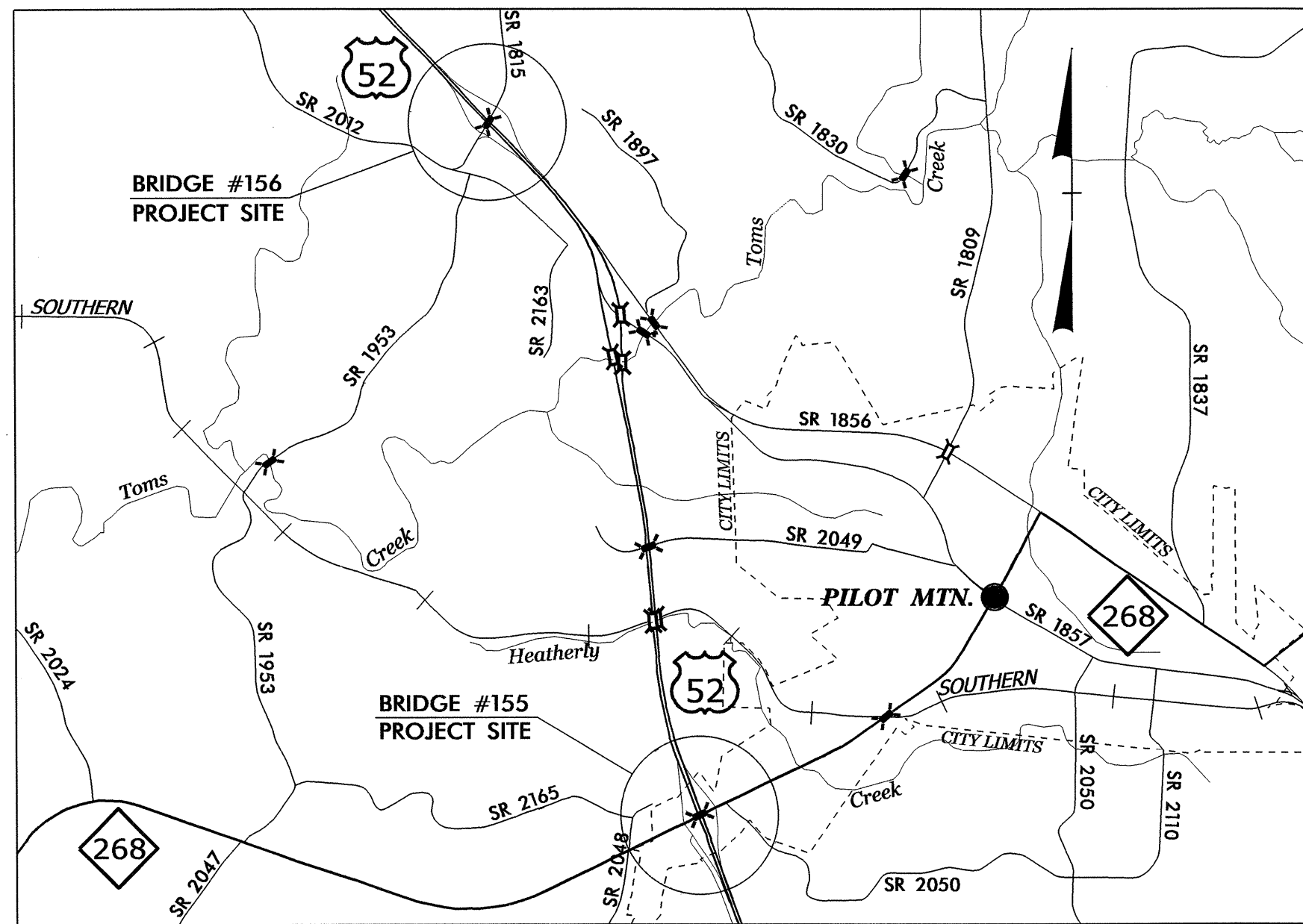


See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SURRY COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.11.R.56	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
17BP.11.R.56		PE	
17BP.11.R.56		CONST.	

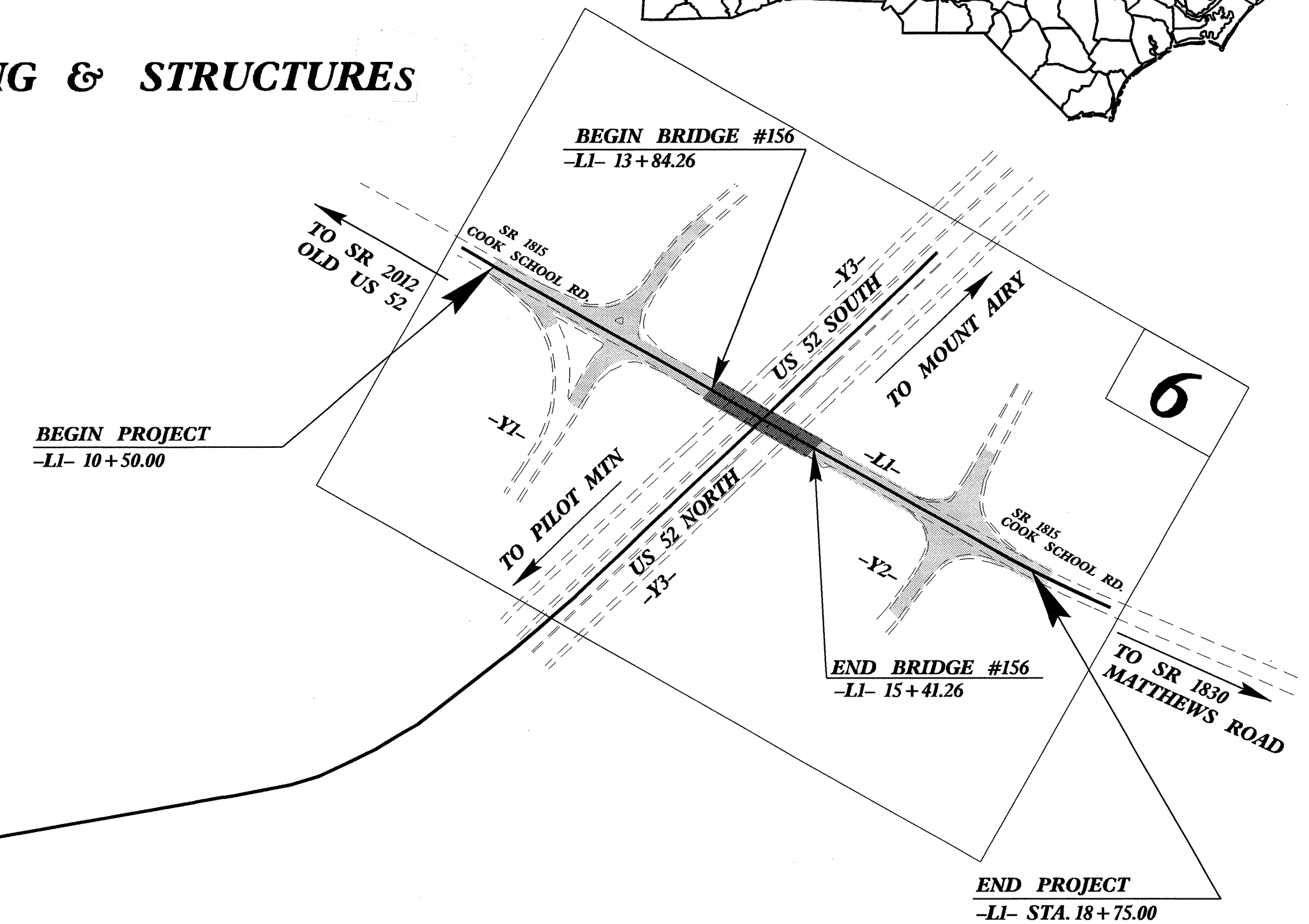
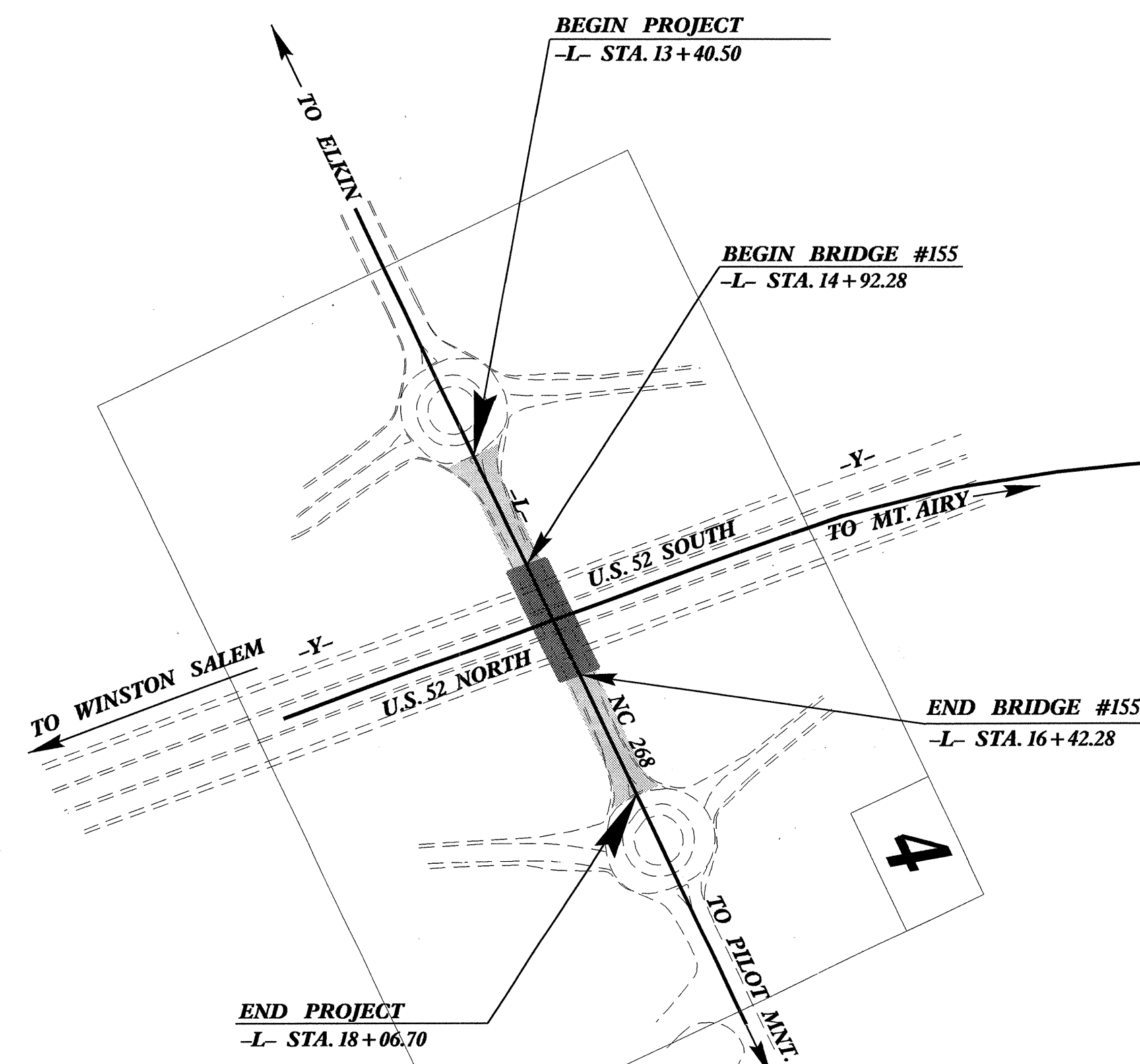
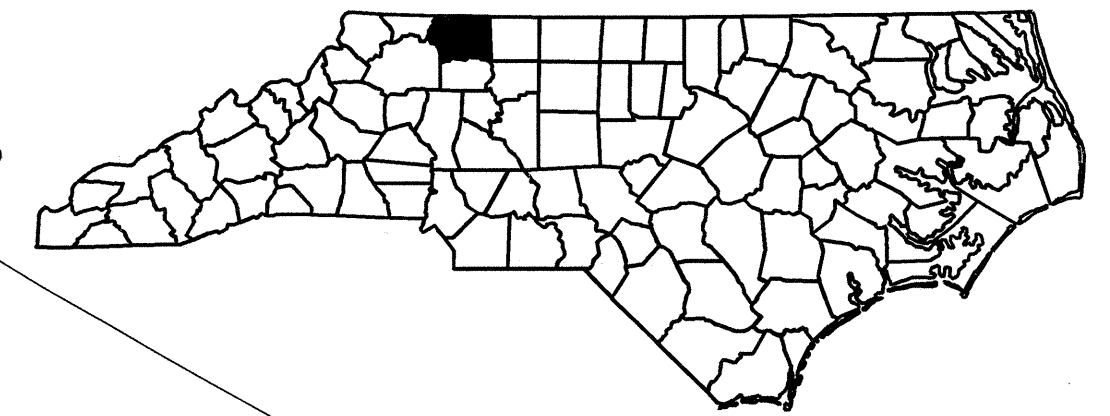
TIP PROJECT: 17BP.11.R.56



VICINITY MAP

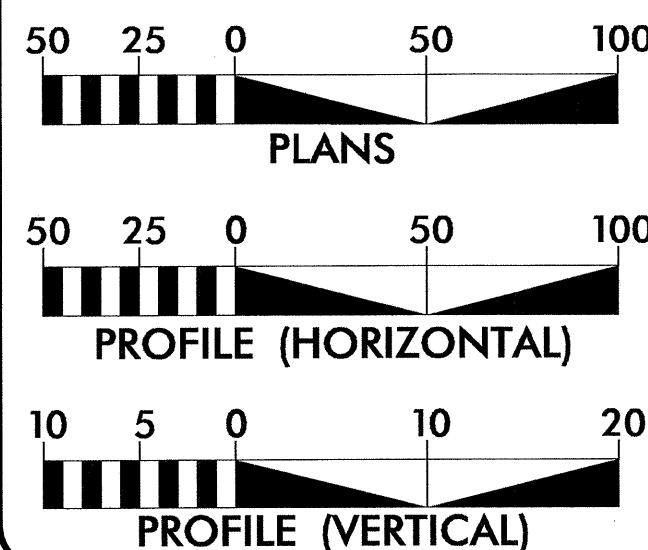
LOCATION: BRIDGE No. 155 ON NC 268 (SOUTH KEY ST.) OVER US 52 & BRIDGE No. 156 ON SR 1815 (COOK SCHOOL RD.) OVER US 52

TYPE OF WORK: GRADING, DRAINAGE, PAVING & STRUCTURES



CONTRACT: C203508

GRAPHIC SCALES



DESIGN DATA

BRIDGE No. 155
ADT 2010 = 8,300
V = 40 MPH
FUNC CLASS = LOCAL URBAN REGIONAL TIER

BRIDGE No. 156
ADT 2010 = 2,700
V = 50 MPH
FUNC CLASS = LOCAL URBAN SUB-REGIONAL TIER

PROJECT LENGTH

BRIDGE No. 155
LENGTH OF ROADWAY = 0.060 MILES
LENGTH OF STRUCTURE = 0.028 MILES
TOTAL LENGTH OF PROJECT = 0.088 MILES

BRIDGE No. 156
LENGTH OF ROADWAY = 0.126 MILES
LENGTH OF STRUCTURE = 0.030 MILES
TOTAL LENGTH OF PROJECT = 0.156 MILES

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A

LETTING DATE: APRIL 15, 2014

JASON MOORE, PE
PROJECT ENGINEER

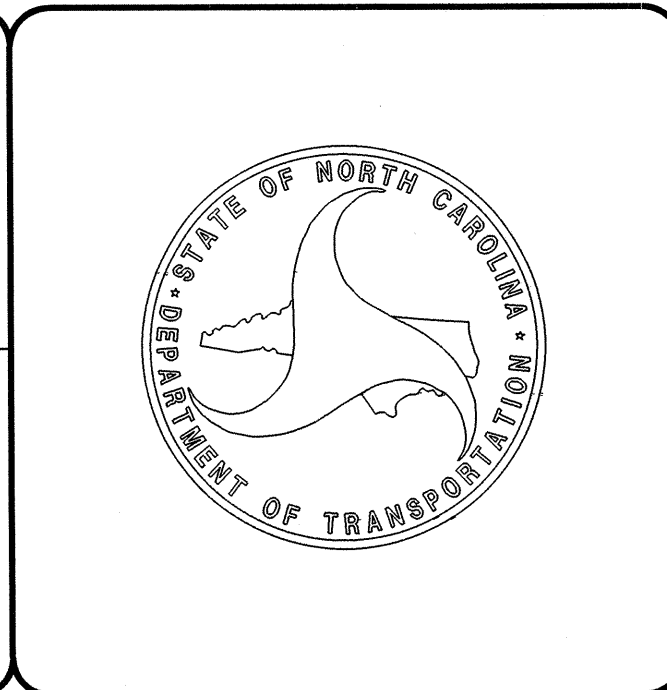
NYA K. BOAYUE, PE
PROJECT DESIGN ENGINEER

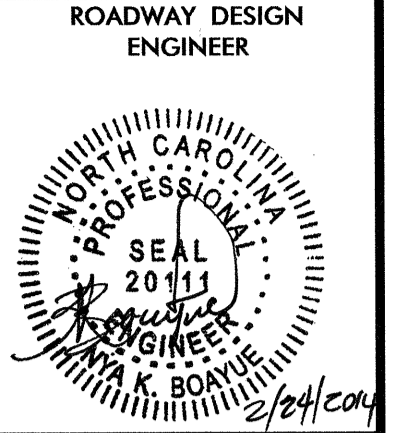
HYDRAULICS ENGINEER

ROADWAY DESIGN ENGINEER

Signature: [Signature] 2/29/14 P.E.

Signature: [Signature] 2/29/14 P.E.





EFF. 01-17-2012
REV. 10-30-2012

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS (BRIDGE # 155)
2-A THRU 2-B	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS (BRIDGE # 156)
2-C	DETAIL OF CONCRETE CATCH BASIN (3 OR 4 SIDE OPEN THROAT)
2-D	DETAIL OF STANDARD TEMPORARY SHORING
3-A	EARTHWORK SUMMARY, ASPHALT PAVEMENT REMOVAL SUMMARY AND MILLING OF ASPHALT PAVEMENT 0 TO 3"
3-B	SUMMARY OF DRAINAGE QUANTITIES
3-C	SUMMARY OF GUARDRAIL
4	PLAN SHEET (BRIDGE # 155)
5	PROFILE SHEET (BRIDGE # 155)
6	PLAN SHEET (BRIDGE # 156)
7	PROFILE SHEET (BRIDGE # 156)
TMP-1 THRU TMP-9	TRAFFIC CONTROL PLANS
PMP-1 THRU PMP-3	PAVEMENT MARKING PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
X-1 THRU X-43	CROSS-SECTIONS
S-1 THRU S-70	STRUCTURE PLANS

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 07-30-2012

GRADING AND SURFACING OR RESURFACING AND WIDENING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

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

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 AND/OR STD. NO. 225.05 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01 AND/OR STD. NO. 560.02

GUARDRAIL:

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

TEMPORARY SHORING:

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

SUBSURFACE PLANS:

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

END BENTS:

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

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 4 - MAJOR STRUCTURES	
422.10	Reinforced Bridge Approach Fills
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
665.01	Asphalt Shoulders - Milled Rumble Strips
DIVISION 8 - INCIDENTALS	
840.00	Concrete Base Pad for Drainage Structures
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.31	Concrete Junction Box - 12" thru 66" Pipe
840.32	Brick Junction Box - 12" thru 66" Pipe
840.45	Precast Drainage Structure
840.71	Concrete and Brick Pipe Plug
846.01	Concrete Curb, Gutter and Curb & Gutter
852.01	Concrete Islands
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets

8/17/99

24-FEB-2014 07:40:05 0155.Rdy.tsh.dgn
C:\PROJECTS\17BP\17BP.JLR\17BP.JLR

12/05/11

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	----->
Property Monument	□ ECM
Parcel/Sequence Number	(23)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	--- WLB
Proposed Wetland Boundary	--- WLB
Existing Endangered Animal Boundary	--- EAB
Existing Endangered Plant Boundary	--- EPB
Known Soil Contamination: Area or Site	☠ ☠
Potential Soil Contamination: Area or Site	☠ ☠

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
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	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	○
Proposed Right of Way Line with Concrete or Granite R/W Marker	○
Proposed Control of Access Line with Concrete CA Marker	○
Existing Control of Access	○
Proposed Control of Access	○
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	○
Storm Sewer	-----

UTILITIES:

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	○ P
Power Line Tower	□
Power Transformer	□
U/G Power Cable Hand Hole	○
H-Frame Pole	●
Recorded U/G Power Line	--- P
Designated U/G Power Line (S.U.E.*)	--- P

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	○ T
Telephone Booth	□
Telephone Pedestal	□
Telephone Cell Tower	○
U/G Telephone Cable Hand Hole	○
Recorded U/G Telephone Cable	--- T
Designated U/G Telephone Cable (S.U.E.*)	--- T
Recorded U/G Telephone Conduit	--- TC
Designated U/G Telephone Conduit (S.U.E.*)	--- TC
Recorded U/G Fiber Optics Cable	--- T FO
Designated U/G Fiber Optics Cable (S.U.E.*)	--- T FO

WATER:

Water Manhole	○ W
Water Meter	○
Water Valve	○
Water Hydrant	○
Recorded U/G Water Line	--- W
Designated U/G Water Line (S.U.E.*)	--- W
Above Ground Water Line	--- A/G Water

TV:

TV Satellite Dish	○
TV Pedestal	□
TV Tower	○
U/G TV Cable Hand Hole	○
Recorded U/G TV Cable	--- TV
Designated U/G TV Cable (S.U.E.*)	--- TV
Recorded U/G Fiber Optic Cable	--- TV FO
Designated U/G Fiber Optic Cable (S.U.E.*)	--- TV FO

GAS:

Gas Valve	◇
Gas Meter	○
Recorded U/G Gas Line	--- G
Designated U/G Gas Line (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
Recorded SS Forced Main Line	--- FSS
Designated SS Forced Main Line (S.U.E.*)	--- FSS

MISCELLANEOUS:

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

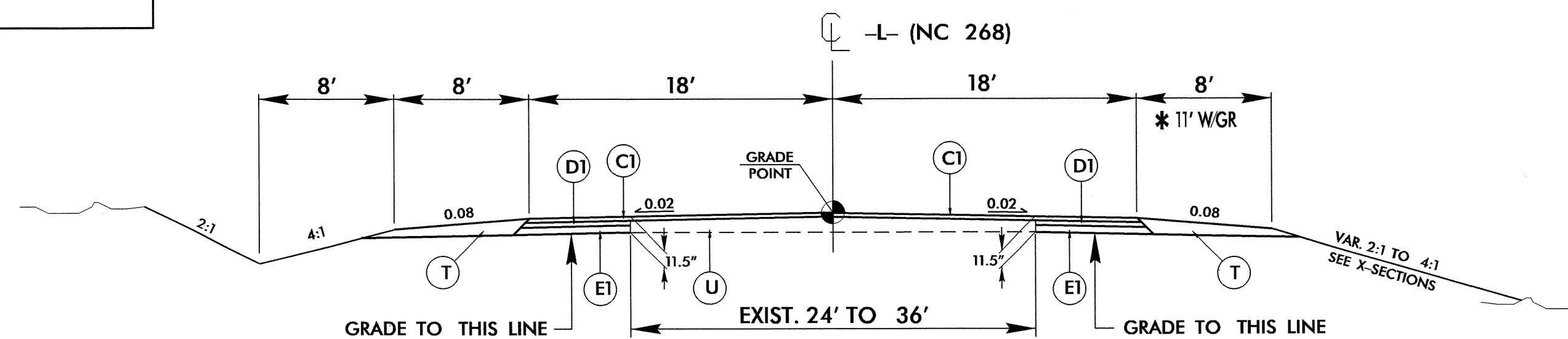
PAVEMENT SCHEDULE

FINAL PAVEMENT DESIGN

BRIDGE # 155

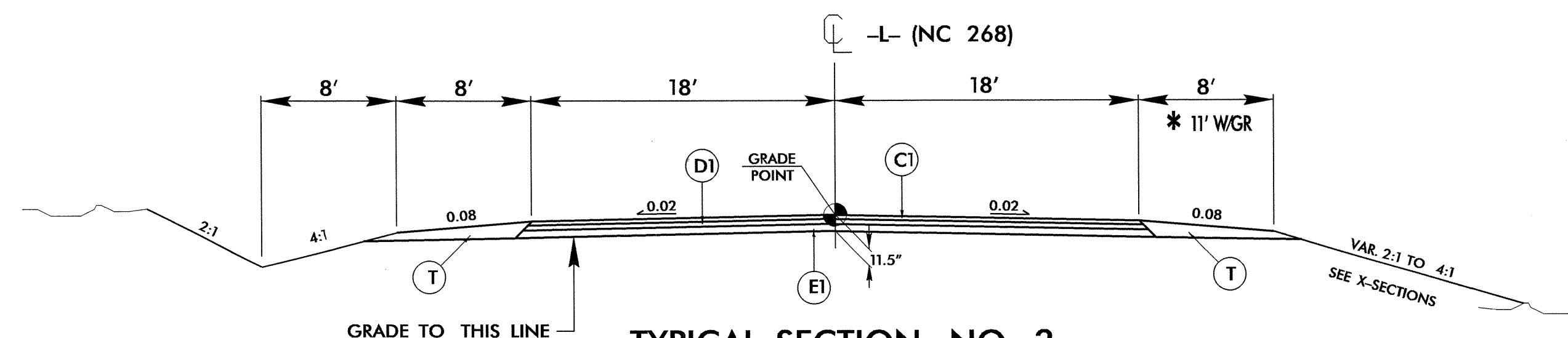
PROJECT REFERENCE NO. 17BPJLR.56	SHEET NO. 2
ROADWAY DESIGN ENGINEER 	PAVEMENT DESIGN ENGINEER

C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	E2	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	T	EARTH MATERIAL.
D1	PROP. APPROX. 3½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD.	U	EXISTING PAVEMENT
D2	PROP. APPROX. 3½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD.	V	MILLED RUMBLE STRIP (IN LOCATIONS AS DIRECTED BY THE ENGINEER)
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.	NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.	



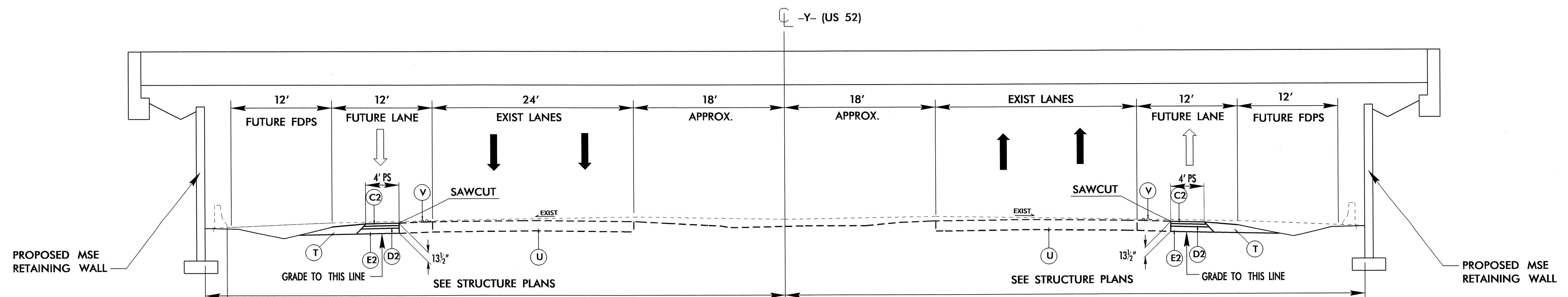
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
 -L- STA. 13+40.50 TO STA. 14+00.00
 -L- STA. 17+25.00 TO STA. 18+06.70



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
 -L- STA. 14+00.00 TO STA. 14+92.28 BEG. BRIDGE
 -L- STA. 16+42.28 END BRIDGE TO STA. 17+25.00



TYPICAL SECTION ON ROADWAY UNDER STRUCTURE

TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

-Y- STA. 13+10.00 TO 13+92.00 OUTSIDE LT
 -Y- STA. 13+20.00 TO 14+00.00 OUTSIDE RT
 SAWCUT REMOVE AND REPLACE 4'
 OF EXIST SHOULDER PAVEMENT
 (SEE TRAFFIC CONTROL PLANS)

6/2/99

18-FEB-2014 13:43
 P:\Roadway\Projects\1850155_Rdy_typ.dgn
 1850155.dwg

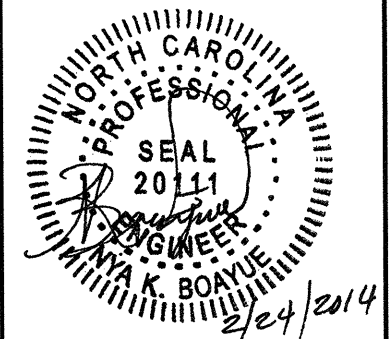

PAVEMENT SCHEDULE

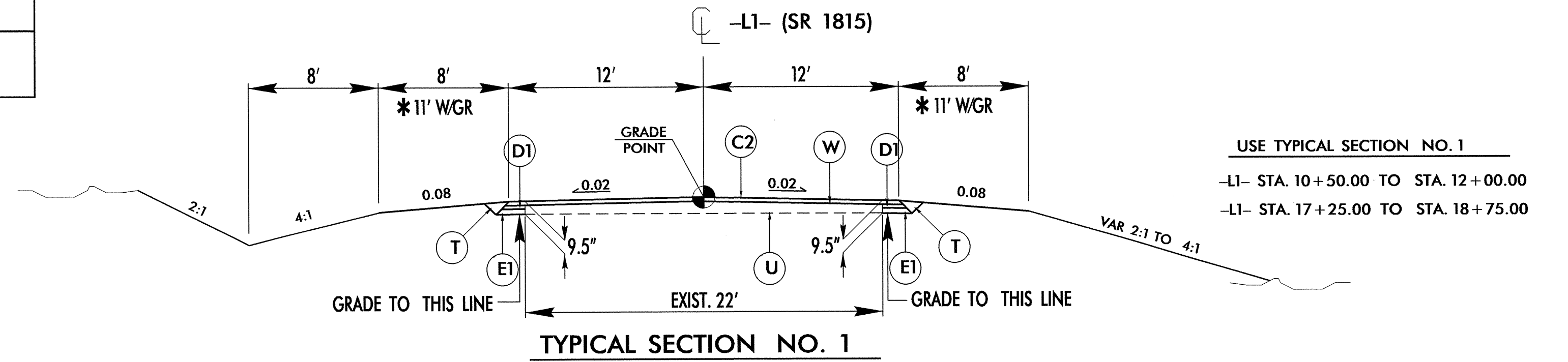
FINAL PAVEMENT DESIGN

C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	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 TO EXCEED 5½" IN DEPTH.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 2" IN DEPTH.	E3	PROP. APPROX. 7" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C4	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.	R1	8"x12" CURB AND GUTTER
D1	PROP. APPROX. 2½" 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 TO EXCEED 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.	V	MILLED RUMBLE STRIP (IN LOCATIONS AS DIRECTED BY THE ENGINEER)
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)

