

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

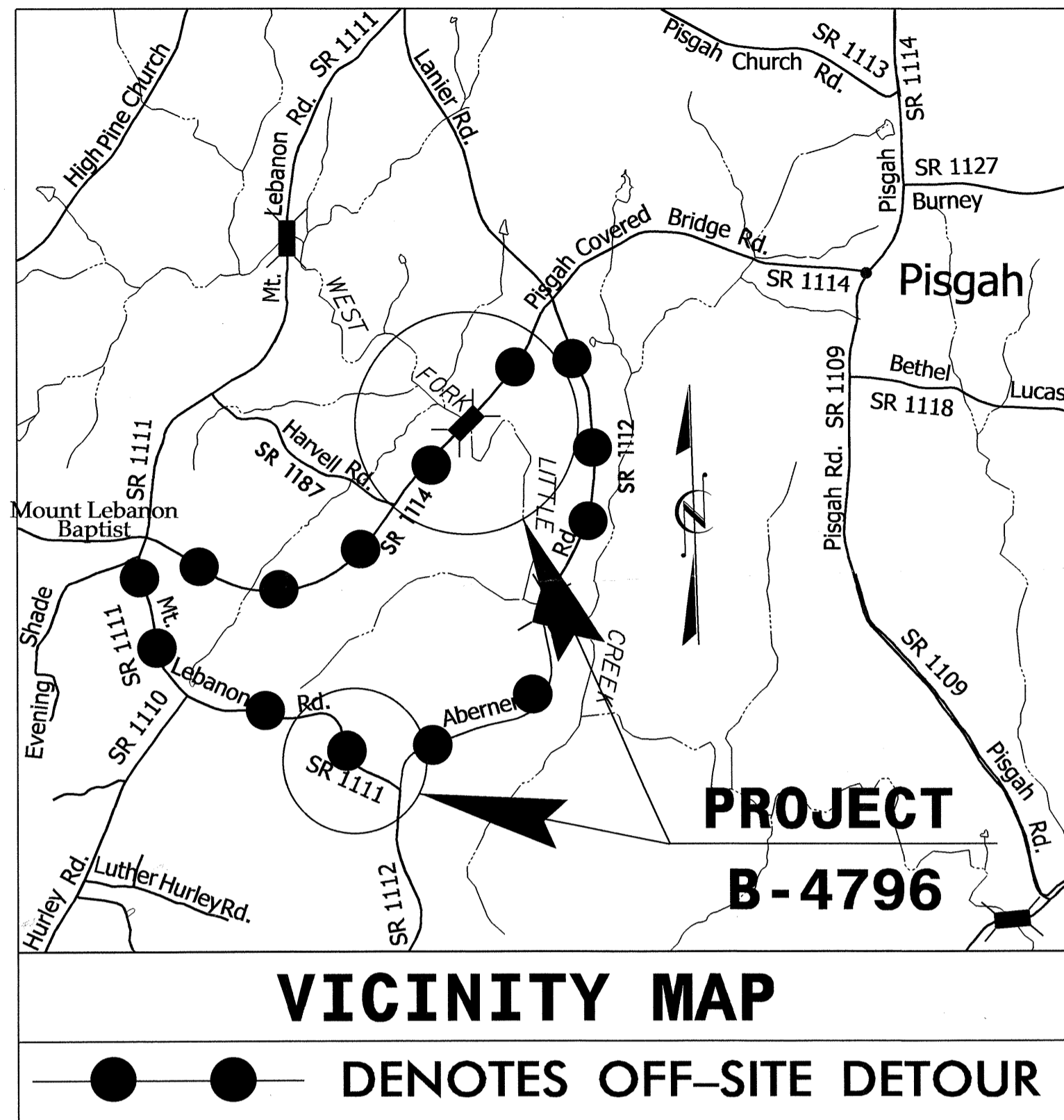
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4796	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38566.1.1	BRZ-1114(4)	PE	
38566.2.1	BRZ-1114(4)	R/W & UTIL	
38566.3.1	BRZ-1114(4)	CONSTRUCTION	

RANDOLPH COUNTY

LOCATION: BRIDGE NO. 24 OVER WEST FORK LITTLE RIVER AND APPROACHES ON SR 1114 (PISGAH COVERED BRIDGE ROAD)

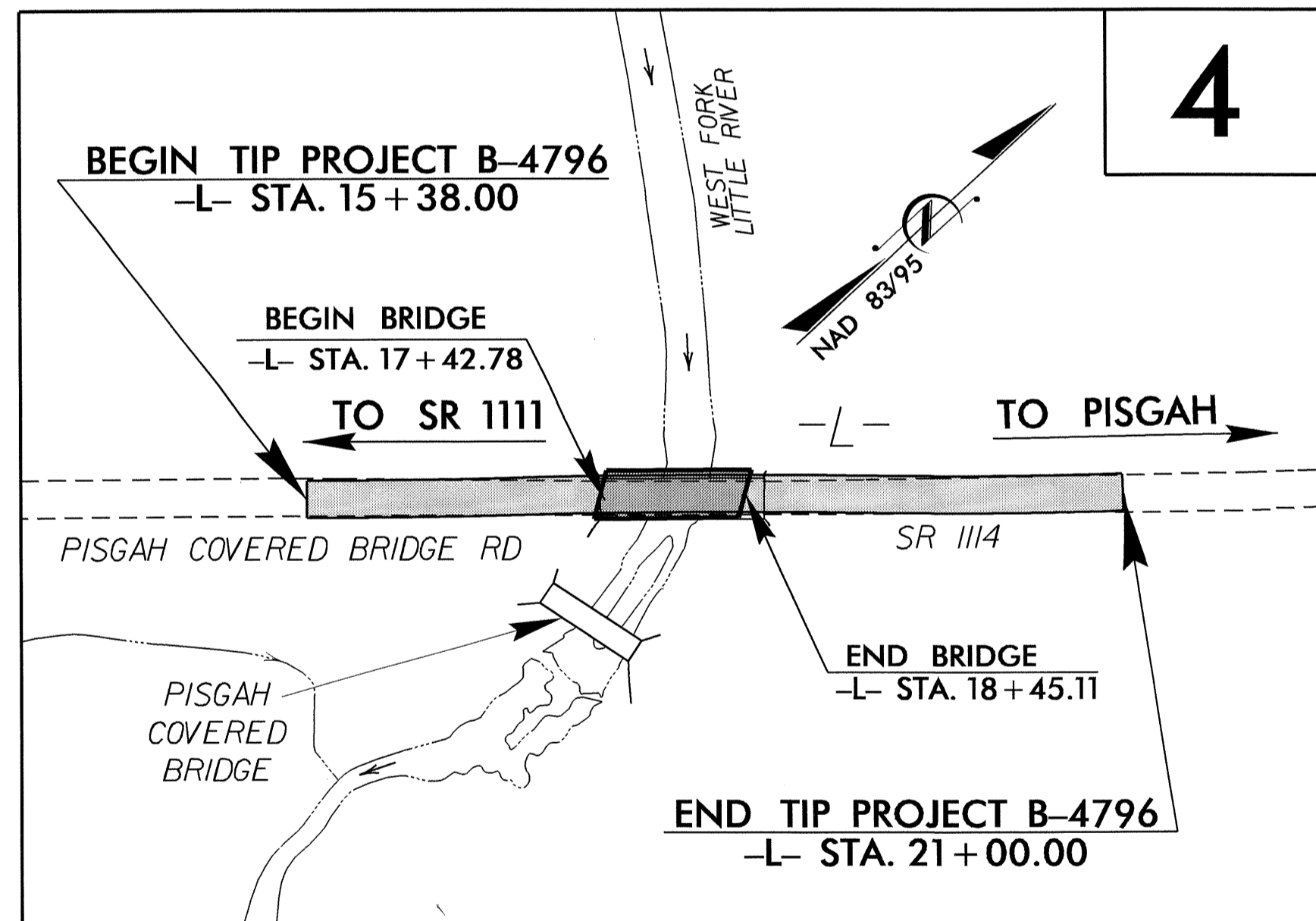
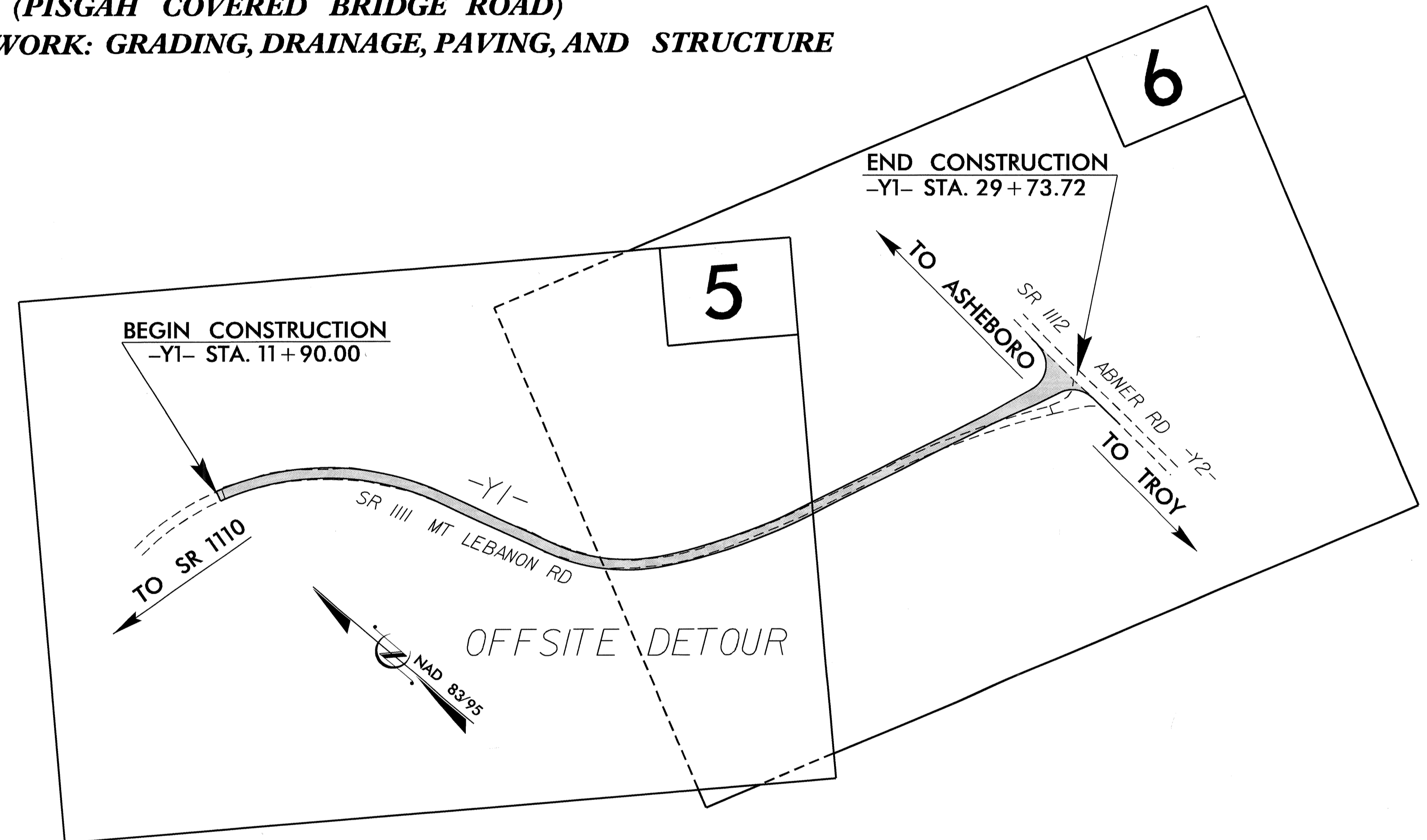
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND STRUCTURE

