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09/08/99

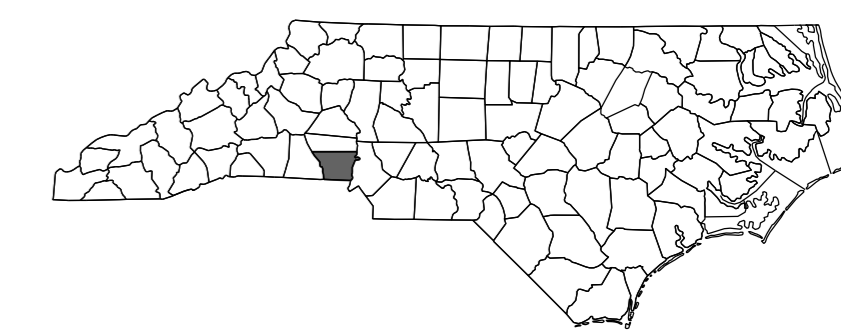
See Sheet 1A For Index of Sheets

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

GASTON COUNTY

**LOCATION: I-85/US 321 GEOMETRIC SAFETY IMPROVEMENTS
TO INTERCHANGE**
**TYPE OF WORK: GRADING, DRAINAGE, PAVING,
CULVERTS, LIGHTING, AND SIGNALS**

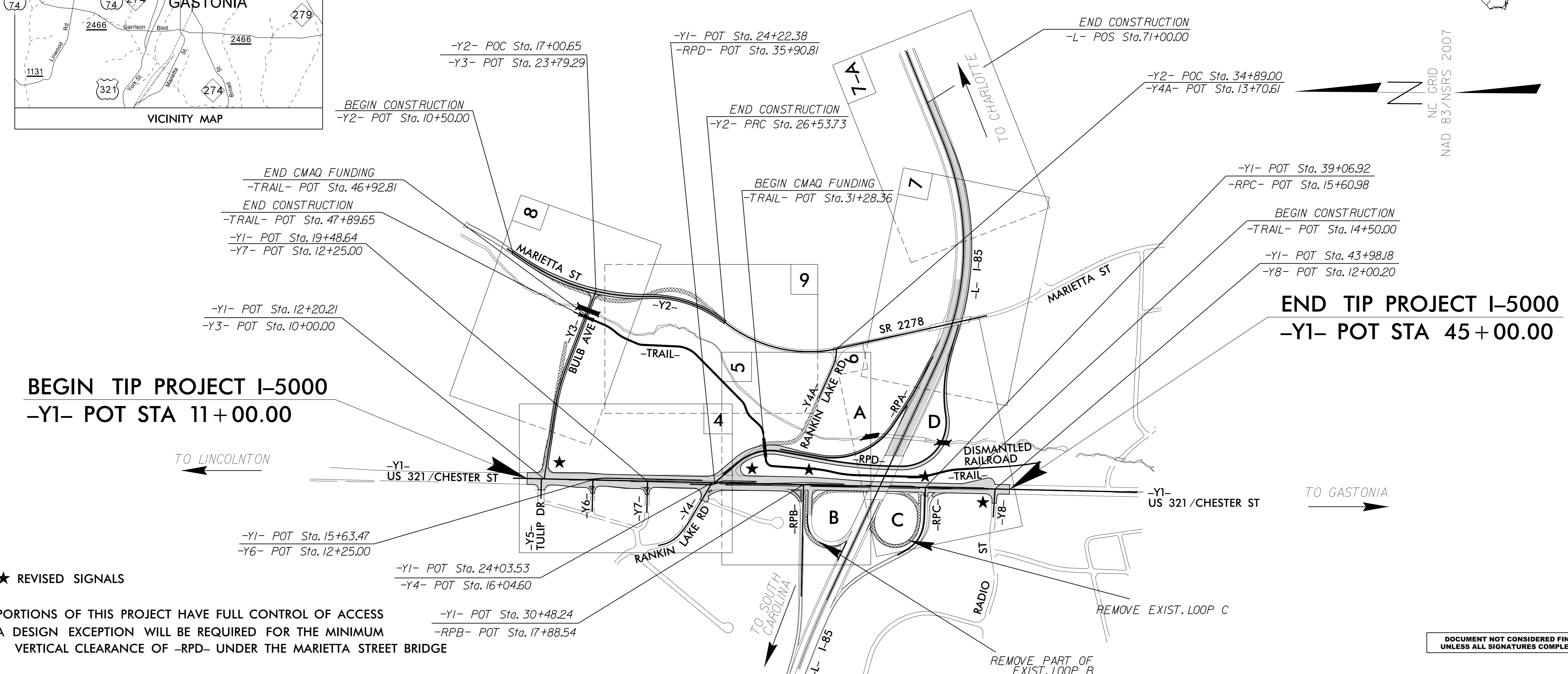
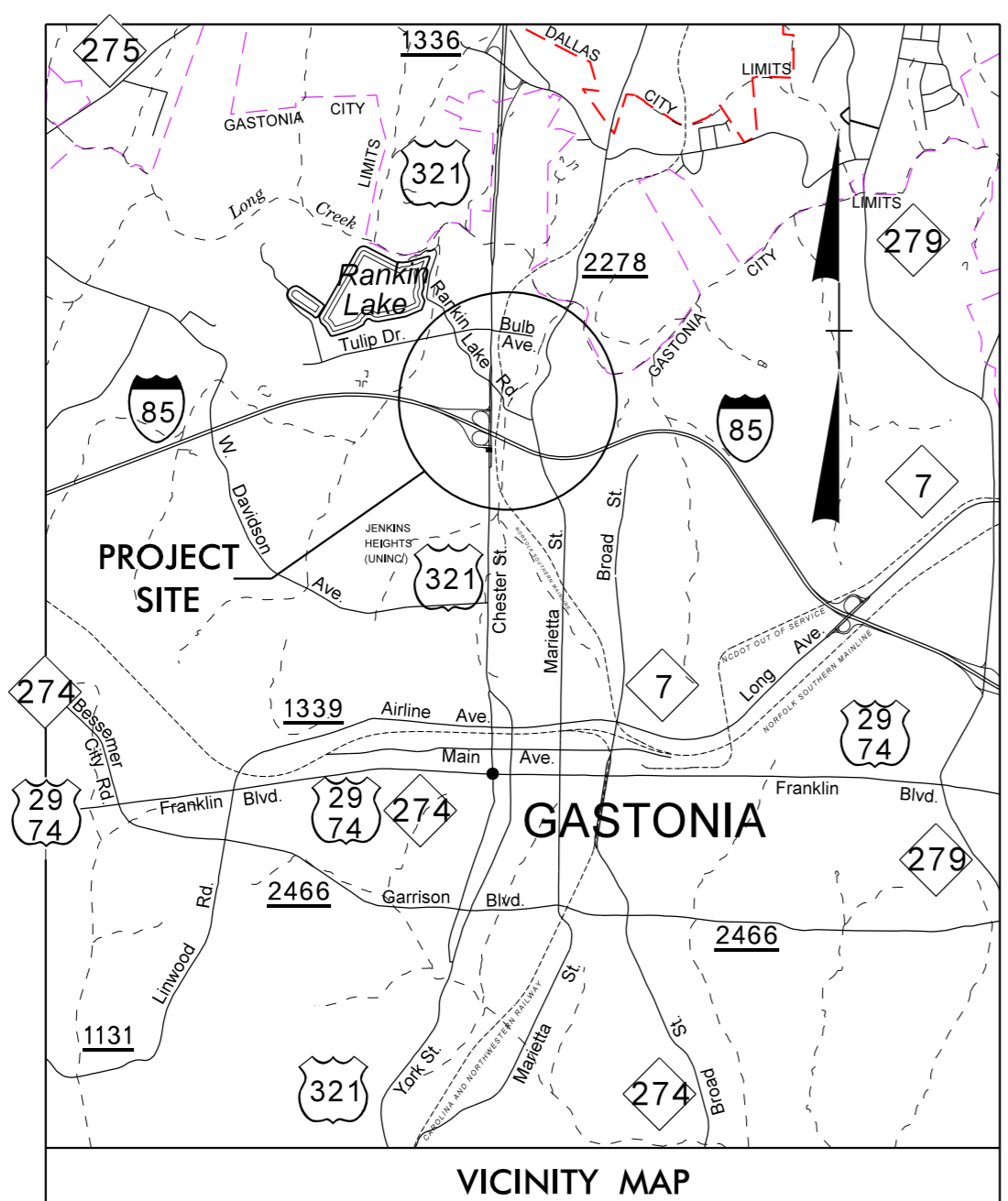
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5000	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
41153.1.1	IMF-85-1(113)17	PE	
41153.2.FS1	IMF-85-1(113)17	RW	
41153.2.FSU1	IMF-85-1(113)17	UTIL.	
41153.3.1	IMF-085-1(113)17	CONST.	



NC GRID
NAD 83/NSRS 2007

TIP PROJECT: I-5000

CONTRACT: C203846

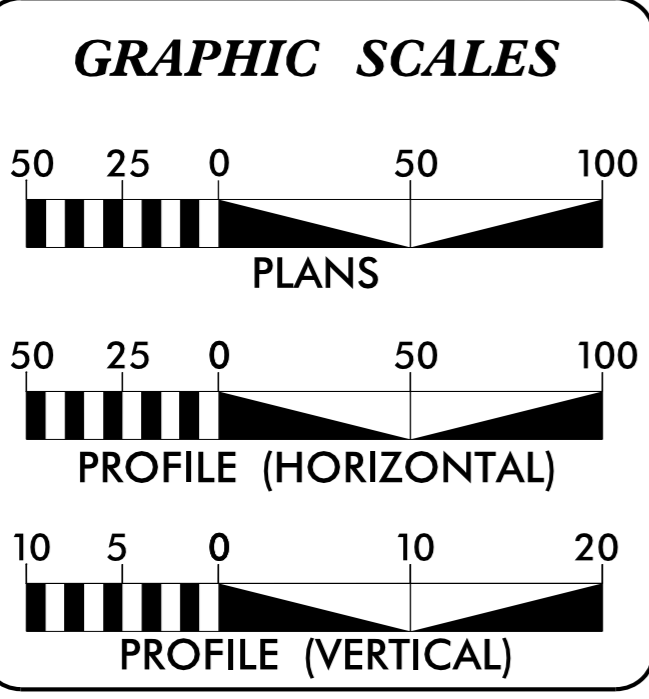


BEGIN TIP PROJECT I-5000
-Y1- POT STA 11+00.00

END TIP PROJECT I-5000
-Y1- POT STA 45+00.00

★ REVISED SIGNALS

PORTIONS OF THIS PROJECT HAVE FULL CONTROL OF ACCESS
A DESIGN EXCEPTION WILL BE REQUIRED FOR THE MINIMUM
VERTICAL CLEARANCE OF -RPD- UNDER THE MARIETTA STREET BRIDGE



DESIGN DATA

ADT 2017 =	49,516
ADT 2037 =	63,676
K =	8 %
D =	55 %
T =	9 % *
V =	50 MPH
* TTST =	7 DUAL = 2
FUNC CLASS =	PRINCIPAL ARTERIAL REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-5000 =	0.644 MILES
TOTAL LENGTH TIP PROJECT I-5000 =	0.644 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

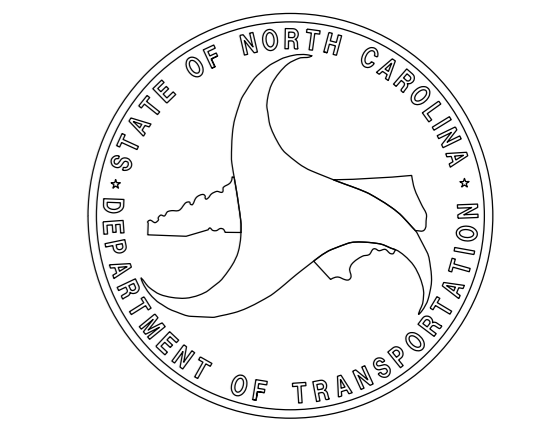
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: AUGUST 21, 2015	GARY LOVERING, PE PROJECT ENGINEER
LETTING DATE: April 18, 2017	BRYAN KEY, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

DocuSigned by:
Larry D. Robinson
CE1178291105643E...
3/3/2017
SIGNATURE: P.E.

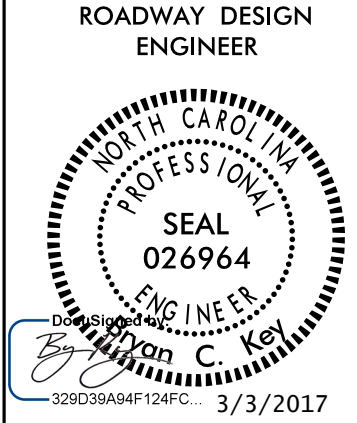
ROADWAY DESIGN ENGINEER

DocuSigned by:
Bryan Key
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3/3/2017
SIGNATURE: P.E.



19-JAN-2017 11:46
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\$\$\$\$\$USERNAME\$\$\$\$\$

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



8/17/99

23 JAN 2017 09:03 T:\5000-Rdy.-tsh.dgn
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<p>INDEX OF SHEETS</p> <table border="0"> <tr> <th>SHEET NUMBER</th> <th>SHEET</th> </tr> <tr> <td>1</td> <td>TITLE SHEET</td> </tr> <tr> <td>1A</td> <td>INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS</td> </tr> <tr> <td>1B</td> <td>CONVENTIONAL SYMBOLS</td> </tr> <tr> <td>1C-1 THRU 1C-3</td> <td>SURVEY CONTROL DATA SHEETS</td> </tr> <tr> <td>2A-1 THRU 2A-6</td> <td>PAVEMENT SCHEDULE, TYPICAL SECTIONS AND WEDGING DETAILS</td> </tr> <tr> <td>2B-1 THRU 2B-4</td> <td>INTERSECTION DETAILS</td> </tr> <tr> <td>2C-1</td> <td>DETAIL OF TRAFFIC BEARING DROP INLET CONVERSION</td> </tr> <tr> <td>2C-2</td> <td>DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE</td> </tr> <tr> <td>2C-3</td> <td>DETAIL TO CONVERT EXISTING CATCH BASIN TO A JUNCTION BOX</td> </tr> <tr> <td>2C-4</td> <td>DETAIL TO CONVERT EXISTING CATCH BASIN TO A DROP INLET</td> </tr> <tr> <td>2C-5</td> <td>COAL COMBUSTION PRODUCT PLACEMENT DETAIL</td> </tr> <tr> <td>2D-1</td> <td>DRAINAGE DETAILS</td> </tr> <tr> <td>2G-1</td> <td>EMBANKMENT STABILIZATION DETAIL</td> </tr> <tr> <td>3B-1</td> <td>SUMMARY OF EARTHWORK, SUMMARY OF REMOVAL OF EXISTING PAVEMENT, FENCE SUMMARY, SUMMARY OF CONCRETE BARRIER, AND GUARDRAIL SUMMARY</td> </tr> <tr> <td>3D-1 THRU 3D-5</td> <td>SUMMARY OF DRAINAGE QUANTITIES</td> </tr> <tr> <td>3G-1</td> <td>SUMMARY OF GEOTECHNICAL QUANTITIES</td> </tr> <tr> <td>3P-1</td> <td>PARCEL INDEX SHEET</td> </tr> <tr> <td>4 THRU 9</td> <td>PLAN SHEETS</td> </tr> <tr> <td>10 THRU 17</td> <td>PROFILE SHEETS</td> </tr> <tr> <td>TMP-1 THRU TMP-37</td> <td>TRAFFIC CONTROL PLANS</td> </tr> <tr> <td>PM-1 THRU PM-8</td> <td>PAVEMENT MARKING PLANS</td> </tr> <tr> <td>E-1 THRU E-6</td> <td>ELECTRICAL PLANS</td> </tr> <tr> <td>EC-1 THRU EC-20</td> <td>EROSION CONTROL PLANS</td> </tr> <tr> <td>RF-1</td> <td>REFORESTATION PLANS</td> </tr> <tr> <td>SIG-1A THRU SIG-6D</td> <td>SIGNING PLANS</td> </tr> <tr> <td>SIG-1 THRU SIG-P3</td> <td>SIGNAL PLANS</td> </tr> <tr> <td>SCP-1 THRU SCP-16</td> <td>SIGNAL COMMUNICATION PLANS</td> </tr> <tr> <td>UC-1 THRU UC-11</td> <td>UTILITY CONSTRUCTION PLANS</td> </tr> <tr> <td>UO-1 THRU UO-6</td> <td>UTILITIES BY OTHERS PLANS</td> </tr> <tr> <td>X-1A</td> <td>CROSS SECTION INDEX SHEET</td> </tr> <tr> <td>X-1B THRU X-1C</td> <td>CROSS SECTION SUMMARY SHEETS</td> </tr> <tr> <td>X-1 THRU X-75</td> <td>CROSS SECTIONS</td> </tr> <tr> <td>C-1 THRU C-25</td> <td>CULVERT PLANS</td> </tr> </table>	SHEET NUMBER	SHEET	1	TITLE SHEET	1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS	1B	CONVENTIONAL SYMBOLS	1C-1 THRU 1C-3	SURVEY CONTROL DATA SHEETS	2A-1 THRU 2A-6	PAVEMENT SCHEDULE, TYPICAL SECTIONS AND WEDGING DETAILS	2B-1 THRU 2B-4	INTERSECTION DETAILS	2C-1	DETAIL OF TRAFFIC BEARING DROP INLET CONVERSION	2C-2	DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE	2C-3	DETAIL TO CONVERT EXISTING CATCH BASIN TO A JUNCTION BOX	2C-4	DETAIL TO CONVERT EXISTING CATCH BASIN TO A DROP INLET	2C-5	COAL COMBUSTION PRODUCT PLACEMENT DETAIL	2D-1	DRAINAGE DETAILS	2G-1	EMBANKMENT STABILIZATION DETAIL	3B-1	SUMMARY OF EARTHWORK, SUMMARY OF REMOVAL OF EXISTING PAVEMENT, FENCE SUMMARY, SUMMARY OF CONCRETE BARRIER, AND GUARDRAIL SUMMARY	3D-1 THRU 3D-5	SUMMARY OF DRAINAGE QUANTITIES	3G-1	SUMMARY OF GEOTECHNICAL QUANTITIES	3P-1	PARCEL INDEX SHEET	4 THRU 9	PLAN SHEETS	10 THRU 17	PROFILE SHEETS	TMP-1 THRU TMP-37	TRAFFIC CONTROL PLANS	PM-1 THRU PM-8	PAVEMENT MARKING PLANS	E-1 THRU E-6	ELECTRICAL PLANS	EC-1 THRU EC-20	EROSION CONTROL PLANS	RF-1	REFORESTATION PLANS	SIG-1A THRU SIG-6D	SIGNING PLANS	SIG-1 THRU SIG-P3	SIGNAL PLANS	SCP-1 THRU SCP-16	SIGNAL COMMUNICATION PLANS	UC-1 THRU UC-11	UTILITY CONSTRUCTION PLANS	UO-1 THRU UO-6	UTILITIES BY OTHERS PLANS	X-1A	CROSS SECTION INDEX SHEET	X-1B THRU X-1C	CROSS SECTION SUMMARY SHEETS	X-1 THRU X-75	CROSS SECTIONS	C-1 THRU C-25	CULVERT PLANS	<p>GENERAL NOTES:</p> <p>2012 SPECIFICATIONS EFFECTIVE: 01-17-2012 REVISED: 10-31-2014</p> <p>GRADING AND SURFACING OR RESURFACING AND WIDENING:</p> <p>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.</p> <p>CLEARING:</p> <p>CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.</p> <p>SUPERELEVATION:</p> <p>ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 AND 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.</p> <p>SHOULDER CONSTRUCTION:</p> <p>ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01 AND STD. NO. 560.02</p> <p>SIDE ROADS:</p> <p>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.</p> <p>BERM DITCHES:</p> <p>BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.</p> <p>SUBSURFACE DRAINS:</p> <p>SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.</p> <p>DRIVEWAYS:</p> <p>DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.02 USING 3 FT RADIUS OR RADIUS AS SHOWN ON THE PLANS. LOCATIONS OF DRIVES WILL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.</p> <p>DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.</p> <p>GUARDRAIL:</p> <p>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.</p> <p>TEMPORARY SHORING:</p> <p>SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.</p> <p>UTILITIES:</p> <p>UTILITY OWNERS ON THIS PROJECT ARE AT&T, DUKE ENERGY PROGRESS, CITY OF GASTONIA, PSNC ENERGY, AND TIME WARNER CABLE</p> <p>ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.</p> <p>RIGHT-OF-WAY MARKERS:</p> <p>ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.</p> <p>CURB RAMPS</p> <p>CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS. CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05 and/or 848.06.</p>	<p>EFF. 01-17-2012 REV. 02-29-2016</p> <p>2012 ROADWAY ENGLISH STANDARD DRAWINGS</p> <p>The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:</p> <table border="0"> <tr> <th>STD. 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Dwg 840.14 and 840.15</td> </tr> <tr> <td>840.18</td> <td>Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe</td> </tr> <tr> <td>840.19</td> <td>Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe</td> </tr> <tr> <td>840.20</td> <td>Frames and Wide Slot Flat Grates</td> </tr> <tr> <td>840.22</td> <td>Frames and Wide Slot Sag Grates</td> </tr> <tr> <td>840.24</td> <td>Frames and Narrow Slot Sag Grates</td> </tr> <tr> <td>840.25</td> <td>Anchorage for Frames - Brick or Concrete or Precast</td> </tr> <tr> <td>840.27</td> <td>Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe</td> </tr> <tr> <td>840.28</td> <td>Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe</td> </tr> <tr> <td>840.31</td> <td>Concrete Junction Box - 12" thru 66" Pipe</td> </tr> <tr> <td>840.32</td> <td>Brick Junction Box - 12" thru 66" Pipe</td> </tr> <tr> <td>840.34</td> <td>Traffic Bearing Junction Box - for Use with Pipes 42" and Under</td> </tr> <tr> <td>840.35</td> <td>Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates</td> </tr> <tr> <td>840.36</td> <td>Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates</td> </tr> <tr> <td>840.37</td> <td>Steel Grate and Frame</td> </tr> <tr> <td>840.45</td> <td>Precast Drainage Structure</td> </tr> <tr> <td>840.46</td> <td>Traffic Bearing Precast Drainage Structure</td> </tr> <tr> <td>840.51</td> <td>Brick Manhole - 12" thru 36" Pipe</td> </tr> <tr> <td>840.52</td> <td>Precast Manhole - 4', 5' and 6' Diameter</td> </tr> <tr> <td>840.53</td> <td>Precast Manhole with Masonry Base - 12" thru 42" Pipe</td> </tr> <tr> <td>840.54</td> <td>Manhole Frame and Cover</td> </tr> <tr> <td>840.66</td> <td>Drainage Structure Steps</td> </tr> <tr> <td>840.71</td> <td>Concrete and Brick Pipe Plug</td> </tr> <tr> <td>840.72</td> <td>Pipe Collar</td> </tr> <tr> <td>846.01</td> <td>Concrete Curb, Gutter and Curb & Gutter</td> </tr> <tr> <td>846.02</td> <td>Drop Inlet Installation in Expressway Gutter</td> </tr> <tr> <td>846.04</td> <td>Drop Inlet Installation in Shoulder Berm Gutter</td> </tr> <tr> <td>848.02</td> <td>Driveway Turnout - Radius Type</td> </tr> <tr> <td>848.03</td> <td>Driveway Turnout - Drop Curb Type</td> </tr> <tr> <td>848.05</td> <td>Curb Ramp - Proposed Curb & Gutter</td> </tr> <tr> <td>852.01</td> <td>Concrete Islands</td> </tr> <tr> <td>852.06</td> <td>Method for Placement of Drop Inlets in Concrete Islands</td> </tr> <tr> <td>854.02</td> <td>Double Faced Concrete Barrier - Types 'T', 'T1' and 'T2'</td> </tr> <tr> <td>862.01</td> <td>Guardrail Placement</td> </tr> <tr> <td>862.02</td> <td>Guardrail Installation</td> </tr> <tr> <td>866.01</td> <td>Chain Link Fence - 4', 5' and 6' High Fence</td> </tr> <tr> <td>876.01</td> <td>Rip Rap in Channels</td> </tr> <tr> <td>876.02</td> <td>Guide for Rip Rap at Pipe Outlets</td> </tr> <tr> <td>876.03</td> <td>Drainage Ditches with Class 'A' Rip Rap</td> </tr> <tr> <td>876.04</td> <td>Drainage Ditches with Class 'B' Rip Rap</td> </tr> </table>	STD. 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2A-1 THRU 2A-6	PAVEMENT SCHEDULE, TYPICAL SECTIONS AND WEDGING DETAILS																																																																																																																																																																																																															
2B-1 THRU 2B-4	INTERSECTION DETAILS																																																																																																																																																																																																															
2C-1	DETAIL OF TRAFFIC BEARING DROP INLET CONVERSION																																																																																																																																																																																																															
2C-2	DETAIL OF TEMPORARY 1" STEEL COVER OVER DRAINAGE STRUCTURE																																																																																																																																																																																																															
2C-3	DETAIL TO CONVERT EXISTING CATCH BASIN TO A JUNCTION BOX																																																																																																																																																																																																															
2C-4	DETAIL TO CONVERT EXISTING CATCH BASIN TO A DROP INLET																																																																																																																																																																																																															
2C-5	COAL COMBUSTION PRODUCT PLACEMENT DETAIL																																																																																																																																																																																																															
2D-1	DRAINAGE DETAILS																																																																																																																																																																																																															
2G-1	EMBANKMENT STABILIZATION DETAIL																																																																																																																																																																																																															
3B-1	SUMMARY OF EARTHWORK, SUMMARY OF REMOVAL OF EXISTING PAVEMENT, FENCE SUMMARY, SUMMARY OF CONCRETE BARRIER, AND GUARDRAIL SUMMARY																																																																																																																																																																																																															
3D-1 THRU 3D-5	SUMMARY OF DRAINAGE QUANTITIES																																																																																																																																																																																																															
3G-1	SUMMARY OF GEOTECHNICAL QUANTITIES																																																																																																																																																																																																															
3P-1	PARCEL INDEX SHEET																																																																																																																																																																																																															
4 THRU 9	PLAN SHEETS																																																																																																																																																																																																															
10 THRU 17	PROFILE SHEETS																																																																																																																																																																																																															
TMP-1 THRU TMP-37	TRAFFIC CONTROL PLANS																																																																																																																																																																																																															
PM-1 THRU PM-8	PAVEMENT MARKING PLANS																																																																																																																																																																																																															
E-1 THRU E-6	ELECTRICAL PLANS																																																																																																																																																																																																															
EC-1 THRU EC-20	EROSION CONTROL PLANS																																																																																																																																																																																																															
RF-1	REFORESTATION PLANS																																																																																																																																																																																																															
SIG-1A THRU SIG-6D	SIGNING PLANS																																																																																																																																																																																																															
SIG-1 THRU SIG-P3	SIGNAL PLANS																																																																																																																																																																																																															
SCP-1 THRU SCP-16	SIGNAL COMMUNICATION PLANS																																																																																																																																																																																																															
UC-1 THRU UC-11	UTILITY CONSTRUCTION PLANS																																																																																																																																																																																																															
UO-1 THRU UO-6	UTILITIES BY OTHERS PLANS																																																																																																																																																																																																															
X-1A	CROSS SECTION INDEX SHEET																																																																																																																																																																																																															
X-1B THRU X-1C	CROSS SECTION SUMMARY SHEETS																																																																																																																																																																																																															
X-1 THRU X-75	CROSS SECTIONS																																																																																																																																																																																																															
C-1 THRU C-25	CULVERT PLANS																																																																																																																																																																																																															
STD. NO.	TITLE																																																																																																																																																																																																															
DIVISION 2 - EARTHWORK																																																																																																																																																																																																																
200.03	Method of Clearing - Method III																																																																																																																																																																																																															
225.01	Guide for Grading Subgrade - Interstate and Freeway																																																																																																																																																																																																															
225.02	Guide for Grading Subgrade - Secondary and Local																																																																																																																																																																																																															
225.03	Deceleration and Acceleration Lanes																																																																																																																																																																																																															
225.04	Method of Obtaining Super-elevation - Two Lane Pavement																																																																																																																																																																																																															
225.05	Method of Obtaining Super-elevation - Divided Highways																																																																																																																																																																																																															
225.06	Method of Grading Sight Distance at Intersections																																																																																																																																																																																																															
240.01	Guide for Berm Ditch Construction																																																																																																																																																																																																															
DIVISION 3 - PIPE CULVERTS																																																																																																																																																																																																																
300.01	Method of Pipe Installation																																																																																																																																																																																																															
310.10	Driveway Pipe Construction																																																																																																																																																																																																															
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS																																																																																																																																																																																																																
560.01	Method of Shoulder Construction - High Side of Super-elevated Curve - Method I																																																																																																																																																																																																															
560.02	Method of Shoulder Construction - High Side of Super-elevated Curve - Method II (Sheet 2 of 3 is no longer applicable)																																																																																																																																																																																																															
DIVISION 6 - ASPHALT BASES AND PAVEMENTS																																																																																																																																																																																																																
654.01	Pavement Repairs																																																																																																																																																																																																															
665.01	Asphalt Shoulders - Milled Rumble Strips																																																																																																																																																																																																															
DIVISION 8 - INCIDENTALS																																																																																																																																																																																																																
815.02	Subsurface Drain																																																																																																																																																																																																															
840.00	Concrete Base Pad for Drainage Structures																																																																																																																																																																																																															
840.01	Brick Catch Basin - 12" thru 54" Pipe																																																																																																																																																																																																															
840.02	Concrete Catch Basin - 12" thru 54" Pipe																																																																																																																																																																																																															
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin																																																																																																																																																																																																															
840.04	Concrete Open Throat Catch Basin - 12" thru 48" Pipe																																																																																																																																																																																																															
840.05	Brick Open Throat Catch Basin - 12" thru 48" Pipe																																																																																																																																																																																																															
840.14	Concrete Drop Inlet - 12" thru 30" Pipe																																																																																																																																																																																																															
840.15	Brick Drop Inlet - 12" thru 30" Pipe																																																																																																																																																																																																															
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15																																																																																																																																																																																																															
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe																																																																																																																																																																																																															
840.19	Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe																																																																																																																																																																																																															
840.20	Frames and Wide Slot Flat Grates																																																																																																																																																																																																															
840.22	Frames and Wide Slot Sag Grates																																																																																																																																																																																																															
840.24	Frames and Narrow Slot Sag Grates																																																																																																																																																																																																															
840.25	Anchorage for Frames - Brick or Concrete or Precast																																																																																																																																																																																																															
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe																																																																																																																																																																																																															
840.28	Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe																																																																																																																																																																																																															
840.31	Concrete Junction Box - 12" thru 66" Pipe																																																																																																																																																																																																															
840.32	Brick Junction Box - 12" thru 66" Pipe																																																																																																																																																																																																															
840.34	Traffic Bearing Junction Box - for Use with Pipes 42" and Under																																																																																																																																																																																																															
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates																																																																																																																																																																																																															
840.36	Traffic Bearing Grated Drop Inlet - for Steel (840.37) Double Frame and Grates																																																																																																																																																																																																															
840.37	Steel Grate and Frame																																																																																																																																																																																																															
840.45	Precast Drainage Structure																																																																																																																																																																																																															
840.46	Traffic Bearing Precast Drainage Structure																																																																																																																																																																																																															
840.51	Brick Manhole - 12" thru 36" Pipe																																																																																																																																																																																																															
840.52	Precast Manhole - 4', 5' and 6' Diameter																																																																																																																																																																																																															
840.53	Precast Manhole with Masonry Base - 12" thru 42" Pipe																																																																																																																																																																																																															
840.54	Manhole Frame and Cover																																																																																																																																																																																																															
840.66	Drainage Structure Steps																																																																																																																																																																																																															
840.71	Concrete and Brick Pipe Plug																																																																																																																																																																																																															
840.72	Pipe Collar																																																																																																																																																																																																															
846.01	Concrete Curb, Gutter and Curb & Gutter																																																																																																																																																																																																															
846.02	Drop Inlet Installation in Expressway Gutter																																																																																																																																																																																																															
846.04	Drop Inlet Installation in Shoulder Berm Gutter																																																																																																																																																																																																															
848.02	Driveway Turnout - Radius Type																																																																																																																																																																																																															
848.03	Driveway Turnout - Drop Curb Type																																																																																																																																																																																																															
848.05	Curb Ramp - Proposed Curb & Gutter																																																																																																																																																																																																															
852.01	Concrete Islands																																																																																																																																																																																																															
852.06	Method for Placement of Drop Inlets in Concrete Islands																																																																																																																																																																																																															
854.02	Double Faced Concrete Barrier - Types 'T', 'T1' and 'T2'																																																																																																																																																																																																															
862.01	Guardrail Placement																																																																																																																																																																																																															
862.02	Guardrail Installation																																																																																																																																																																																																															
866.01	Chain Link Fence - 4', 5' and 6' High Fence																																																																																																																																																																																																															
876.01	Rip Rap in Channels																																																																																																																																																																																																															
876.02	Guide for Rip Rap at Pipe Outlets																																																																																																																																																																																																															
876.03	Drainage Ditches with Class 'A' Rip Rap																																																																																																																																																																																																															
876.04	Drainage Ditches with Class 'B' Rip Rap																																																																																																																																																																																																															

04/05/15

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

Note: Not to Scale *S.U.E. = Subsurface Utility Engineering

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	-----
Property Monument	□ EDM
Parcel/Sequence Number	(23)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	----- NLB
Proposed Wetland Boundary	----- NLB
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:

Baseline Control Point	◇
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	----- RW
Proposed Right of Way Line with Iron Pin and Cap Marker	----- RW
Proposed Right of Way Line with Concrete or Granite R/W Marker	----- RW
Proposed Control of Access Line with Concrete CA Marker	----- CA
Existing Control of Access	----- CA
Proposed Control of Access	----- CA
Existing Easement Line	----- E
Proposed Temporary Construction Easement	----- E
Proposed Temporary Drainage Easement	----- TDE
Proposed Permanent Drainage Easement	----- PDE
Proposed Permanent Drainage / Utility Easement	----- DUE
Proposed Permanent Utility Easement	----- PUE
Proposed Temporary Utility Easement	----- TUE
Proposed Aerial Utility Easement	----- AUE
Proposed Permanent Easement with Iron Pin and Cap Marker	◇

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	☼
Hedge	-----
Woods Line	-----

Orchard	☼ ☼ ☼ ☼
Vineyard	□ Vineyard

EXISTING STRUCTURES:

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

SURVEY CONTROL SHEET

-Final-

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NGS FOR MONUMENT "P222"
 WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
 NORTHING: 564112.540(ft) EASTING: 1347033.150(ft)
 ELEVATION: 727.863(ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999842
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "P222" TO -Y1- STATION 11+00.00 IS
 N 2°06'45.3" E 3745.271
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

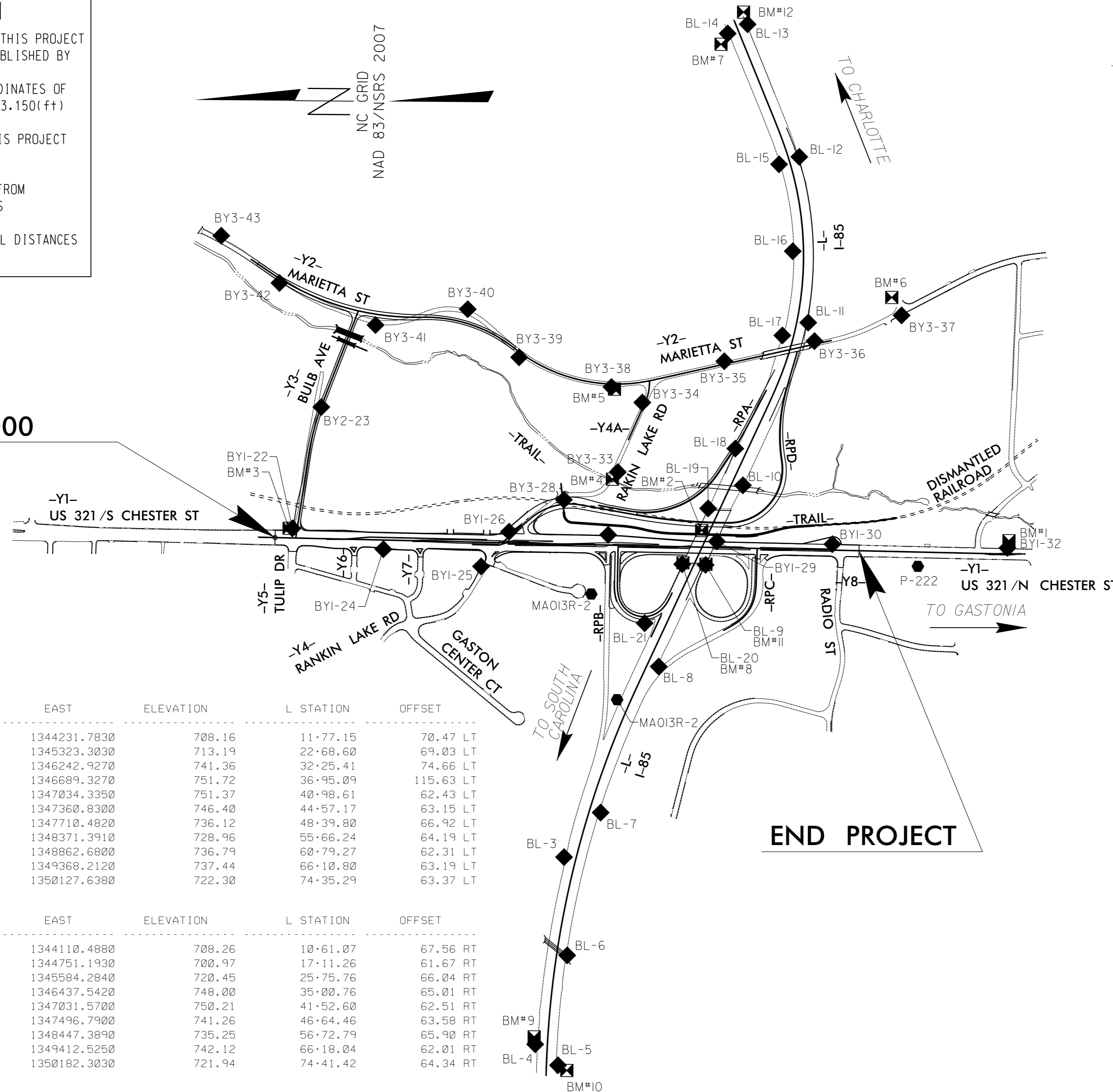
BEGIN TIP PROJECT I-5000
 -Y1- POT STA 11+00.00

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
4	BL-4	566317.7110	1344231.7830	708.16	11+77.15	70.47 LT
3	BL-3	566158.4570	1345323.3030	713.19	22+68.60	69.03 LT
1	MA013R-1	565857.2360	1346242.9270	741.36	32+25.41	74.66 LT
21	BL-21	565700.1300	1346689.3270	751.72	36+95.09	115.63 LT
20	BL-20	565484.1930	1347034.3350	751.37	40+98.61	62.43 LT
19	BL-19	565335.9790	1347360.8300	746.40	44+57.17	63.15 LT
18	BL-18	565180.5470	1347710.4820	736.12	48+39.80	66.92 LT
17	BL-17	564911.8550	1348371.3910	728.96	55+66.24	64.19 LT
16	BL-16	564855.1580	1348862.6800	736.79	60+79.27	62.31 LT
15	BL-15	564938.8520	1349368.2120	737.44	66+10.80	63.19 LT
14	BL-14	565243.9830	1350127.6380	722.30	74+35.29	63.37 LT

BL1 POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
5	BL-5	566184.2190	1344110.4880	708.26	10+61.07	67.56 RT
6	BL-6	566135.6580	1344751.1930	700.97	17+11.26	61.67 RT
7	BL-7	565947.5250	1345584.2840	720.45	25+75.76	66.04 RT
8	BL-8	565616.4840	1346437.5420	748.00	35+00.76	65.01 RT
9	BL-9	565348.1190	1347031.5700	750.21	41+52.60	62.51 RT
10	BL-10	565134.6270	1347496.7900	741.26	46+64.46	63.58 RT
11	BL-11	564761.8740	1348447.3890	735.25	56+72.79	65.90 RT
12	BL-12	564821.5260	1349412.5250	742.12	66+18.04	62.01 RT
13	BL-13	565128.4050	1350182.3030	721.94	74+41.42	64.34 RT

BY0 POINT	DESC.	NORTH	EAST	ELEVATION	Y1 STATION	OFFSET
22	BY1-22	567754.7550	1347225.1050	739.15	11+99.71	55.35 LT
24	BY1-24	567224.3270	1347108.1730	733.03	17+31.79	53.82 RT
26	BY1-26	566493.4550	1347215.8710	731.85	24+61.01	64.54 LT
27	BY1-27	565916.6540	1347202.5530	735.49	30+37.95	59.65 LT
29	BY1-29	565283.6690	1347168.9670	729.66	36+71.35	35.31 LT
30	BY1-30	564610.8920	1347158.1420	723.58	43+44.22	34.31 LT
222	P222	564112.5400	1347033.1500	727.86	48+44.34	83.39 RT
32	BY1-32	563591.7380	1347144.3030	720.15	53+63.47	35.35 LT

BY1 POINT	DESC.	NORTH	EAST	ELEVATION	Y2 STATION	OFFSET
43	BY3-43	568182.4750	1348926.4590	691.09	OUTSIDE PROJECT LIMITS	
42	BY3-42	567841.5950	1348654.0110	698.56	12+15.67	22.99 RT
41	BY3-41	567280.4110	1348413.2850	710.29	18+11.98	63.05 RT
40	BY3-40	566744.3540	1348509.9270	714.35	23+21.34	80.27 LT
39	BY3-39	566442.9020	1348231.9450	722.27	27+06.26	25.68 RT
134	BY3-34	565723.9900	1347974.4380	754.65	34+29.16	117.89 RT
35	BY3-35	565248.4720	1348218.7100	764.34	39+38.11	16.79 LT
36	BY3-36	564724.5700	1348340.1720	748.77	44+75.90	17.55 LT
37	BY3-37	564218.7870	1348493.8940	730.59	OUTSIDE PROJECT LIMITS	



NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT: [HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION](https://connect.ncdot.gov/resources/location)
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 15000_LS_CONTROL.TXT
 15000_LS_LOCAL.TXT
- SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM, UTILIZING THE NCGS RTN SYSTEM (VRS).
 MONUMENTS USED OR SET FOR PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT:
 ● INDICATES GEODETIC CONTROL MONUMENTS FOR HORIZONTAL CONTROL
 ■ INDICATES BASELINE MONUMENTS FOR HORIZONTAL PROJECT CONTROL
 ✠ INDICATES BENCHMARKS FOR VERTICAL CONTROL

BM1	ELEVATION + 719.05	BM7	ELEVATION + 732.69
N 563584	E 1347187	N 565282	E 1350065
Y1 STATION 53+71 78 LEFT		L STATION 73+92 123 LEFT	
RR SPIKE IN BASE OF 15 INCH DOGWOOD		RR SPIKE IN BASE 18 INCH POPLAR	
.....		
BM2	ELEVATION + 721.88	BM8	ELEVATION + 751.32
N 565373	E 1347232	N 565481	E 1347043
L STATION 43+25 43 LEFT		L STATION 41+08 63 LEFT	
CHISELED SQUARE IN BRIDGE PIER BASE		CHISELED SQUARE NW SIDE OF I-85 SB BRIDGE	
.....		
BM3	ELEVATION + 739.23	BM9	ELEVATION + 706.69
N 567774	E 1347226	N 566324	E 1344275
Y1 STATION 11+00 56 LEFT		L STATION 12+19 79 LEFT	
CHISELED SQUARE CORNER OF UTILITY BOX		CHISELED SQUARE IN BASE OF CANTILEVER TRAFFIC SIGN	
.....		
BM4	ELEVATION + 708.75	BM10	ELEVATION + 709.28
N 565895	E 1347527	N 566133	E 1344081
Y4A STATION 10+00		L STATION 10+33 120 RIGHT	
N 68°23'34.0" W DIST 245.30		RR SPIKE IN BASE OF 18 INCH OAK	
CHISELED SQUARE IN CONC BRIDGE		
WHEELGUARD		
.....		
BM5	ELEVATION + 752.35	BM11	ELEVATION + 751.56
N 565887	E 1348051	N 565346	E 1347036
Y2 STATION 32+83 30 RIGHT		L STATION 41+58 63 RIGHT	
CHISELED SQUARE IN SW CORNER CONC BRIDGE ABUTMENT		
RR SPIKE IN BASE 24 INCH PINE		
.....		
BM6	ELEVATION + 729.15	BM12	ELEVATION + 719.60
N 564277	E 1348598	N 565153	E 1350253
Y2 STATION 45+74.81		L STATION 74+92.39	
S 36°03'33.1" E DIST 429.60		S 41°26'47.3" E DIST 73.11	
RR SPIKE IN BASE 15 INCH OAK		CHISELED SQUARE IN CORNER CONC DROP INLET	
.....		

