

09/08/09

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

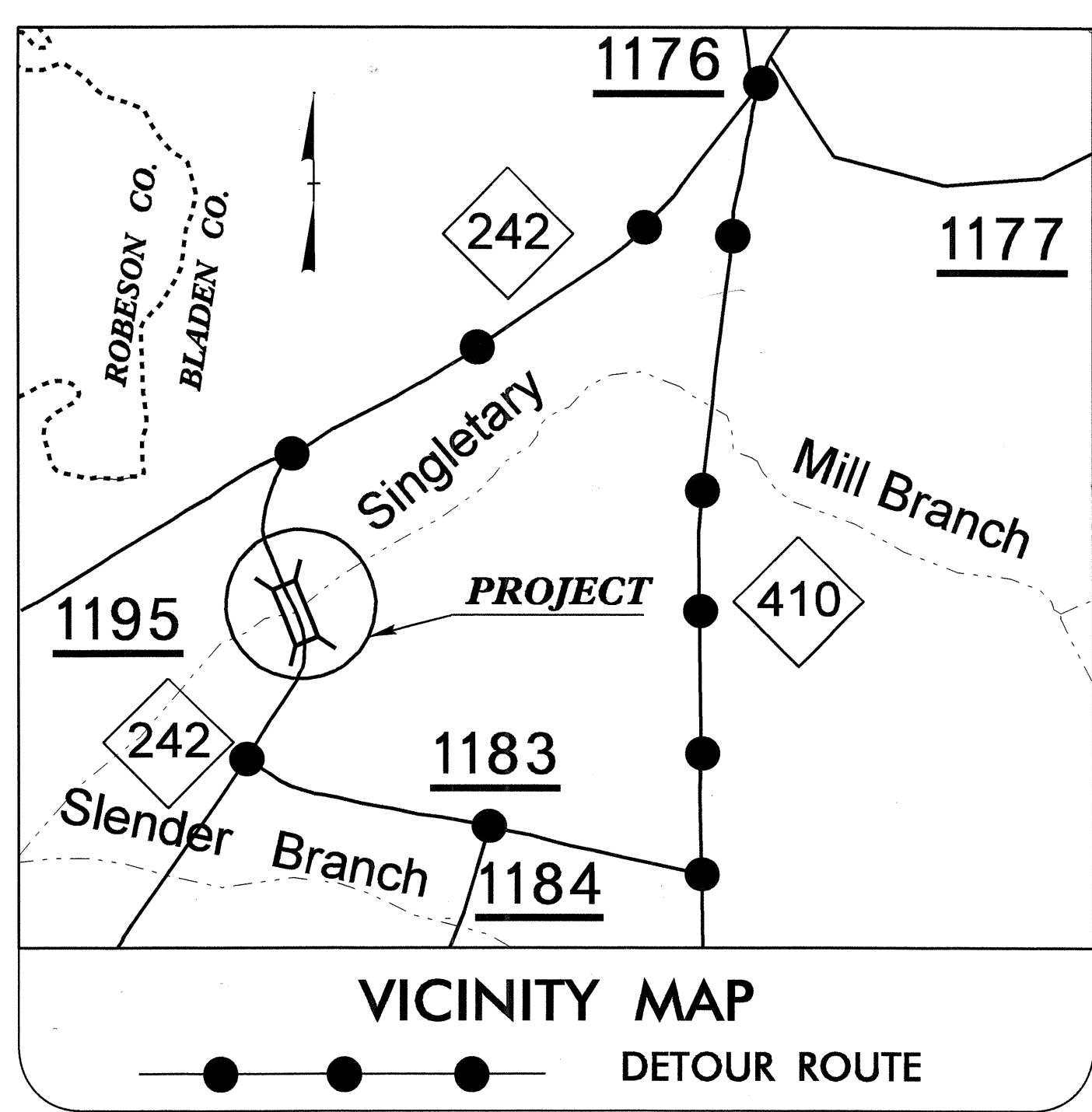
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BLADEN COUNTY

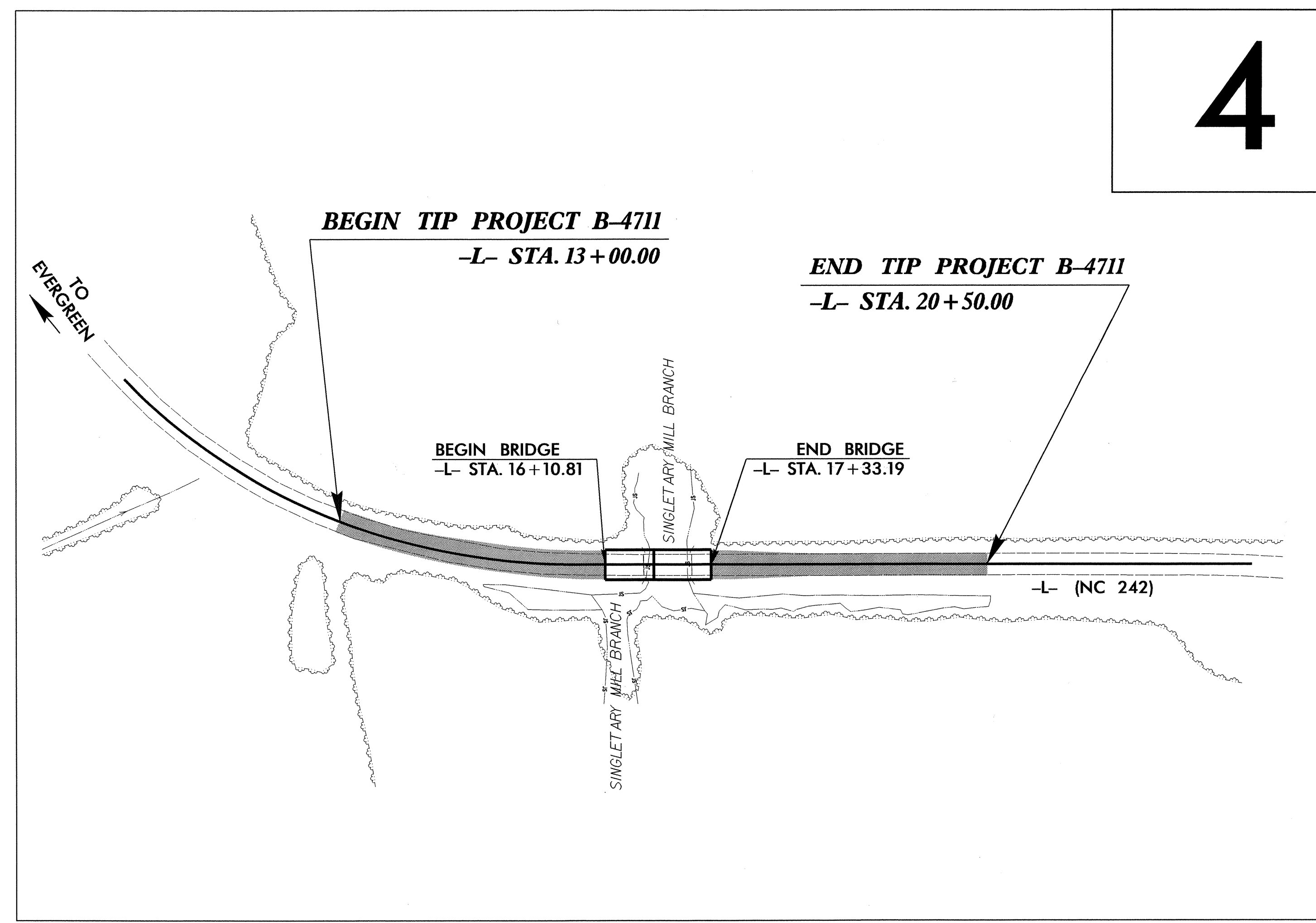
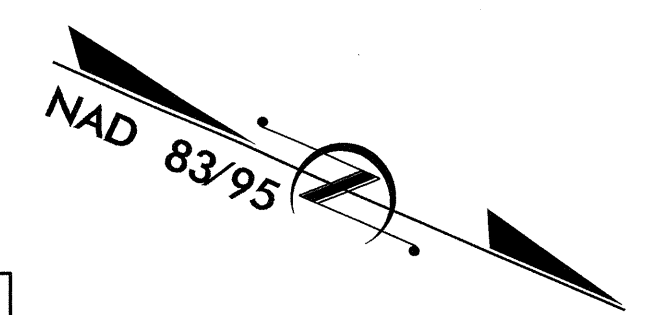
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4711	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38486.1.1	BRSTP-242(3)	PE	
38486.2.1	BRSTP-242(3)	RW & UTILITIES	
38486.3.1	BRSTP-242(3)	CONST.	