TIP PROJECT: B-4796



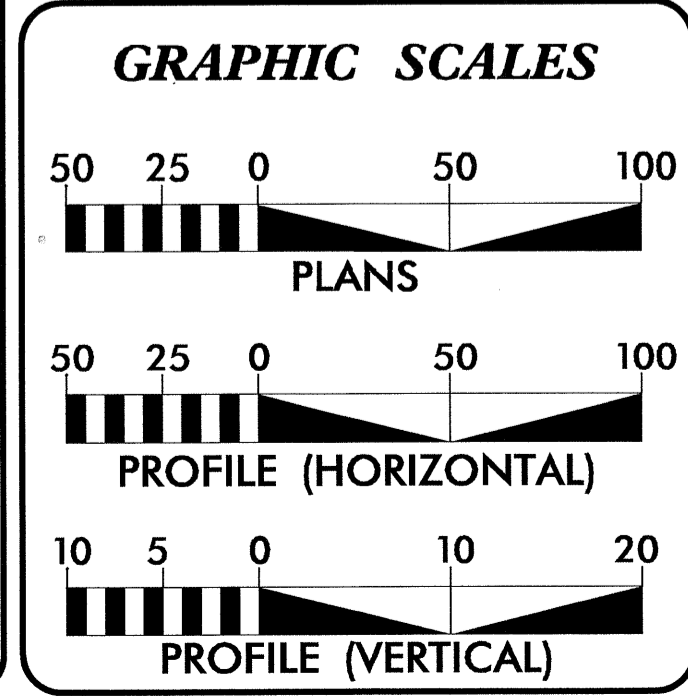
VICINITY MAP

● ● DENOTES OFF-SITE DETOUR



* Design Exception for -L- vertical alignment and -Y1- horizontal alignment is required *

CONTRACT: C203030



DESIGN DATA (-L- ONLY)

ADT 2013 =	710
ADT 2035 =	1100
DHV =	60 %
D =	10 %
T =	3 % *
V =	60 MPH
* (TTST 1% + DUAL 2%)	
FUNC CLASS =	LOCAL
SUBREGIONAL TIER	

PROJECT LENGTH (-L- ONLY)

LENGTH ROADWAY TIP PROJECT B-4796 =	0.087 MILE
LENGTH STRUCTURE TIP PROJECT B-4796 =	0.019 MILE
LENGTH PROJECT TIP PROJECT B-4796 =	0.106 MILE

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
DECEMBER 19, 2011

LETTING DATE:
JANUARY 15, 2013

REKHA PATEL, PE
PROJECT ENGINEER

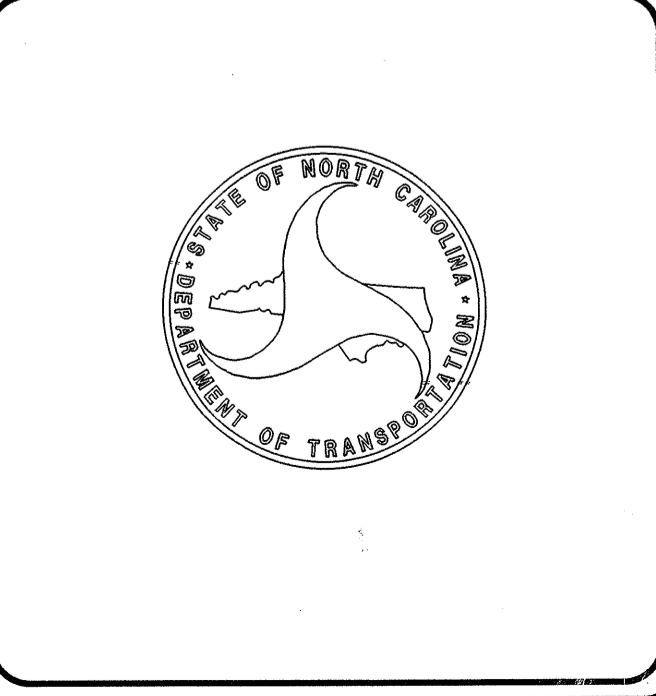
SAMUEL L. ST. CLAIR
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

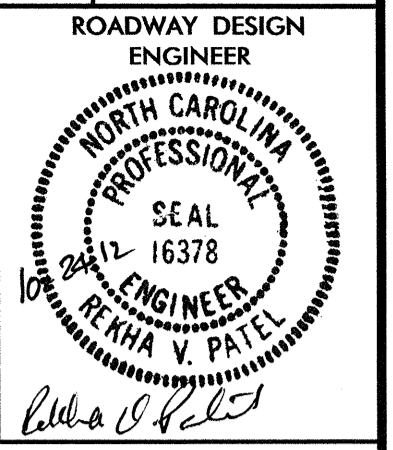
W. Helen Carl
SIGNATURE

ROADWAY DESIGN ENGINEER

Rekha V. Patel
SIGNATURE



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02-OCT-2012 14:18
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\$\$\$\$\$USERNAME\$\$\$\$\$



INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
1-C	SURVEY CONTROL DATA
2 THRU 2-A	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAIL
2-B	UNDERCUT DETAIL
3	SUMMARY OF QUANTITIES
3-A	SUMMARY OF DRAINAGE, GUARDRAIL, EARTHWORK, REMOVAL OF EXISTING PAVEMENT, BREAKING OF EXISTING PAVEMENT, AND SHOULDER BERM GUTTER
3-B	PARCEL INDEX SHEET
4 THRU 6	PLAN SHEETS
7 THRU 8	PROFILE SHEETS
TMP-1 AND TMP-2	TRANSPORTATION MANAGEMENT PLANS
SD-1	SPECIAL SIGN DESIGN PLAN
PMP-1	PAVEMENT MARKING PLAN
EC-1 THRU EC-9	EROSION CONTROL PLANS
SIGN-1 AND SIGN-2	SIGNING PLANS
UO-1 THRU UO-4	UTILITIES BY OTHERS PLANS
X-0	CROSS SECTION SUMMARY SHEET
X-1 THRU X-15	CROSS-SECTIONS
S-1 THRU S-19	STRUCTURE PLANS

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 07/30/12

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 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

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

SIDE ROADS:

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

GUARDRAIL:

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

TEMPORARY SHORING:

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

END BENTS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE Randolph Electric (power) and Randolph Telephone Membership Corp. (telephone). ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:

