

09/08/09

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

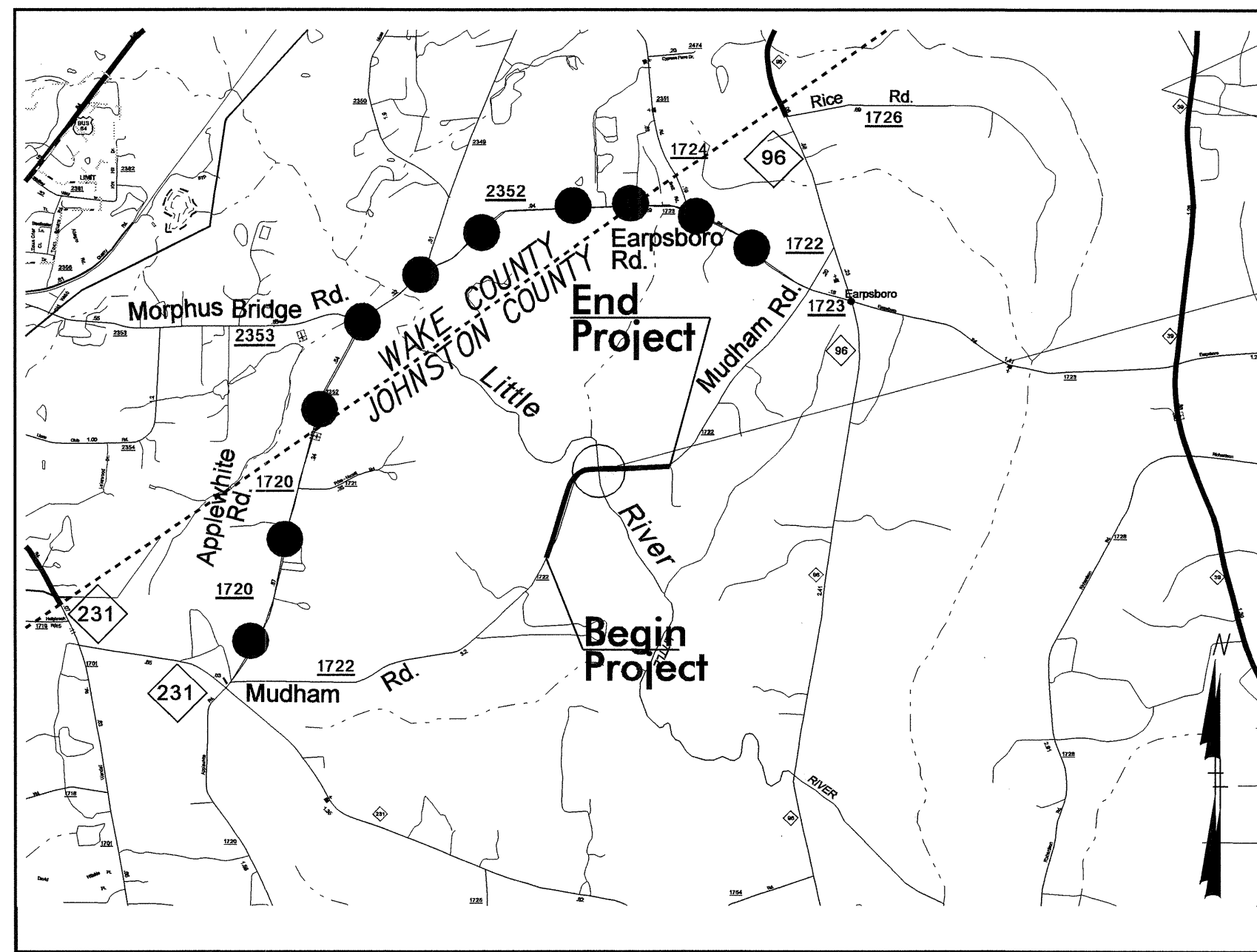
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