TIP PROJECT: B-4711

CONTRACT: C202955

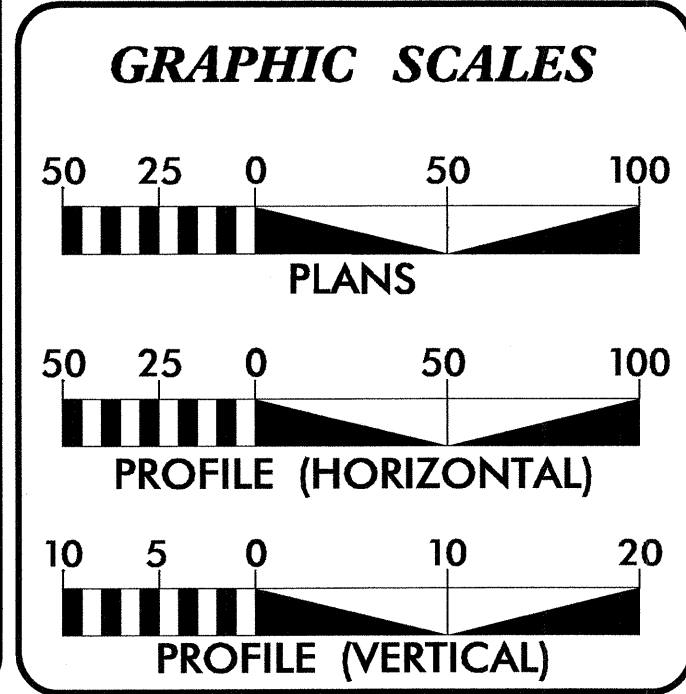


LOCATION: BRIDGE NO. 5 OVER SINGLETARY MILL BRANCH ON NC 242
TYPE OF WORK: GRADING, PAVING, DRAINAGE, AND STRUCTURE



4

DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE RADIUS OF 750' AND FOR MINIMUM HORIZONTAL STOPPING SIGHT DISTANCE OF 358'.



DESIGN DATA

ADT 2012 =	875
ADT 2032 =	1,160
DHV =	12%
D =	55%
T =	20% *
** V =	60 MPH
* TTST 10% DUAL 10%	
FUNC. CLASS =	RURAL MAJOR COLLECTOR REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4711	=	0.119 MILES
LENGTH STRUCTURE TIP PROJECT B-4711	=	0.023 MILES
TOTAL LENGTH TIP PROJECT B-4711	=	0.142 MILES

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

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NOVEMBER 18, 2011

LETTING DATE:
NOVEMBER 20, 2012

GARY LOVERING, PE
PROJECT ENGINEER

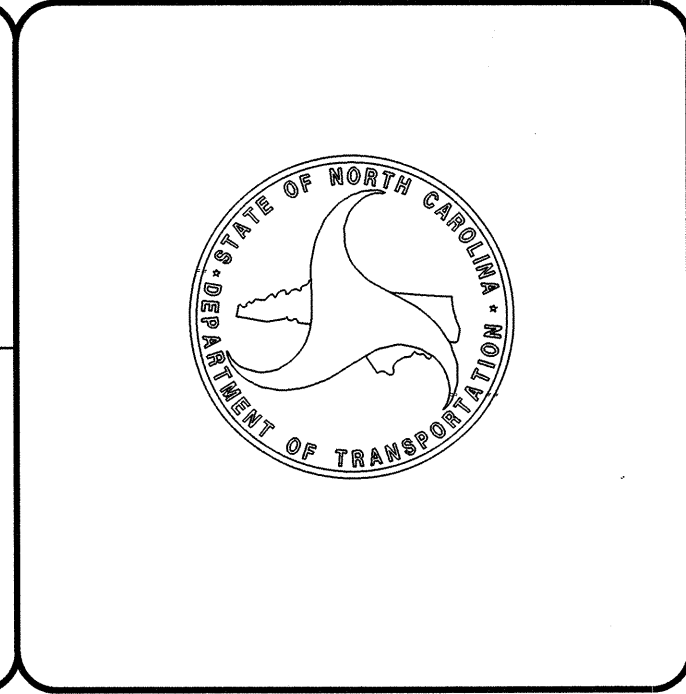
KEVIN E. MOORE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

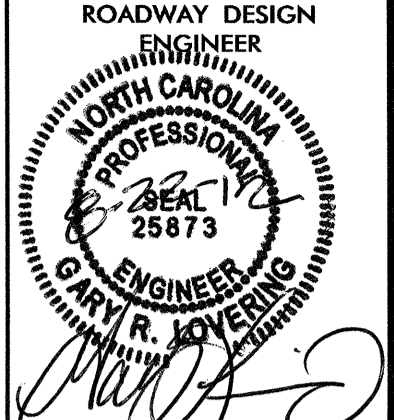
[Signature]
8/22/2012

ROADWAY DESIGN ENGINEER

[Signature]



08-MAY-2012 09:57 P:\Roadway\Proj\B4711\rdy_tsh.dgn \$\$\$USERNAME\$\$\$



GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 11/01/11

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:

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 SHEET
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
3	SUMMARY OF QUANTITIES
3A	SUMMARIES OF DRAINAGE, GUARDRAIL, SHOULDER BERM GUTTER, EARTHWORK, HYDRAULIC RIP RAP, REMOVAL OF ASPHALT PAVEMENT, AND PARCEL INDEX
4	PLAN SHEET
5	-L- PROFILE SHEET
TMP-1 THRU TMP-2	TRAFFIC CONTROL PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1A	CROSS SECTION SUMMARY SHEET
X-1 THRU X-3	CROSS-SECTIONS
S-1 THRU S-18	STRUCTURE PLANS

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 II.