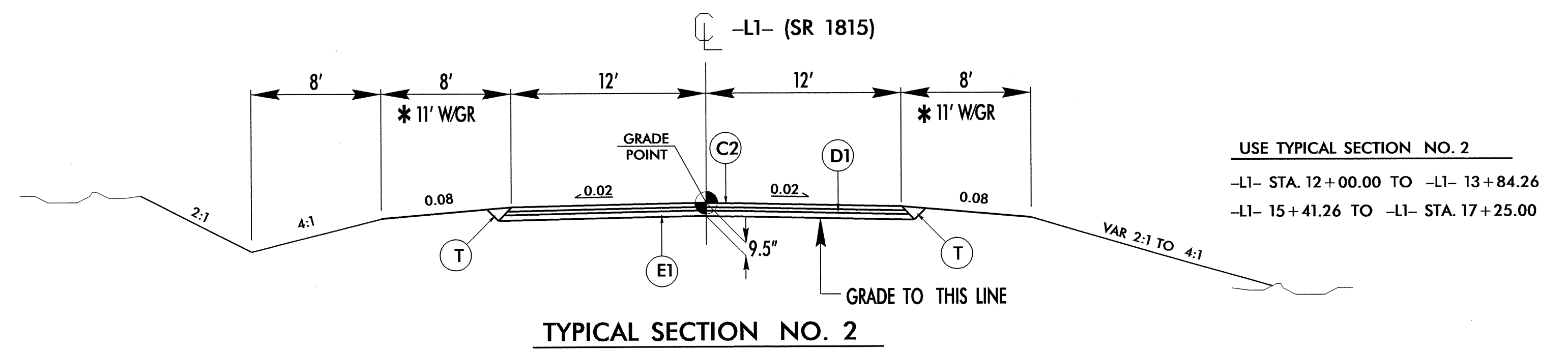
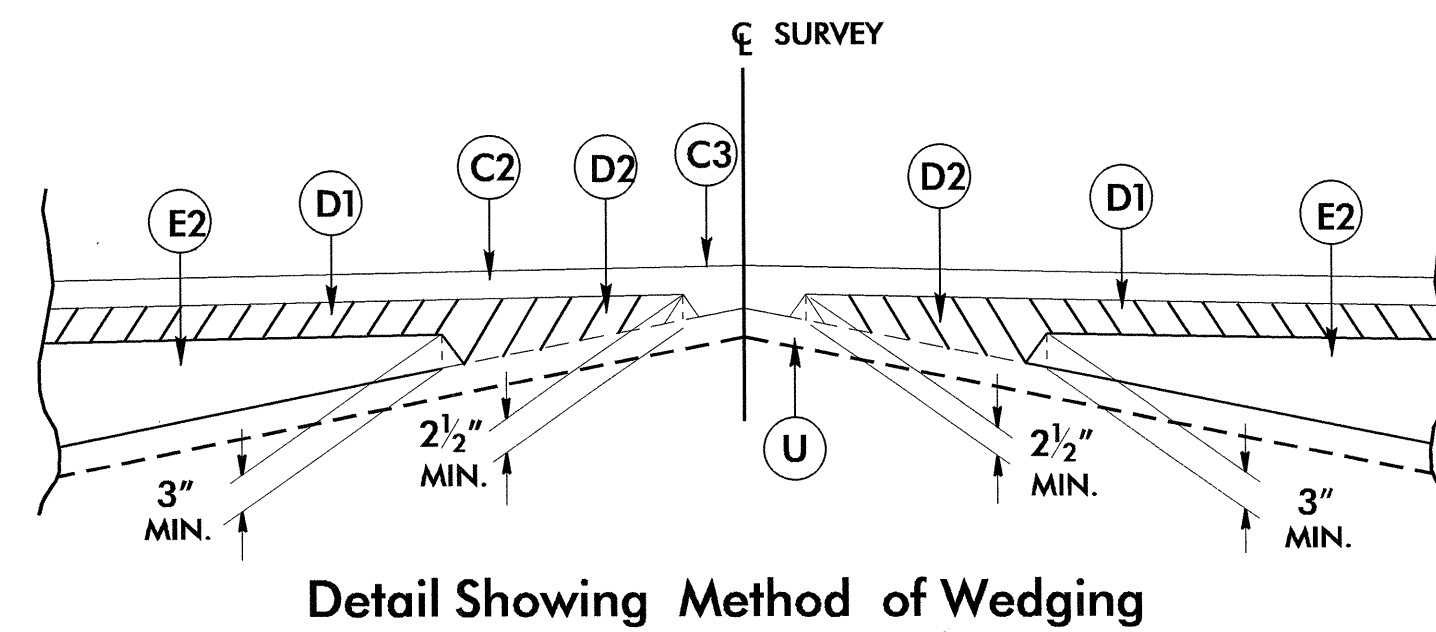
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

BRIDGE # 156

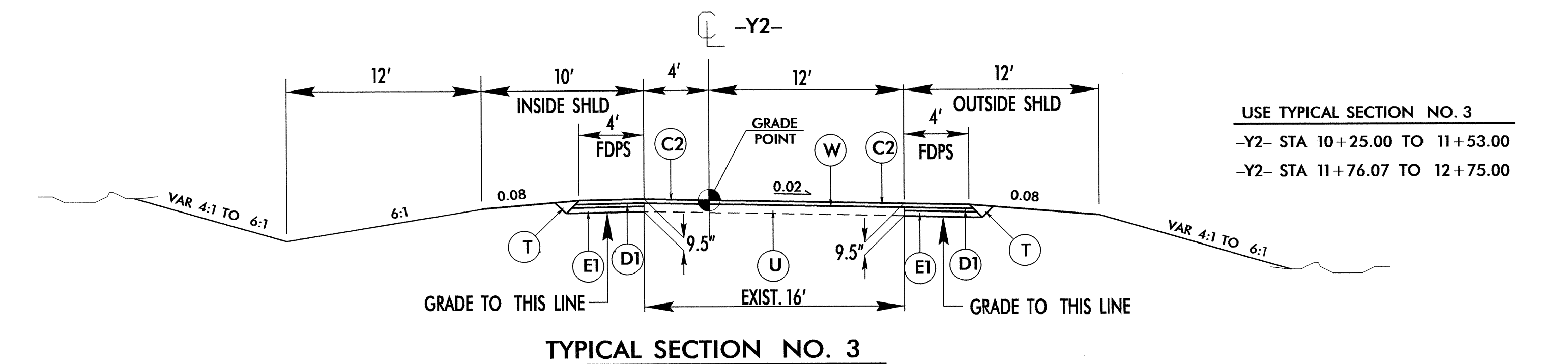
PROJECT REFERENCE NO. 17BPJIR.56	SHEET NO. 2-A
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
	



USE TYPICAL SECTION NO. 1
 -L1- STA. 10+50.00 TO STA. 12+00.00
 -L1- STA. 17+25.00 TO STA. 18+75.00



USE TYPICAL SECTION NO. 2
 -L1- STA. 12+00.00 TO -L1- 13+84.26
 -L1- 15+41.26 TO -L1- STA. 17+25.00



USE TYPICAL SECTION NO. 3
 -Y2- STA 10+25.00 TO 11+53.00
 -Y2- STA 11+76.07 TO 12+75.00

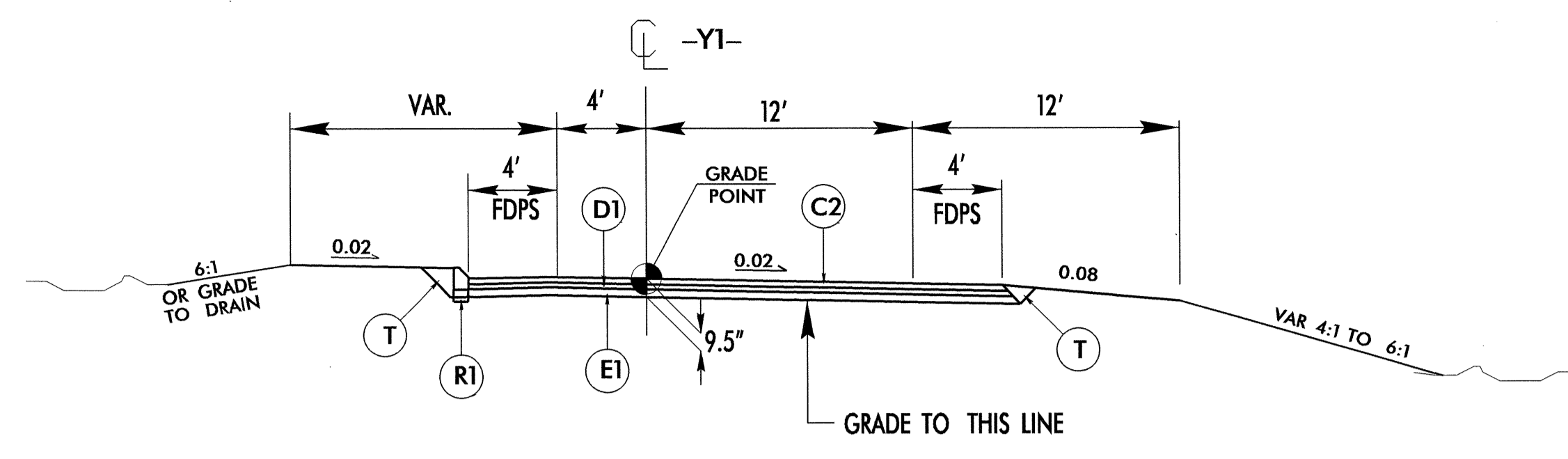
6/2/09

24-FEB-2014 07:45 850156-Rdy-tyr.dgn

6/2/2014

BRIDGE # 156

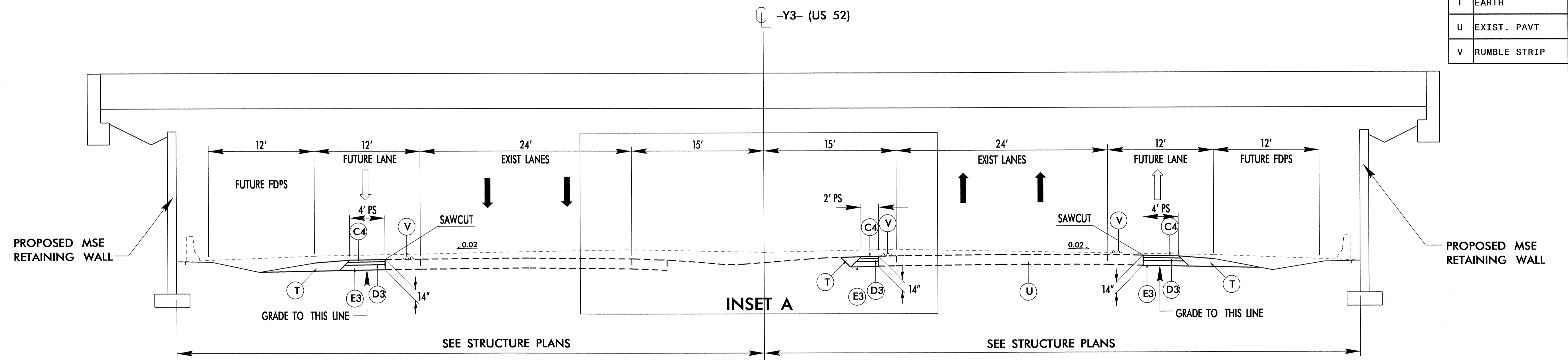
PROJECT REFERENCE NO. 17BPJLR.56	SHEET NO. 2-B
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER



TYPICAL SECTION NO. 4

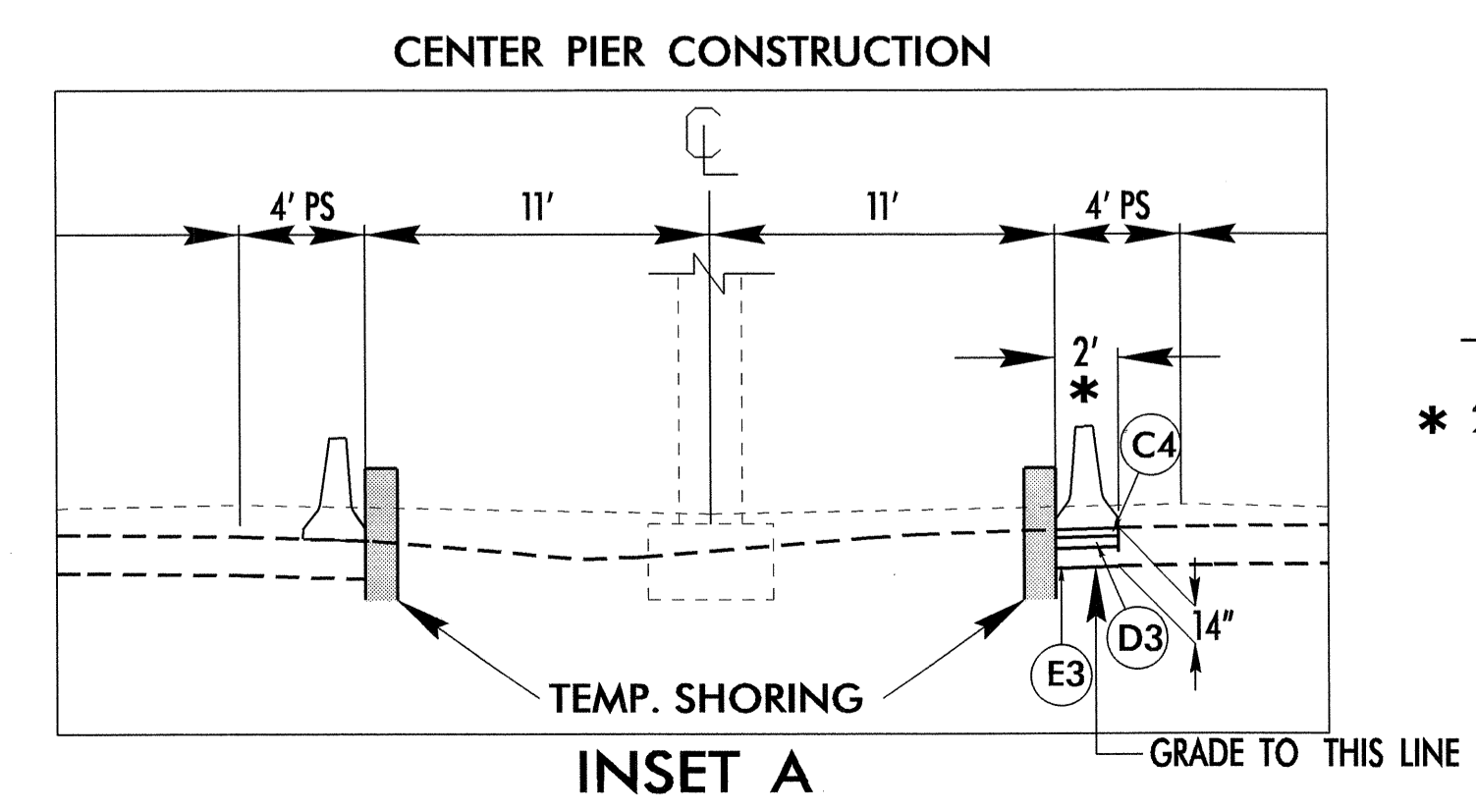
USE TYPICAL SECTION NO. 4
 -Y1- STA 11+50.00 TO 12+45.37
 -Y1- STA 12+69.42 TO 14+50.00

C2	3" S9.5B
C3	VAR. S9.5B
C4	3" S9.5C
D1	2 1/2" I19.5B
D2	VAR. I19.0B
D3	4" I19.5C
E1	4" B25.0B
E2	VAR. B25.0B
E3	7" B25.0C
R1	8"x12" C&G
T	EARTH
U	EXIST. PAVT
V	RUMBLE STRIP



TYPICAL SECTION ON ROADWAY UNDER STRUCTURE
 TYPICAL SECTION NO. 5

USE TYPICAL SECTION NO. 5
 -Y3- STA. 12+60.00 TO 13+25.00 OUTSIDE LT
 -Y3- STA. 12+86.00 TO 13+50.00 OUTSIDE RT
 SAWCUT REMOVE AND REPLACE 4' OF EXIST OUTSIDE PAVED SHOULDER PAVEMENT (SEE TRAFFIC CONTROL PLANS)



USE INSET A TYPICAL SECTION
 -Y3- STA. 10+32.63 TO 15+57.79
 * 2' WIDENING TO REMAIN IN PLACE (SEE TRAFFIC CONTROL PLANS)

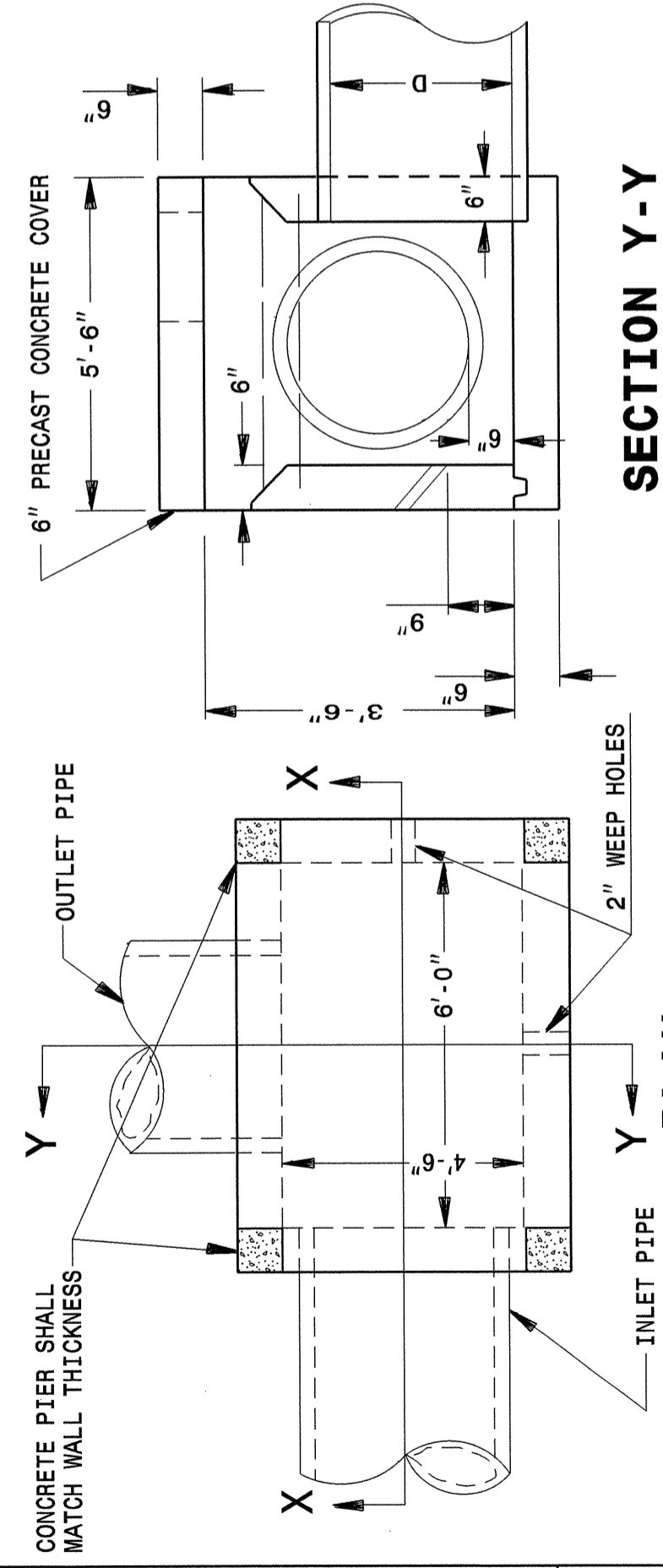
24-FEB-2014 07:45
 R:\Projects\156\156.dgn
 R:\Projects\156\156.dgn

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

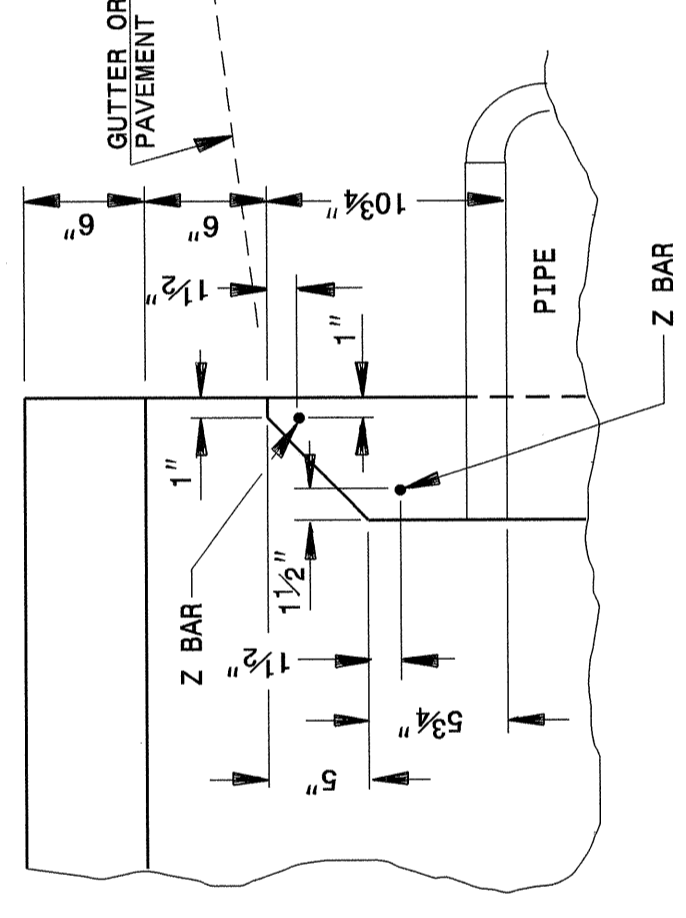
ENGLISH DETAIL DRAWING FOR
CONCRETE CATCH BASIN
(3 OR 4 SIDE OPEN THROAT)

SHEET 1 OF 2
840D04

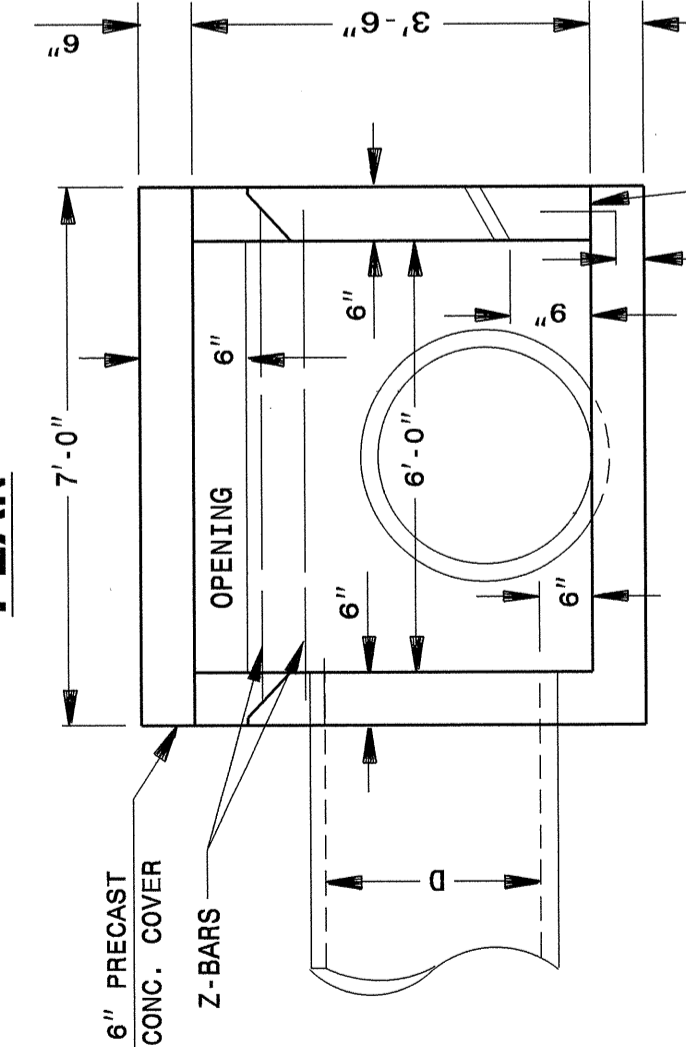
GENERAL NOTES:
ALL CATCH BASINS OVER 3'-6" IN DEPTH TO BE PROVIDED WITH STEPS 12" ON CENTERS. STEPS SHALL BE IN ACCORDANCE WITH STD. 840.66.
ALL EXPOSED CORNERS TO BE CHAMFERED 1".
CLASS "B" CONCRETE TO BE USED THROUGHOUT.
2" PIPE WEEPHOLES TO BE PLACED AS DIRECTED BY ENGINEER.
THE 6" OPENING SHOWN MAY BE INCREASED TO 8" MAXIMUM IF DEEMED TO BE NECESSARY BY THE ENGINEER.
OPTIONAL CONSTRUCTION - MONOLITHIC POUR, 2" KEYWAY, OR #5 BAR DOWELS AT 12" CENTERS AS DIRECTED BY THE ENGINEER.
FORMS ARE TO BE USED FOR THE CONSTRUCTION OF THE BOTTOM SLAB.
IF REINFORCED CONCRETE PIPE IS SET IN BASE SLAB OF BOX, ADD TO BASE AS SHOWN ON STD. DWG. 840.00.
A STONE DRAIN CONSISTING OF 1 CUBIC FOOT OF NO. 76M STONE CONTAINED IN A BAG OF POROUS FABRIC SHALL BE PLACED AT EACH WEEP HOLE.
FOR 8" IN HEIGHT OR LESS USE 6" WALLS AND BOTTOM SLAB.
OVER 8" IN HEIGHT USE 8" WALLS AND BOTTOM SLAB. QUANTITIES TO BE ADJUSTED ACCORDINGLY.



SECTION Y-Y

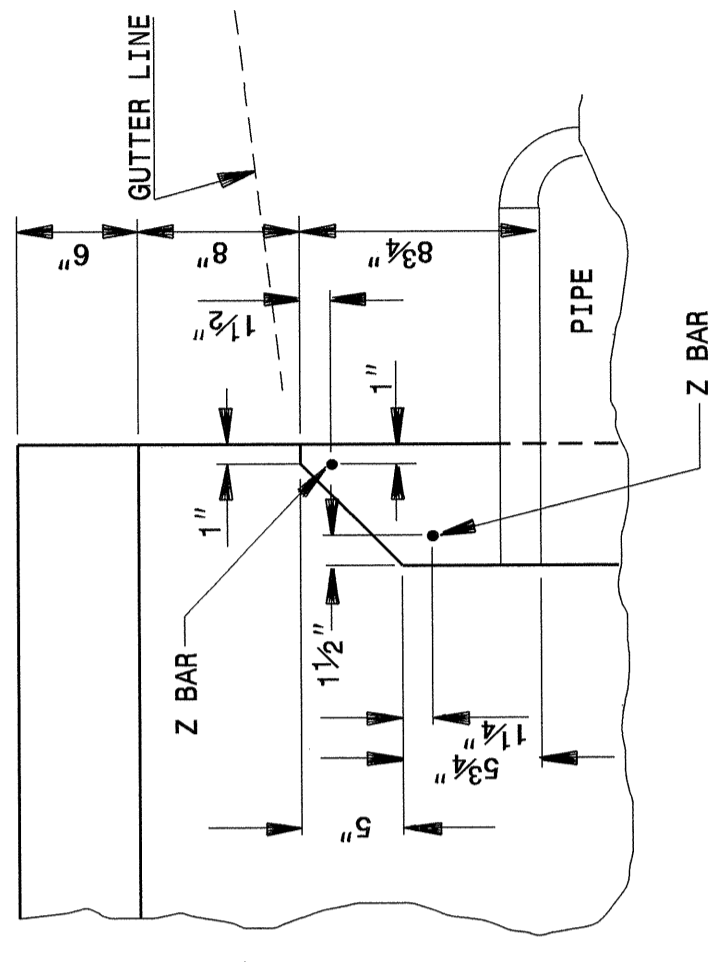


PART SECTION Y-Y
SHOWING METHOD OF OPENING CONSTRUCTION FOR 6" OPENING



SECTION X-X
SEE NOTE

PART SECTION Y-Y
SHOWING METHOD OF CONSTRUCTION IF INCREASED OPENING IS USED



REINFORCING STEEL				MASONRY	
CODE	SIZE	QTY.	LENGTH	REINF. STEEL LBS.	CONCRETE CLASS "B" FT ³
X	#4	13	5'-2"	44.87	TOTAL
Y	#4	9	6'-8"	40.08	
Z1	#4	4	6'-8"	17.81	
Z2	#4	4	5'-2"	13.81	
TOTAL				116.57	

NO DEDUCTIONS HAVE BEEN MADE FOR PIPES OR MANHOLES

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

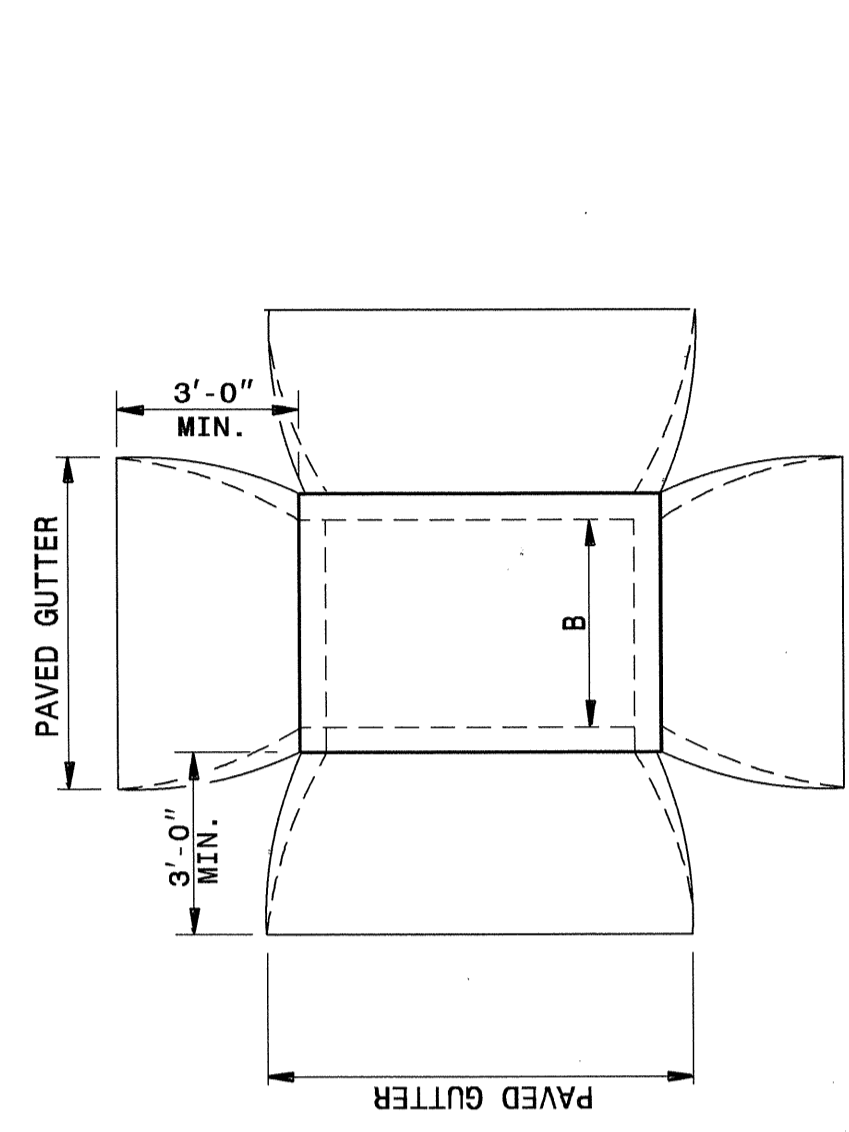
ENGLISH DETAIL DRAWING FOR
CONCRETE CATCH BASIN
(3 OR 4 SIDE OPEN THROAT)

SHEET 1 OF 2
840D04

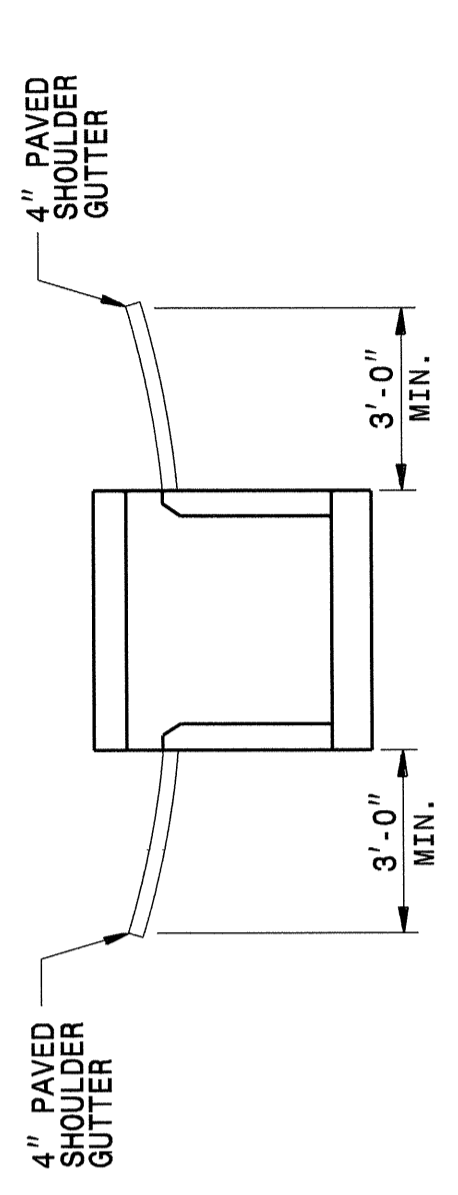
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

ENGLISH DETAIL DRAWING FOR
CONCRETE CATCH BASIN
(3 OR 4 SIDE OPEN THROAT)