JOHNSTON COUNTY

**LOCATION: REPLACEMENT OF BRIDGE NO. 151 ON SR 1722
OVER LITTLE RIVER**

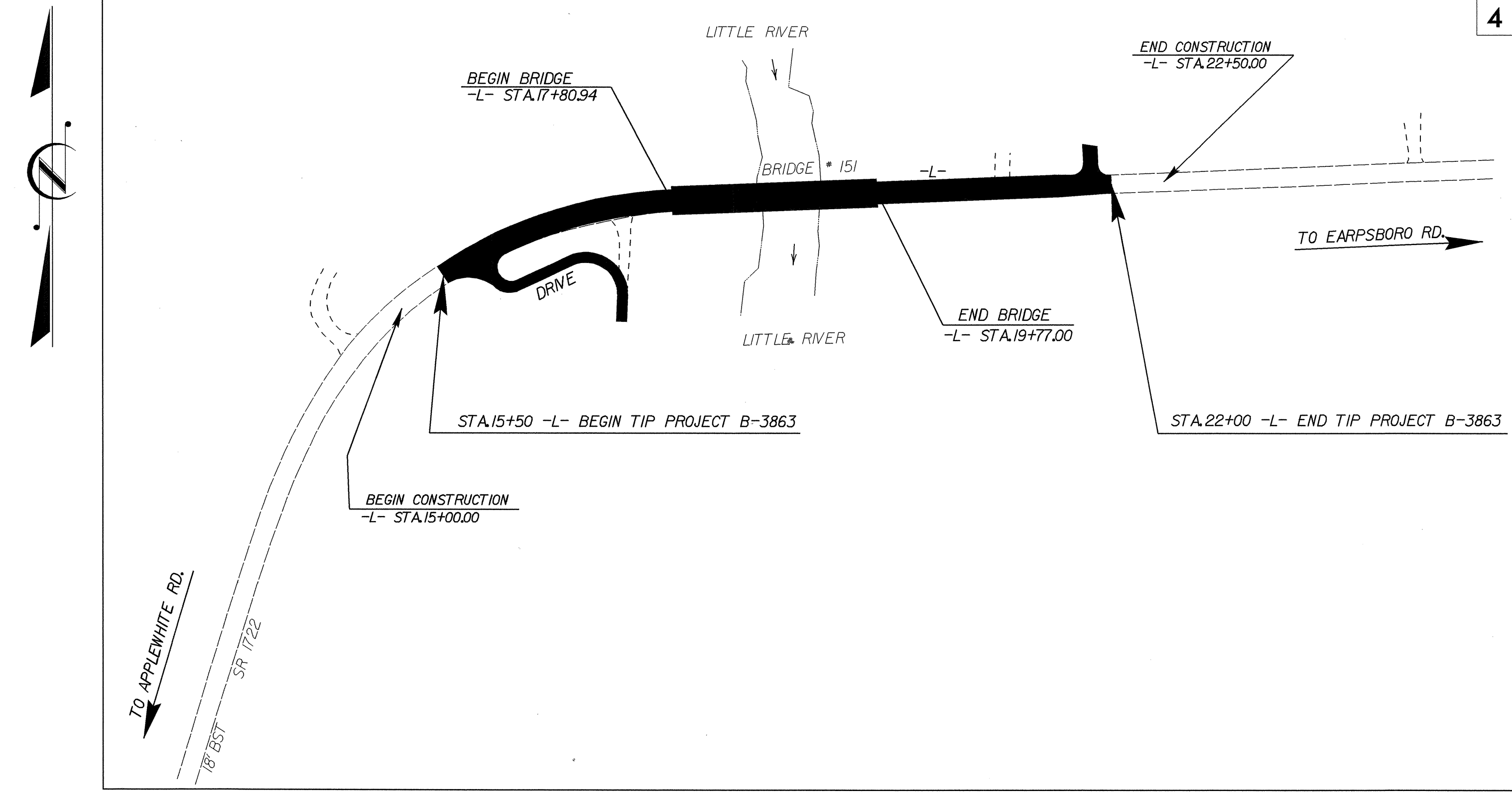
**TYPE OF WORK: RESURFACING, PAVING, GRADING, DRAINAGE,
STRUCTURE, AND STRUCTURE REMOVAL**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3863	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33309.1.1	BRZ-1722 (2)	P.E.	
33309.2.1	BRZ-1722 (2)	RW, UTIL.	
33309.3.1	BRZ-1722 (2)	CONST.	



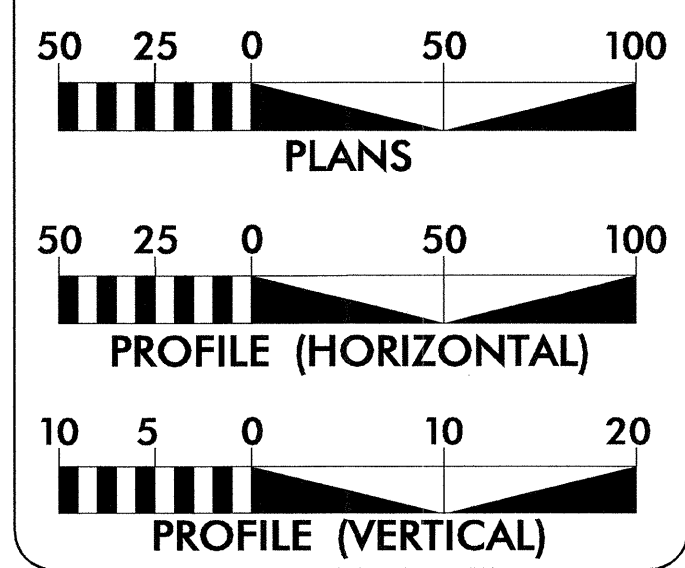
VICINITY MAP

● ● ● ● ●
DENOTES OFF-SITE DETOUR



THIS IS NOT A CONTROLLED-ACCESS PROJECT

GRAPHIC SCALES



DESIGN DATA

ADT 2005 = 640
ADT 2025 = 1200
DHV = 11 %
D = 60 %
T = 3 % *
V = 35 MPH
*TTST 1% DUAL 2%
FUNC CLASS = LOCAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-3863 = 0.086 MI
LENGTH STRUCTURE TIP PROJECT B-3863 = 0.037 MI
TOTAL LENGTH OF TIP PROJECT B-3863 = 0.123 MI

