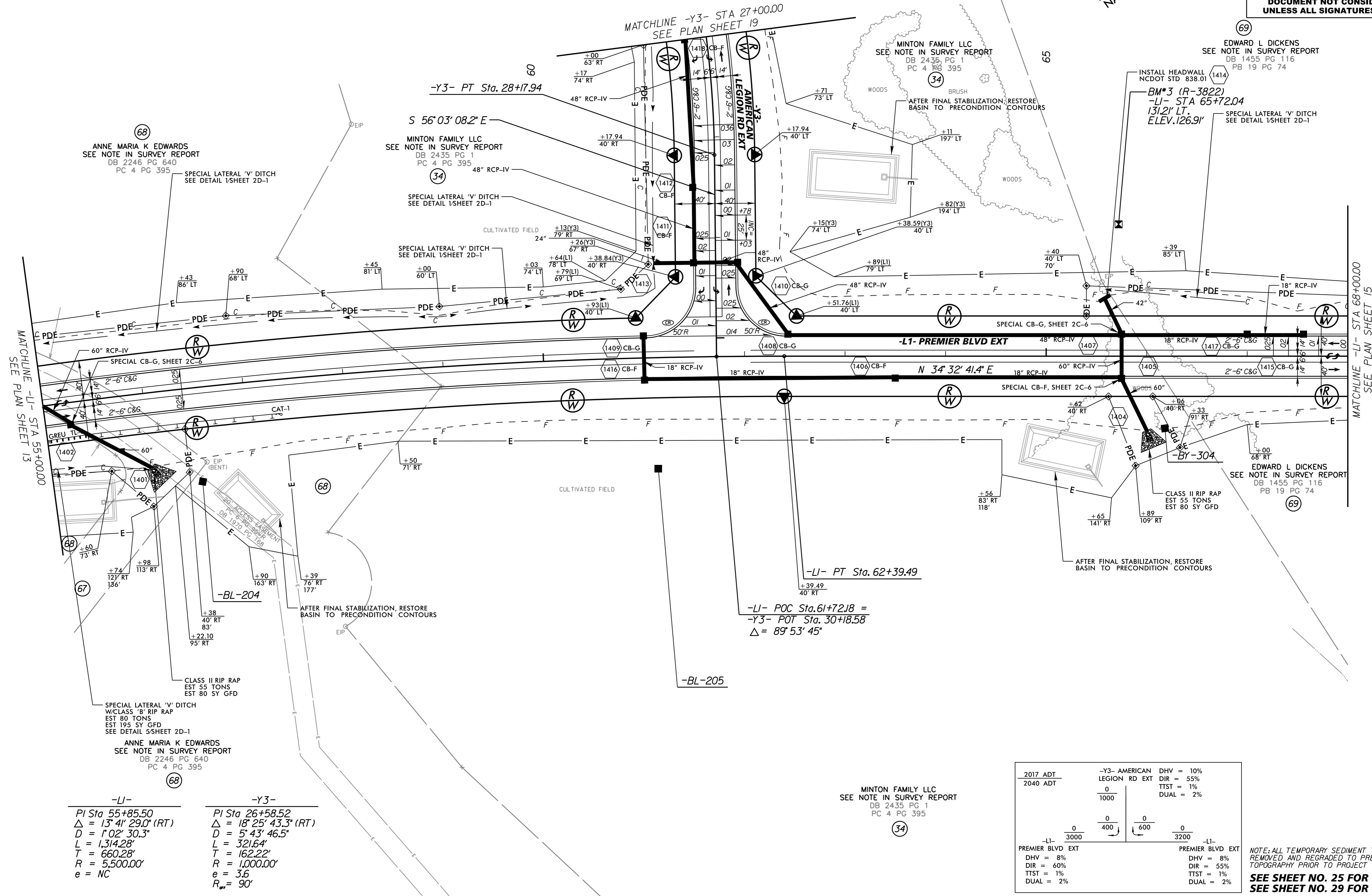
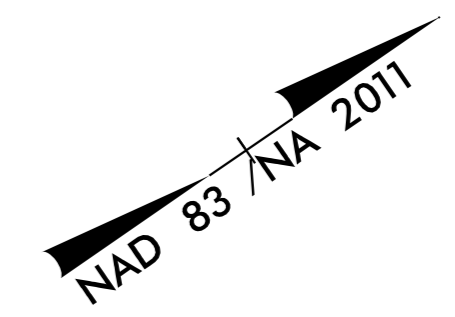
MATCHLINE -LI- STA 55+00.00  
SEE PLAN SHEET 14



9/4/2018

PROJECT REFERENCE NO. U-5725/R-3822	SHEET NO. 14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL  
UNLESS ALL SIGNATURES COMPLETED