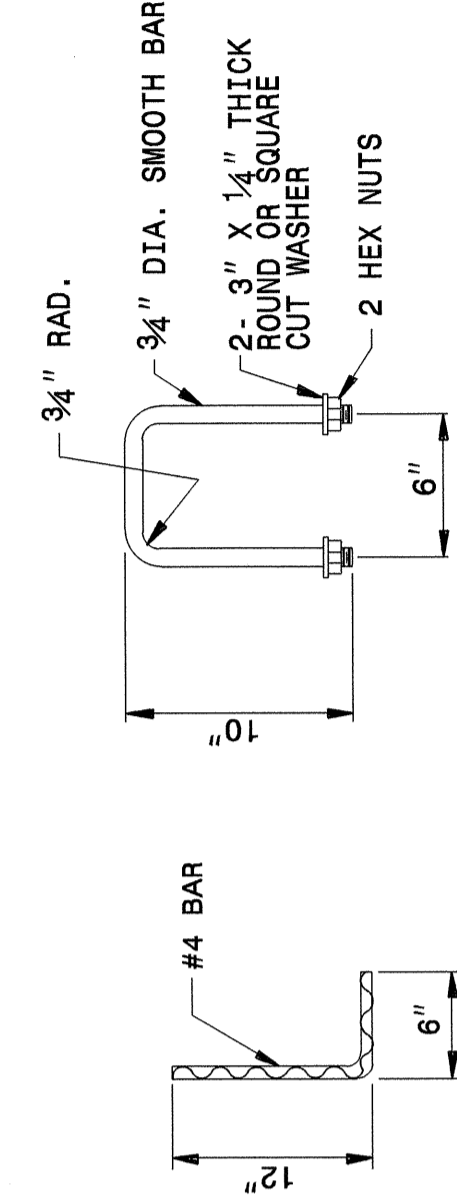
SHEET 2 OF 2
840D04



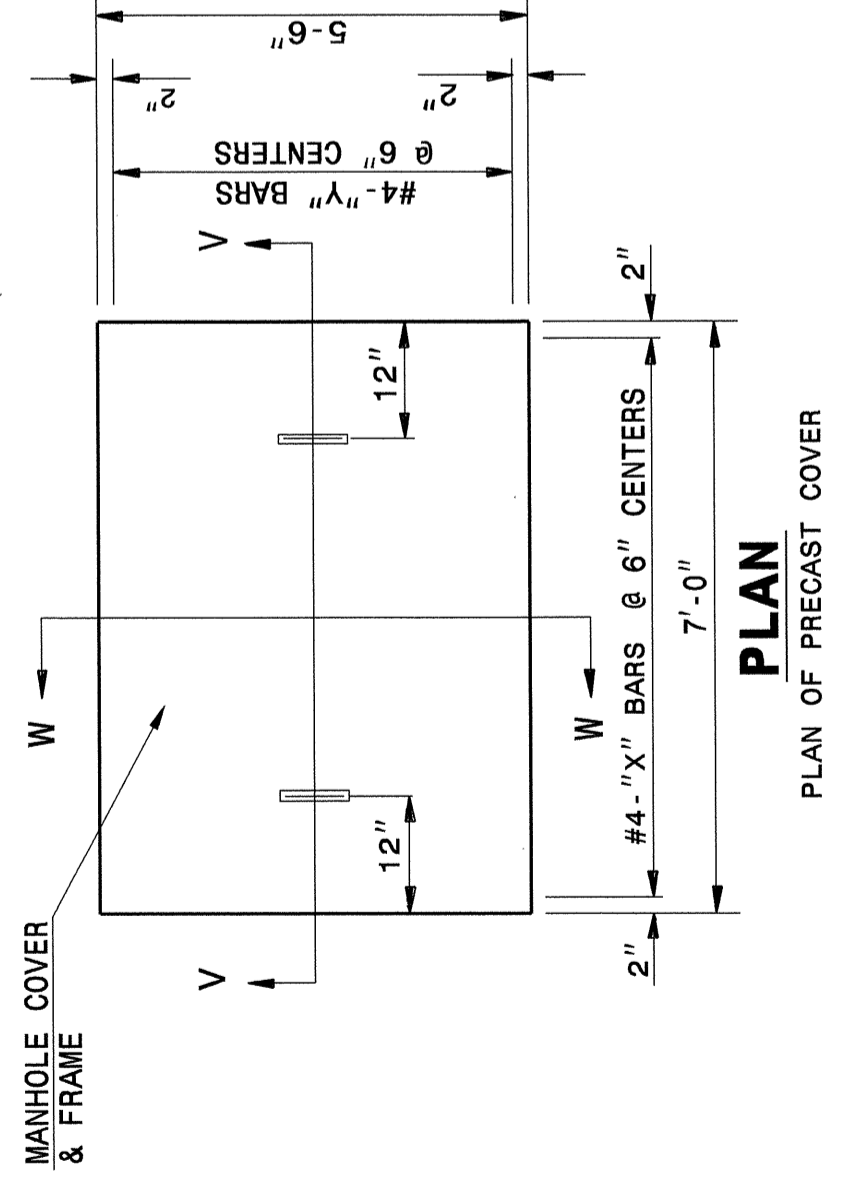
PLAN OF CATCH BASIN IN MEDIAN STRIP



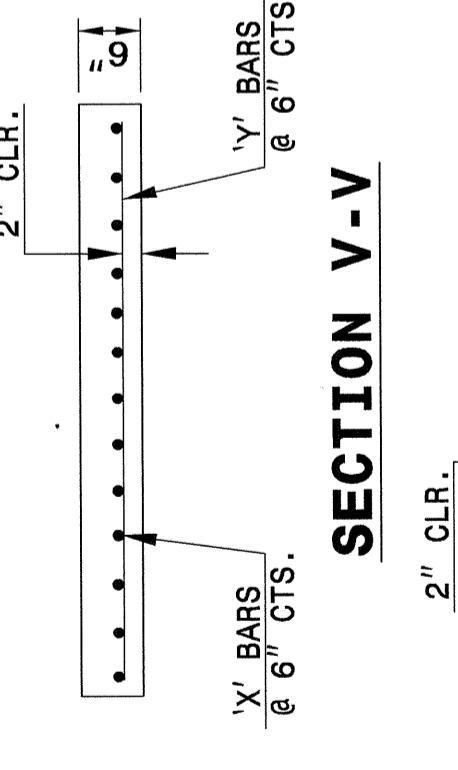
SECTION OF CATCH BASIN MEDIAN STRIP
DETAIL SHOWING METHOD OF PLACING CATCH BASIN AND PAVED SHOULDER GUTTER



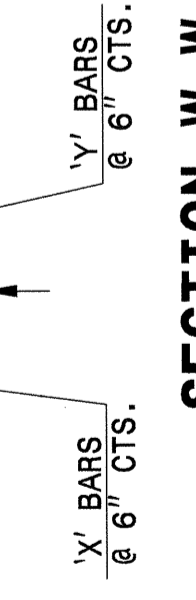
DETAIL OF HANDLE



PLAN OF PRECAST COVER



SECTION V-V



SECTION W-W

PART WHERE HANDLE IS LOCATED SHALL BE COUNTERSUNK 1" AND HANDLE SHALL BE FREE TO MOVE UP AND DOWN.

PART SECTION
THRU COVER SHOWING HANDLE

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

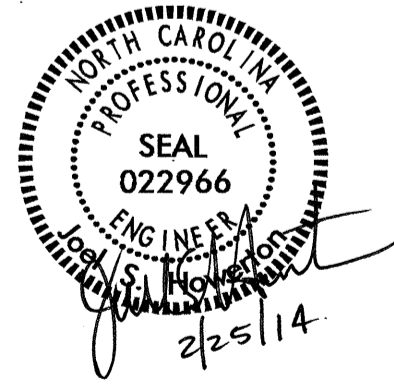
ENGLISH DETAIL DRAWING FOR
CONCRETE CATCH BASIN
(3 OR 4 SIDE OPEN THROAT)

SHEET 2 OF 2
840D04

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

SEE PLATE FOR TITLE

ORIGINAL BY: _____ DATE: _____
MODIFIED BY: E. E. WARD DATE: 8-21-03
CHECKED BY: _____ DATE: 2/17/14
FILE SPEC.: jward.detail/metric/stand/840d04.dgn



GEOTECHNICAL ENGINEER

ENGINEER

Scott A. Shidden 7/22/13

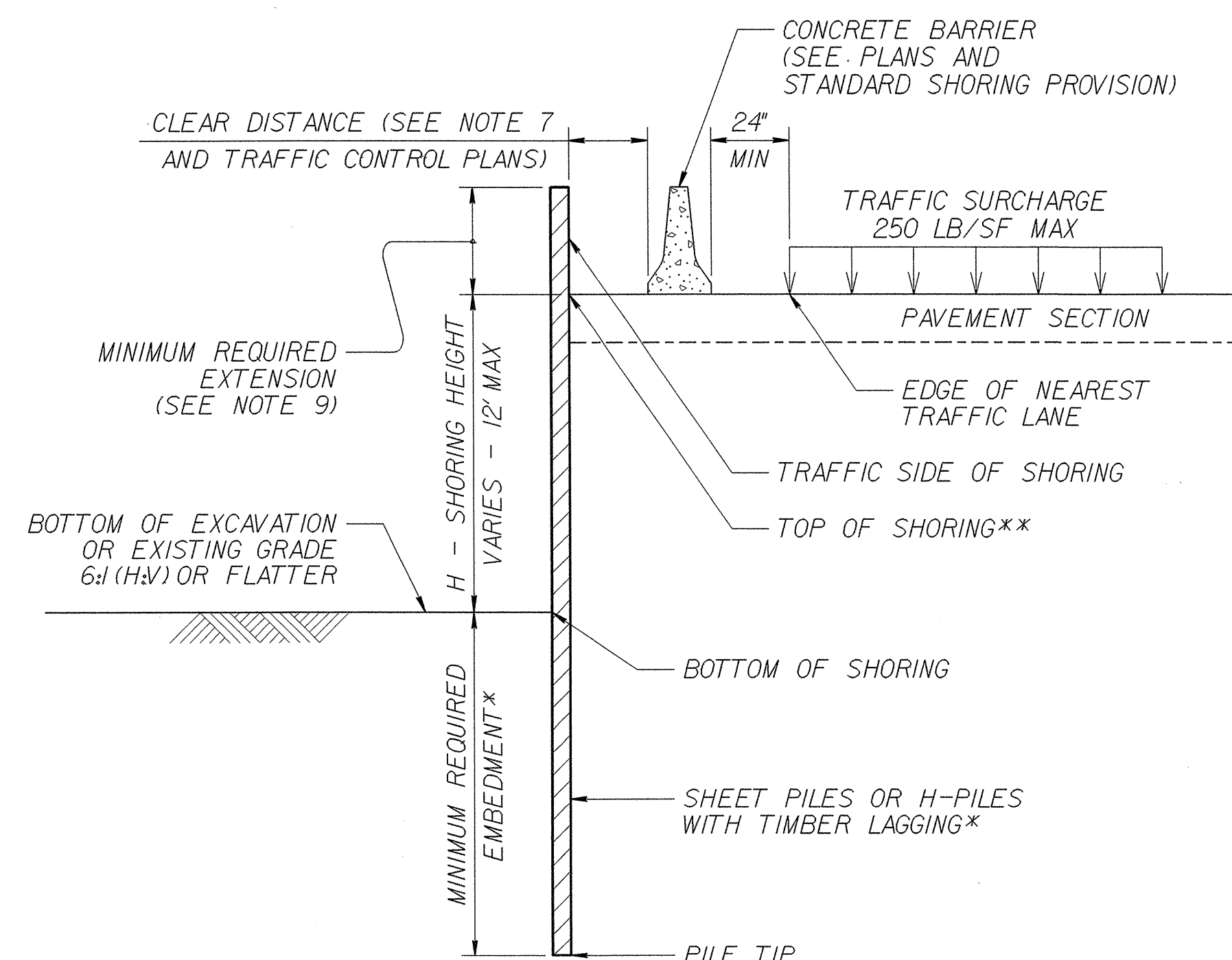
GROUNDWATER CONDITION (SEE NOTE 6)	H SHORING HEIGHT (FT)	SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT					SURCHARGE CASE WITH TRAFFIC IMPACT				
		SHEET PILES		H-PILES WITH TIMBER LAGGING			SHEET PILES		H-PILES WITH TIMBER LAGGING		
		MINIMUM REQUIRED EMBEDMENT (FT)	MINIMUM REQUIRED SECTION MODULUS (IN ³ /FT)	MINIMUM REQUIRED EMBEDMENT* (FT) (SEE NOTE 10)			MINIMUM REQUIRED EMBEDMENT (FT)	MINIMUM REQUIRED SECTION MODULUS (IN ³ /FT)	MINIMUM REQUIRED EMBEDMENT* (FT) (SEE NOTE 10)		
			HP 10x42	HP 12x53	HP 14x73			HP 10x42	HP 12x53	HP 14x73	
GROUNDWATER ELEVATION BETWEEN BOTTOM OF SHORING AND PILE TIP	< 6	11.5	4.5	11.5	11.5	11.5	16.0	12.0	13.0	13.0	13.0
	7	13.0	7.0	13.0	13.0	13.0	17.0	14.5	14.5	14.5	14.5
	8	15.0	10.0	--	15.0	15.0	18.0	17.0	--	15.5	15.5
	9	17.0	14.0	--	17.0	17.0	19.0	20.0	--	17.0	17.0
	10	18.5	19.5	--	--	18.5	20.0	23.5	--	--	18.5
	11	20.5	26.0	--	--	--	21.0	28.0	--	--	20.0
12	22.5	33.0	--	--	--	22.0	33.0	--	--	21.5	
GROUNDWATER ELEVATION BELOW PILE TIP	< 6	7.5	3.0	8.0	8.0	8.0	11.0	10.0	9.5	9.5	9.5
	7	8.5	4.5	9.5	9.5	9.5	12.0	12.0	10.5	10.5	10.5
	8	10.0	6.5	10.5	10.5	10.5	12.5	14.0	11.5	11.5	11.5
	9	11.0	9.5	--	12.0	12.0	13.5	16.5	--	12.5	12.5
	10	12.5	13.0	--	--	13.5	14.0	19.5	--	13.5	13.5
	11	13.5	17.0	--	--	14.5	15.0	22.5	--	--	14.5
12	15.0	21.5	--	--	16.0	16.0	25.5	--	--	15.5	

MINIMUM REQUIRED EMBEDMENT AND SECTION MODULUS

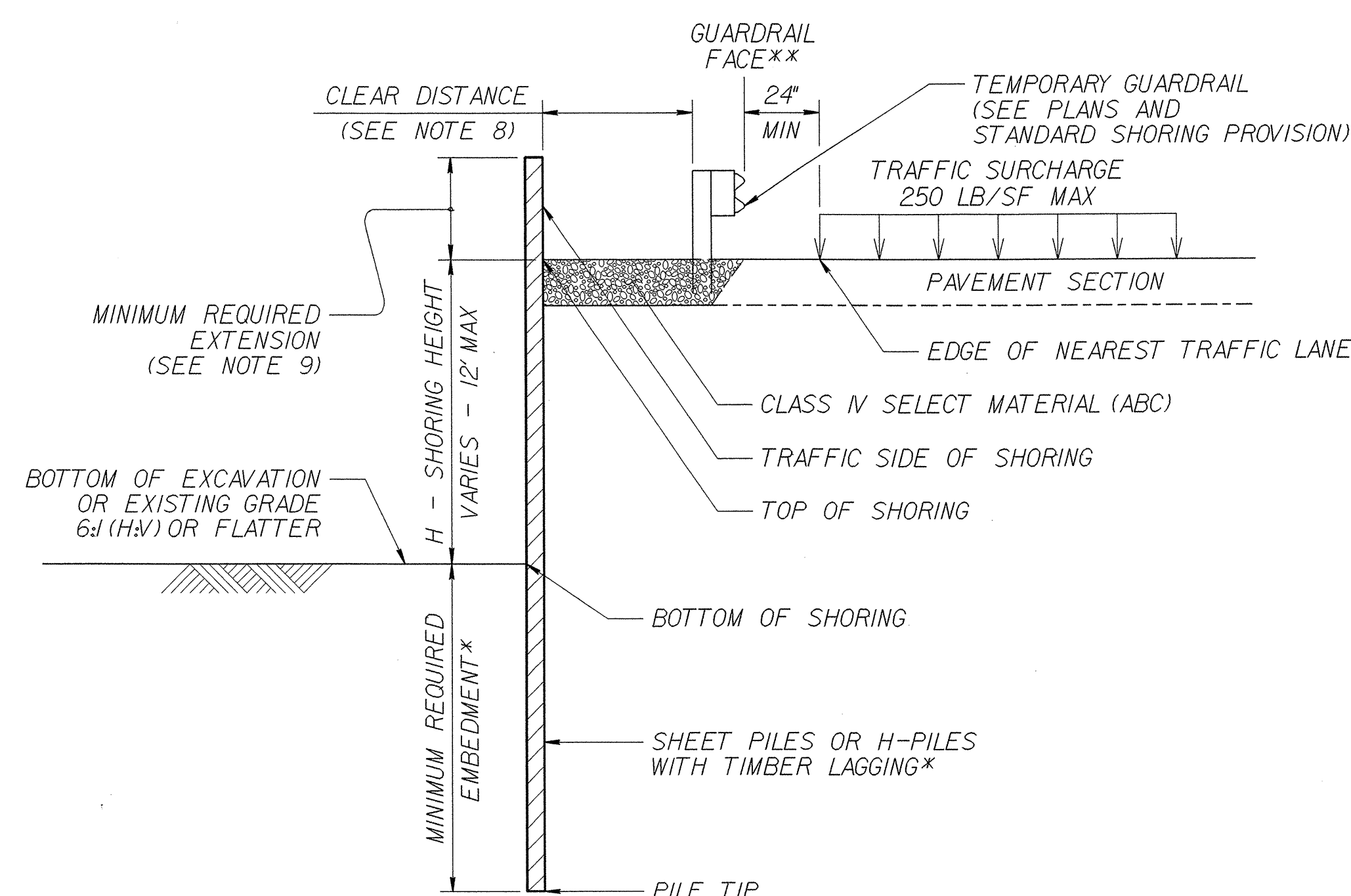
***DO NOT USE H-PILES WITH TIMBER LAGGING FOR GROUNDWATER CONDITION, SHORING HEIGHT AND H-PILE SIZE SHOWN IF MINIMUM REQUIRED EMBEDMENT IS "--".**

NOTES:

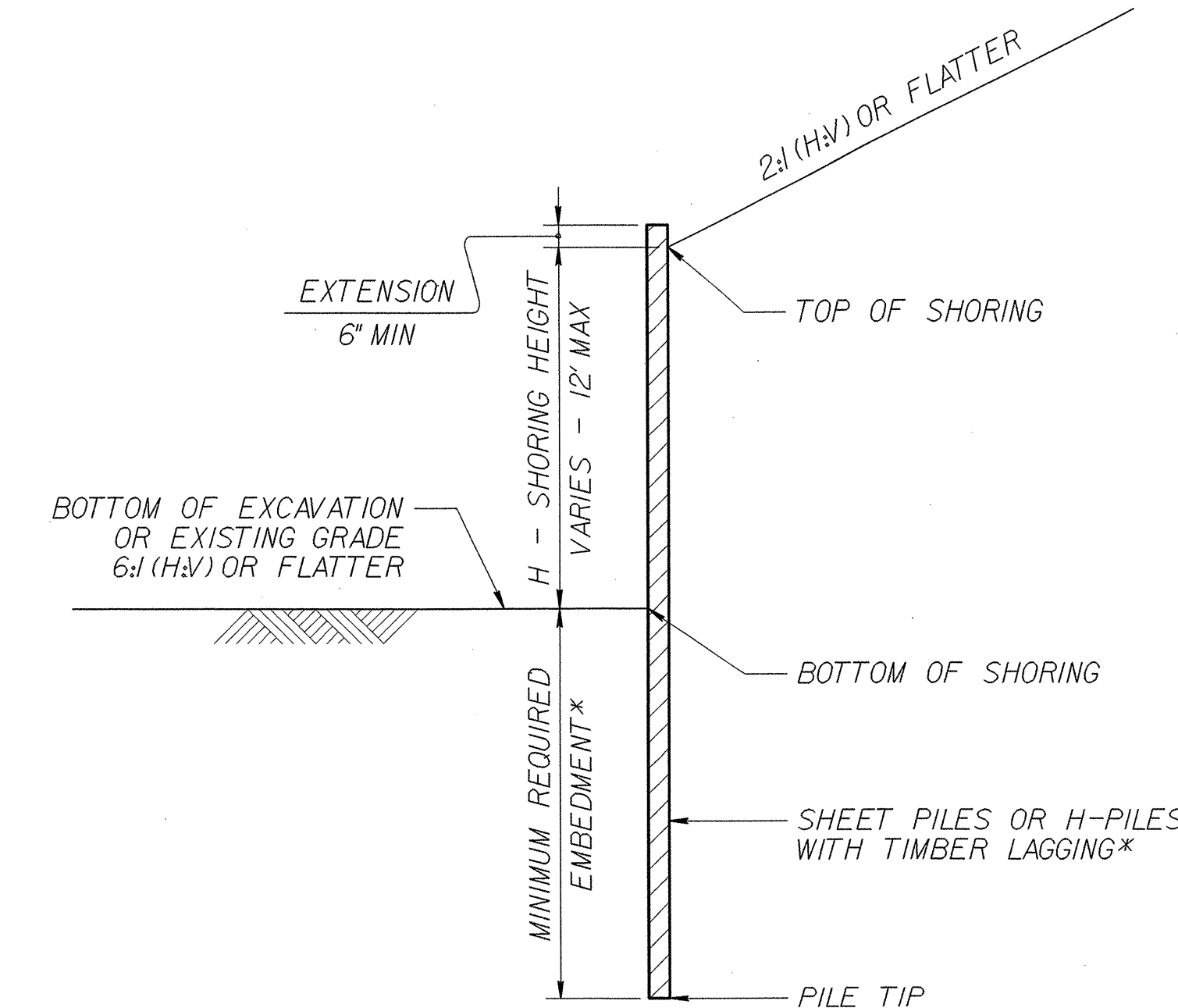
- AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING AS NOTED IN THE PLANS.
- FOR STANDARD TEMPORARY SHORING, SEE STANDARD SHORING PROVISION.
- STANDARD TEMPORARY SHORING IS BASED ON THE FOLLOWING IN-SITU ASSUMED SOIL PARAMETERS:
UNIT WEIGHT, $\gamma = 120$ LB/CF
FRICTION ANGLE, $\phi = 30$ DEGREES
COHESION, $c = 0$ LB/SF
- DO NOT USE STANDARD TEMPORARY SHORING IF ASSUMED SOIL PARAMETERS ARE NOT APPLICABLE.
- DO NOT USE STANDARD TEMPORARY SHORING WHEN VERY LOOSE OR SOFT SOIL OR MUCK IS WITHIN THE EMBEDMENT DEPTH.
- USE GROUNDWATER ELEVATION NOTED IN THE PLANS. IF NO GROUNDWATER ELEVATION IS SHOWN IN THE PLANS, USE "GROUNDWATER ELEVATION BETWEEN BOTTOM OF SHORING AND PILE TIP" FOR GROUNDWATER CONDITION. DO NOT USE STANDARD TEMPORARY SHORING IF GROUNDWATER IS ABOVE BOTTOM OF SHORING.
- AT THE CONTRACTOR'S OPTION OR IF AVAILABLE CLEAR DISTANCE IS LESS THAN THE MINIMUM REQUIRED FOR CONCRETE BARRIER, SET BARRIER NEXT TO AND UP AGAINST TRAFFIC SIDE OF PILES AND USE "SURCHARGE CASE WITH TRAFFIC IMPACT".
- AT THE CONTRACTOR'S OPTION OR IF AVAILABLE CLEAR DISTANCE IS LESS THAN 4' FOR TEMPORARY GUARDRAIL, ATTACH GUARDRAIL TO TRAFFIC SIDE OF PILES AS SHOWN IN THE PLANS AND USE "SURCHARGE CASE WITH TRAFFIC IMPACT".
- MINIMUM REQUIRED EXTENSION IS 6' FOR "SLOPE OR SURCHARGE CASE WITH NO TRAFFIC IMPACT" AND 32' FOR "SURCHARGE CASE WITH TRAFFIC IMPACT".
- MINIMUM REQUIRED EMBEDMENT FOR H-PILES WITH TIMBER LAGGING IS BASED ON DRIVEN H-PILES AT MAXIMUM 6' SPACING. AT THE CONTRACTOR'S OPTION, EMBEDMENT DEPTHS MAY BE REDUCED BY 25% FOR DRILLED-IN H-PILES.
- SUBMIT A "STANDARD TEMPORARY SHORING SELECTION FORM" AT LEAST 7 DAYS BEFORE STARTING TEMPORARY SHORING CONSTRUCTION. UP TO 3 SHORING LOCATIONS MAY BE INCLUDED ON EACH FORM. STANDARD SHORING SELECTION FORMS ARE AVAILABLE FROM:
connect.ncdot.gov/resources/Geological/Pages/Geotech_Forms_Details.aspx
- CONTACT THE ENGINEER IF PILES DO NOT ATTAIN THE MINIMUM REQUIRED EMBEDMENT.



CONCRETE BARRIER
**TOP OF SHORING =
EDGE OF PAVEMENT

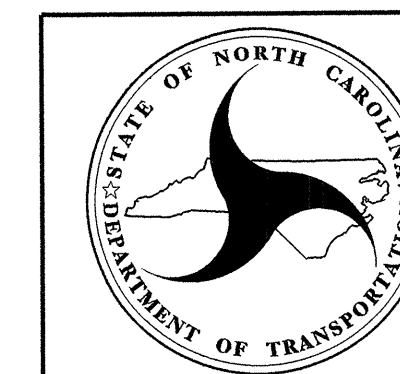


TEMPORARY GUARDRAIL
**GUARDRAIL FACE =
EDGE OF PAVEMENT



STANDARD TEMPORARY SHORING
(SLOPE CASE)
*SEE TABLE ABOVE.

STANDARD TEMPORARY SHORING
(SURCHARGE CASE)
*SEE TABLE ABOVE.



GEOTECHNICAL ENGINEERING UNIT
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STANDARD DRAWING NO. 1801.01

STANDARD TEMPORARY SHORING

DATE: 11-19-13

COMPUTED BY: C. MOZINGO DATE: 2/27/14
 CHECKED BY: H. EDWARDS DATE: 2/27/14

PROJECT NO. 17BP.11R.56
 SHEET NO. 3-A

RD261649

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

Line	Station	Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L-	13+40.50	14+75.00	12	894	882	0
-Y- LT	12+75.00	14+25.00	41	58	42	25
SUBTOTALS: 1			53	952	924	25
-L-	16+50.00	18+06.70	30	1,556	1,526	0
-Y- RT	12+75.00	14+25.00	44	33	15	26
SUBTOTALS: 2			74	1,589	1,541	26
-L1-	10+25.00	14+00.00	24	2,163	2,139	0
-Y1-	11+25.00	12+25.00	30	75	45	0
-Y1-	12+75.00	14+65.68	199	133	0	66
SUBTOTALS: 3			253	2,371	2,184	66
-L1-	15+25.00	19+00.00	19	1,998	1,979	0
-Y2-	10+00.00	11+25.00	24	60	36	0
-Y2-	12+00.00	12+75.00	14	52	38	0
SUBTOTALS: 4			57	2,110	2,053	0
-Y3- LT	11+75.00	13+75.00	76	13	0	63
-Y3- MED	10+00.00	16+25.00	161	23	0	138
-Y3- RT	12+50.00	14+25.00	176	0	0	176
SUBTOTALS: 5			413	36	0	377
PROJECT TOTALS:			850	7,058	6,702	494
LOSS DUE TO CLEAR. GRUB			0			0
WASTE IN LIEU OF BORROW					-194	-194
SHOULDER CONSTRUCTION				294	294	
PROJECT TOTALS			850	7,352	6,802	300
REPLACE TOP SOIL BORROW PITS					341	
GRAND TOTALS:			850		7,143	
SAY:			900		7,200	

ASPHALT PAVEMENT REMOVAL SUMMARY IN SQUARE YARDS

SURVEY LINE	Station	Station	LOCATION LT/RT/CL	ASPHALT REMOVAL	ASPHALT BREAKUP	CONCRETE REMOVAL	CONCRETE BREAKUP
BRIDGE #155							
-L-	13+75.00	14+66.96	CL	276.6			
-L-	16+74.11	17+25.00	CL	127.8			
BRIDGE #156							
-L1-	12+00.00	13+57.79	CL	392.3			
-L1-	15+57.32	17+25.00	CL	393.9			
-Y1-	11+50.00	12+47.16	CL			318.8	
-Y1-	12+68.94	14+50.00	CL			472.5	
TOTAL:				1190.6		791.3	
SAY:				1200		795	

SUMMARY OF MILLING ASPHALT PAVEMENT 0 TO 3" DEPTH

LINE	Station	Station	LOC LT/RT/CL	YD ²
BRIDGE #155				
-L-	13+40.50	13+75.00	CL	52.6
-L-	18+00.00	18+06.70	CL	42.3
BRIDGE #156				
-L1-	10+50.00	11+59.79	CL	388.8
-L1-	18+00.00	18+75.00	CL	112.0
-Y2-	10+25.00	10+79.00	CL	96.4
-Y2-	12+50.00	12+75.00	CL	39.1
TOTAL:				731.2
SAY:				890

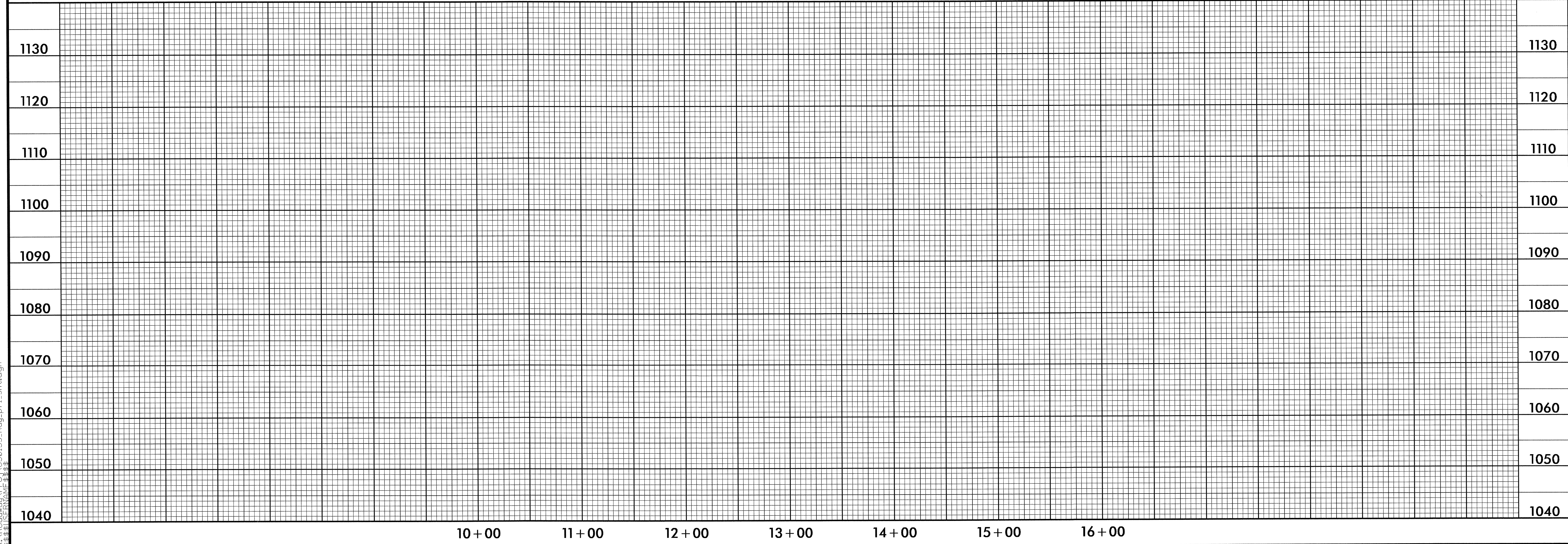
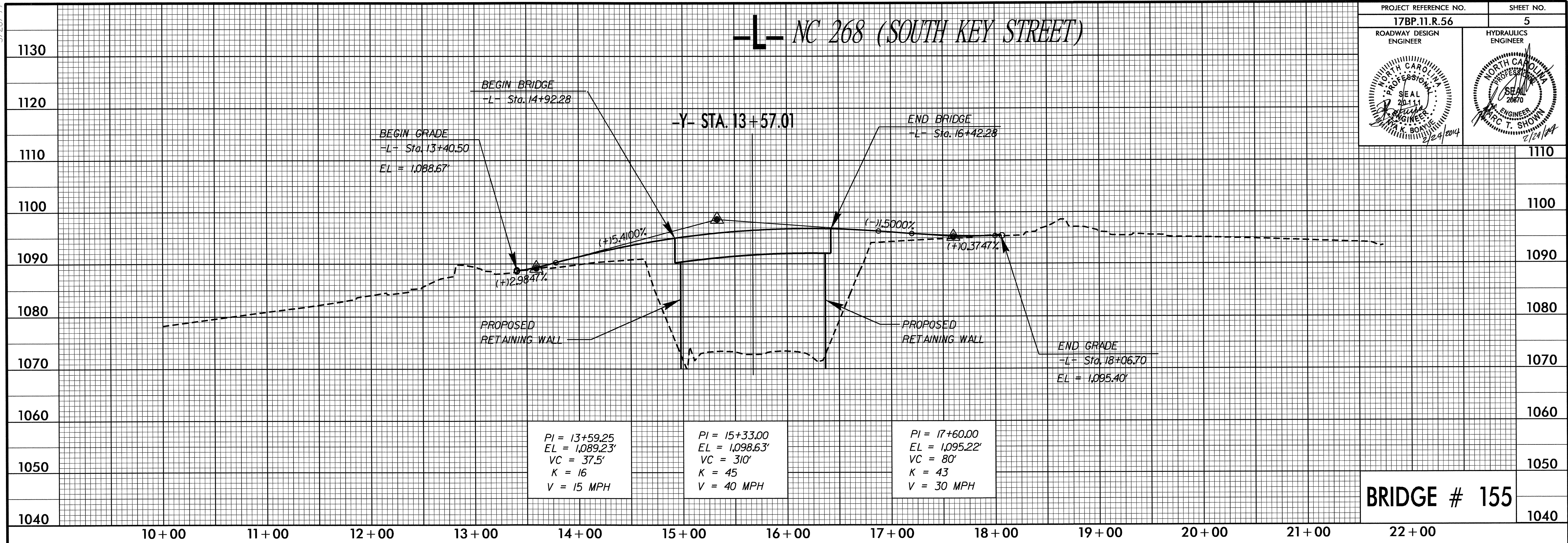
NOTE: APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, FINE GRADING, CLEARING AND GRUBBING AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE LUMP SUM PRICE FOR "GRADING"

