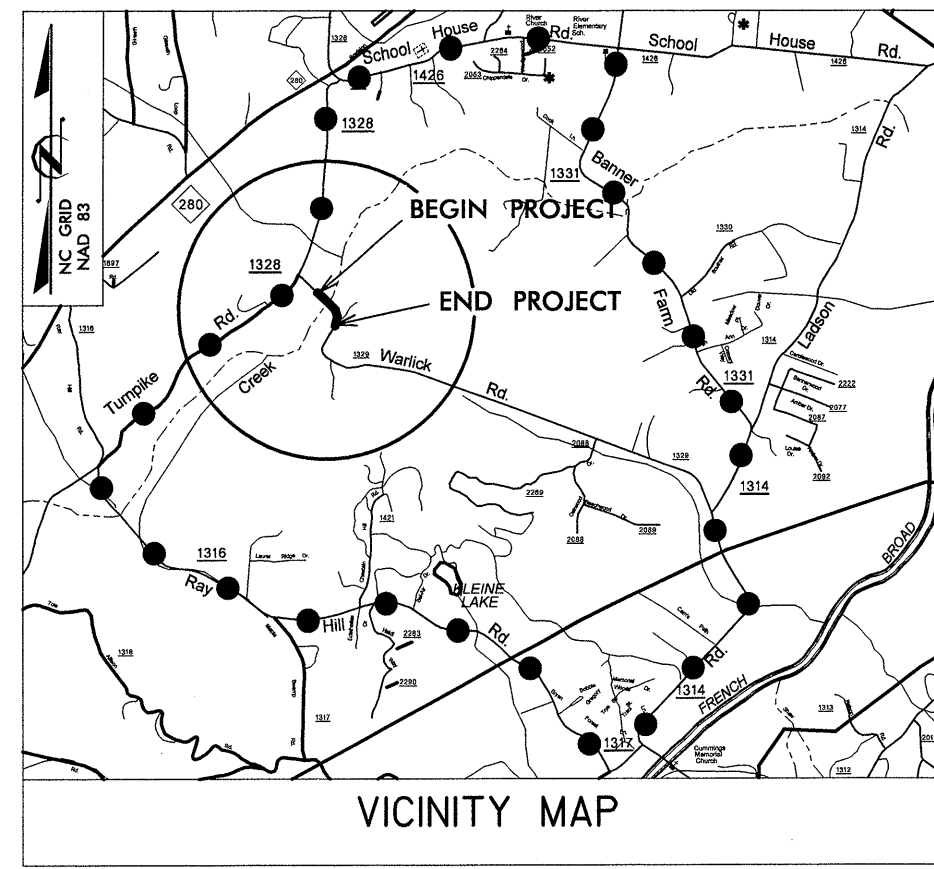


08/108/09

See Sheet 1-A For Index of Sheets



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HENDERSON COUNTY

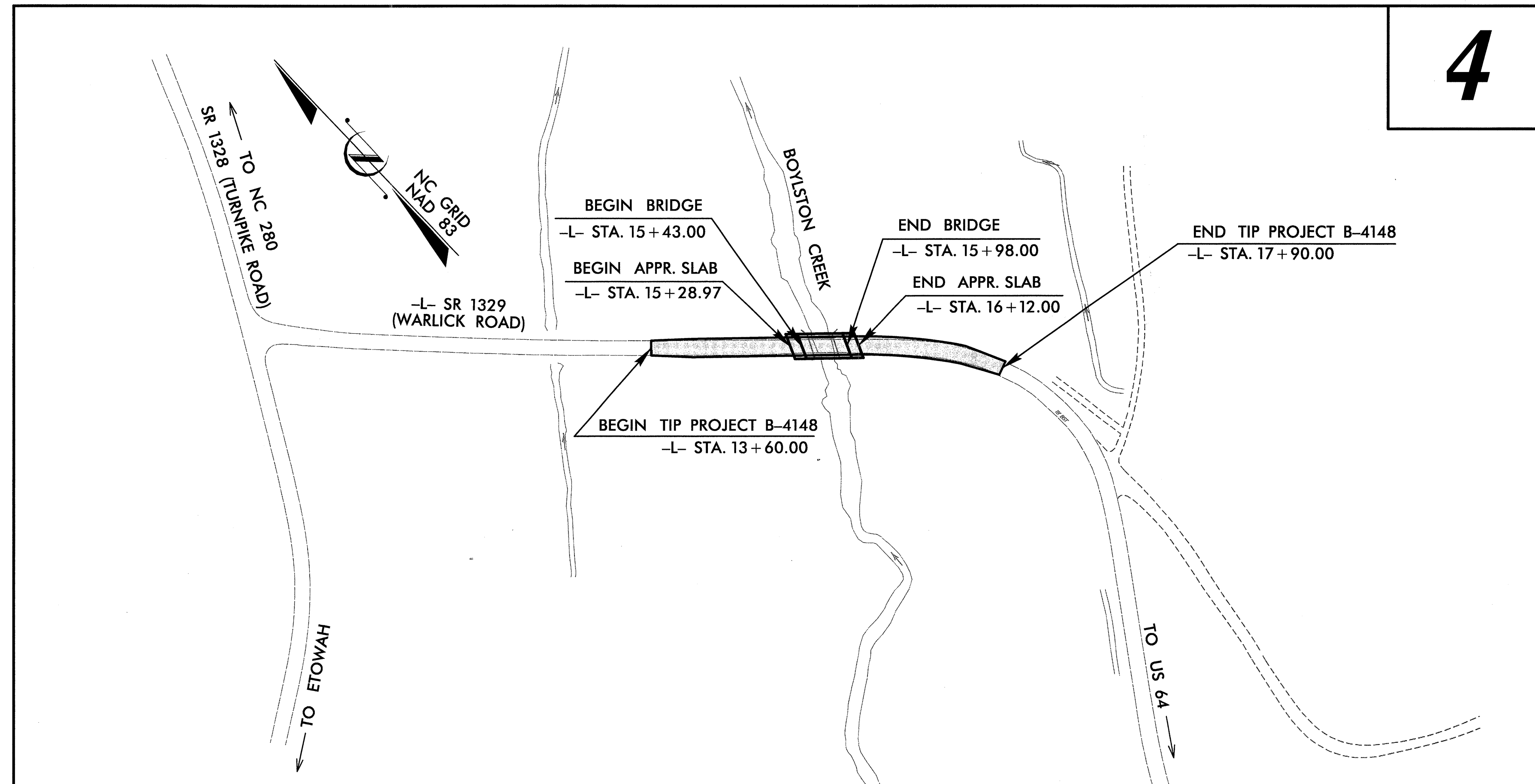
LOCATION: BRIDGE NO. 12 OVER BOYLSTON CREEK
ON SR 1329 (WARLICK ROAD)

TYPE OF WORK: GRADING, DRAINAGE, PAVING AND STRUCTURE

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4148	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33497.1.1	BRZ-1329(4)	P.E.	
33497.2.1	BRZ-1329(4)	RW	
33497.3.1	BRZ-1329(4)	CONST.	

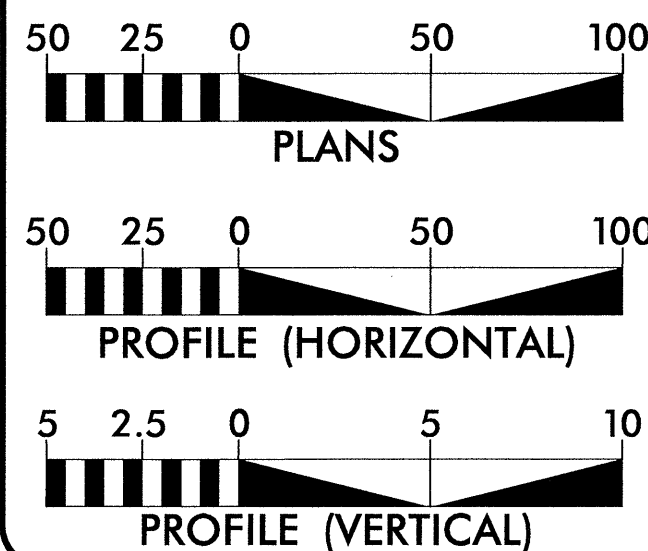
TIP PROJECT: B-4148

CONTRACT: C202021



4

GRAPHIC SCALES



DESIGN DATA

ADT 2009 = 900
ADT 2030 = 1400
DHV = 10%
D = 60%
T = 3% (1% TTST + 2% DUALS)
V = 50 MPH
FUNCT. CLASS = RURAL LOCAL
* DESIGN EXCEPTION REQUIRED FOR SAGCREST K VALUE AND VERTICAL CURVE SSD

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-4148 = 0.071 MI
LENGTH STRUCTURE TIP PROJECT B-4148 = 0.010 MI
TOTAL LENGTH OF TIP PROJECT B-4148 = 0.081 MI

Prepared In the Office of:
VAUGHN & MELTON

1318-F PATTON AVE.
ASHEVILLE NC, 28806

FOR THE NORTH CAROLINA DIVISION OF HIGHWAYS

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JANUARY 18, 2008

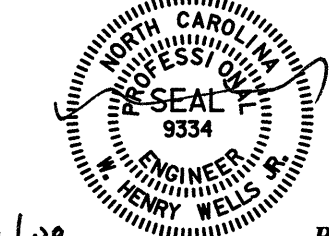
LETTING DATE:
JANUARY 20, 2009

REECE SCHULER, PE
PROJECT ENGINEER

AARON CARVER, PE
PROJECT DESIGN ENGINEER

NCDOT CONTACT:
DOUG TAYLOR, PE
PROJECT ENGINEER - ROADWAY DESIGN

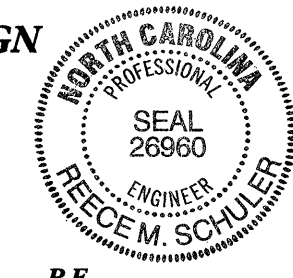
HYDRAULICS ENGINEER



10/27/08 P.E.
SIGNATURE:

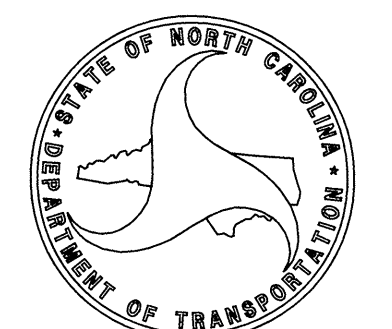
ROADWAY DESIGN ENGINEER

10/24/08



SIGNATURE:

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



ant mill P.E.
STATE HIGHWAY DESIGN ENGINEER

\$\$\$\$\$SYTIME\$\$\$\$\$DGN\$\$\$\$\$SUBSERNAME\$\$\$\$\$

3/15/06













Note: Not to Scale

*S.U.E. = *Subsurface Utility Engineering*












STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

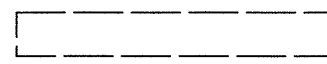






BOUNDARIES AND PROPERTY:

State Line	_____
County Line	_____
Township Line	_____
City Line	_____
Reservation Line	_____
Property Line	_____
Existing Iron Pin	_____ 
Property Corner	_____ 
Property Monument	_____ 
Parcel/Sequence Number	_____ 
Existing Fence Line	_____ 
Proposed Woven Wire Fence	_____ 
Proposed Chain Link Fence	_____ 
Proposed Barbed Wire Fence	_____ 
Existing Wetland Boundary	_____ 
Proposed Wetland Boundary	_____ 
Existing Endangered Animal Boundary	_____ 
Existing Endangered Plant Boundary	_____ 

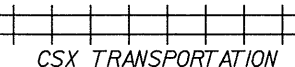

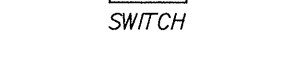
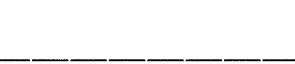

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	_____ 
Sign	_____ 
Well	_____ 
Small Mine	_____ 
Foundation	_____ 
Area Outline	_____ 
Cemetery	_____ 
Building	_____ 
School	_____ 
Church	_____ 
Dam	_____ 



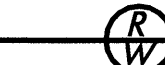


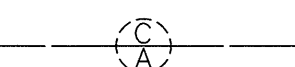
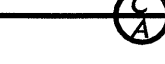

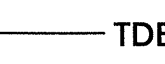

HYDROLOGY:

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	_____ 
Swamp Marsh	_____ 
Proposed Lateral, Tail, Head Ditch	_____ 
False Sump	_____ 




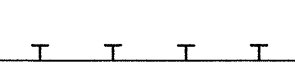
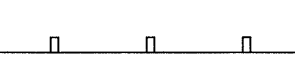
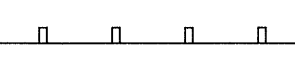

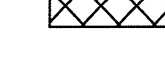

RAILROADS:

Standard Gauge	_____ 
RR Signal Milepost	_____ 
Switch	_____ 
RR Abandoned	_____ 
RR Dismantled	_____ 




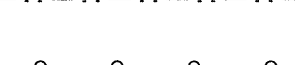
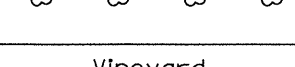

RIGHT OF WAY:

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 Marker	_____ 
Existing Control of Access	_____ 
Proposed Control of Access	_____ 
Existing Easement Line	_____ 
Proposed Temporary Construction Easement	_____ 
Proposed Temporary Drainage Easement	_____ TDE
Proposed Permanent Drainage Easement	_____ PDE
Proposed Permanent Utility Easement	_____ PUE


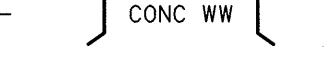
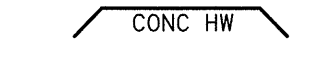
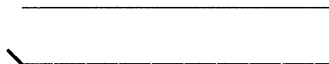
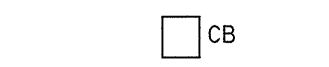
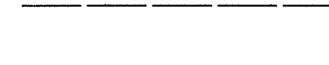
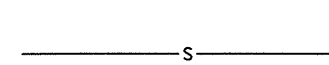


ROADS AND RELATED FEATURES:

Existing Edge of Pavement	_____
Existing Curb	_____
Proposed Slope Stakes Cut	_____ C
Proposed Slope Stakes Fill	_____ F
Proposed Wheel Chair Ramp	_____ 
Proposed Wheel Chair Ramp Curb Cut	_____ 
Curb Cut for Future Wheel Chair Ramp	_____ 
Existing Metal Guardrail	_____ 
Proposed Guardrail	_____ 
Existing Cable Guiderail	_____ 
Proposed Cable Guiderail	_____ 
Equality Symbol	_____ 
Pavement Removal	_____ 




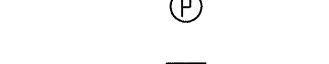

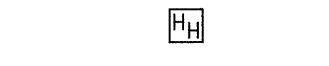

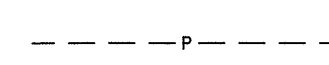


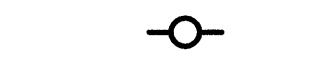
VEGETATION:

Single Tree	_____ 
Single Shrub	_____ 
Hedge	_____ 
Woods Line	_____ 
Orchard	_____ 
Vineyard	_____ 



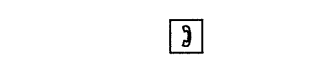
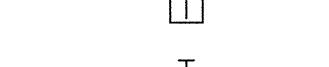
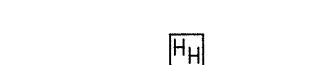
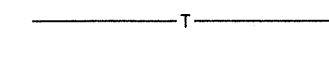
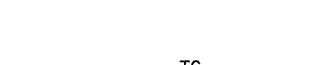
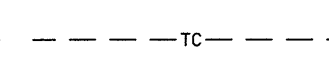
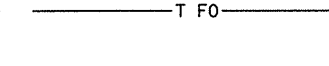


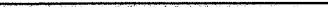
EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	_____ 
Bridge Wing Wall, Head Wall and End Wall	_____ 
MINOR:	
Head and End Wall	_____ 
Pipe Culvert	_____ 
Footbridge	_____ 
Drainage Box: Catch Basin, DI or JB	_____ 
Paved Ditch Gutter	_____ 
Storm Sewer Manhole	_____ 
Storm Sewer	_____ 




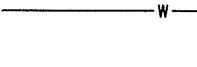
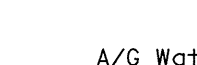


UTILITIES:

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




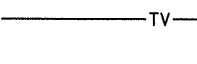

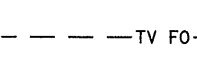


TELEPHONE:

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	_____ 
Designated U/G Telephone Cable (S.U.E.*)	_____ 
Recorded U/G Telephone Conduit	_____ 
Designated U/G Telephone Conduit (S.U.E.*)	_____ 
Recorded U/G Fiber Optics Cable	_____ 
Designated U/G Fiber Optics Cable (S.U.E.*)	_____


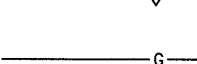
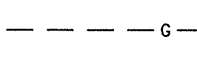


WATER:

Water Manhole	_____ 
Water Meter	_____ 
Water Valve	_____ 
Water Hydrant	_____ 
Recorded U/G Water Line	_____ 
Designated U/G Water Line (S.U.E.*)	_____ 
Above Ground Water Line	_____ 







TV:

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









GAS:

Gas Valve	_____ 
Gas Meter	_____ 
Recorded U/G Gas Line	_____ 
Designated U/G Gas Line (S.U.E.*)	_____ 
Above Ground Gas Line	_____ 

SANITARY SEWER:

Sanitary Sewer Manhole	_____ 
Sanitary Sewer Cleanout	_____ 
U/G Sanitary Sewer Line	_____ 
Above Ground Sanitary Sewer	_____ 
Recorded SS Forced Main Line	_____ 
Designated SS Forced Main Line (S.U.E.*)	_____ 