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

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:

2012 ROADWAY ENGLISH STANDARD DRAWINGS

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
310.10	Driveway Pipe Construction
DIVISION 4 - MAJOR STRUCTURES	
422.11	Reinforced Bridge Approach Fills - Sub Regional Tier
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
840.00	Concrete Base Pad for Drainage Structures
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
840.66	Drainage Structure Steps
840.72	Pipe Collar
846.01	Concrete Curb, Gutter and Curb & Gutter
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.02	Guide for Rip Rap at Pipe Outlets

04/16/11

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	✕
Property Monument	□ ECM
Parcel/Sequence Number	① 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	○ 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	---FLOW---
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	---R/W---
Proposed Right of Way Line with Iron Pin and Cap Marker	---R/W---▲
Proposed Right of Way Line with Concrete or Granite Marker	---R/W---▲
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---

ROADS AND RELATED FEATURES:

Proposed Permanent Easement with Iron Pin and Cap Marker	◆
Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	---C---
Proposed Slope Stakes Fill	---F---
Proposed Curb Ramp	○ CR
Curb Cut Future Ramp	○ CCFR
Existing Metal Guardrail	---T---
Proposed Guardrail	---T---
Existing Cable Guiderail	---T---
Proposed Cable Guiderail	---T---
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	---P---
Footbridge	---FO---
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	○
Storm Sewer	---S---

UTILITIES:

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

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊙
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	⊙
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:

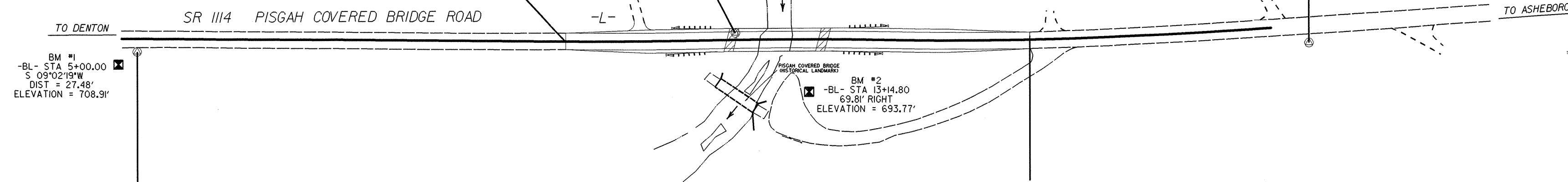
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊠
Utility Unknown U/G Line	---UTIL---
U/G Tank; Water, Gas, Oil	▭
Underground Storage Tank, Approx. Loc.	⊙
A/G Tank; Water, Gas, Oil	▭
Geoenvironmental Boring	⊙
U/G Test Hole (S.U.E.*)	⊙
Abandoned According to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

SURVEY CONTROL SHEET B-4796

LOCALIZED PROJECT COORDINATES
-L- STA. 15+38.00 BEGIN TIP PROJECT B-4796
 N = 653315.4291
 E = 1733913.5363

NCDOT BASELINE STATION "BL-102"
 LOCALIZED PROJECT COORDINATES
 N = 653472.1630
 E = 1734046.7720

NCDOT BASELINE STATION "BL-103"
 LOCALIZED PROJECT COORDINATES
 N = 653968.9170
 E = 1734532.1920



NCDOT BASELINE STATION "BL-101"
 LOCALIZED PROJECT COORDINATES
 N = 652929.1050
 E = 1733567.3850

LOCALIZED PROJECT COORDINATES
-L- STA. 21+00.00 END TIP PROJECT B-4796
 N = 653725.6115
 E = 1734297.6661

-YI- STA. 11+90.00 BEGIN CONSTRUCTION

OFF-SITE DETOUR

-YI- STA. 29+73.72 END CONSTRUCTION

NCDOT BASELINE STATION "BL-108"
 LOCALIZED PROJECT COORDINATES
 N = 648521.7056
 E = 1731625.7561

NCDOT BASELINE STATION "BL-107"
 LOCALIZED PROJECT COORDINATES
 N = 648318.2012
 E = 1731937.0260

NCDOT BASELINE STATION "BL-106"
 LOCALIZED PROJECT COORDINATES
 N = 647916.8765
 E = 1732045.9995

NCDOT BASELINE STATION "BL-105"
 LOCALIZED PROJECT COORDINATES
 N = 647682.1677
 E = 1732224.4879

NCDOT BASELINE STATION "BL-104"
 LOCALIZED PROJECT COORDINATES
 N = 647350.7224
 E = 1732917.5651

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "R0008A-37" WITH NAD 83/95 STATE PLANE GRID COORDINATES OF NORTHING: 651540.659(ft) EASTING: 1728682.859(ft) ELEVATION: 802.460(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99985138 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "R0008A-37" TO -L- STATION 15+38.00 IS N 71° 15' 28.5" E 5523.567' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.NCDOT.ORG/DOI/PRCONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/doi/PRCONSTRUCT/HIGHWAY/LOCATION/PROJECT/)

THE FILES TO BE FOUND ARE AS FOLLOWS:
 B4796_LS_CONTROL.TXT

SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

© INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
 PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.
 NETWORK ESTABLISHED FROM EXISTING HARN MONUMENTATION

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
101	BL-101	652929.1050	1733567.3850	708.81	10+19.51	15.50 RT
102	BL-102	653472.1630	1734046.7720	696.61	17+43.56	8.43 LT
103	BL-103	653968.9170	1734532.1920	737.03		OUTSIDE PROJECT LIMITS

BL Y1 POINT	DESC.	NORTH	EAST	ELEVATION	Y1 STATION	OFFSET
108	BL-108	648521.7056	1731625.7561	791.57	10+73.75	15.76 LT
107	BL-107	648318.2012	1731937.0260	802.50	14+41.61	17.86 LT
106	BL-106	647916.8765	1732045.9995	806.89	18+55.23	19.29 RT
105	BL-105	647682.1677	1732224.4879	793.71	21+46.41	12.92 RT
104	BL-104	647350.7224	1732917.5651	770.26	29+13.21	15.53 RT

BM1 ELEVATION = 708.91
 N 652902 E 1733563
 L STATION 10+00.00
 S 40°38'08.43" E DIST 31.17
 RR SPIKE IN BASE OF 16 INCH GUM TREE