DRAINAGE DITCH EXCAVATION = 1160 CUBIC YARDS

5/28/99

-L- NC 268 (SOUTH KEY STREET)

PROJECT REFERENCE NO. 17BP.11.R.56	SHEET NO. 5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

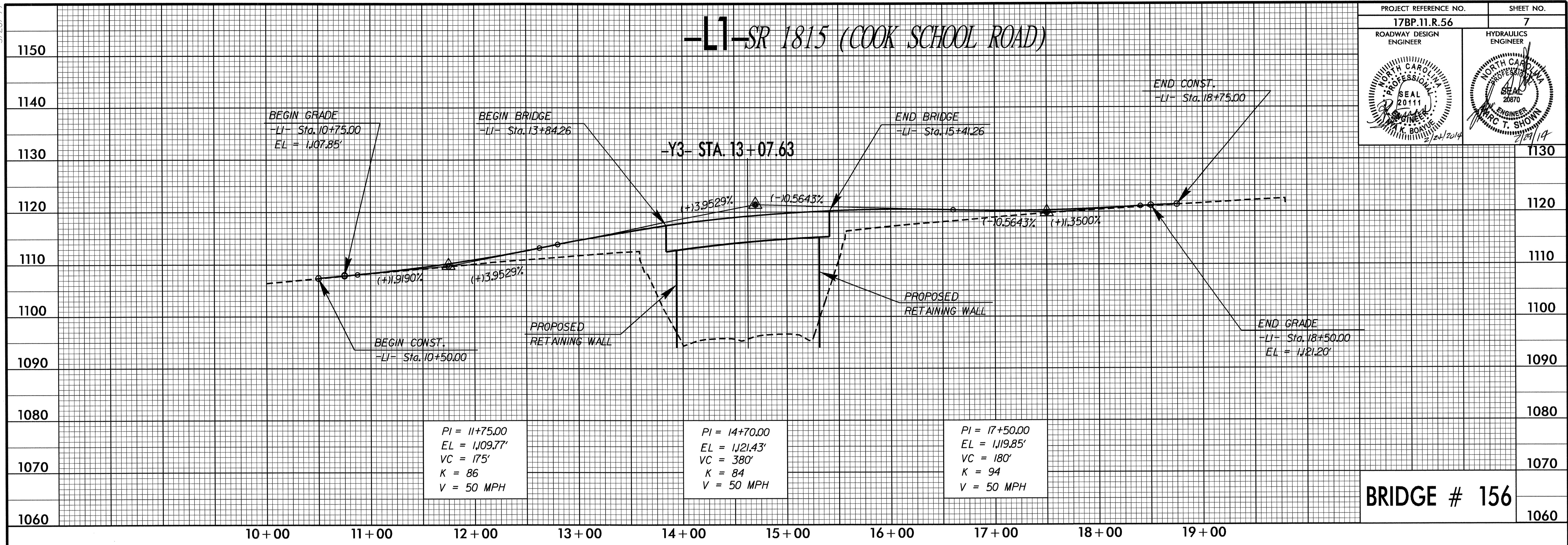


18-FEB-2014 10:00 AM C:\Roadway\17BP\17BP.11.R.56\17BP.11.R.56.dgn

5/28/99

-L1- SR 1815 (COOK SCHOOL ROAD)

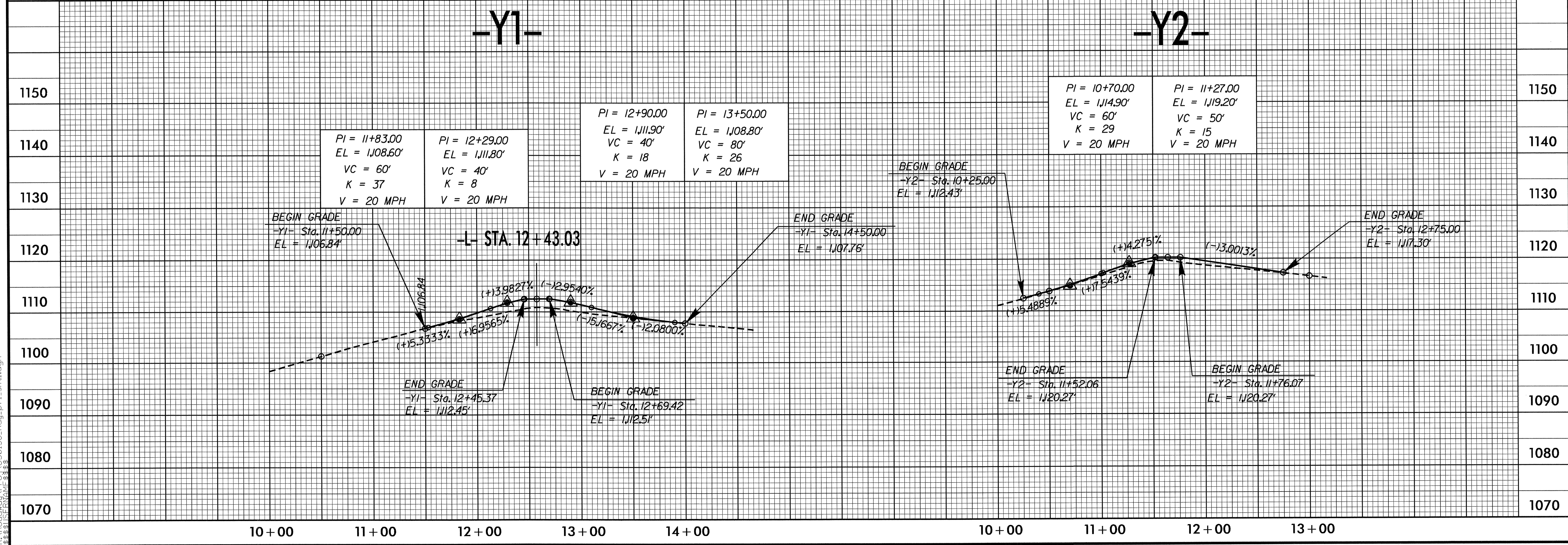
PROJECT REFERENCE NO. 17BP.11.R.56	SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BRIDGE # 156

-Y1-

-Y2-

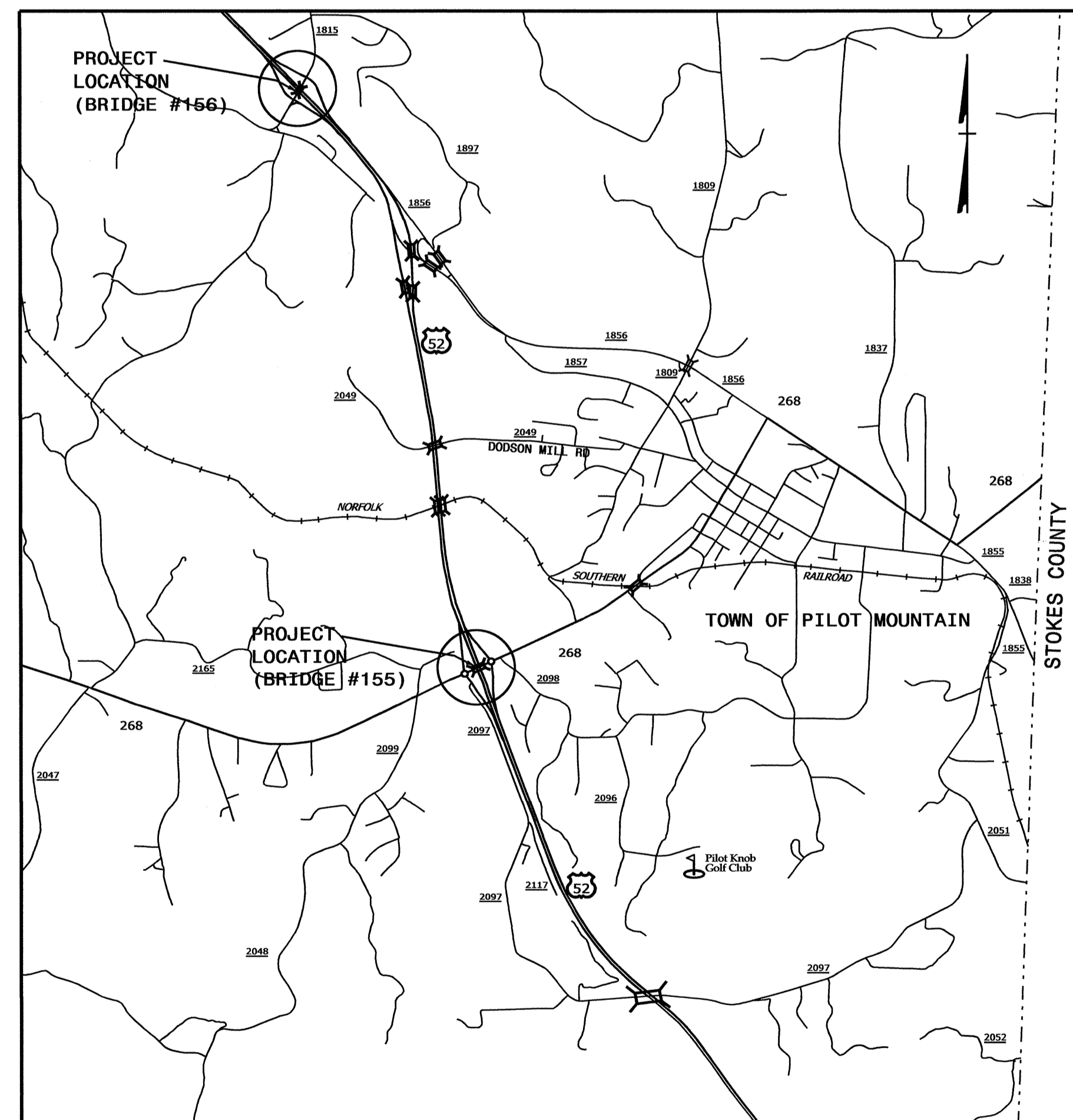
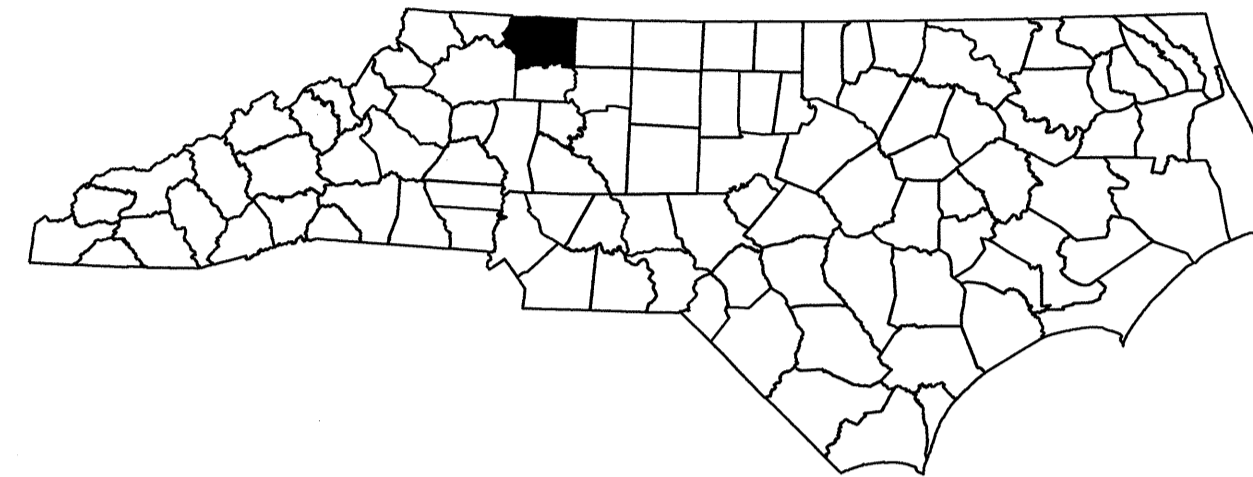


18-FEB-2014 10:01 H:\Projects\17BP.11.R.56\156_Rdy.pfl.sht1.dgn

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

SURRY COUNTY



VICINITY MAP

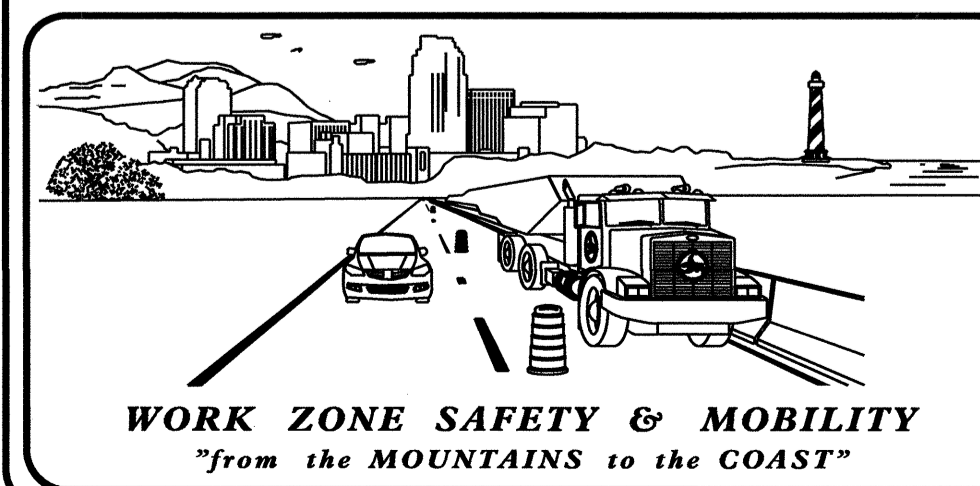
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP AND INDEX OF SHEETS
TMP-1A	ROADWAY STANDARD DRAWINGS, LEGEND & PAVEMENT MARKING SCHEDULE
TMP-1B	GENERAL NOTES
TMP-2	BRIDGE #155 TEMPORARY SHORING NOTES
TMP-2A	BRIDGE #156 TEMPORARY SHORING NOTES
TMP-2B, TMP-2C, TMP-2D	BRIDGE #156 DETOUR SPECIAL SIGN DESIGNS
TMP-3	PHASING
TMP-4	BRIDGE #155 PLAN
TMP-5	BRIDGE #155 OFF-SITE DETOUR PLAN
TMP-6	BRIDGE #156 PLAN PHASE II, STEPS 1 THRU 3
TMP-7	BRIDGE #156 PLAN PHASE II, STEP 3
TMP-8	BRIDGE #156 OFF-SITE DETOUR PLAN
TMP-9	BRIDGE #156 US-52 NORTHBOUND ROAD CLOSURE AT EXIT 136

SHEET NO.
TMP-1

17BP.11.R.56

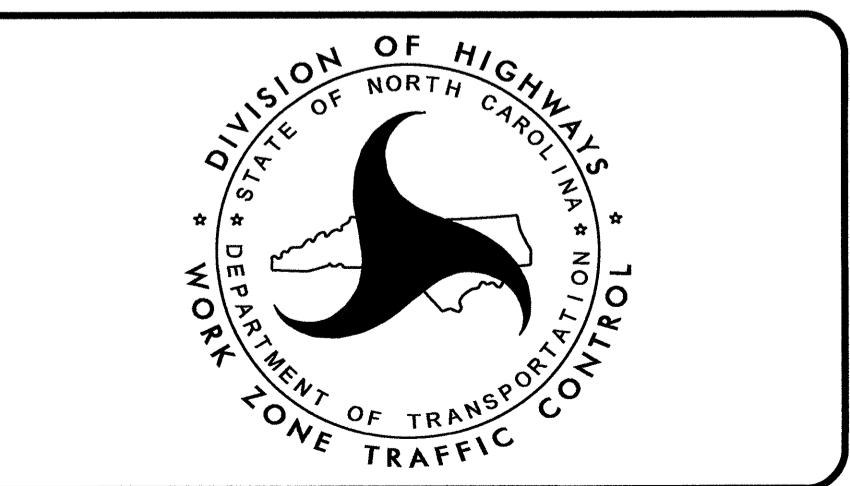
TIP PROJECT:

30-DEC-2013 08:20
\\dot\dfsroot\01\NSP\Proj\Special\85055\Traffic\TrafficControl\TCP\TMP-1.dgn
Kbrodwell AT 12:26:00



N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1561 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1561
750 N. GREENFIELD PARKWAY, GARNER, NC 27529 (DELIVERY)
PHONE: (919) 773-2800 FAX: (919) 771-2745

J. S. BOURNE, P.E. STATE TRAFFIC MANAGEMENT ENGINEER
G. L. GETTIER, P.E. TRAFFIC CONTROL PROJECT ENGINEER
J. W. GILSTRAP TRAFFIC CONTROL PROJECT DESIGN ENGINEER
KEN BROADWELL TRAFFIC CONTROL DESIGN ENGINEER



APPROVED: _____
DATE: _____

SEAL

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION - REFLECTIVE END TREATMENT
1165.01	WORK VEHICLE LIGHTING SYSTEMS AND TMA DELINEATION
1170.01	POSITIVE PROTECTION
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.03	PAVEMENT MARKINGS - EXIT AND ENTRANCE RAMP
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.

WORK AREA

REMOVAL

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL / CRYSTAL
- CRYSTAL / RED
- YELLOW / YELLOW

TEMPORARY PAVEMENT MARKINGS

PAINT

- WHITE EDGELINE (4")
- YELLOW EDGELINE (4")
- DOUBLE YELLOW CENTERLINE (4")
- WHITE DIAGONAL (8")
- WHITE GORE LINE (8")
- WHITE STOPBAR (24")
- 2'-6' - /SP WHITE MINI-SKIP LINE (4")
- LEFT TURN ARROW SYMBOL
- RIGHT TURN ARROW SYMBOL
- COMBO STRAIGHT/LEFT ARROW SYMBOL
- RAMP ARROW SYMBOL

TEMPORARY PAVEMENT MARKERS

- CRYSTAL / RED TEMPORARY RAISED
- YELLOW / YELLOW TEMPORARY RAISED

29-OCT-2015 14:38
 \D01\DP\ST001\01\cgroups-WZTCCC\TMU\WZTC\DesignGroup3\Squad3B\SpecialProjects\17BP.11.R.56\TMP-1.dgn
 K:\oodwell AT 12266004

APPROVED: _____	DATE: _____		
SEAL		ROADWAY STANDARD DRAWINGS, LEGEND & PAVEMENT MARKING SCHEDULE	

GENERAL NOTES

PROJ. REFERENCE NO.	SHEET NO.
17BP.11.R.56	TMP-1B

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRABLE OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

US-52

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.
2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 9:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 P.M. THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 9:00 P.M. MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 9:00 P.M. TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 9:00 P.M. TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 9:00 P.M. MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

B) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US-52	MONDAY THRU SUNDAY 6:00 A.M. TO 11:00 P.M.

C) DO NOT STOP TRAFFIC AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
US-52	ANYTIME

LANE AND SHOULDER CLOSURE REQUIREMENTS

- D) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.
- E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.
- F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

H) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

I) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

PAVEMENT EDGE DROP OFF REQUIREMENTS

J) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

K) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) (200 FT) IN ADVANCE OF THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

L) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

M) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

N) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

O) COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

P) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

Q) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

R) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

S) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

PAVEMENT MARKINGS AND MARKERS

T) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
SR 1815 (COOK SCHOOL ROAD)	PAINT	TEMPORARY RAISED

U) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

V) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

W) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

X) TRACE THE (EXISTING AND/OR PROPOSED) MONOLITHIC ISLAND LOCATIONS WITH THE PROPER COLOR PAVEMENT MARKING PRIOR TO (REMOVAL AND/OR INSTALLATION). PLACE DRUMS TO DELINEATE ANY (EXISTING AND/OR PROPOSED) MONOLITHIC ISLANDS (AFTER REMOVAL AND/OR BEFORE INSTALLATION).

TRAFFIC BARRIER

Y) INSTALL TEMPORARY BARRIER ACCORDING TO THE TRAFFIC CONTROL PLANS A MAXIMUM OF TWO (2) WEEKS PRIOR TO BEGINNING WORK IN ANY LOCATION. ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION, PROCEED IN A CONTINUOUS MANNER TO COMPLETE THE PROPOSED WORK IN THAT LOCATION UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER.

DO NOT PLACE BARRIER DIRECTLY ON ANY SURFACE OTHER THAN ASPHALT OR CONCRETE.

ONCE TEMPORARY BARRIER IS INSTALLED AT ANY LOCATION AND NO WORK IS PERFORMED BEHIND THE TEMPORARY BARRIER FOR A PERIOD LONGER THAN TWO (2) MONTHS, REMOVE/RESET TEMPORARY BARRIER AT NO COST TO THE DEPARTMENT UNLESS OTHERWISE STATED IN THE TRAFFIC CONTROL PLANS, TEMPORARY BARRIER IS PROTECTING A HAZARD, OR AS DIRECTED BY THE ENGINEER.

INSTALL TEMPORARY BARRIER WITH THE TRAFFIC FLOW, BEGINNING WITH THE UPSTREAM SIDE OF TRAFFIC. REMOVE TEMPORARY BARRIER AGAINST THE TRAFFIC FLOW, BEGINNING WITH THE DOWNSTREAM SIDE OF TRAFFIC.

INSTALL AND SPACE DRUMS NO GREATER THAN TWICE THE POSTED SPEED LIMIT (MPH) TO CLOSE OR KEEP THE SECTION OF THE ROADWAY CLOSED UNTIL THE TEMPORARY BARRIER CAN BE PLACED OR AFTER THE TEMPORARY BARRIER IS REMOVED.

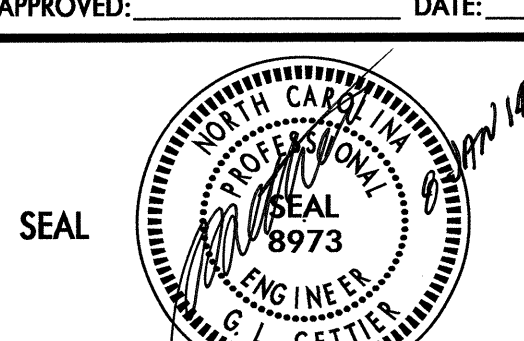
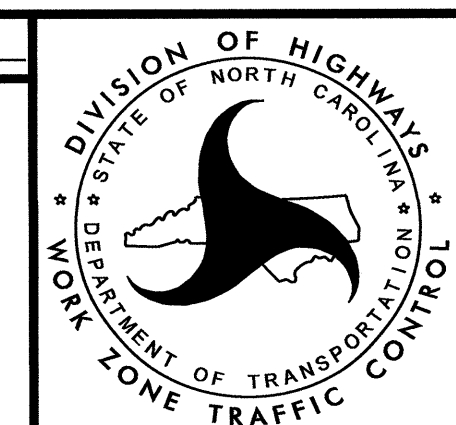
Z) PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER AT ALL TIMES DURING THE INSTALLATION AND REMOVAL OF THE BARRIER BY EITHER A TRUCK MOUNTED IMPACT ATTENUATOR (MAXIMUM 72 HOURS) OR A TEMPORARY CRASH CUSHION.

PROTECT THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER FROM ONCOMING TRAFFIC AT ALL TIMES BY A TEMPORARY CRASH CUSHION UNLESS THE APPROACH END OF MOVABLE/PORTABLE CONCRETE BARRIER IS OFFSET FROM ONCOMING TRAFFIC AS FOLLOWS OR AS SHOWN IN THE PLANS:

POSTED SPEED LIMIT	MINIMUM OFFSET
40 OR LESS	15 FT
45-50	20 FT
55	25 FT
60 MPH or HIGHER	30 FT

MISCELLANEOUS

AA) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS, AS DIRECTED BY THE ENGINEER.

APPROVED: _____ DATE: _____			<h2 style="margin: 0;">GENERAL NOTES</h2>
-----------------------------	---	---	---

Br. #155/ Location No. 1 (QUANTITY = 413 SF)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 13+23 -Y-, 46 FT LEFT, TO STATION 13+82 -Y-, 46 FT LEFT. FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 1040 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 13+23 -Y-, 46 FT LEFT, TO STATION 13+82 -Y-, 46 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 13+23 -Y-, 46 FT LEFT, TO STATION 13+82 -Y-, 46 FT LEFT MAY NOT PENETRATE ADEQUATELY DUE TO OBSTRUCTIONS FROM THE EXISTING FOUNDATIONS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 13+23 -Y-, 46 FT LEFT, TO STATION 13+82 -Y-, 46 FT LEFT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 13+23 -Y-, 46 FT LEFT TO STATION 13+82 -Y-, 46 FT LEFT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

Br. #155/Location No. 2 (QUANTITY = 330 SF)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 13+28 -Y-, 14 FT LEFT, TO STATION 13+83 -Y-, 14 FT LEFT. FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 1035 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 13+28 -Y-, 14 FT LEFT, TO STATION 13+83 -Y-, 14 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 13+28 -Y-, 14 FT LEFT, TO STATION 13+83 -Y-, 14 FT LEFT MAY NOT PENETRATE ADEQUATELY DUE TO OBSTRUCTIONS FROM THE EXISTING FOUNDATIONS OR EXISTING DRAINAGE BOXES AND COLLECTION PIPING.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 13+28 -Y-, 14 FT LEFT, TO STATION 13+83 -Y-, 14 FT LEFT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 13+28 -Y-, 14 FT LEFT TO STATION 13+83 -Y-, 14 FT LEFT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

Br. #155/Location No. 3 (QUANTITY = 330 SF)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 13+30 -Y-, 14 FT RIGHT, TO STATION 13+85 -Y-, 14 FT RIGHT. FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 1035 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 13+30 -Y-, 14 FT RIGHT, TO STATION 13+85 -Y-, 14 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 13+30 -Y-, 14 FT RIGHT, TO STATION 13+85 -Y-, 14 FT RIGHT MAY NOT PENETRATE ADEQUATELY DUE TO OBSTRUCTIONS, FROM THE EXISTING FOUNDATIONS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 13+30 -Y-, 14 FT RIGHT, TO STATION 13+85 -Y-, 14 FT RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 13+30 -Y-, 14 FT RIGHT TO STATION 13+85 -Y-, 14 FT RIGHT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

Br. #155/Location No. 4 (QUANTITY = 413 SF)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 13+32 -Y-, 46 FT RIGHT, TO STATION 13+91 -Y-, 46 FT RIGHT. FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 1035 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 13+32 -Y-, 46 FT RIGHT, TO STATION 13+91 -Y-, 46 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 13+32 -Y-, 46 FT RIGHT, TO STATION 13+91 -Y-, 46 FT RIGHT MAY NOT PENETRATE ADEQUATELY DUE TO OBSTRUCTIONS FROM THE EXISTING FOUNDATIONS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 13+32 -Y-, 46 FT RIGHT, TO STATION 13+91 -Y-, 46 FT RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 13+32 -Y-, 46 FT RIGHT TO STATION 13+91 -Y-, 46 FT RIGHT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISIONS.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON 12/27/2013 AND SEALED BY A PROFESSIONAL ENGINEER, SHANE C. CLARK, LICENSE # 029869.

APPROVED: _____ DATE: _____			<p align="center">BRIDGE #155 TEMPORARY SHORING NOTES</p>

07-JAN-2014 13:58
 \\dot\dfsroot\01\NSP\01\Special\85055\Traffic\TrafficControl\TCP\TMP-1.dgn
 kbradwell AT TE266004

BR. #156/Location No. 5 (QUANTITY = 176 SF)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 12+70 -Y3-, 43 FT LEFT, TO STATION 13+14 -Y3-, 43 FT LEFT. FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 1050 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 12+70 -Y3-, 43 FT LEFT, TO STATION 13+14 -Y3-, 43 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 12+70 -Y3-, 43 FT LEFT, TO STATION 13+14 -Y3-, 43 FT LEFT MAY NOT PENETRATE ADEQUATELY DUE TO OBSTRUCTIONS FROM THE EXISTING FOUNDATIONS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 12+70 -Y3-, 43 FT LEFT, TO STATION 13+14 -Y3-, 43 FT LEFT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 12+70 -Y3-, 43 FT LEFT TO STATION 13+14 -Y3-, 43 FT LEFT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

BR # 156/Location No. 6 (QUANTITY = 176 SF)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 12+80 -Y3-, 11 FT LEFT, TO STATION 13+24 -Y3-, 11 FT LEFT. FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 1050 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 12+80 -Y3-, 11 FT LEFT, TO STATION 13+24 -Y3-, 11 FT LEFT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 12+80 -Y3-, 11 FT LEFT, TO STATION 13+24 -Y3-, 11 FT LEFT MAY NOT PENETRATE ADEQUATELY DUE TO OBSTRUCTIONS FROM THE EXISTING FOUNDATIONS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 12+80 -Y3-, 11 FT LEFT, TO STATION 13+24 -Y3-, 11 FT LEFT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 12+80 -Y3-, 11 FT LEFT TO STATION 13+24 -Y3-, 11 FT LEFT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

BR #156/Location No. 7 (QUANTITY = 176 SF)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 12+86 -Y3-, 11 FT RIGHT, TO STATION 13+30 -Y3-, 11 FT RIGHT. FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 1055 FT

LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 12+86 -Y3-, 11 FT RIGHT, TO STATION 13+30 -Y3-, 11 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 12+86 -Y3-, 11 FT RIGHT, TO STATION 13+30 -Y3-, 11 FT RIGHT MAY NOT PENETRATE ADEQUATELY DUE TO OBSTRUCTIONS FROM THE EXISTING FOUNDATIONS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 12+86 -Y3-, 11 FT RIGHT, TO STATION 13+30 -Y3-, 11 FT RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 12+86 -Y3-, 11 FT RIGHT TO STATION 13+30 -Y3-, 11 FT RIGHT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

BR # 156/Location No. 8 (QUANTITY = 176 SF)

FOR TEMPORARY SHORING AND POSITIVE PROTECTION FOR TEMPORARY SHORING, SEE PLANS AND TEMPORARY SHORING PROVISION.

BEFORE BEGINNING TEMPORARY SHORING DESIGN OR CONSTRUCTION, SURVEY EXISTING GROUND ELEVATIONS IN THE VICINITY OF SHORING LOCATIONS TO DETERMINE ACTUAL SHORING HEIGHTS.

DESIGN TEMPORARY SHORING FROM STATION 12+96 -Y3-, 43 FT RIGHT, TO STATION 13+40 -Y3-, 43 FT RIGHT. FOR THE FOLLOWING ASSUMED SOIL PARAMETERS AND GROUNDWATER ELEVATION:

UNIT WEIGHT (γ) = 120 LB/CF
 FRICTION ANGLE (ϕ) = 30 DEGREES
 COHESION (c) = 0 LB/SF
 GROUNDWATER ELEVATION = 1050 FT

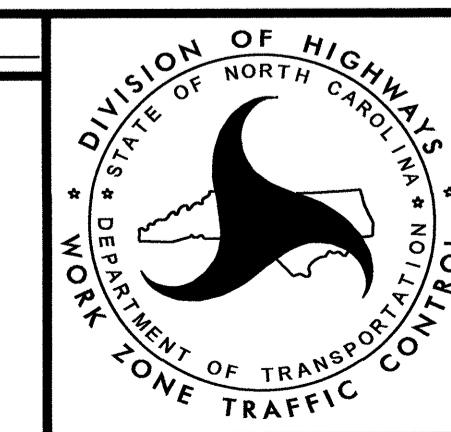
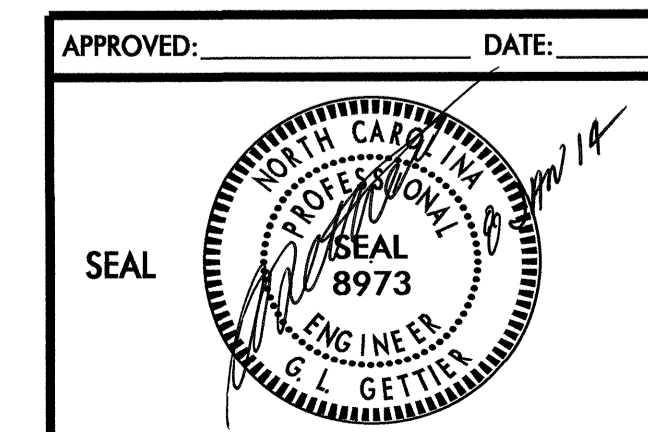
LIMITED SUBSURFACE INFORMATION IS AVAILABLE IN THE VICINITY OF TEMPORARY SHORING FROM STATION 12+96 -Y3-, 43 FT RIGHT, TO STATION 13+40 -Y3-, 43 FT RIGHT. THE INFORMATION PROVIDED FOR TEMPORARY SHORING DESIGN WAS ASSUMED AND MAY NOT BE APPLICABLE TO THE ACTUAL SITE CONDITIONS ENCOUNTERED DURING CONSTRUCTION.

DRIVEN PILING FOR TEMPORARY SHORING FROM STATION 12+96 -Y3-, 43 FT RIGHT, TO STATION 13+40 -Y3-, 43 FT RIGHT MAY NOT PENETRATE ADEQUATELY DUE TO OBSTRUCTIONS FROM THE EXISTING FOUNDATIONS.