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JULY 25, 2006

LETTING DATE:
JULY 17, 2007

JIMMY GOODNIGHT, PE
PROJECT ENGINEER

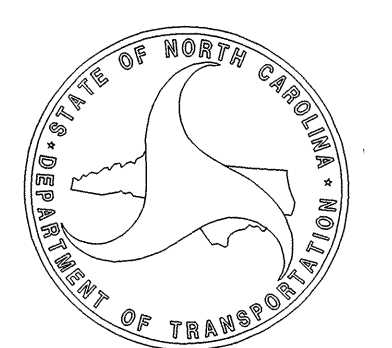
TIM GOINS
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

Signature: *[Signature]*
Seal: PAUL ATKINSON, ENGINEER, SEAL 19660

Signature: *[Signature]*
Seal: JIMMY GOODNIGHT, JR., PROFESSIONAL ENGINEER, SEAL 14493
5-21-07

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



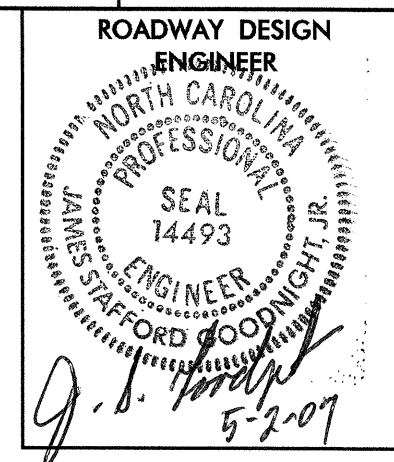
Signature: *[Signature]*
STATE HIGHWAY DESIGN ENGINEER

31-MAY-2007 08:23
V:\p09cwgq\proj\01\B3863_rdy_tsh.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$

TIP PROJECT: B-3863

CONTRACT: C.201643

8/17/99



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
1-D	CENTERLINE COORDINATE LIST SHEET
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND DETAIL OF ASPHALT WEARING SURFACE ON APPROACH SLAB
2-A	DETAIL OF ANCHORAGE FOR FRAMES
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF DRAINAGE QUANTITIES GUARDRAIL SUMMARY, PAVEMENT REMOVAL SUMMARY, EARTHWORK SUMMARY
4	PLAN SHEET
5	PROFILE SHEET
TCP-1 THRU TCP-4	TRAFFIC CONTROL PLANS
RF-1 THRU RF-1	REFORESTATION PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-3	SIGNING PLANS
X-1	CROSS SECTION SUMMARY
X-2 THRU X-6	CROSS-SECTIONS
S-1 THRU S-25	STRUCTURE PLANS

GENERAL NOTES: 2006 SPECIFICATIONS
EFFECTIVE: 07-18-06
REVISED: 07-18-06

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 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.

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.

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.
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.

2006 ROADWAY STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated July 18, 2006 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 - Method 'A'
310.10	Driveway Pipe Construction
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	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
815.03	Pipe Underdrain and Blind Drain
816.04	Markers for Drainage Structure and Concrete Pad
840.00	Concrete Base Pad for Drainage Structures
840.18	Concrete Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.27	Brick Grated Drop Inlet Type 'B' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.45	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

EFF. 07-18-06
REV. 01-02-07

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	②③
Existing Fence Line	-----
Proposed Woven Wire Fence	-----
Proposed Chain Link Fence	-----
Proposed Barbed Wire Fence	-----
Existing Wetland Boundary	----- WLB
Proposed Wetland Boundary	----- WLB
Existing High Quality Wetland Boundary	----- HD WLB
Existing Endangered Animal Boundary	----- EAB
Existing Endangered Plant Boundary	----- EPB

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	-----
River Basin Buffer	----- RBB
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	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Utility Easement	-----

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Wheel Chair Ramp	-----
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	□ 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	○
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-3863