BY2 POINT	DESC.	NORTH	EAST	ELEVATION	Y3 STATION	OFFSET
122	BY1-22	567754.7550	1347225.1050	739.15	10+52.19	27.58 LT
23	BY2-23	567592.3100	1347933.2580	729.44	17+78.58	1.34 RT

BY3 POINT	DESC.	NORTH	EAST	ELEVATION	Y4 STATION	OFFSET
25	BY1-25	566655.0740	1347012.3300	728.57	14+31.89	19.42 LT
26	BY1-26	566493.4550	1347215.8710	731.85	OUTSIDE PROJECT LIMITS	
28	BY3-28	566175.7940	1347404.6200	713.55	OUTSIDE PROJECT LIMITS	
33	BY3-33	565863.2670	1347568.2870	709.29	OUTSIDE PROJECT LIMITS	
34	BY3-34	565723.9900	1347974.4380	754.65	OUTSIDE PROJECT LIMITS	

BY4 POINT	DESC.	NORTH	EAST	ELEVATION	Y1 STATION	OFFSET
125	BY1-25	566655.0740	1347012.3300	728.57	23+02.38	141.34 RT
2	MA013R-2	566012.4270	1346857.1430	769.70	29+47.23	287.13 RT

NOTE: DRAWING NOT TO SCALE

SURVEY CONTROL SHEET

-Final-

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NGS FOR MONUMENT "P222"
 WITH NAD 83/NSRS 2007 STATE PLANE GRID COORDINATES OF
 NORTHING: 564112.540(±) EASTING: 1347033.150(±)
 ELEVATION: 727.863(±)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999842
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "P222" TO -Y1- STATION 11+00.00 IS
 N 2°06'45.3" E 3745.271
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	565253.1447	1344051.3364
PC	10+00.00	566253.1447	1344051.3357
PT	33+53.36	565736.8248	1346330.4360
TS	50+67.25	565025.2319	1347889.6159
SC	53+67.25	564907.8928	1348165.6271
CS	66+37.15	564886.5089	1349412.0847
ST	69+37.15	564994.3113	1349691.9584
POT	74+92.39	565207.3797	1350204.6865

RPA			
TYPE	STATION	NORTH	EAST
POT	10+00.00	565001.2295	1348054.6714
TS	11+18.17	565055.3037	1347949.6025
SC	13+18.17	565149.6944	1347773.3018
PT	14+24.95	565205.5111	1347682.2881
PC	15+61.95	565280.1508	1347567.4060
PT	21+56.71	565794.8911	1347342.7507
POT	23+41.77	565977.2337	1347374.3476

RPB			
TYPE	STATION	NORTH	EAST
POT	10+00.00	565916.6792	1346354.2815
POT	17+88.54	565907.2331	1347142.7635

RPC			
TYPE	STATION	NORTH	EAST
POT	10+00.00	565242.3772	1346650.8800
TS	10+00.00	565242.3748	1346650.8813
SC	11+50.00	565119.2960	1346735.3698
CS	12+42.41	565071.3724	1346813.6502
ST	13+92.41	565052.0979	1346961.6880
POT	15+60.98	565048.6447	1347130.2244

RPD			
TYPE	STATION	NORTH	EAST
POT	10+00.00	564823.5440	1348279.3864
TS	11+00.00	564851.1897	1348183.2838
SC	13+50.00	564909.8269	1347940.4494
PRC	16+50.60	564908.2761	1347641.0648
PT	21+98.95	565222.8039	1347276.7833
PC	22+74.38	565298.2263	1347277.8848
PT	27+45.31	565766.6340	1347321.6158
PC	30+61.83	566078.5038	1347375.6576
PT	33+71.71	566367.4138	1347295.3523
POT	35+90.81	566533.0264	1347151.9028

Y1			
TYPE	STATION	NORTH	EAST
POT	10+00.00	567955.2547	1347172.6734
POT	54+01.28	563554.4440	1347108.4027

Y2			
TYPE	STATION	NORTH	EAST
POT	10+00.00	568010.0163	1348792.1423
PC	11+39.88	567893.7974	1348714.3011
PRC	20+73.11	567011.0763	1348461.3497
PRC	26+53.73	566470.3956	1348284.2599
PT	35+04.99	565666.7653	1348105.1297
POT	45+74.81	564624.2446	1348345.2763

Y3			
TYPE	STATION	NORTH	EAST
POT	10+00.00	567735.0682	1347169.4577
PC	14+84.70	567664.4840	1347648.9880
PT	18+08.79	567583.1485	1347962.0619
POT	23+79.29	567380.9999	1348495.5374

Y4			
TYPE	STATION	NORTH	EAST
POT	10+00.00	566927.7904	1346705.2820
PC	10+29.55	566899.0745	1346712.2724
PCC	11+79.89	566773.7572	1346790.6051
PT	13+14.38	566697.0238	1346900.8595
POT	16+04.60	566551.8744	1347152.1780

Y4A			
TYPE	STATION	NORTH	EAST
POT	10+00.00	565804.2277	1347754.7832
PC	12+49.29	565704.5130	1347983.2650
PT	13+39.42	565683.9677	1348070.5236
POT	13+70.61	565682.3785	1348101.6706

Y5			
TYPE	STATION	NORTH	EAST
POT	10+00.00	567756.8586	1347029.8913
POT	11+39.87	567754.8161	1347169.7461

Y6			
TYPE	STATION	NORTH	EAST
POT	10+00.00	567395.1304	1346939.4692
POT	12+25.00	567391.8448	1347164.4452

Y7			
TYPE	STATION	NORTH	EAST
POT	10+00.00	567010.0015	1346933.8447
POT	12+25.00	567006.7159	1347158.8207

Y8			
TYPE	STATION	NORTH	EAST
POT	10+00.00	564569.2566	1346923.2020
POT	12+00.20	564557.4370	1347123.0507

LOOP_B			
TYPE	STATION	NORTH	EAST
TS	0+00.00	565533.3025	1346887.1685
SC	1+50.00	565615.3100	1346763.3364
PT	2+84.08	565741.4115	1346731.1149
PC	2+91.72	565748.9401	1346732.4155
PT	4+61.18	565856.2561	1346848.0031
PC	4+61.18	565856.2561	1346848.0031
PT	5+58.34	565860.3777	1346945.0306
POT	7+55.37	565858.0174	1347142.0448

LOOP_C			
TYPE	STATION	NORTH	EAST
TS	0+00.00	565376.5294	1347009.0920
SC	1+50.00	565416.3419	1346866.0026
PT	4+04.65	565245.8405	1346714.1183
PC	4+04.65	565245.8405	1346714.1183
CS	5+65.82	565116.5964	1346798.5405
ST	7+15.82	565091.2666	1346944.8895
POT	9+01.76	565088.5524	1347130.8073

TRAIL			
TYPE	STATION	NORTH	EAST
POT	10+00.00	564234.6491	1347315.0378
PC	10+15.75	564250.1382	1347312.1830
PT	12+56.58	564488.9387	1347282.0316
PC	15+88.21	564819.7862	1347259.1893
PT	16+80.41	564910.6639	1347244.4178
PC	17+74.64	565001.8822	1347220.8017
PT	19+11.36	565137.2504	1347204.9438
PC	23+10.67	565536.4853	1347212.9713
PRC	24+82.25	565706.3464	1347234.7190
PT	26+21.82	565844.2284	1347255.1834
PC	29+05.39	566127.2844	1347272.2194
PT	29+75.57	566173.9948	1347316.7915
PC	31+61.46	566193.8380	1347501.6120
PT	32+34.38	566226.2412	1347565.1500
PC	33+06.13	566279.4865	1347613.2385
PT	33+67.07	566313.1800	1347663.2901
PC	33+98.77	566324.0128	1347693.0829
PT	34+42.47	566347.3091	1347729.6484
PC	38+99.10	566670.3168	1348052.4123
PT	40+48.61	566804.1951	1348110.7972
PC	42+95.94	567051.3498	1348120.0593
PT	43+32.23	567086.5758	1348127.8953
PC	44+14.08	567161.9594	1348159.7950
PRC	45+09.61	567242.5800	1348210.2875
PT	46+08.45	567326.2527	1348262.0518
POT	48+34.91	567535.7642	1348347.9996

NOTES: SEE SHEET IC-1

1/12/17

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-Final-

SURVEY CONTROL SHEET

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	11+65.00	-72.22	567789.21765	1347242.47946
Y1	13+29.00	-72.29	567625.23410	1347240.15531
Y1	24+05.00	-72.76	566549.34206	1347224.90636
Y1	24+05.00	110.84	566552.02303	1347041.33239
Y1	24+80.00	77.21	566476.54000	1347073.85939
Y1	42+75.76	-94.17	564678.47196	1347218.99897
Y1	44+35.00	-108.50	564519.03655	1347231.00322
Y1	44+35.00	-74.66	564519.53072	1347197.16608

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
RPD	13+28.60	-50.00	564857.12577	1347953.02000
RPD	13+50.00	-50.00	564860.39268	1347932.94921
RPD	16+50.60	-50.00	564858.92218	1347649.07676
RPD	17+91.38	-50.14	564869.01569	1347487.53504
RPD	17+93.00	-90.00	564831.38544	1347474.23347
RPD	18+25.00	-107.00	564829.55183	1347428.95024
RPD	18+65.00	-92.00	564866.26028	1347388.36083
RPD	19+50.06	-92.00	564933.25620	1347301.55713
RPD	31+20.00	148.00	566135.58811	1347528.78966
RPD	31+20.00	82.79	566135.93830	1347463.57672
RPD	31+88.00	148.00	566231.78377	1347519.93664
RPD	31+88.00	66.00	566216.38466	1347439.39555
RPD	33+71.58	65.86	566410.42025	1347345.23703

PERMANT EASEMENT MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
Y3	11+70.00	-77.00	567786.49104	1347348.85864
Y3	11+70.00	-37.00	567746.91745	1347343.03363
Y3	12+00.00	57.00	567649.55074	1347359.02503
Y3	13+65.00	-77.00	567758.09409	1347541.77990
Y3	13+65.00	-37.00	567718.52050	1347535.95489
Y3	16+00.00	75.00	567570.18466	1347745.71655
Y3	19+67.00	81.00	567451.34517	1348081.30121
Y3	20+40.00	48.67	567455.71368	1348161.02173
Y3	21+04.00	78.53	567405.10703	1348210.28617
Y3	21+04.00	178.00	567312.09414	1348175.04101
Y3	21+25.00	-113.07	567576.83688	1348297.81645
Y3	21+29.00	-170.00	567628.65603	1348321.72970
Y3	21+43.00	-170.00	567623.69525	1348334.82133
Y3	21+45.00	200.00	567276.99359	1348205.58527
Y3	21+45.00	230.00	567248.94011	1348194.95503
Y3	21+57.00	-120.25	567572.21418	1348330.28513
Y3	21+80.00	240.00	567227.18700	1348227.14068
Y3	23+51.02	160.79	567240.65632	1348412.13003

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
Y2	10+50.00	30.00	567985.16831	1348739.39219
Y2	10+50.00	16.00	567977.37741	1348751.02420
Y2	10+50.00	-16.00	567959.56971	1348777.61153
Y2	10+50.00	-30.00	567951.77888	1348789.24343
Y2	11+39.88	30.00	567910.49209	1348689.37545
Y2	11+39.88	-30.00	567877.10266	1348739.22668
Y2	14+07.26	30.00	567671.60473	1348558.55099
Y2	15+40.00	37.36	567547.63535	1348502.92056
Y2	18+00.00	60.00	567292.30091	1348418.11660
Y2	20+03.30	30.00	567081.30884	1348430.74371
Y2	20+73.11	30.00	567010.11661	1348431.36504
Y2	20+77.00	-30.01	567008.00478	1348491.46889
Y2	25+31.70	-30.00	566556.72115	1348378.33283
Y2	26+53.73	30.00	566488.90821	1348260.65308
Y2	26+53.73	-30.00	566451.88303	1348307.86681
Y2	26+53.73	-15.95	566460.55312	1348296.81090
Y2	26+53.73	16.05	566480.29988	1348271.63024

PERMANT EASEMENT MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	12+28.77	130.00	567728.40806	1347039.34659
Y1	12+71.00	78.29	567685.42682	1347090.43677
Y1	20+15.00	-95.00	566938.97568	1347252.84150
Y1	20+15.00	-72.59	566939.30293	1347230.43339
Y1	20+50.00	-95.00	566903.97941	1347252.33040
Y1	20+75.00	-72.62	566879.30895	1347229.58308
Y1	22+38.00	231.02	566720.76026	1346923.59770
Y1	22+55.00	113.47	566702.04556	1347040.88497
Y1	23+82.00	-72.75	566572.33975	1347225.23227

PERMANT EASEMENT MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
TRAIL	33+65.00	-14.41	566325.91413	1347656.20585
TRAIL	33+65.00	-53.00	566361.96032	1347642.41987
TRAIL	34+17.01	37.63	566299.32703	1347728.61792
TRAIL	34+42.00	82.00	566288.74167	1347787.04410
TRAIL	34+45.00	16.99	566337.08746	1347743.45388
TRAIL	34+60.00	-13.01	566368.90720	1347732.83131
TRAIL	34+60.00	-50.00	566395.04973	1347706.66903
TRAIL	34+82.00	70.00	566325.79119	1347807.10436
TRAIL	36+65.00	17.06	566492.66184	1347899.00649
TRAIL	37+12.00	17.07	566525.89819	1347932.23819
TRAIL	37+20.00	127.00	566453.85628	1348015.65251
TRAIL	37+70.00	141.00	566479.32921	1348060.89773
TRAIL	39+44.00	121.00	566641.03004	1348182.81613
TRAIL	39+51.44	18.20	566702.62917	1348099.93477
TRAIL	39+61.79	121.06	566665.82960	1348196.95180
TRAIL	39+77.00	18.55	566727.47984	1348112.60983
TRAIL	43+40.00	31.25	567081.55514	1348159.70184
TRAIL	43+40.00	80.00	567062.55625	1348204.59898
TRAIL	43+80.00	31.40	567118.33536	1348175.42560
TRAIL	43+80.00	60.00	567107.18795	1348201.76856

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
Y3	11+00.00	-37.00	567757.11122	1347273.77984
Y3	12+00.00	98.00	567608.98781	1347353.05439
Y3	12+00.00	30.00	567676.26292	1347362.95692
Y3	12+33.72	58.90	567642.76051	1347392.10888
Y3	12+33.72	30.00	567671.35243	1347396.31746
Y3	12+63.72	30.00	567666.98367	1347425.99765
Y3	12+63.72	60.59	567636.71976	1347421.54297
Y3	14+00.00	-37.00	567713.42361	1347570.58178
Y3	14+00.00	-30.00	567706.49823	1347569.56240
Y3	14+84.70	30.00	567634.80377	1347644.61923
Y3	14+84.70	-30.00	567694.16416	1347653.35675
Y3	16+64.62	-30.00	567656.62700	1347832.88445
Y3	18+08.79	-51.42	567631.23347	1347980.28261
Y3	18+08.79	30.00	567555.09501	1347951.43165
Y3	20+00.00	30.00	567487.34283	1348130.23145
Y3	20+12.87	-87.90	567593.03500	1348184.04500
Y3	21+50.00	100.00	567368.73350	1348245.69498
Y3	22+00.00	140.00	567313.61179	1348278.27714
Y3	22+50.00	140.00	567295.89472	1348325.03294

PERMANT EASEMENT MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
Y2	10+95.00	148.00	568013.44575	1348616.30934
Y2	11+07.00	173.00	568017.38776	1348588.86010
Y2	11+34.00	-48.00	567871.97029	1348757.45358
Y2	11+58.00	30.00	567895.07319	1348679.18252
Y2	11+60.00	-55.00	567847.01378	1348749.31970
Y2	11+74.00	109.00	567923.81605	1348603.71770
Y2	11+88.00	137.00	567925.94203	1348571.95414
Y2	11+88.00	30.00	567869.27971	1348662.71968
Y2	11+92.00	144.00	567925.62697	1348563.69961
Y2	11+97.00	128.00	567912.87461	1348574.44083
Y2	12+01.00	140.00	567915.44139	1348561.93492
Y2	12+03.00	105.00	567895.33919	1348590.66784
Y2	12+24.00	-30.00	567807.35796	1348695.29446
Y2	12+92.00	30.00	567777.42004	1348609.70778
Y2	13+05.00	68.00	567783.23578	1348569.82833
Y2	13+10.00	87.00	567787.31476	1348550.54074
Y2	13+79.00	72.00	567715.44221	1348532.17431
Y2	14+00.00	-30.00	567654.09294	1348616.39535
Y2	14+07.26	65.00	567685.61365	1348526.47685
Y2	14+31.00	-30.00	567626.18799	1348604.38596
Y2	14+38.00	-112.00	567588.57068	1348677.55271
Y2	14+65.00	-102.00	567569.03954	1348658.91901
Y2	20+73.11	60.00	567009.15691	1348401.38039
Y2	22+53.00	85.00	566847.59870	1348364.15457
Y2	22+61.04	60.00	566835.69756	1348387.33261
Y2	22+70.00	30.00	566821.45816	1348415.06456
Y2	22+80.00	85.00	566823.83895	1348359.33402
Y2	22+87.09	60.00	566812.05062	1348382.31093
Y2	22+95.00	30.00	566797.93699	1348409.82014
Y2	26+53.73	60.00	566507.42080	1348237.04622
Y2	28+15.00	16.04	566343.35062	1348181.79868

PERMANT EASEMENT MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
RPA	18+12.00	135.00	565526.60808	1347516.94903
RPA	19+00.00	92.00	565571.66268	1347450.05722
RPA	19+87.00	158.00	565651.32201	1347497.82480
RPA	20+05.00	50.00	565650.05665	1347388.90245
RPA	20+05.00	92.00	565655.33018	1347430.57006
RPA	20+41.00	50.00	565682.38736	1347385.96531
RPA	20+41.00	92.00	565684.70895	1347427.90109
RPA	21+56.71	92.00	565779.18310	1347433.39980
RPA	21+74.00	50.00	565803.38965	1347394.96848
RPA	21+74.00	92.00	565796.21862	1347436.35177
RPA	22+05.00	50.00	565833.93446	1347400.26138
RPA	22+05.00	92.00	565826.76343	1347441.64467
RPA	22+96.06	92.00	565916.48202	1347457.19141

ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
TRAIL	14+50.00	50.38	564685.37377	1347318.96458
TRAIL	16+24.39	51.10	564862.95160	1347305.98051

ROW MARKER IRON PIN AND CAP

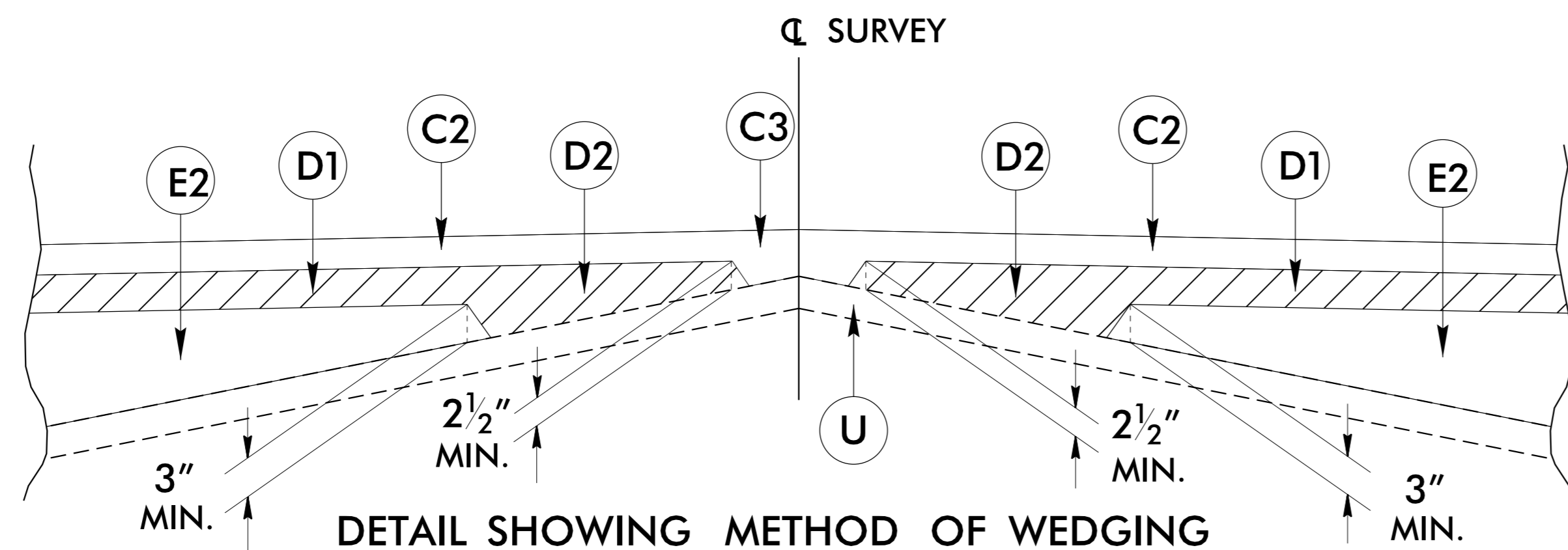
ALIGN	STATION	OFFSET	NORTH	EAST
RPA	13+16.16	105.73	565240.28512	1347827.85922
RPA	14+24.95	105.00	565293.55934	1347739.49374
RPA	15+61.94	105.00	565368.19883	1347624.61183
RPA	15+61.95	135.00	565393.35552	1347640.95629
RPA	19+00.00	50.00	565557.98237	1347410.34766
RPA	19+00.00	135.00	565585.66874	1347490.71235

6/2/99

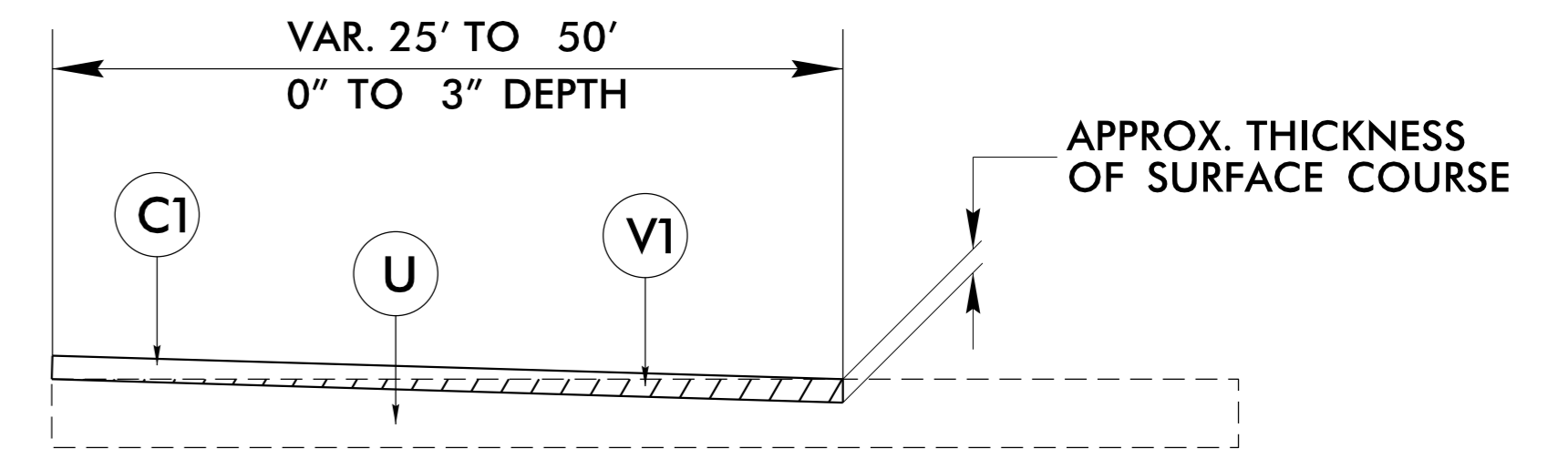
PAVEMENT SCHEDULE

C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.	E5	PROP. APPROX. 14" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 532 LBS. PER SQ. YD. IN EACH OF THREE LAYERS.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 224 LBS. PER SQ. YD.	J	PROP. 6" AGGREGATE BASE COURSE.
C3	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	N	GEOTEXTILE FOR PAVEMENT STABILIZATION (SEE CHART ON THIS SHEET FOR LOCATIONS)
C4	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.	P	PRIME COAT AT A RATE OF 0.35 GAL. PER SQ. YD.
C5	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R1	2'-6" CONCRETE CURB AND GUTTER (STD. 846.01)
C6	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.	R2	CONCRETE EXPRESSWAY GUTTER (STD. 846.01)
C7	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.	R3	5" MONOLITHIC CONCRETE ISLAND (KEYED IN) (STD. 852.01)
C8	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.	R4	DOUBLE FACED CONCRETE BARRIER TYPE T, T1 AND T2 (STD. 854.02)
C9	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5D, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	R5	CONCRETE SHOULDER BERM GUTTER (STD. 846.01)
D1	PROP. APPROX. 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.	T	EARTH MATERIAL
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.	U	EXISTING PAVEMENT
D3	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	V1	INCIDENTAL MILLING BITUMINOUS PAVEMENT (SEE DETAIL)
D4	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0D, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	V2	MILLING BITUMINOUS PAVEMENT, 1½" DEPTH
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.	V3	MILLING BITUMINOUS PAVEMENT, 3" DEPTH
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 4" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL BELOW)
E3	PROP. APPROX. 8" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.		

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



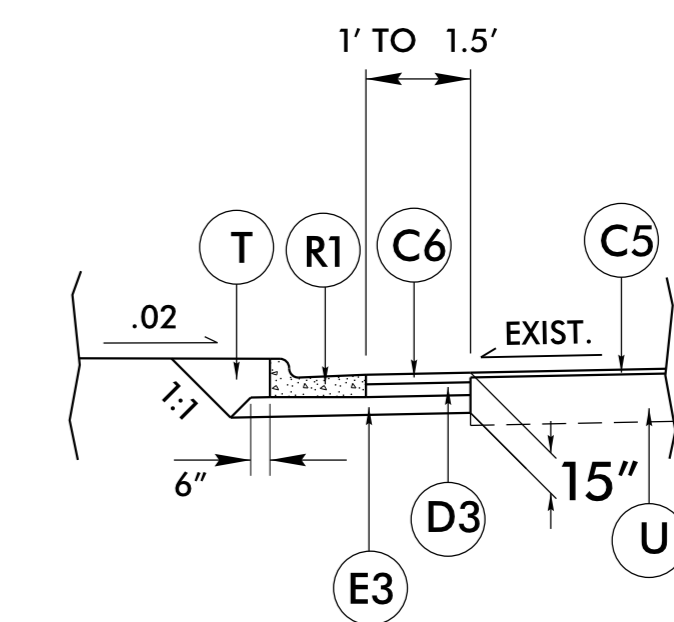
PROJECT REFERENCE NO. I-5000	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER 	PAVEMENT DESIGN ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



NOTE: A TEMPORARY ASPHALT WEDGE WILL BE REQUIRED IMMEDIATELY AFTER MILLING TO ENSURE SMOOTH TRAVEL IF THE FINAL LAYER OF SURFACE COURSE IS NOT PLACED ON THE SAME DAY AS MILLING.

INCIDENTAL MILLING DETAIL

USE MILLING DETAIL AT RESURFACING TIES

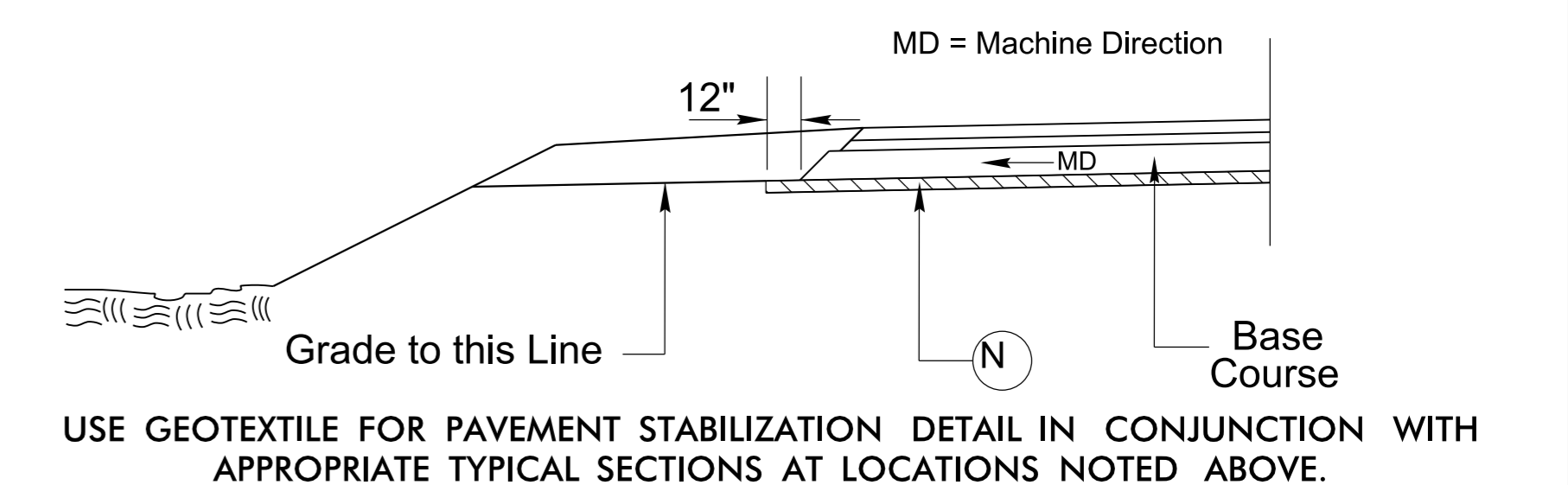


NARROW WIDENING DETAIL

USE NARROW WIDENING DETAIL FOR CURB AND GUTTER REPLACEMENT (MIRROR FOR RIGHT SIDE APPLICATION)

GEOTEXTILE FOR PAVEMENT STABILIZATION (LOCATIONS & DETAIL)
(THE FOLLOWING AREAS SHOULD BE INVESTIGATED FOR NEED DURING CONSTRUCTION)

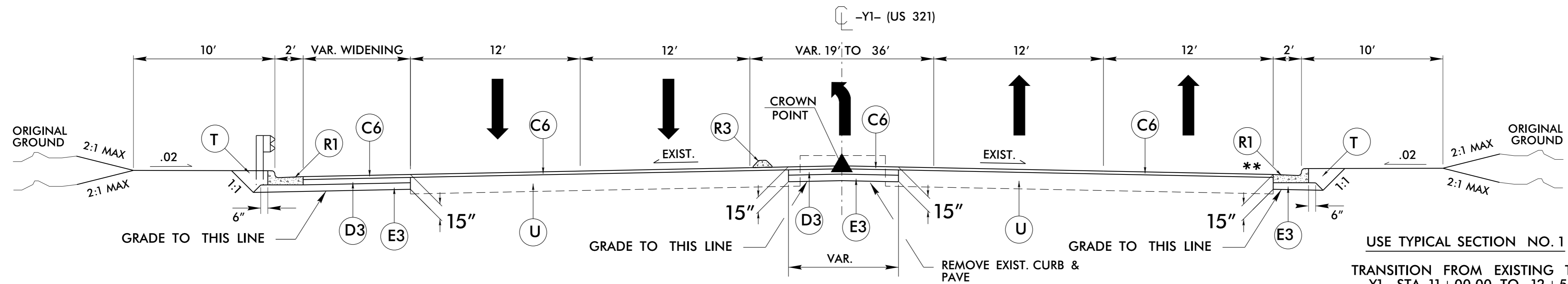
LINE	STATIONS	SY
-Y2-	21+50 TO 25+00	1,400
-Y3-	20+75 TO 23+25	778
-RPA-	15+00 TO 23+41	2,153
-RPD-	29+00 TO 34+50	2,471



07-MAR-2017 17:57 I-5000-RdJ.txd.dgn
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**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

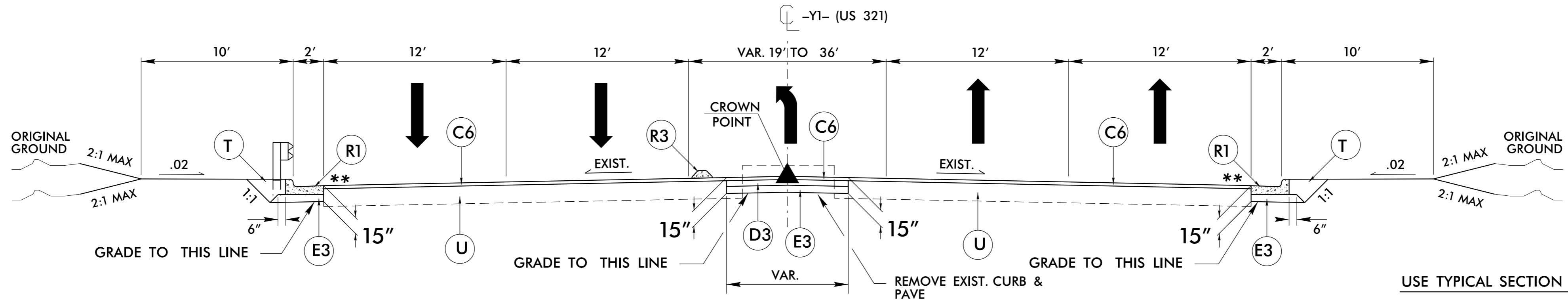
PAVEMENT SCHEDULE	
C5	1 1/2" S9.5C
C6	3" S9.5C
D3	4" I19.0C
E3	8" B25.0C
R1	2'-6" C & G
R3	MONOLITHIC ISLAND
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V2	MILLING - 1 1/2"