AT THE CONTRACTOR'S OPTION, USE STANDARD TEMPORARY SHORING FOR TEMPORARY SHORING FROM STATION 12+96 -Y3-, 43 FT RIGHT, TO STATION 13+40 -Y3-, 43 FT RIGHT. SEE STANDARD DRAWING NO. 1801.01 FOR STANDARD TEMPORARY SHORING.

IT MAY BE PREFERRED TO USE A TEMPORARY SOIL NAIL WALL FOR TEMPORARY SHORING FROM STATION 12+96 -Y3-, 43 FT RIGHT TO STATION 13+40 -Y3-, 43 FT RIGHT. FOR TEMPORARY SOIL NAIL WALLS, SEE TEMPORARY SOIL NAIL WALLS PROVISION.

THE TEMPORARY SHORING NOTES SHOWN ON THIS SHEET WERE PROVIDED THROUGH A SEALED DOCUMENT FROM THE GEOTECHNICAL ENGINEERING UNIT. THE DOCUMENT WAS SUBMITTED TO THE WZTC SECTION ON 12/27/2013 AND SEALED BY A PROFESSIONAL ENGINEER, SHANE C. CLARK, LICENSE # 029869.



BRIDGE #156
 TEMPORARY SHORING NOTES

PHASING

NOTE: BRIDGE #155 AND ASSOCIATED ROADWAY WORK SHALL BE CONSTRUCTED AND OPEN PRIOR TO BEGINNING WORK ON BRIDGE #156, EXCEPT AS NOTED BELOW.

PHASE I (BRIDGE #155)

NOTE: BEFORE BEGINNING CONSTRUCTION PLACE ADVANCE WORK ZONE WARNING SIGNS ALONG -Y- (US-52) PER ROADWAY STANDARD DRAWING NO. 1101.01, SHEETS 1 OF 3.

- STEP 1: - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 4 OF 15 THE CONTRACTOR SHALL INSTALL PORTABLE CONCRETE BARRIER ON -Y- (US-52) AND REMOVE EXISTING GUARDRAIL AS SHOWN ON SHEET TMP-4 AND CLOSE THE SHOULDERS USING ROADWAY STANDARD DRAWING 1101.04, SHEET 1 OF 1.
- STEP 2: - THE CONTRACTOR SHALL INSTALL DETOUR SIGNAGE, CLOSE BRIDGE #155 AND PLACE NC 268 (-L-) TRAFFIC ONTO THE DETOUR AS SHOWN ON SHEETS TMP-4 AND TMP-5.
- STEP 3: - AWAY FROM TRAFFIC THE CONTRACTOR SHALL DEMO EXISTING BRIDGE #155 AND CONSTRUCT PROPOSED BRIDGE AND APPROACHES UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE INCLUDING PROPOSED GUARDRAIL (SEE SHEET (TMP-4 AND THE CONSTRUCTION PLANS).
- AWAY FROM TRAFFIC THE CONTRACTOR SHALL REMOVE TEMPORARY SHORING AT THE -Y- (US-52) OUTSIDE SHOULDERS AND CONSTRUCT/REPAIR THE SHOULDER PAVEMENT (SEE CONSTRUCTION PLANS).

NOTE: TEMPORARY ROAD CLOSURES (PER ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 7 OF 9) ARE REQUIRED ON -Y- (US-52) NB/SB TO REMOVE AND INSTALL DECK AND GIRDERS (SEE INTERMEDIATE CONTRACT TIME SPECIAL PROVISION). THE DETOURS FOR THIS WORK SHALL BE THE EXIT #134 ON/OFF RAMP. LAW ENFORCEMENT MAY BE USED TO DIRECT TRAFFIC THROUGH THE INTERSECTIONS, AS DIRECTED BY THE ENGINEER.

- STEP 4: - AWAY FROM TRAFFIC THE CONTRACTOR SHALL PLACE THE FINAL LAYER OF SURFACE COURSE ON THE APPROACHES AND INSTALL FINAL PAVEMENT MARKINGS AND FINAL PAVEMENT MARKERS ON -L- (NC 268) (SEE FINAL PAVEMENT MARKING PLANS), ENSURE ANY REMAINING ROADWAY AND SIGNING ITEMS HAVE BEEN COMPLETED, AND OPEN TO THE FINAL TRAFFIC PATTERN (SEE CONSTRUCTION PLANS).
- STEP 5: - REMOVE ALL TRAFFIC CONTROL DEVICES FOR BRIDGE #155 EXCEPT FOR THE PORTABLE CONCRETE BARRIER AND CRASH CUSHIONS ON -Y- (US-52), WHICH SHALL REMAIN, ALONG WITH ASSOCIATED ADVANCE WORK ZONE WARNING SIGNS UNTIL PHASE II, STEP 1.
- STEP 6: - THE CONTRACTOR SHALL INSTALL ADVANCE WORK ZONE WARNING SIGNS ALONG -Y3- (US-52) FOR BRIDGE #156 USING ROADWAY STANDARD DRAWING NO. 1101.01, SHEET 1 OF 3, THEN USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 4 OF 15 CONSTRUCT THE NB -Y3- (US-52) PAVED MEDIAN SHOULDER AT BRIDGE #156 (SEE SHEET TMP-6 AND THE CONSTRUCTION PLANS).

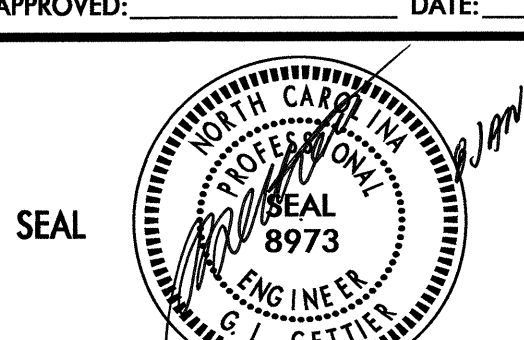
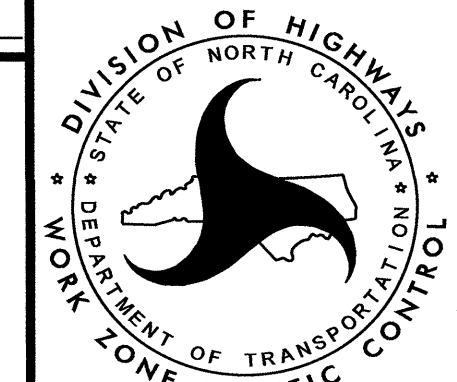
PHASE II (BRIDGE #156)

- STEP 1: - USING ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 4 OF 15 THE CONTRACTOR SHALL MOVE AND RESET PORTABLE CONCRETE BARRIER AND CRASH CUSHIONS FROM BRIDGE #155 TO BRIDGE #156, (AND REMOVE EXCESS PCB FROM BRIDGE #155), REMOVE EXISTING GUARDRAIL AND INSTALL ASSOCIATED TEMPORARY GUARDRAIL ANCHOR UNITS IN MEDIAN AT BRIDGE #156, AS SHOWN ON SHEET TMP-6 THEN CLOSE THE SHOULDERS USING ROADWAY STANDARD DRAWING NO. 1101.04, SHEET 1 OF 1.
- STEP 2: - THE CONTRACTOR SHALL INSTALL DETOUR SIGNAGE, CLOSE BRIDGE #156 AND PLACE -L1- (SR 1815 COOK SCHOOL ROAD) TRAFFIC ONTO THE DETOUR AS SHOWN ON SHEETS TMP-6 AND TMP-8.
- STEP 3: - THE CONTRACTOR SHALL DEMO THE EXISTING BRIDGE #156 AND CONSTRUCT PROPOSED BRIDGE AND THE -L1- ROADWAY APPROACHES UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE INCLUDING PROPOSED GUARDRAIL (SEE SHEET TMP-6 AND THE CONSTRUCTION PLANS).
- AWAY FROM TRAFFIC THE CONTRACTOR SHALL REMOVE TEMPORARY SHORING AT THE -Y3- (US-52) OUTSIDE SHOULDERS AND CONSTRUCT/REPAIR THE SHOULDER PAVEMENT (SEE CONSTRUCTION PLANS).

NOTE: TEMPORARY ROAD CLOSURES (PER ROADWAY STANDARD DRAWING NO. 1101.03, SHEET 7 OF 9 AND SHEET TMP-9) ARE REQUIRED ON -Y3- (US-52) NB/SB TO REMOVE AND INSTALL DECK AND GIRDERS (SEE INTERMEDIATE CONTRACT TIME SPECIAL PROVISION). THE DETOUR FOR THIS WORK SHALL BE THE EXIT #136 ON/OFF RAMP. LAW ENFORCEMENT MAY BE USED TO DIRECT TRAFFIC THROUGH THE INTERSECTIONS, AS DIRECTED BY THE ENGINEER.

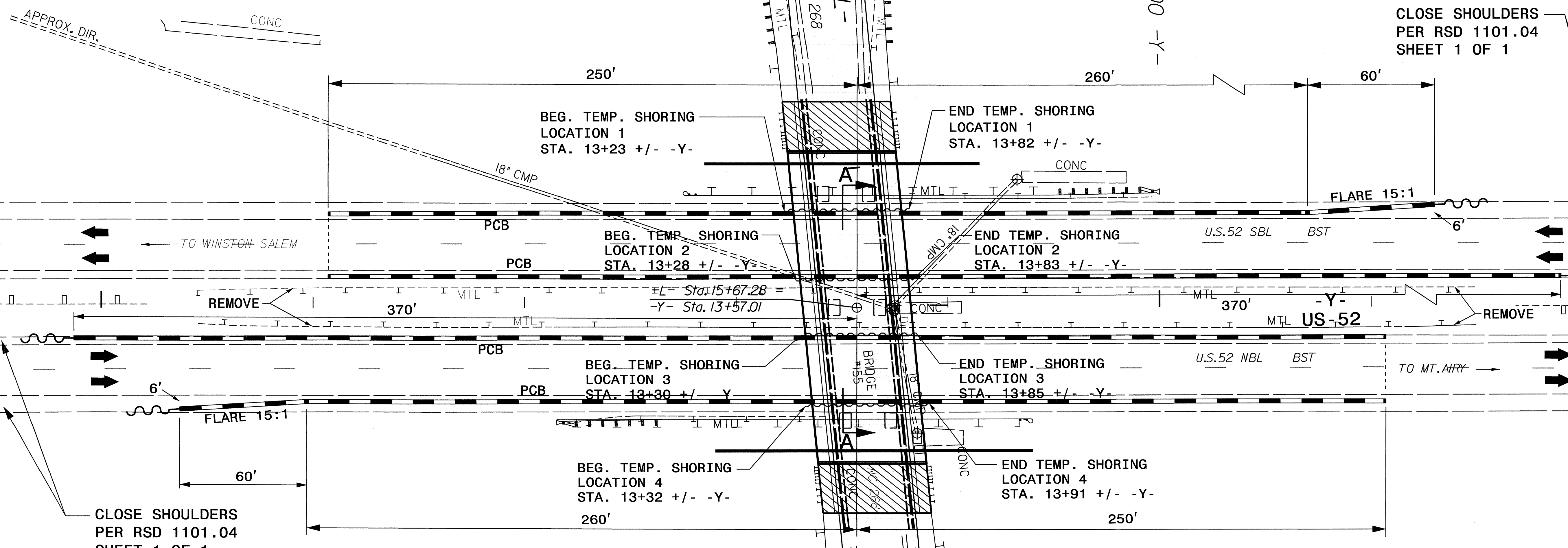
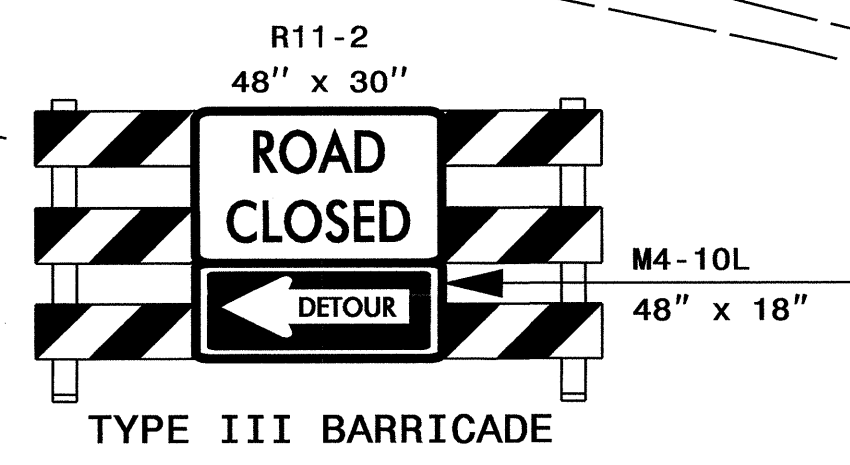
- THE CONTRACTOR SHALL USE ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 15 AND FLAGGING OPERATIONS TO CONSTRUCT WIDENING, WEDGING AND PAVING THE -L1- ROADWAY AND RAMP TIE-INS UP TO, BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE. PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) AND TEMPORARY RAISED PAVEMENT MARKERS FOR EXISTING TRAFFIC PATTERN (SEE SHEET TMP-7 AND THE CONSTRUCTION PLANS).
- STEP 4: - THE CONTRACTOR SHALL USE ROADWAY STANDARD DRAWING NO. 1101.02, SHEET 1 OF 15 AND FLAGGING OPERATIONS TO PLACE THE FINAL LAYER OF SURFACE COURSE ON THE -L1- ROADWAY AND INSTALL FINAL PAVEMENT MARKINGS AND FINAL PAVEMENT MARKERS ON -L1- (SR 1815 COOK SCHOOL ROAD), THE INTERCHANGE RAMP, ENSURE ANY REMAINING ROADWAY AND SIGNING ITEMS HAVE BEEN COMPLETED, OPEN TO THE FINAL TRAFFIC PATTERN AND REMOVE OFF-SITE DETOUR SIGNS (SEE CONSTRUCTION PLANS).
- STEP 5: - REMOVE ALL TRAFFIC CONTROL DEVICES FOR BRIDGE #156.

29-OCT-2013 14:52
 \ADOT\DF\SP001\01\cpcoups-wztccc\TMU\WZTC\DesignGroup3\Squad3B\SpecialProjects\17BP.11.R.56\TMP-1.dgn
 kdr\codwell AT 1E266004

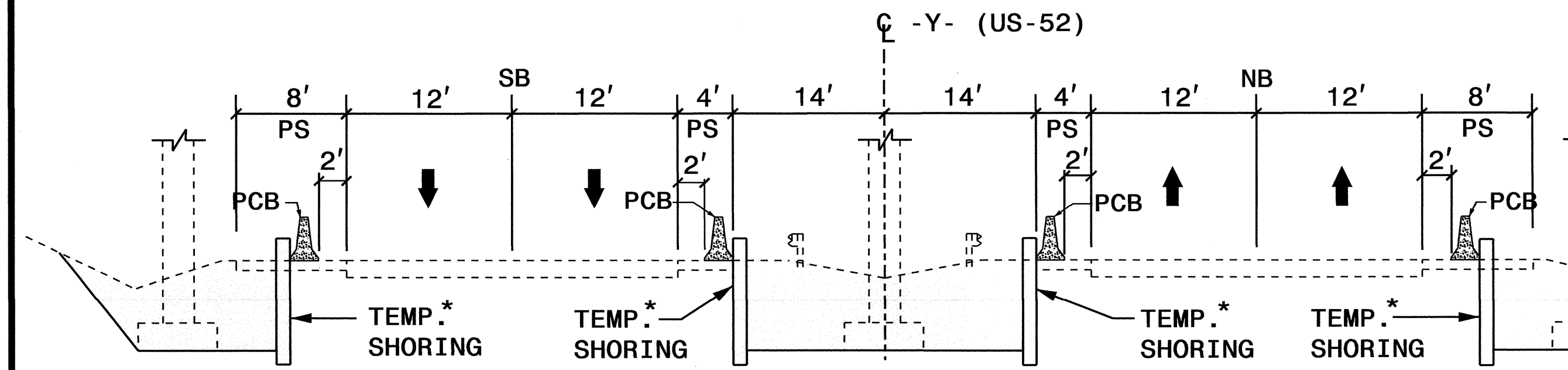
APPROVED: _____	DATE: _____			<h2 style="margin: 0;">PHASING</h2>
-----------------	-------------	---	---	-------------------------------------

CLOSE ROAD PER
RSD 1101.03
SHEET 2 OF 9

BEGIN CONST.
STA. 13+40.50 -L-



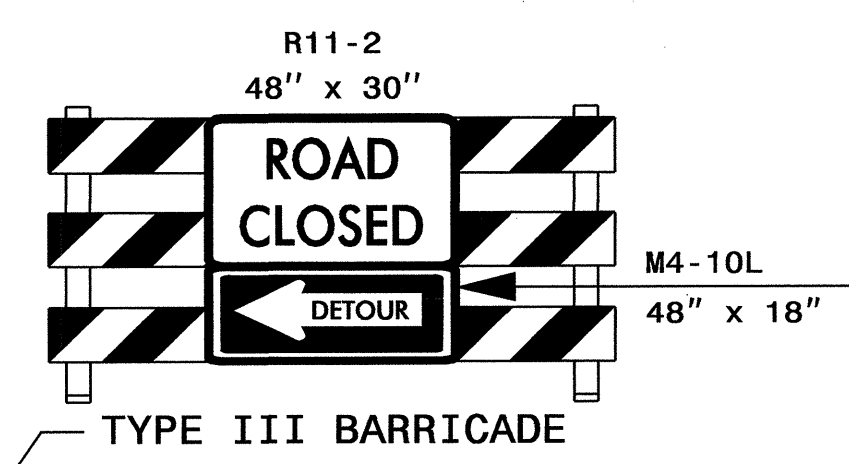
NOTES
1. SEE SHEET TMP-5 FOR OFF-SITE DETOUR PLAN.



* - INDICATES BARRIER SUPPORTED
SEE SHEET TMP-2

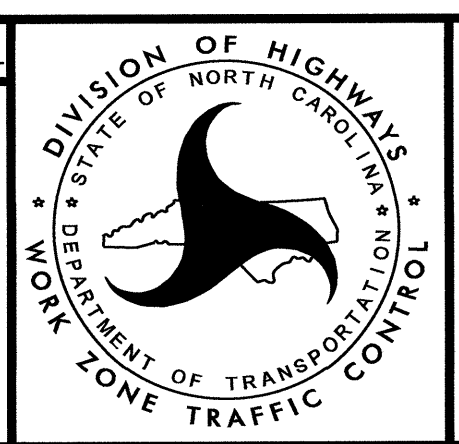
BEGIN CONST.
STA. 18+06.70 -L-

CLOSE ROAD PER
RSD 1101.03
SHEET 2 OF 9



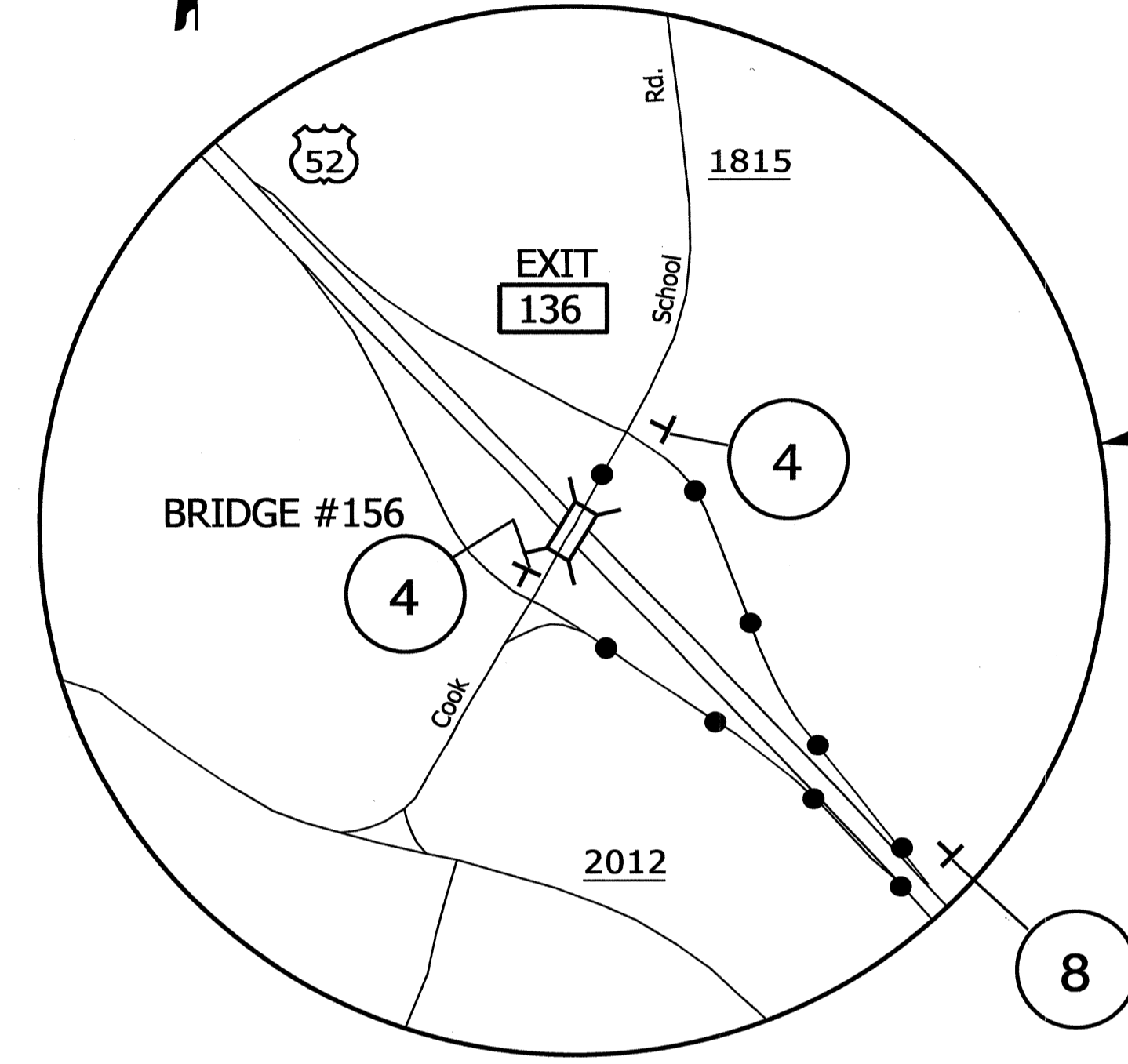
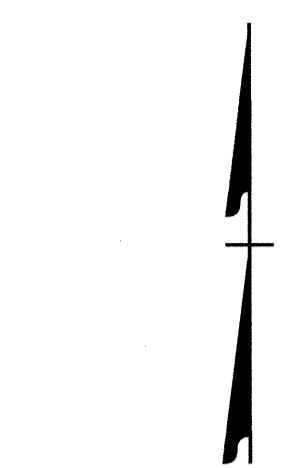
APPROVED: _____ DATE: _____

SEAL



BRIDGE #155 PLAN

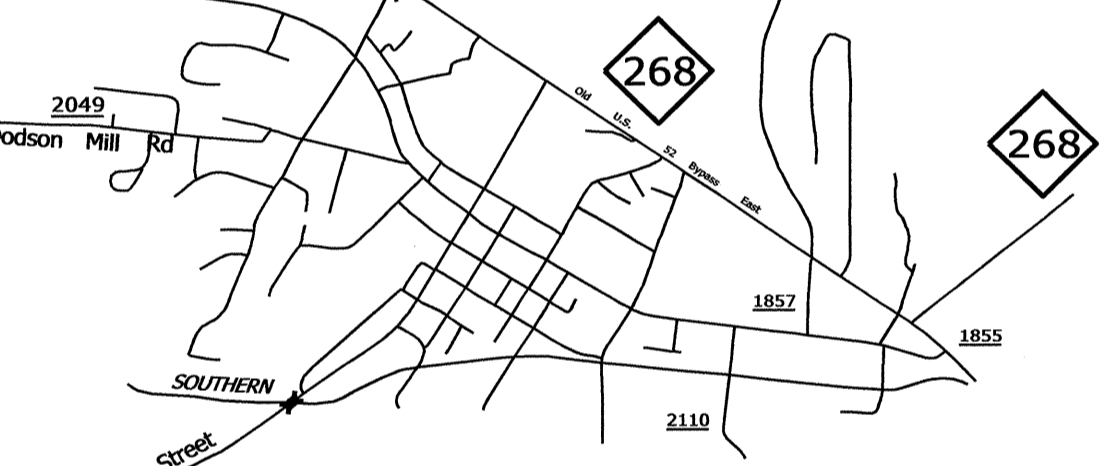
07-JAN-2014 14:09 \\dot\dfsroot\01\NSP\Proj\Special\85055\TrafficControl\TCP\TMP-4 Bridge 155 PLAN.dgn kbrodwell AT 12266004



MESSAGE NO. 1	MESSAGE NO. 2
NC 268 EAST CLOSED	FOLLOW DETOUR SIGNS

PLACE CMS 1/2 MILE PRIOR TO EXIT OR AS DIRECTED BY THE ENGINEER

CLOSE ROAD PER RSD 1101.03, SHEET 2 OF 9

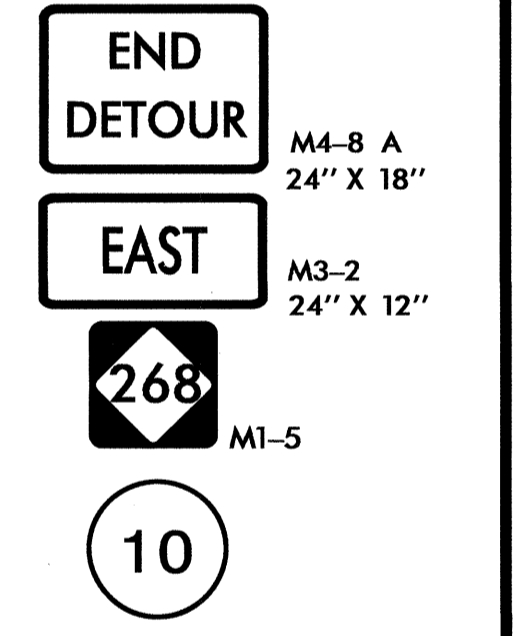
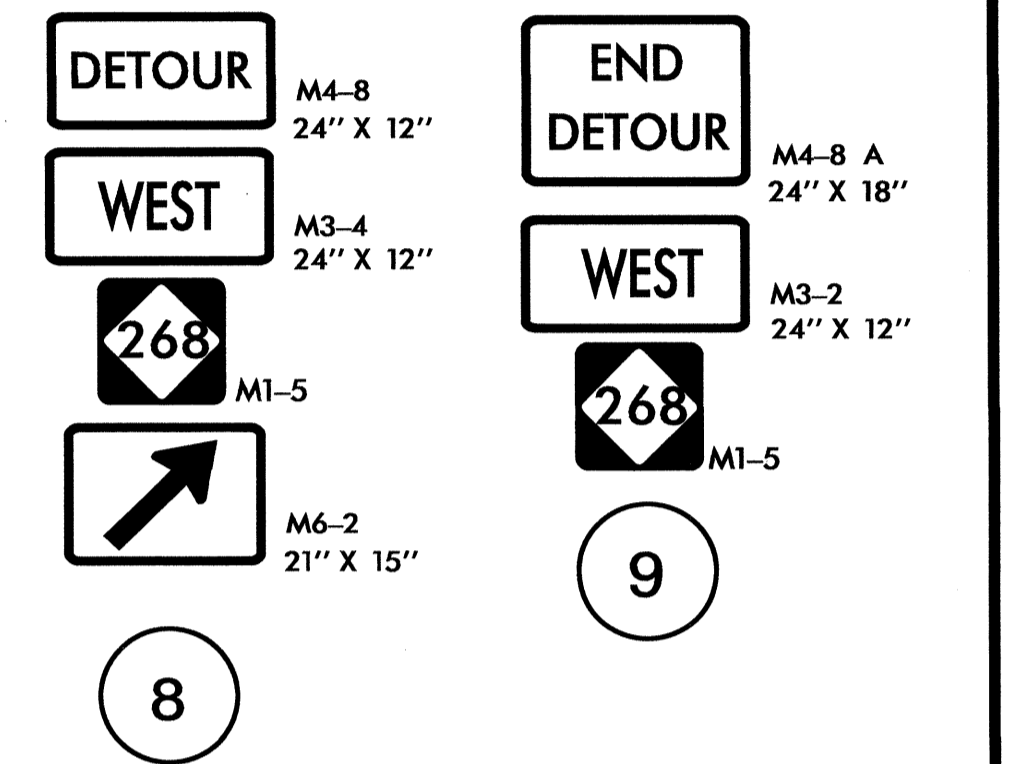
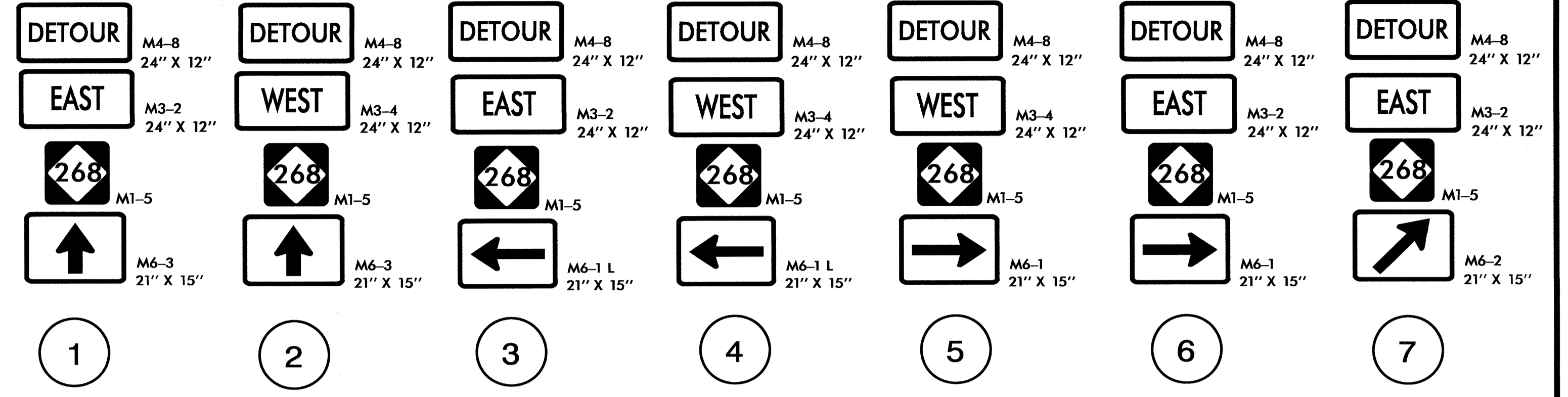
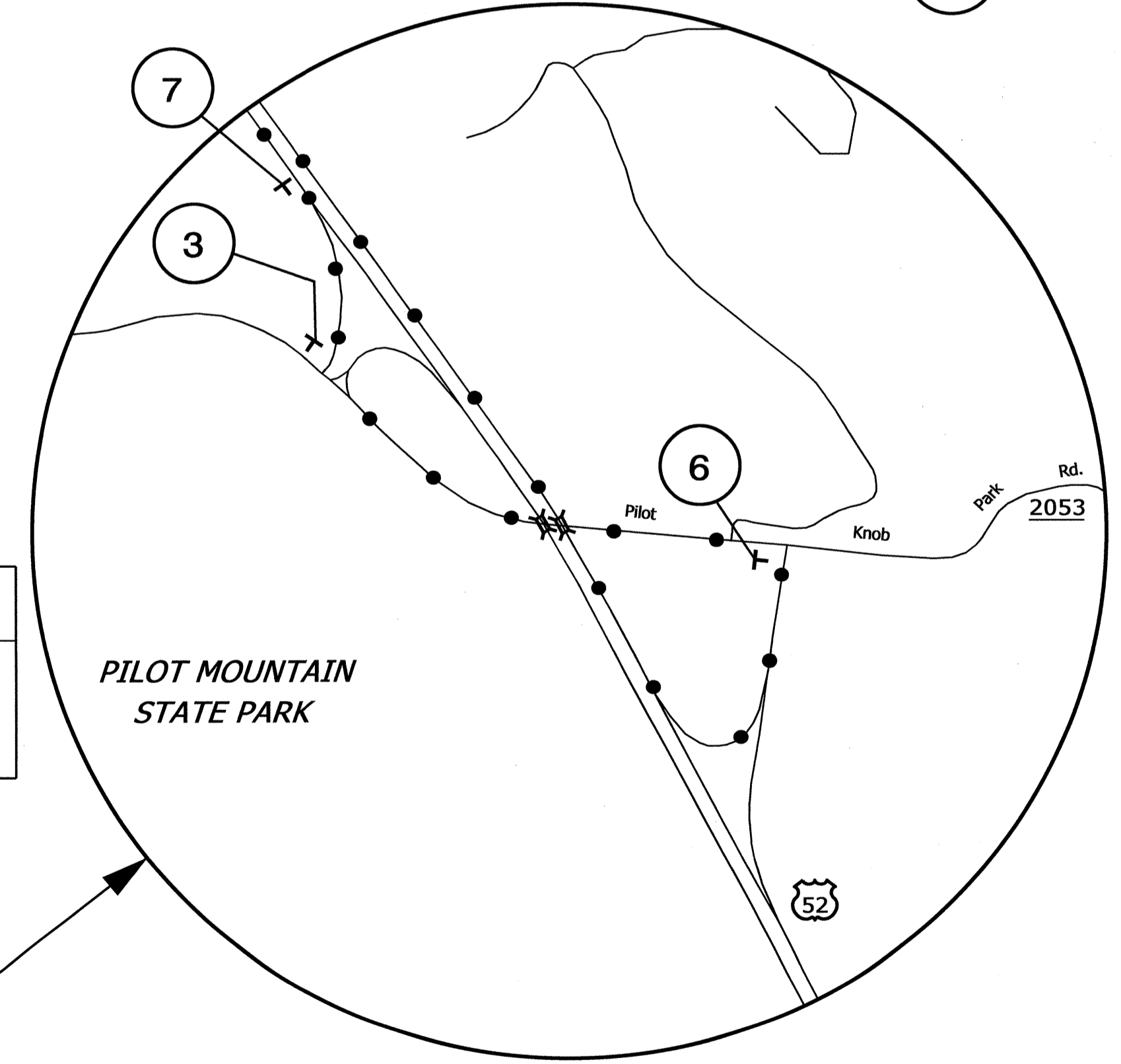
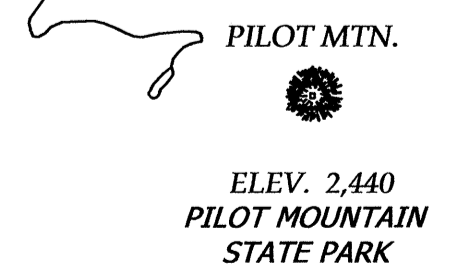
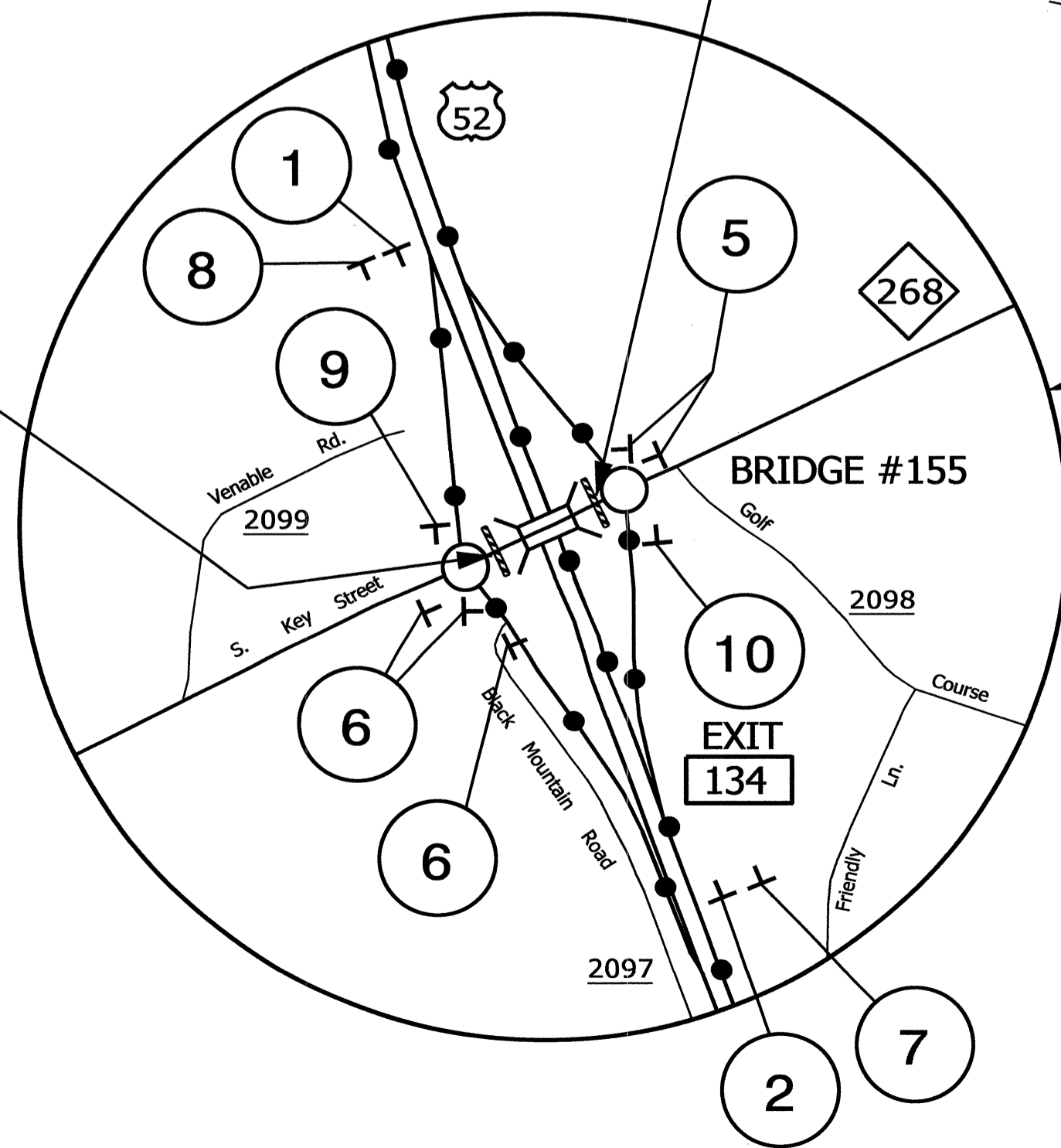