BM2 ELEVATION = 693.77
 N 653488 E 1734160
 L STATION 18+33.00 64 RIGHT
 RR SPIKE IN BASE OF 26 INCH PINE TREE

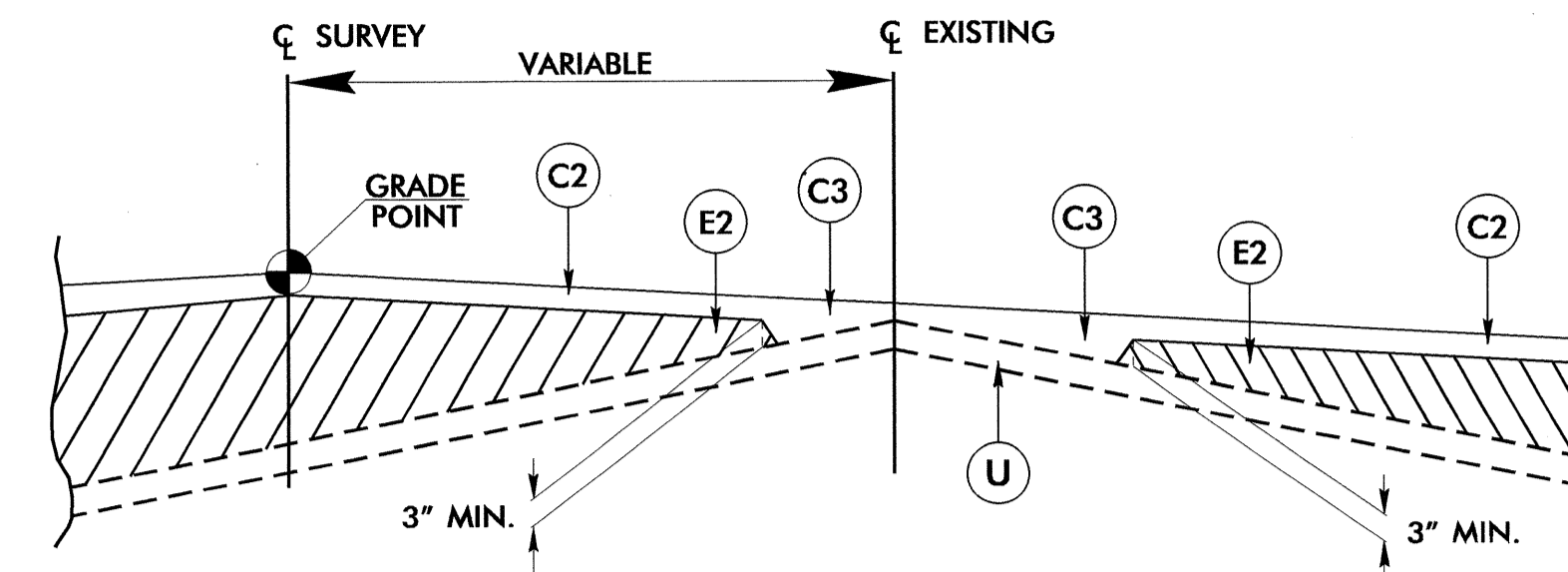
NOTE: DRAWING NOT TO SCALE

6/2/99

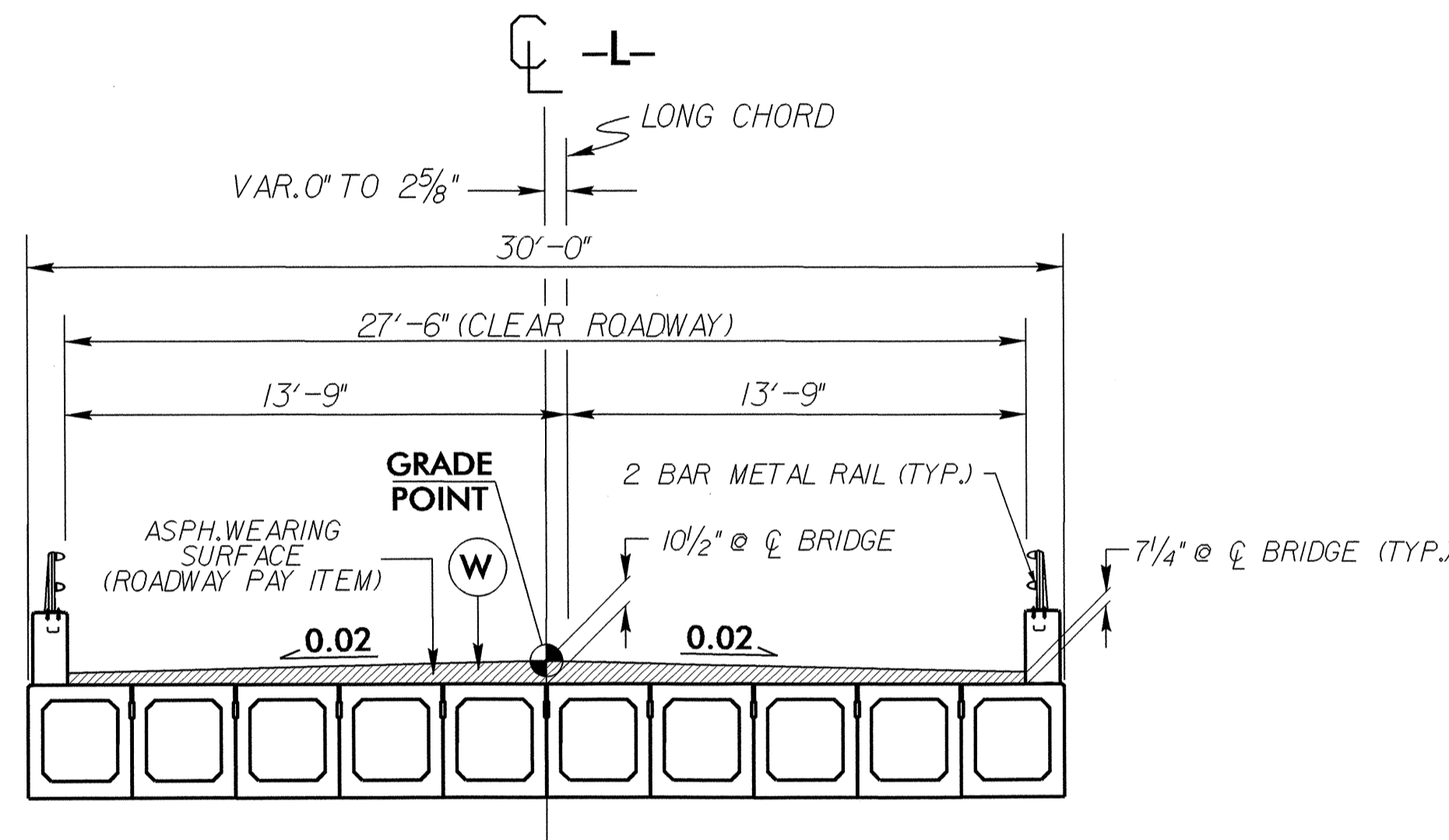
02-OCT-2012 14:48
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PAVEMENT SCHEDULE			
C1	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	J	PROP. 10" AGGREGATE BASE COURSE.
C2	PROP. APPROX. 2½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	P	PRIME COAT AT THE RATE OF .35 GAL. PER SQ. YD.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH.	R	SHOULDER BERM GUTTER.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.	T	EARTH MATERIAL.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH.	U	EXISTING PAVEMENT.
		W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL).

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

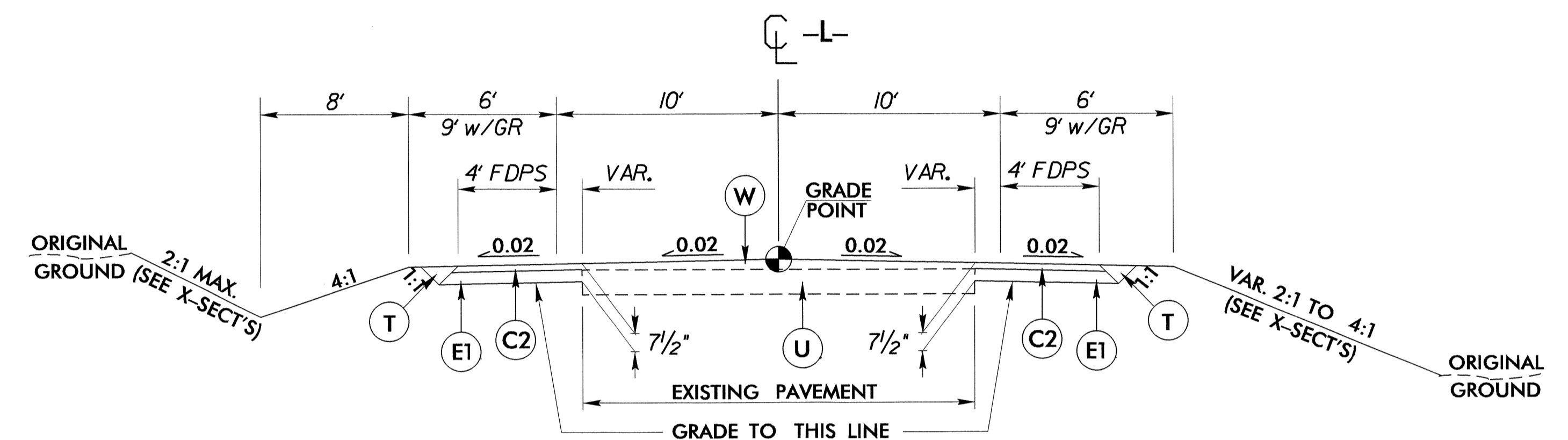


Detail Showing Method Of Wedging



TYPICAL SECTION ON STRUCTURE

FROM -L- STA. 17+42.78 TO -L- STA. 18+45.11



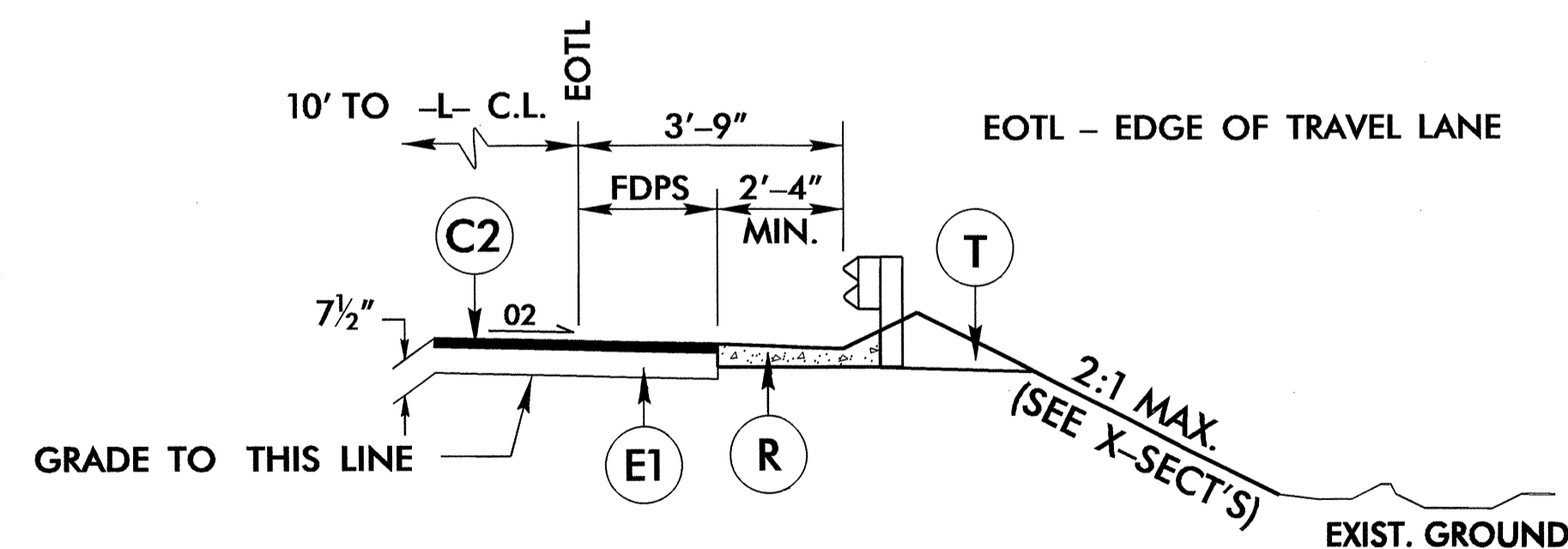
TYPICAL SECTION NO. 1

FROM -L- STA. 15+38.00 TO -L- STA. 16+38.00
(TRANSITION FROM EXIST. WIDTH TO TYP. NO. 1)