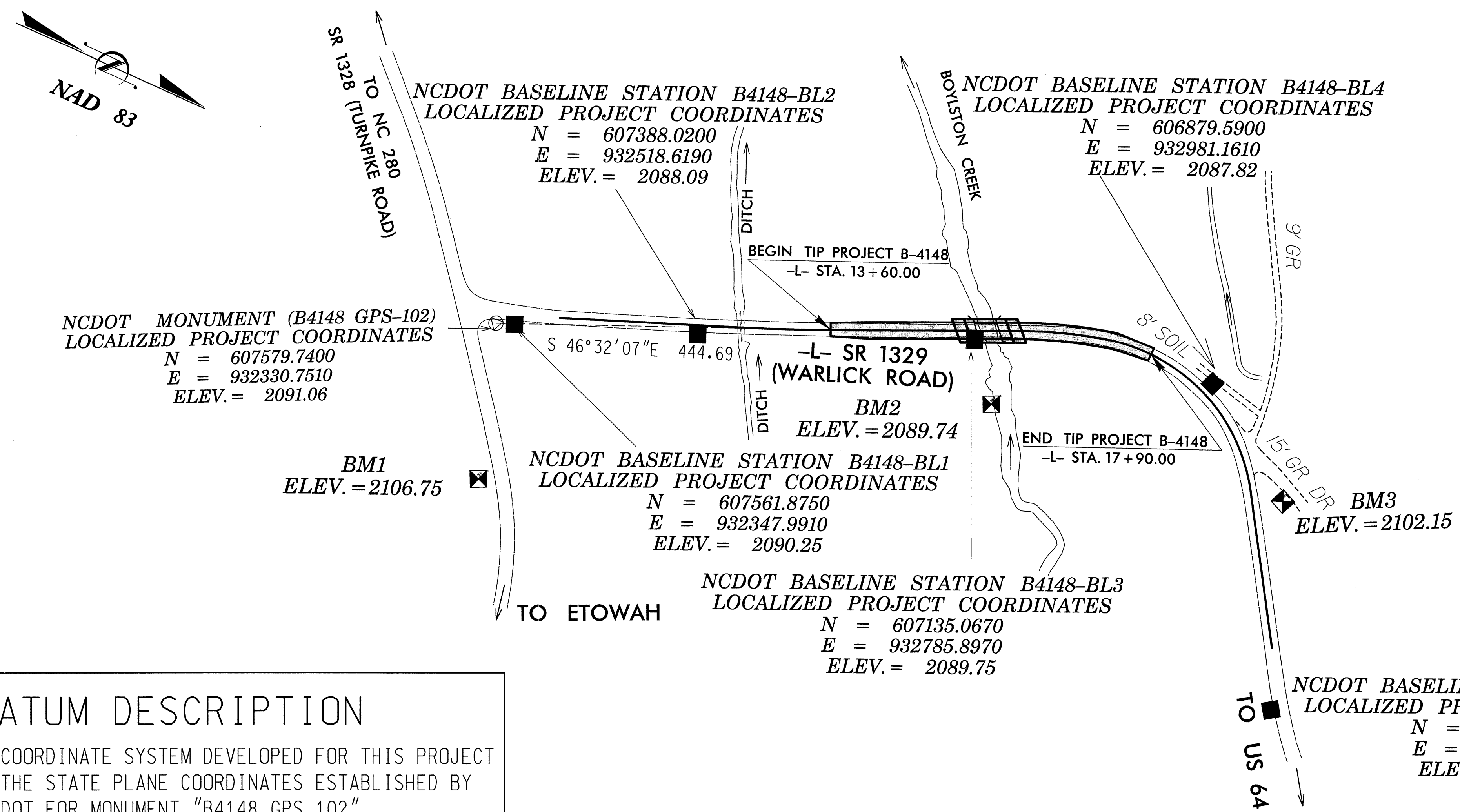
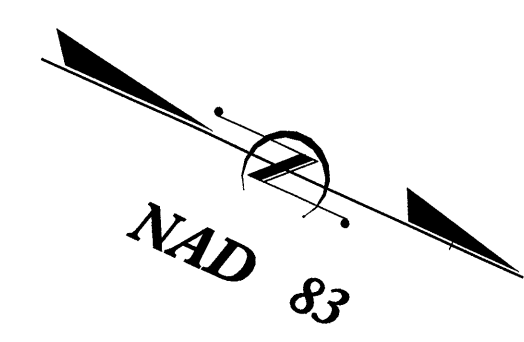
MISCELLANEOUS:

Utility Pole	_____ 
Utility Pole with Base	_____ 
Utility Located Object	_____ 
Utility Traffic Signal Box	_____ 
Utility Unknown U/G Line	_____ 
U/G Tank; Water, Gas, Oil	_____ 
A/G Tank; Water, Gas, Oil	_____ 
U/G Test Hole (S.U.E.*)	_____ 
Abandoned According to Utility Records	_____ AATUR
End of Information	_____ E.O.I.

SURVEY CONTROL SHEET B-4148

NCDOT MONUMENT (B4148 GPS-101)
LOCALIZED PROJECT COORDINATES
 N = 608230.962
 E = 932586.224
 ELEV. = 2098.84

BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	BL-1	607561.8750	932347.9910	2090.25	OUTSIDE PROJECT LIMITS	
2	BL-2	607388.0200	932518.6190	2088.09	11+83.92	12.68 RT
3	BL-3	607135.0670	932785.8970	2089.75	15+51.36	12.74 RT
4	BL-4	606879.5900	932981.1610	2087.82	18+76.42	17.05 LT
5	BL-5	606507.4390	932748.5570	2098.23	OUTSIDE PROJECT LIMITS	



 BM1 ELEVATION = 2106.75
 N 607442 E 932175
 L STATION 10+00
 S 69° 03' 45.8" W DIST 239.65
 8 INCH SPIKE IN BASE OF 18 INCH WHITE PINE

 BM2 ELEVATION = 2089.74
 N 607057 E 932745
 L STATION 15+74 98 RIGHT
 8 INCH SPIKE IN BASE OF A 10 INCH WALNUT TREE

 BM3 ELEVATION = 2102.15
 N 606701 E 932945
 L STATION 20+44 41 LEFT
 8 INCH SPIKE IN BASE OF RED OAK TREE

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4148 GPS 102"

WITH NAD 83 STATE PLANE GRID COORDINATES OF
 NORTHING: 607579.7400(++) EASTING: 932330.7510(++)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 99977444

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS 102" TO -L- STATION 13+60.00 IS
 S 46°32'07"E 444.69

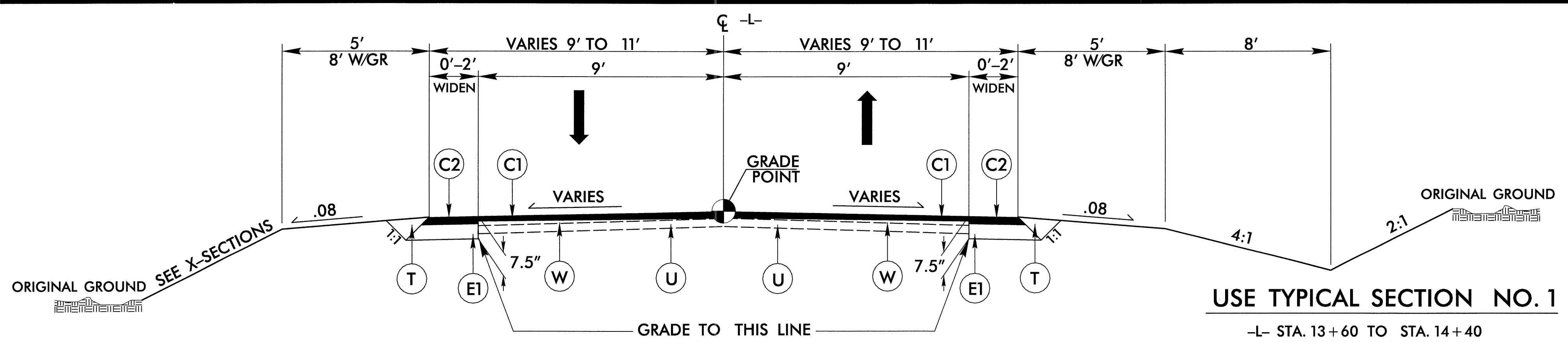
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
 PROJECT CONTROL ESTABLISHED UTILIZING GLOBAL POSITIONING SYSTEM "OPUS".

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT
[HTTP://WWW.DOH.DOT.STATE.NC.US/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.doh.dot.state.nc.us/preconstruct/highway/location/project/)
 THE FILES TO BE FOUND ARE AS FOLLOWS: B4148_LS_CONTROL_070209.TXT

NOTE: DRAWING NOT TO SCALE

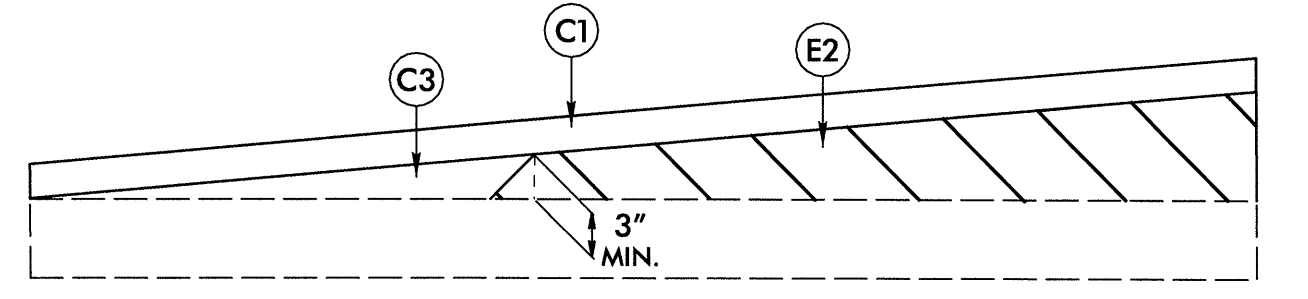
6/2/99



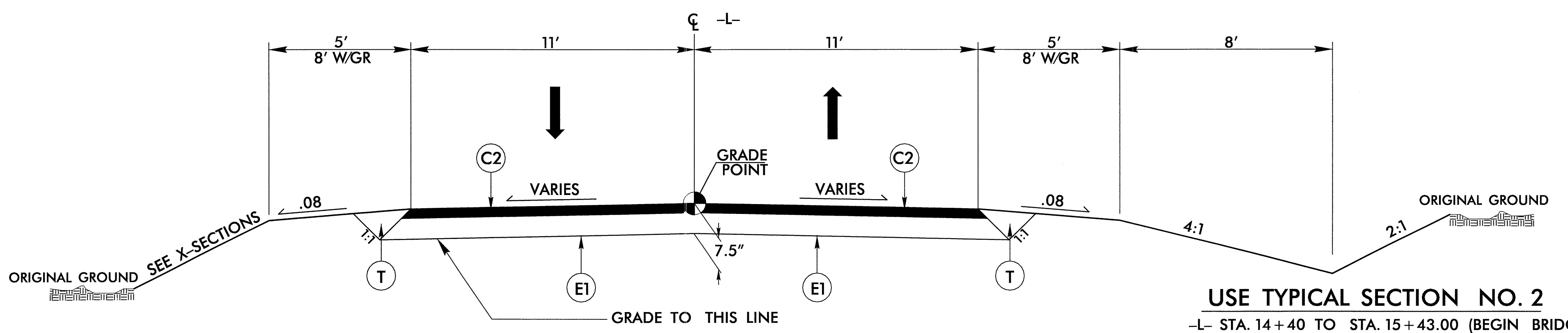
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