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.

UNDERDRAINS:

UNDERDRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.03 AT LOCATIONS DIRECTED BY THE ENGINEER.

GUARDRAIL:

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

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC 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 Progress Energy - Power, Star Telephone -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 OTHERS.

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining 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 8 - INCIDENTALS	
815.03	Pipe Underdrain and Blind Drain
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
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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	✕
Property Monument	□ ECM
Parcel/Sequence Number	⑫③
Existing Fence Line	× × × ×
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	← FLOW
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ CSX TRANSPORTATION 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 RW Marker	○
Proposed Control of Access Line with Concrete C/A 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	--- 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	-----
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	○
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 ---

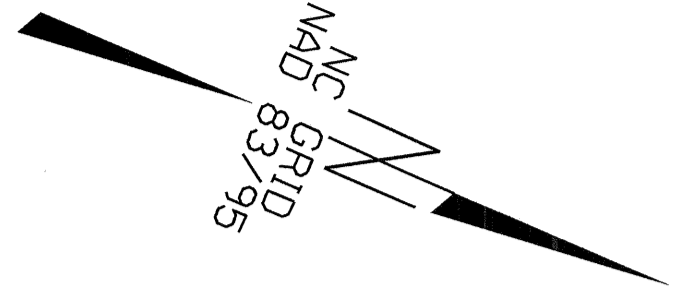
SANITARY SEWER:

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.	□
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-4711



BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	B4711 BL-1	270609.7443	2047897.3502	102.87	OUTSIDE PROJECT LIMITS	
2	B4711 BL-2	271065.1826	2048045.3397	99.79	12+73.39	17.00 RT
3	B4711 BL-3	271501.2189	2047921.0661	97.33	17+24.16	15.86 RT
4	B4711 BL-4	271943.2827	2047730.0077	97.25	22+05.74	18.09 RT

.....
 BM1 ELEVATION = 104.29
 N 270608 E 2047929
 L STATION 23+55.00
 S 10°39'46.77" E DIST 1490.04
 RR SPIKE IN BASE OF 20 GUM

.....
 BM2 ELEVATION = 96.10
 N 271857 E 2047702
 L STATION 21+38.00 42 LEFT
 RR SPIKE IN BASE OF 15 POPLAR

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	13+00.00	-30.00	271090.5122	2047997.7872
L	13+22.22	-50.00	271110.2773	2047976.6307
L	15+76.94	50.00	271380.0390	2048011.3679
L	13+22.22	50.00	271117.5639	2048076.3649
L	13+00.00	30.00	271092.9679	2048057.7369
L	20+50.00	-30.00	271781.3278	2047748.4032
L	20+50.00	-50.00	271773.3086	2047730.0813
L	20+50.00	30.00	271805.3854	2047803.3689
L	20+50.00	50.00	271813.4046	2047821.6908
L	15+76.94	-50.00	271339.9430	2047919.7584

ROW MARKER PERMANENT EASEMENT-E

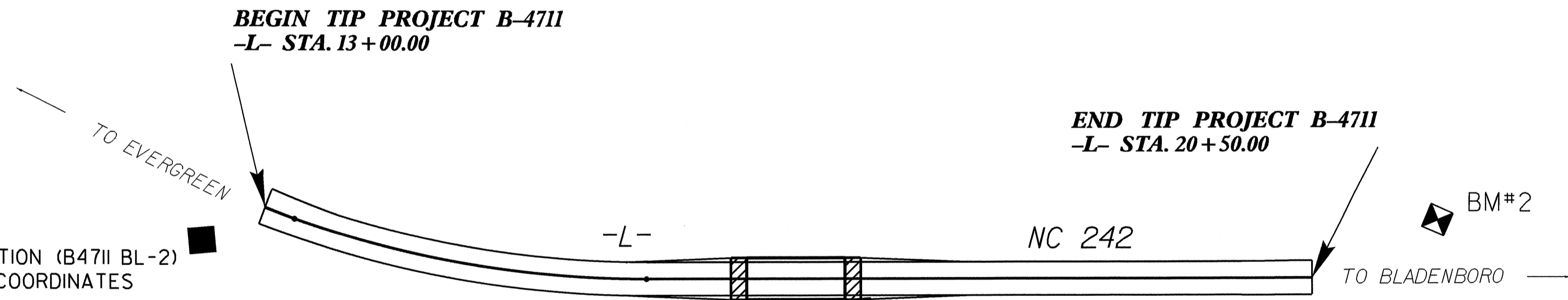
ALIGN	STATION	OFFSET	NORTH	EAST
L	14+50.00	50.00	271252.0022	2048054.9287
L	14+50.00	65.00	271255.6159	2048069.4869
L	15+76.94	65.00	271386.0534	2048025.1093
L	20+50.00	65.00	271819.4190	2047835.4322

L

TYPE	STATION	NORTH	EAST
PC	10+00.00	270798.6159	2047975.9217
PCC	13+22.22	271113.9206	2048026.4978
PT	15+76.94	271359.9910	2047965.5631
POT	23+55.04	272072.8046	2047653.5762



NCDOT BASELINE STATION (B4711 BL-1)
 LOCALIZED PROJECT COORDINATES
 N=270609.7443
 E=2047897.3502
 ELEV=102.87'



NCDOT BASELINE STATION (B4711 BL-2)
 LOCALIZED PROJECT COORDINATES
 N=271065.1826
 E=2048045.3397
 ELEV=99.79'

NCDOT BASELINE STATION (B4711 BL-3)
 LOCALIZED PROJECT COORDINATES
 N=271501.2189
 E=2047921.0661
 ELEV=97.33'

NCDOT BASELINE STATION (B4711 BL-4)
 LOCALIZED PROJECT COORDINATES
 N=271943.2827
 E=2047730.0077
 ELEV=97.25'

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4711-1"
 WITH NAD 83/95 STATE PLANE GRID COORDINATES OF
 NORTHING: 269817.043(±ft) EASTING: 2047399.367(±ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.999960195
 THE N.C. LAMBERT GRID BEARING AND
 LOCALIZED HORIZONTAL GROUND DISTANCE FROM
 "B4711-1" TO -L- STATION 13+00.00 IS
 N 26°14'31.9" E 1421.1731
 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/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/doh/preconstruct/highway/location/project/)
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 B4711_LS_CONTROL_091217.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
 SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