FROM -L- STA. 16+38.00 TO -L- STA. 17+00.00

FROM -L- STA. 20+00.00 TO -L- STA. 21+00.00
(TRANSITION FROM TYP. NO. 1 TO EXIST. WIDTH)

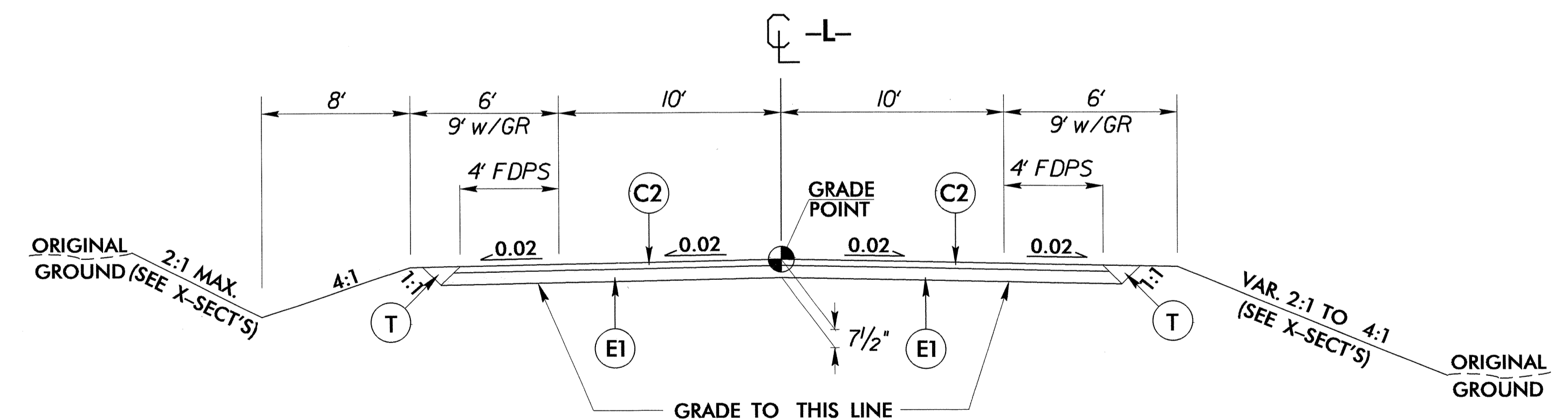
FDPS - FULL DEPTH PAVED SHOULDER



PARTIAL TYPICAL SECTION NO. 2A

USE PARTIAL TYPICAL SECTION NO. 2A
IN CONJUNCTION WITH TYPICAL SECTION NO. 2
AS FOLLOWS:

- L- STA. 17+16 RT. TO STA. 17+28.6 +/- RT.
- L- STA. 17+24 LT. TO STA. 17+35.0 +/- LT. (REVERSE)
- L- STA. 18+59.2 +/- TO STA. 18+64 LT. (REVERSE)
- L- STA. 18+53.2 +/- TO STA. 18+58 RT.



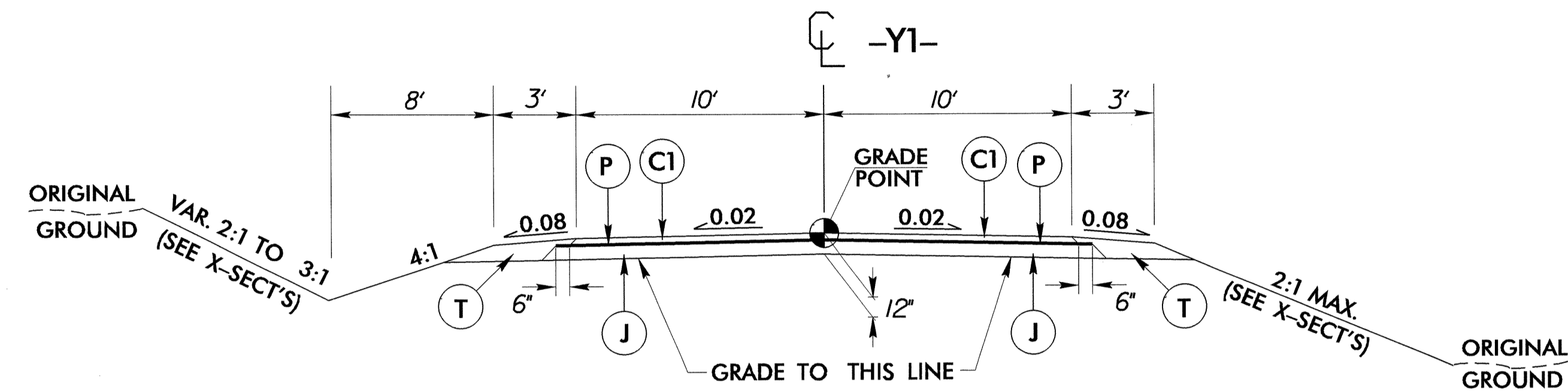
TYPICAL SECTION NO. 2

FROM -L- STA. 17+00.00 TO -L- STA. 17+42.78 (BEGIN BRIDGE)
FROM -L- STA. 18+45.11 (END BRIDGE) TO -L- STA. 20+00.00

6/2/99

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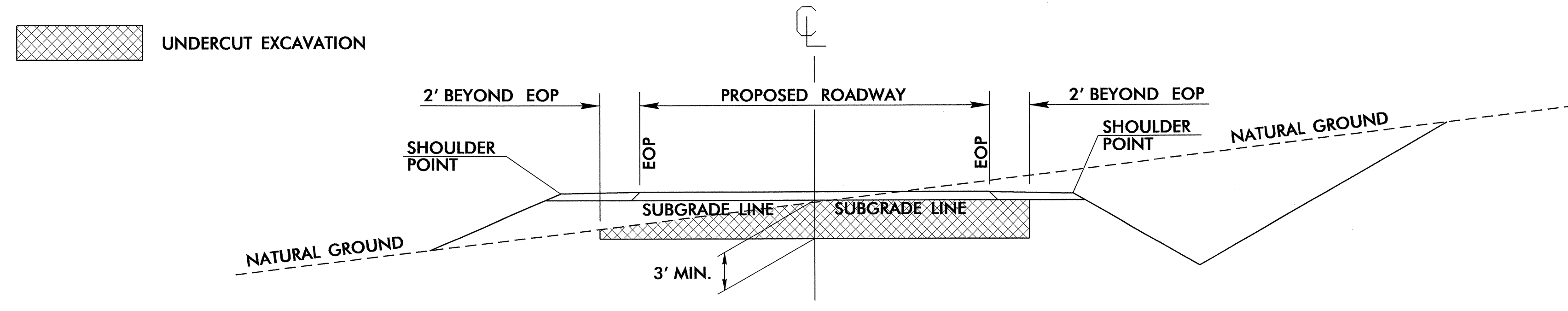
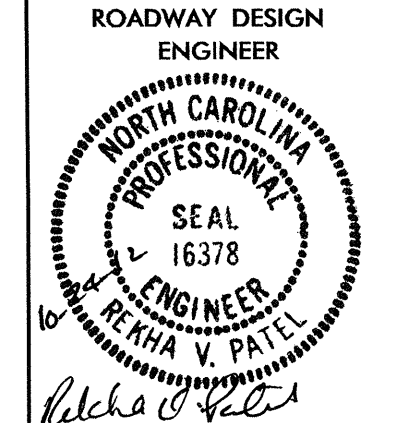
PROJECT REFERENCE NO. B-4796	SHEET NO. 2-A
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 16378 R. KHA V. PATEL	PAVEMENT DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 22896 C. S. MORRISON



TYPICAL SECTION NO. 3

FROM -Y1- STA. 11+90.00 TO -Y1- STA. 29+62.84

PAVEMENT SCHEDULE	
C1	2" SF9.5A
J	10" AGGREGATE BASE COURSE
P	PRIME COAT AT THE RATE OF 0.35 GAL. PER SQ. YD.
T	EARTH MATERIAL