- L- STA. 13+60 TO STA. 14+40
- L- STA. 16+30 TO STA. 17+90



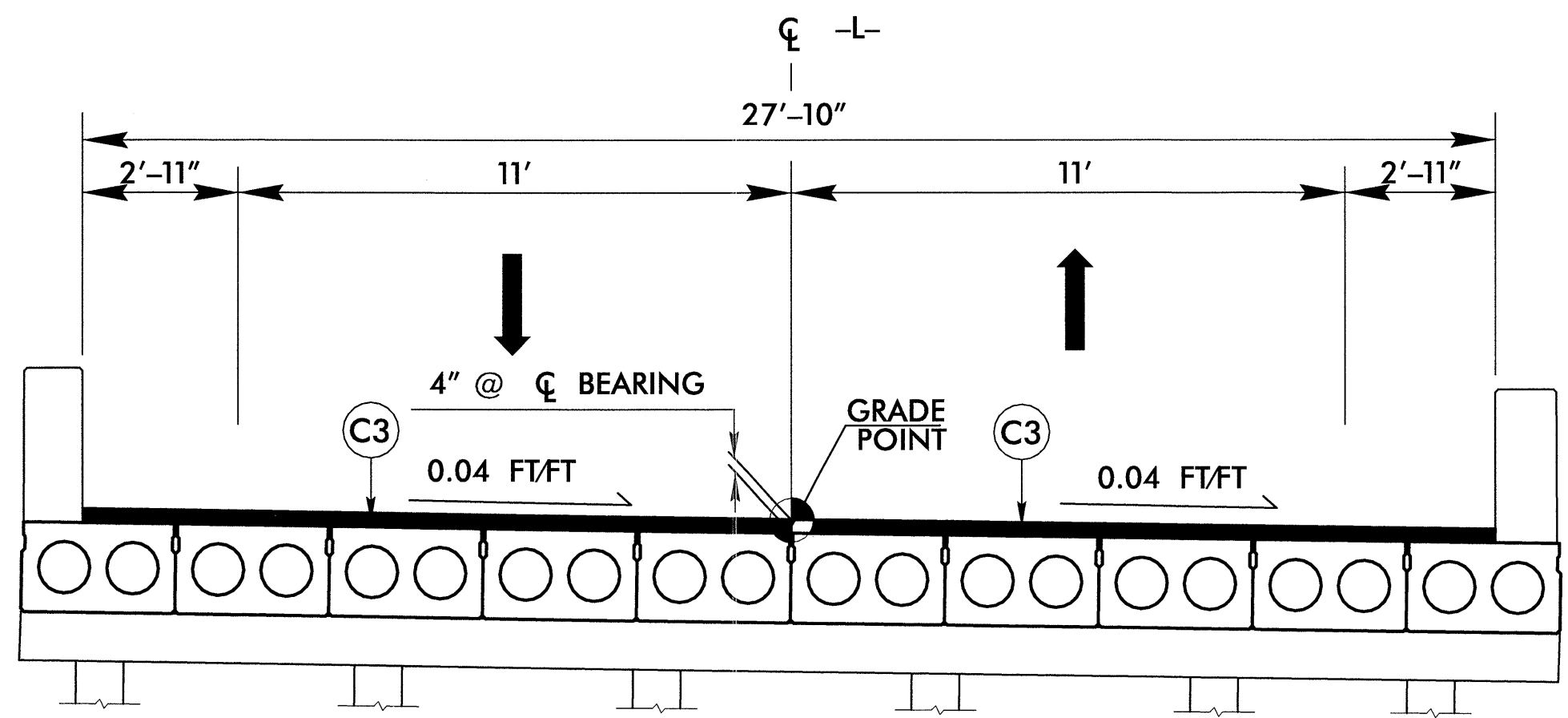
Wedging Detail



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

- L- STA. 14+40 TO STA. 15+43.00 (BEGIN BRIDGE)
- L- STA. 15+98.00 (END BRIDGE) TO STA. 16+30



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

- L- STA. 15+43.00 (BEGIN BRIDGE) TO
- L- STA. 15+98.00 (END BRIDGE)

C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
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 1 1/2" 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. 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 5 1/2" IN DEPTH.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAIL FOR RESURFACING).

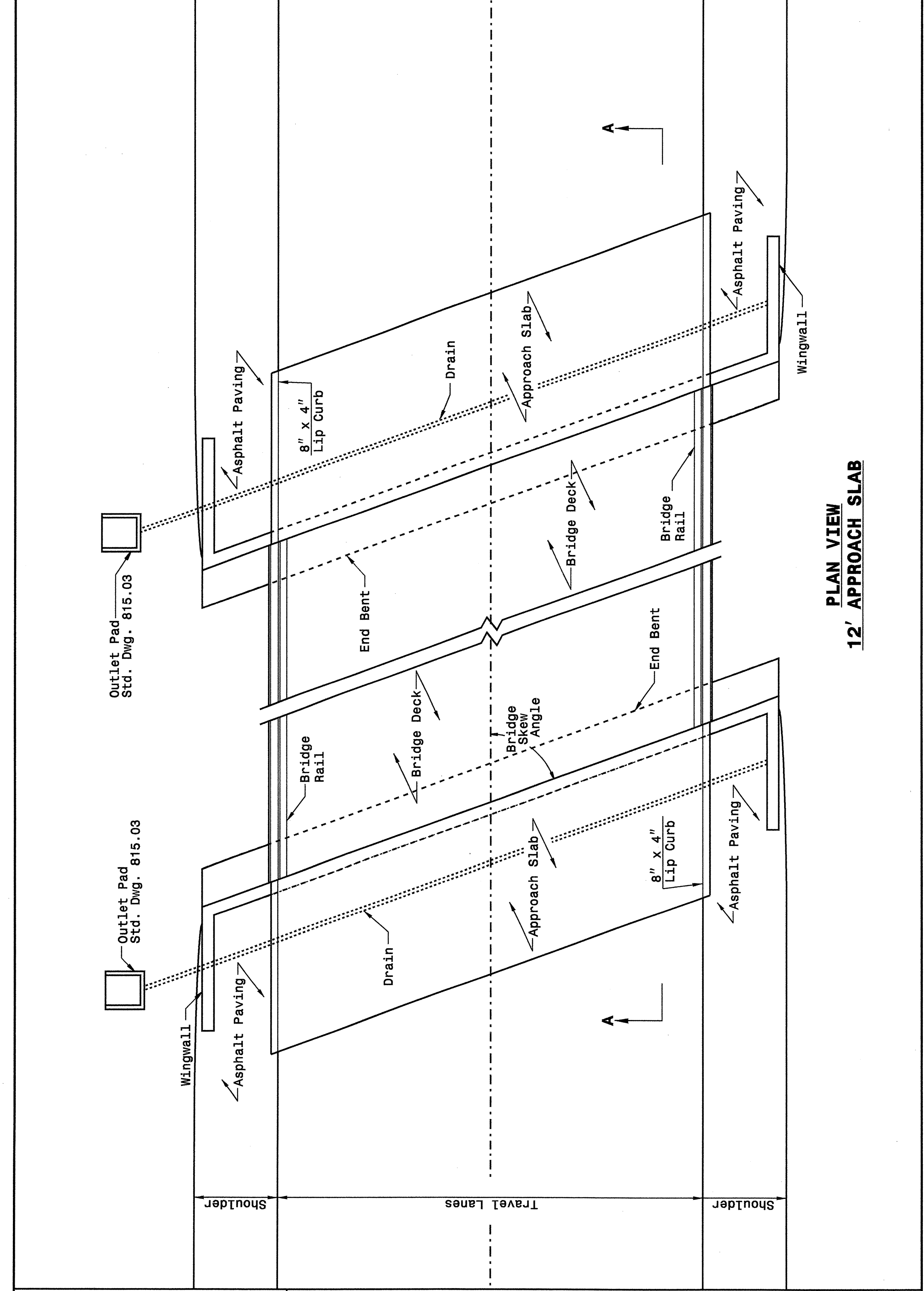
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE