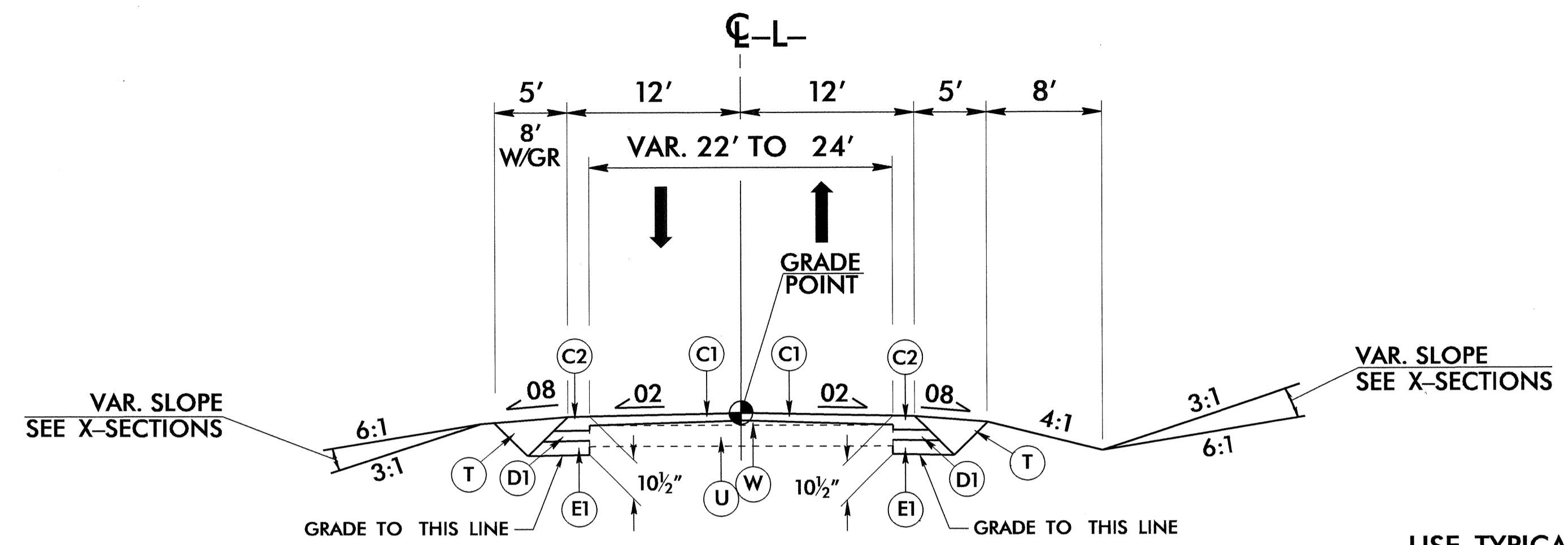
NOTE: DRAWING NOT TO SCALE

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6/2/99

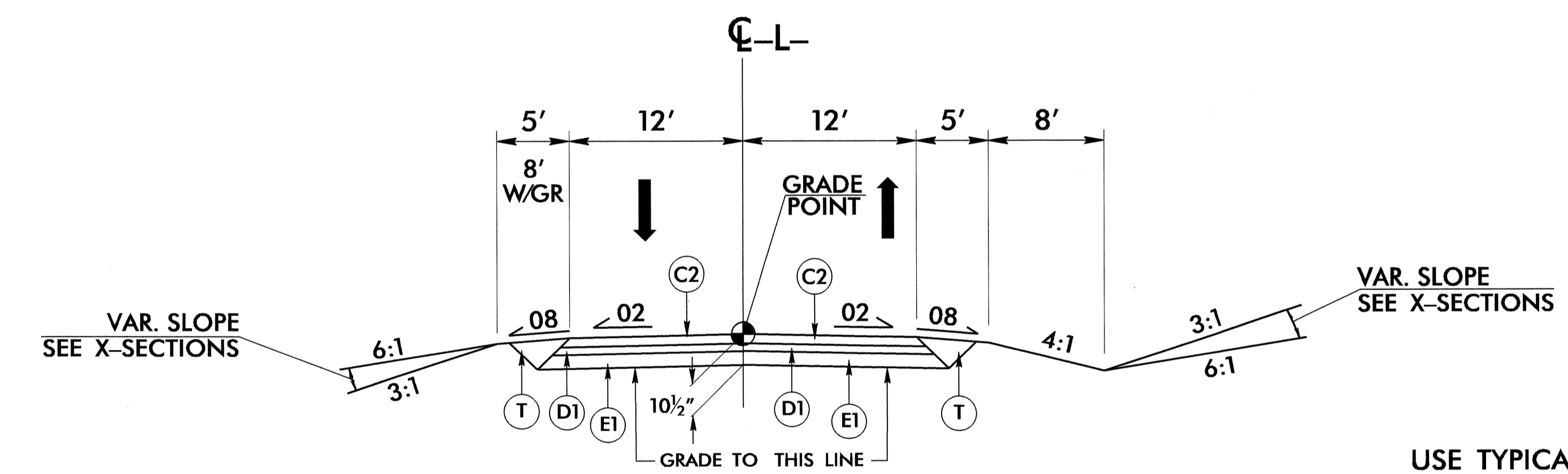
PAVEMENT SCHEDULE FINAL DESIGN	
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE 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.
C4	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
E2	PROP. APPROX. 5 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
E3	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.
R1	SHOULDER BERM GUTTER.
S	SHOULDER RECONSTRUCTION AS DIRECTED BY THE ENGINEER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)

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



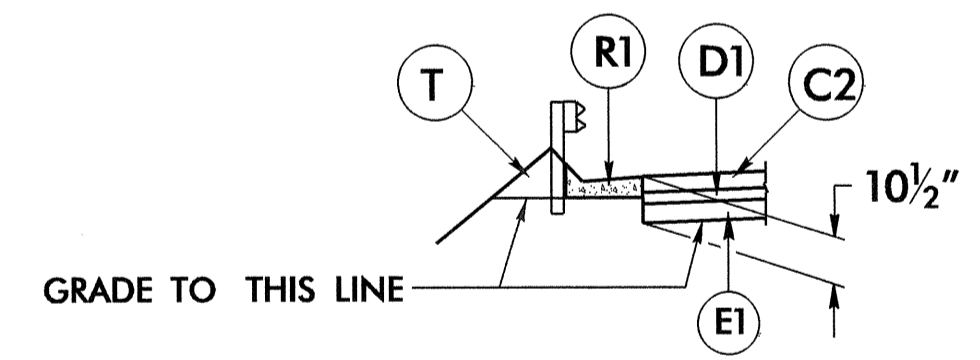
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
 -L- STA. 13+00.00 TO -L- STA. 14+77.00
 -L- STA. 18+33.00 TO -L- STA. 20+50.00