TYPICAL SECTION NO. 1

NOTES: SEE PLANS FOR PROPOSED GUARDRAIL, ISLAND, AND TURN LANE LOCATIONS
** SEE NARROW WIDENING DETAIL ON SHEET 2A-01

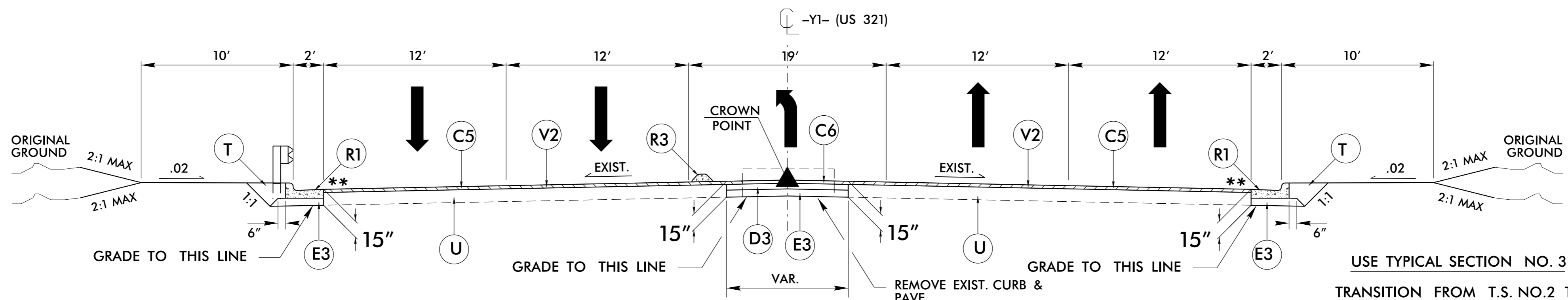
USE TYPICAL SECTION NO. 1
TRANSITION FROM EXISTING TO T.S. NO.1
-Y1- STA. 11+00.00 TO 12+50.00
-Y1- STA. 12+50.00 TO 16+50.00
-Y1- STA. 24+00.00 TO 28+30.00
-Y1- STA. 30+50.00 TO 31+15.00 (MIRROR)



TYPICAL SECTION NO. 2

NOTES: SEE PLANS FOR PROPOSED GUARDRAIL, ISLAND, AND TURN LANE LOCATIONS
** SEE NARROW WIDENING DETAIL ON SHEET 2A-01

USE TYPICAL SECTION NO. 2
-Y1- STA. 16+50.00 TO 24+00.00
-Y1- STA. 28+30.00 TO 30+50.00



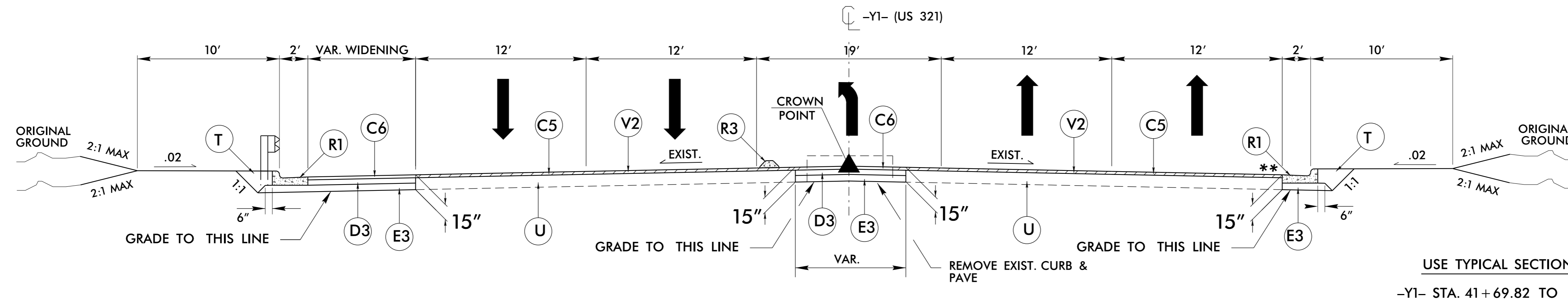
TYPICAL SECTION NO. 3

NOTES: SEE PLANS FOR PROPOSED GUARDRAIL, ISLAND, AND TURN LANE LOCATIONS
** SEE NARROW WIDENING DETAIL ON SHEET 2A-01

USE TYPICAL SECTION NO. 3
TRANSITION FROM T.S. NO.2 TO T.S. NO.3
-Y1- STA. 31+15.00 TO 35+15.00
-Y1- STA. 35+15.00 TO 41+69.82
-Y1- STA. 43+94.82 TO 45+00.00

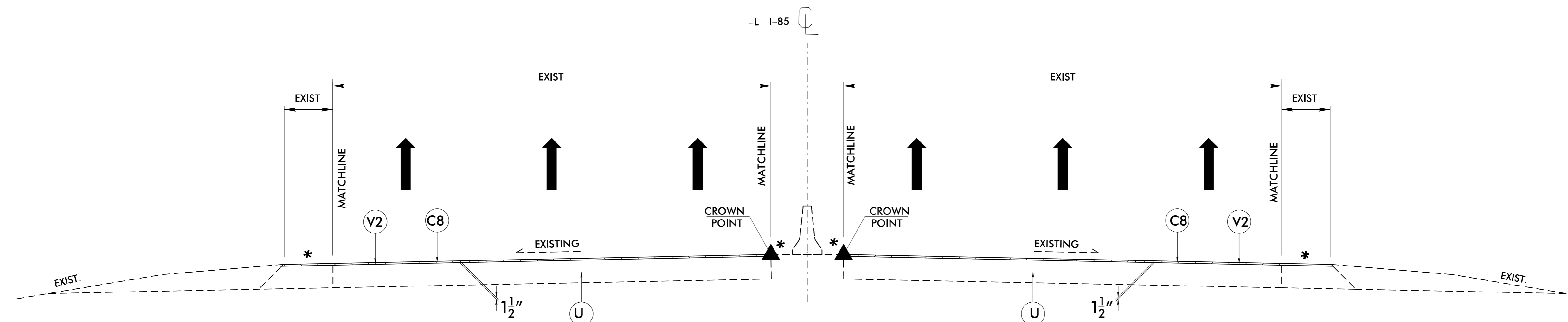
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE	
C3	1 1/2" S9.5B
C5	1 1/2" S9.5C
C6	3" S9.5C
C8	1 1/2" S9.5D
C9	3" S9.5D
D3	4" I19.0C
D4	4" I19.0D
E3	8" B25.0C
E5	14" B25.0C
R1	2'-6" C & G
R3	MONOLITHIC ISLAND
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V2	MILLING - 1 1/2"



TYPICAL SECTION NO. 4

NOTES: SEE PLANS FOR PROPOSED GUARDRAIL, ISLAND, AND TURN LANE LOCATIONS
** SEE NARROW WIDENING DETAIL ON SHEET 2A-01



TYPICAL SECTION NO. 5

-L- STA. 44+75.22 TO 50+67.25 RT
USE INSET AA -L- STA. 50+67.25 TO 68+00.00 RT
-L- STA. 68+00.00 TO 71+00.00 RT

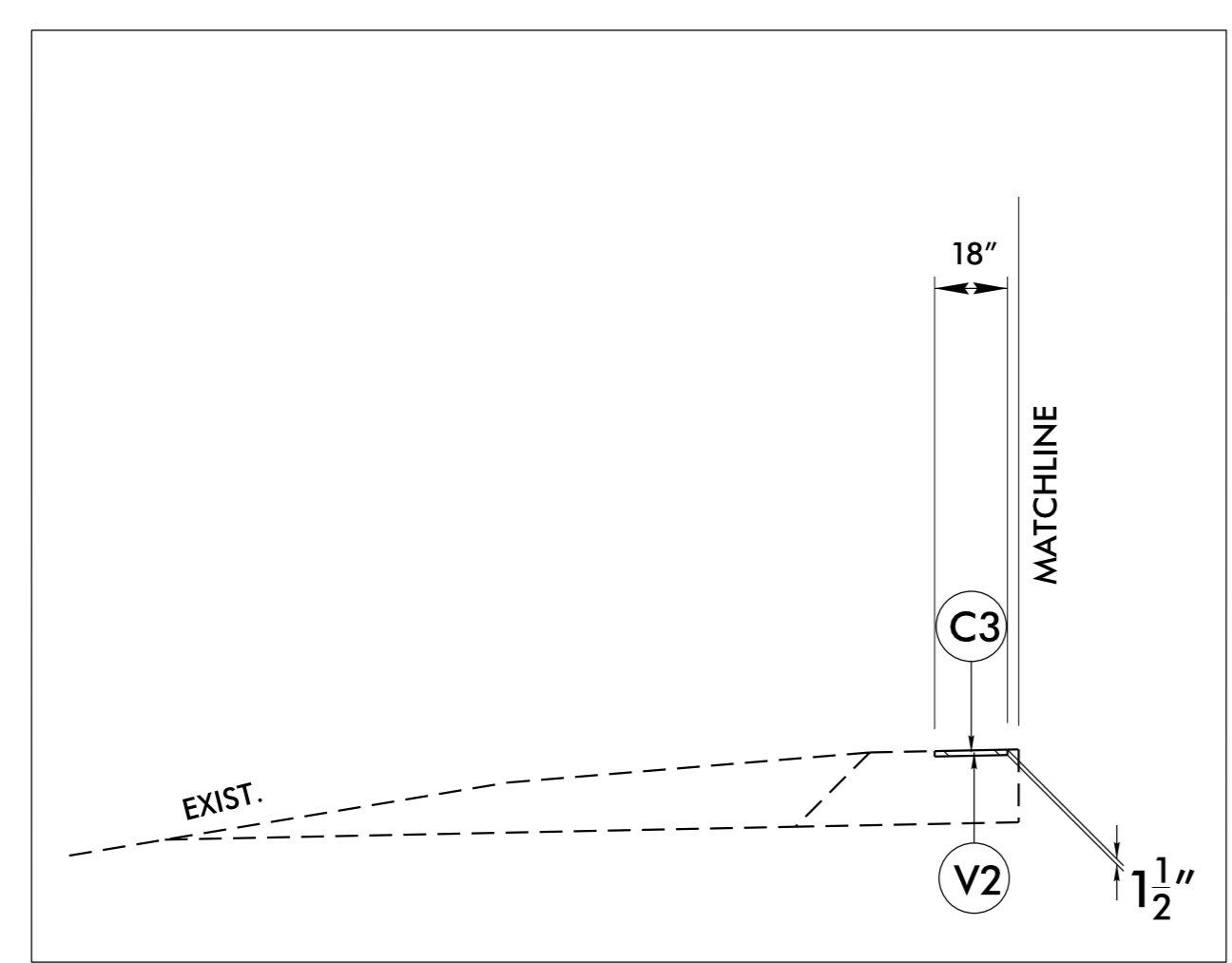
-L- STA. 44+71.12 TO 47+49.71 LT
USE INSET AA (MIRROR) -L- STA. 47+49.71 TO 53+60.92 LT
-L- STA. 53+60.92 TO 58+10.00 LT

* RUMBLE STRIPS REQUIRED. SEE ROADWAY STD. 665.01

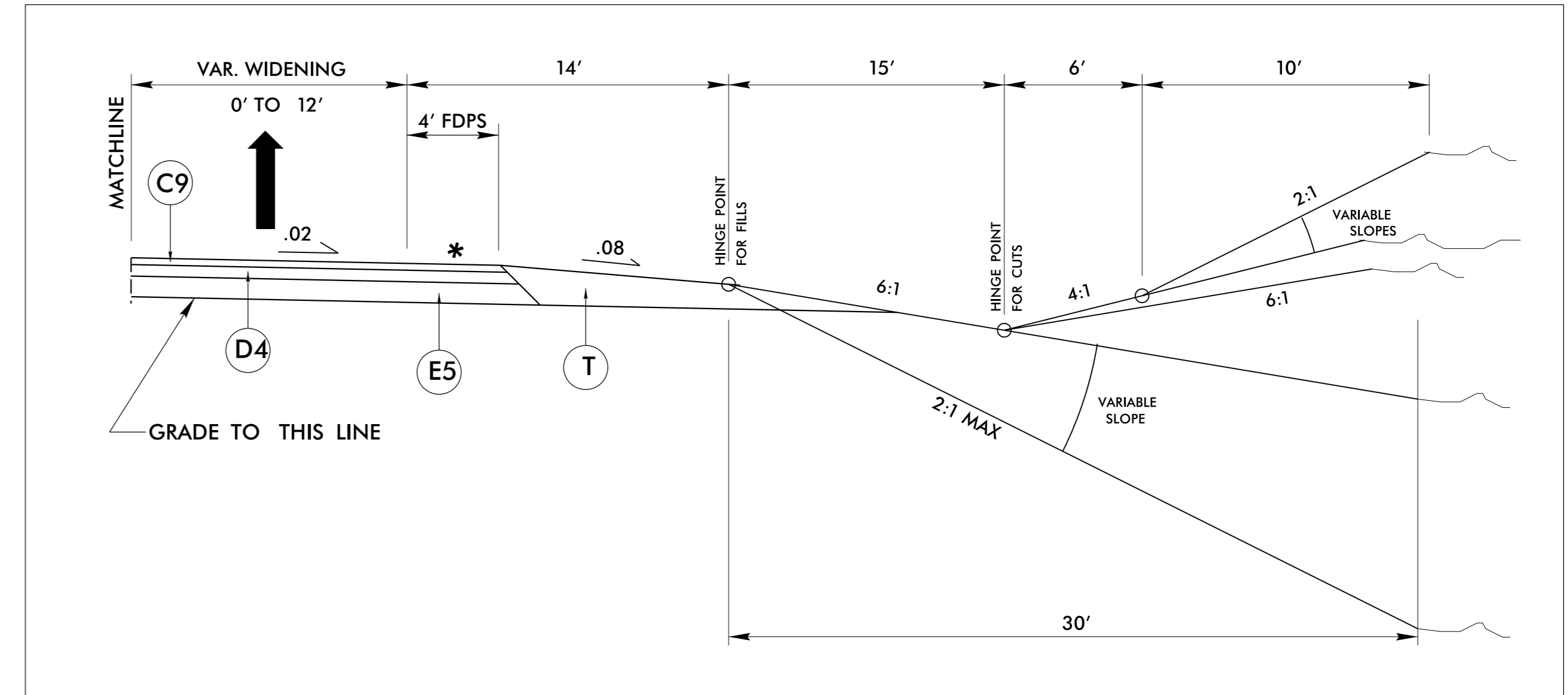
USE INSET BB FOR MILL AND FILL OF RUMBLE STRIPS SEE TMP-3

-L- STA. 44+75.22 TO 71+00.00 NB LT/RT
-L- STA. 44+71.12 TO 58+10.00 SB LT/RT

INSET BB



INSET AA



ROADWAY DESIGN ENGINEER
 PAVEMENT DESIGN ENGINEER

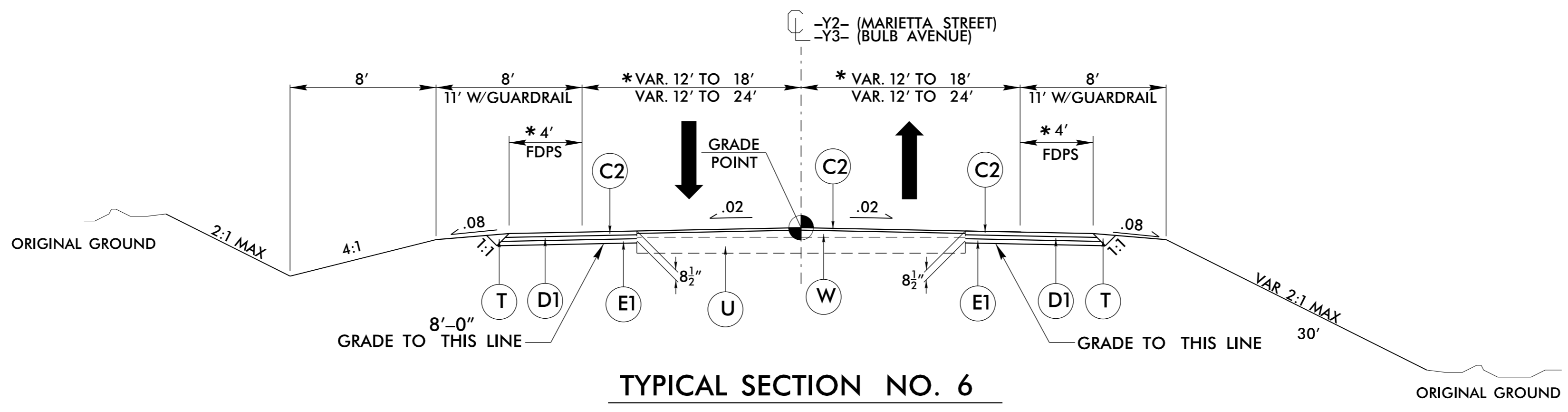
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3/3/2017
 3/2/2017

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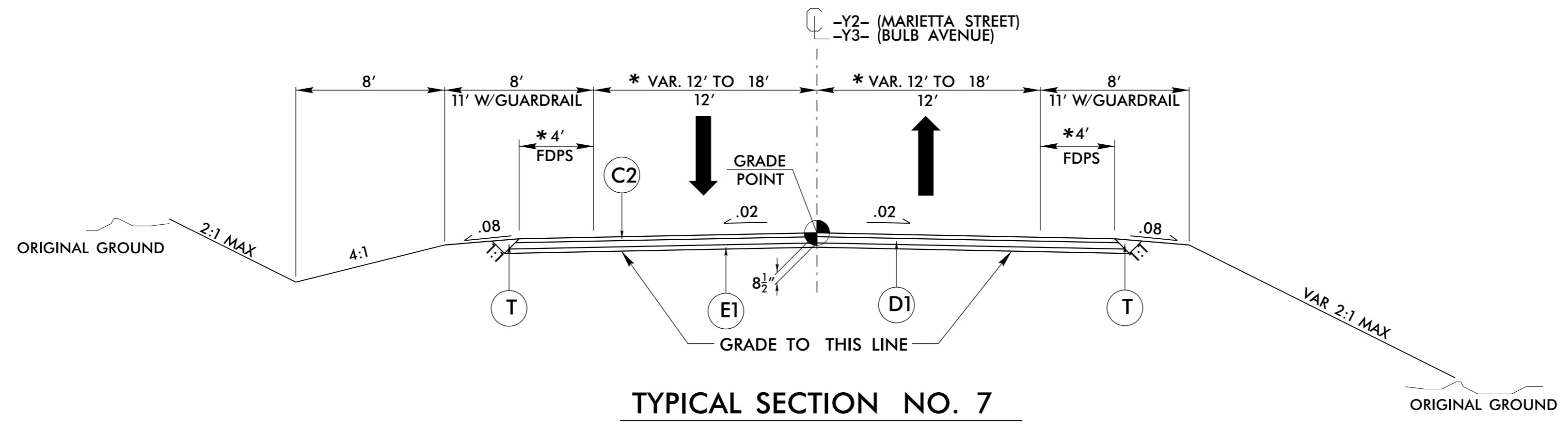
PAVEMENT SCHEDULE

C1	1 1/2" SF9.5A
C2	2" S9.5B
D1	2 1/2" I19.0B
E1	4" B25.0B
J	6" ABC
P	PRIME COAT
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	WEDGING



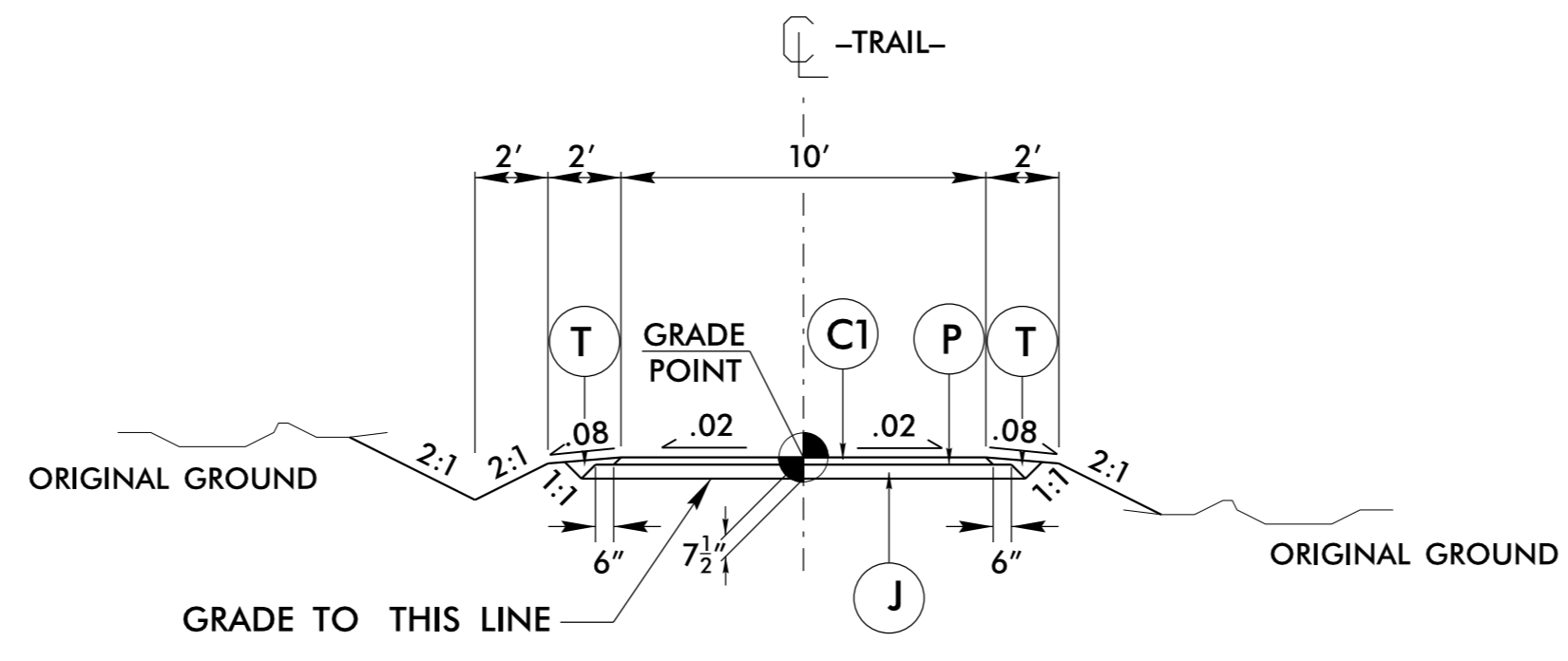
USE TYPICAL SECTION NO. 6

- * -Y2- STA. 10+50.00 TO 16+50.00
- * -Y2- STA. 19+50.00 TO 21+50.00
- * -Y2- STA. 25+00.00 TO 26+53.73
- * -Y3- STA. 10+45.00 TO 17+50.00



USE TYPICAL SECTION NO. 7

- * -Y2- STA. 16+50.00 TO 19+50.00
- * -Y2- STA. 21+50.00 TO 25+00.00
- * -Y3- STA. 17+50.00 TO 23+61.09

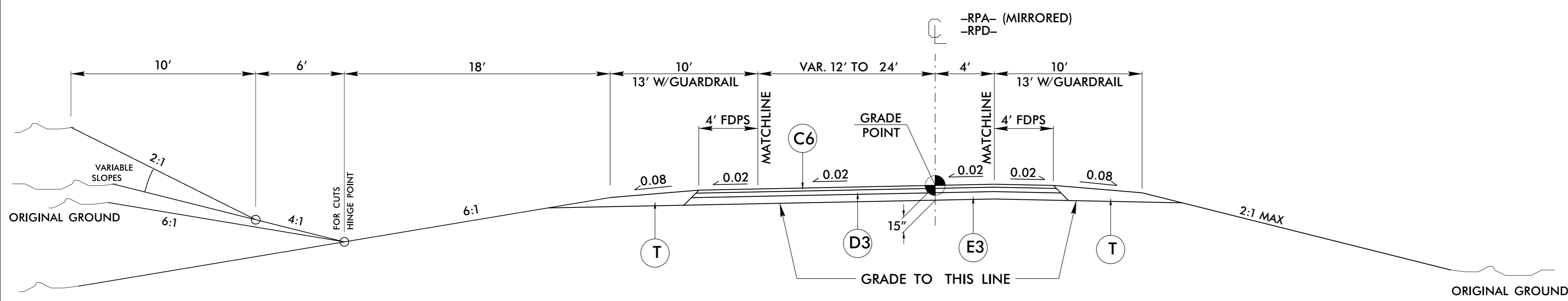


USE TYPICAL SECTION NO. 8

-TRAIL- STA 14+50.00 TO 47+89.65

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

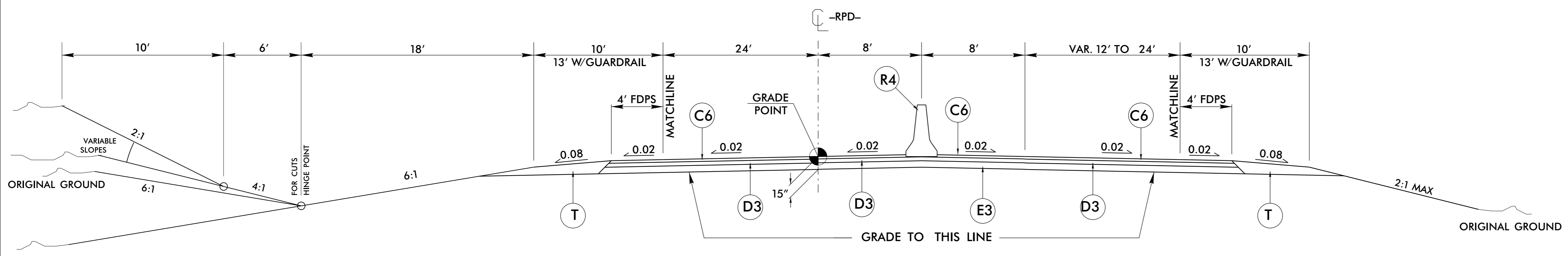
PAVEMENT SCHEDULE	
C6	3" S9.5C
D3	4" I19.0C
E3	8" B25.0C
R2	EXPRESSWAY GUTTER
R4	DOUBLE FACED BARRIER
R5	SHOULDER BERM GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT



TYPICAL SECTION NO. 9

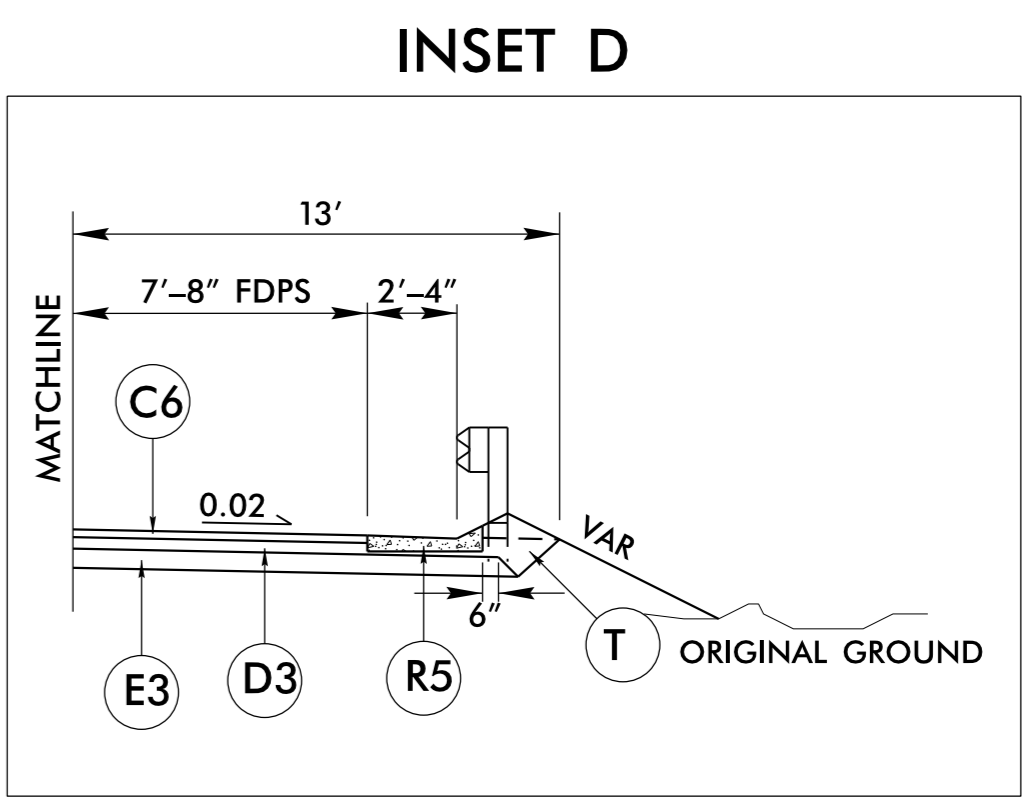
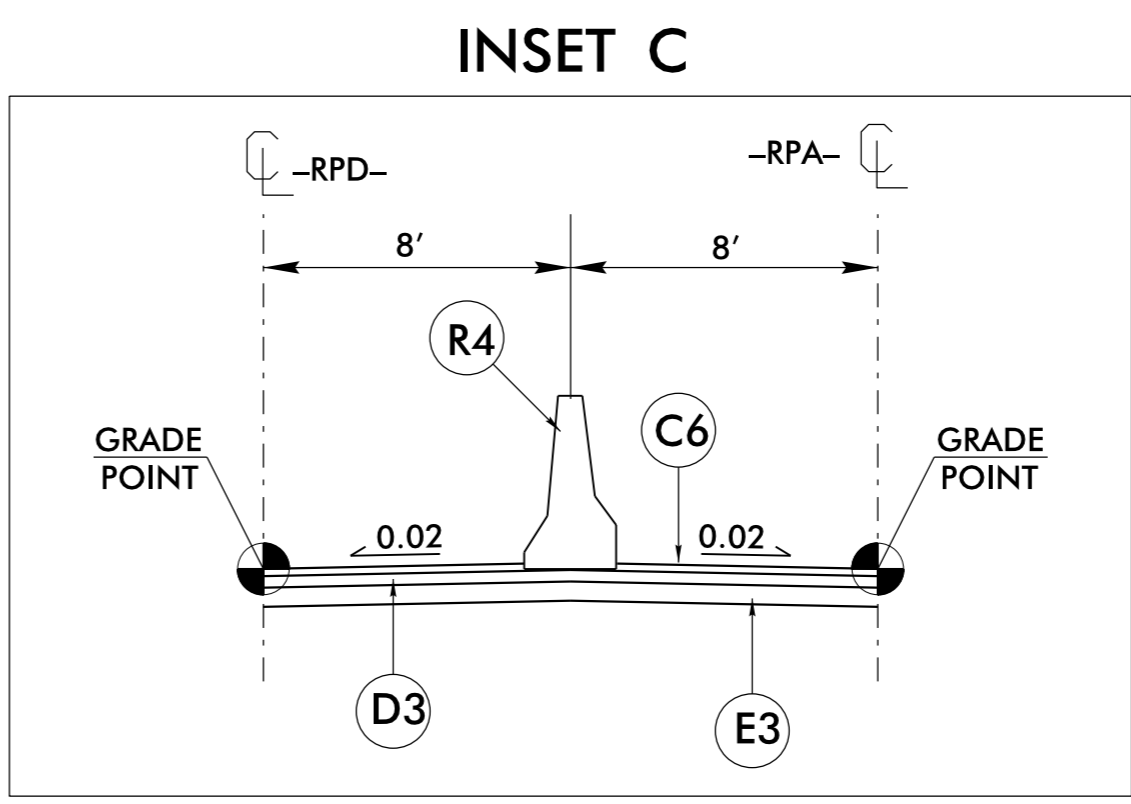
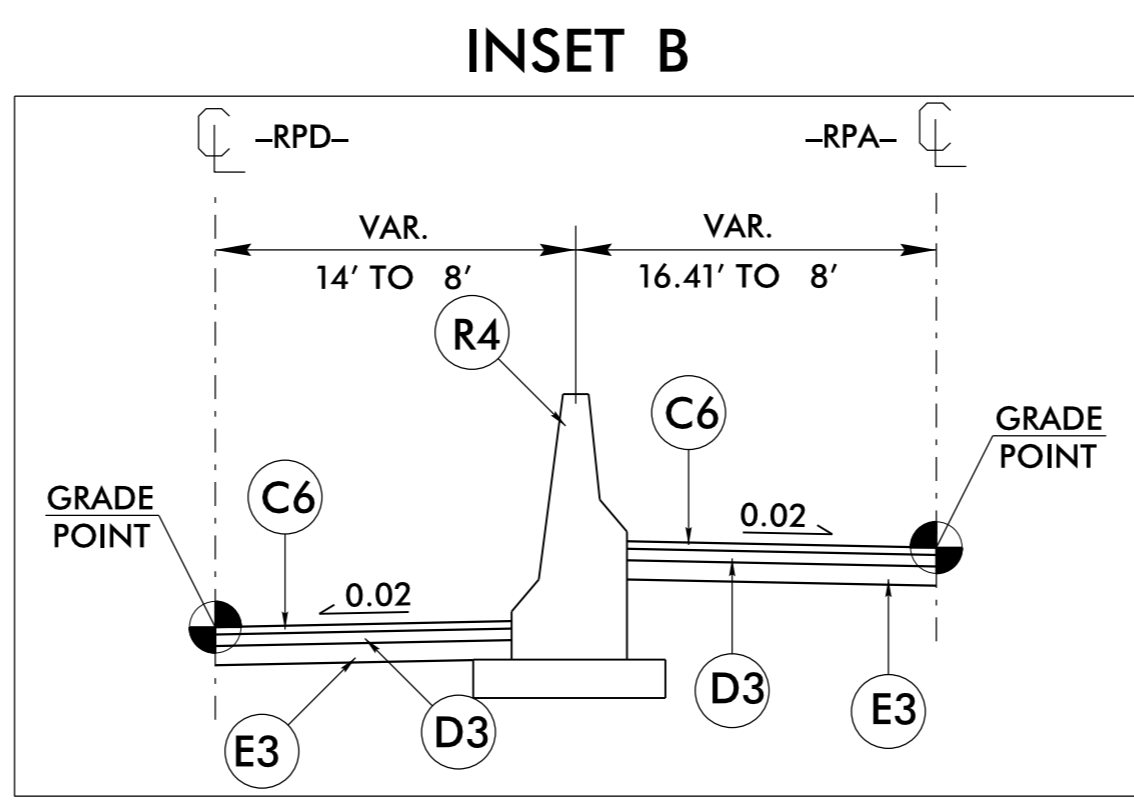
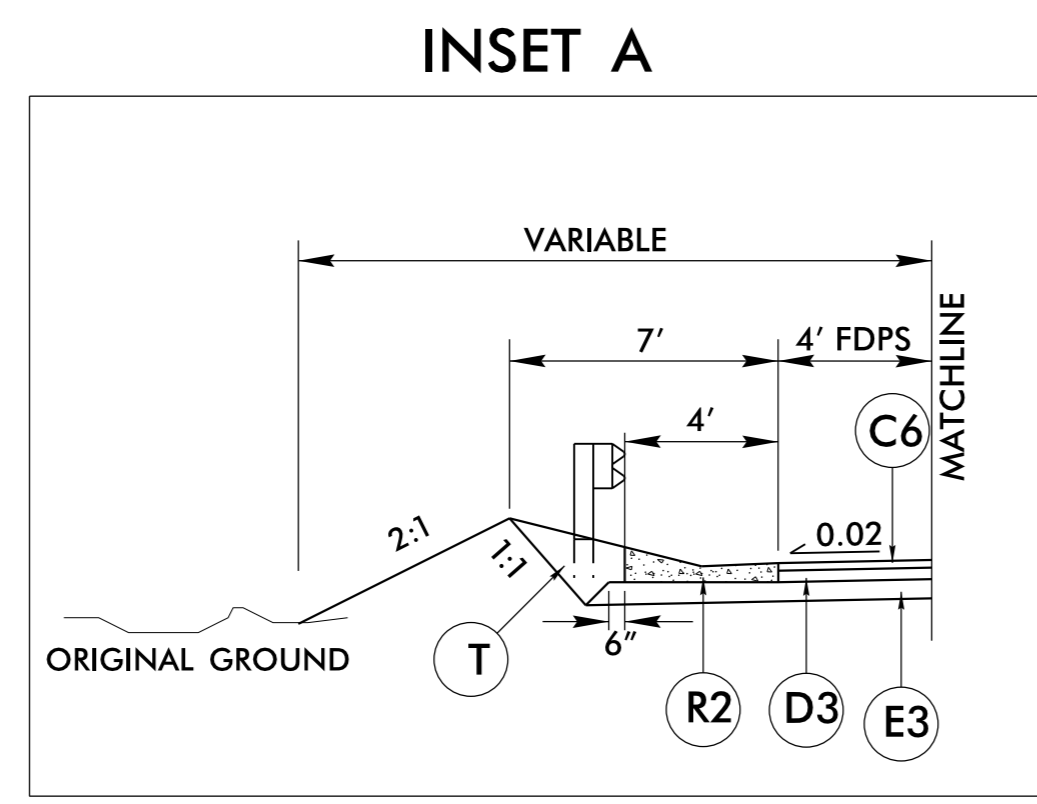
USE TYPICAL SECTION NO. 9

- RPA- STA. 10+00.00 TO 23+41.77 (MIRROR)
- RPD- STA. 10+00.00 TO 29+61.82
- USE INSET A -RPD- STA 22+00.00 TO 33+84.02 LT
- USE INSET B -RPD- STA 26+50.00 TO 27+76.76
- USE INSET C -RPD- STA 27+76.76 TO 29+61.82
- USE INSET D -RPA- STA 12+00.00 TO 22+39.00 RT
- USE INSET D -RPD- STA 18+00.00 TO 20+50.00 RT



TYPICAL SECTION NO. 10

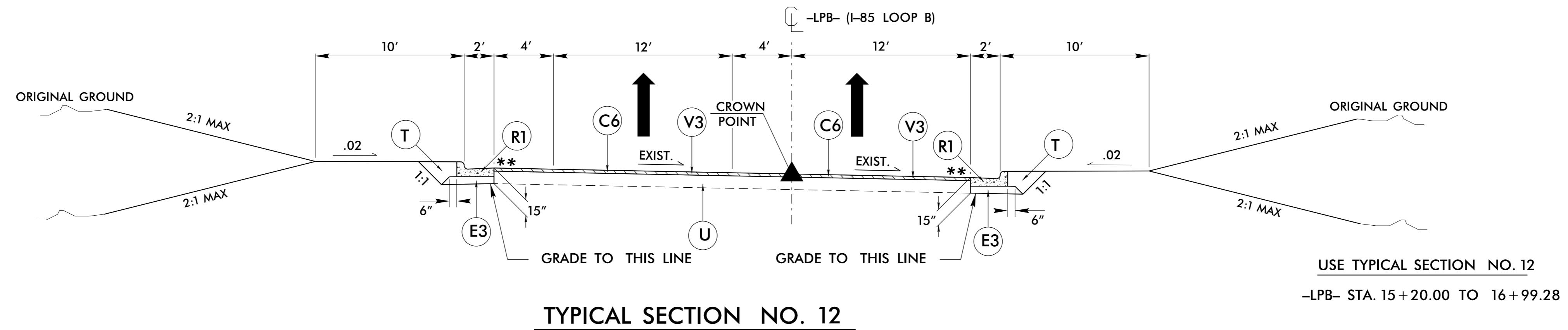
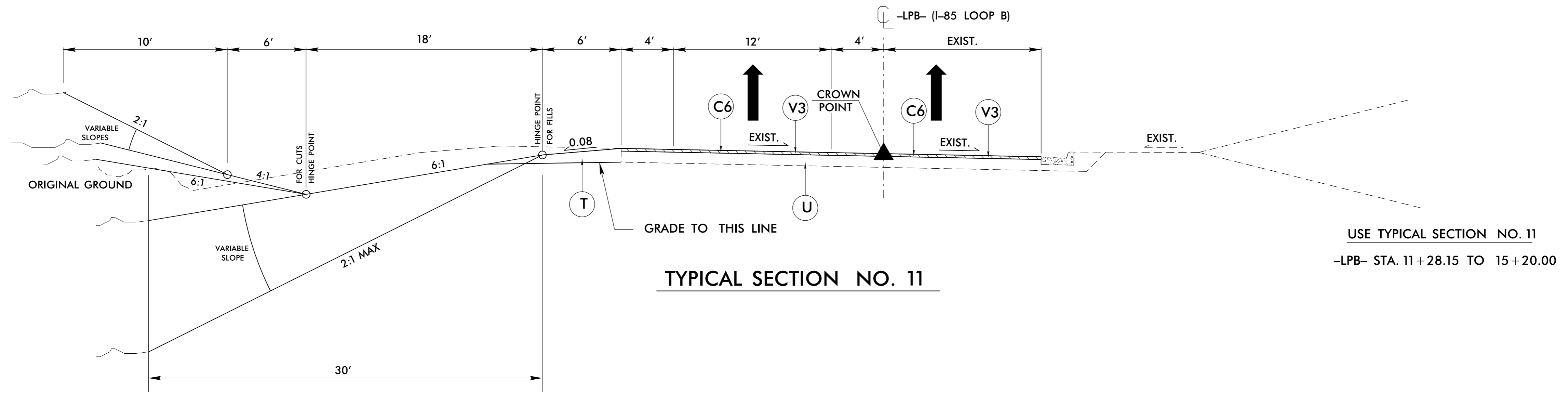
USE TYPICAL SECTION NO. 10
-RPD- STA. 29+61.82 TO 35+23.13