6/2/09
SYSTEMS ENGINEERING

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

ENGLISH DETAIL DRAWING FOR BRIDGE APPROACH FILLS CORED SLAB & BOX BEAM BRIDGES SUB REGIONAL TIER

SHEET 1 OF 2 422D11



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

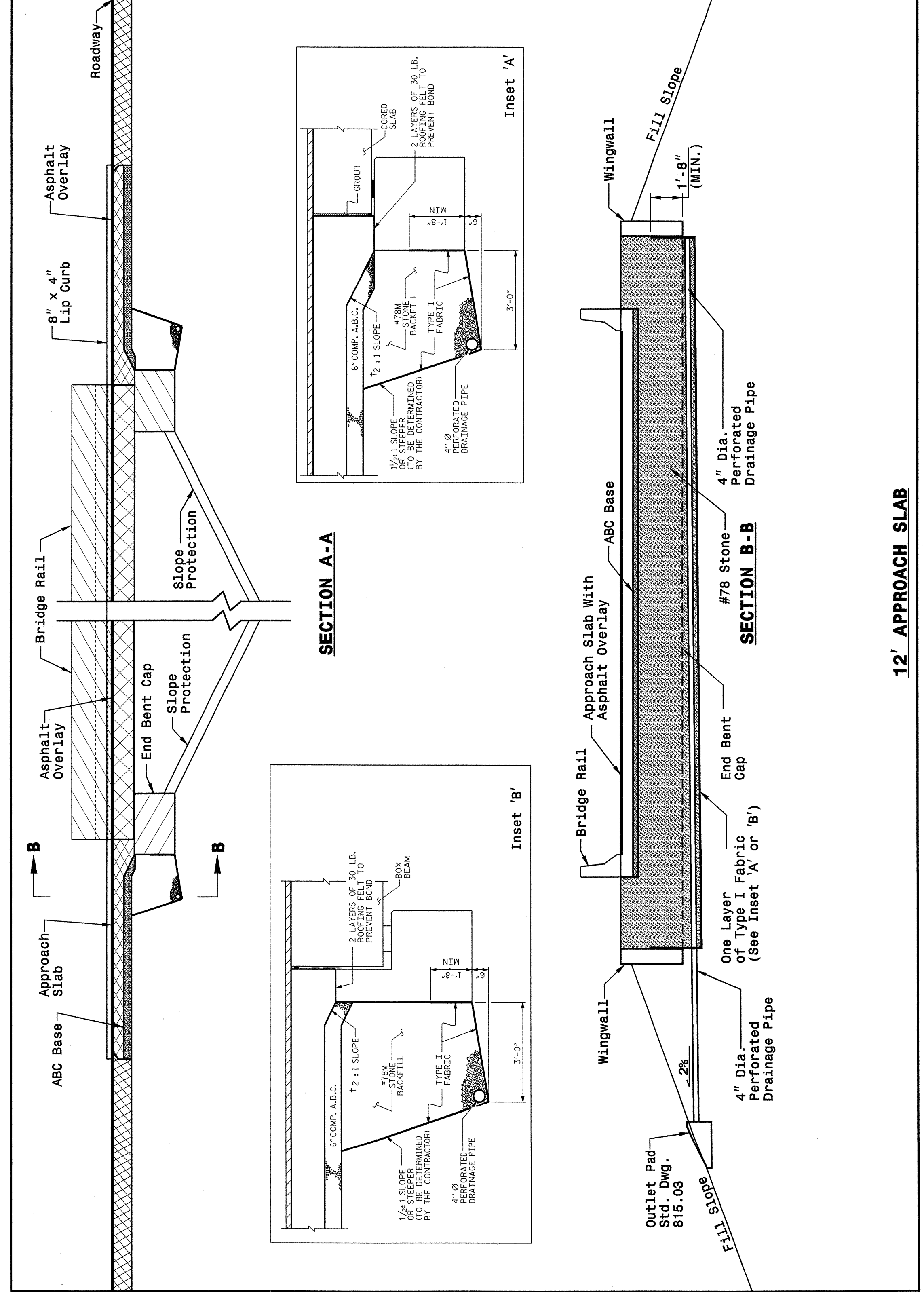
ENGLISH DETAIL DRAWING FOR BRIDGE APPROACH FILLS CORED SLAB & BOX BEAM BRIDGES SUB REGIONAL TIER

SHEET 1 OF 2 422D11

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

ENGLISH DETAIL DRAWING FOR BRIDGE APPROACH FILLS CORED SLAB & BOX BEAM BRIDGES SUB REGIONAL TIER

SHEET 2 OF 2 422D11



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

ENGLISH DETAIL DRAWING FOR BRIDGE APPROACH FILLS CORED SLAB & BOX BEAM BRIDGES SUB REGIONAL TIER

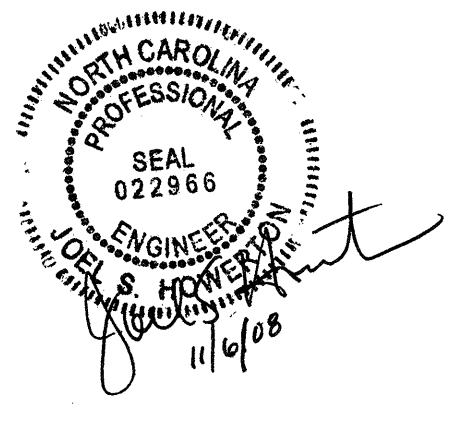
SHEET 2 OF 2 422D11

26-JUN-2008 15:32 s:\contracts\ssg\traces\special details\kempf\english\bridge approach fill.dgn kempf AT P5237489

PROJECT SERVICES UNIT STANDARDS AND SPECIAL DESIGN
Office 919-250-4128 FAX 919-250-4119

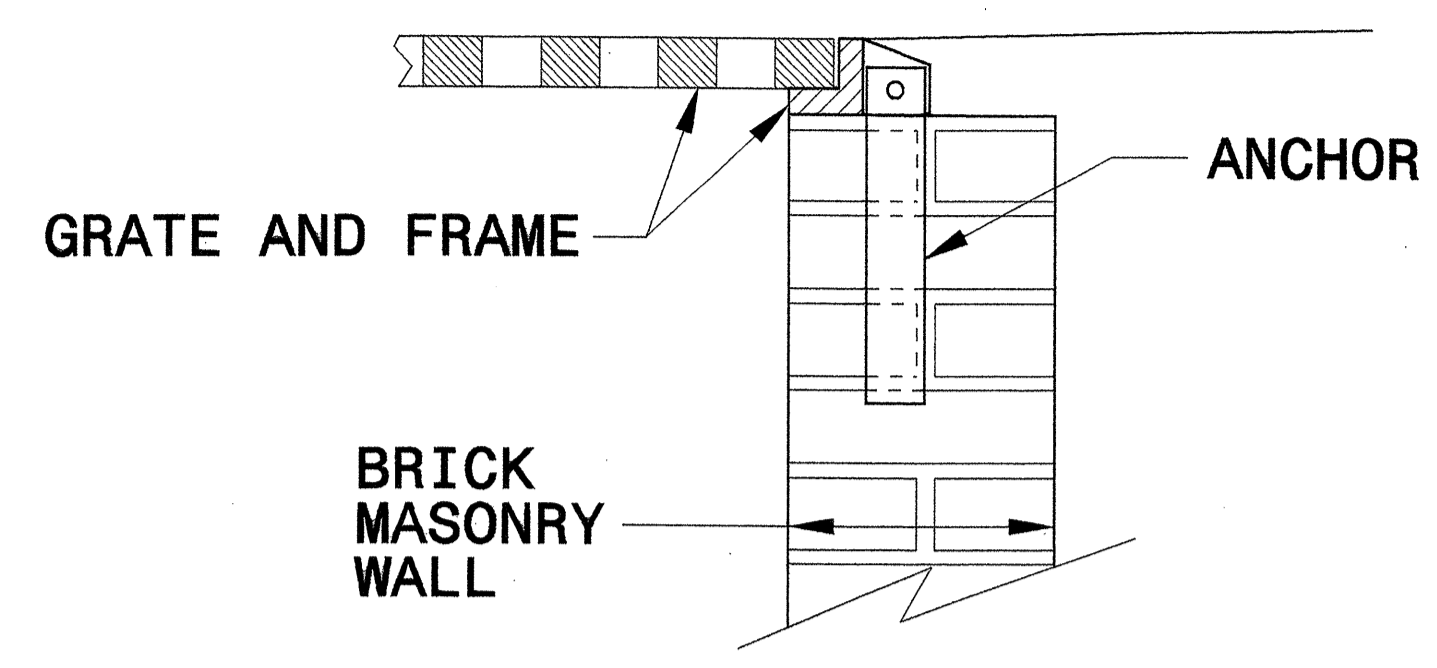
BRIDGE APPROACH FILLS
CORED SLAB & BOX BEAM BRIDGES
SUB REGIONAL TIER

ORIGINAL BY: K. A. Kempf DATE: 6-10-08
MODIFIED BY: *[Signature]* DATE: *[Blank]*
CHECKED BY: *[Signature]* DATE: 4/27/09
FILE SPEC.: kempf\english\bridge approach fills.dgn