CONTROL DATA

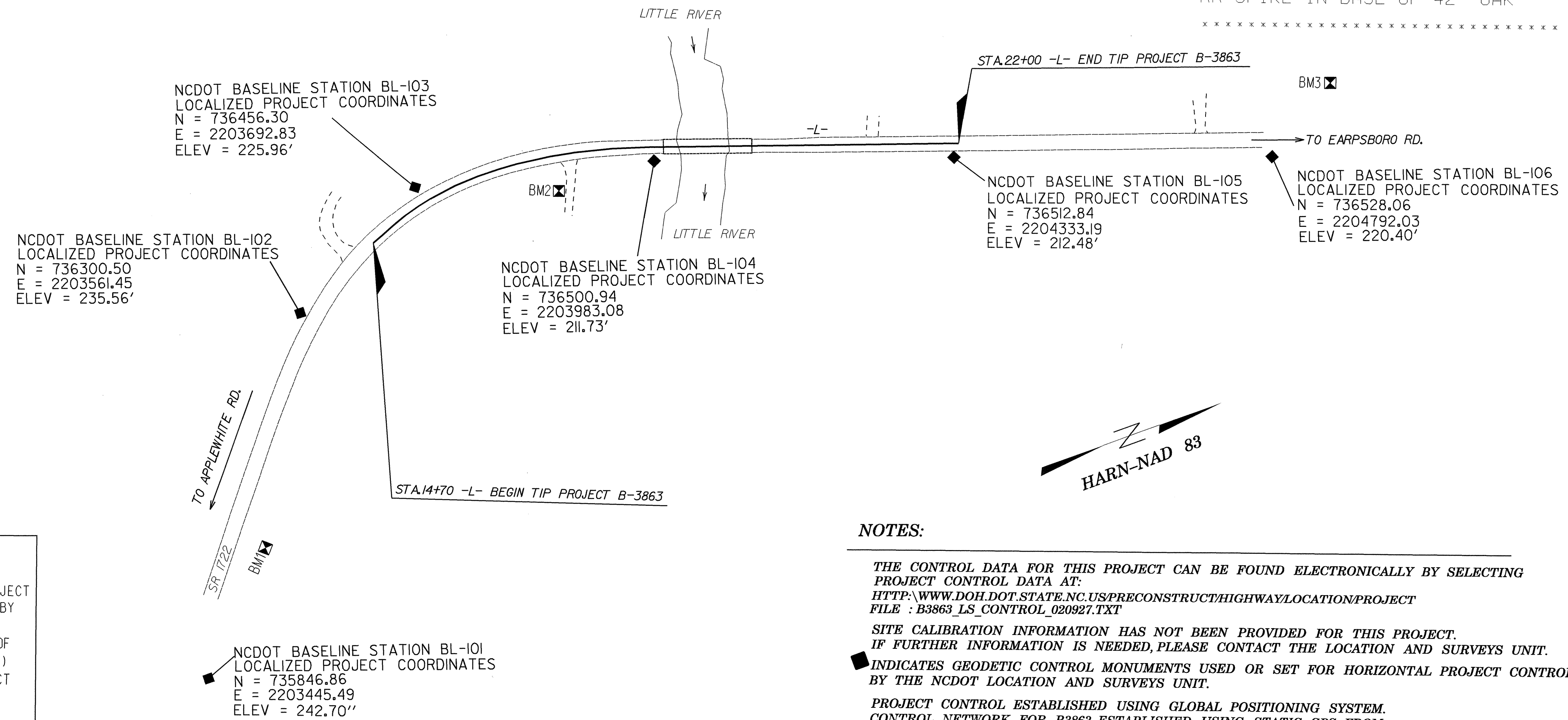
BL POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
101	BL-101	735846.8690	2203445.4940	242.70'	OUTSIDE PROJECT LIMITS	
102	BL-102	736300.5050	2203561.4550	235.56'	13+51.45	14.50 LT
103	BL-103	736456.3030	2203692.8310	225.96'	15+48.44	21.99 LT
104	BL-104	736500.9440	2203983.0890	211.73'	18+40.68	12.46 RT
105	BL-105	736512.8460	2204333.1900	212.48'	21+90.97	14.23 RT
106	BL-106	736528.0690	2204792.0360	220.40'	OUTSIDE PROJECT LIMITS	

BENCHMARK DATA

 BM#1 ELEVATION = 240.49
 N 735979 E 2203530
 L STATION 10+37 60 RIGHT
 RR SPIKE IN BASE OF 15" PINE

 BM#2 ELEVATION = 213.18
 N 736448 E 2203863
 L STATION 17+08 55 RIGHT
 RR SPIKE IN BASE OF 20" POPULAR

 BM#3 ELEVATION = 225.07
 N 736635 E 2204851
 OUTSIDE PROJECT LIMITS
 RR SPIKE IN BASE OF 42" OAK



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "GPS B3863-2" WITH HARN-NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 734877.553(±) EASTING: 2203096.779(±) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99990483 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "GPS B3863-2" TO -L- 14+70 STATION IS N 19°47'10.97" E 1030.13'

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

NOTES:

- 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)
 FILE : B3863_LS_CONTROL_020927.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. CONTROL NETWORK FOR B3863 ESTABLISHED USING STATIC GPS FROM NCGS HARN MONUMENTATION.

NOTE: DRAWING NOT TO SCALE

Disclaimer: This coordinate list is provided for the convenience of interested contractors and is intended for use during the project bidding process only. Coordinates are localized to this particular project and any conversion to state grid coordinates or other formats will be the responsibility of the recipient. While every effort has been made to provide up-to-date, accurate information, NCDOT makes no express guarantee as to the validity or potential for revision of this information prior to project letting.