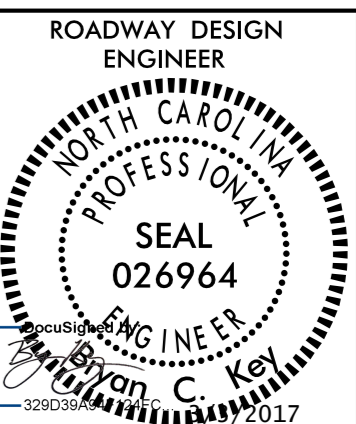
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UNLESS ALL SIGNATURES COMPLETED**

PAVEMENT SCHEDULE

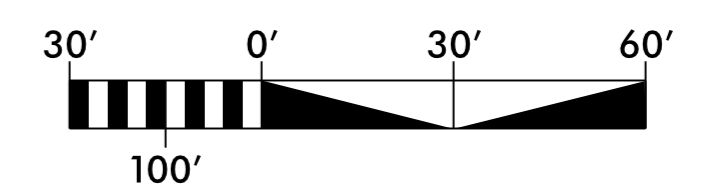
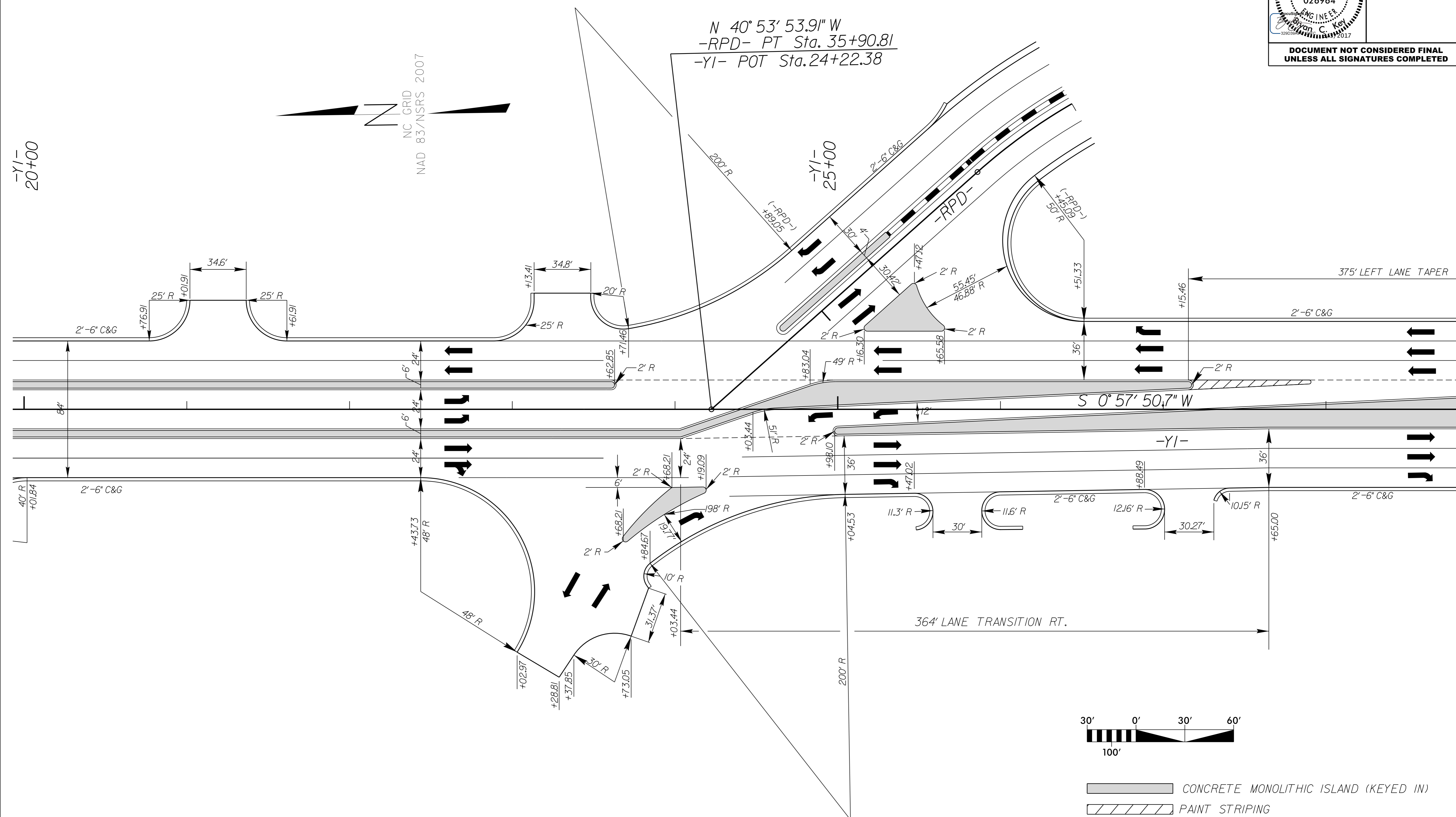
C6	3" S9.5C
E3	8" B25.0C
R1	2'-6" C & G
T	EARTH MATERIAL
U	EXISTING PAVEMENT
V3	MILLING - 3"



** NOTE: SEE NARROW WIDENING DETAIL ON SHEET 2A-01

PROJECT REFERENCE NO. I-5000	SHEET NO. 2B-2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

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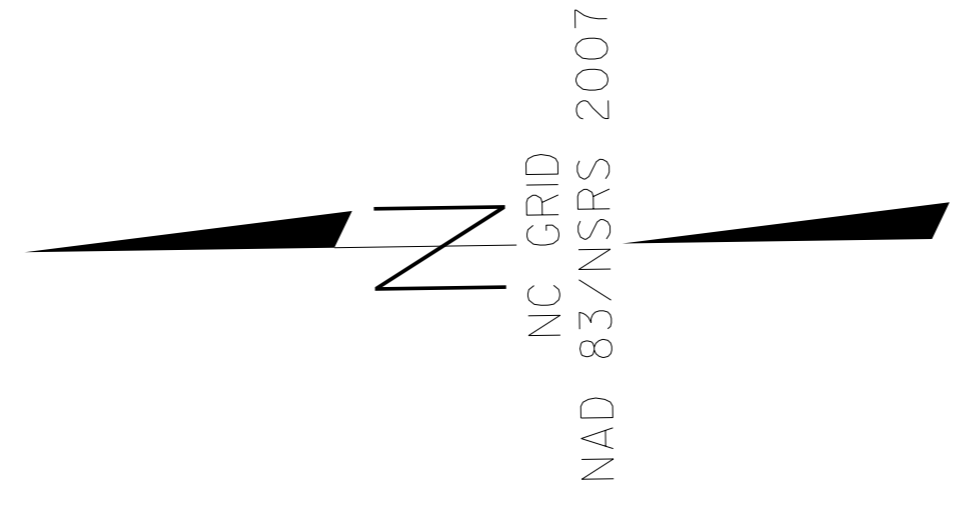


-  CONCRETE MONOLITHIC ISLAND (KEYED IN)
-  PAINT STRIPING
-  MEDIAN BARRIER

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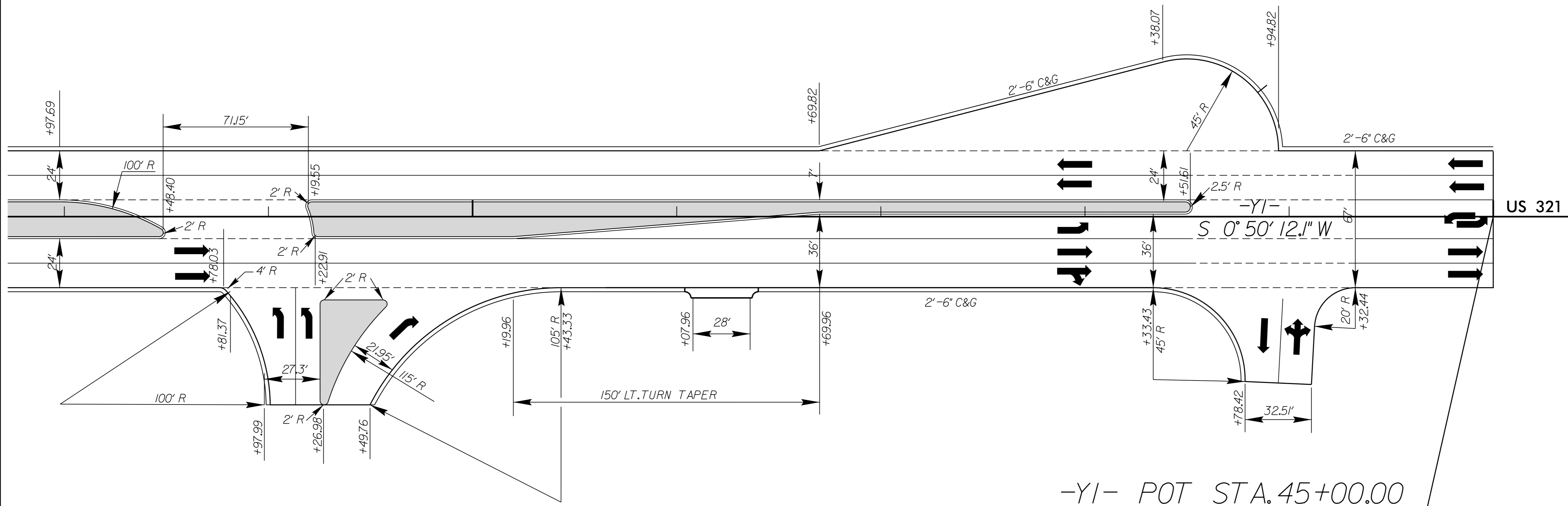
5/14/99

PROJECT REFERENCE NO. 1-5000	SHEET NO. 2B-4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	
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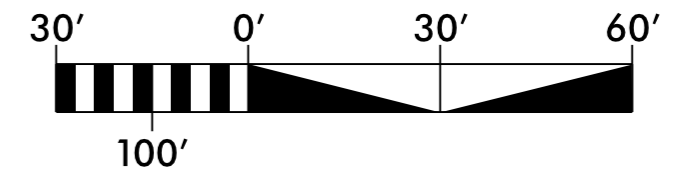


-YI-
40+00

-YI-
45+00



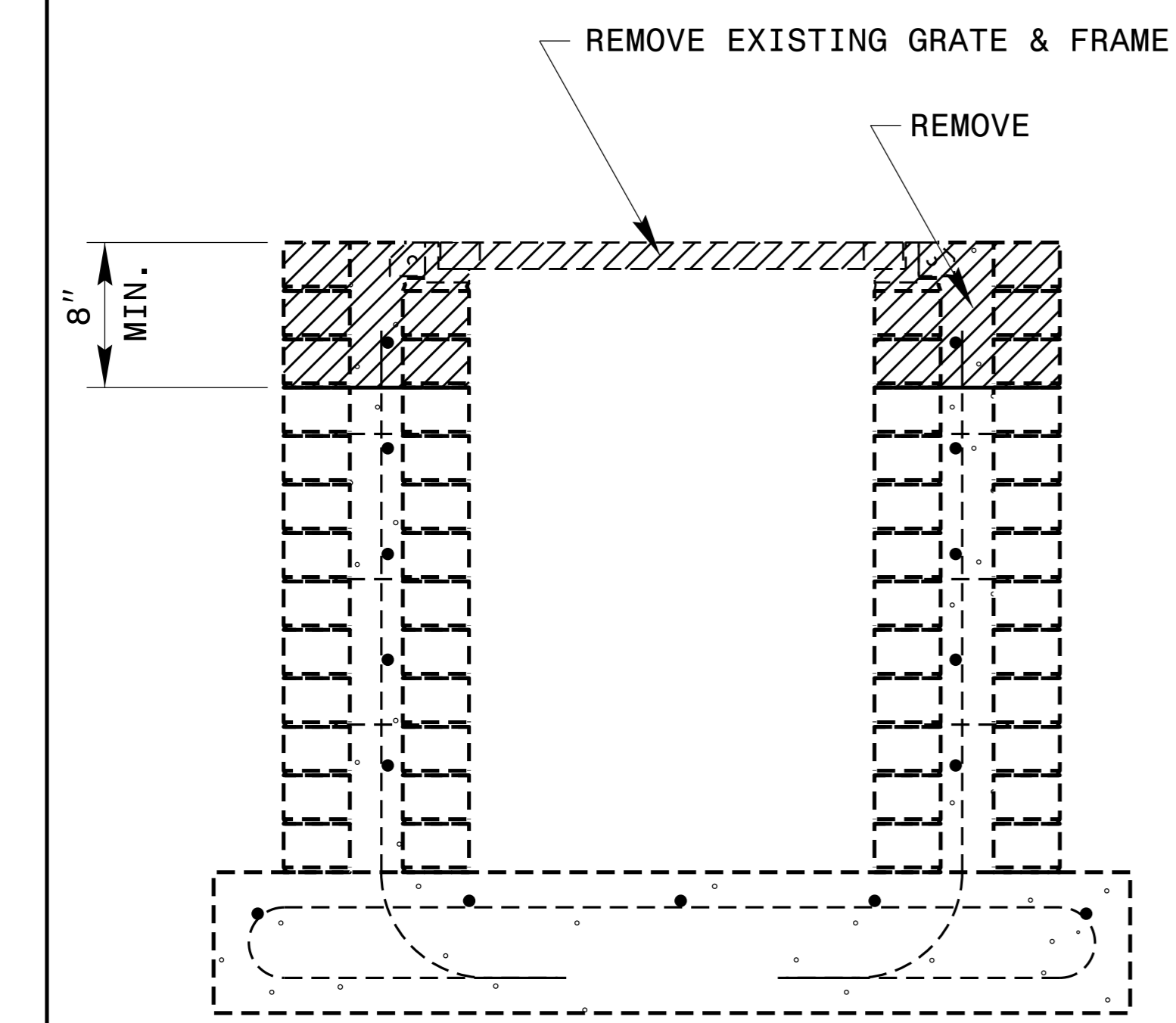
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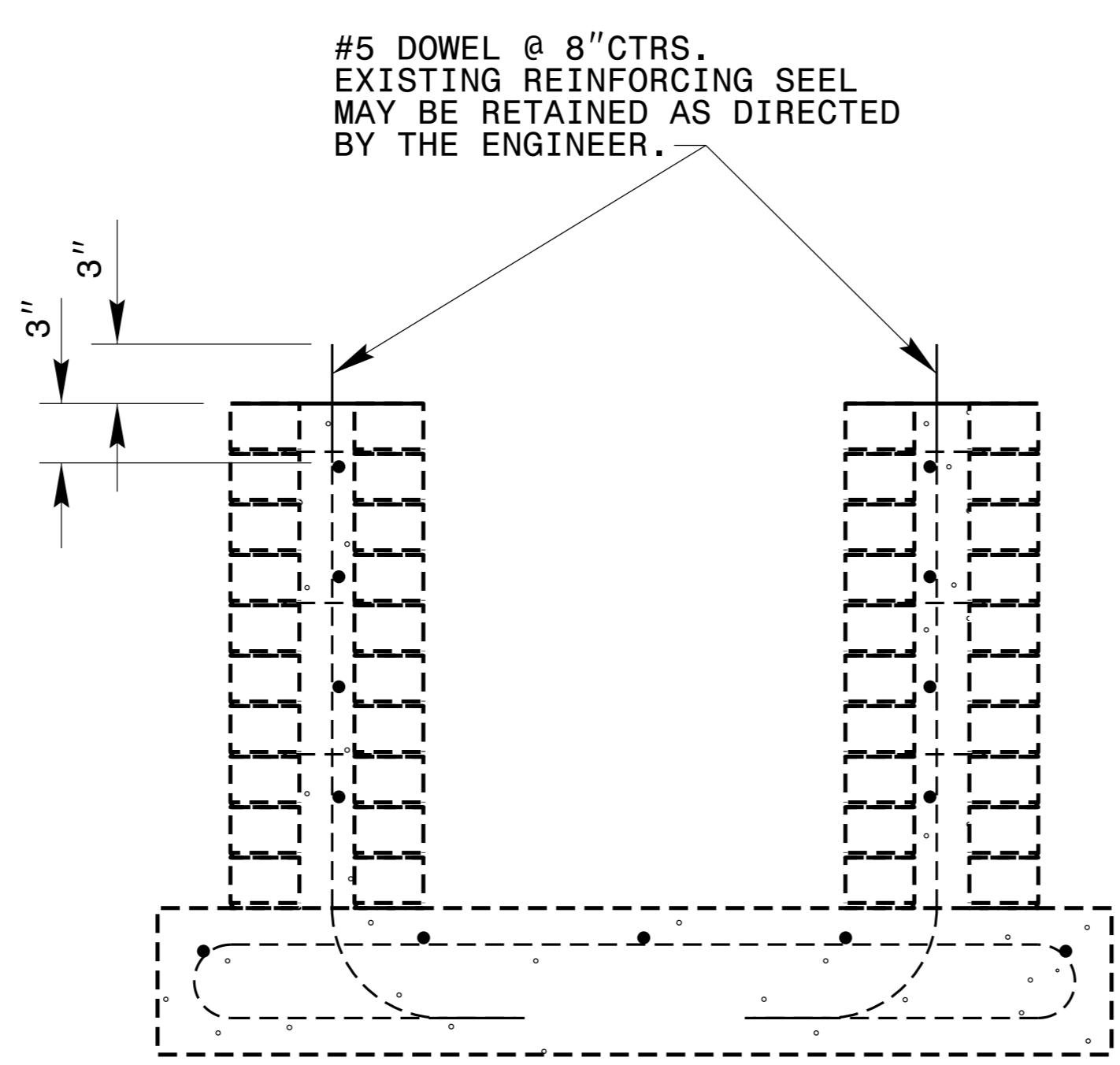
- CONCRETE MONOLITHIC ISLAND (KEYED IN)
- PAINT STRIPING
- MEDIAN BARRIER

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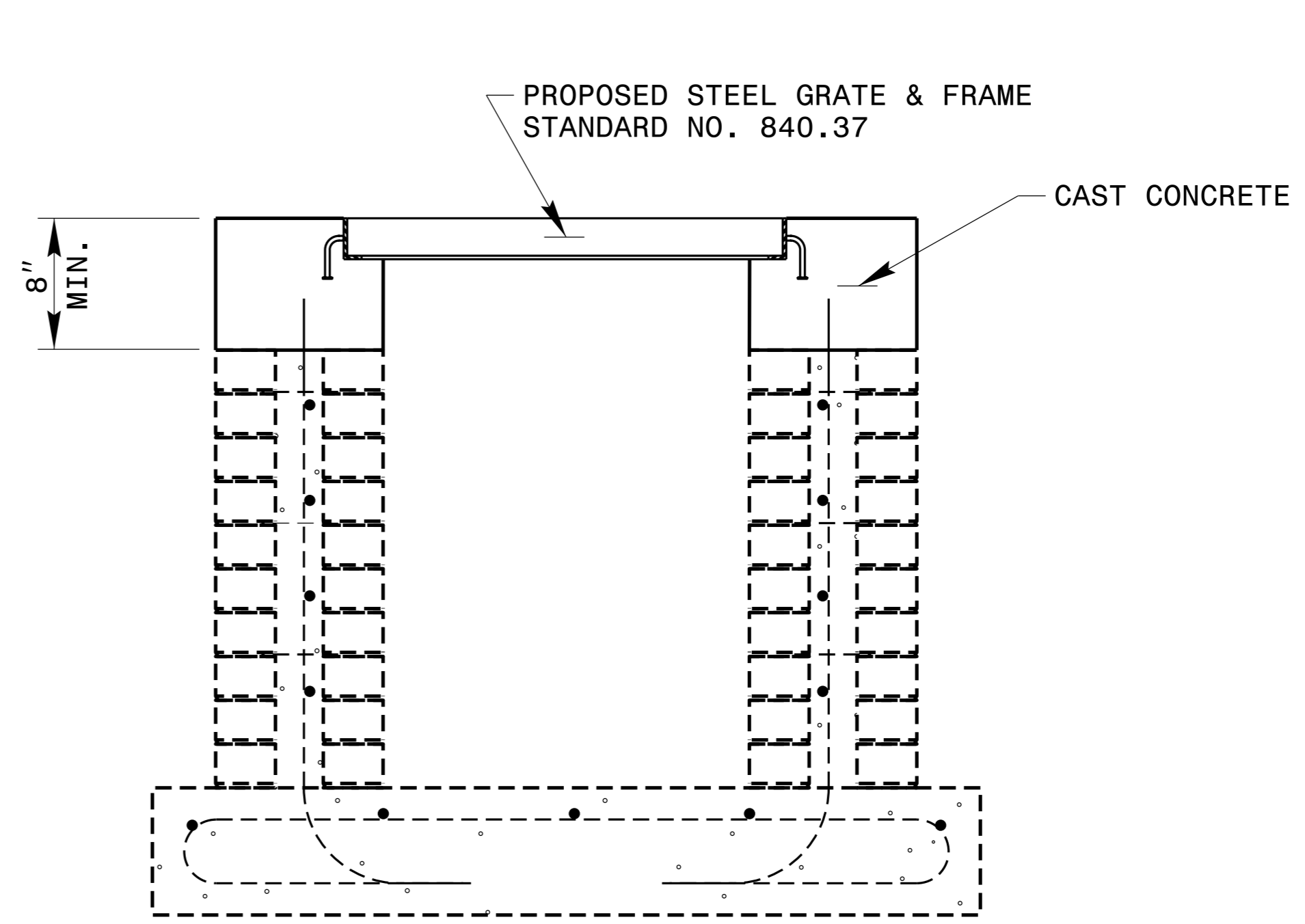
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STEP ONE



STEP TWO

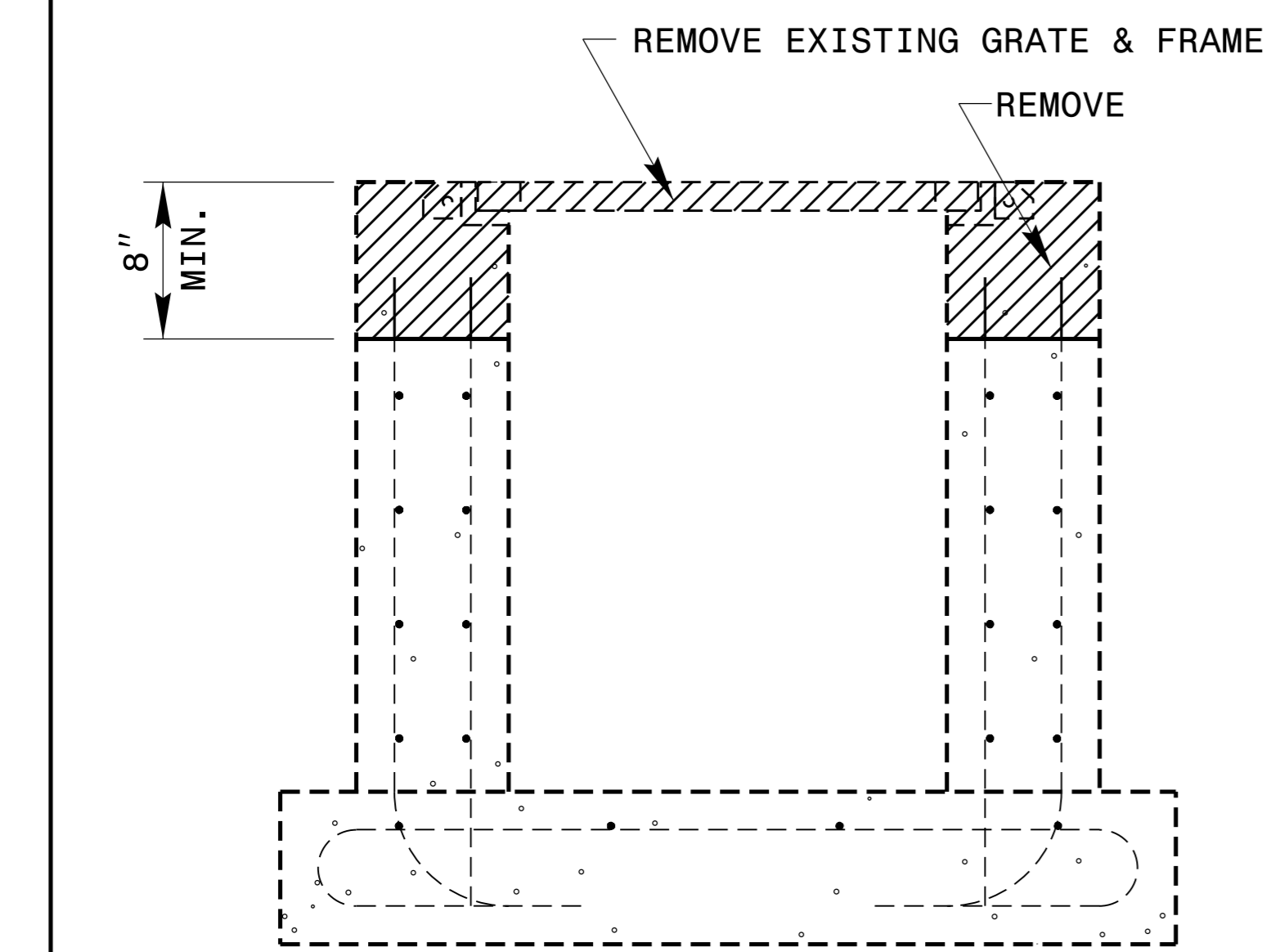


STEP THREE

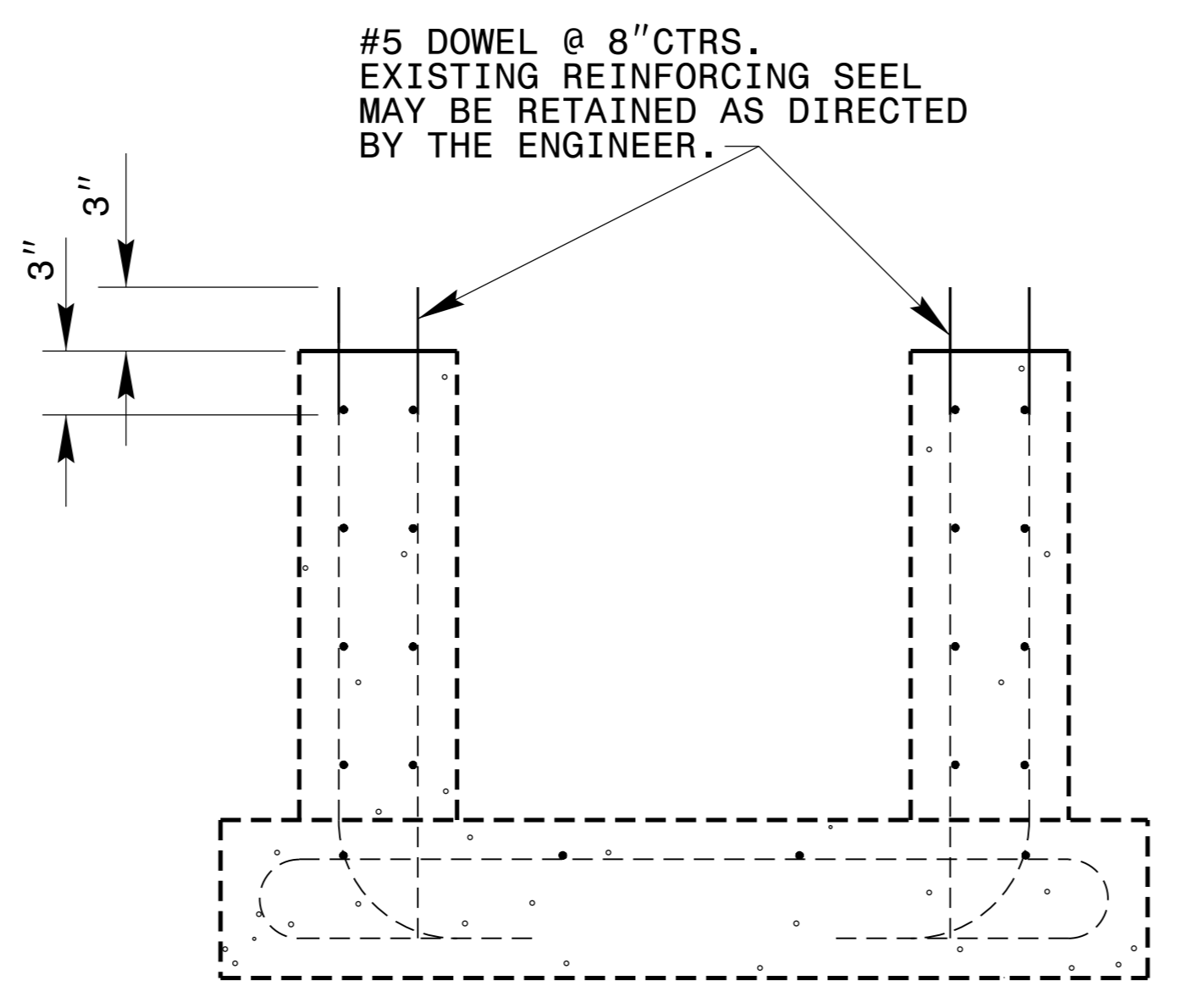
BRICK DROP INLET

GENERAL NOTES:

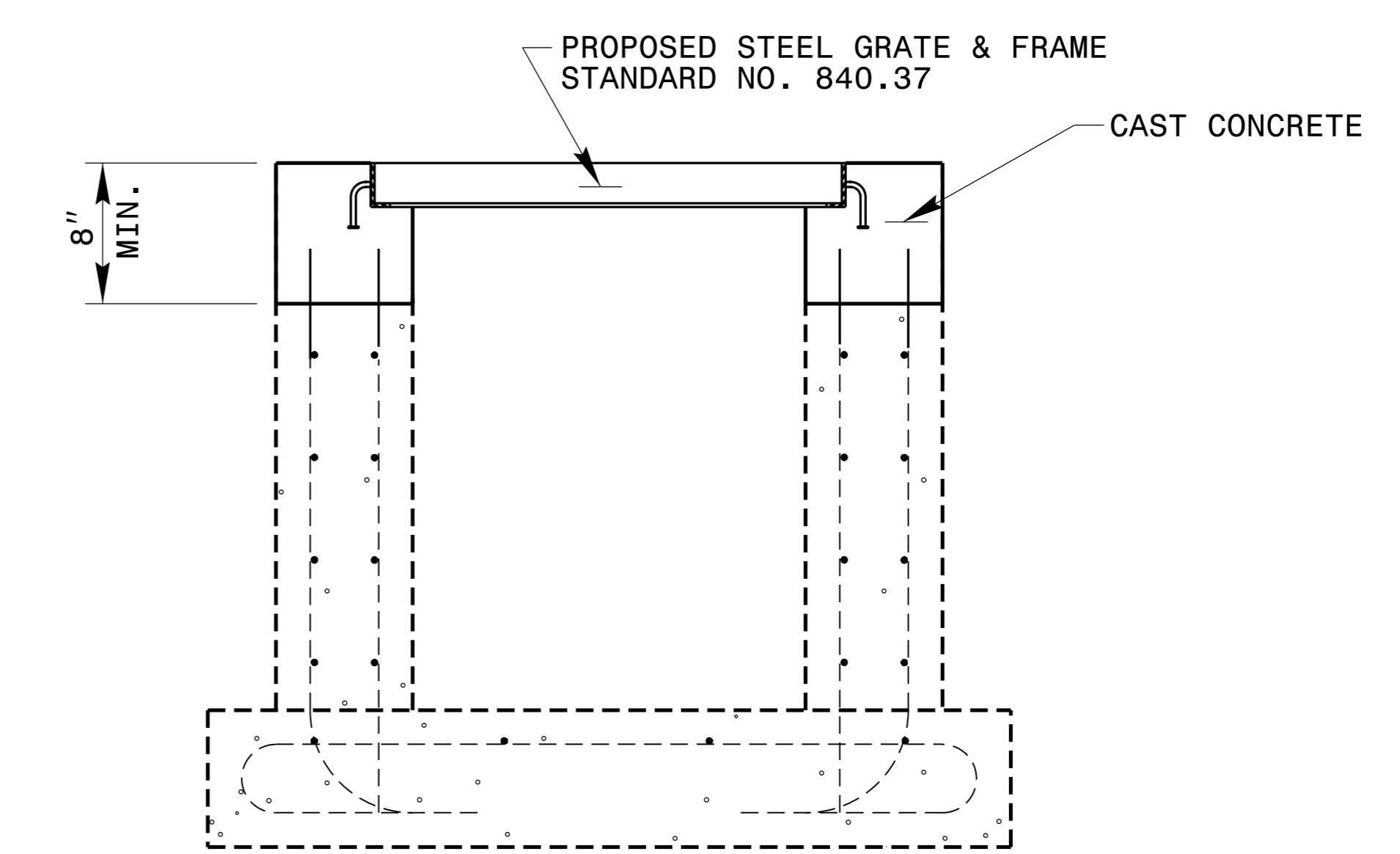
- USE CLASS "AA" CONCRETE.
- FORM CONCRETE AROUND TOP OF DRAINAGE STRUCTURES.
- STEEL FRAME MAY BE CAST WITH CONCRETE.
- USE STEEL TAP SCREWS TO ATTACH STEEL GRATE TO THE FRAME AFTER INSTALLATION.