REVISIONS

-L1-	-Y3-
PI Sta 55+85.50	PI Sta 26+58.52
$\Delta = 13' 41" 29.0" (RT)$	$\Delta = 18' 25' 43.3" (RT)$
$D = 1' 02' 30.3"$	$D = 5' 43' 46.5"$
$L = 1,314.28'$	$L = 321.64'$
$T = 660.28'$	$T = 162.22'$
$R = 5,500.00'$	$R = 1,000.00'$
$e = NC$	$e = 3.6$
	$R_{\text{min}} = 90'$

MINTON FAMILY LLC  
SEE NOTE IN SURVEY REPORT  
DB 2435 PG 1  
PC 4 PG 395

(34)

2017 ADT	-Y3- AMERICAN LEGION RD EXT	DHV = 10%
2040 ADT	0	DIR = 55%
	1000	TTST = 1%
	0	DUAL = 2%
	400	
	600	
	3000	
	3200	
-L1- PREMIER BLVD EXT		-L1- PREMIER BLVD EXT
DHV = 8%		DHV = 8%
DIR = 60%		DIR = 55%
TTST = 1%		TTST = 1%
DUAL = 2%		DUAL = 2%

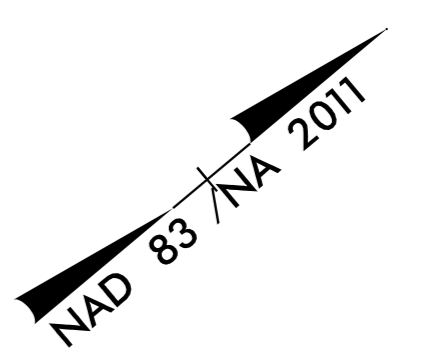
NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.

SEE SHEET NO. 25 FOR -L1- PROFILE  
SEE SHEET NO. 29 FOR -Y3- PROFILE

5/14/99

# Kimley Horn

421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, N.C. 27601. NC LICENSE #F-0102



PROJECT REFERENCE NO. U-5725/R-3822		SHEET NO. 15	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
9/4/2018		9/4/2018	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>			