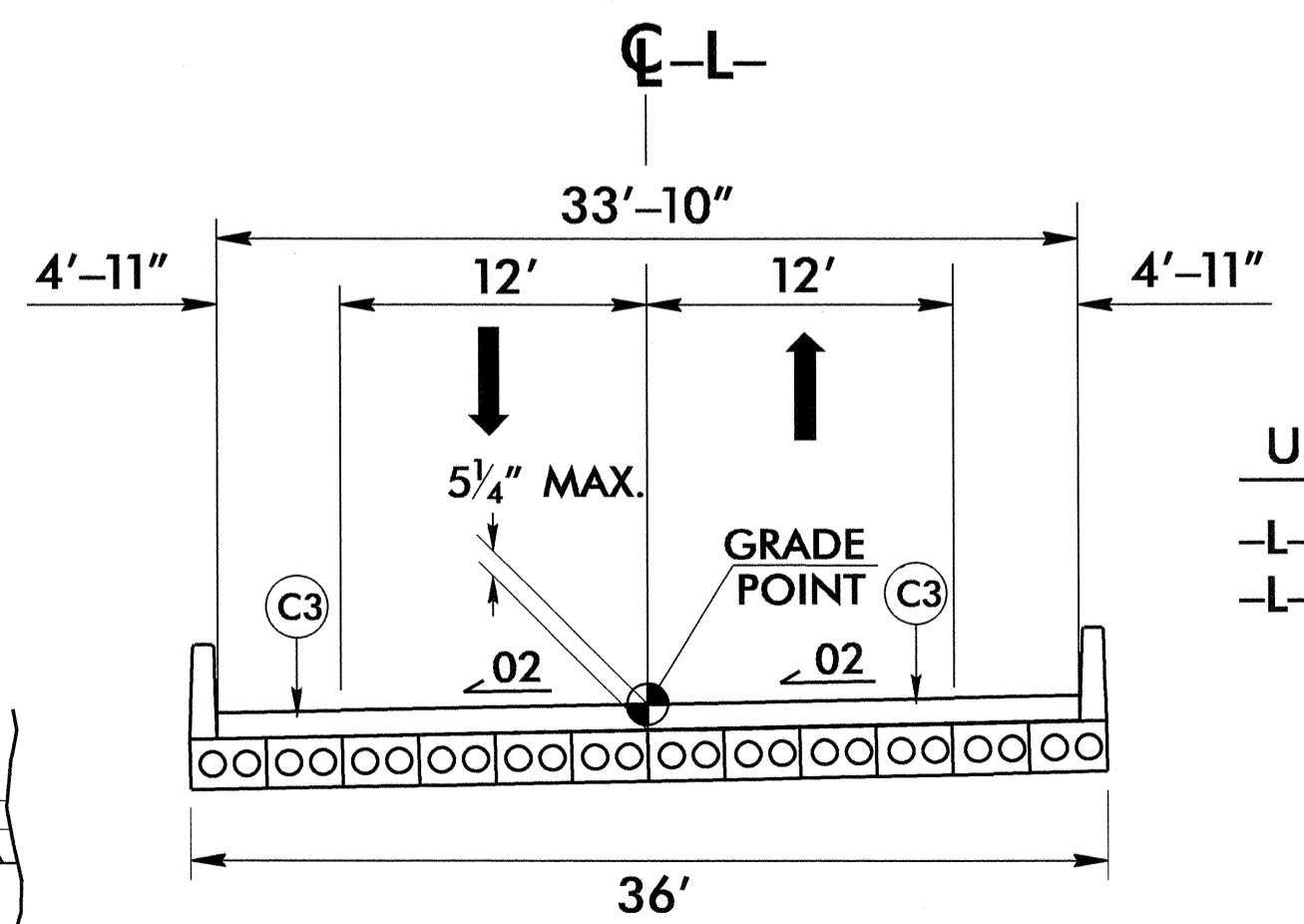
TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
 -L- STA. 14+77.00 TO -L- STA. 16+10.81 (BEGIN BRIDGE)
 -L- STA. 17+33.19 (END BRIDGE) TO -L- STA. 18+33.00



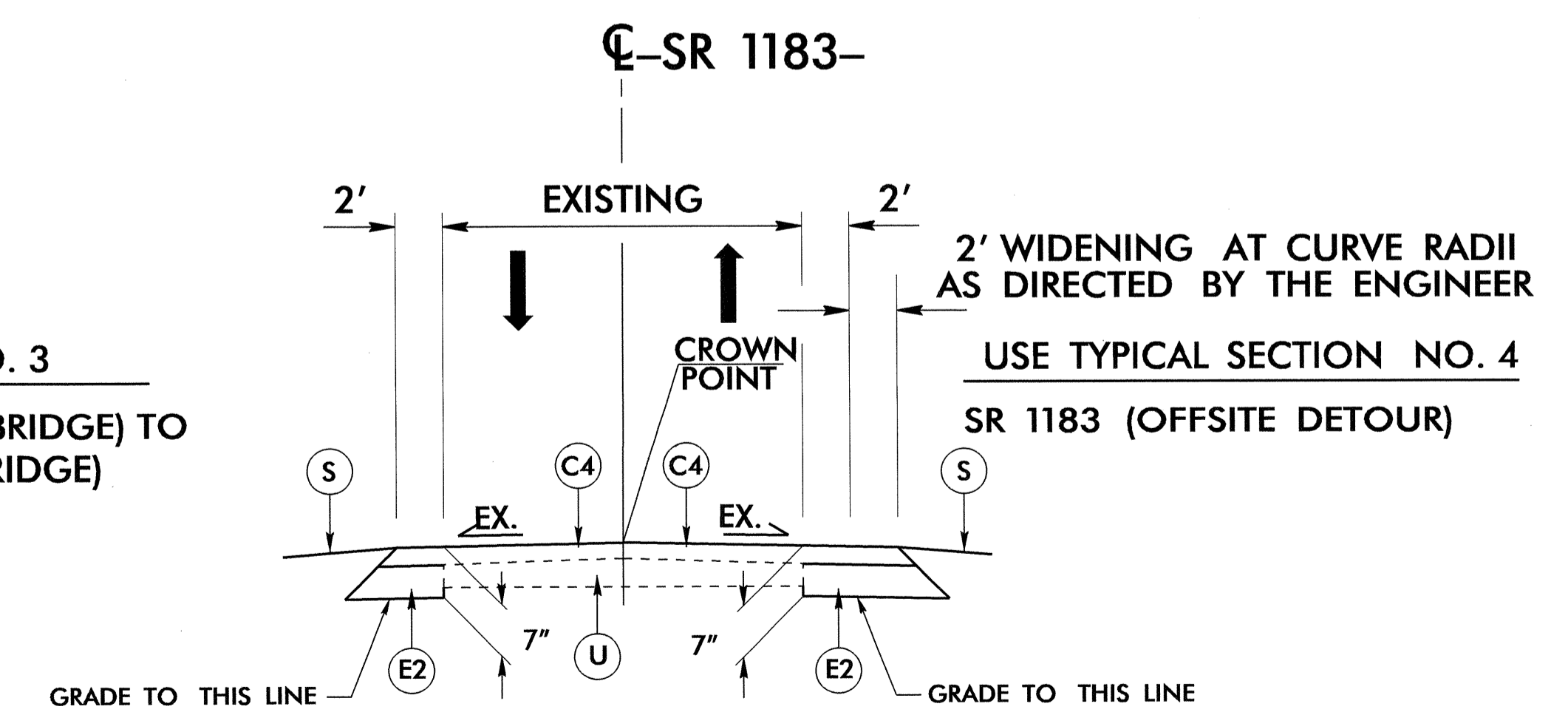
DETAIL SHOWING SHOULDER BERM GUTTER ON TOP OF SUBGRADE

-L- STA. 13+80.00 TO -L- STA. 15+86.81 (LT)
 -L- STA. 17+57.19 TO -L- STA. 17+70.00 (LT)