STEP ONE

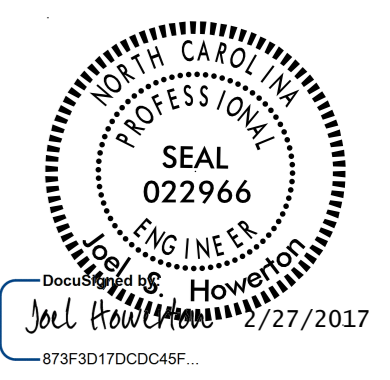


STEP TWO



STEP THREE

CONCRETE DROP INLET



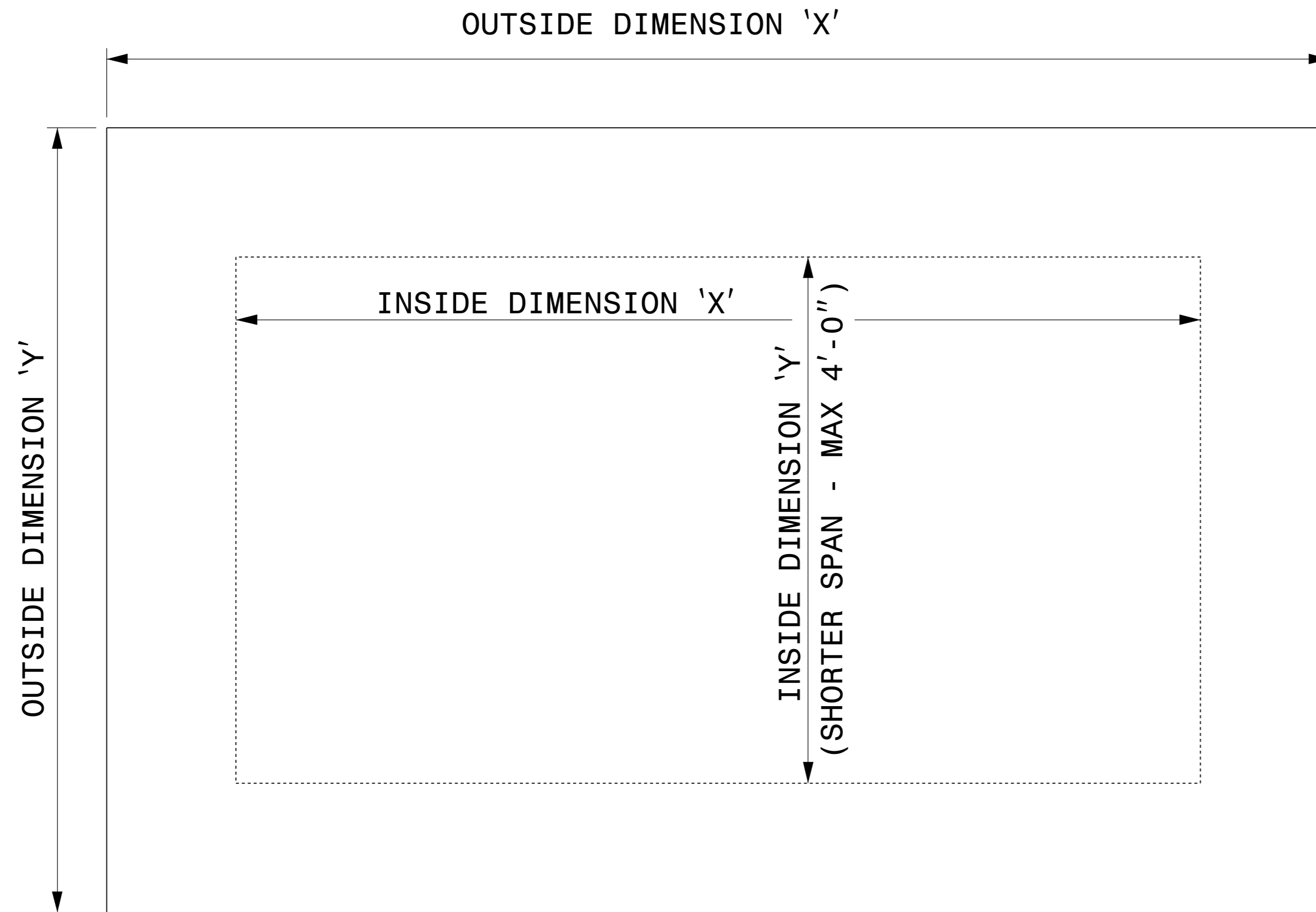
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS & DEVELOPMENT UNIT
STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

**TRAFFIC BEARING DROP
INLET CONVERSION**

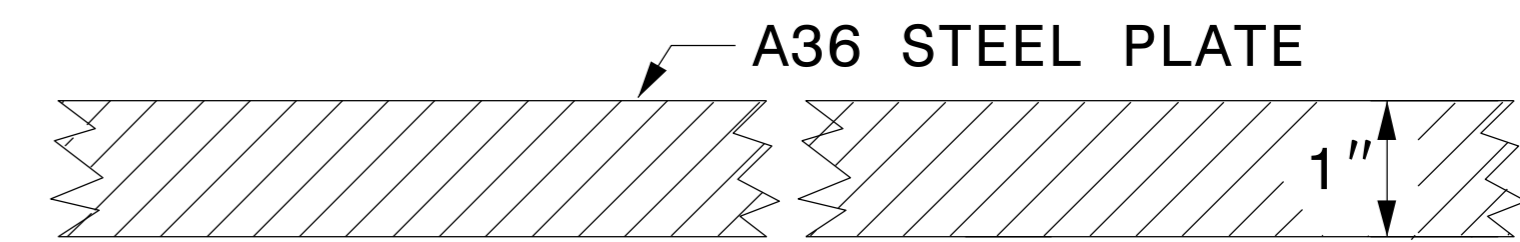
ORIGINAL BY: jhowerton DATE: 10/07/2016
 MODIFIED BY: rnbritt DATE: 10/07/2016
 CHECKED BY: DATE:
 FILE SPEC: Metals/rnbritt/english/interstate/15000 traffic bearing di conversion.dgn

\$\$\$\$\$
 C:\TIME\$\$\$\$\$
 Y=NAME\$\$\$\$\$
 USER\$\$\$\$\$
 PWD\$\$\$\$\$
 \$\$\$



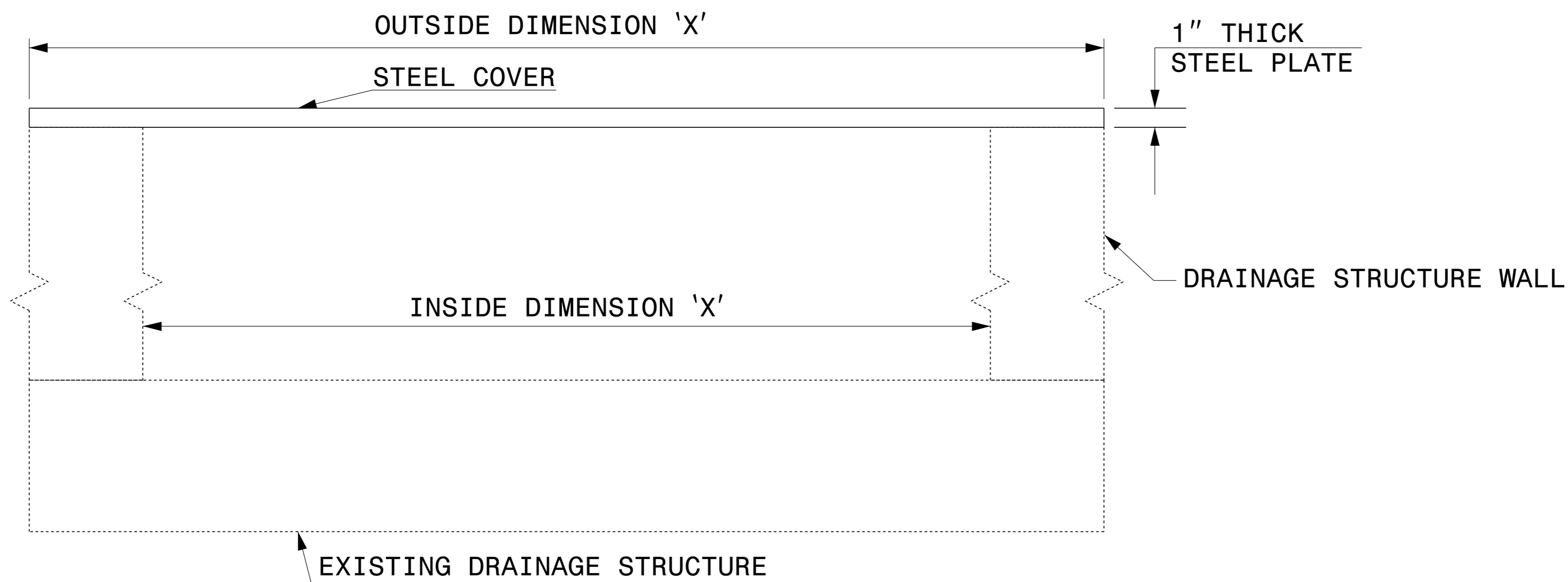
GENERAL NOTES:

- 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.

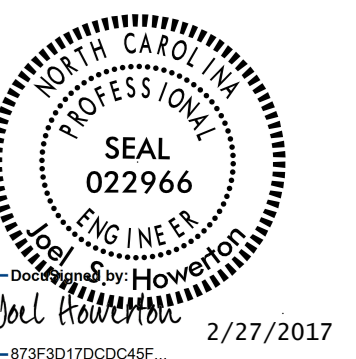


SECTION VIEW OF STEEL TOP PLATE

PLAN VIEWS



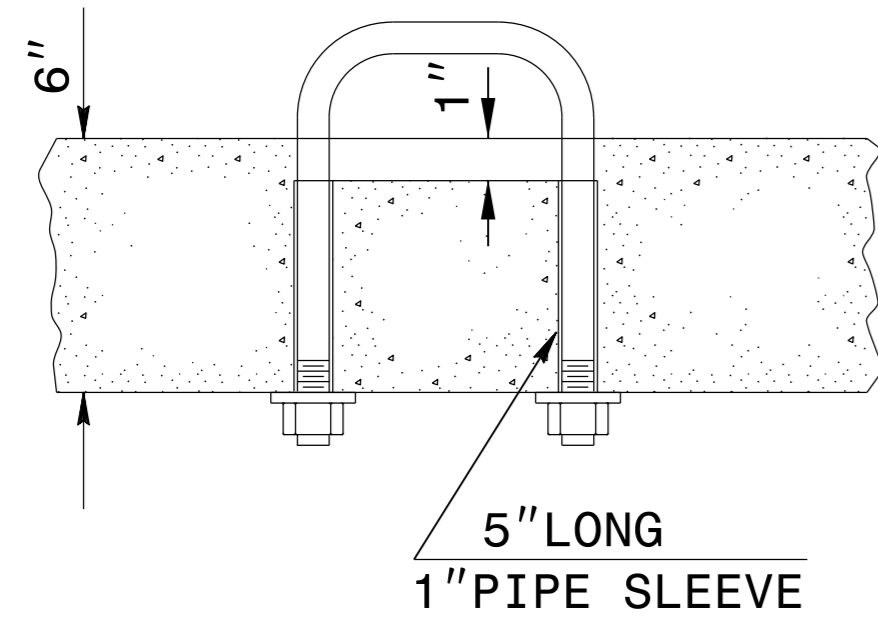
ELEVATION VIEWS



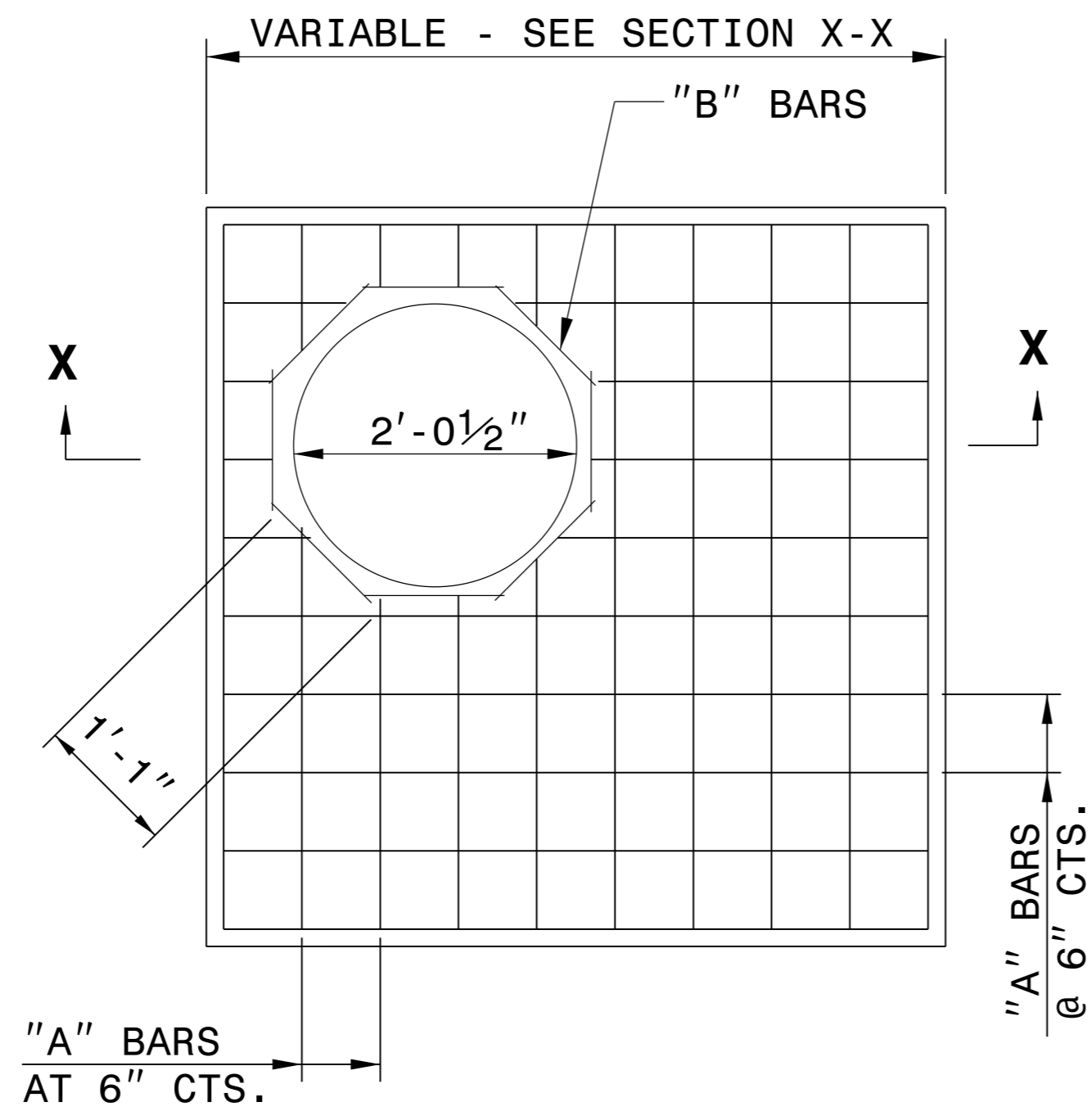
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

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/st1cvr2.dgn	

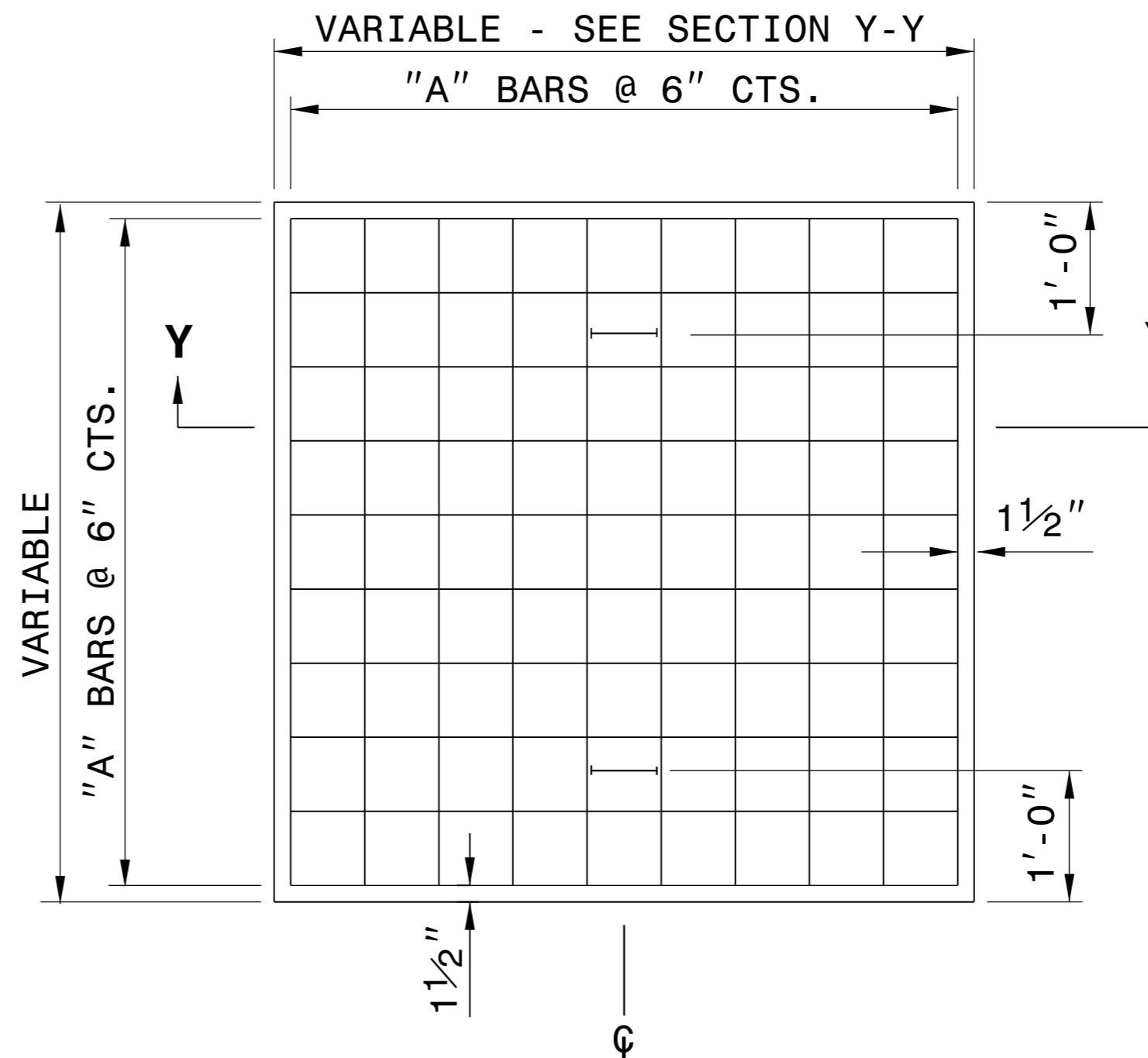
\$\$\$CUTIME\$\$\$\$
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 \$\$\$DISK\$\$\$\$
 \$\$\$USER\$\$\$\$



PARTIAL SECTION



PLAN



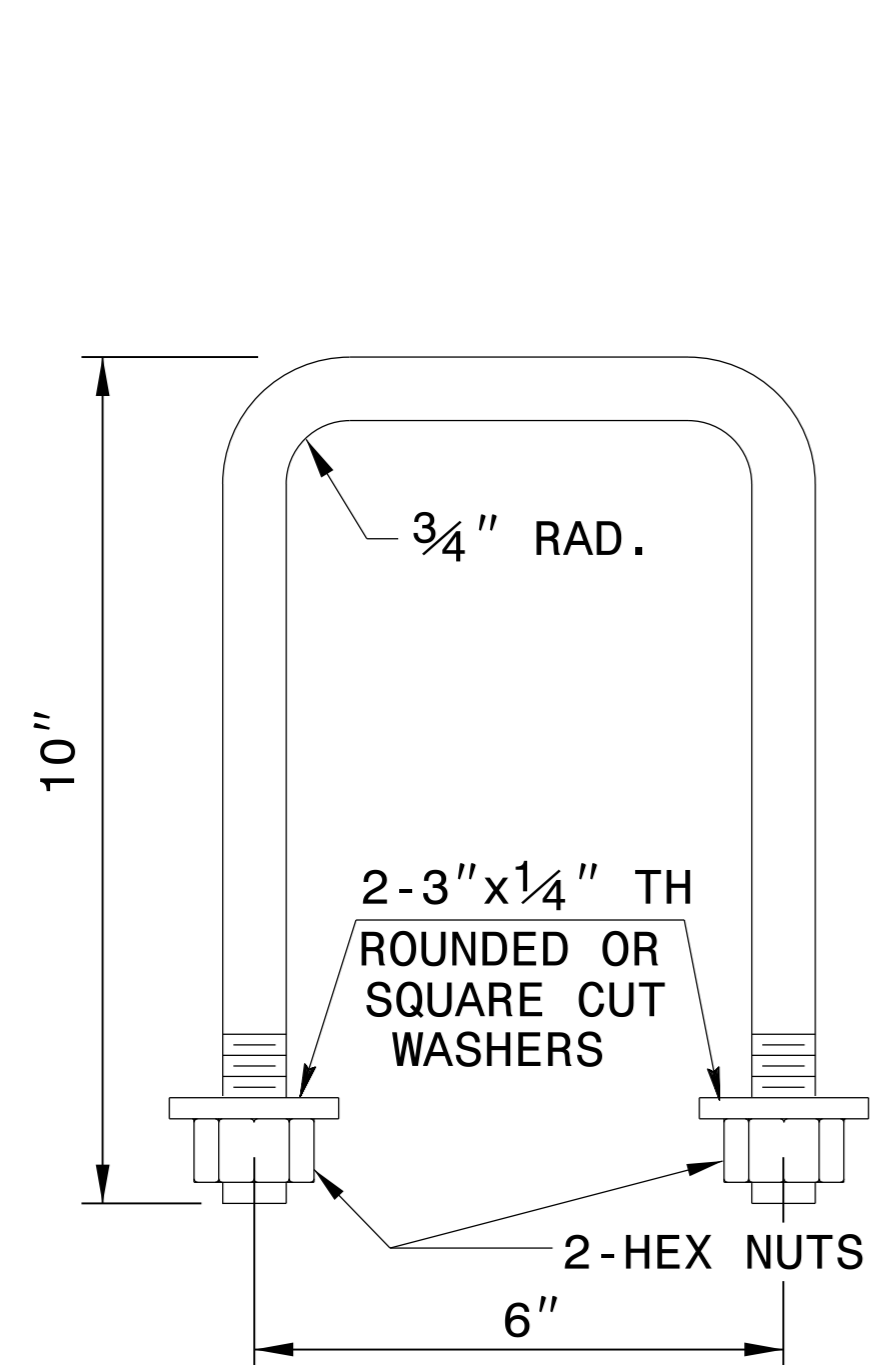
PLAN

GENERAL NOTES:

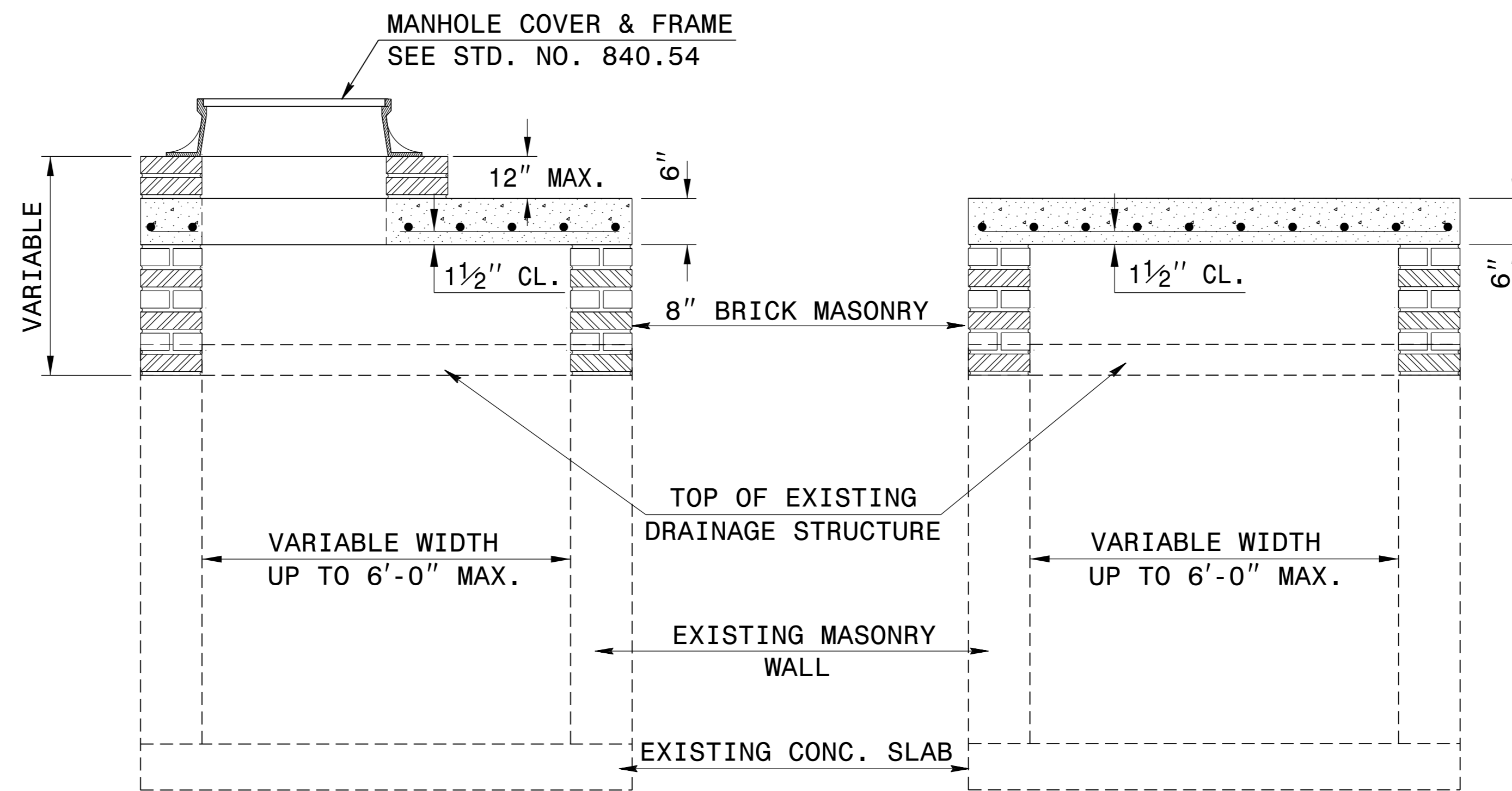
CONSTRUCT IN ACCORDANCE WITH SECTION 859 OF THE STANDARD SPECIFICATIONS.

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

DETAIL INTENDED FOR NON-TRAFFIC BEARING DRAINAGE STRUCTURES.



DETAIL OF HANDLE



SECTION X-X

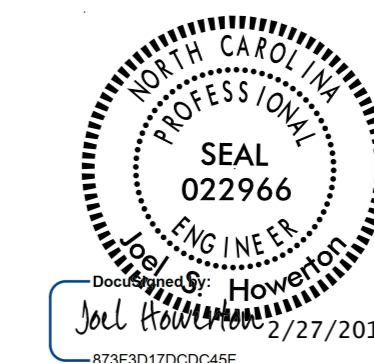
SECTION Y-Y

BILL OF MATERIALS

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

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

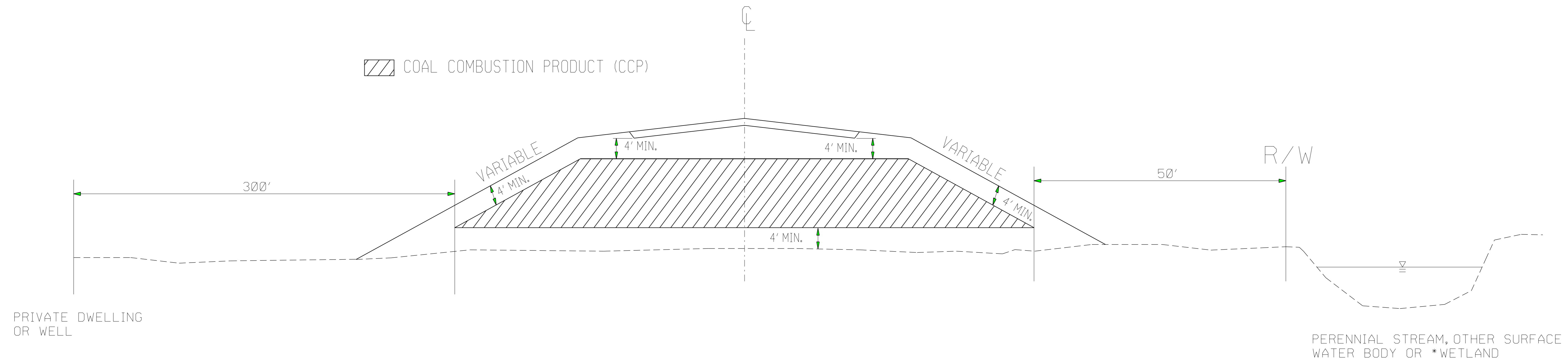
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119
DETAIL TO CONVERT EXISTING DI, CB, OTCB or GI TO JUNCTION BOX (MANHOLE OPTIONAL)

ORIGINAL BY: T.S.S. DATE: NOV. 1997
MODIFIED BY: T.S.S. DATE: FEB. 2000
CHECKED BY: DATE:
FILE SPEC.: ds174:/usr/details/stand/boxtojb.dgn

COAL COMBUSTION PRODUCT PLACEMENT



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

*(OBTAIN PERMISSION FROM ARMY CORPS OF ENGINEERS)