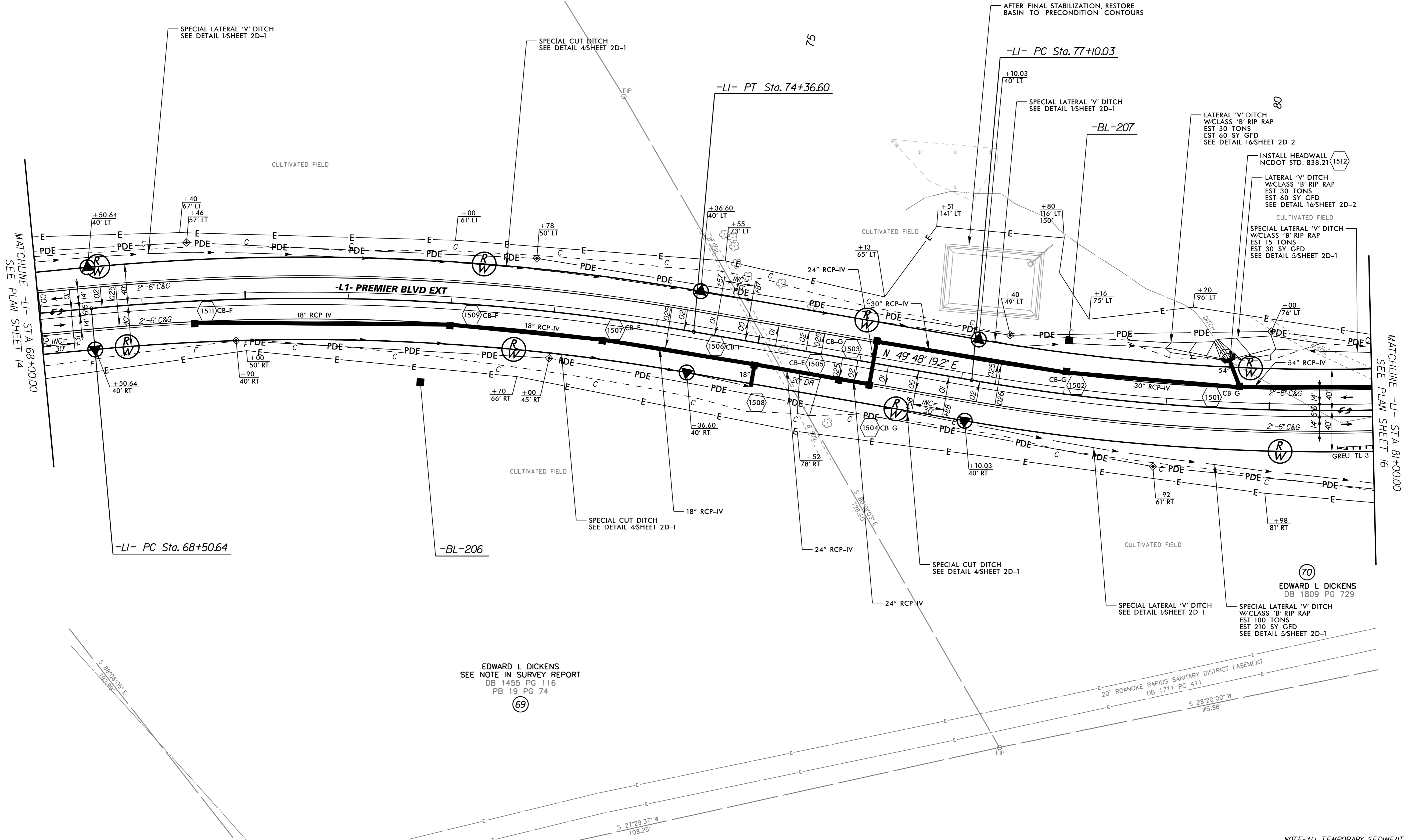
-LI-

PI Sta 71+45.37 Δ = 15° 15' 37.8" (RT) D = 2' 36' 15.7" L = 585.96' T = 294.72' R = 2,200.00' e = RC R <sub>eq</sub> = 75'	PI Sta 85+81.84 Δ = 47° 06' 17.6" (LT) D = 2' 51' 53.2" L = 1,644.27' T = 871.80' R = 2,000.00' e = 2.6 R <sub>eq</sub> = 78'
---	--

(69)  
EDWARD L. DICKENS  
SEE NOTE IN SURVEY REPORT  
DB 1453 PG 116  
PB 19 PG 74

(70)  
EDWARD L. DICKENS  
DB 1809 PG 729

REVISIONS



MATCHLINE -LI- STA 68+00.00  
SEE PLAN SHEET 14

MATCHLINE -LI- STA 81+00.00  
SEE PLAN SHEET 16

EDWARD L. DICKENS  
SEE NOTE IN SURVEY REPORT  
DB 1453 PG 116  
PB 19 PG 74  
(69)

(70)  
EDWARD L. DICKENS  
DB 1809 PG 729

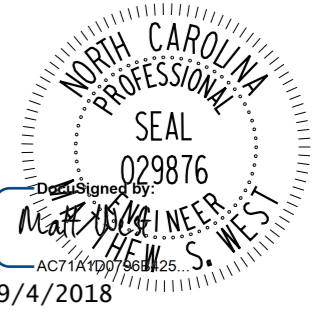
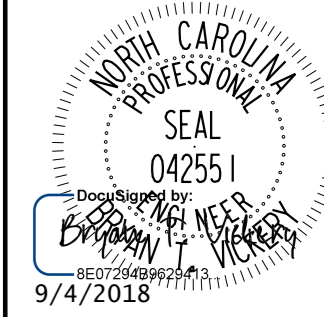
NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE REMOVED AND REGRADED TO PRECONSTRUCTION TOPOGRAPHY PRIOR TO PROJECT COMPLETION.  
**SEE SHEET NO. 26 FOR -L1- PROFILE**

9/4/2018

5/14/19

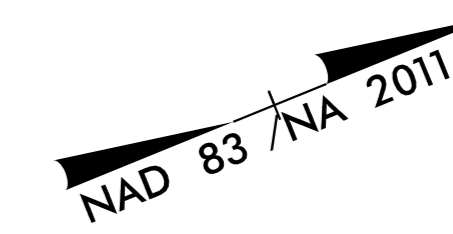
# Kimley»Horn

421 FAYETTEVILLE STREET, SUITE 600  
RALEIGH, N.C. 27601. NC LICENSE #F-0102

PROJECT REFERENCE NO. U-5725/R-3822		SHEET NO. 16	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