CROSS-SECTION VIEW
EOP - EDGE OF PAVEMENT

DETAIL OF UNDERCUT
-Y1- STA. 27+25 TO STA. 29+25
OR
AS DIRECTED BY ENGINEER

040997

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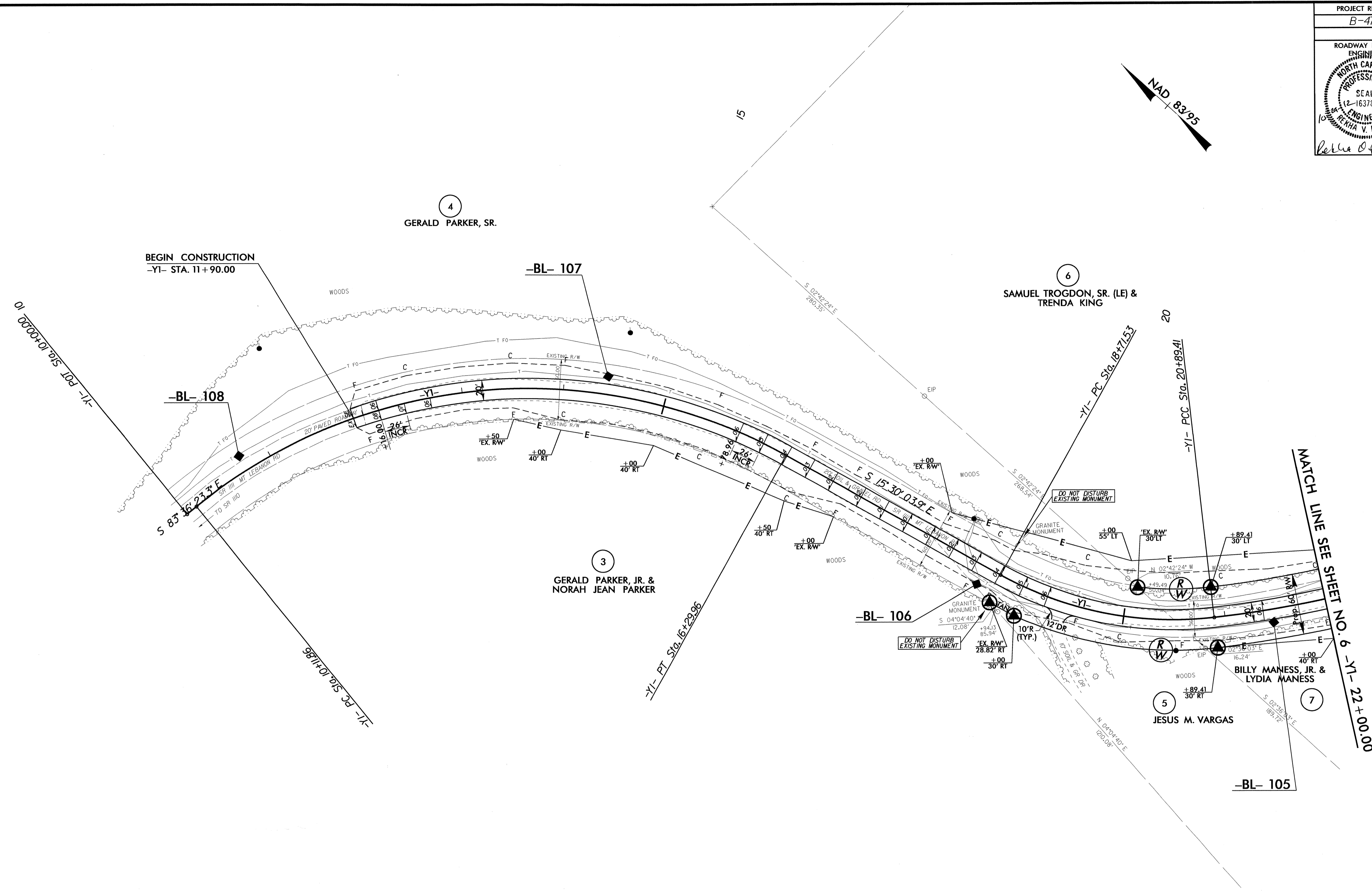
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C203030														
ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION	2286000000-N	840	2	EA	MASONRY DRAINAGE STRUCTURES	6015000000-E	1615	3.5	ACR	TEMPORARY MULCHING
0030000000-N	SP	Lump Sum		BRIDGE APPROACH FILL - SUB REGIONAL TIER, STATION ***** (17+94.00-L-)	2367000000-N	840	2	EA	FRAME WITH TWO GRATES, STD 840.29	6018000000-E	1620	150	LB	SEED FOR TEMPORARY SEEDING
0043000000-N	226	Lump Sum		GRADING	2556000000-E	846	34	LF	SHOULDER BERM GUTTER	6021000000-E	1620	1.5	TON	FERTILIZER FOR TEMPORARY SEEDING
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUBBING	3030000000-E	862	262.5	LF	STEEL BM GUARDRAIL	6024000000-E	1622	200	LF	TEMPORARY SLOPE DRAINS
0057000000-E	226	950	CY	UNDERCUT EXCAVATION	3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS	6029000000-E	SP	600	LF	SAFETY FENCE
0195000000-E	265	950	CY	SELECT GRANULAR MATERIAL	3215000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III	6030000000-E	1630	850	CY	SILT EXCAVATION
0196000000-E	270	1,050	SY	GEOTEXTILE FOR SOIL STABILIZATION	3270000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	6036000000-E	1631	5,000	SY	MATting FOR EROSION CONTROL
0248000000-N	SP	Lump Sum		GENERIC GRADING ITEM VIBRATION MONITORING	3360000000-E	863	366	LF	REMOVE EXISTING GUARDRAIL	6037000000-E	SP	400	SY	COIR FIBER MAT
0318000000-E	300	20	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES	3649000000-E	876	73	TON	RIP RAP, CLASS B	6038000000-E	SP	1,300	SY	PERMANENT SOIL REINFORCEMENT MAT
0320000000-E	300	40	SY	FOUNDATION CONDITIONING GEOTEXTILE	3656000000-E	876	1,320	SY	GEOTEXTILE FOR DRAINAGE	6042000000-E	1632	455	LF	1/4" HARDWARE CLOTH
0335200000-E	305	16	LF	15" DRAINAGE PIPE	3659000000-N	SP	3	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON	6071020000-E	SP	115	LB	POLYACRYLAMIDE (PAM)
0335850000-E	305	2	EA	*** DRAINAGE PIPE ELBOWS (15")	4072000000-E	903	65	LF	SUPPORTS, 3-LB STEEL U-CHANNEL	6071030000-E	1640	240	LF	COIR FIBER BAFFLE
0344000000-E	310	32	LF	18" SIDE DRAIN PIPE	4096000000-N	904	2	EA	SIGN ERECTION, TYPE D	6071050000-E	SP	4	EA	*** SKIMMER (1-1/2")
0372000000-E	310	28	LF	18" RC PIPE CULVERTS, CLASS III	4155000000-N	907	6	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	6084000000-E	1660	3.5	ACR	SEEDING & MULCHING
0448200000-E	310	28	LF	15" RC PIPE CULVERTS, CLASS IV	4400000000-E	1110	430	SF	WORK ZONE SIGNS (STATIONARY)	6087000000-E	1660	1.5	ACR	MOWING
1121000000-E	520	2,757	TON	AGGREGATE BASE COURSE	4405000000-E	1110	144	SF	WORK ZONE SIGNS (PORTABLE)	6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
1220000000-E	545	50	TON	INCIDENTAL STONE BASE	4410000000-E	1110	116	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)	6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
1275000000-E	600	1,575	GAL	PRIME COAT	4435000000-N	1135	50	EA	CONES	6096000000-E	1662	75	LB	SEED FOR SUPPLEMENTAL SEEDING
1489000000-E	610	360	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B	4445000000-E	1145	80	LF	BARRICADES (TYPE III)	6108000000-E	1665	2.25	TON	FERTILIZER TOPDRESSING
1525000000-E	610	730	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A	4455000000-N	1150	40	DAY	FLAGGER	6114500000-N	1667	10	MHR	SPECIALIZED HAND MOWING
1575000000-E	620	68	TON	ASPHALT BINDER FOR PLANT MIX	4810000000-E	1205	18,679	LF	PAINT PAVEMENT MARKING LINES (4")	6117000000-N	SP	18	EA	RESPONSE FOR EROSION CONTROL
1693000000-E	654	50	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR	6000000000-E	1605	2,700	LF	TEMPORARY SILT FENCE					
2000000000-N	806	19	EA	RIGHT OF WAY MARKERS	6006000000-E	1610	495	TON	STONE FOR EROSION CONTROL, CLASS A					
2253000000-E	840	1.5	CY	PIPE COLLARS	6009000000-E	1610	740	TON	STONE FOR EROSION CONTROL, CLASS B					
					6012000000-E	1610	280	TON	SEDIMENT CONTROL STONE					