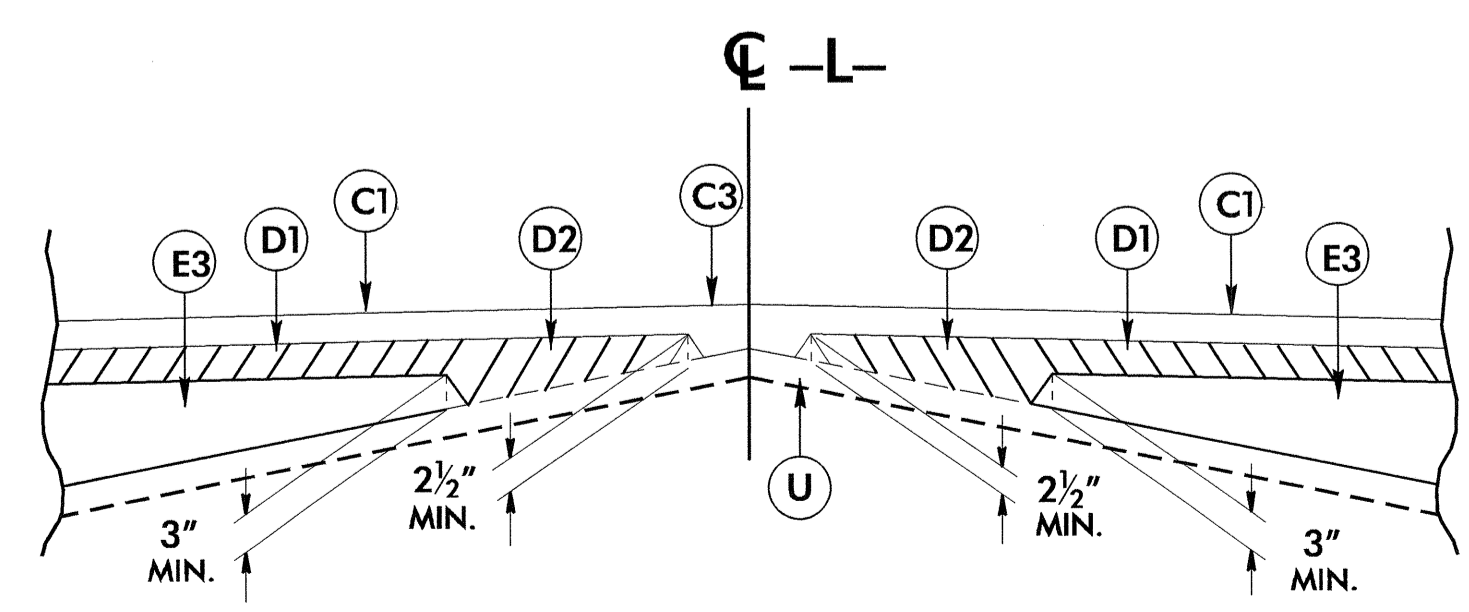


TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3
 -L- STA. 16+10.81 (BEGIN BRIDGE) TO
 -L- STA. 17+33.19 (END BRIDGE)



TYPICAL SECTION NO. 4



STANDARD WEDGING DETAIL

REVISIONS

17-AUG-2012 13:35
 R:\Roadway\Projects\B4711\rdy_tjlp.dgn
 5:51 PM

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202955

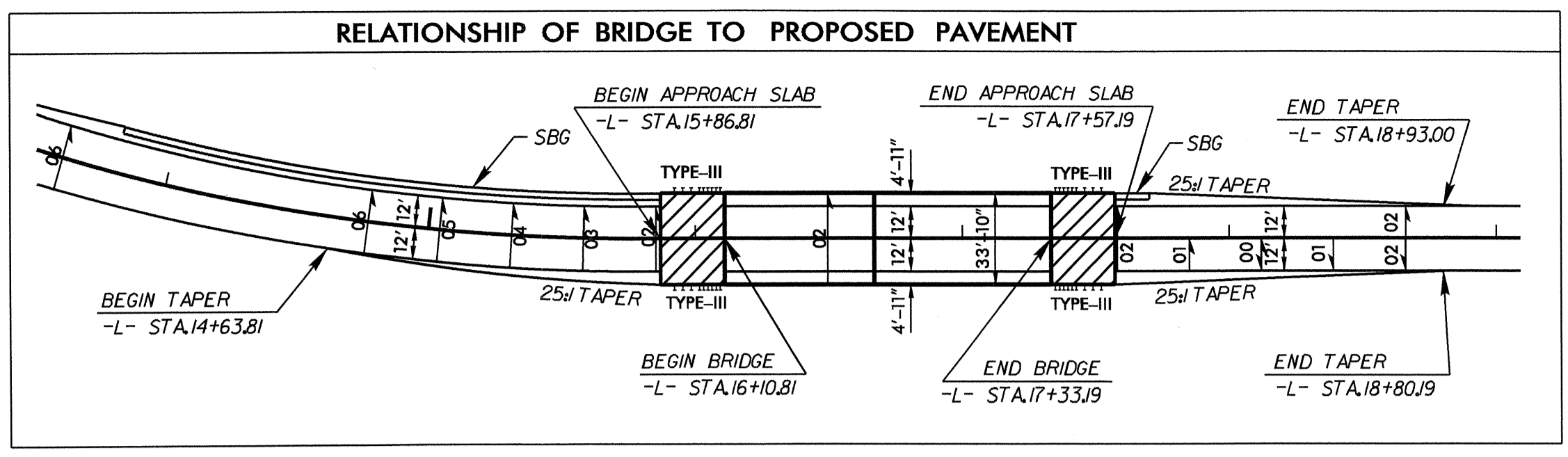
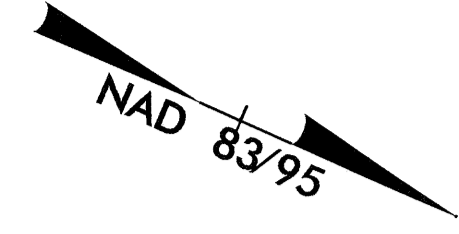
ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0000400000-N	801	Lump Sum		CONSTRUCTION SURVEYING
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL STATION ***** (16+72.00-L)
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB- BING
0057000000-E	226	400	CY	UNDERCUT EXCAVATION
0063000000-N	SP	Lump Sum		GRADING
0106000000-E	230	1,050	CY	BORROW EXCAVATION
0194000000-E	SP	700	CY	SELECT GRANULAR MATERIAL, CLASS III
0196000000-E	270	700	SY	GEOTEXTILE FOR SOIL STABILIZA- TION
0318000000-E	300	10	TON	FOUNDATION CONDITIONING MATE- RIAL, MINOR STRUCTURES
0320000000-E	300	20	SY	FOUNDATION CONDITIONING GEO- TEXTILE
0335200000-E	305	36	LF	15" DRAINAGE PIPE
0335850000-E	305	4	EA	*** DRAINAGE PIPE ELBOWS (15")
1220000000-E	545	43	TON	INCIDENTAL STONE BASE
1245000000-E	SP	1.92	SMI	SHOULDER RECONSTRUCTION
1330000000-E	607	120	SY	INCIDENTAL MILLING
1489000000-E	610	920	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
1498000000-E	610	220	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
1519000000-E	610	500	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
1525000000-E	610	1,140	TON	ASPHALT CONC SURFACE COURSE, TYPE SP9.5A
1575000000-E	620	160	TON	ASPHALT BINDER FOR PLANT MIX
1704000000-E	SP	29	TON	PATCHING EXISTING PAVEMENT
2022000000-E	815	44.8	CY	SUBDRAIN EXCAVATION
2033000000-E	815	33.6	CY	SUBDRAIN FINE AGGREGATE