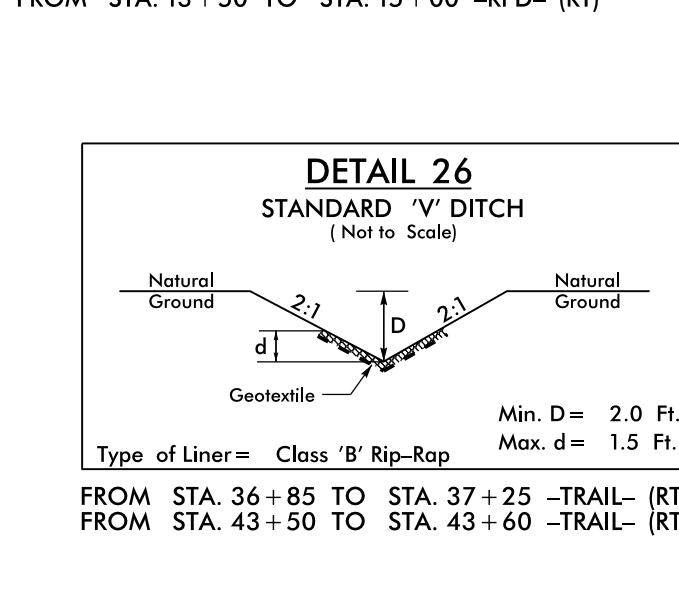
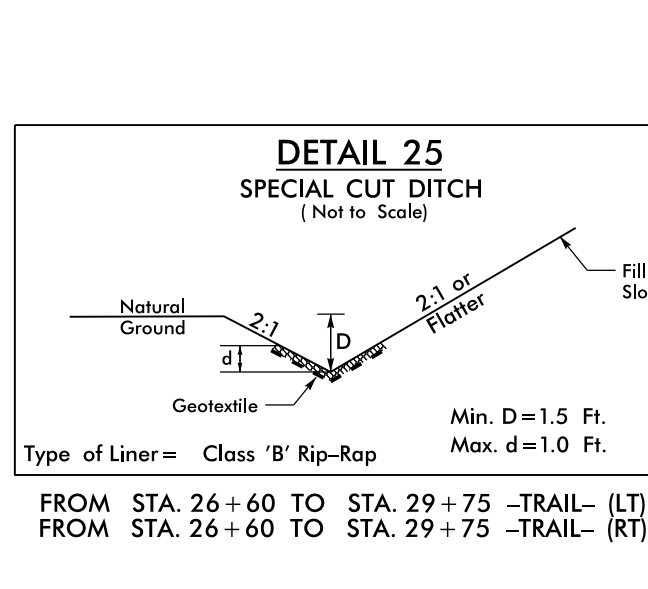
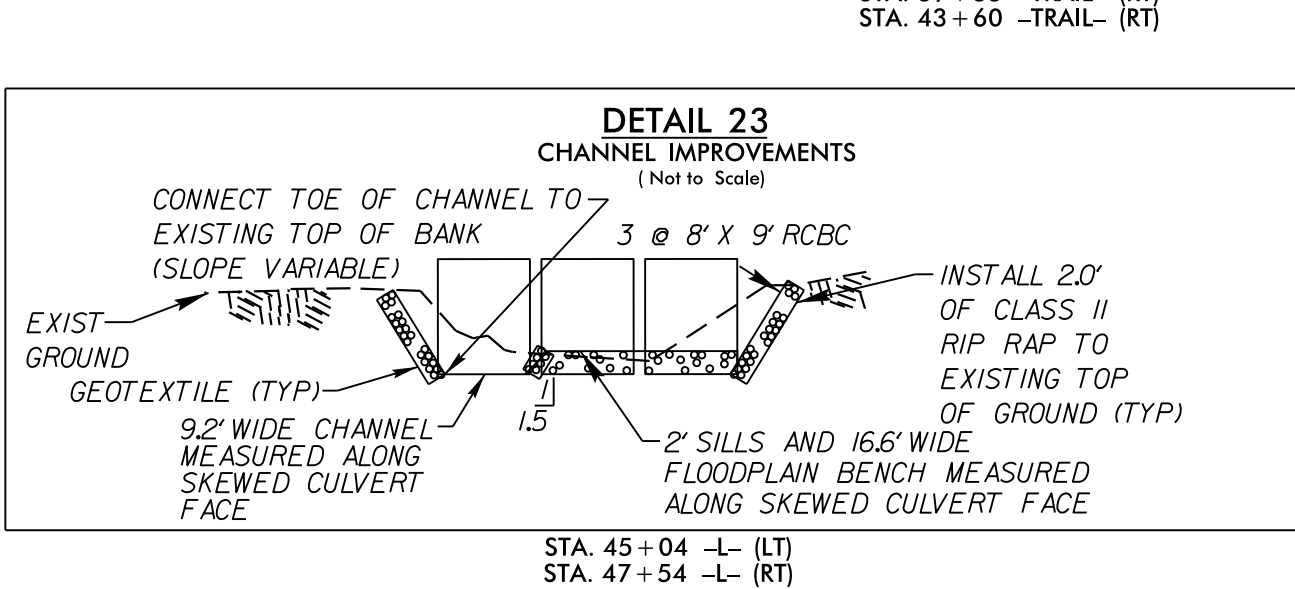
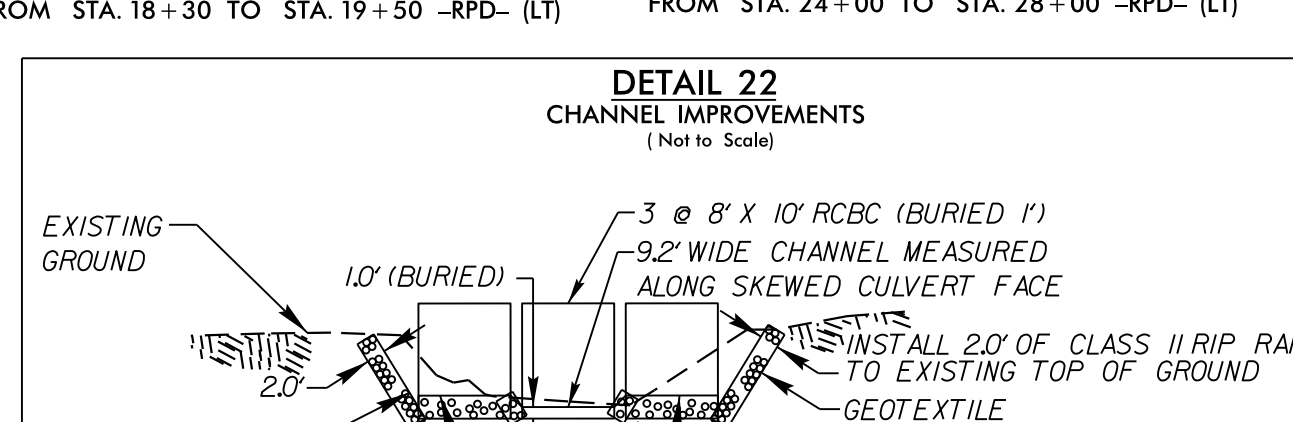
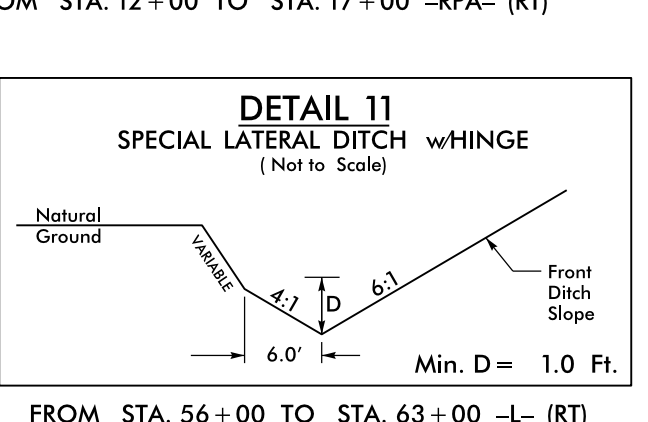
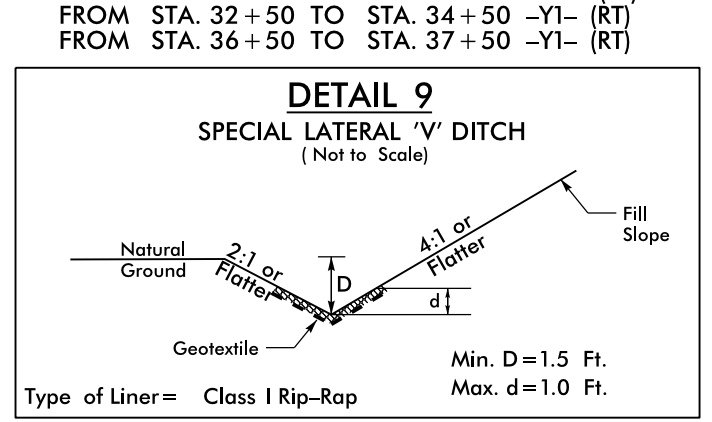
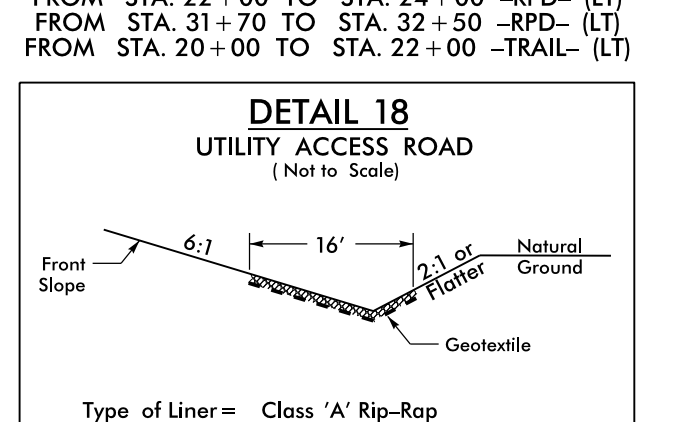
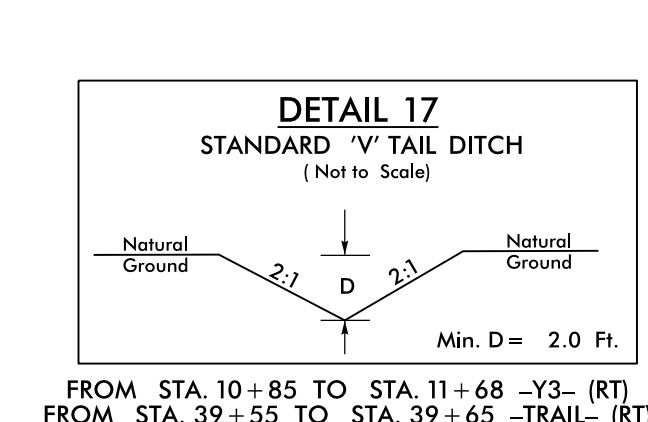
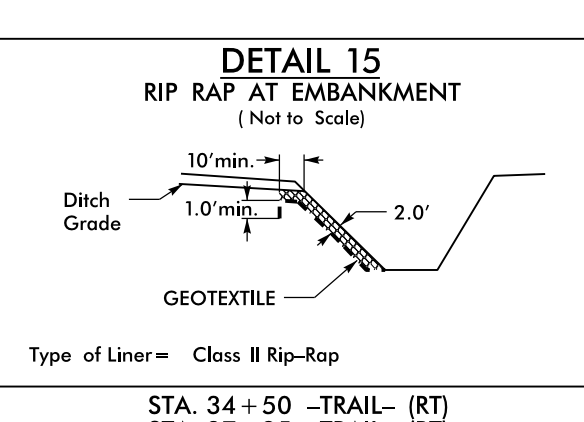
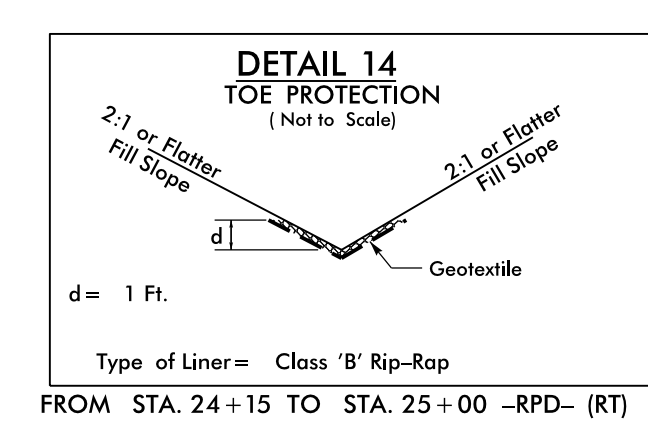
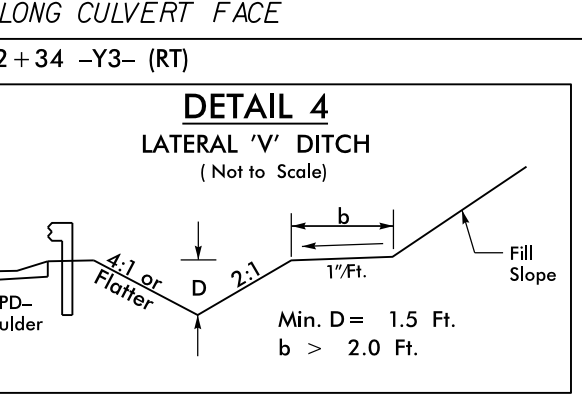
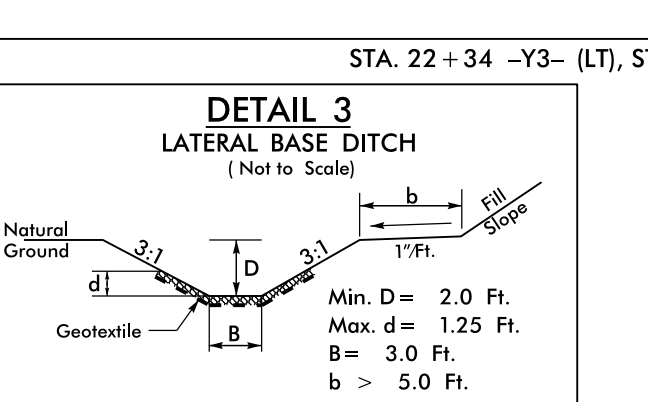
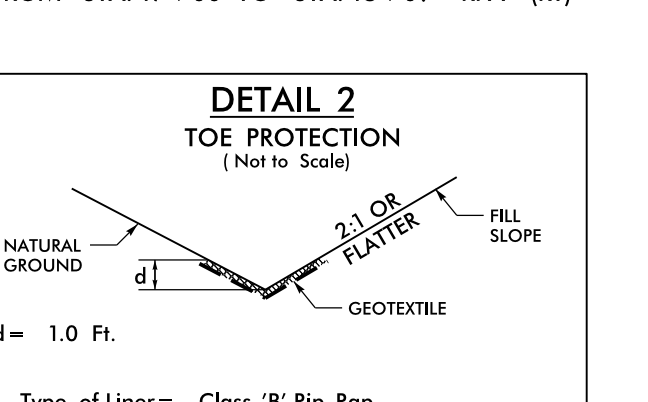
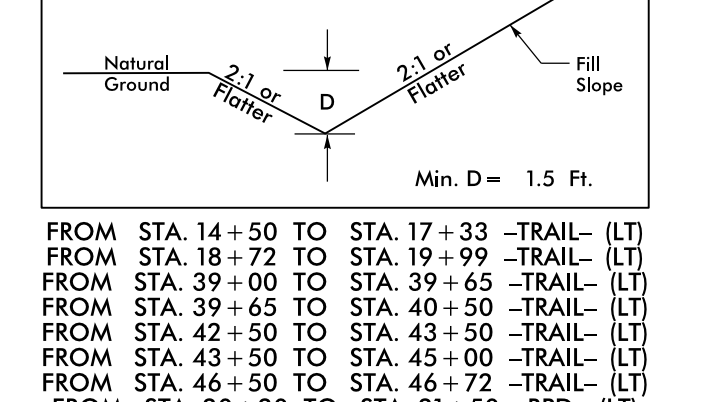
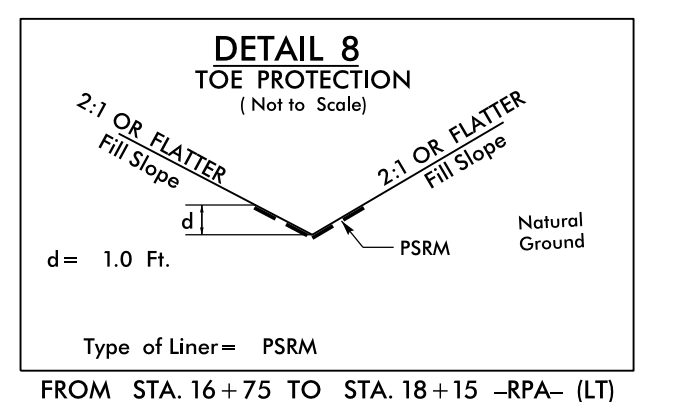
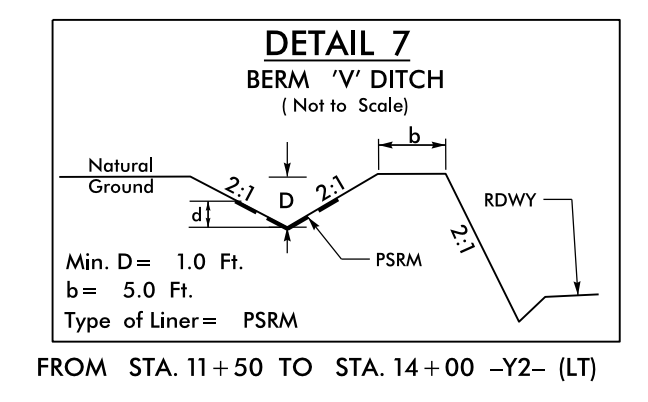
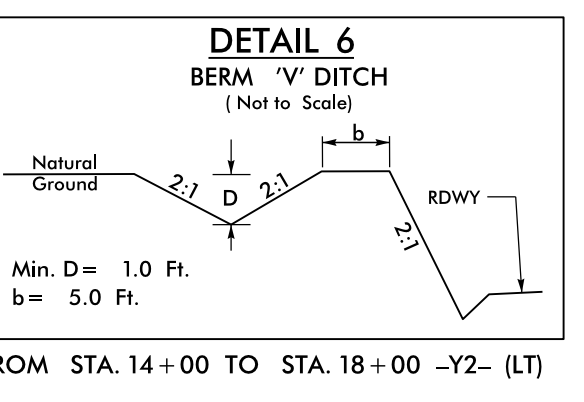
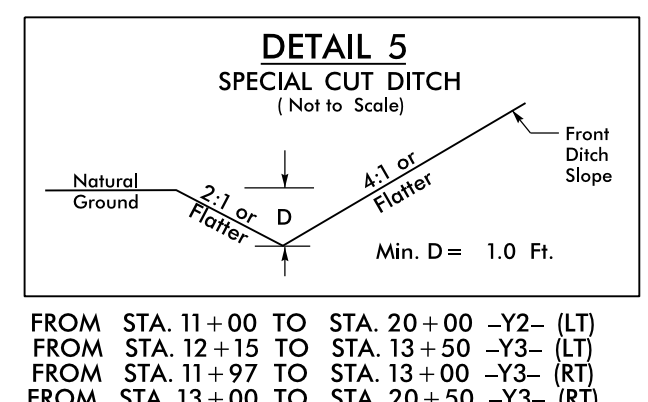
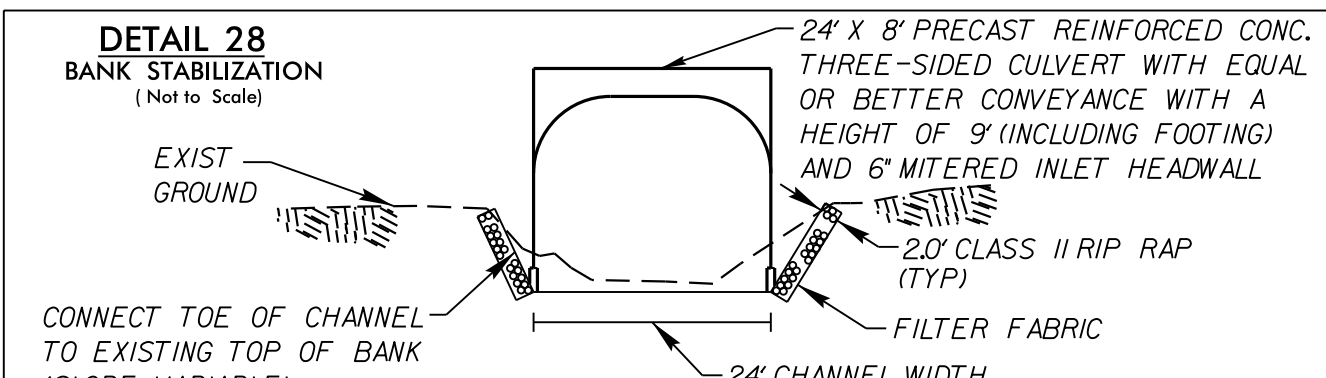
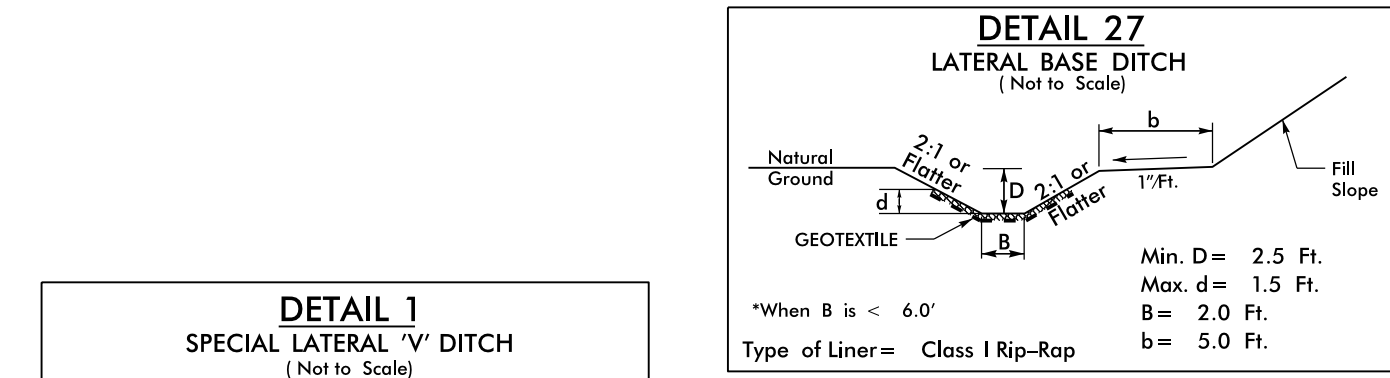
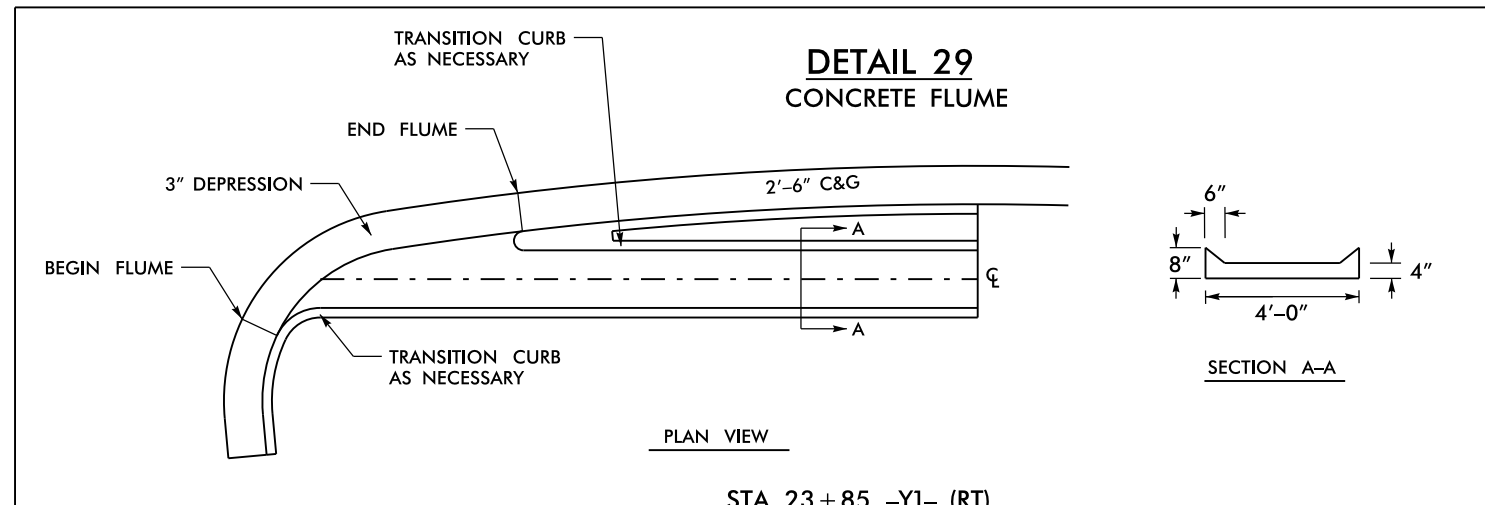
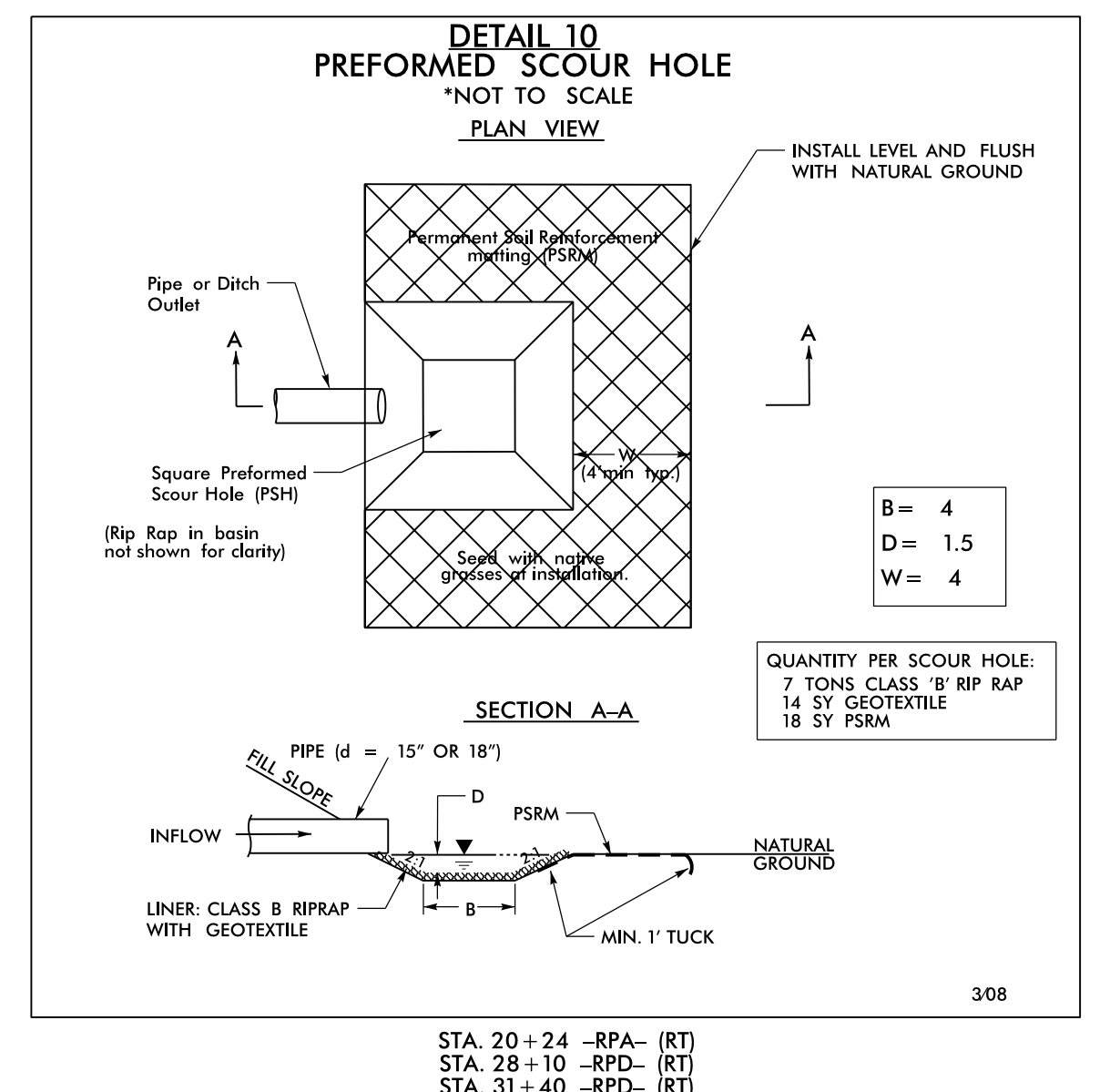
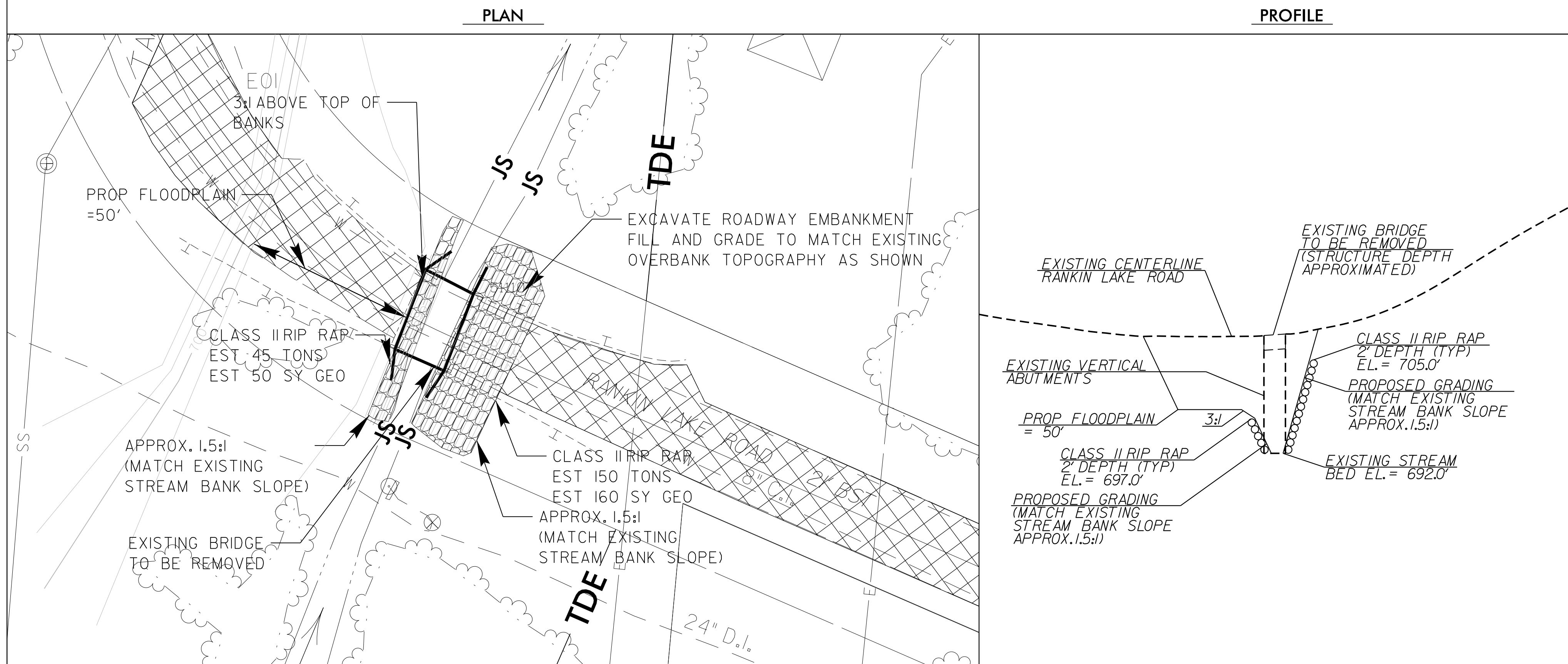
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



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

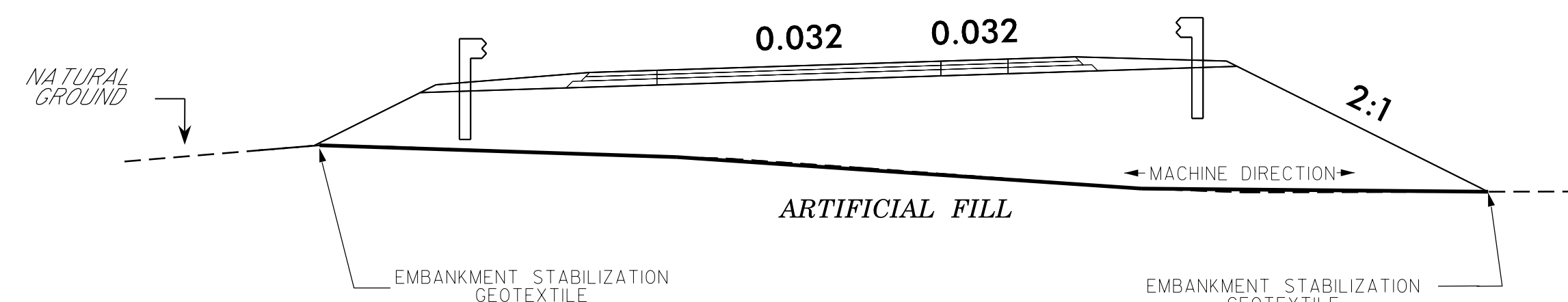
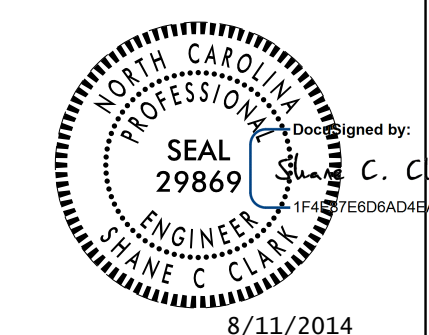
**DETAIL 13
GRADING DETAIL/BANK STABILIZATION**
SCALE: 1" = 20'



REVISIONS

8/17/99

07-MAR-2017 08:00:00 hyd-de-tail.s.dgn
9:58:54 PM PROJECT: 1-5000



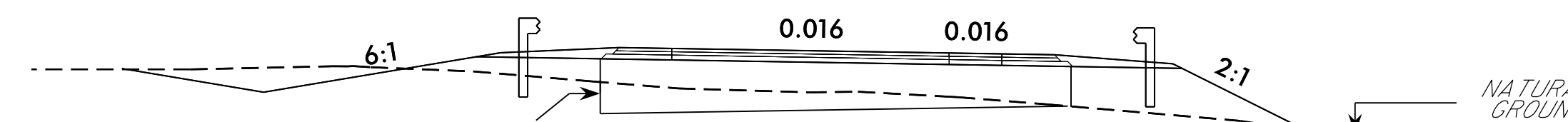
DETAIL A

18+50 TO 28+75 -RPA-

11+00 TO 15+75 -RPD-
17+75 TO 24+50 -RPD-

NOTES

1. FOR ROADWAY EMBANKMENTS WHICH REQUIRE A MINIMUM OF 3 FEET OF STRUCTURAL FILL BELOW THE PAVEMENT SUBGRADE.
2. PLACE ALL GEOTEXTILE WITH THE MACHINE DIRECTION PERPENDICULAR TO THE SLOPE FACE.
3. THE CONTRACTOR TO SUBMIT DETAIL OF FABRIC LAYOUT IN TRANSITION ZONES FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION. IT WILL BE NECESSARY TO PROVIDE SIGNIFICANT FABRIC OVERLAP IN TRANSITION ZONES.
4. GEOTEXTILE FOR EMBANKMENT STABILIZATION SHALL BE PLACED FROM TOE OF PROPOSED SLOPE LEFT TO TOE OF PROPOSED SLOPE RIGHT.



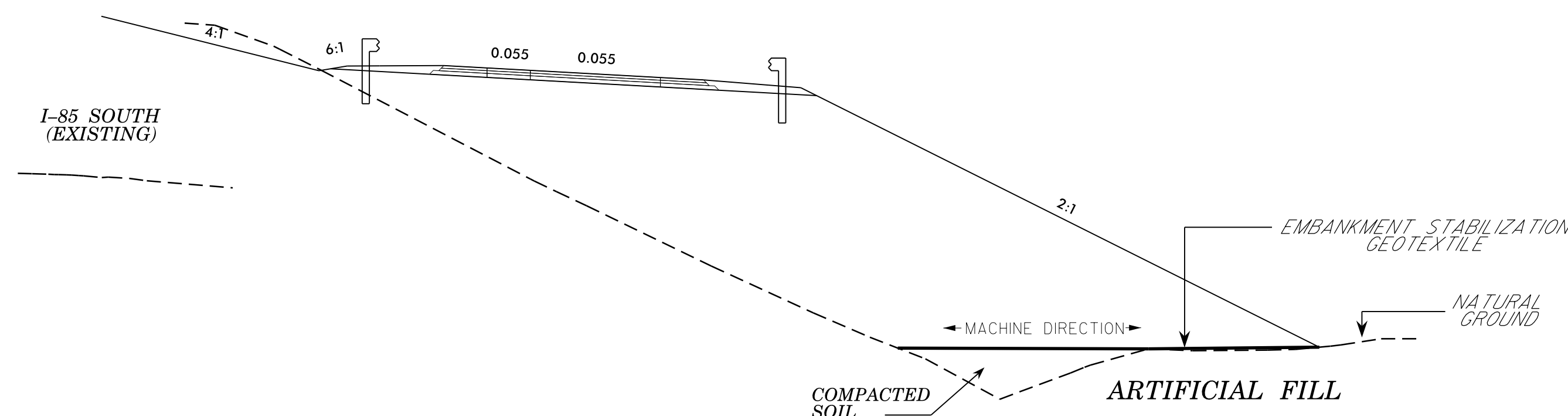
3' EMBANKMENT FILL

DETAIL B

15+75 TO 17+25, LEFT -RPD-

NOTES

1. FOR EMBANKMENT OR ROADWAY WITH LESS THAN 3 FEET OF STRUCTURAL FILL BELOW THE PROPOSED PAVEMENT SUBGRADE.
2. PLACE ALL GEOTEXTILE WITH THE MACHINE DIRECTION PERPENDICULAR TO THE SLOPE FACE.
3. THE CONTRACTOR TO SUBMIT DETAIL OF GEOTEXTILE LAYOUT IN TRANSITION ZONES FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION. IT WILL BE NECESSARY TO PROVIDE SIGNIFICANT GEOTEXTILE OVERLAP IN TRANSITION ZONES.
4. UNDERCUT TO A DEPTH OF 3' BELOW SUBGRADE, EDGE OF PAVEMENT TO EDGE OF PAVEMENT. PLACE GEOTEXTILE IN BOTTOM OF EXCAVATION AND BACKFILL WITH CLASS II OR III SELECT MATERIAL.
5. EXCAVATED MATERIALS CAN BE REUSED. DO NOT COMPUTE AS WASTE.

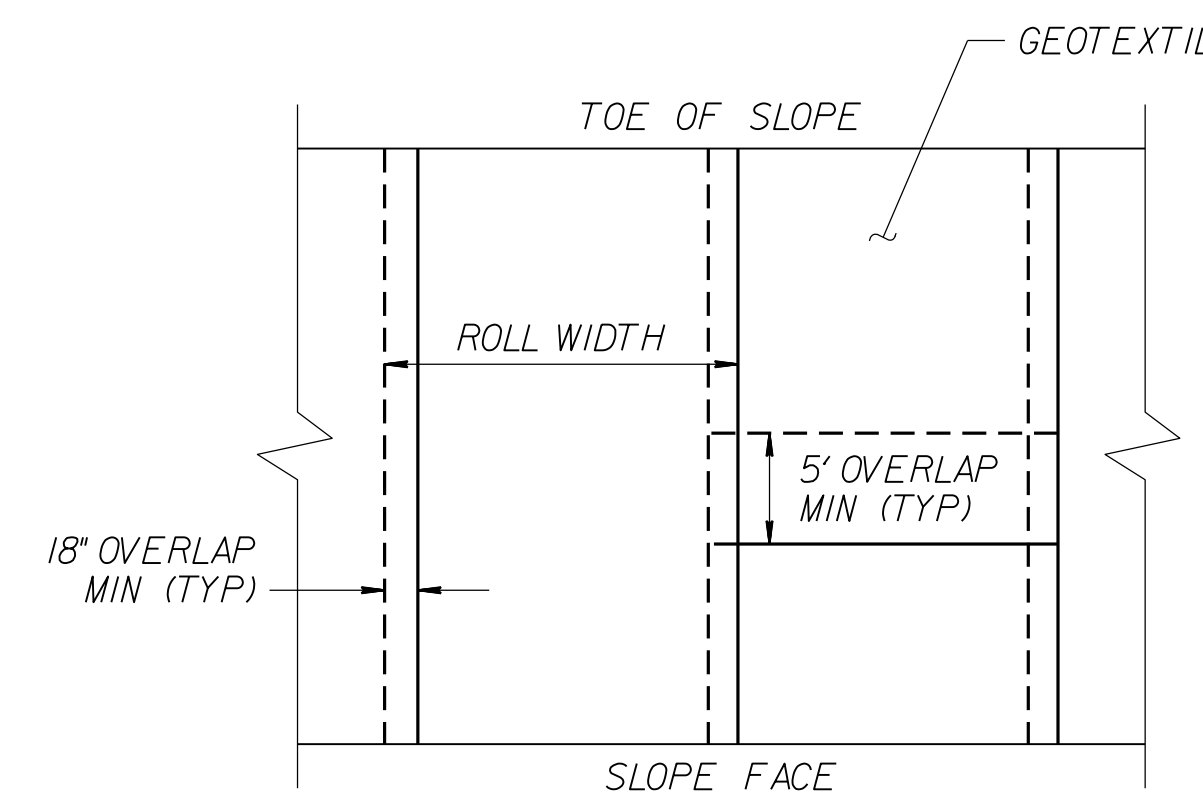


DETAIL C

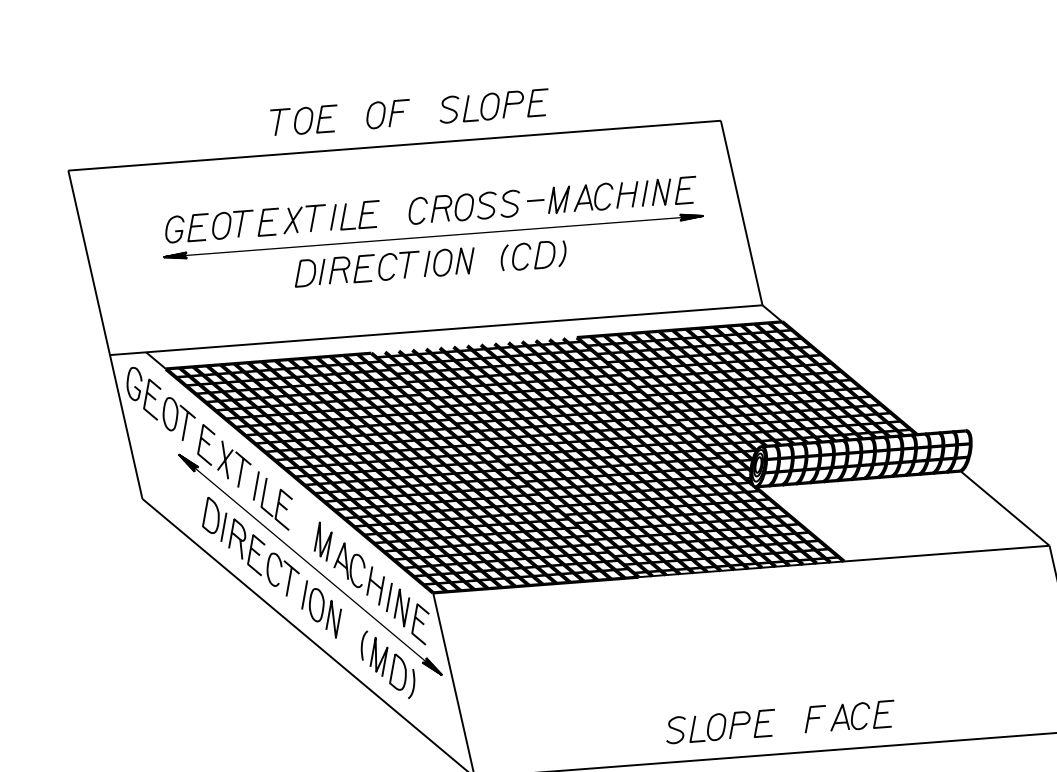
13+00 TO 16+50 -RPA-

NOTES

1. FOR EMBANKMENT STABILIZATION ON -RPA-.
2. PLACE ALL FABRIC WITH THE MACHINE DIRECTION PERPENDICULAR TO THE SLOPE FACE.
3. THE CONTRACTOR TO SUBMIT DETAIL OF FABRIC LAYOUT IN TRANSITION ZONES FOR APPROVAL BY THE ENGINEER PRIOR TO CONSTRUCTION.
4. PLACE GEOTEXTILE FROM TOE OF PROPOSED FILL SLOPE TO EXISTING SLOPE FACE.



**GEOTEXTILE OVERLAP DETAIL
(PLAN VIEW)**



**GEOTEXTILE PLACEMENT DETAIL
(PLAN VIEW)**

NOT TO SCALE

PREPARED BY: J.P. ROGERS	DATE: 3/14
REVIEWED BY: S. CLARK	DATE: 4/14

GEOTECHNICAL ENGINEERING UNIT

EASTERN REGIONAL OFFICE
 WESTERN REGIONAL OFFICE
 CONTRACT OFFICE

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

EMBANKMENT STABILIZATION
DETAILS

REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

RD-290051

COMPUTED BY: BTV DATE: 6-19-2015
CHECKED BY: VWB DATE: 6-19-2015

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS


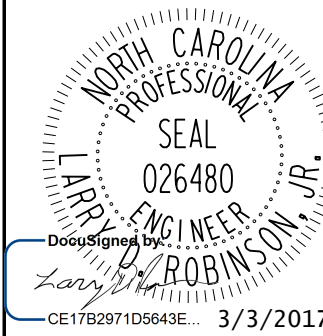
PROJECT NO. I-5000 SHEET NO. 3D-4

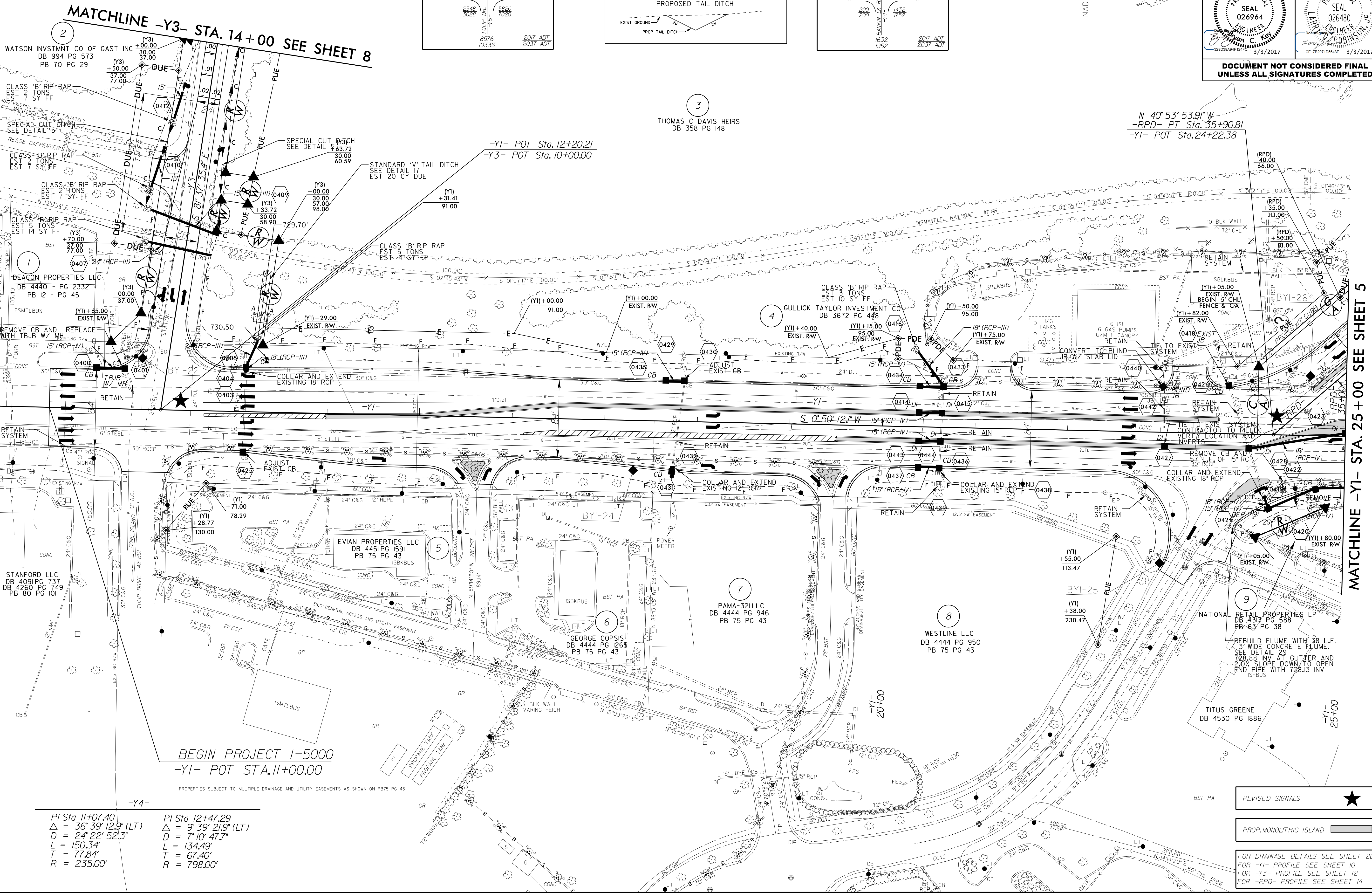
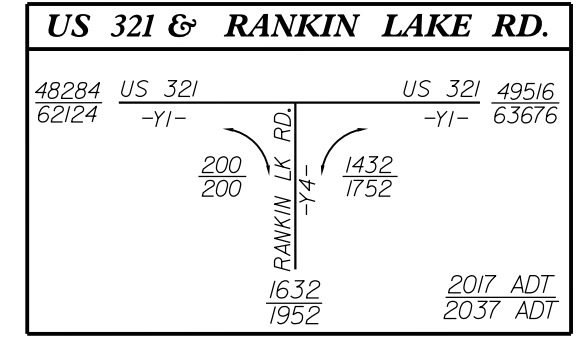
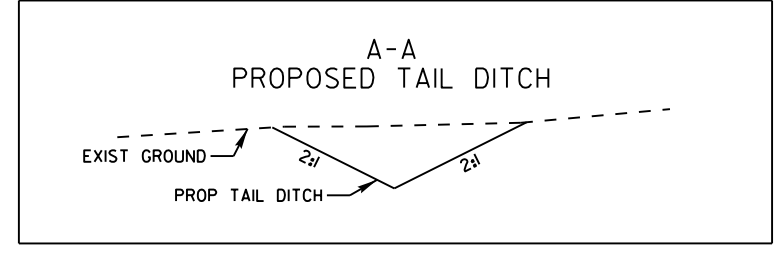
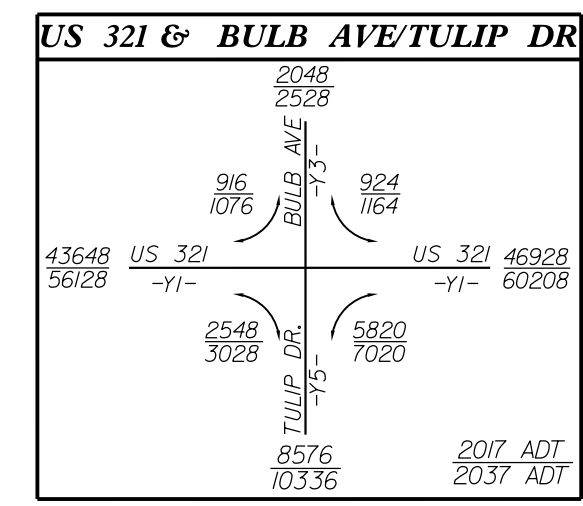
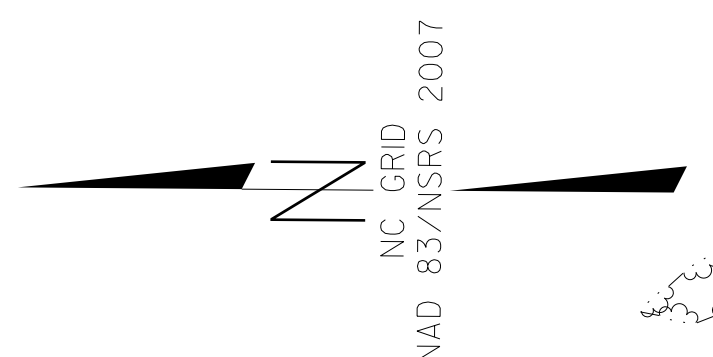
Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".

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

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

ABBREVIATIONS table listing codes 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. and their corresponding material descriptions.