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-Y1-		
PI Sta 13+63.30	PI Sta 19+84.13	PI Sta 22+38.34
$\Delta = 68^{\circ} 06' 19.3\" (RT)$	$\Delta = 35^{\circ} 40' 03.5\" (LT)$	$\Delta = 15^{\circ} 25' 14.1\" (LT)$
D = 11' 01' 06.3"	D = 16' 22' 12.8"	D = 5' 12' 31.3"
L = 618.10'	L = 217.88'	L = 296.05'
T = 351.44'	T = 112.60'	T = 148.93'
R = 520.00' *	R = 350.00' *	R = 100.00'
SE = 0.06	SE = 0.06	SE = 0.06
RO = SEE PLANS	RO = SEE PLANS	RO = SEE PLANS

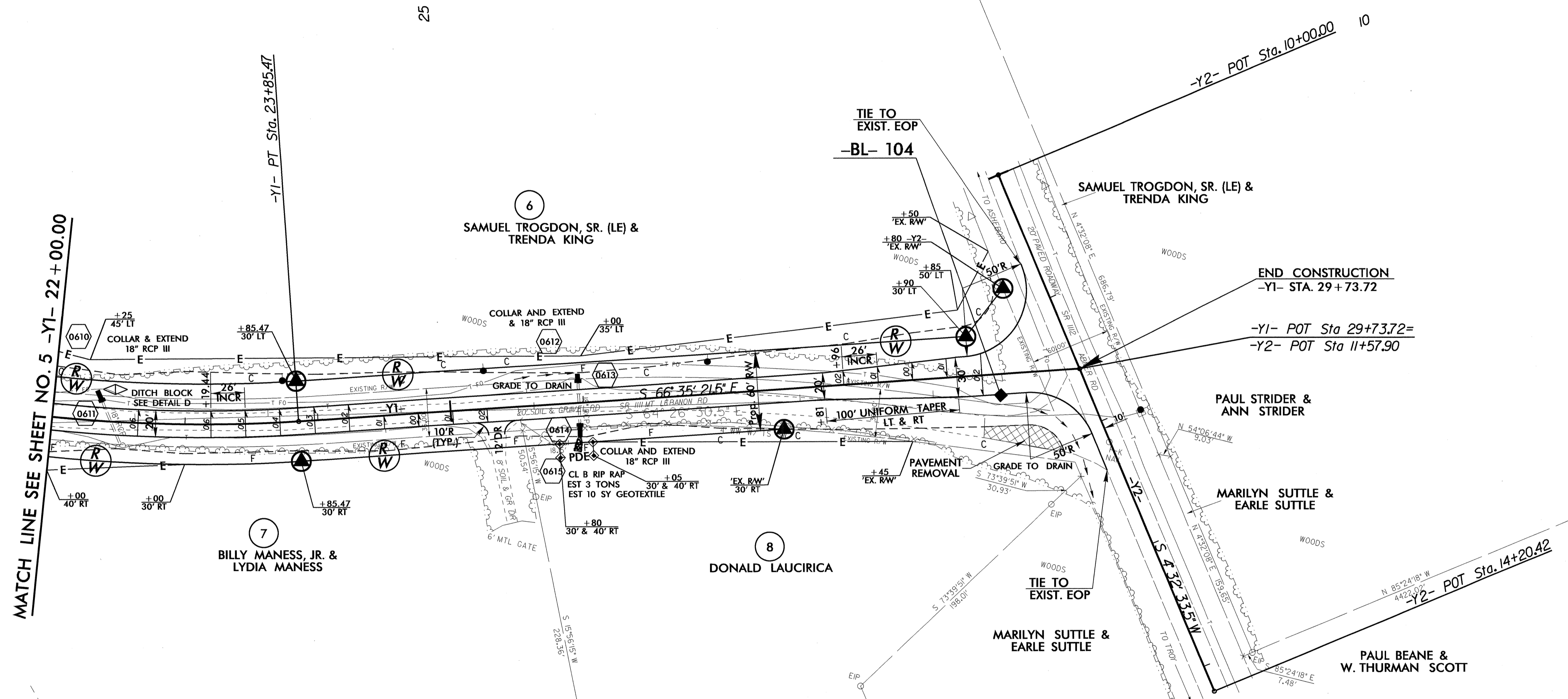
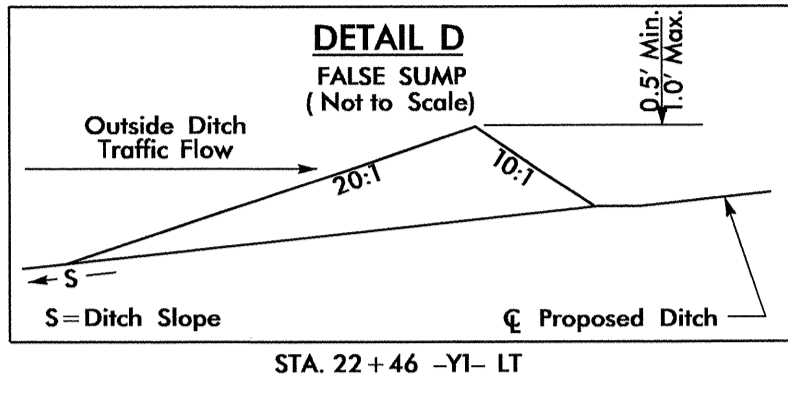
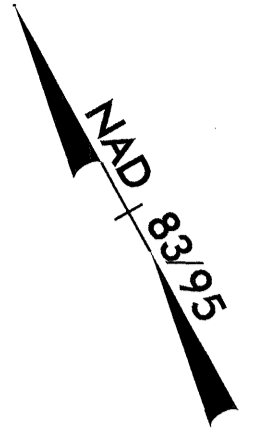
* DESIGN EXCEPTION REQUIRED

SEE SHEET 8 FOR -Y1- PROFILE

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PROJECT REFERENCE NO. B-4796	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE SEE SHEET NO. 5 -Y1- 22+00.00

-Y1- PT Sta. 23+85.41

-Y2- POT Sta. 10+00.00

END CONSTRUCTION
-Y1- STA. 29+73.72

-Y1- POT Sta 29+73.72=
-Y2- POT Sta 11+57.90

-Y2- POT Sta. 14+20.42

-Y1-
PI Sta 22+38.34
 $\Delta = 15^{\circ} 25' 14.1''$ (LT)
 $D = 5' 12' 31.3''$
 $L = 296.05'$
 $T = 148.93'$
 $R = 1,100.00'$
 $SE = 0.06$
 $RO = \text{SEE PLANS}$

SEE SHEET 8 FOR -Y1- PROFILE

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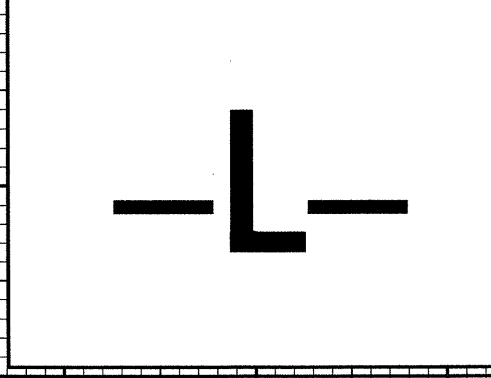
5/14/99