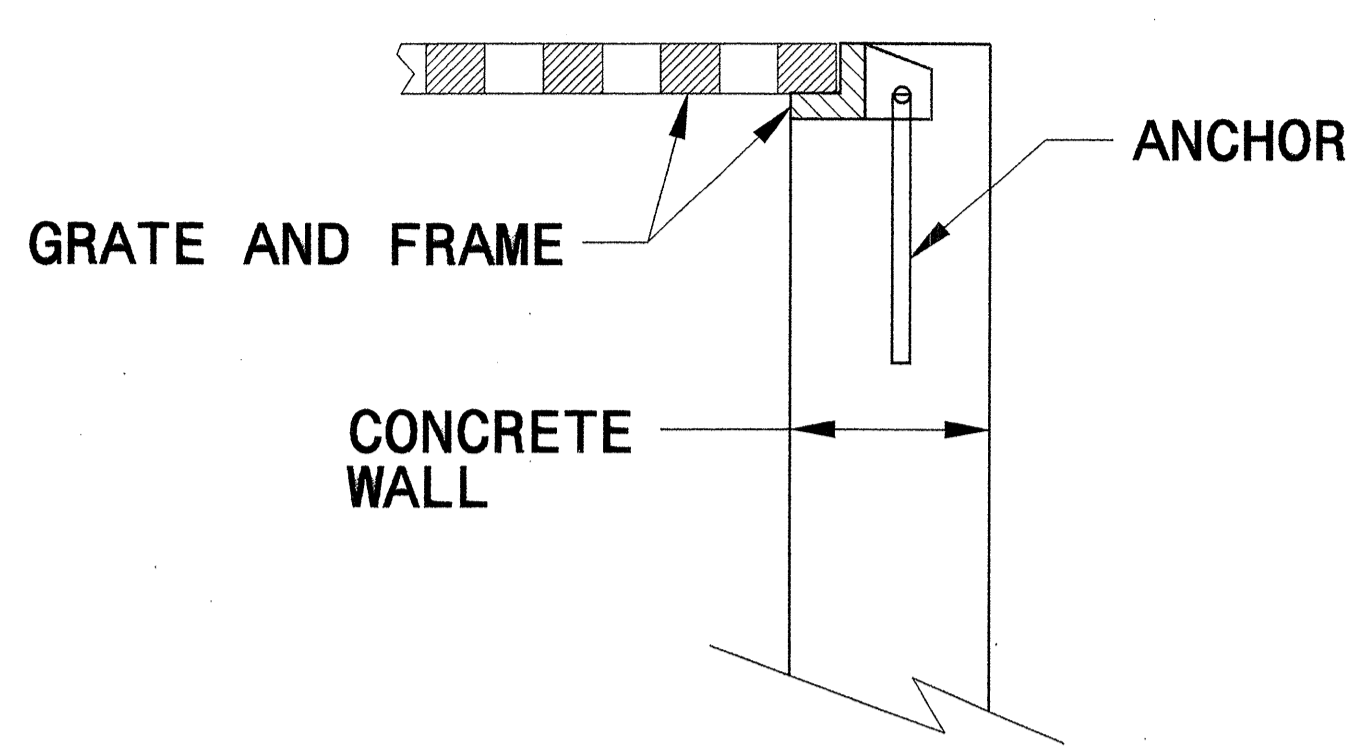


STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

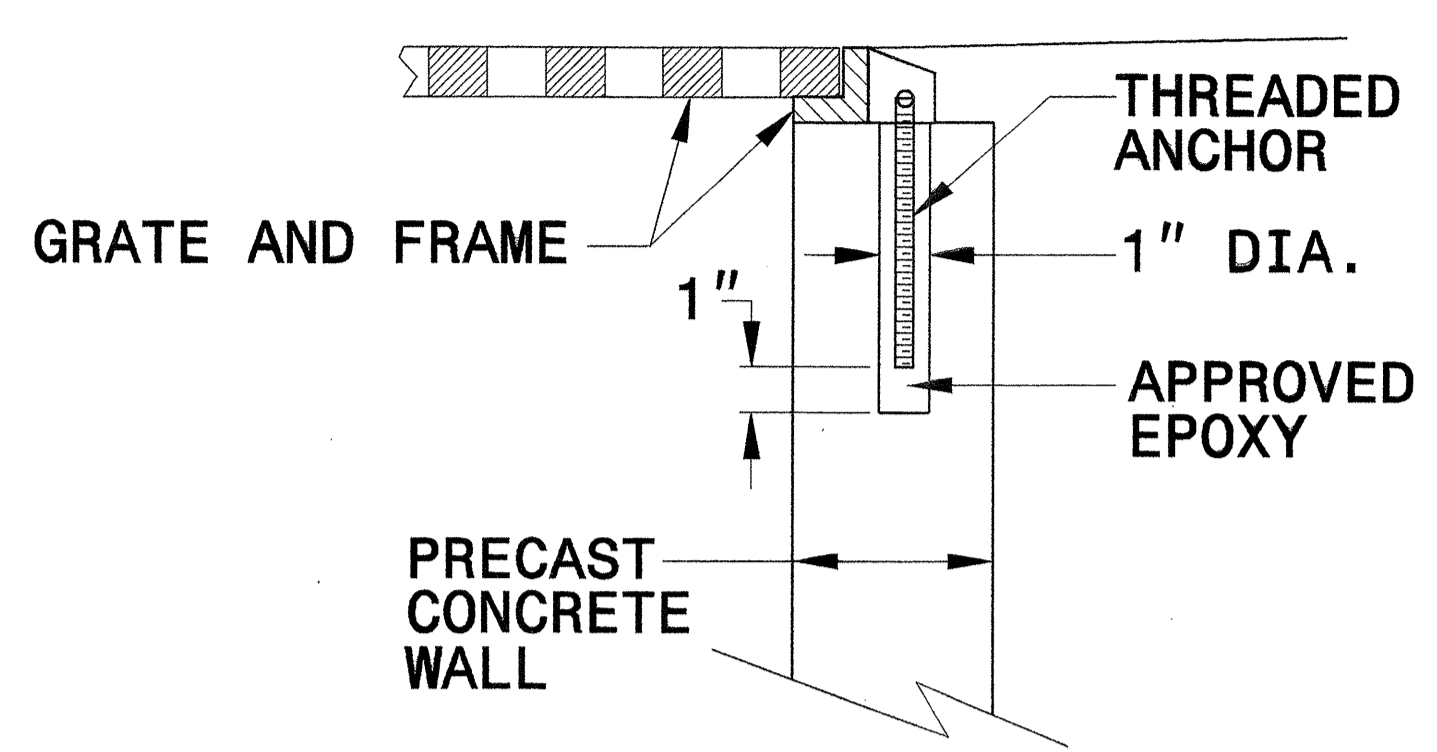
ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE



BRICK MASONRY CONSTRUCTION



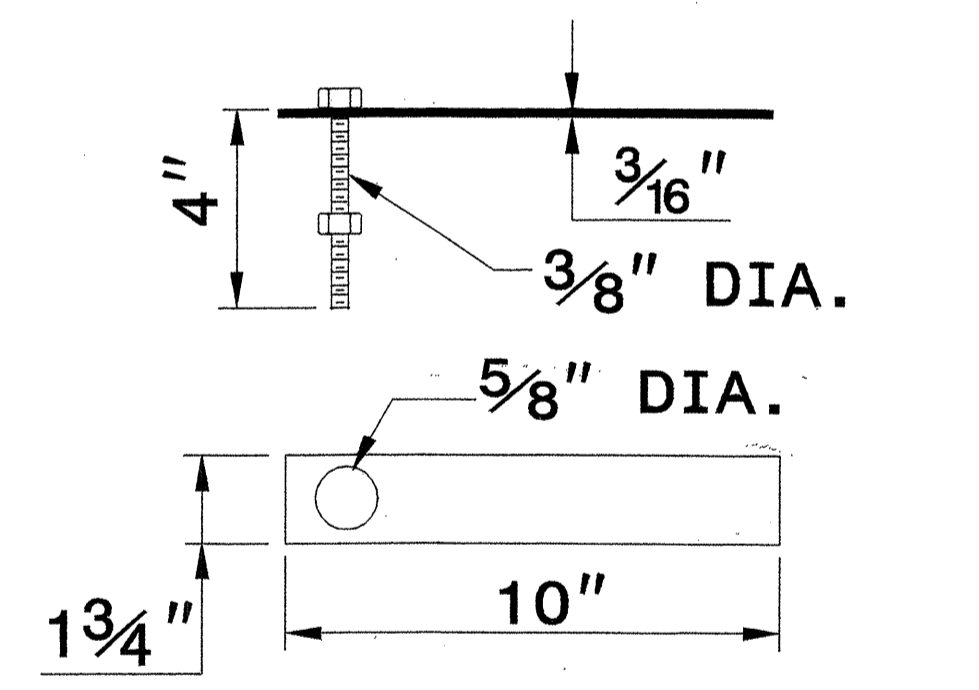
CONCRETE CONSTRUCTION



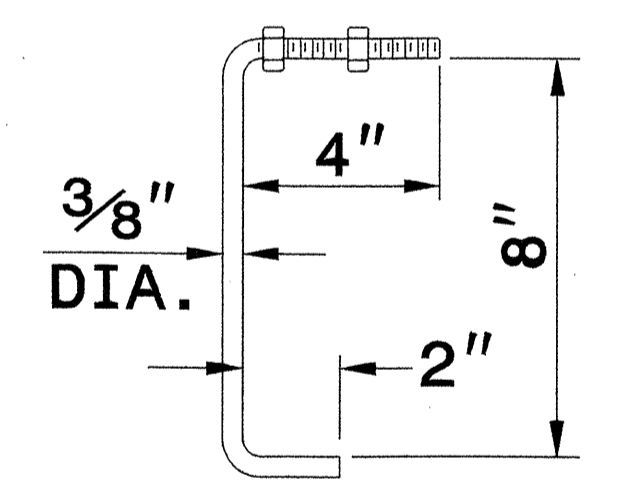
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