PROJECT REFERENCE NO. I-5000	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
 NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 026964 C. Key 3/3/2017	 NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 026480 R. Key 3/3/2017
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



MATCHLINE -Y3- STA. 14+00 SEE SHEET 8

N 40° 53' 53.9\"/>

PI Sta 11+07.40 $\Delta = 36^{\circ} 39' 12.9\"/> $	PI Sta 12+47.29 $\Delta = 9^{\circ} 39' 21.9\"/> $
$D = 24^{\circ} 22' 52.3\"/> $	$D = 7^{\circ} 10' 47.7\"/> $
$L = 150.34'$	$L = 134.49'$
$T = 77.84'$	$T = 67.40'$
$R = 235.00'$	$R = 798.00'$

- ★ REVISED SIGNALS
 - ▭ PROP. MONOLITHIC ISLAND
- FOR DRAINAGE DETAILS SEE SHEET 20-1
 FOR -Y1- PROFILE SEE SHEET 10
 FOR -Y3- PROFILE SEE SHEET 12
 FOR -RPD- PROFILE SEE SHEET 14

REVISIONS

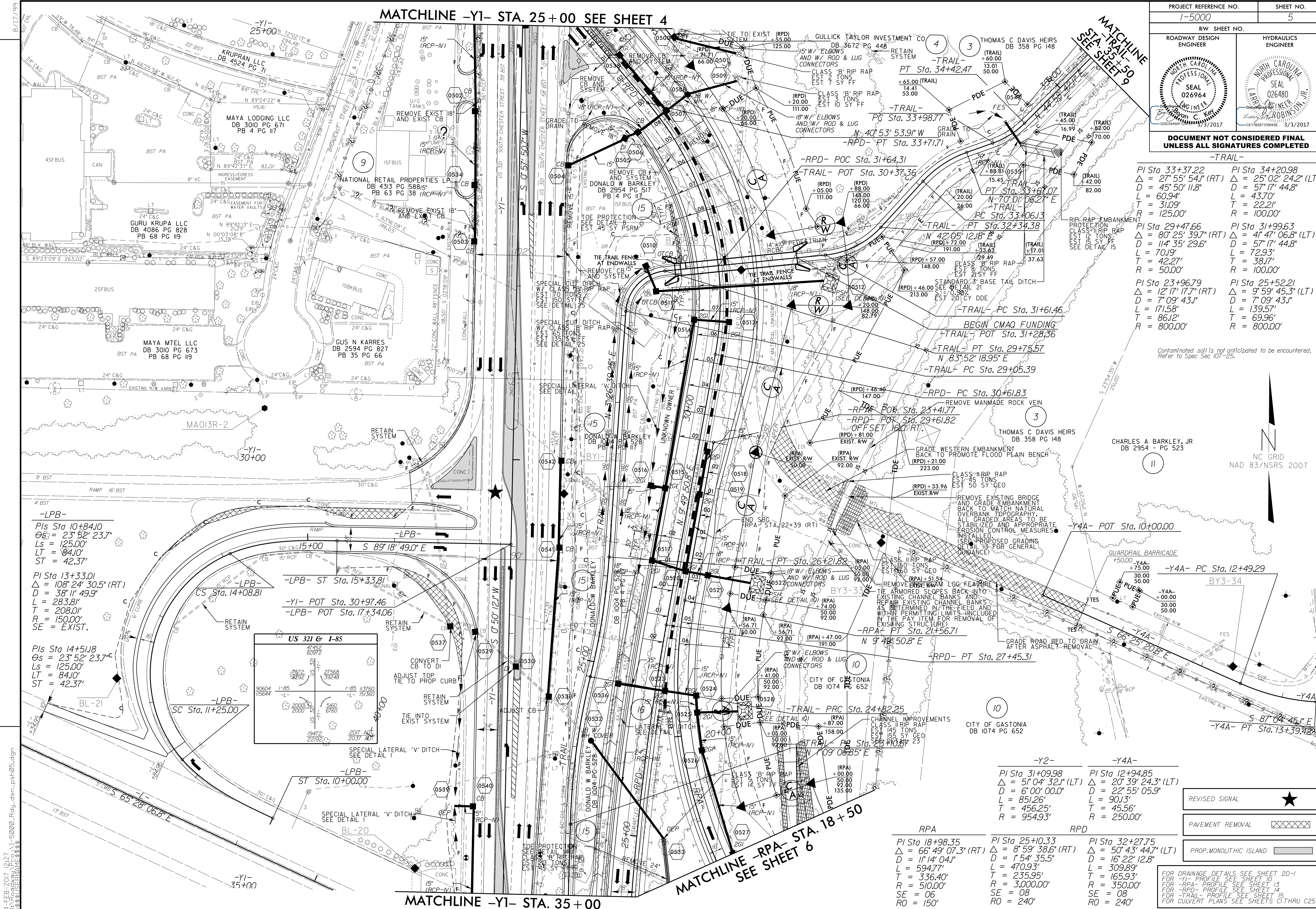
MATCHLINE -Y1- STA. 25+00 SEE SHEET 5

8/17/99

27-JAN-2017 14:05 L:\5000-I-5000-Rdy-dsm-psh04.dgn

MATCHLINE -Y1- STA. 25+00 SEE SHEET 4

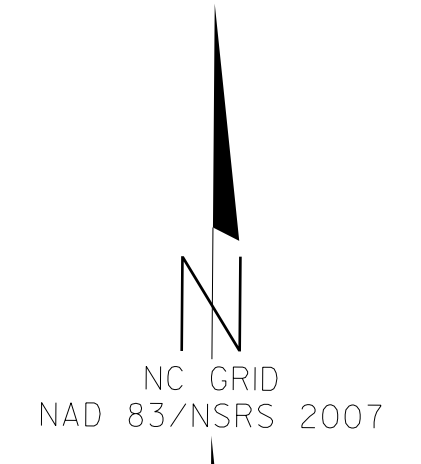
PROJECT REFERENCE NO. 1-5000	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



-TRAIL-

PI Sta 33+37.22 Δ = 27°55' 54.1" (RT) D = 45° 50' 11.8" L = 60.94' T = 31.09' R = 125.00'	PI Sta 34+20.98 Δ = 25° 02' 24.2" (LT) D = 57° 17' 44.8" L = 43.70' T = 22.21' R = 100.00'
PI Sta 29+47.66 Δ = 80° 25' 39.7" (RT) D = 114° 35' 29.6" L = 70.19' T = 42.27' R = 50.00'	PI Sta 31+99.63 Δ = 41° 47' 06.8" (LT) D = 57° 17' 44.8" L = 72.93' T = 38.17' R = 100.00'
PI Sta 23+96.79 Δ = 12° 17' 17.7" (RT) D = 7° 09' 43.1" L = 171.58' T = 86.12' R = 800.00'	PI Sta 25+52.21 Δ = 9° 59' 45.3" (LT) D = 7° 09' 43.1" L = 139.97' T = 69.96' R = 800.00'

Contaminated soil is not anticipated to be encountered. Refer to Spec. Sec. 107-25.



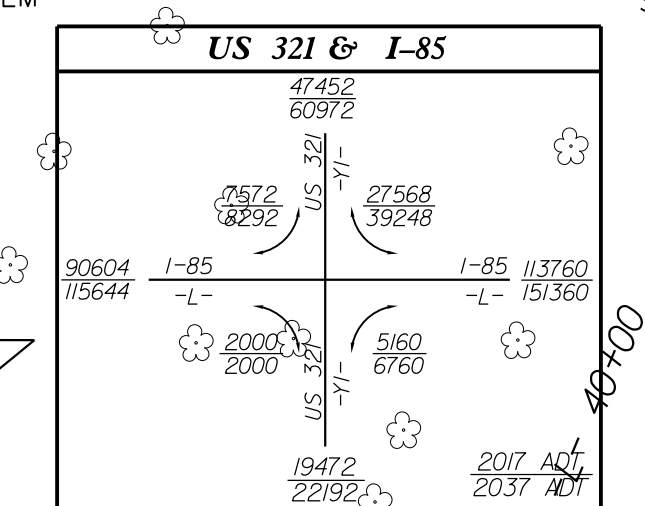
REVISIONS

-LPB-

PIs Sta 10+84.10
Δ = 23° 52' 23.7"
Ls = 125.00'
LT = 84.10'
ST = 42.37'

PI Sta 13+33.01
Δ = 108° 24' 30.5" (RT)
D = 38° 11' 49.9"
L = 283.81'
T = 208.01'
R = 150.00'
SE = EXIST.

PIs Sta 14+51.18
Δ = 23° 52' 23.7"
Ls = 125.00'
LT = 84.10'
ST = 42.37'



<p>RPA</p> <p>PI Sta 18+98.35 Δ = 66° 49' 07.3" (RT) D = 11° 14' 04.1" L = 594.77' T = 336.40' R = 510.00' SE = 06' RO = 150'</p>	<p>-Y2-</p> <p>PI Sta 31+09.98 Δ = 5° 04' 32.1" (LT) D = 6° 00' 00.0" L = 851.26' T = 456.25' R = 954.93'</p>	<p>-Y4A-</p> <p>PI Sta 12+94.85 Δ = 20° 39' 24.3" (LT) D = 22° 55' 05.9" L = 901.3' T = 455.6' R = 250.00'</p>
<p>RPA</p> <p>PI Sta 25+10.33 Δ = 8° 59' 38.6" (RT) D = 1° 54' 35.5" L = 594.77' T = 235.95' R = 3,000.00' SE = 08' RO = 240'</p>	<p>RPD</p> <p>PI Sta 32+27.75 Δ = 50° 43' 44.7" (LT) D = 16° 22' 12.8" L = 309.89' T = 165.93' R = 350.00' SE = 08' RO = 240'</p>	

REVISED SIGNAL

PAVEMENT REMOVAL

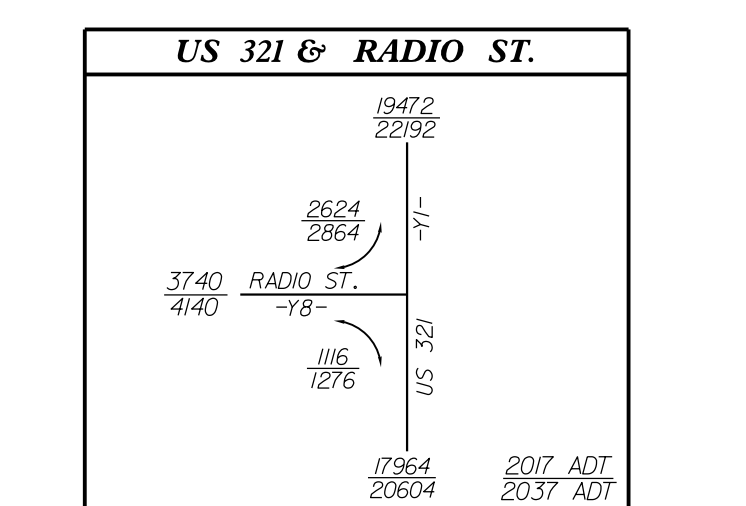
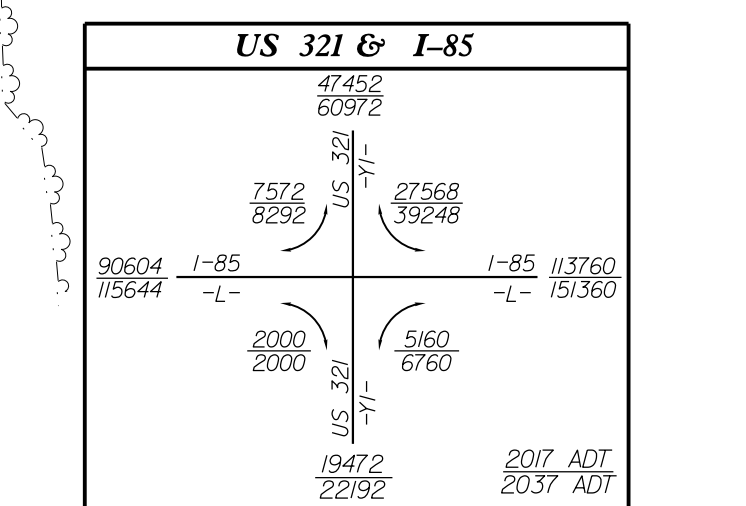
PROP. MONOLITHIC ISLAND

FOR DRAINAGE DETAILS SEE SHEET 20-1
FOR -Y1- PROFILE SEE SHEET 10
FOR -RPA- PROFILE SEE SHEET 13
FOR -TRAIL- PROFILE SEE SHEET 15
FOR CULVERT PLANS SEE SHEETS C1 THRU C25

14-FEB-2017 12:27 11-5000-Rdy-dsm-psh.05.dgn
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Contaminated soil is not anticipated to be encountered. Refer to Spec Sec 107-25.



RPA

Pls Sta 12+51.52 Δs = 2' 47' 41.7" Ls = 200.00' LT = 133.35' ST = 66.68'	Pl Sta 13+71.57 Δ = 2' 59' 03.5" (RT) D = 2' 47' 41.7" L = 106.78' T = 53.40' R = 2,050.00' SE = 06 RO = 200'
--	--

RPD

Pl Sta 15+01.53 Δ = 17' 50' 52.6" (LT) D = 5' 56' 14.6" L = 300.60' T = 151.53' R = 965.00' SE = 06 RO = 250'	Pl Sta 20+25.19 Δ = 100' 03' 26.9" (RT) D = 18' 14' 49.4" L = 548.35' T = 374.59' R = 314.00' SE = 08 RO = 250'	Pl Sta 25+10.33 Δ = 8' 59' 38.6" (RT) D = 1' 54' 35.5" L = 470.93' T = 235.95' R = 3,000.00' SE = 02
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RPC

Pls Sta 11+00.57 Δs = 18' 45' 00.0" Ls = 150.00' LT = 100.57' ST = 50.52'	Pl Sta 11+96.84 Δ = 23' 06' 08.8" (LT) D = 25' 00' 00.0" L = 92.41' T = 46.84' R = 229.18'	Pls Sta 12+92.93 Δs = 18' 45' 00.0" Ls = 150.00' LT = 100.57' ST = 50.52'
---	---	---

TRAIL

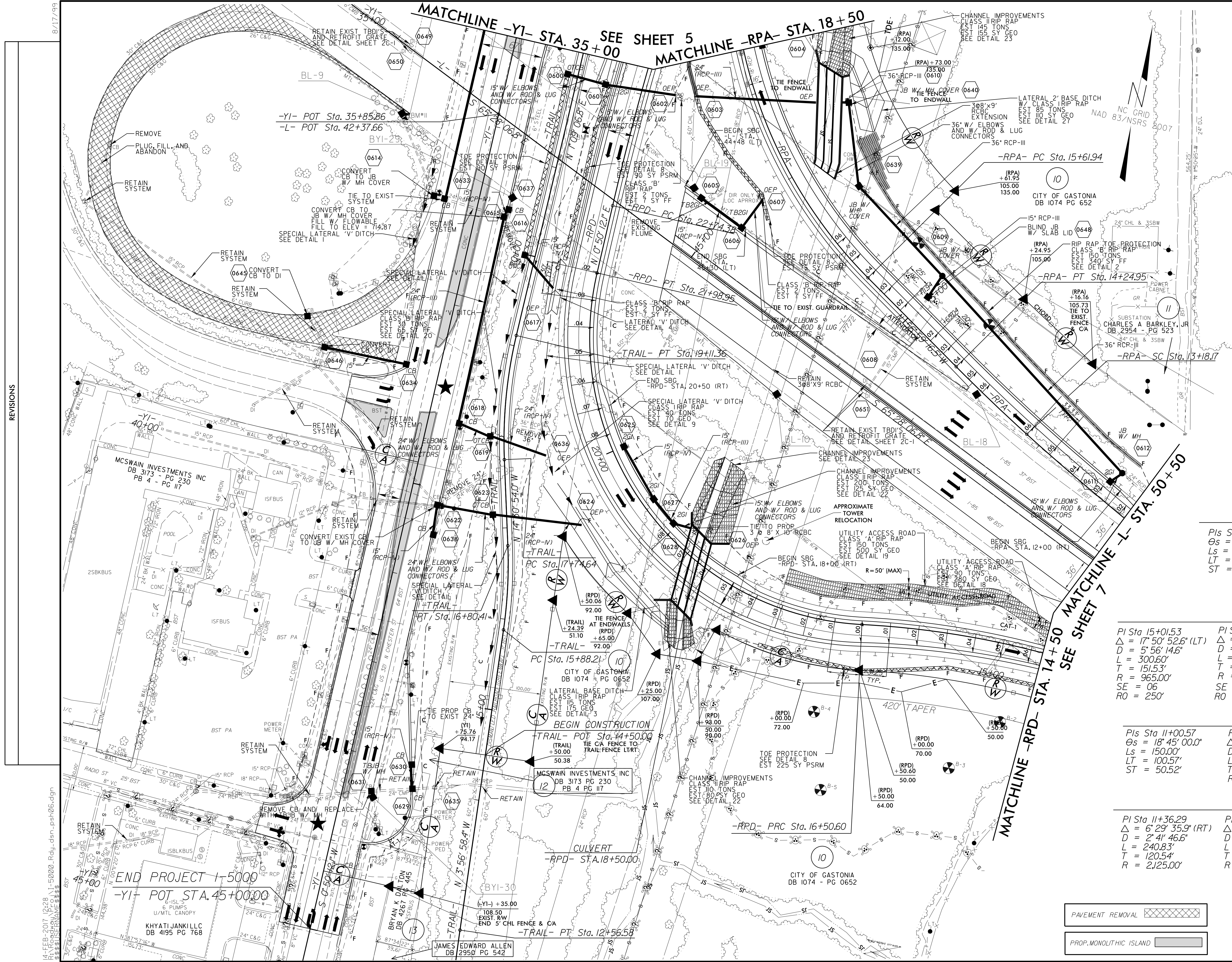
Pl Sta 11+36.29 Δ = 6' 29' 35.9" (RT) D = 2' 41' 46.6" L = 240.83' T = 120.54' R = 2,125.00'	Pl Sta 16+34.44 Δ = 10' 33' 55.6" (LT) D = 11' 27' 33.0" L = 92.20' T = 46.23' R = 500.00'	Pl Sta 18+43.43 Δ = 15' 40' 00.8" (RT) D = 11' 27' 33.0" L = 136.72' T = 68.79' R = 500.00'
---	---	--

REVISED SIGNALS

PAVEMENT REMOVAL

PROP. MONOLITHIC ISLAND

FOR DRAINAGE DETAILS SEE SHEET 2D-1
FOR -YI- PROFILE SEE SHEETS 10 & 11
FOR -RPA- PROFILE SEE SHEET 13
FOR -RPD- PROFILE SEE SHEETS 13 & 14
FOR -TRAIL- PROFILE SEE SHEET 15
FOR CULVERT PLANS SEE SHEETS C1THRU C25



REVISIONS

8/17/99
14-FEB-2017 12:28 N:\1-5000-Rdy-dsm-psh06.dgn
33833051-RWAVE 8.434

END PROJECT 1-5000
-YI- POT STA. 45+00.00
KHYATI JANKILC
DB 495 PG 768

JAMES EDWARD ALLEN
DB 2950 PG 542

BRYAN K DALTON
DB 4267 PG 445

MCSWAIN INVESTMENTS INC
DB 3173 - PG 230
PB 4 - PG 117

CITY OF GASTONIA
DB 1074 - PG 652

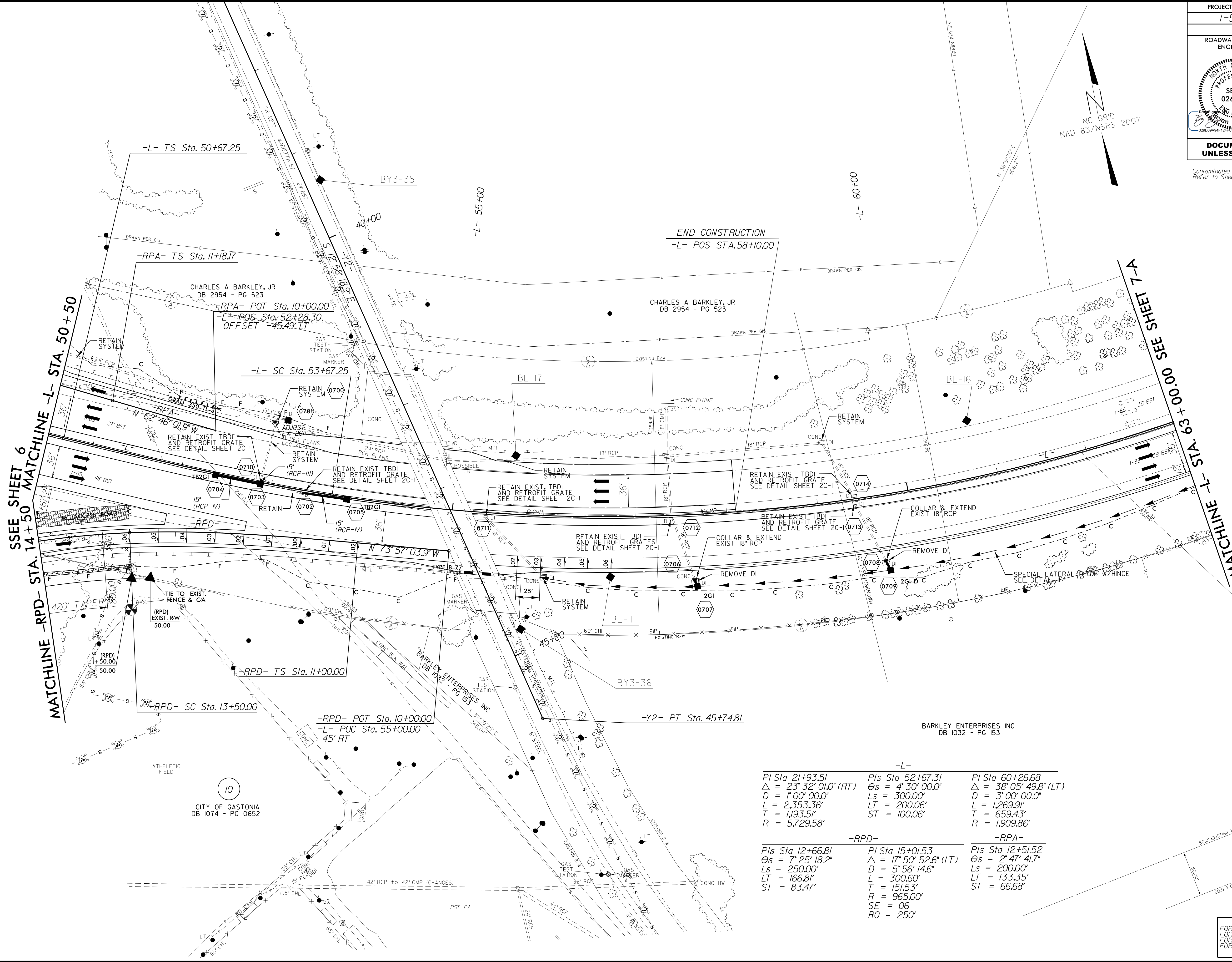
CHARLES A BARKLEY, JR
DB 2954 - PG 523

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

Contaminated soil is not anticipated to be encountered.
Refer to Spec Sec 107-25.

8/17/99

REVISIONS

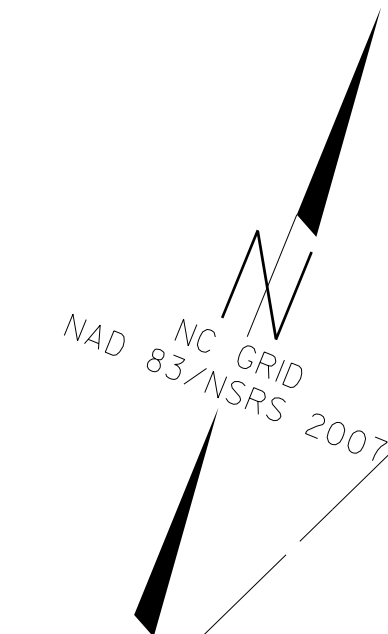


-L- PI Sta 21+93.51 $\Delta = 23^\circ 32' 01.0''$ (RT) $D = 1'00' 00.0''$ $L = 2,353.36'$ $T = 1,933.51'$ $R = 5,729.58'$	-L- PIs Sta 52+67.31 $\Delta = 4^\circ 30' 00.0''$ $Ls = 300.00'$ $LT = 200.06'$ $ST = 100.06'$	-L- PI Sta 60+26.68 $\Delta = 38^\circ 05' 49.8''$ (LT) $D = 3'00' 00.0''$ $L = 1,269.91'$ $T = 659.43'$ $R = 1,909.86'$
-RPD- PIs Sta 12+66.81 $\Delta = 7^\circ 25' 18.2''$ $Ls = 250.00'$ $LT = 166.81'$ $ST = 83.47'$	-RPD- PI Sta 15+01.53 $\Delta = 17^\circ 50' 52.6''$ (LT) $D = 5'56' 14.6''$ $L = 300.60'$ $T = 151.53'$ $R = 965.00'$ $SE = 06$ $RO = 250'$	-RPA- PIs Sta 12+51.52 $\Delta = 2^\circ 47' 41.7''$ $Ls = 200.00'$ $LT = 133.35'$ $ST = 66.68'$

FOR DRAINAGE DETAILS SEE SHEET 20-1
 FOR -L- PROFILE SEE SHEET 16 AND 17
 FOR -RPA- PROFILE SEE SHEET 13
 FOR -RPD- PROFILE SEE SHEET 13

9-14-2017 10:36 AM
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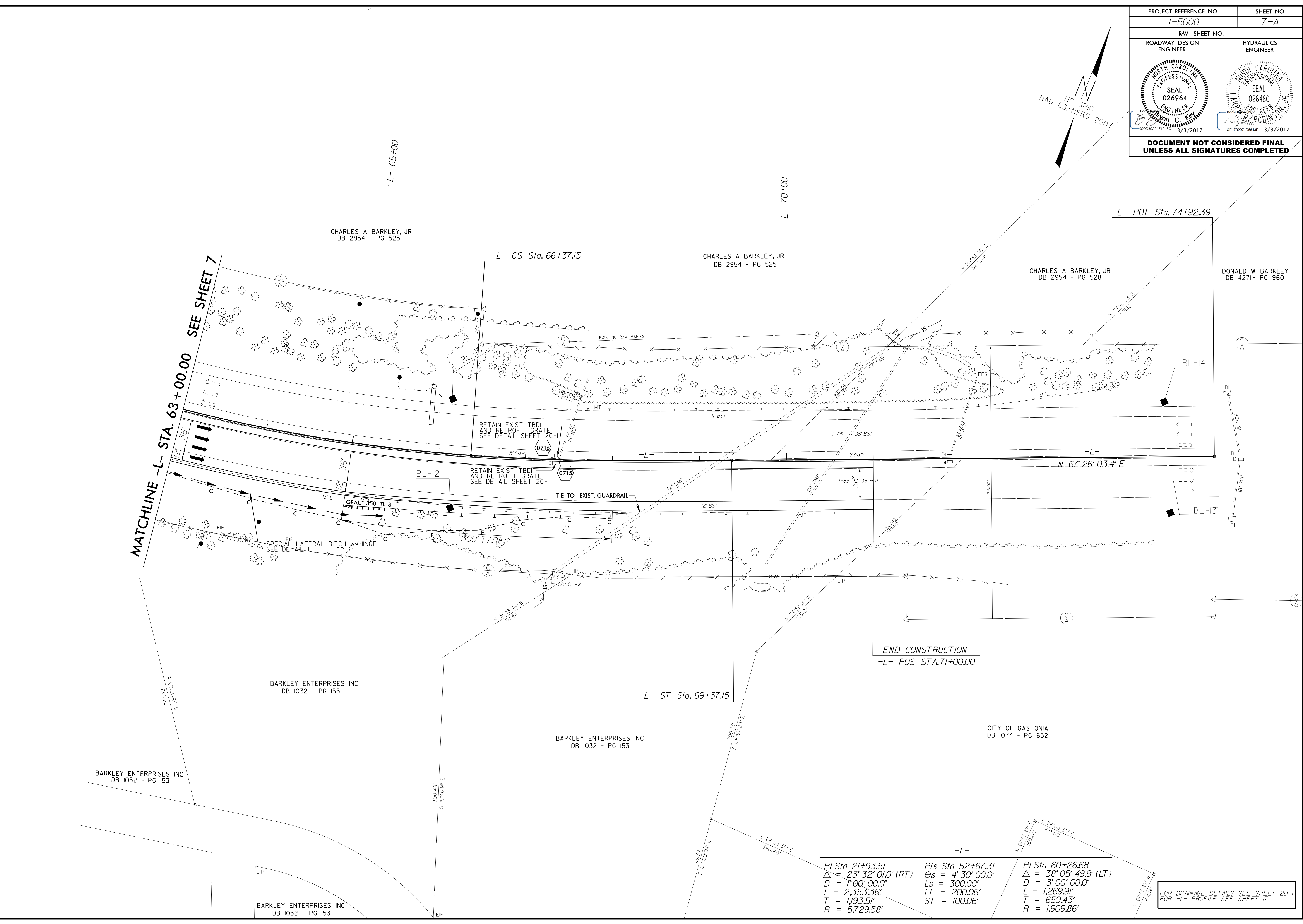
PROJECT REFERENCE NO. I-5000	SHEET NO. 7-A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



8/17/99

REVISIONS

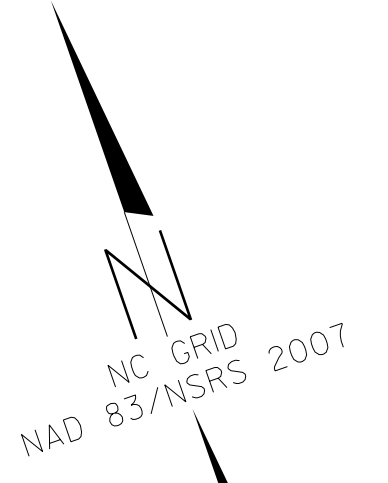
P:\AN-2017\1639..._Rdy...dgn
3/15/2017 3:38:56 PM



PI Sta 21+93.51 $\Delta = 23^{\circ} 32' 01.0''$ (RT) $D = 1^{\circ} 00' 00.0''$ $L = 2,353.36'$ $T = 1,193.51'$ $R = 5,729.58'$	PIs Sta 52+67.31 $\Delta_s = 4^{\circ} 30' 00.0''$ $L_s = 300.06'$ $LT = 200.06'$ $ST = 100.06'$	PI Sta 60+26.68 $\Delta = 38^{\circ} 05' 49.8''$ (LT) $D = 3^{\circ} 00' 00.0''$ $L = 1,269.91'$ $T = 659.43'$ $R = 1,909.86'$
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FOR DRAINAGE DETAILS SEE SHEET 20-1
FOR -L- PROFILE SEE SHEET 7

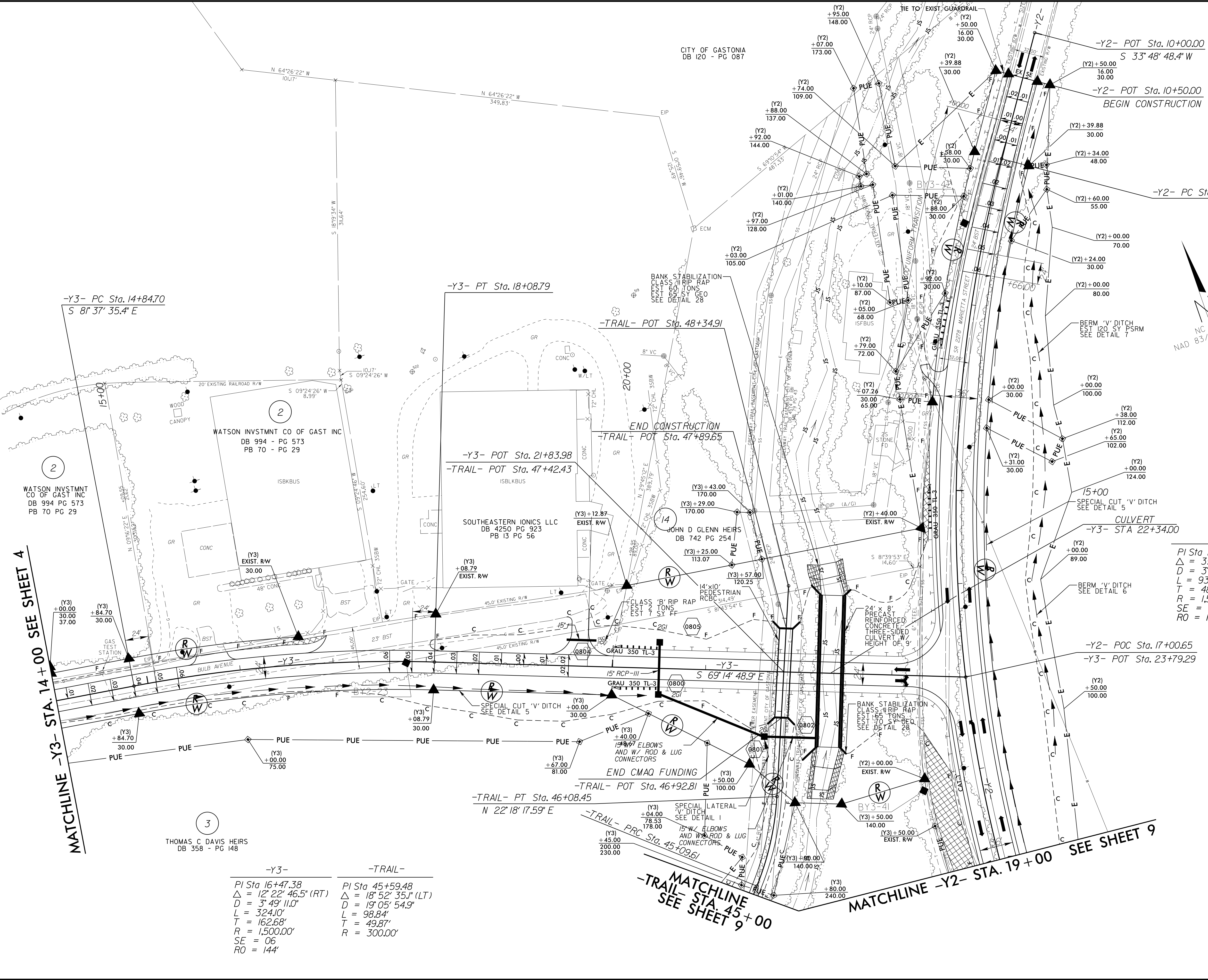
PROJECT REFERENCE NO. 1-5000		SHEET NO. 8	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		SEAL 026480	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			



14
JOHN D GLENN HEIRS
DB 344 - PG 588

8/17/99

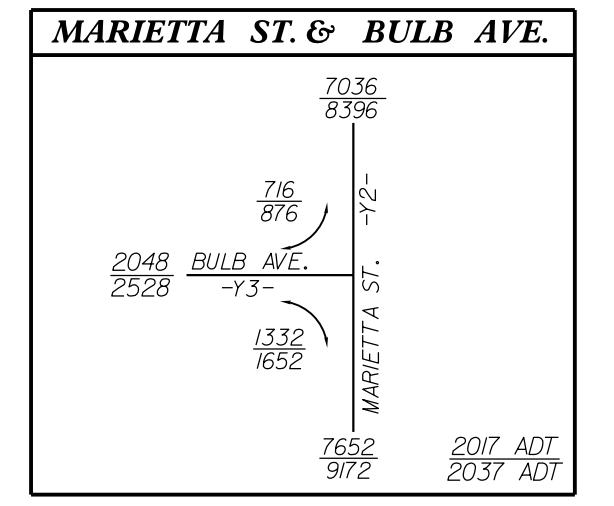
REVISIONS



MATCHLINE -Y3- STA. 14+00 SEE SHEET 4

MATCHLINE -Y2- STA. 19+00 SEE SHEET 9

-Y3-	-TRAIL-
PI Sta 16+47.38	PI Sta 45+59.48
$\Delta = 12^\circ 22' 46.5" (RT)$	$\Delta = 18^\circ 52' 35.1" (LT)$
$D = 3^\circ 49' 11.0"$	$D = 19^\circ 05' 54.9"$
$L = 324.10'$	$L = 98.84'$
$T = 162.68'$	$T = 49.87'$
$R = 1,500.00'$	$R = 300.00'$
$SE = 06$	
$RO = 144'$	

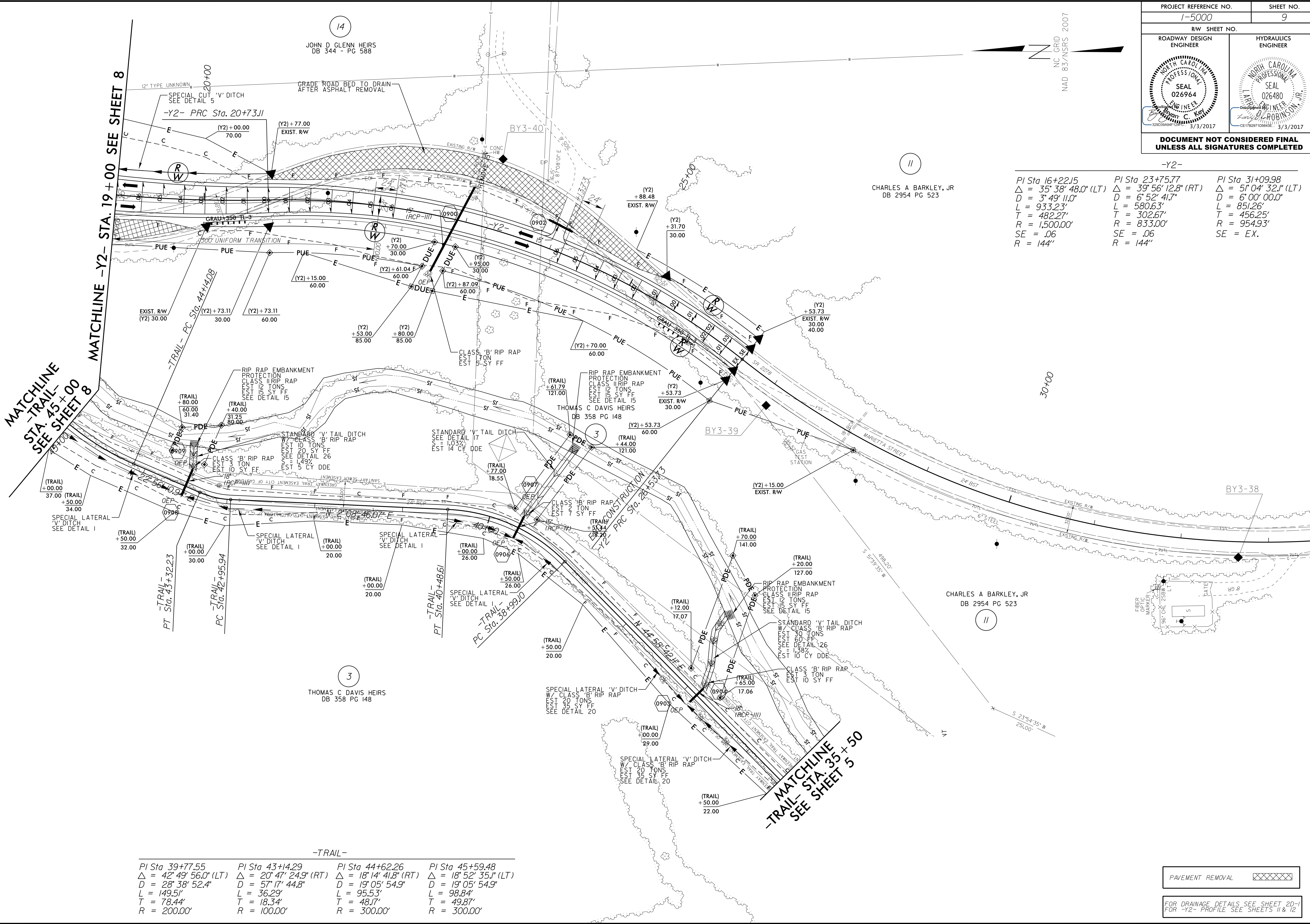


FOR DRAINAGE DETAILS SEE SHEET 2D-1
FOR -Y2- PROFILE SEE SHEET 11
FOR -Y3- PROFILE SEE SHEET 12
FOR CULVERT PLANS SEE SHEETS C1 THRU C25