PROJECT REFERENCE NO. B-4796	SHEET NO. 7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
R. KHA V. PATEL	

* DESIGN EXCEPTION REQUIRED

LEFT DITCH - - - - -

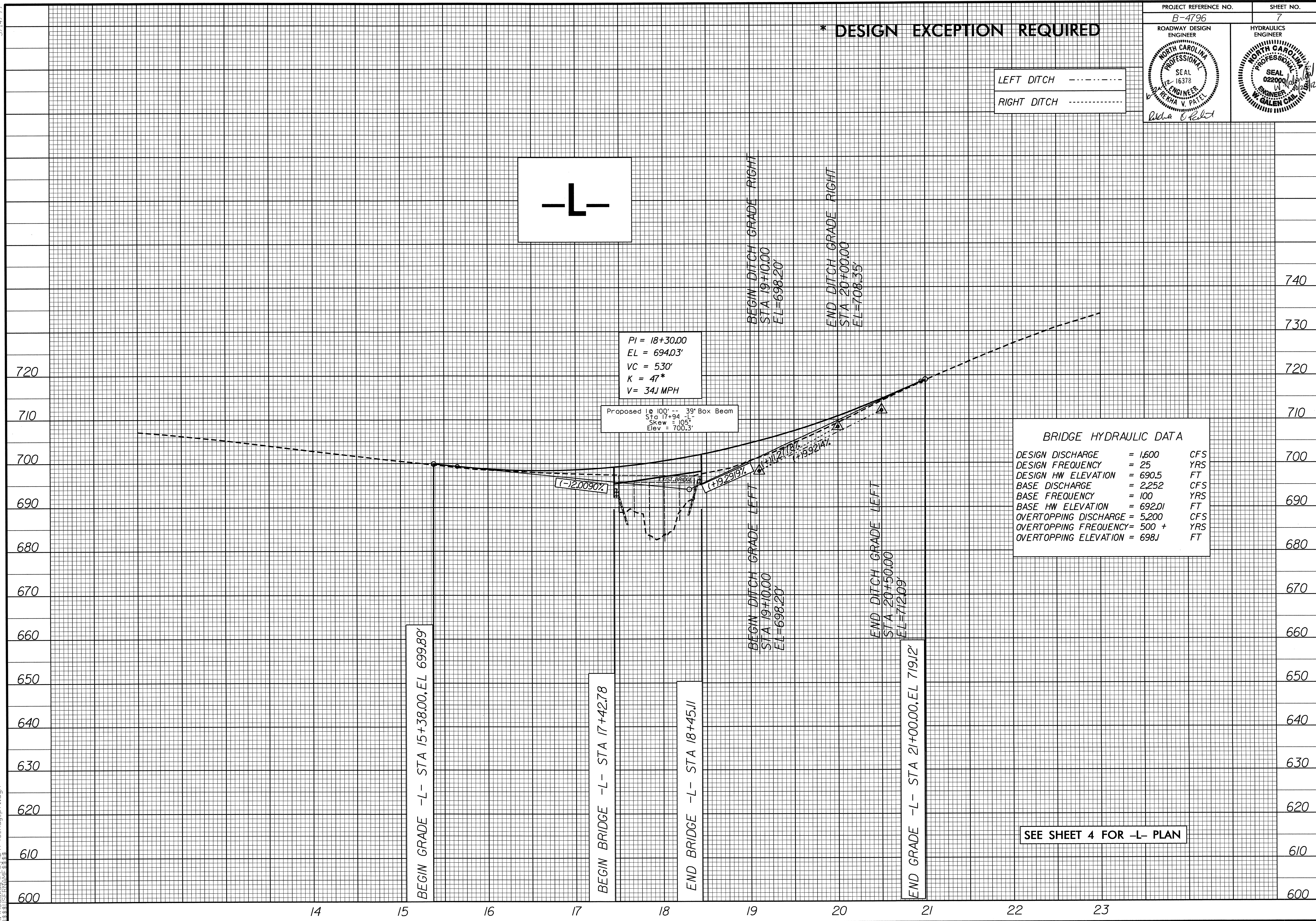
RIGHT DITCH - - - - -



PI = 18+30.00
 EL = 694.03'
 VC = 530'
 K = 47*
 V = 34J MPH

Proposed 1 @ 100' -- 39" Box Beam
 Sta 17+94 -L-
 Skew = 105'
 Elev. = 700.3'

BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 1,600	CFS
DESIGN FREQUENCY	= 25	YRS
DESIGN HW ELEVATION	= 690.5	FT
BASE DISCHARGE	= 2,252	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 692.01	FT
OVERTOPPING DISCHARGE	= 5,200	CFS
OVERTOPPING FREQUENCY	= 500 +	YRS
OVERTOPPING ELEVATION	= 698J	FT



BEGIN GRADE -L- STA 15+38.00, EL 699.89'

BEGIN BRIDGE -L- STA 17+42.78

END BRIDGE -L- STA 18+45.11

BEGIN DITCH GRADE LEFT
STA 19+10.00
EL=698.20'

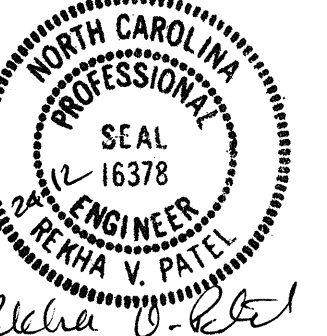

END DITCH GRADE LEFT
STA 20+50.00
EL=712.09'

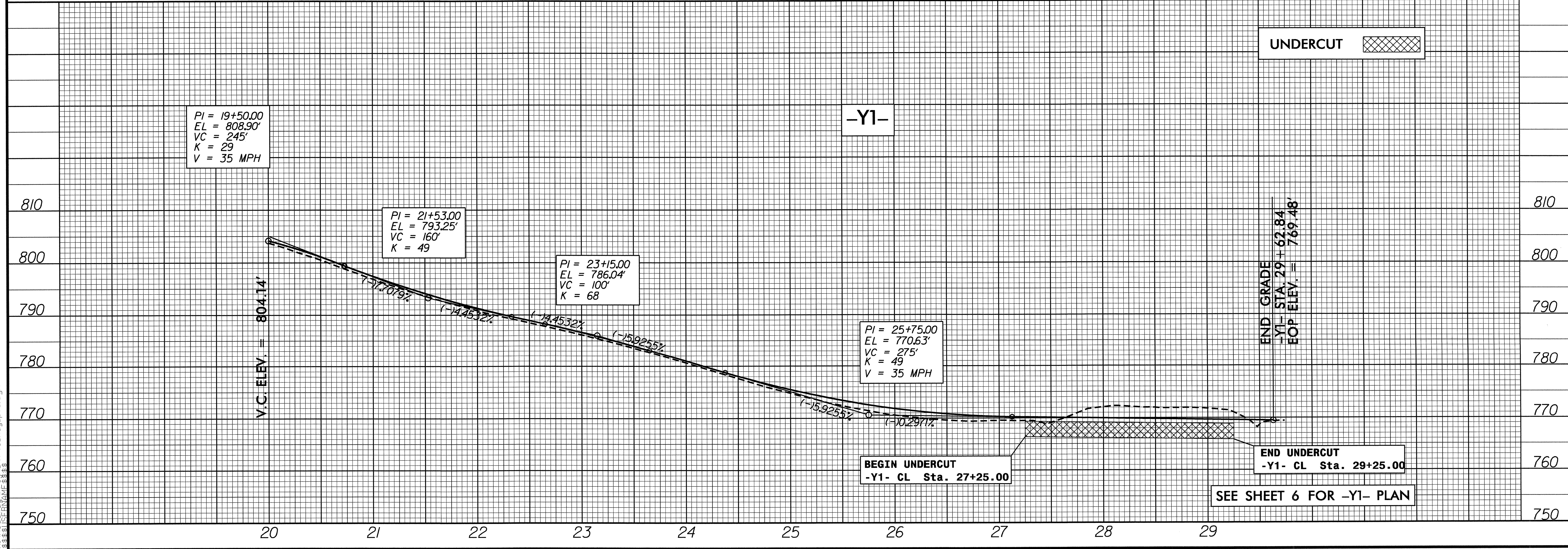
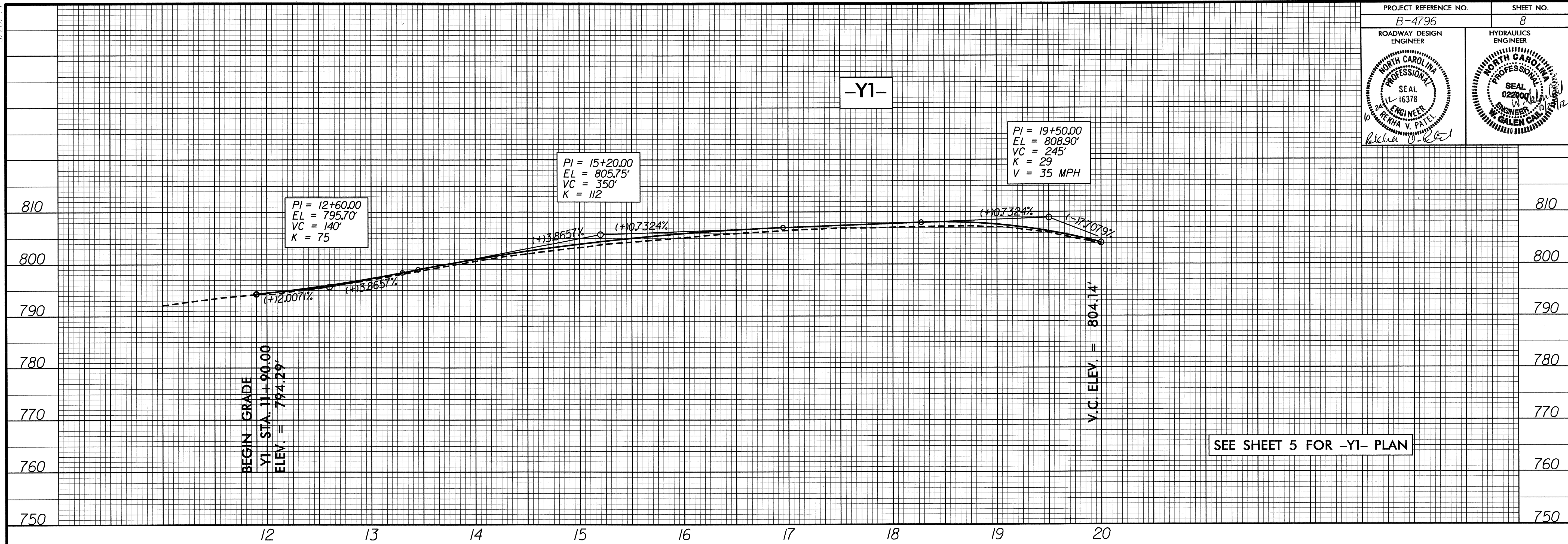
END GRADE -L- STA 21+00.00, EL 719.12

SEE SHEET 4 FOR -L- PLAN

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PROJECT REFERENCE NO. B-4796	SHEET NO. 8
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	



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