Town of Pilot Mountain

MESSAGE NO. 1	MESSAGE NO. 2
NC 268 WEST CLOSED	DETOUR EXIT 156

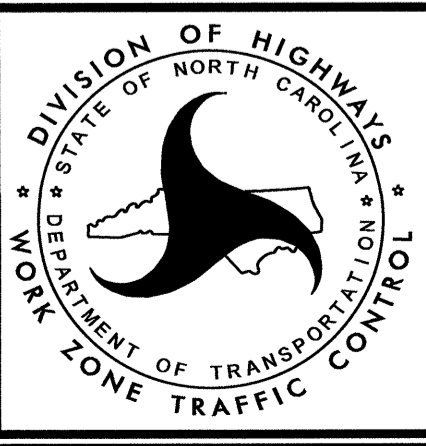
PLACE CMS 1/2 MILE PRIOR TO EXIT OR AS DIRECTED BY THE ENGINEER

CLOSE ROAD PER RSD 1101.03, SHEET 2 OF 9



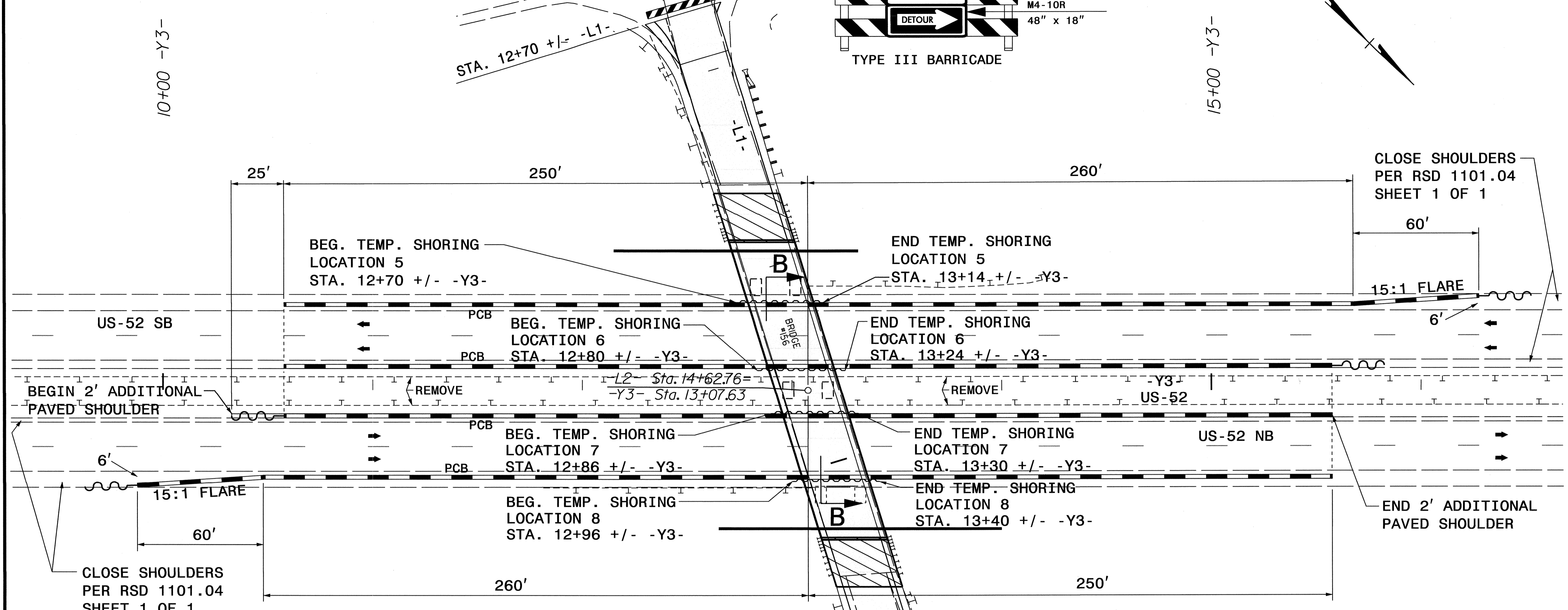
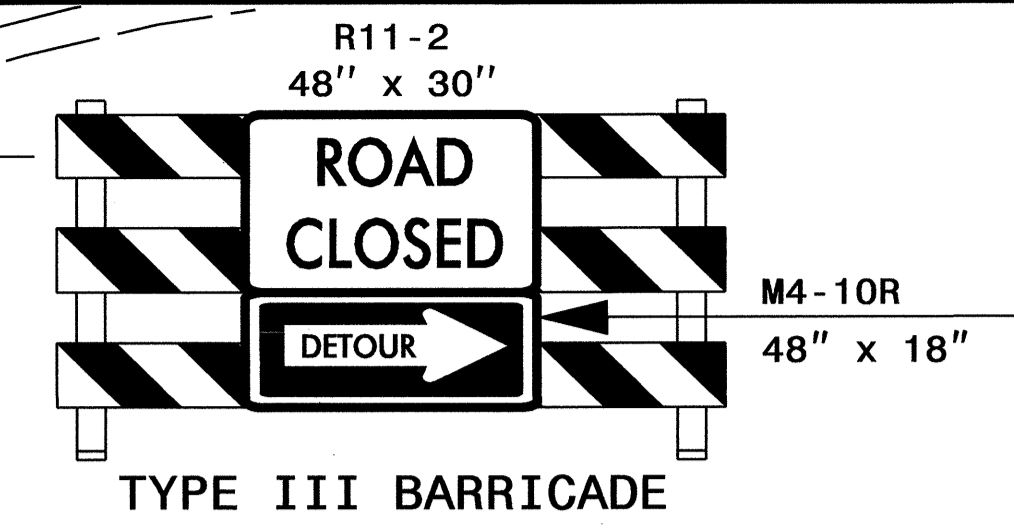
08-JAN-2014 10:41 C:\Users\jg\Documents\Projects\17BP.11.R.56\TrafficControl\TCP\TMP-5 Bridge 155 detour.dgn

APPROVED: _____ DATE: _____

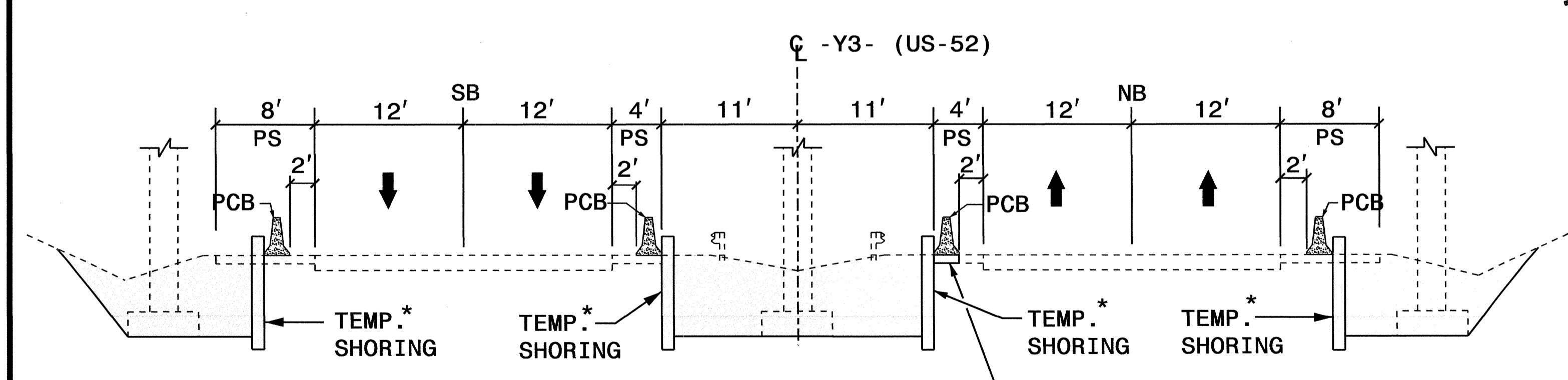


**BRIDGE #155
OFF-SITE DETOUR PLAN**

CLOSE ROAD PER
RSD 1101.03
SHEET 2 OF 9



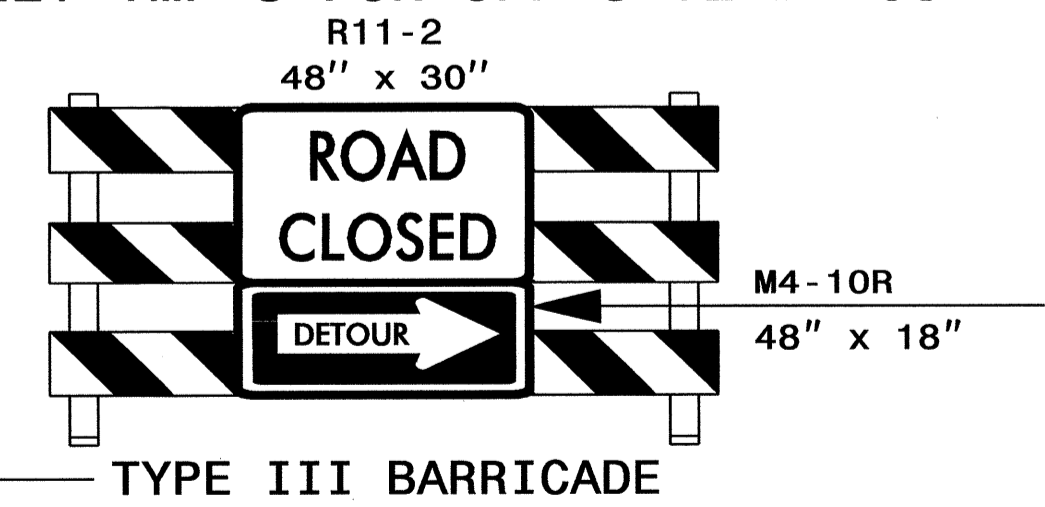
- NOTES**
- FOR ACCESS LOCATIONS INTO THE MEDIAN, REMOVE SECTIONS OF EXISTING GUARDRAIL AND INSTALL GUARDRAIL ANCHOR UNITS AT LOCATIONS DIRECTED BY THE ENGINEER.
 - SEE SHEET TMP-8 FOR OFF-SITE DETOUR PLAN.



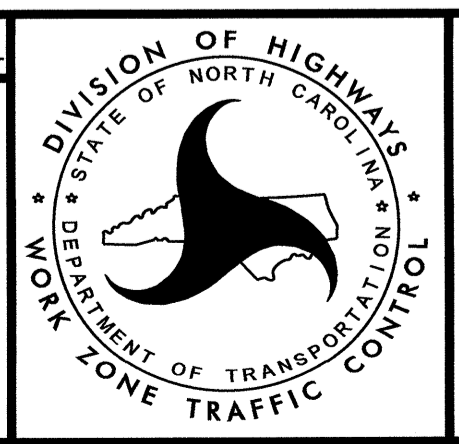
* - INDICATES BARRIER SUPPORTED
SEE SHEET TMP-2A

SECTION B-B

CLOSE ROAD PER
RSD 1101.03
SHEET 2 OF 9

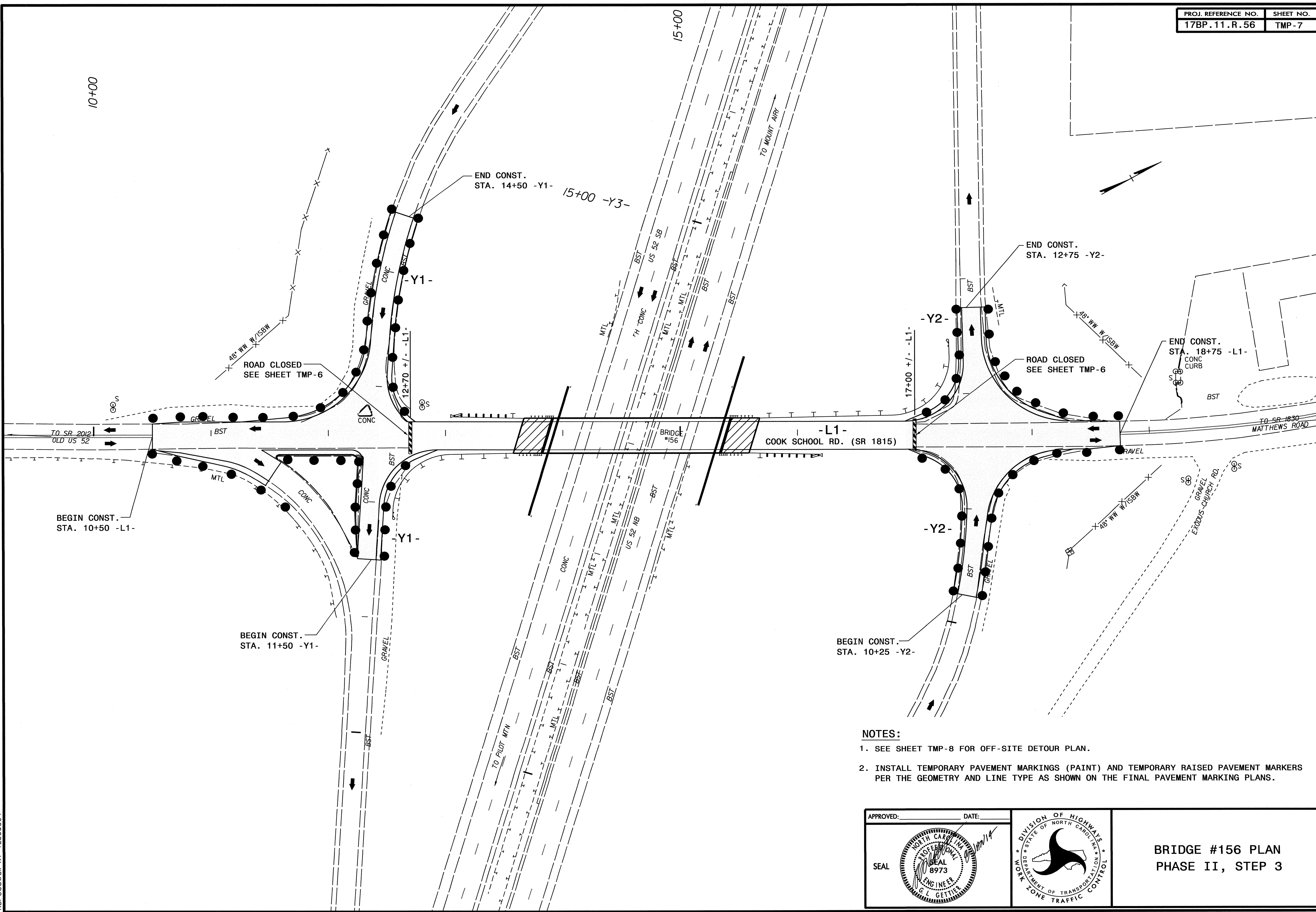


APPROVED: _____ DATE: _____
SEAL
ENGINEER
8973
L. GETTIE



BRIDGE #156 PLAN
PHASE II, STEPS 1 THRU 3

07-JAN-2014 14:08 \\dot\dfsroot\NNSP\Special\850155\TrafficControl\TCP\TMP-6 Bridge 156 PLAN.dgn kbrodwell AT TE266004



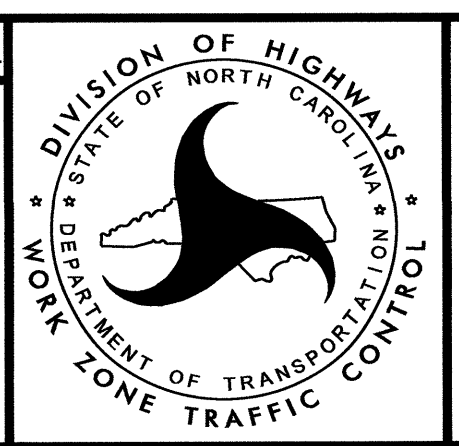
NOTES:

1. SEE SHEET TMP-8 FOR OFF-SITE DETOUR PLAN.
2. INSTALL TEMPORARY PAVEMENT MARKINGS (PAINT) AND TEMPORARY RAISED PAVEMENT MARKERS PER THE GEOMETRY AND LINE TYPE AS SHOWN ON THE FINAL PAVEMENT MARKING PLANS.

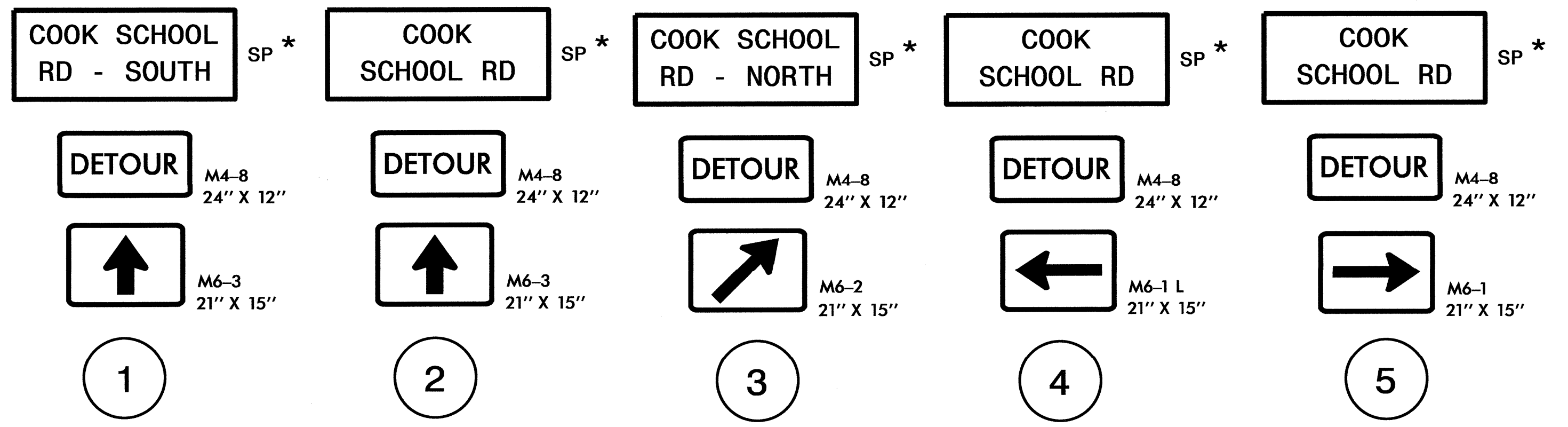
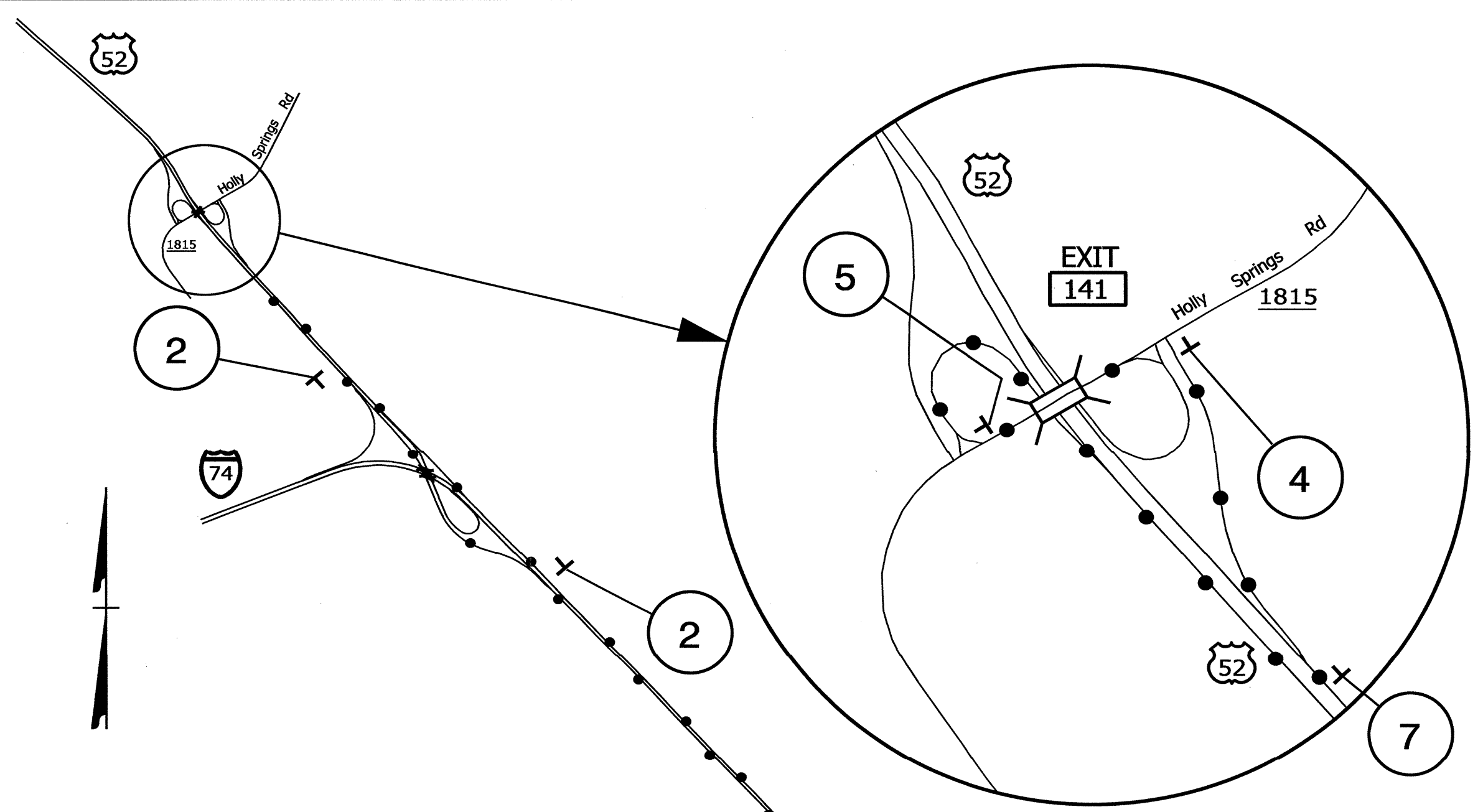
07-JAN-2014 14:43
 \\dot\dfsroot\01\NSProj\Special\850555\TrafficControl\TCP\TMP-7 Bridge 156 PLAN2.dgn
 kbradwell AT 1E266004