9/7/MAR-2017 17:53 I:\50000\1-50000\RDY\dsm-psht08.dgn
9:55 AM
9:55 AM

8/17/99

14-FEB-2017 10:29 A:\1-5000-Rdy...dgn



-Y2-

PI Sta 16+22.15 $\Delta = 35^{\circ} 38' 48.0''$ (LT) $D = 3^{\circ} 49' 11.0''$ $L = 933.23'$ $T = 482.27'$ $R = 1,500.00'$ $SE = .06$ $R = 144''$	PI Sta 23+75.77 $\Delta = 39^{\circ} 56' 12.8''$ (RT) $D = 6^{\circ} 52' 41.7''$ $L = 580.63'$ $T = 302.67'$ $R = 833.00'$ $SE = .06$ $R = 144''$	PI Sta 31+09.98 $\Delta = 51^{\circ} 04' 32.1''$ (LT) $D = 6^{\circ} 00' 00.0''$ $L = 851.26'$ $T = 456.25'$ $R = 954.93'$ $SE = EX.$
--	--	---

MATCHLINE - TRAIL - STA. 45+00
SEE SHEET 8

MATCHLINE -Y2- STA. 19+00
SEE SHEET 8

MATCHLINE - TRAIL - STA. 35+50
SEE SHEET 5

-TRAIL-

PI Sta 39+77.55 $\Delta = 42^{\circ} 49' 56.0''$ (LT) $D = 28^{\circ} 38' 52.4''$ $L = 149.51'$ $T = 78.44'$ $R = 200.00'$	PI Sta 43+14.29 $\Delta = 20^{\circ} 47' 24.9''$ (RT) $D = 57^{\circ} 17' 44.8''$ $L = 36.29'$ $T = 18.34'$ $R = 100.00'$	PI Sta 44+62.26 $\Delta = 18^{\circ} 14' 41.8''$ (RT) $D = 19^{\circ} 05' 54.9''$ $L = 95.53'$ $T = 48.17'$ $R = 300.00'$	PI Sta 45+59.48 $\Delta = 18^{\circ} 52' 35.1''$ (LT) $D = 19^{\circ} 05' 54.9''$ $L = 98.84'$ $T = 49.87'$ $R = 300.00'$
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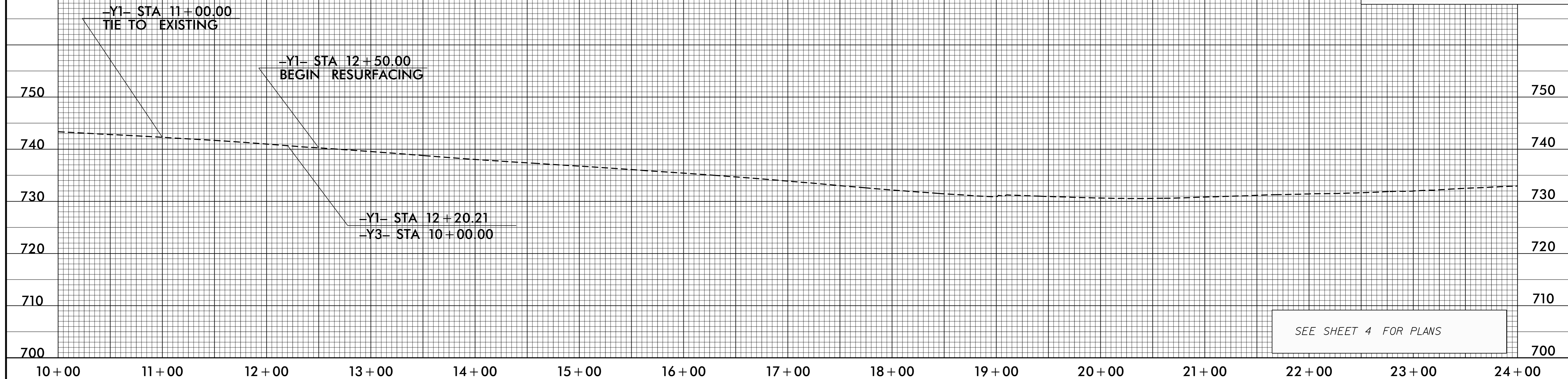
PAVEMENT REMOVAL

FOR DRAINAGE DETAILS SEE SHEET 20-1 FOR -Y2- PROFILE SEE SHEETS 11 & 12

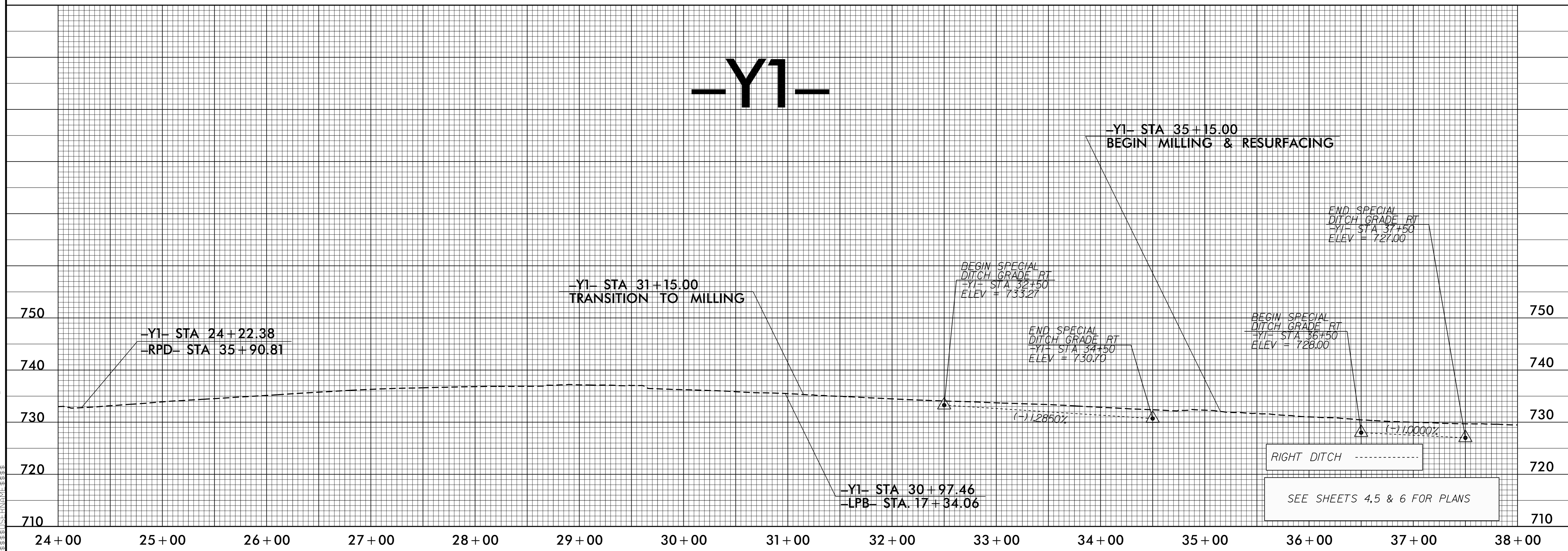
5/28/99

PROJECT REFERENCE NO. 1-5000	SHEET NO. 10
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



-Y1-



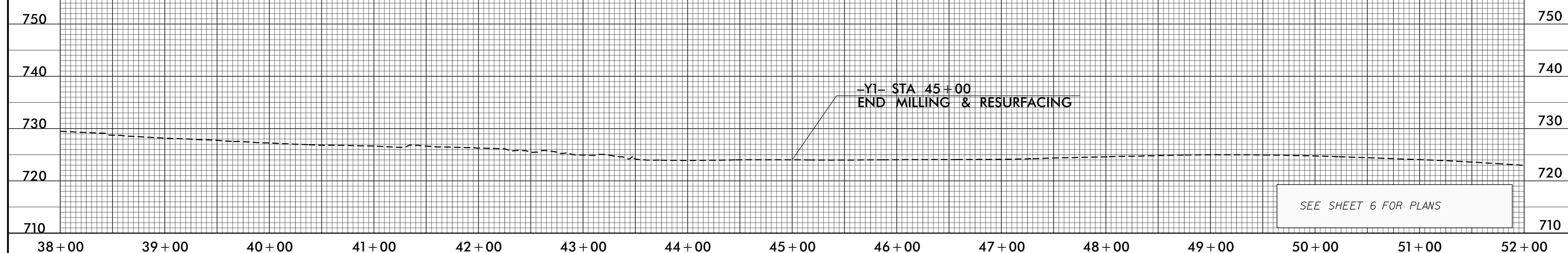
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5/28/99

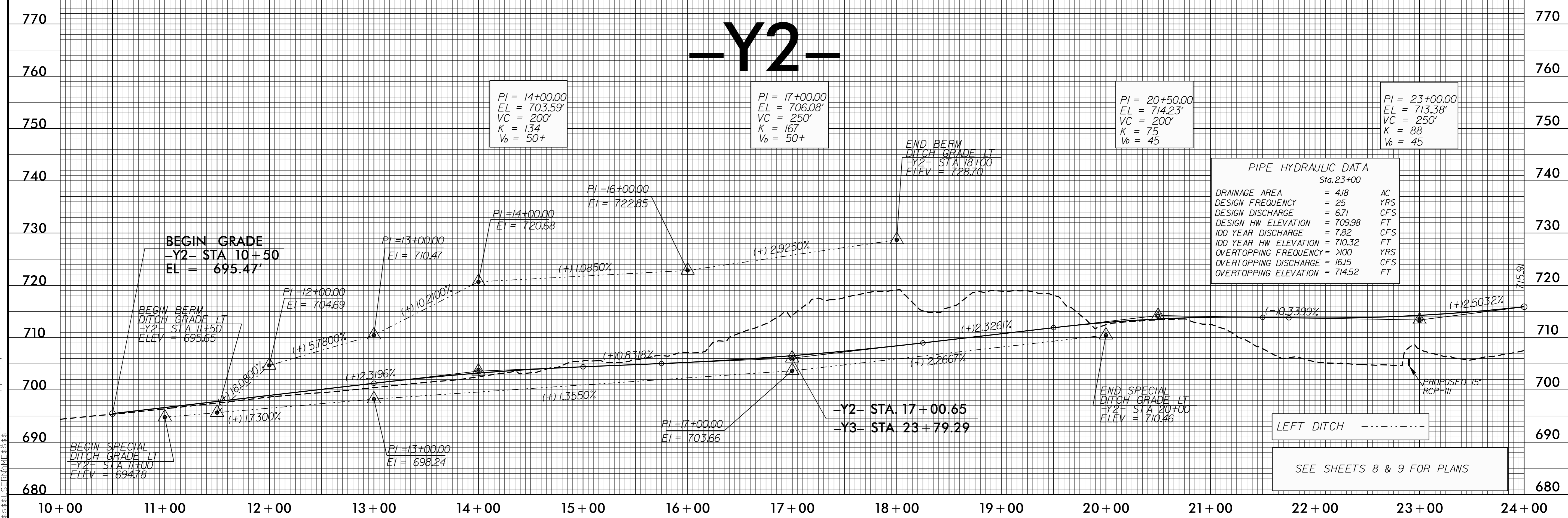
PROJECT REFERENCE NO. 1-5000	SHEET NO. 11
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-Y1-



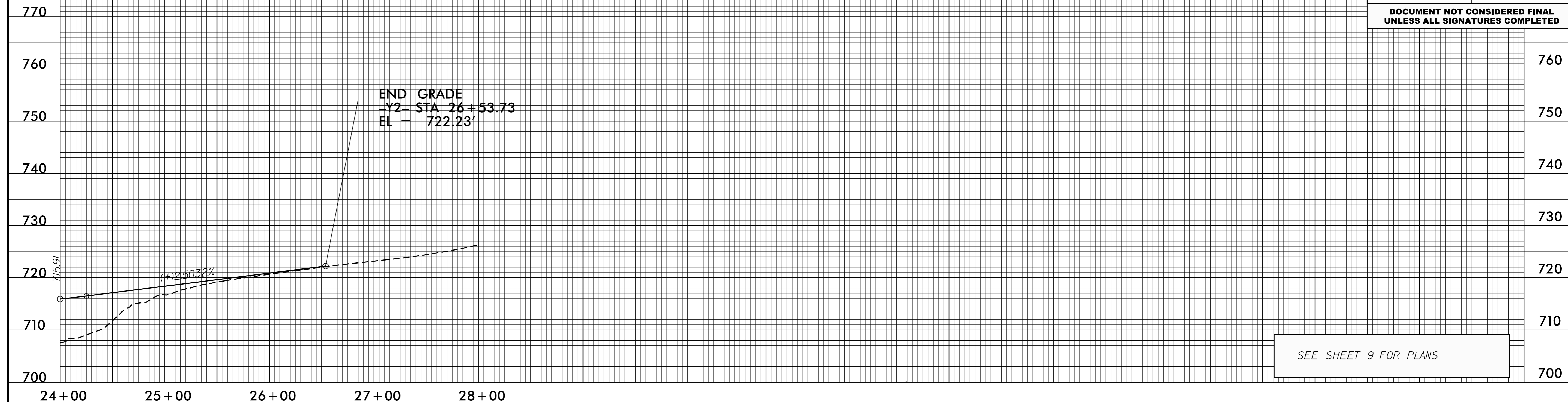
-Y2-



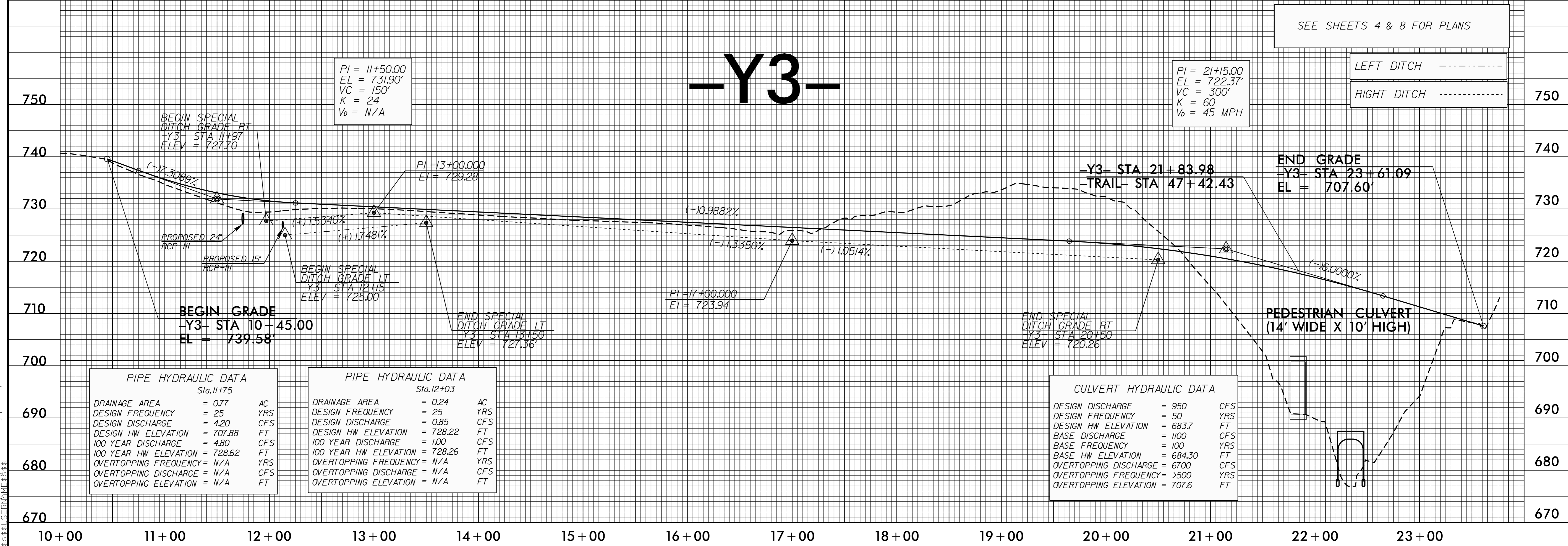
21 JAN-2017 14:07 1-5000-Rd-Profile.dgn

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

-Y2-



-Y3-



PIPE HYDRAULIC DATA		Sta. 11+75	
DRAINAGE AREA	= 0.77	AC	
DESIGN FREQUENCY	= 25	YRS	
DESIGN DISCHARGE	= 4.20	CFS	
DESIGN HW ELEVATION	= 707.88	FT	
100 YEAR DISCHARGE	= 4.80	CFS	
100 YEAR HW ELEVATION	= 728.62	FT	
OVERTOPPING FREQUENCY	= N/A	YRS	
OVERTOPPING DISCHARGE	= N/A	CFS	
OVERTOPPING ELEVATION	= N/A	FT	

PIPE HYDRAULIC DATA		Sta. 12+03	
DRAINAGE AREA	= 0.24	AC	
DESIGN FREQUENCY	= 25	YRS	
DESIGN DISCHARGE	= 0.85	CFS	
DESIGN HW ELEVATION	= 728.22	FT	
100 YEAR DISCHARGE	= 1.00	CFS	
100 YEAR HW ELEVATION	= 728.26	FT	
OVERTOPPING FREQUENCY	= N/A	YRS	
OVERTOPPING DISCHARGE	= N/A	CFS	
OVERTOPPING ELEVATION	= N/A	FT	

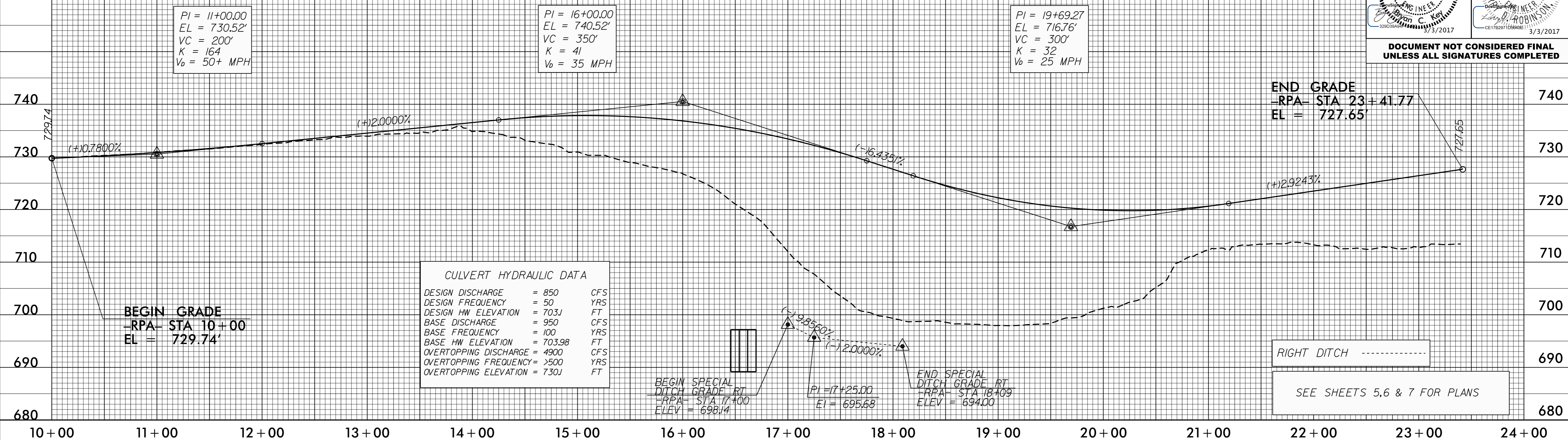
CULVERT HYDRAULIC DATA		
DESIGN DISCHARGE	= 950	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 683.7	FT
BASE DISCHARGE	= 1100	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 684.30	FT
OVERTOPPING DISCHARGE	= 6700	CFS
OVERTOPPING FREQUENCY	= >500	YRS
OVERTOPPING ELEVATION	= 707.6	FT

5/28/99

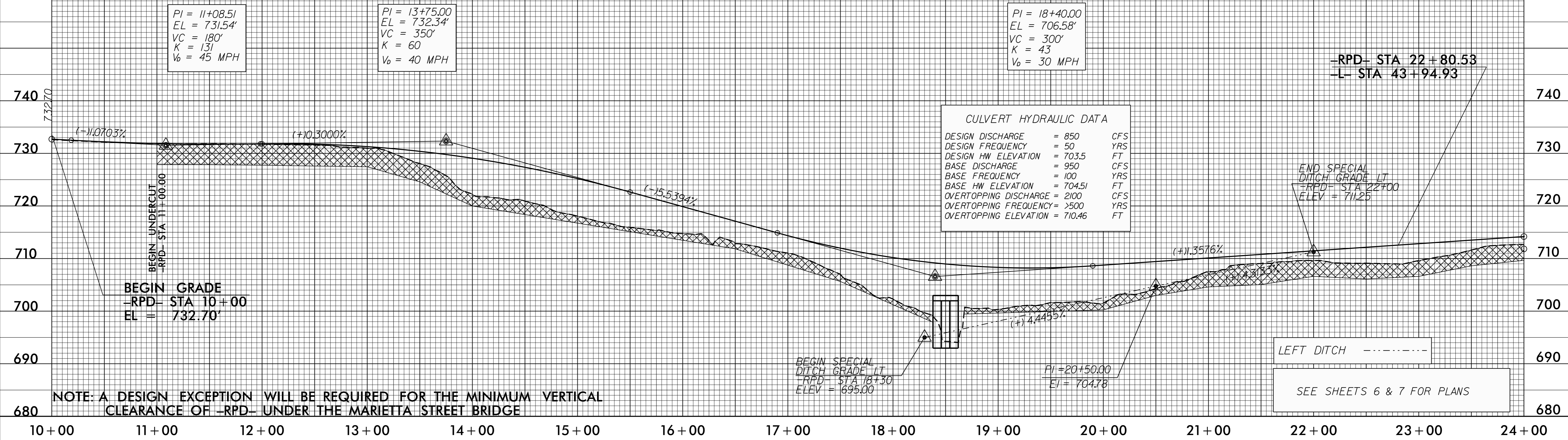
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DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-RPA-



-RPD-



NOTE: A DESIGN EXCEPTION WILL BE REQUIRED FOR THE MINIMUM VERTICAL CLEARANCE OF -RPD- UNDER THE MARIETTA STREET BRIDGE

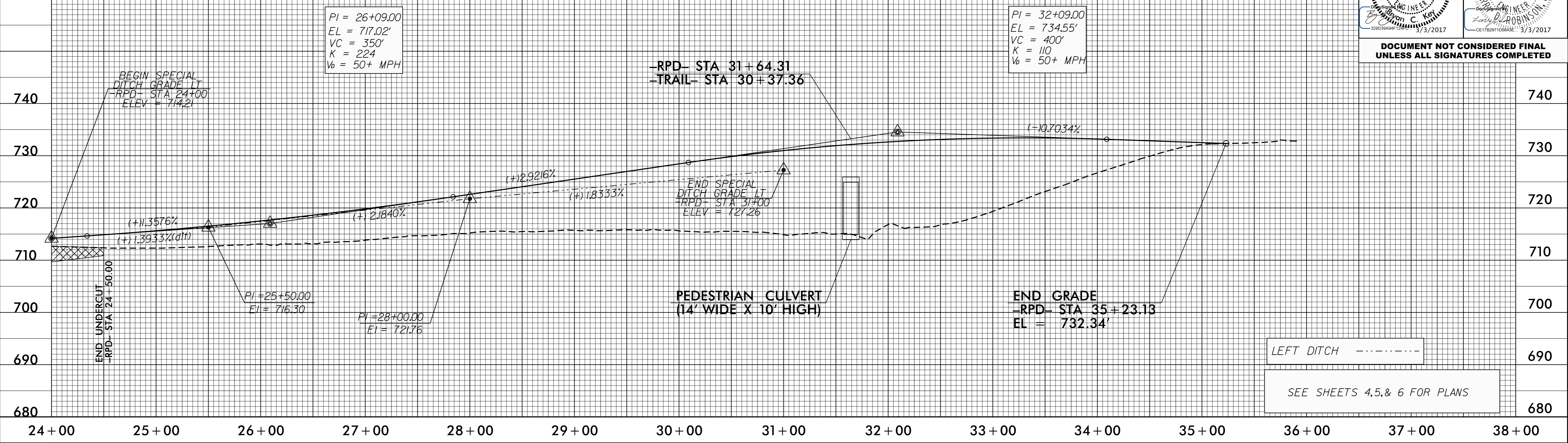
5/28/99
19 JAN 2017 10:37 A:\1-5000-RPA-RPD.dwg
5/28/99 10:37 AM

5/28/99

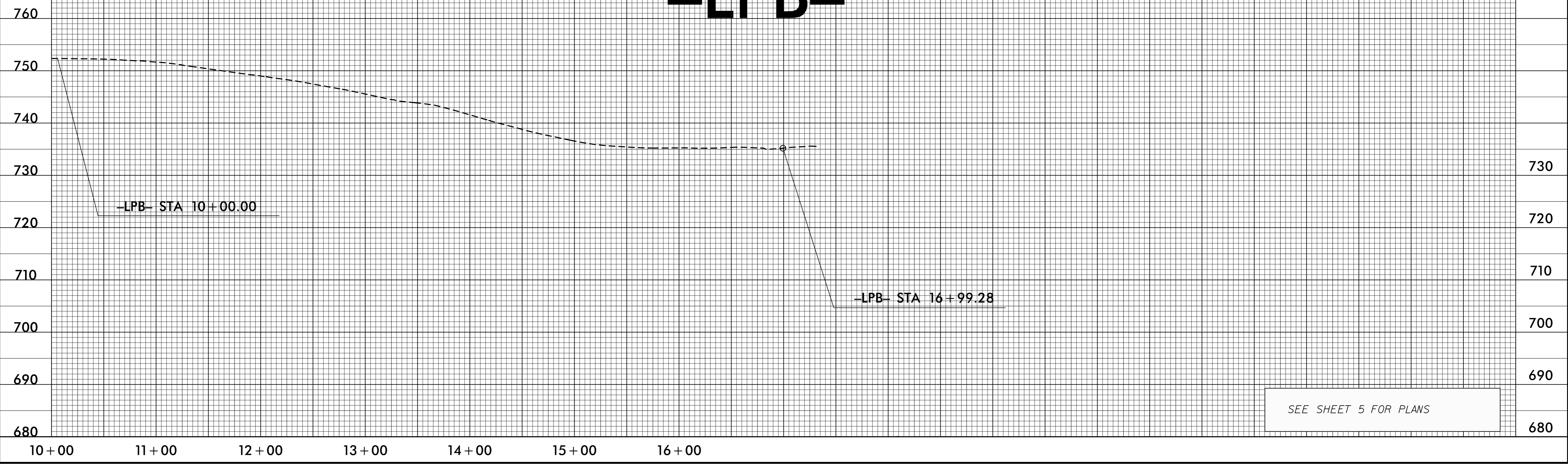
PROJECT REFERENCE NO. 1-5000	SHEET NO. 14
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-RPD-



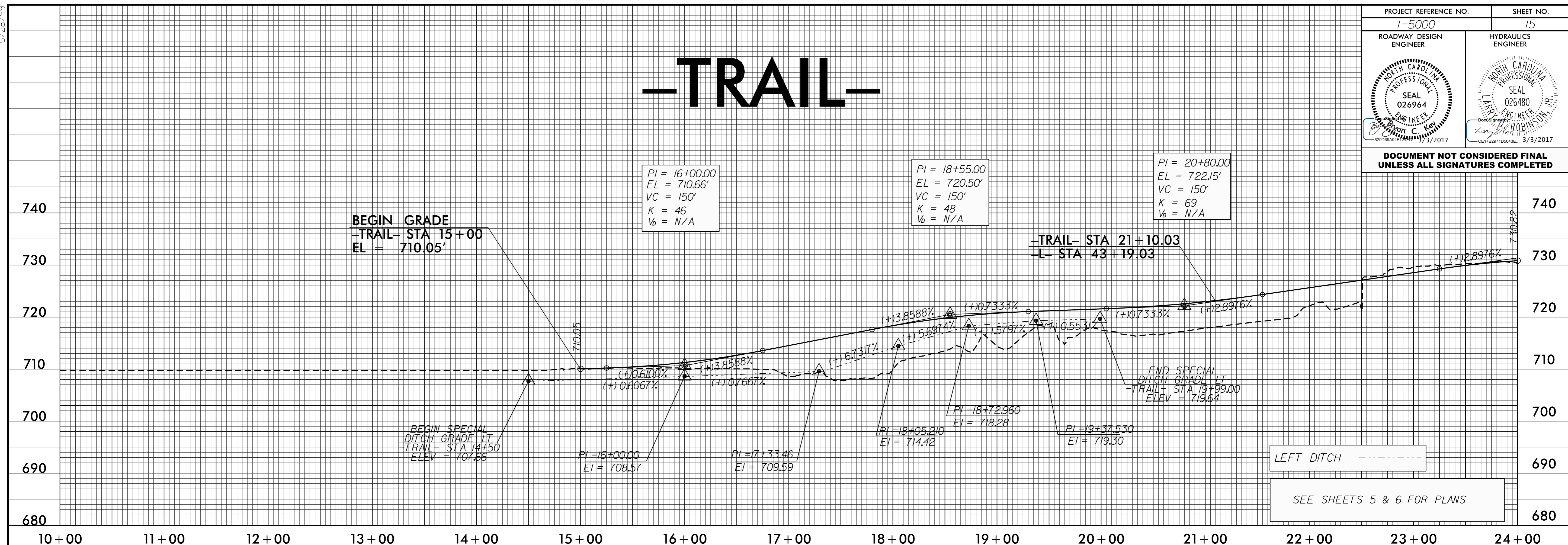
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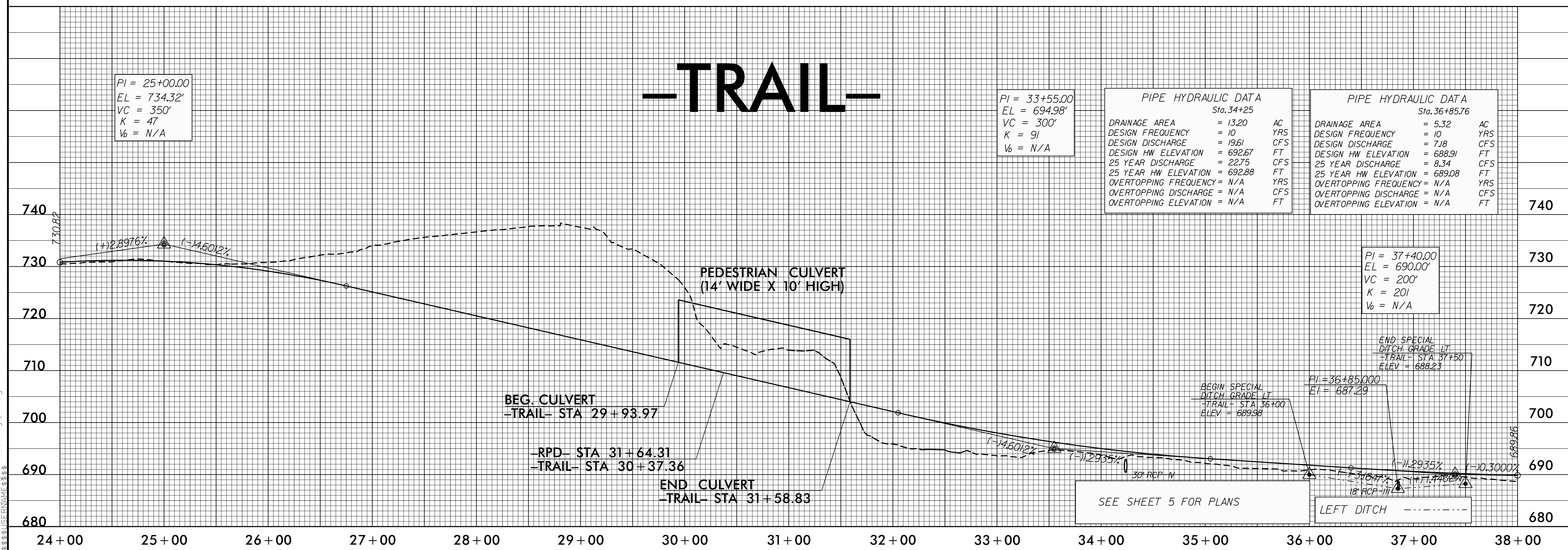
**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

-TRAIL-



LEFT DITCH -----
SEE SHEETS 5 & 6 FOR PLANS

-TRAIL-



PIPE HYDRAULIC DATA
Sta. 34+25

DRAINAGE AREA	= 13.20	AC
DESIGN FREQUENCY	= 10	YRS
DESIGN DISCHARGE	= 19.61	CFS
DESIGN HW ELEVATION	= 692.67	FT
25 YEAR DISCHARGE	= 22.75	CFS
25 YEAR HW ELEVATION	= 692.88	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PIPE HYDRAULIC DATA
Sta. 36+85.76

DRAINAGE AREA	= 5.32	AC
DESIGN FREQUENCY	= 10	YRS
DESIGN DISCHARGE	= 7.8	CFS
DESIGN HW ELEVATION	= 688.91	FT
25 YEAR DISCHARGE	= 8.34	CFS
25 YEAR HW ELEVATION	= 689.08	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT


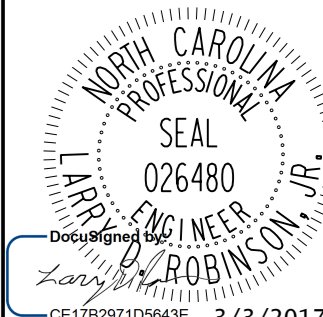
SEE SHEET 5 FOR PLANS
LEFT DITCH -----

5/28/99

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5/28/99

-TRAIL-

PROJECT REFERENCE NO. 1-5000	SHEET NO. 16
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

PIPE HYDRAULIC DATA
Sta. 39+65

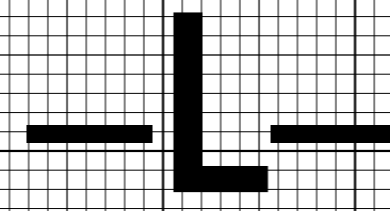
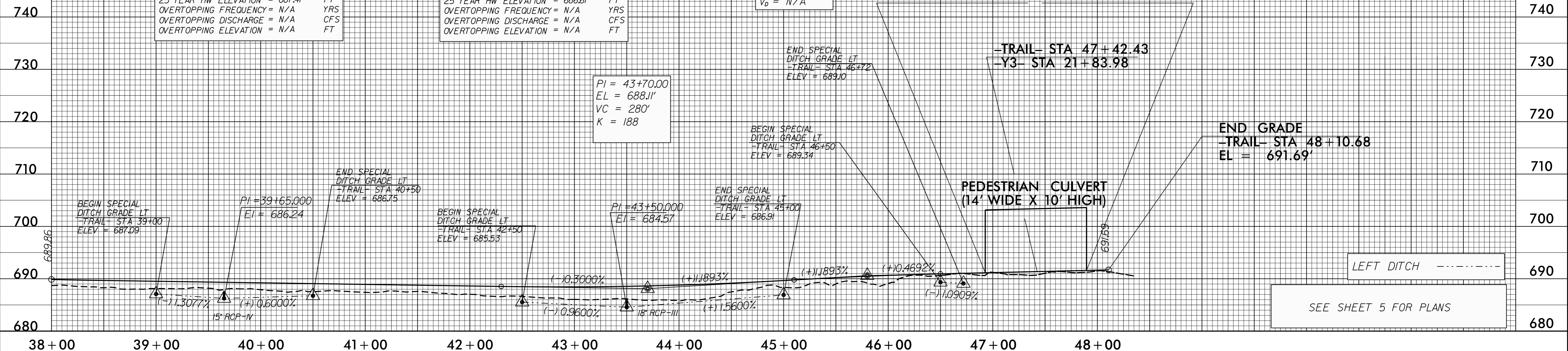
DRAINAGE AREA	= 2.36	AC
DESIGN FREQUENCY	= 10	YRS
DESIGN DISCHARGE	= 3.18	CFS
DESIGN HW ELEVATION	= 687.31	FT
25 YEAR DISCHARGE	= 3.69	CFS
25 YEAR HW ELEVATION	= 687.41	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PIPE HYDRAULIC DATA
Sta. 43+50

DRAINAGE AREA	= 4.98	AC
DESIGN FREQUENCY	= 10	YRS
DESIGN DISCHARGE	= 8.71	CFS
DESIGN HW ELEVATION	= 686.39	FT
25 YEAR DISCHARGE	= 9.96	CFS
25 YEAR HW ELEVATION	= 686.61	FT
OVERTOPPING FREQUENCY	= N/A	YRS
OVERTOPPING DISCHARGE	= N/A	CFS
OVERTOPPING ELEVATION	= N/A	FT

PI = 45+80.00
EL = 690.61'
VC = 140'
K = 194
V₀ = N/A

PI = 43+70.00
EL = 688.11'
VC = 280'
K = 188



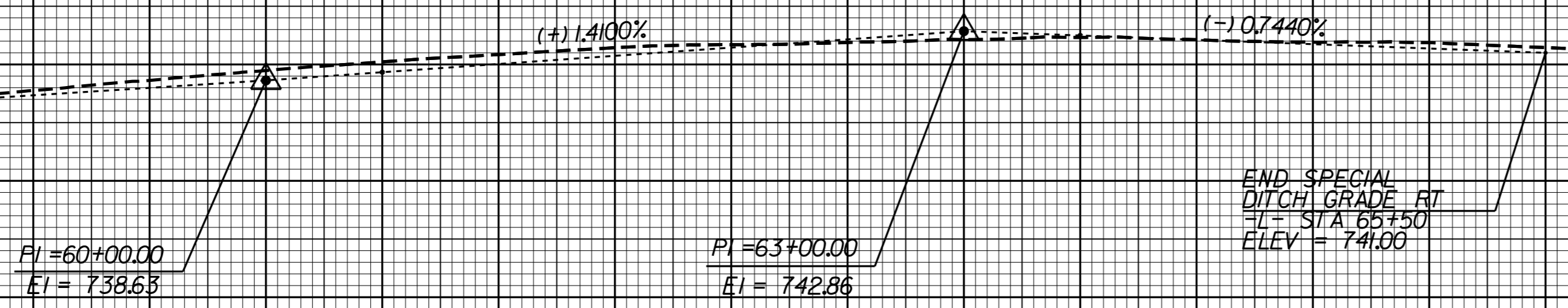
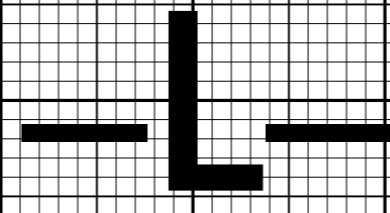
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PROJECT REFERENCE NO. 1-5000	SHEET NO. 17
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

5/28/99

760
750
740
730
720
710
700
690
680

58+00 59+00 60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00



RIGHT DITCH -----
SEE SHEETS 7 & 7-A FOR PLANS