CENTERLINE COORDINATE LIST

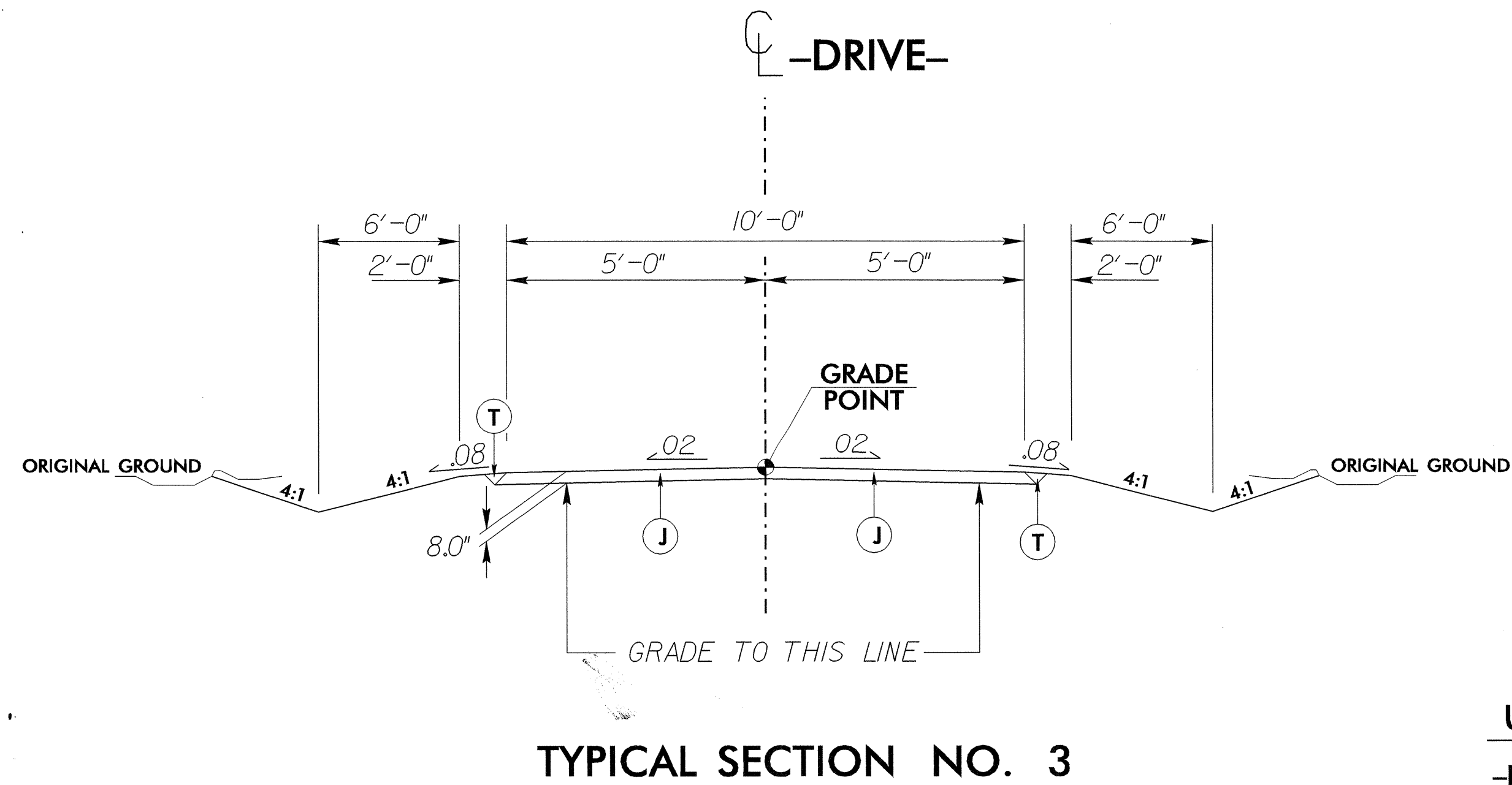
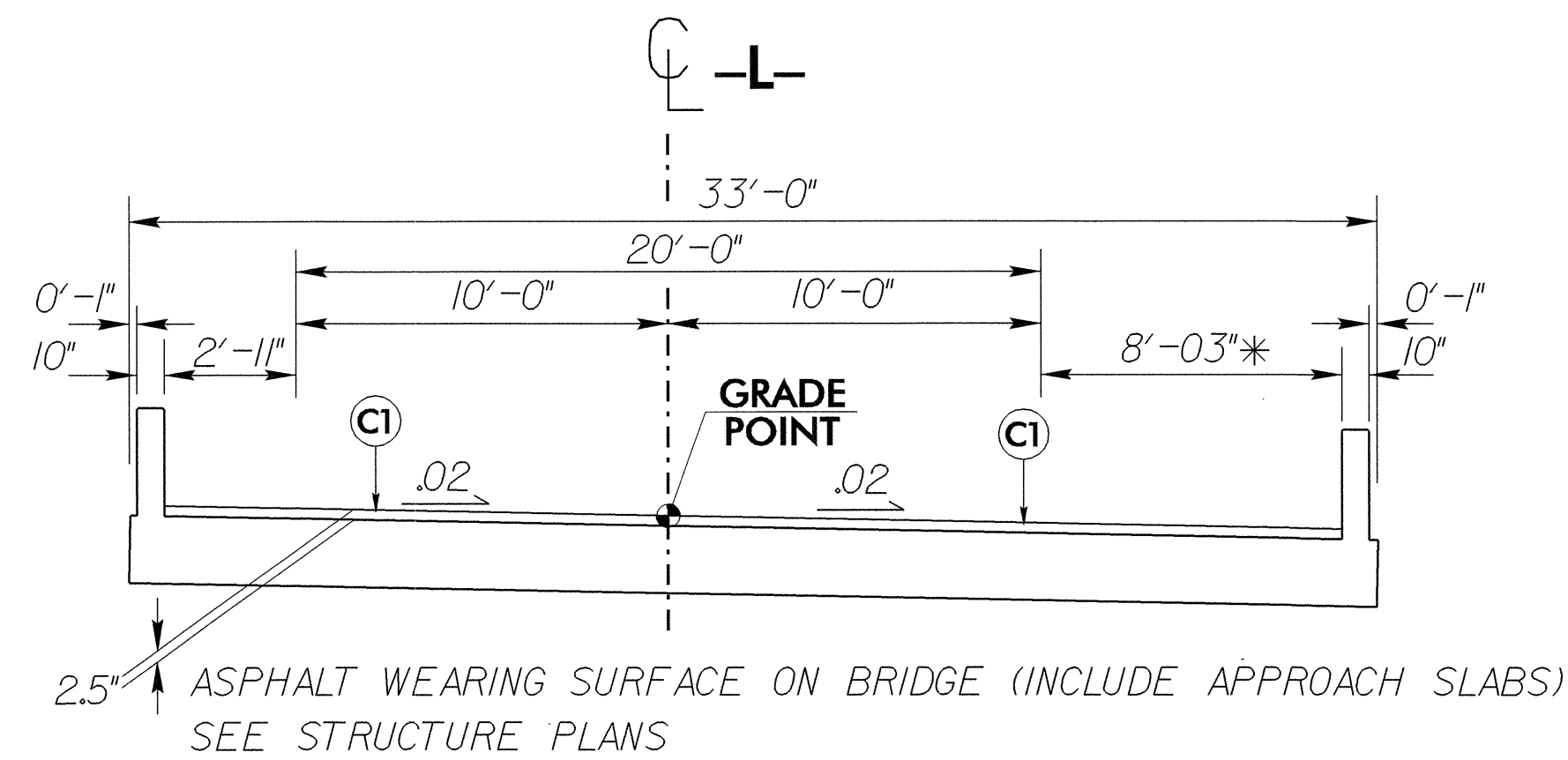
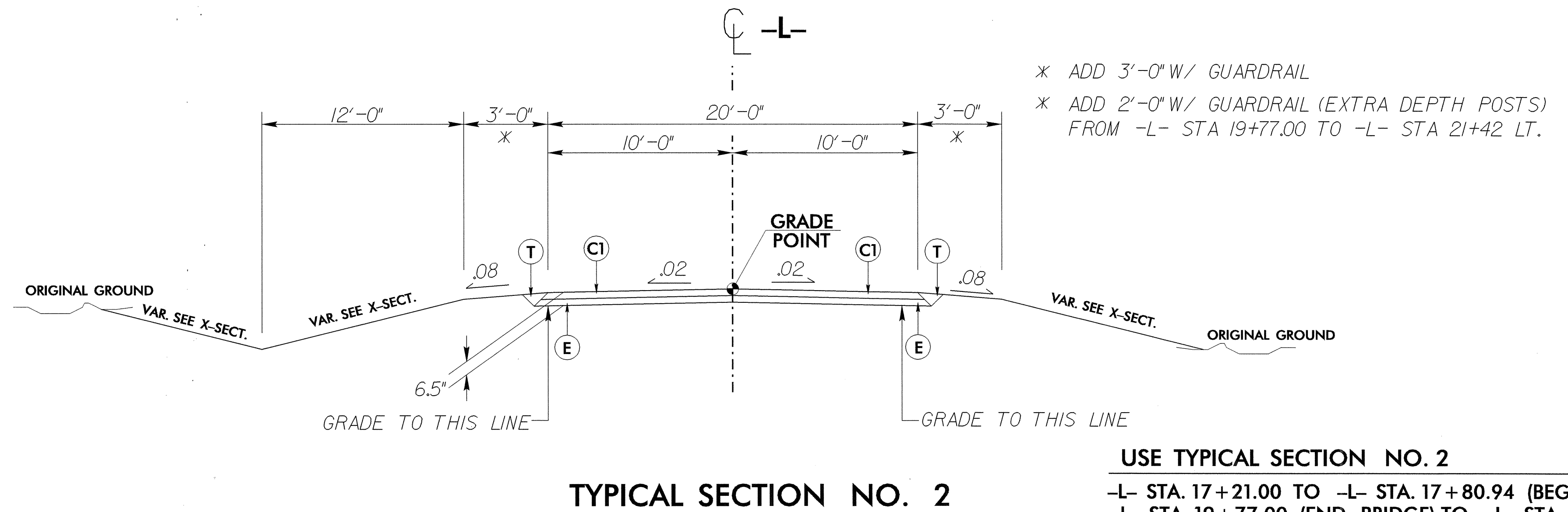
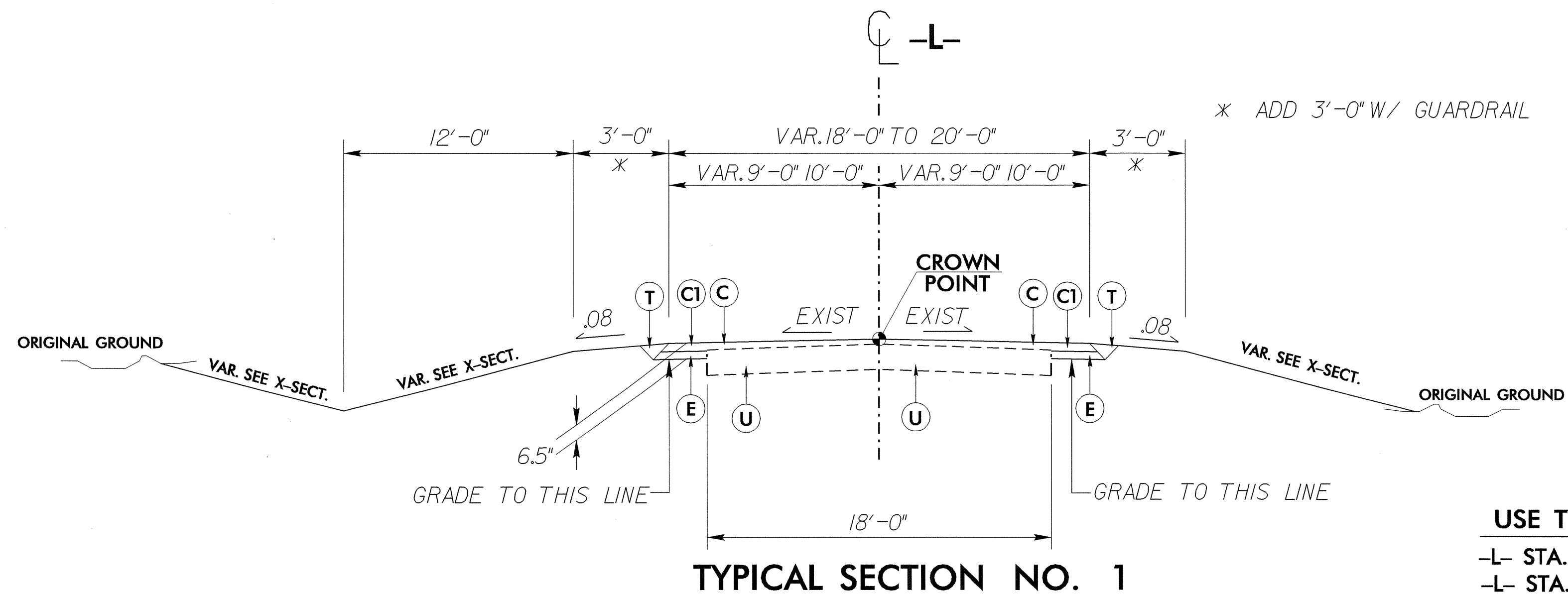
Point #	Chain	Station	Northing(Y)	Easting(X)
1	L	10 + 00.00	735961.2479	2203461.0498
2	L	11 + 00.00	736056.6327	2203491.0790
3	L	12 + 00.00	736152.0174	2203521.1083
4	L	13 + 00.00	736247.0263	2203552.2354
5	L	14 + 00.00	736334.6545	2203599.9235
6	L	15 + 00.00	736408.5632	2203666.9336
7	L	16 + 00.00	736464.5824	2203749.4848
8	L	17 + 00.00	736499.5514	2203842.9193
9	L	18 + 00.00	736511.8015	2203941.9575
10	L	19 + 00.00	736515.7066	2204041.8812
11	L	20 + 00.00	736519.6117	2204141.8049
12	L	21 + 00.00	736523.5168	2204241.7287
13	L	22 + 00.00	736527.4219	2204341.6524
14	L	23 + 00.00	736531.3270	2204441.5761
15	L	24 + 00.00	736535.2321	2204541.4998
16	L	25 + 00.00	736539.1372	2204641.4235
17	L	25 + 00.01	736539.1376	2204641.4335
18	L	25 + 00.01	736539.1376	2204641.4335