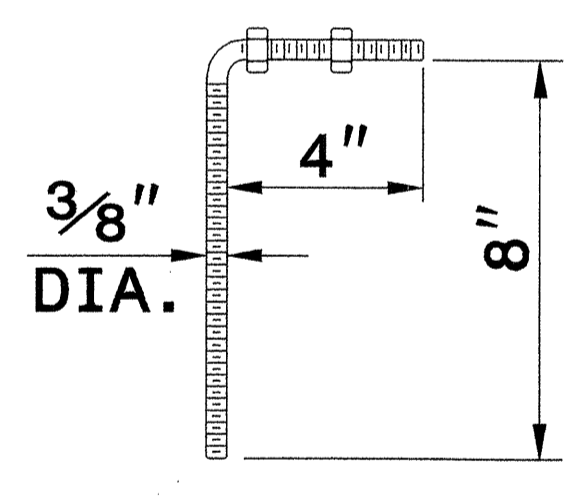
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



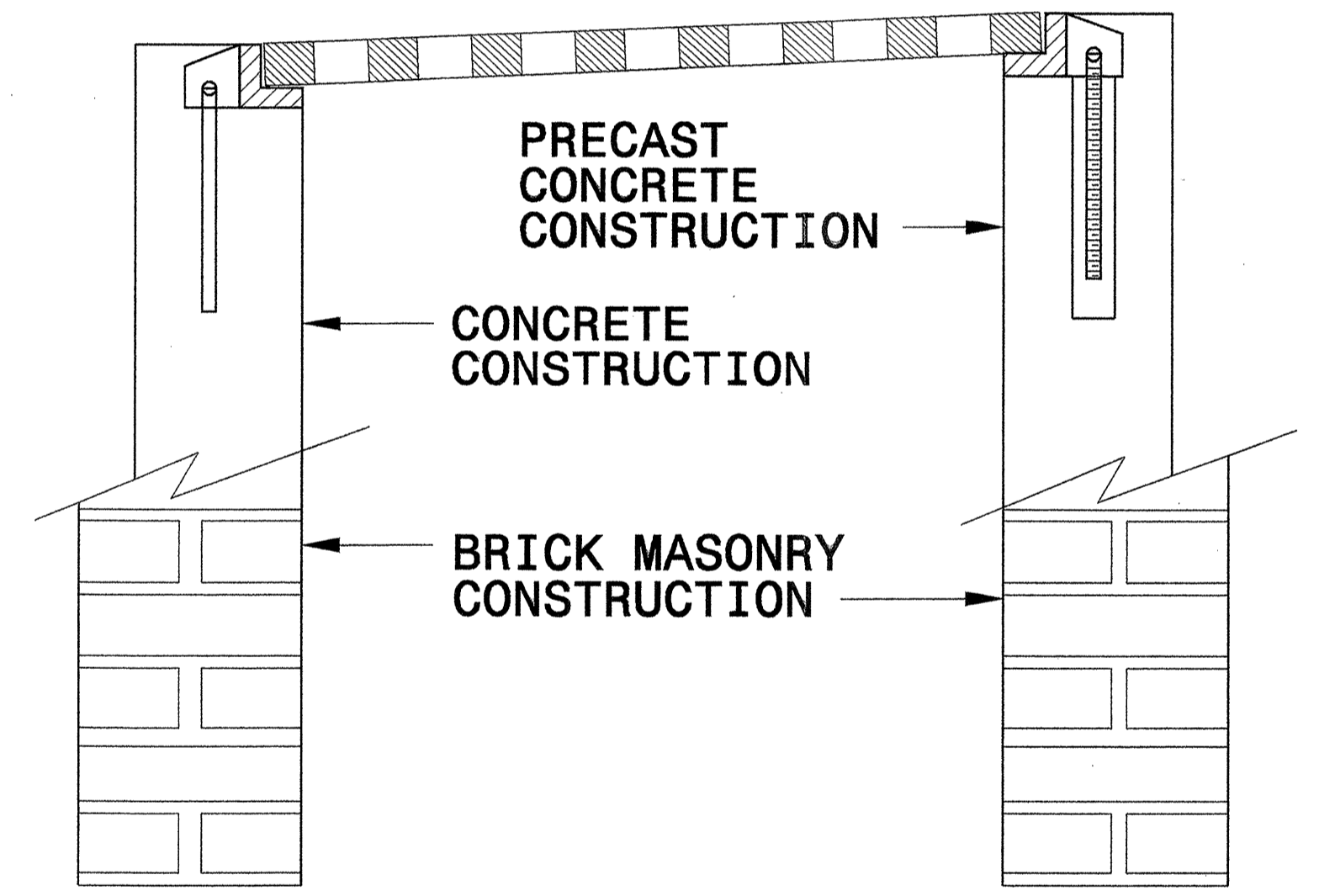
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR



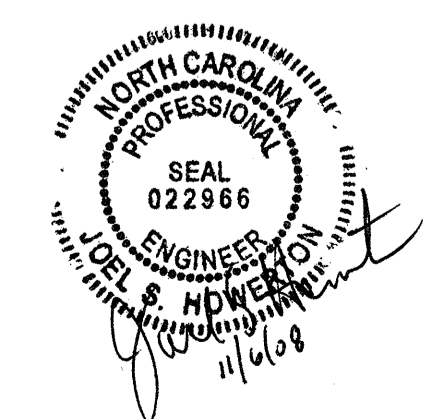
PRECAST CONCRETE ANCHOR
3/8" DIA. BENT BAR



FRAME AND GRATE INSTALLATION FOR NORMAL CROWN AND SUPERELEVATED SECTIONS

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

ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE



**PROJECT SERVICES UNIT
STANDARDS AND SPECIAL DESIGN**
Office 919-250-4128 FAX 919-250-4119

SEE PLATE FOR TITLE

ORIGINAL BY: 2006 STD 840.25	DATE: 07/18/06
MODIFIED BY: E.E. WARD	DATE: 9/25/06
CHECKED BY: [Signature]	DATE:
FILE SPEC.:	

\$\$\$\$\$ SYSTEMS\$\$\$\$\$
\$\$\$\$\$ USER\$\$\$\$\$
\$\$\$\$\$ DATE\$\$\$\$\$
\$\$\$\$\$ TIME\$\$\$\$\$

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202021

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0030000000-N	SP	Lump Sum		BRIDGE APPROACH FILL - SUB REGIONAL TIER, STATION ***** (15+70.50)
0043000000-N	226	Lump Sum		GRADING
0050000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
0057000000-E	226	100	CY	UNDERCUT EXCAVATION
0080000000-E	SP	100	TON	CLASS IV SUBGRADE STABILIZATION
0134000000-E	240	245	CY	DRAINAGE DITCH EXCAVATION
0195000000-E	265	100	CY	SELECT GRANULAR MATERIAL
0196000000-E	270	100	SY	FABRIC FOR SOIL STABILIZATION
0318000000-E	300	5	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
0366000000-E	310	12	LF	15" RC PIPE CULVERTS, CLASS III
0708000000-E	310	20	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
0806000000-E	310	2	EA	15" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK
1489000000-E	610	190	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
1525000000-E	610	150	TON	ASPHALT CONC SURFACE COURSE, TYPE SF9.5A
1560000000-E	620	20	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
2022000000-E	815	45	CY	SUBDRAIN EXCAVATION
2033000000-E	815	35	CY	SUBDRAIN FINE AGGREGATE
2044000000-E	815	200	LF	6" PERFORATED SUBDRAIN PIPE
2055000000-E	815	6	EA	6" SUBDRAIN PIPE WYES, TEES, & ELBOWS
2066000000-N	815	1	EA	CONCRETE PAD FOR SUBDRAIN PIPE OUTLET
2077000000-E	815	6	LF	6" OUTLET PIPE (SUBDRAINS)
2286000000-N	840	2	EA	MASONRY DRAINAGE STRUCTURES

ItemNumber	Sec #	Quantity	Unit	Description
2367000000-N	840	2	EA	FRAME WITH TWO GRATES, STD 840.29
2556000000-E	846	72	LF	SHOULDER BERM GUTTER
3030000000-E	862	150	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
3628000000-E	876	16	TON	RIP RAP, CLASS I
3649000000-E	876	3	TON	RIP RAP, CLASS B
3656000000-E	876	285	SY	FILTER FABRIC FOR DRAINAGE
4400000000-E	1110	221	SF	WORK ZONE SIGNS (STATIONARY)
4410000000-E	1110	84	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4445000000-E	1145	48	LF	BARRICADES (TYPE III)
4810000000-E	1205	3,440	LF	PAINT PAVEMENT MARKING LINES (4")
6000000000-E	1605	200	LF	TEMPORARY SILT FENCE
6006000000-E	1610	120	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	120	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	40	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	1	ACR	TEMPORARY MULCHING
6018000000-E	1620	50	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	1.25	TON	FERTILIZER FOR TEMPORARY SEEDING
6029000000-E	SP	180	LF	SAFETY FENCE
6030000000-E	1630	300	CY	SILT EXCAVATION
6036000000-E	1631	850	SY	MATTING FOR EROSION CONTROL
6037000000-E	SP	25	SY	COIR FIBER MAT
6042000000-E	1632	40	LF	1/4" HARDWARE CLOTH
6071030000-E	SP	200	LF	COIR FIBER BAFFLES