ItemNumber	Sec #	Quantity	Unit	Description
2044000000-E	815	200	LF	6" PERFORATED SUBDRAIN PIPE
2070000000-N	815	1	EA	SUBDRAIN PIPE OUTLET
2077000000-E	815	6	LF	6" OUTLET PIPE
2286000000-N	840	2	EA	MASONRY DRAINAGE STRUCTURES
2367000000-N	840	2	EA	FRAME WITH TWO GRATES, STD 840.29
2556000000-E	846	220	LF	SHOULDER BERM GUTTER
3030000000-E	862	725	LF	STEEL BM GUARDRAIL
3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
3215000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III
3270000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3649000000-E	876	2	TON	RIP RAP, CLASS B
3656000000-E	876	460	SY	GEOTEXTILE FOR DRAINAGE
4400000000-E	1110	400	SF	WORK ZONE SIGNS (STATIONARY)
4405000000-E	1110	144	SF	WORK ZONE SIGNS (PORTABLE)
4410000000-E	1110	140	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4435000000-N	1135	50	EA	CONES
4445000000-E	1145	80	LF	BARRICADES (TYPE III)
4455000000-N	1150	20	DAY	FLAGGER
4685000000-E	1205	11,638	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)
4686000000-E	1205	11,638	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)
4900000000-N	1251	72	EA	PERMANENT RAISED PAVEMENT MARKERS
6000000000-E	1605	3,200	LF	TEMPORARY SILT FENCE
6006000000-E	1610	225	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	190	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	140	TON	SEDIMENT CONTROL STONE

ItemNumber	Sec #	Quantity	Unit	Description
6015000000-E	1615	5	ACR	TEMPORARY MULCHING
6018000000-E	1620	200	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	0.75	TON	FERTILIZER FOR TEMPORARY SEED- ING
6024000000-E	1622	200	LF	TEMPORARY SLOPE DRAINS
6029000000-E	SP	700	LF	SAFETY FENCE
6030000000-E	1630	250	CY	SILT EXCAVATION
6036000000-E	1631	4,500	SY	MATting FOR EROSION CONTROL
6037000000-E	SP	450	SY	COIR FIBER MAT
6038000000-E	SP	600	SY	PERMANENT SOIL REINFORCEMENT MAT
6042000000-E	1632	440	LF	1/4" HARDWARE CLOTH
6071010000-E	SP	60	LF	WATTLE
6071020000-E	SP	20	LB	POLYACRYLAMIDE (PAM)
6084000000-E	1660	3	ACR	SEEDING & MULCHING
6087000000-E	1660	3	ACR	MOWING
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
6096000000-E	1662	125	LB	SEED FOR SUPPLEMENTAL SEEDING
6108000000-E	1665	3.25	TON	FERTILIZER TOPDRESSING
6114500000-N	1667	10	MHR	SPECIALIZED HAND MOWING
6117000000-N	SP	18	EA	RESPONSE FOR EROSION CONTROL

5/28/99

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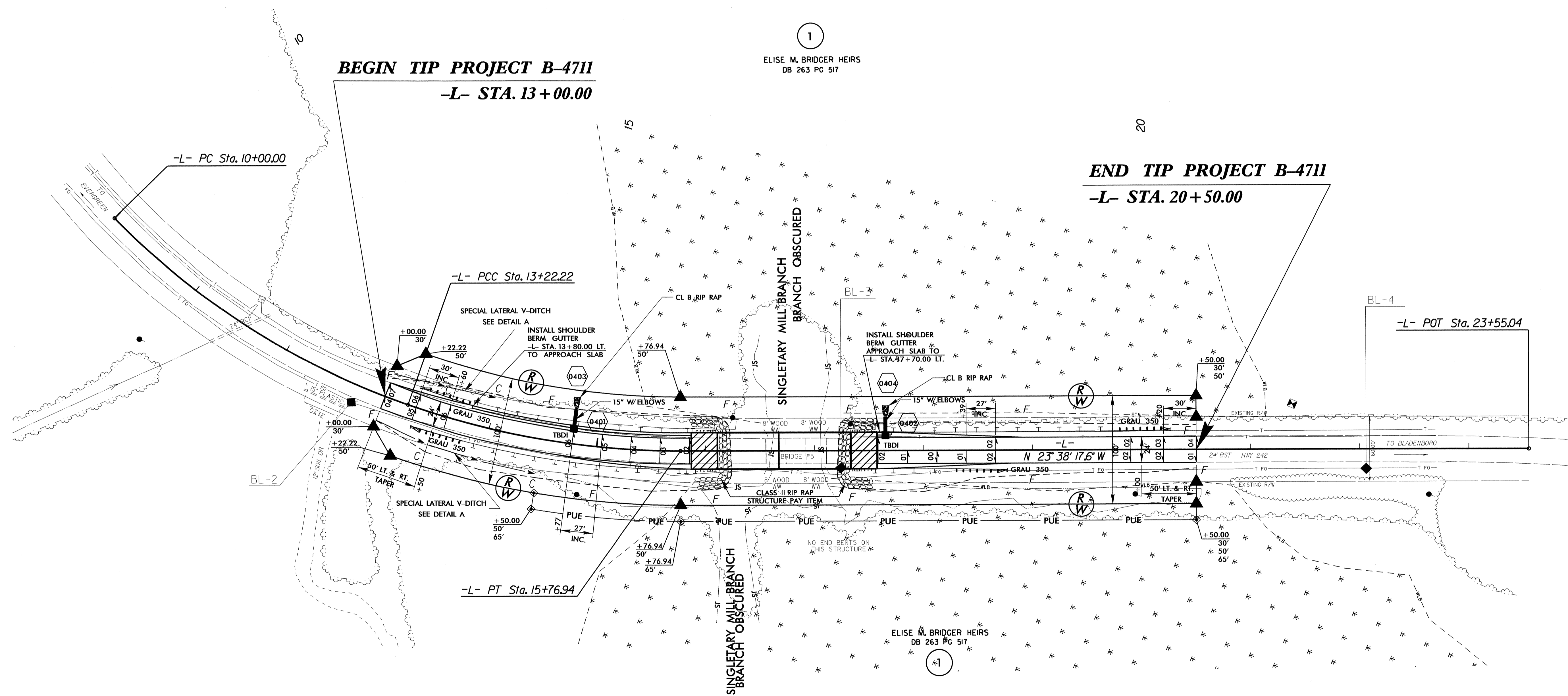


-L- CURVE DATA

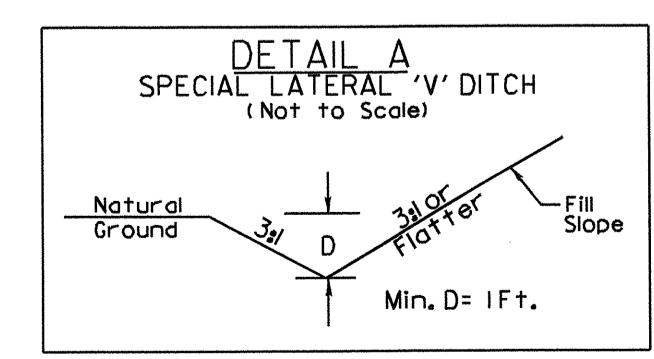
PI Sta 11+64.06	PI Sta 14+50.82
$\Delta = 26^\circ 34' 58.6''$ (LT)	$\Delta = 19^\circ 27' 34.5''$ (LT)
$D = 8^\circ 15' 00.0''$	$D = 7^\circ 38' 22.0''$
$L = 322.22'$	$L = 254.73'$
$T = 164.06'$	$T = 128.60'$
$R = 694.49'$	$R = 750.00'$
	$V = 47$ MPH

** DESIGN EXCEPTION REQUIRED FOR HORIZONTAL CURVE RADIUS OF 750' AND FOR MINIMUM HORIZONTAL STOPPING SIGHT DISTANCE OF 358'.