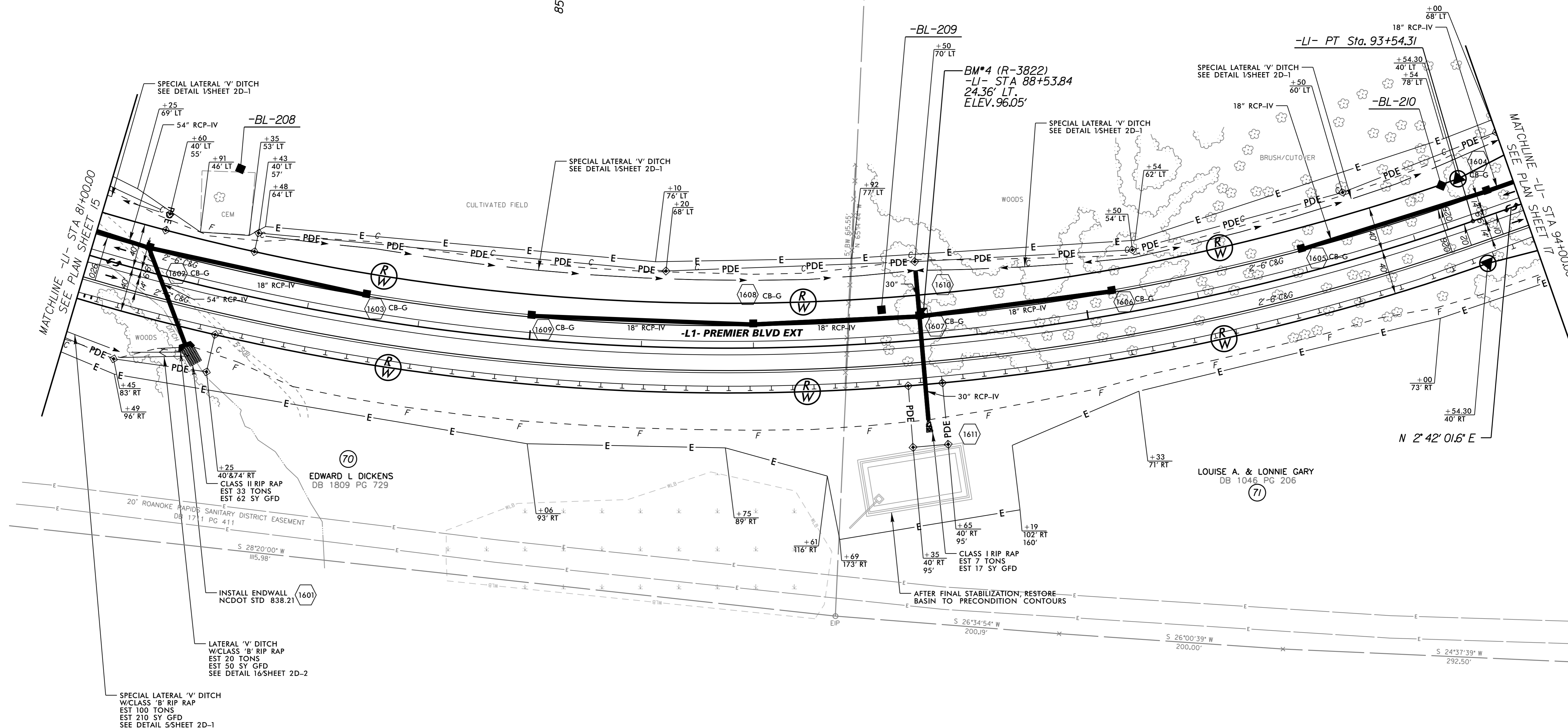
(71)  
LOUISE A. & LONNIE GARY  
DB 1046 PG 206

(70)  
EDWARD L DICKENS  
DB 1809 PG 729



-L1-  
 PI Sta 85+81.84  
 $\Delta = 47^{\circ}06'17.6"$  (LT)  
 $D = 2^{\circ}51'53.2"$   
 $L = 1,644.27'$   
 $T = 871.80'$   
 $R = 2,000.00'$   
 $e = 2.6'$   
 $R_{\text{min}} = 78'$

REVISIONS



MATCHLINE -L1- STA 81+00.00  
SEE PLAN SHEET 15

MATCHLINE -L1- STA 94+00.00  
SEE PLAN SHEET 17

(70)  
EDWARD L DICKENS  
DB 1809 PG 729

20' ROANOKE RAPIDS SANITARY DISTRICT EASEMENT  
DB 17.1 PG 411

INSTALL ENDWALL  
NCDOT STD 838.21 (1601)

LATERAL 'V' DITCH  
W/CLASS 'B' RIP RAP  
EST 20 TONS  
EST 50 SY GFD  
SEE DETAIL 16/SHEET 2D-2

SPECIAL LATERAL 'V' DITCH  
W/CLASS 'B' RIP RAP  
EST 100 TONS  
EST 210 SY GFD  
SEE DETAIL 5/SHEET 2D-1

(71)  
LOUISE A. & LONNIE GARY  
DB 1046 PG 206

AFTER FINAL STABILIZATION, RESTORE  
BASIN TO PRECONSTRUCTION CONTOURS

NOTE: ALL TEMPORARY SEDIMENT TRAPS SHALL BE  
REMOVED AND REGRADED TO PRECONSTRUCTION  
TOPOGRAPHY PRIOR TO PROJECT COMPLETION.  
SEE SHEET NO. 26 FOR -L1- PROFILE

9/4/2018