APPROVED: _____ DATE: _____

SEAL



**BRIDGE #156 PLAN
 PHASE II, STEP 3**

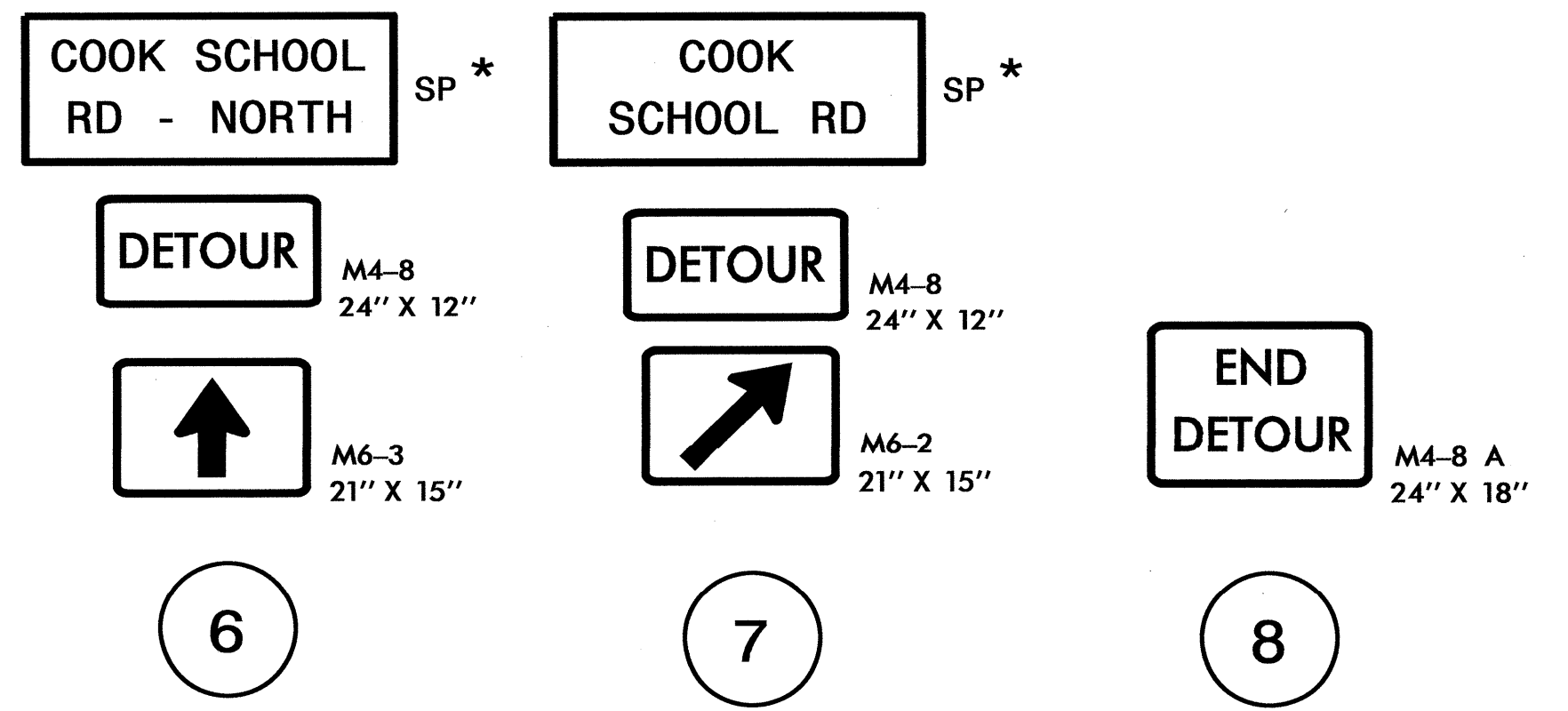


MESSAGE NO. 1	MESSAGE NO. 2
COOK SCH RD NORTH CLOSED	DETOUR EXIT 134

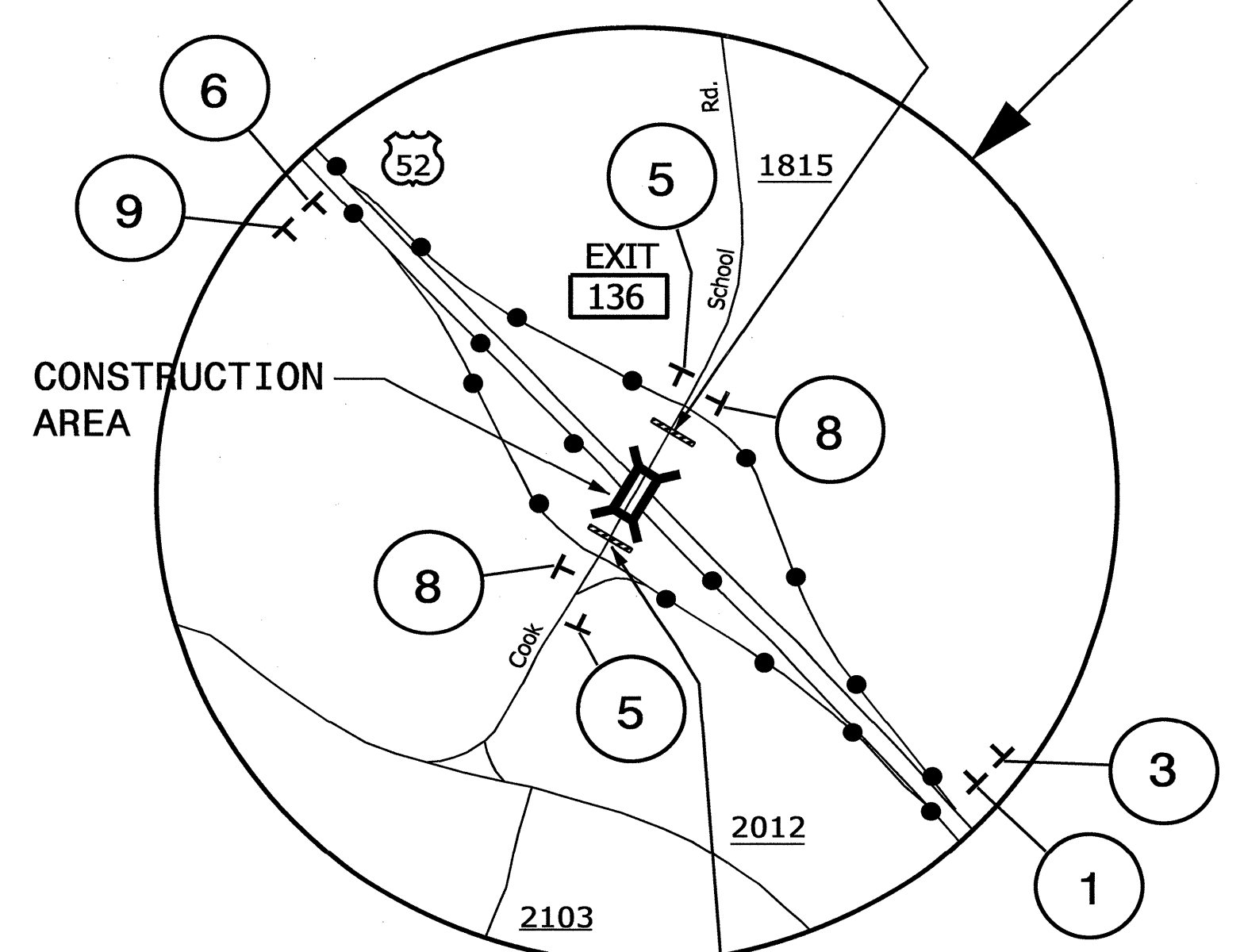
PLACE CMS 1/2 MILE PRIOR TO EXIT OR AS DIRECTED BY THE ENGINEER

MESSAGE NO. 1	MESSAGE NO. 2
COOK SCH RD SOUTH CLOSED	DETOUR EXIT 141

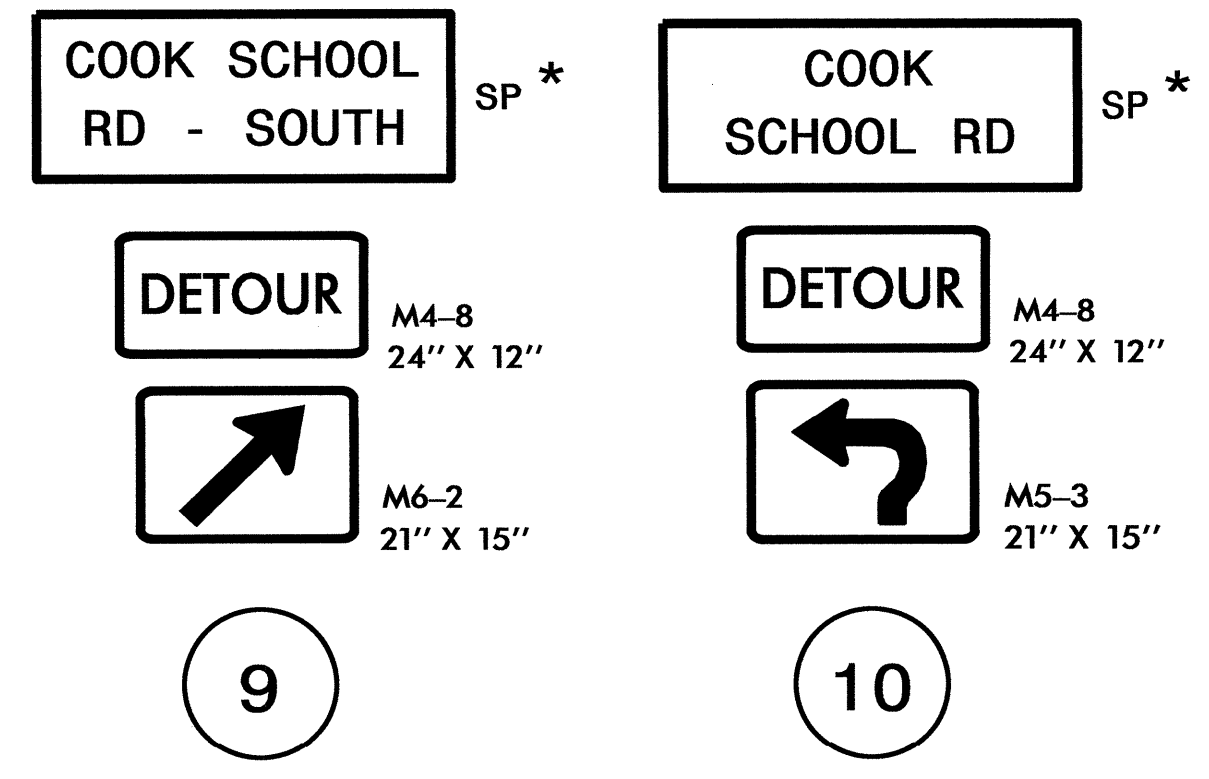
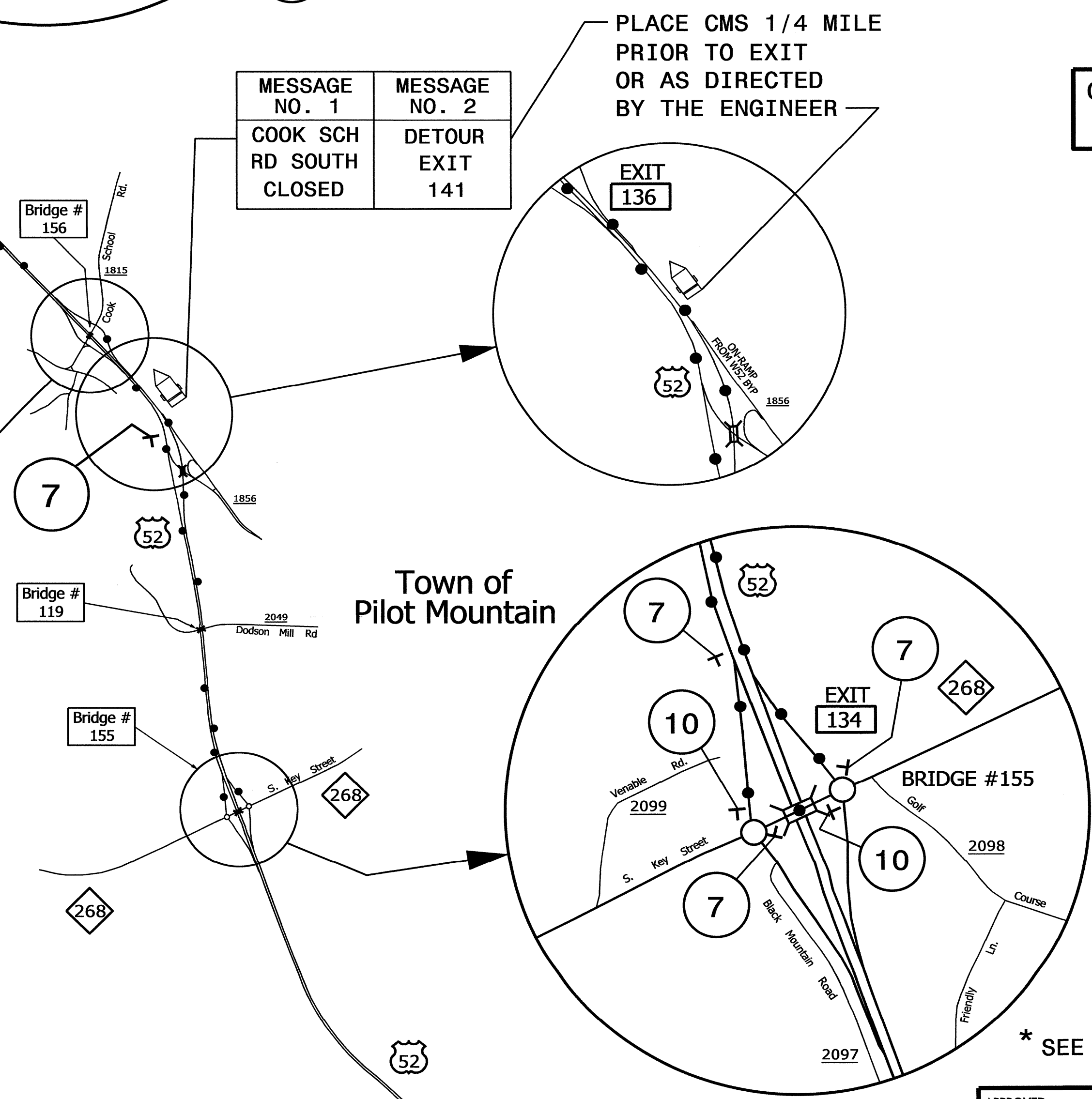
PLACE CMS 1/4 MILE PRIOR TO EXIT OR AS DIRECTED BY THE ENGINEER



CLOSE ROAD PER RSD 1101.03, SHEET 2 OF 9



CLOSE ROAD PER RSD 1101.03, SHEET 2 OF 9



* SEE SHEETS TMP-2B, TMP-2C AND TMP-2D FOR SPECIAL SIGN DESIGNS.

APPROVED: _____ DATE: _____

SEAL

BRIDGE #156
OFF-SITE DETOUR PLAN

07-JAN-2014 14:41 \\dot\dfsroot\01\NSP\Proj\Special\850155\TrafficControl\TCP\TMP-8 Bridge 156 detour.dgn kbroodwell AT TE266004

I:\DEC-2013 09:51\NSC\Spec\1\650155\Traffic\Signing\CADD\PM\17BP-4 Bridge 155 PLAN.dgn
 chb
 12/25/13

T.I.P.: 17BP.11.R.56

CONTRACT:

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
SURRY COUNTY**

**LOCATION: BRIDGE No. 155 ON SR 268 (SOUTH KEY ST.) OVER US 52 &
BRIDGE No. 156 ON SR 1815 (COOK SCHOOL RD.) OVER US 52**

<small>TIP NO.</small> 17BP.11.R.56	<small>SHEET NO.</small> PMP-1
<small>APPROVED:</small>	
<small>DATE:</small> 12/19/13	
<small>SEAL</small>	

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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:

<u>STD. NO.</u>	<u>TITLE</u>
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.12	PAVEMENT MARKINGS - BRIDGES
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

- A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:
- | <u>ROAD NAME</u> | <u>MARKING</u> | <u>MARKER</u> |
|----------------------------|----------------|---------------|
| NC 268 AND BRIDGE | POLYUREA | SNOW PLOWABLE |
| COOK SCHOOL RD. AND BRIDGE | POLYUREA | SNOW PLOWABLE |
- B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
 - C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
 - D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.
 - E) STOP BAR LOCATION AT NON-SIGNALIZED INTERSECTIONS MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.
 - F) REMOVE ALL RESIDUE AND SURFACE LAITANCE BY ACCEPTABLE METHODS ON CONCRETE BRIDGE DECKS PRIOR TO PLACING POLYUREA PAVEMENT MARKING MATERIAL.
 - G) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

**PAVEMENT MARKING
SCHEDULE**

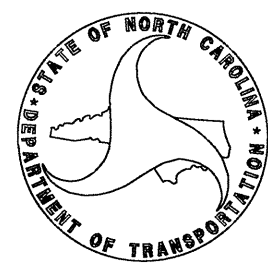
<u>SYMB</u>	<u>DESCRIPTION</u>
	FINAL PAVEMENT MARKINGS
	<u>THERMO (24", 120 MILS)</u>
T2	WHITE STOPBAR
	<u>POLYUREA (4") Highly Reflective Elements</u>
V8	2 FT. - 6 FT./SP WHITE MINISKIP
VA	WHITE EDGELINE
VB	YELLOW EDGELINE
VD	3 FT. - 9 FT./SP WHITE MINISKIP
VI	YELLOW DOUBLE CENTER
	<u>THERMO PAVEMENT MARKING SYMBOLS (90 MILS)</u>
UB	RIGHT TURN ARROW
UD	COMBO. LEFT/STRAIGHT ARROW
UN	24" YIELD LINE TRIANGLE
UQ	RAMP ARROW SYMBOL
	<u>MARKERS</u>
	<u>SNOWPLOWABLE RAISED PAVEMENT MARKERS</u>
ME	YELLOW & YELLOW
MF	CRYSTAL & RED

INDEX

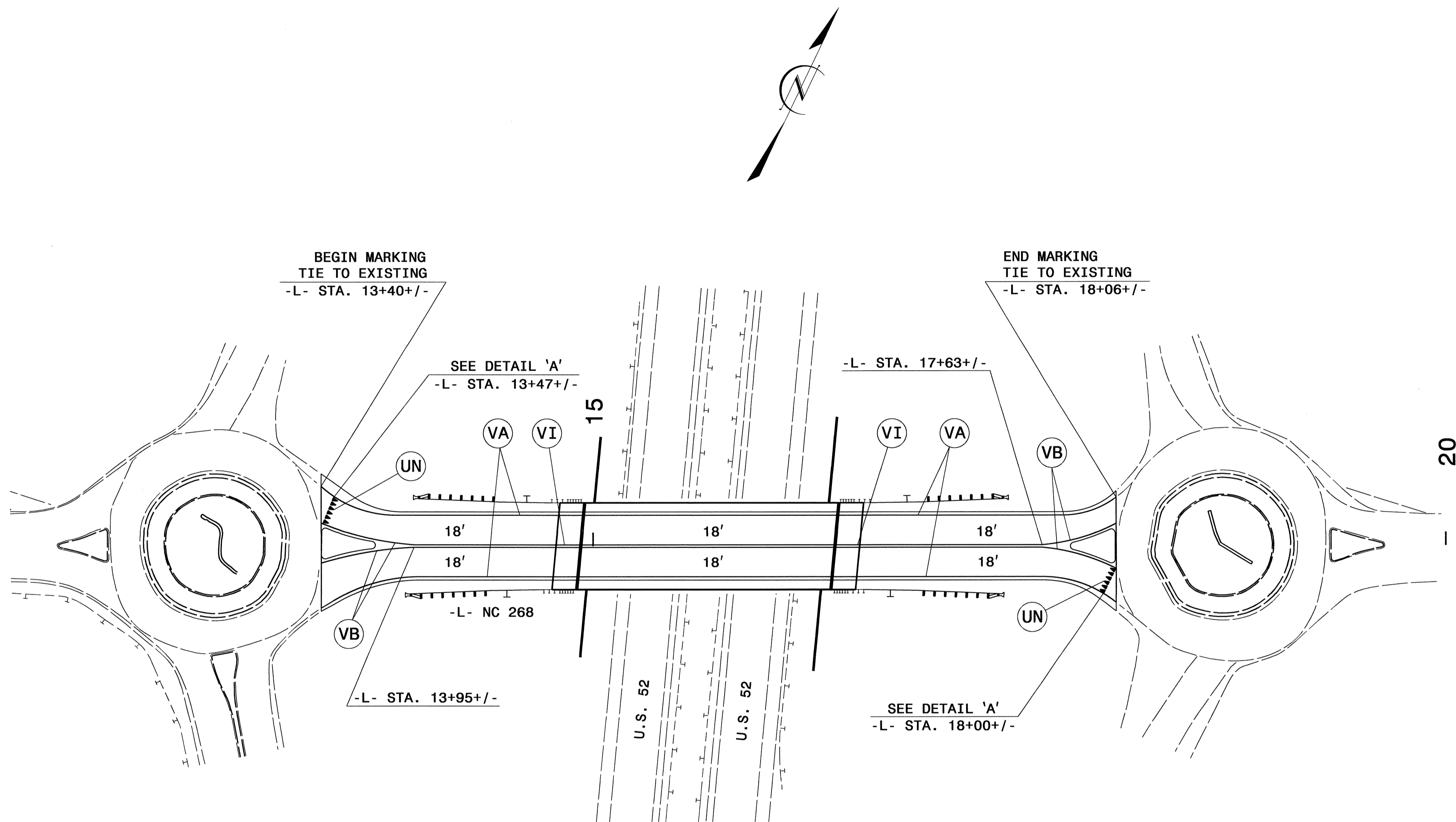
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-2-3	PAVEMENT MARKING DETAIL

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

_____ **KELVIN L. JORDAN** SIGNING & DELINEATION REGIONAL ENGINEER
 _____ **DERRICK H. BEARD** SIGNING & DELINEATION PROJECT DESIGN ENGINEER

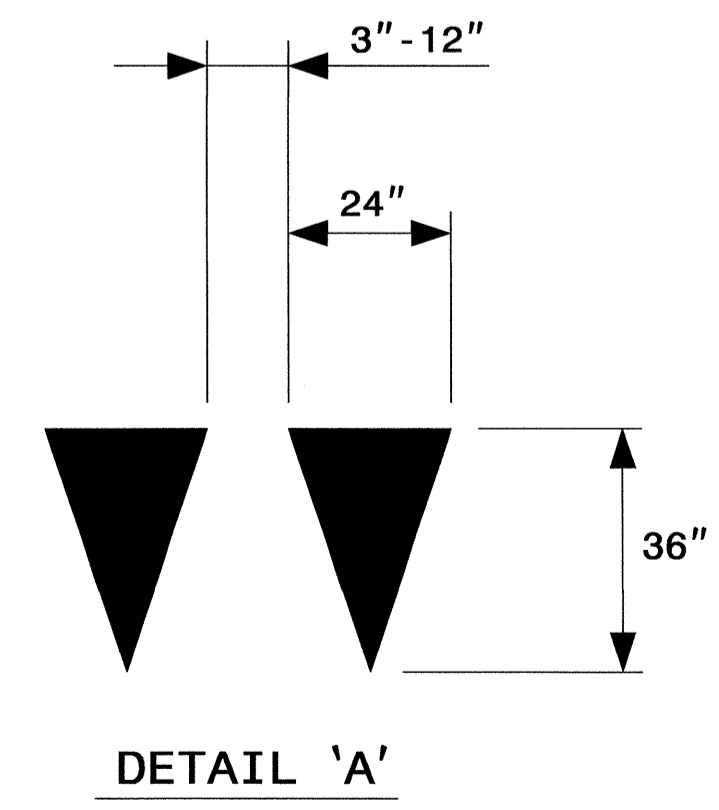


TIP NO. 17BP.11.R.56	SHEET NO. PMP-2
APPROVED: <i>plw</i>	
DATE: 12/19/13	
SEAL	




NOTE:
DO NOT INSTALL SNOW PLOWABLE MARKERS ON PROPOSED CONCRETE BRIDGE DECK.

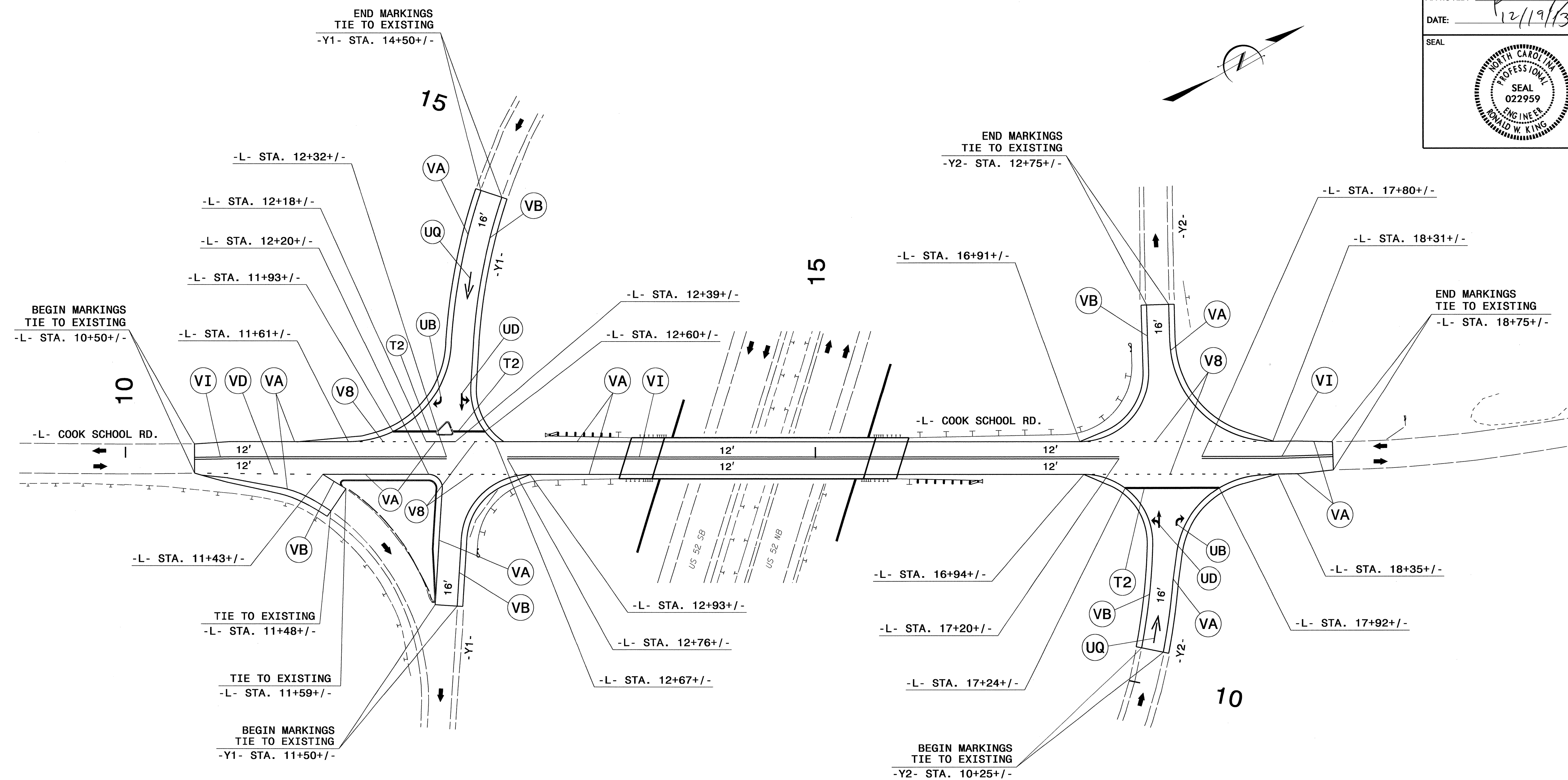
PAVEMENT MARKING LEGEND	
THERMOPLASTIC	
(UN)	24" YIELD LINE TRIANGLE (90 MIL)
POLYUREA	
(VA)	WHITE EDGELINE (4")
(VB)	YELLOW EDGELINE (4")
(VI)	YELLOW DOUBLE CENTER (4")



**BRIDGE No. 155
PAVEMENT MARKING DETAIL**

I8-DEC-2013 10:54
 \\dot\dfs\00\N\SP\Proj\Special\85055\Traffic\Signing\CADD\PM\X\TMP-4 Bridge 155 PLAN.dgn
 dhbeard AT TE26882

TIP NO.	SHEET NO.
17BP.11.B-56	PMP-3
APPROVED:	<i>[Signature]</i>
DATE:	12/19/13
SEAL	



PAVEMENT MARKING LEGEND

- THERMOPLASTIC**
- (T2) WHITE STOPBAR (24")
 - (UB) RIGHT TURN ARROW (90 MIL)
 - (UD) COMBO. LEFT/STRAIGHT ARROW (90 MIL)
 - (UQ) RAMP ARROW SYMBOL (90 MIL)
- POLYUREA**
- (V8) 2FT.-6FT./SP WHITE MINISKIP (4")
 - (VA) WHITE EDGELINE (4")
 - (VB) YELLOW EDGELINE (4")
 - (VD) 3FT.-9FT/SP WHITE MINISKIP (4")
 - (VI) YELLOW DOUBLE CENTER (4")

NOTE:
DO NOT INSTALL SNOW PLOWABLE MARKERS ON PROPOSED CONCRETE BRIDGE DECK.

**BRIDGE No. 156
PAVEMENT MARKING DETAIL**

I8-DEC-2013 11:06
 \\dot\dfsroot\0\NSP\Proj\Special\850156\Traffic\Signing\CADD\PM\TMP-7 Bridge 156 PLAN2.dgn
 dbbeard AT TE26832

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.11.R.56	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

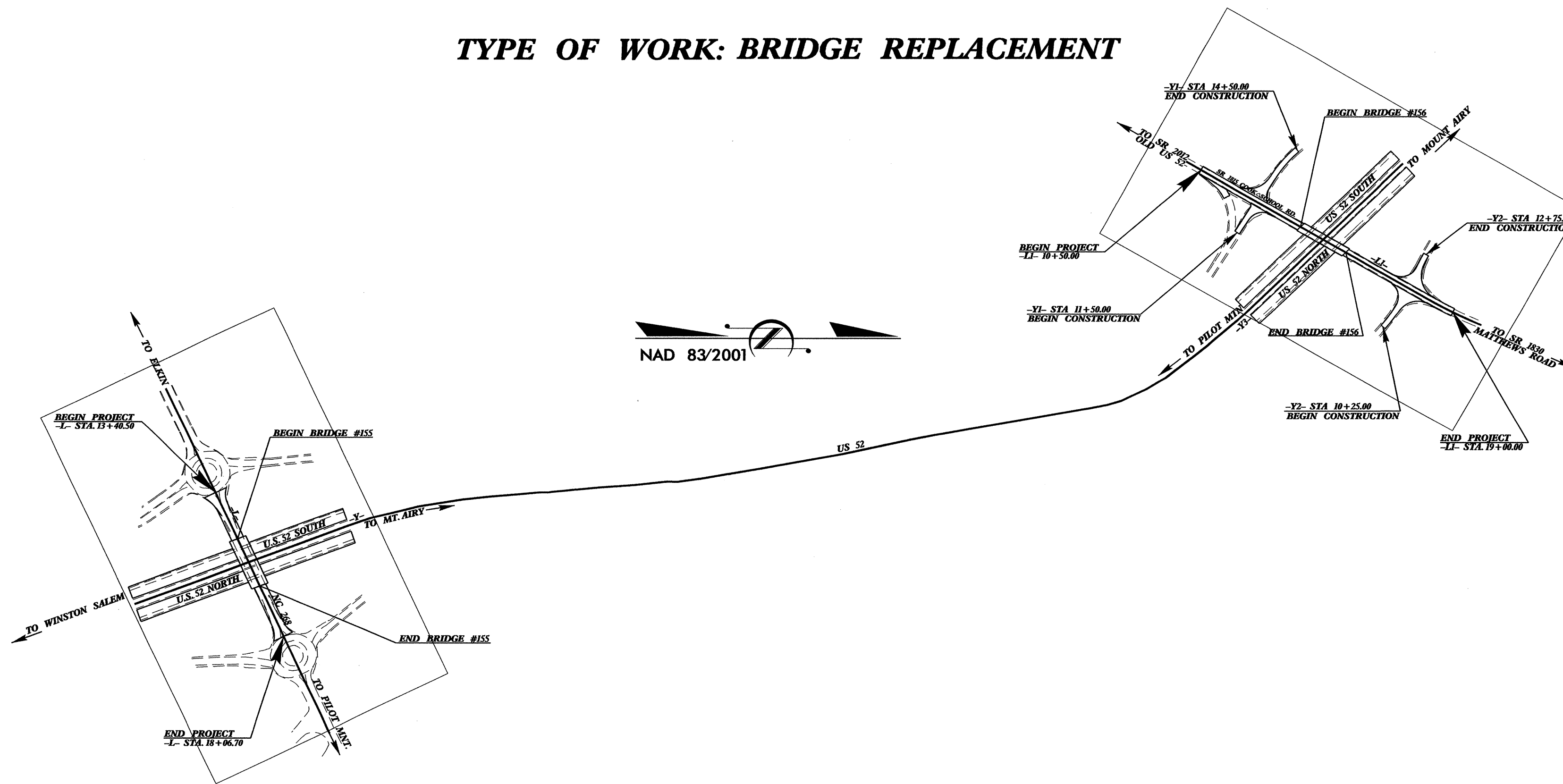
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

SURRY COUNTY

**LOCATION: BRIDGE No. 155 ON NC 268 (SOUTH KEY ST.) OVER US 52 &
BRIDGE No. 156 ON SR 1815 (COOK SCHOOL RD.) OVER US 52**

TYPE OF WORK: BRIDGE REPLACEMENT



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1650.05	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	TSF
1606.01	Special Sediment Control Fence	SSCF
1622.01	Temporary Berms and Slope Drains	TBSD
1630.02	Silt Basin Type B	SBTB
1653.01	Temporary Rock Silt Check Type-A	TRSCA
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	TRSCA/PAM
1633.02	Temporary Rock Silt Check Type-B	TRSCB
	Wattle/Coir Fiber Wattle	WCFW
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	WCFW/PAM
1634.01	Temporary Rock Sediment Dam Type-A	TRSDA
1634.02	Temporary Rock Sediment Dam Type-B	TRSDB
1655.01	Rock Pipe Inlet Sediment Trap Type-A	RPISTRA
1655.02	Rock Pipe Inlet Sediment Trap Type-B	RPISTRB
1630.04	Stilling Basin	SB
1630.06	Special Stilling Basin	SSB
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	SKB
	Tiered Skimmer Basin	TSKB
	Infiltration Basin	IB

**THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.**

**THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.**

**HIGH QUALITY WATER(S) EXIST
ON THIS PROJECT**

High Quality Water Zone(s) Exist
From Sta. L 15+50 RT
to Sta. L 19+00 RT
Refer To E.C. Special Provisions
for Special Considerations.