REVISIONS



1
ELISE M. BRIDGER HEIRS
DB 263 PG 517



FROM -L- STA. 13+00 TO -L- STA. 14+50 (RT.)
FROM -L- STA. 13+00 TO -L- STA. 14+00 (LT.)

NOTE: USE PERMANENT SOIL REINFORCEMENT MAT FROM STA. 15+25.00 ± L- TO STA. 15+85 ± L- (LEFT & RIGHT), FROM STA. 17+55.00 ± L- TO STA. 18+75.00 ± L- (LEFT) AND FROM STA. 17+55.00 ± L- TO STA. 18+25.00 ± L- (RIGHT). SEE PERMANENT SOIL REINFORCEMENT MAT SPECIAL PROVISION.

FOR -L- PROFILE, SEE SHEET 5

BRIDGE APPROACH SLAB

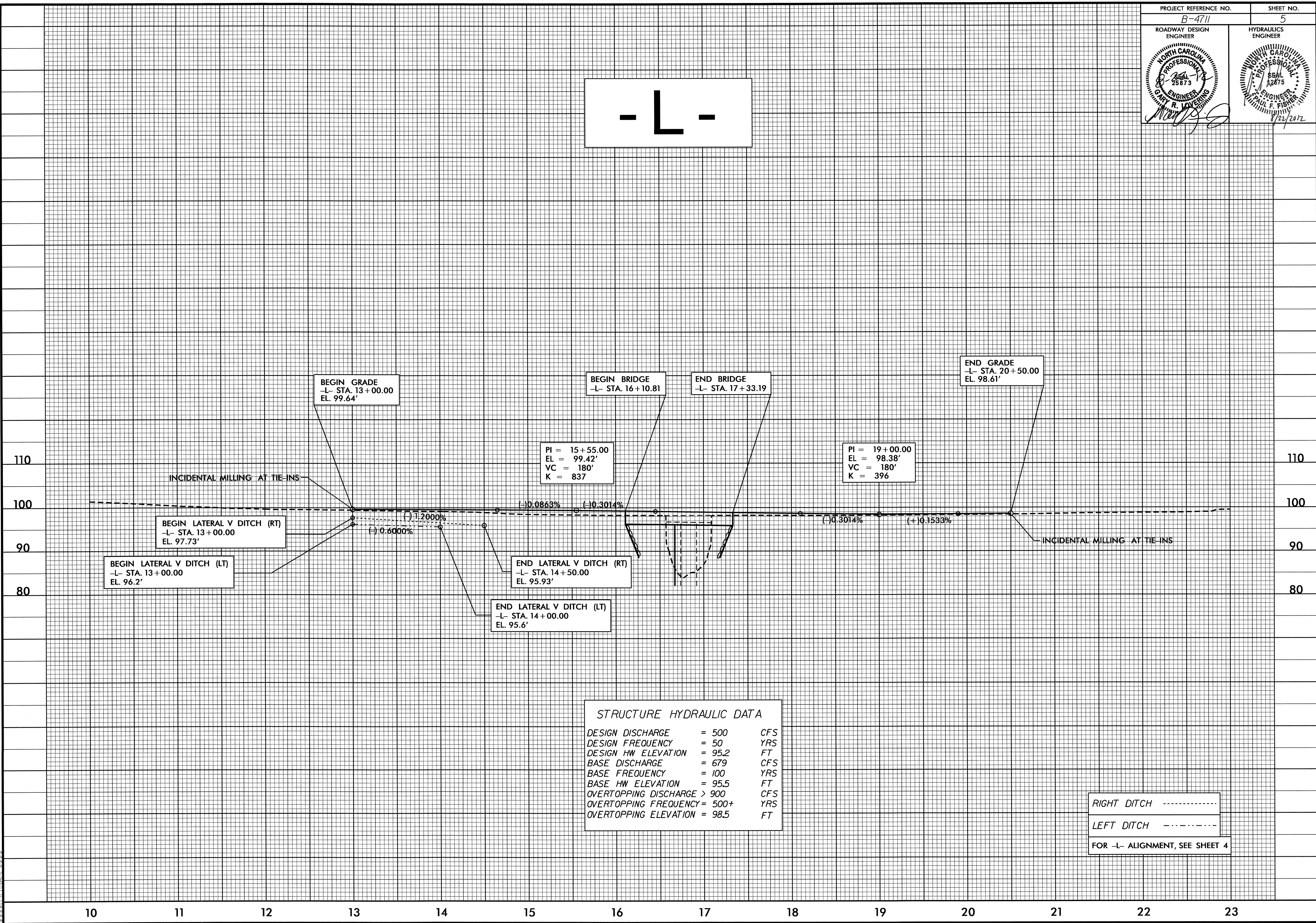
FOR STRUCTURE PLANS, SEE SHEETS S-1 THRU S-18

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GARY R. LOVING

5/14/99

PROJECT REFERENCE NO. B-4711	SHEET NO. 5
ROADWAY DESIGN ENGINEER GARY R. JOHNSON NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 25873	HYDRAULICS ENGINEER PAUL F. FISHER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 12875 8/22/2012

- L -



BEGIN GRADE
-L- STA. 13+00.00
EL. 99.64'

BEGIN LATERAL V DITCH (RT)
-L- STA. 13+00.00
EL. 97.73'

BEGIN LATERAL V DITCH (LT)
-L- STA. 13+00.00
EL. 96.2'

PI = 15+55.00
EL = 99.42'
VC = 180'
K = 837

BEGIN BRIDGE
-L- STA. 16+10.81

END BRIDGE
-L- STA. 17+33.19

PI = 19+00.00
EL = 98.38'
VC = 180'
K = 396

END GRADE
-L- STA. 20+50.00
EL. 98.61'

END LATERAL V DITCH (RT)
-L- STA. 14+50.00
EL. 95.93'

END LATERAL V DITCH (LT)
-L- STA. 14+00.00
EL. 95.6'

STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 500	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 95.2	FT
BASE DISCHARGE	= 679	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 95.5	FT
OVERTOPPING DISCHARGE	> 900	CFS
OVERTOPPING FREQUENCY	= 500+	YRS
OVERTOPPING ELEVATION	= 98.5	FT

RIGHT DITCH - - - - -

LEFT DITCH - - - - -

FOR -L- ALIGNMENT, SEE SHEET 4

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