ItemNumber	Sec #	Quantity	Unit	Description
6071050000-E	SP	4	EA	*** SKIMMER (1-1/2")
6084000000-E	1660	6.5	ACR	SEEDING & MULCHING
6087000000-E	1660	0.5	ACR	MOWING
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
6096000000-E	1662	50	LB	SEED FOR SUPPLEMENTAL SEEDING
6108000000-E	1665	0.5	TON	FERTILIZER TOPDRESSING
6114000000-N	SP	5	HR	SPECIALIZED HAND MOWING
6117000000-N	SP	12	EA	RESPONSE FOR EROSION CONTROL

5/28/99
SYNTHETIC
PAPER

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK
 IN CUBIC YARDS

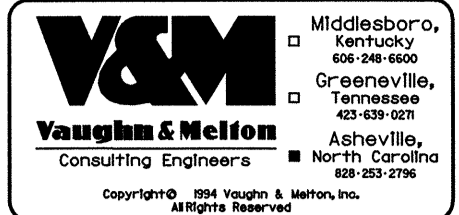
LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
SUMMARY NO.1					
-L- STA. 13+60 TO STA. 15+43.00 (BEG. BRIDGE)	3		161	158	
SUBTOTAL SUMMARY NO.1	3		161	158	
SUMMARY NO.2					
-L- STA. 15+98.00 (END BRIDGE) TO STA. 17+90	29		256	227	
SUBTOTAL SUMMARY NO.2	29		256	227	
PROJECT TOTAL	32		417	385	
EST. 5% FOR REPLACING TOP SOIL ON BORROW PITS				20	
GRAND TOTAL	32		417	405	
SAY	35			425	
EST. DDE = 245 CY					

CONTINGENCY ITEMS:
 UNDERCUT = 100 CY
 SELECT GRANULAR MATERIAL = 100 CY
 CLASS IV SUBGRADE STABILIZATION = 100 TONS

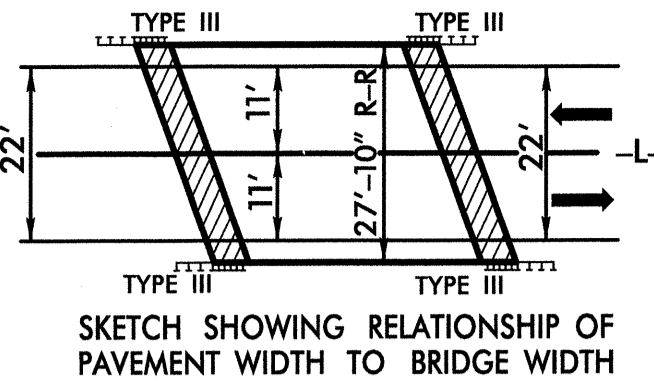
NOTE: Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

Approximate quantities only. Unclassified excavation, borrow excavation, fine grading, clearing and grubbing, and removal of existing pavement will be paid for at the contract lump sum price for "grading".

8/17/99



Professional Engineer seals for Courtney S. Conroy and Kathryn Hicks, dated 10/24/08 and 10/27/08.



SEE SHEETS S-1 THRU S-17 FOR STRUCTURE PLANS

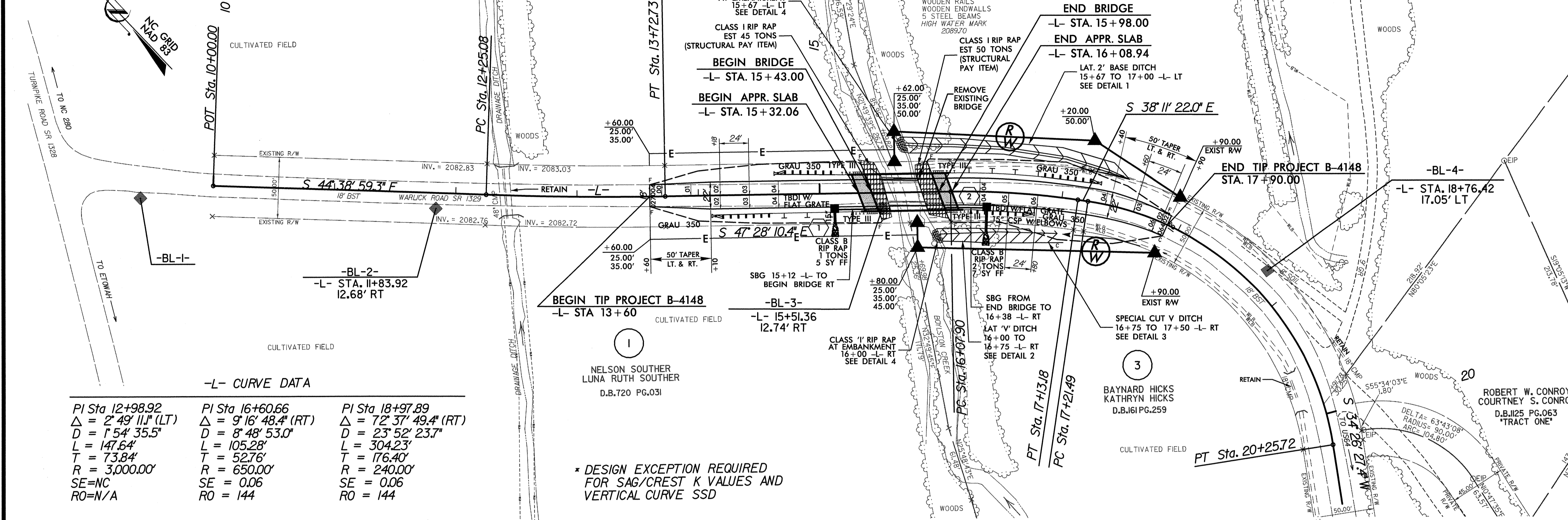
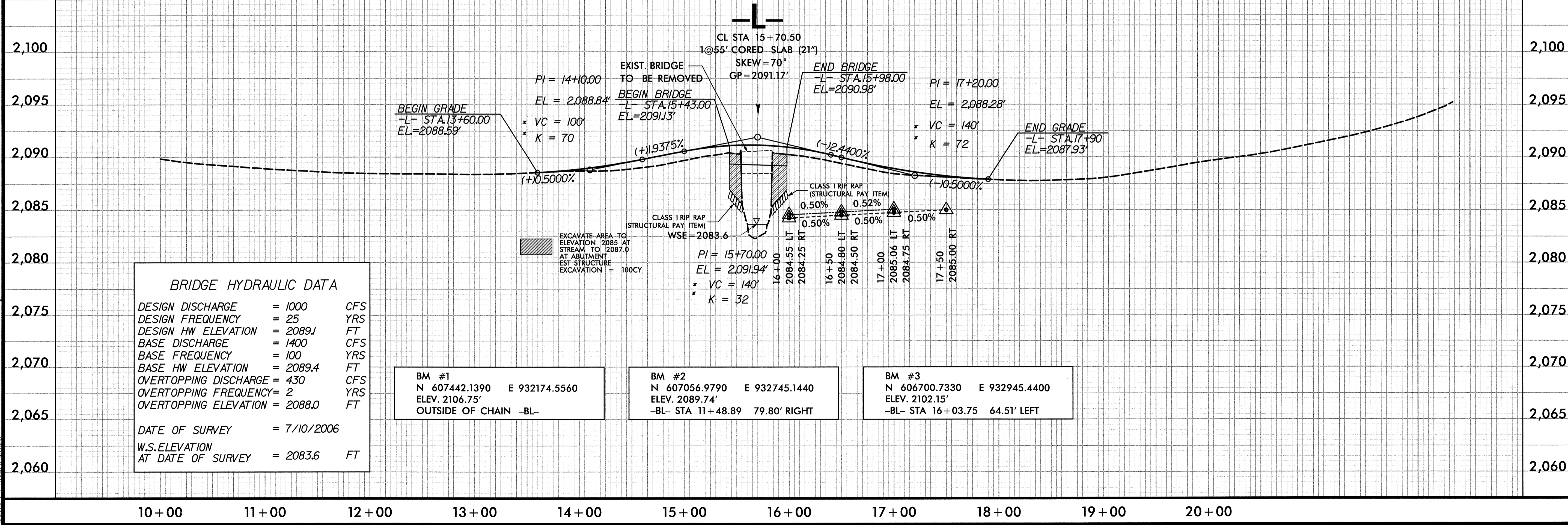


Table with 3 columns of curve data for stations 12+98.92, 16+60.66, and 18+97.89, including PI, Δ, D, L, T, R, SE, and RO values.

* DESIGN EXCEPTION REQUIRED FOR SAG/CREST K VALUES AND VERTICAL CURVE SSD

Four detail drawings: DETAIL 1 LATERAL BASE DITCH, DETAIL 2 LATERAL V DITCH, DETAIL 3 SPECIAL CUT DITCH, and DETAIL 4 RIP RAP AT EMBANKMENT.

REVISIONS



BRIDGE HYDRAULIC DATA table listing design discharge, frequency, base discharge, overtopping discharge, and survey information.

Table for BM #1: N 607442.1390, E 932174.5560, ELEV. 2106.75', OUTSIDE OF CHAIN -BL-

Table for BM #2: N 607056.9790, E 932745.1440, ELEV. 2089.74', -BL- STA 11 + 48.89 79.80' RIGHT

Table for BM #3: N 606700.7330, E 932945.4400, ELEV. 2102.15', -BL- STA 16 + 03.75 64.51' LEFT

VERTICAL CURVE DATA