TIP PROJECT: 17BP.11.R.56

GRAPHIC SCALE

0
PLANS

0
PROFILE (HORIZONTAL)

0
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY
WITH THE REGULATIONS SET FORTH BY THE
NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011
ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND
NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2012 STANDARD SPECIFICATIONS

Roadway Standard Drawings

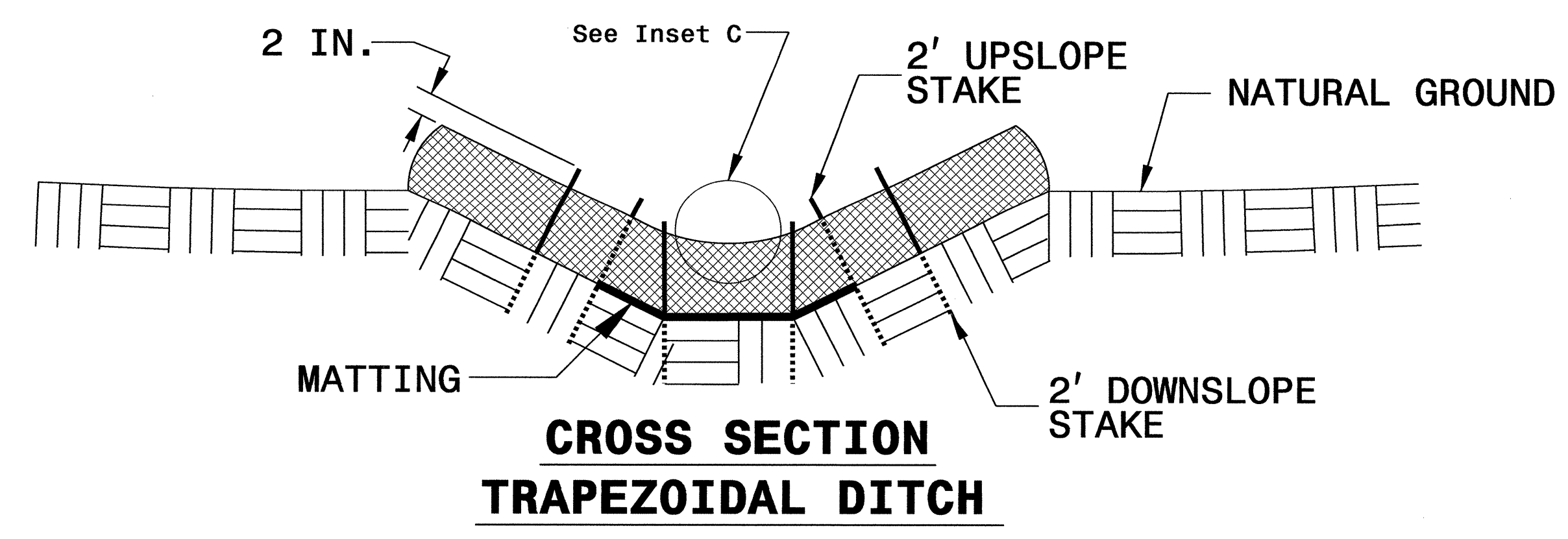
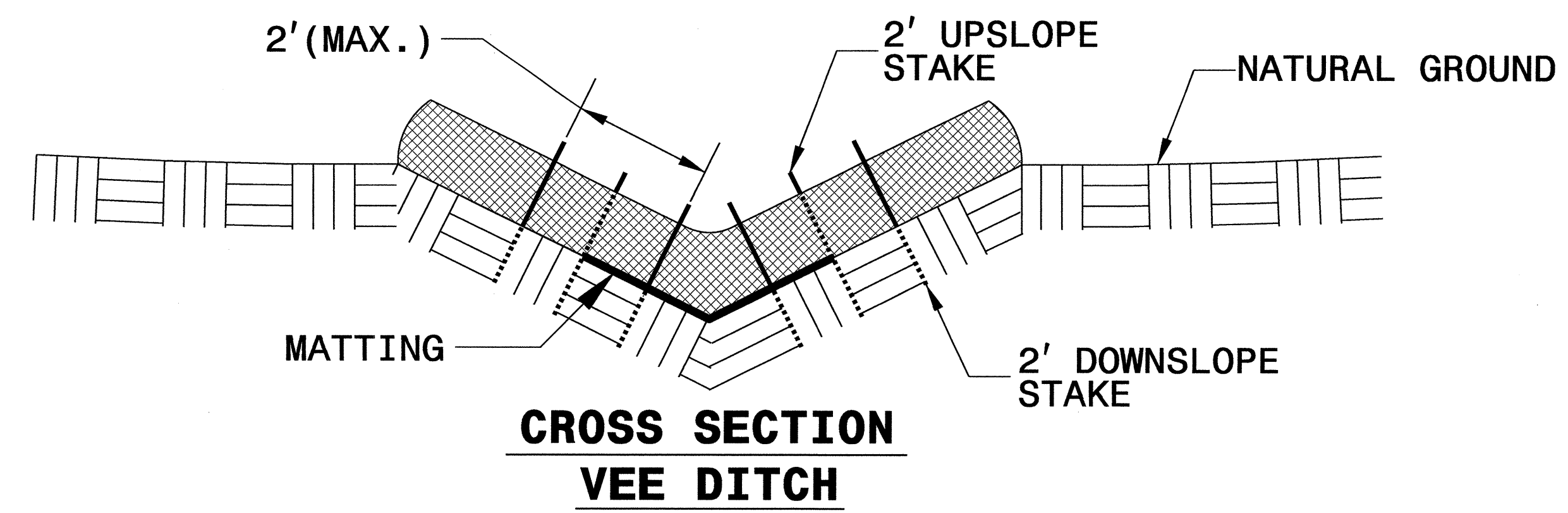
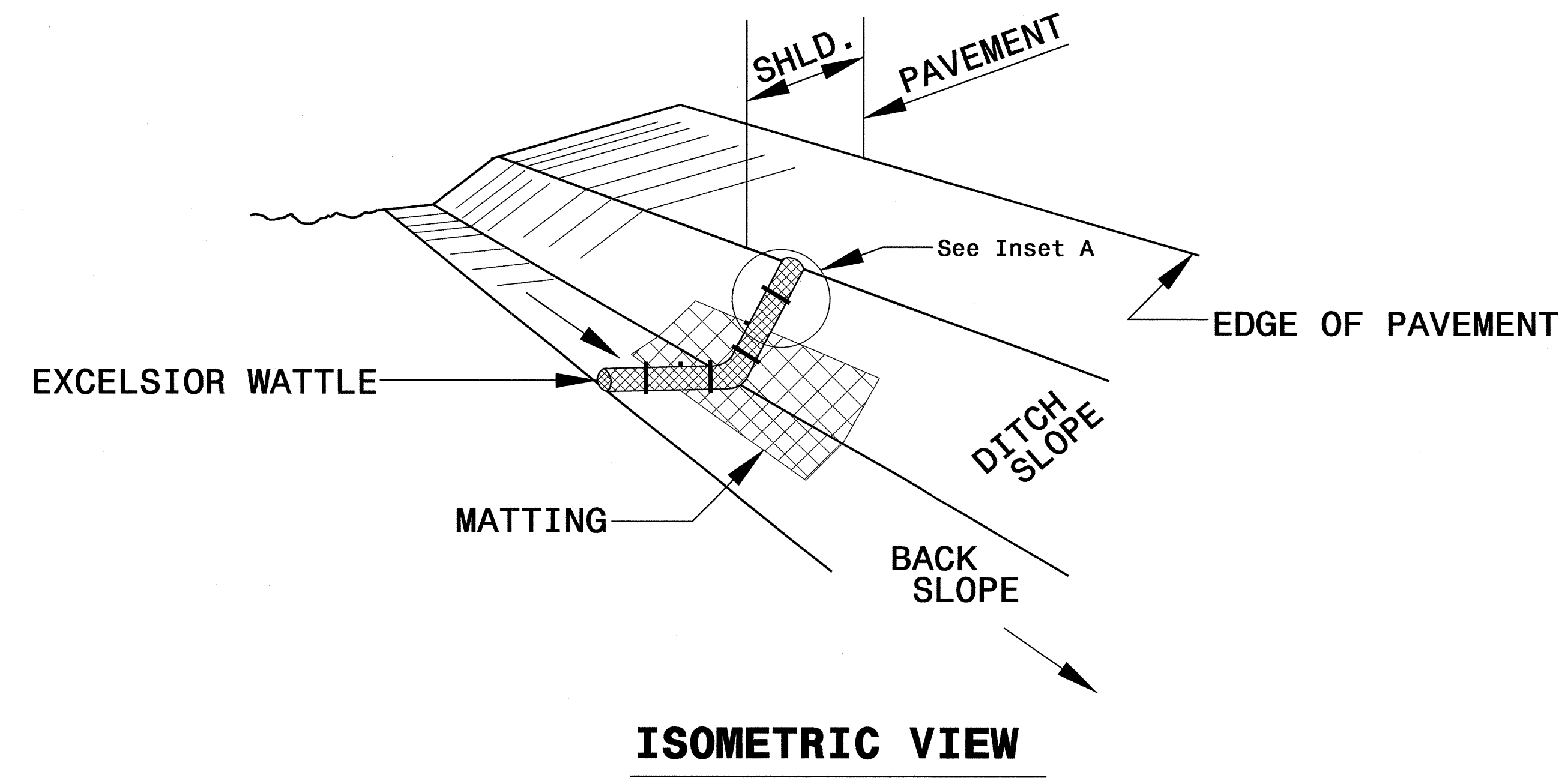
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

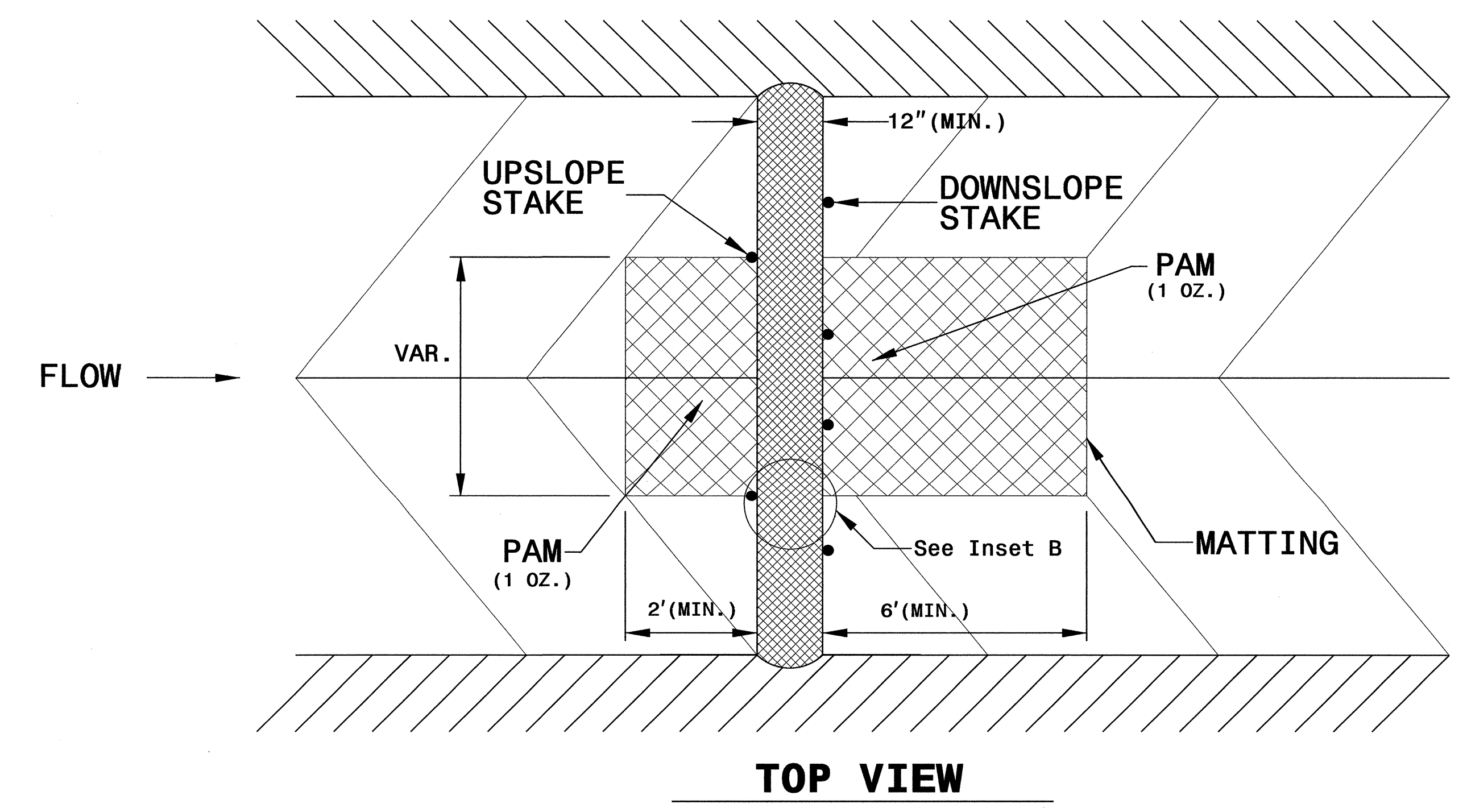
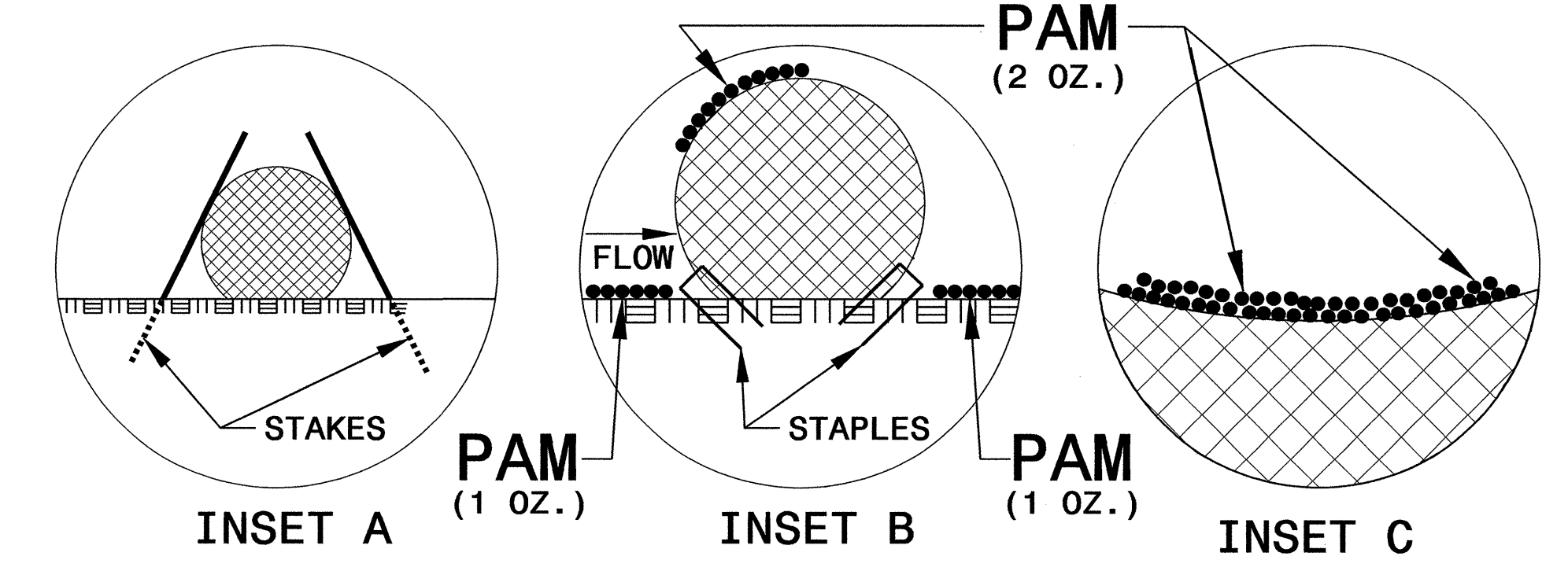
07-JAN-2014 10:01 AM C:\Users\jgibson\Documents\Design\1650156_EC.tsh.dgn

PROJECT REFERENCE NO. 17BPJLR56	SHEET NO. EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



- NOTES:
- USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.
 - USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
 - ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
 - INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
 - PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
 - INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
 - INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
 - PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
 - INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



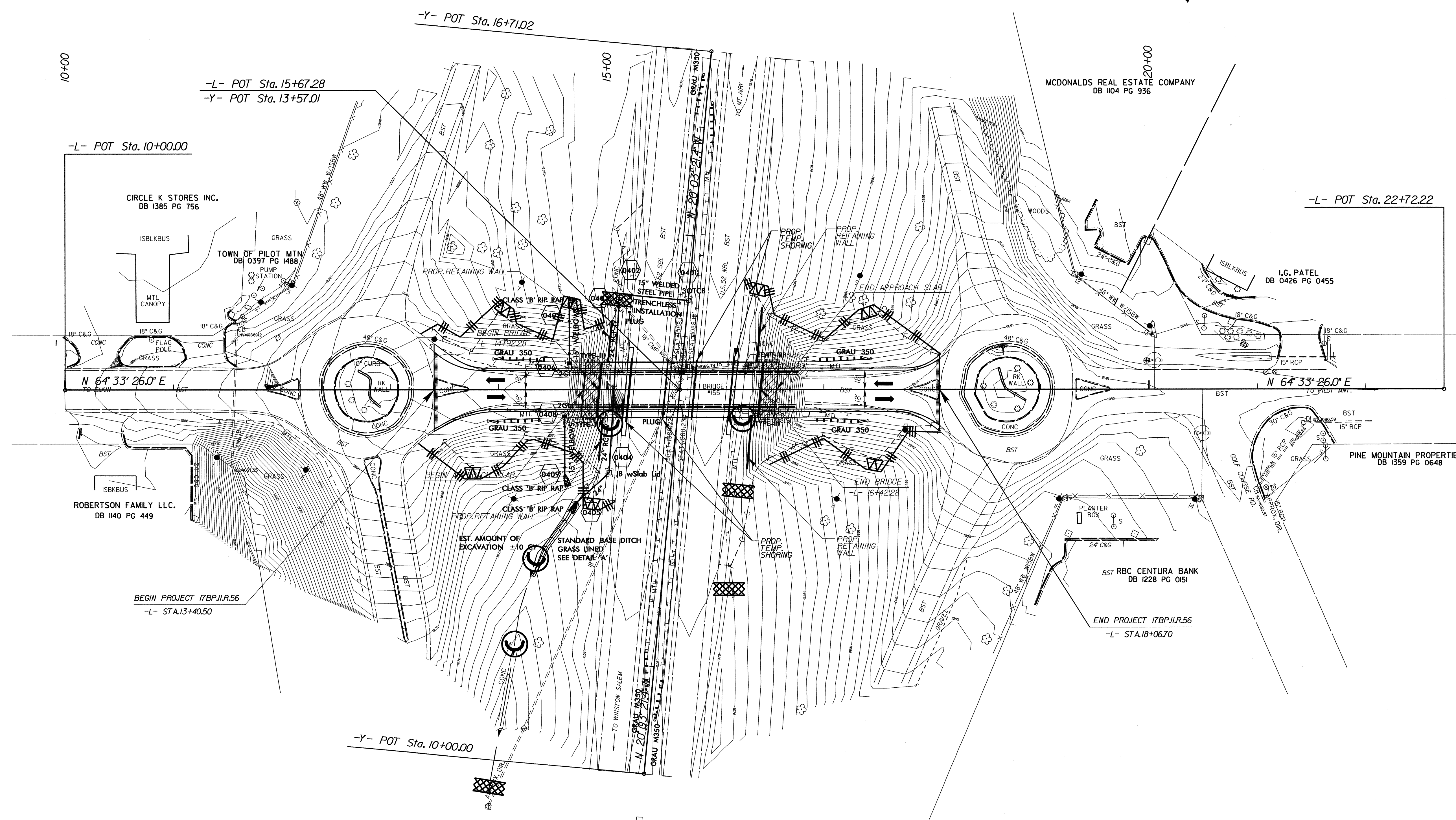
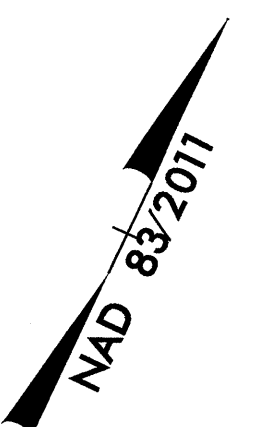
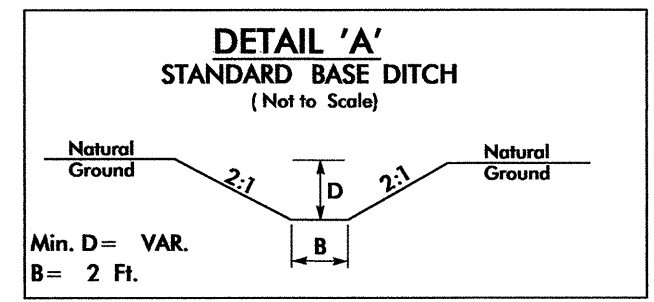
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO.	SHEET NO.
17BPJLR.56	EC-3A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

PROJECT REFERENCE NO. 17BPJ.R.56		SHEET NO. EC-4/CONST.4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



10+00

15+00

20+00

-L- POT Sta. 10+00.00

-L- POT Sta. 15+67.28
-Y- POT Sta. 13+57.01

-Y- POT Sta. 16+71.02

-L- POT Sta. 22+72.22

N 64° 33' 26.0" E

N 64° 33' 26.0" E

BEGIN PROJECT 17BPJ.R.56
-L- STA.13+40.50

END PROJECT 17BPJ.R.56
-L- STA.18+06.70

-Y- POT Sta. 10+00.00

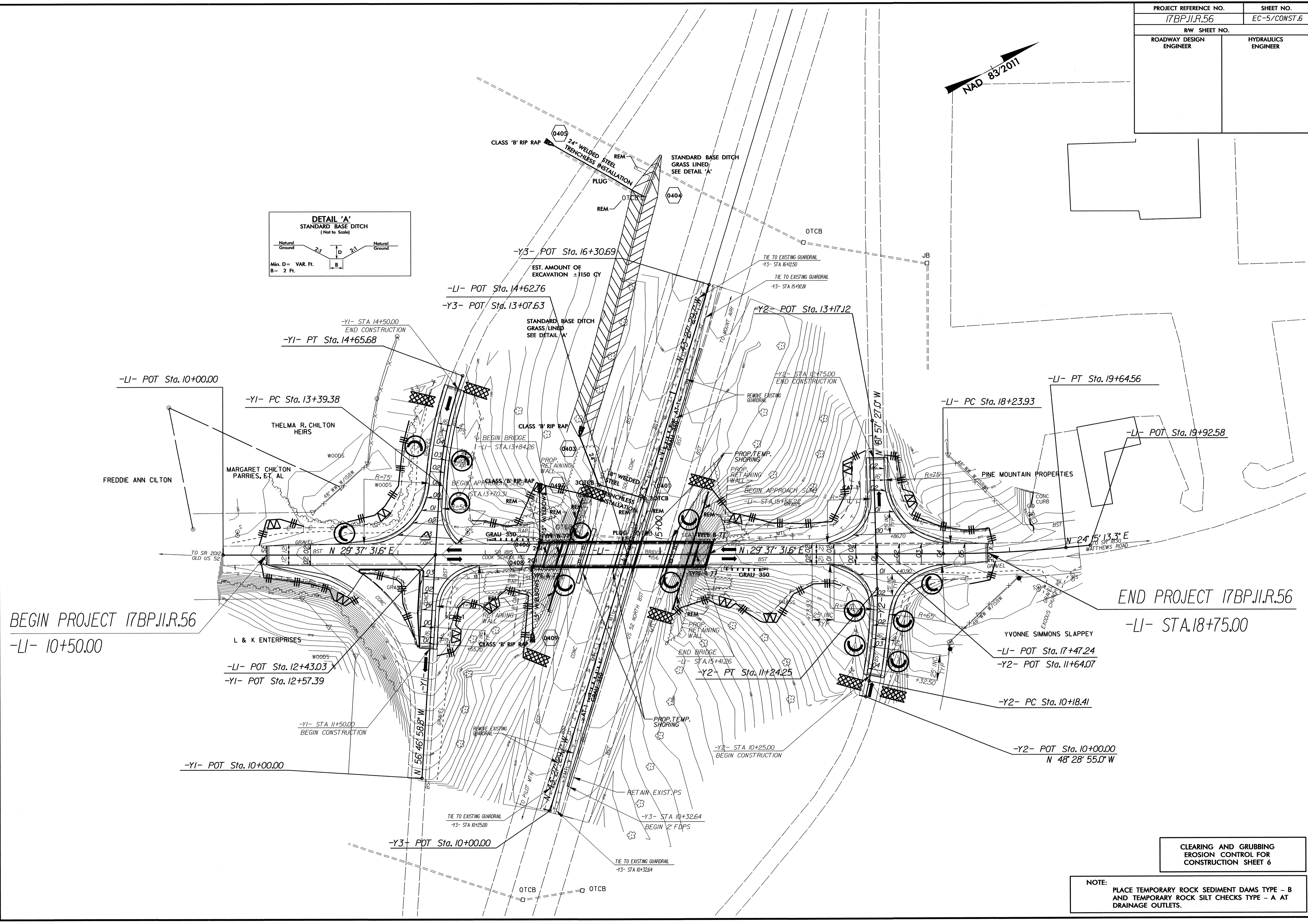
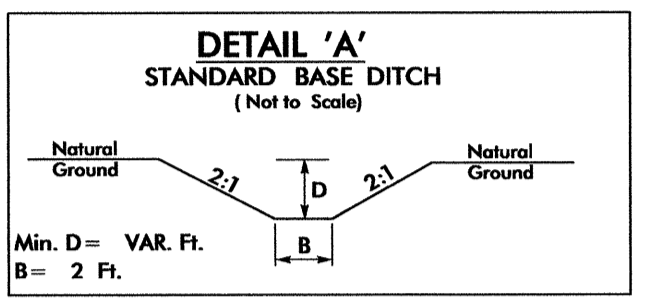
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

07-JAN-2014 10:32
 C:\Users\jchambers\OneDrive\Documents\Design\850155\Environmental\17BPJ.R.56\EC.PSH.dgn
 5/14/99

5/14/99

PROJECT REFERENCE NO. 17BP.II.R.56		SHEET NO. EC-5/CONST.6	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



BEGIN PROJECT 17BP.II.R.56
-LI- 10+50.00

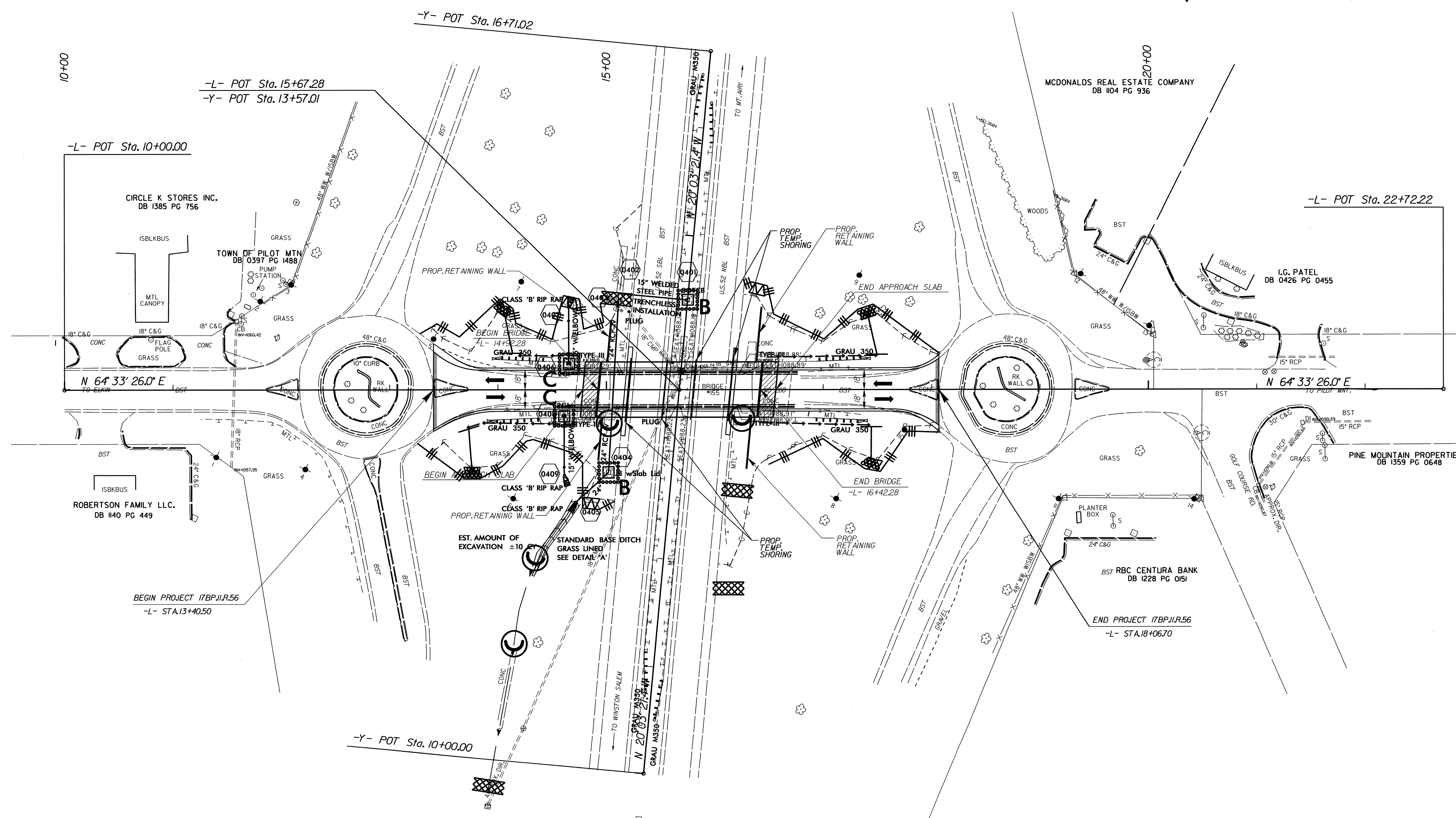
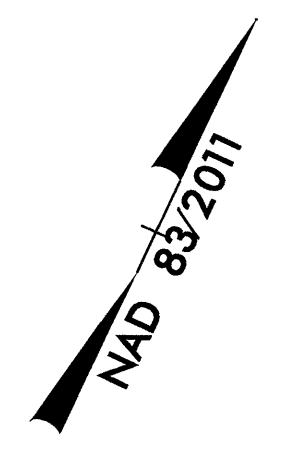
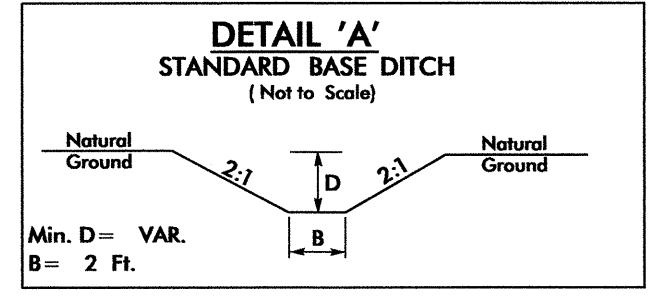
END PROJECT 17BP.II.R.56
-LI- STA.18+75.00

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

07-JAN-2014 10:17
 P:\proj\17BP.II.R.56\Environmental\Design\850156-EC.PSH.dgn
 wjc

PROJECT REFERENCE NO. 17BPJLR.56		SHEET NO. EC-6/CONST.4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	



10+00

15+00

20+00

-L- POT Sta. 10+00.00

-L- POT Sta. 15+67.28
-Y- POT Sta. 13+57.01

-Y- POT Sta. 16+71.02

-L- POT Sta. 22+72.22

BEGIN PROJECT 17BPJLR.56
-L- STA. 13+40.50

END PROJECT 17BPJLR.56
-L- STA. 18+06.70

-Y- POT Sta. 10+00.00

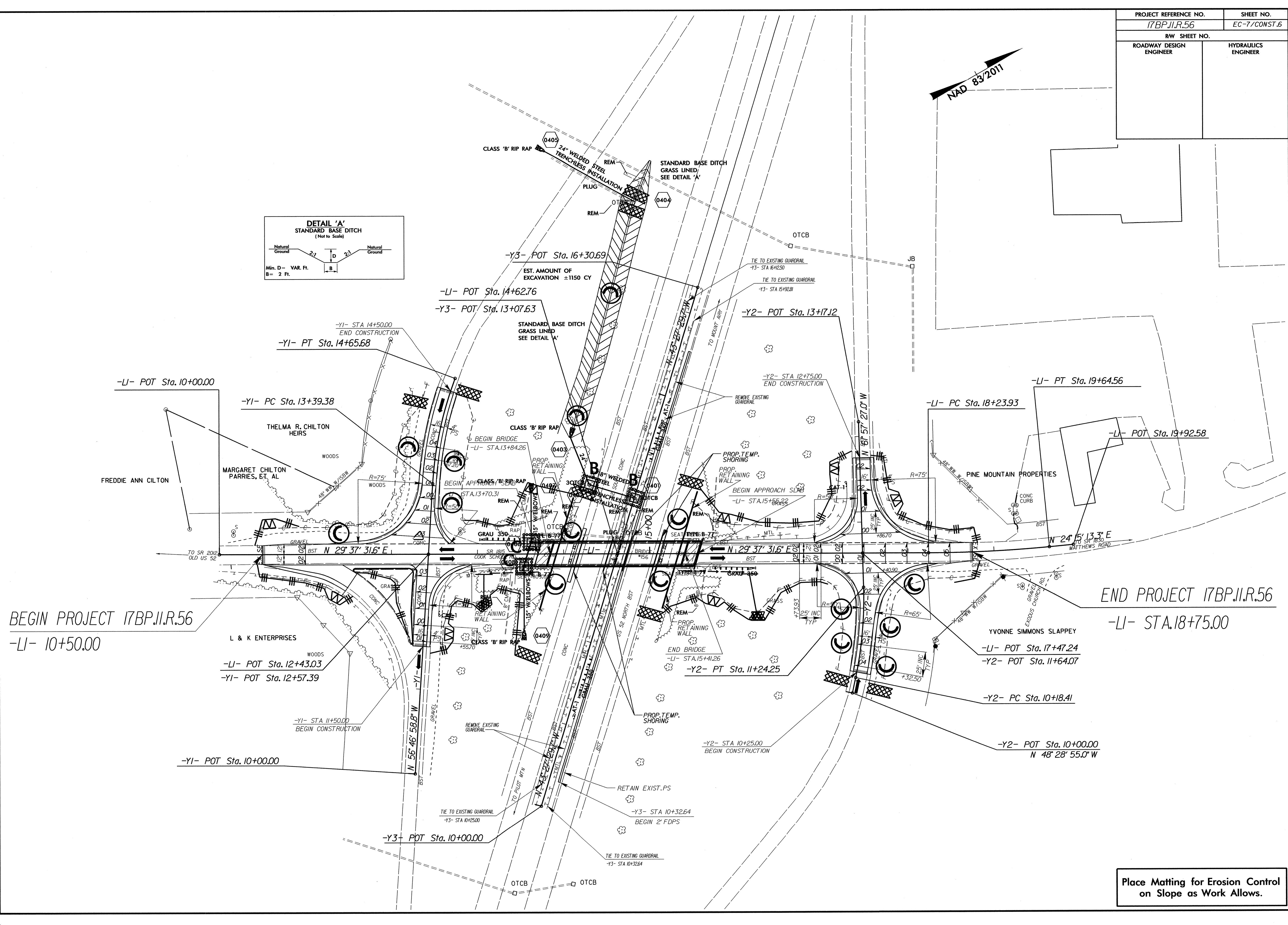
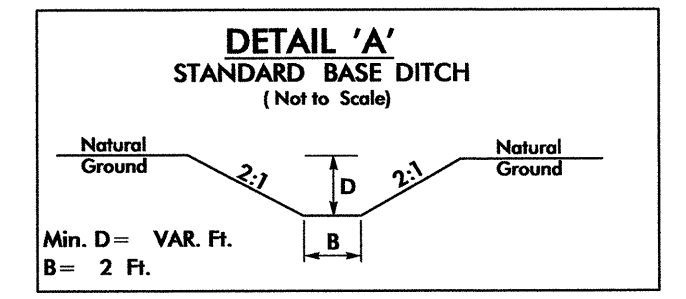
Place Matting for Erosion Control on Slope as Work Allows.

5/14/99

07-JAN-2014 10:13
w:\j\m\17BPJLR.56\Environmental\Design\850155.EC.PSH.dgn

5/14/99

PROJECT REFERENCE NO. 17BP.II.R.56	SHEET NO. EC-7/CONST.6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



BEGIN PROJECT 17BP.II.R.56
-LI- 10+50.00

END PROJECT 17BP.II.R.56
-LI- STA.18+75.00

07-JAN-2014 10:08
 s:\er\1\desk-top\17BP.II.R.56\17BP.II.R.56.ec.dgn
 17BP.II.R.56.ec.dgn

Place Matting for Erosion Control
on Slope as Work Allows.