6/2/99

PAVEMENT SCHEDULE

C	PROP. APPROX. 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.
C1	PROP. APPROX. 2.5" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
G2	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.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E1	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.
J	8" AGGREGATE BASE COURSE
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.

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



PROJECT REFERENCE NO. B-3863	SHEET NO. 2
ROADWAY DESIGN ENGINEER <i>[Signature]</i>	PAVEMENT DESIGN ENGINEER <i>[Signature]</i>
SEAL 14493 NORTH CAROLINA PROFESSIONAL ENGINEER	SEAL 22896 NORTH CAROLINA PROFESSIONAL ENGINEER

03-MAY-2007 12:56 B:\SERIALS\3863.rdl - tjp.dgn

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

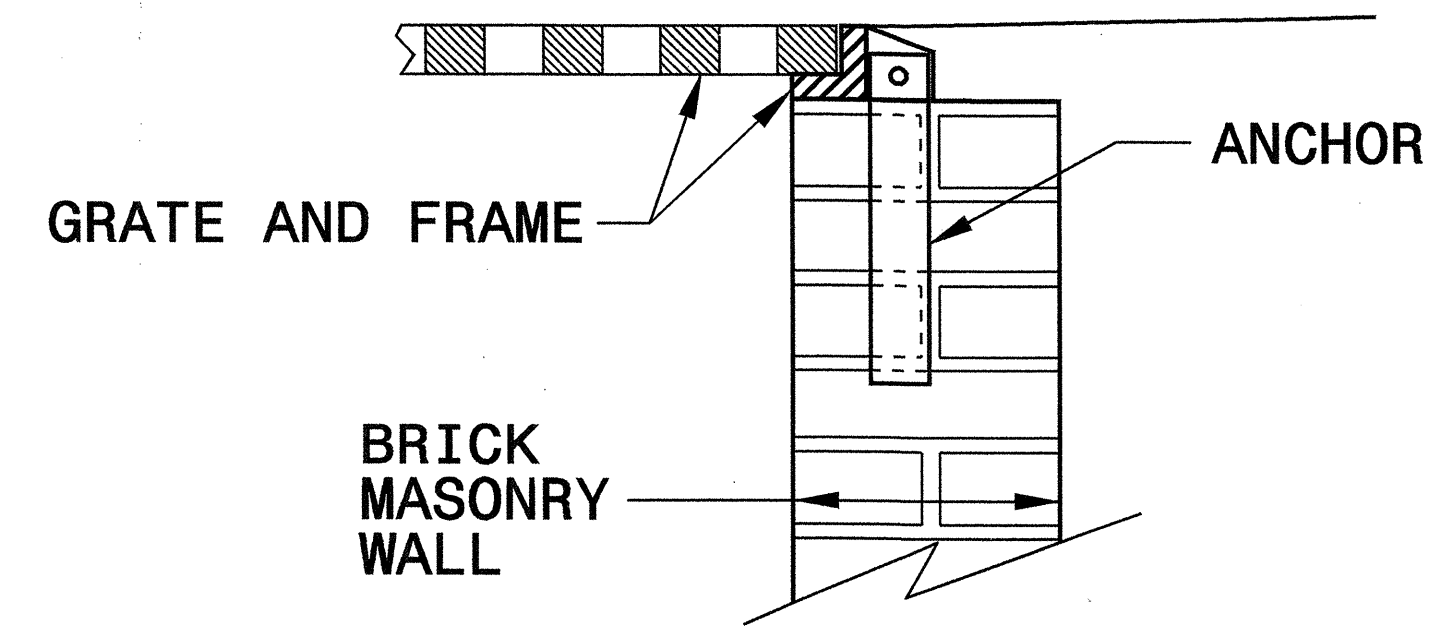
ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1
840D25

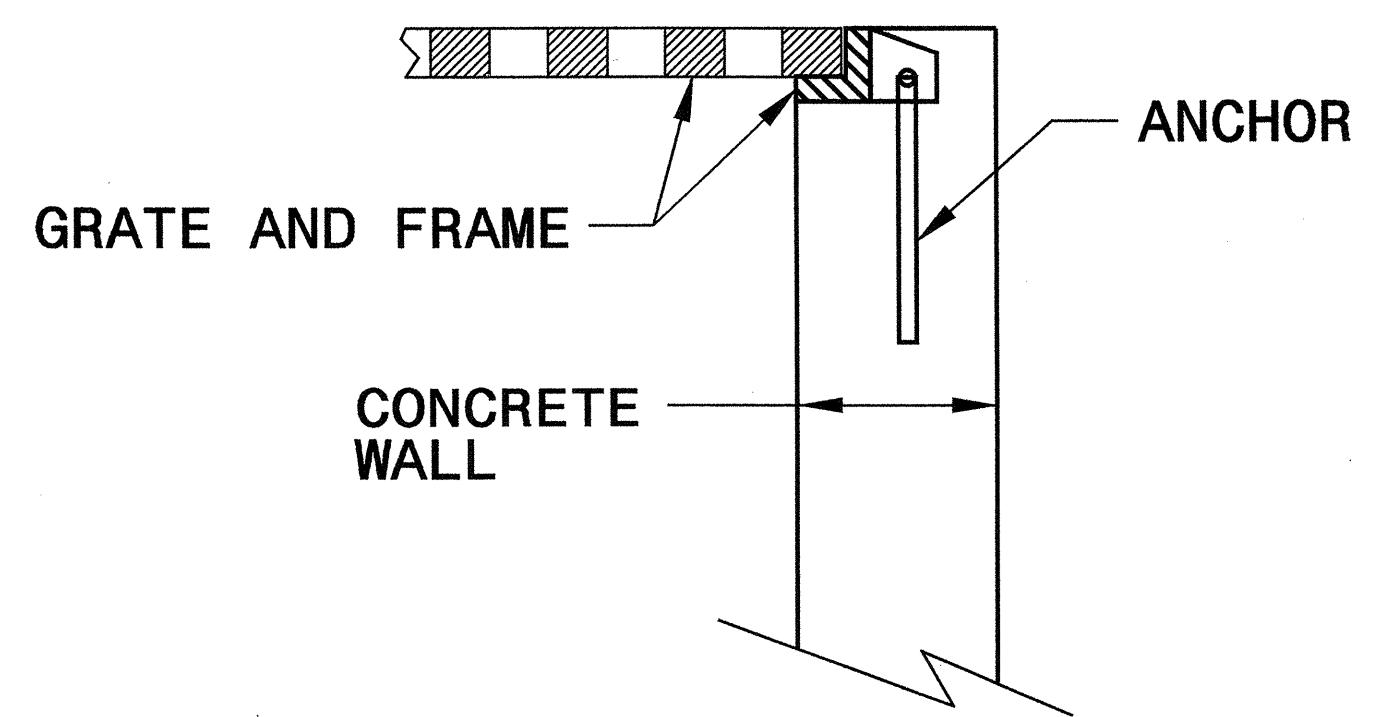
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

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

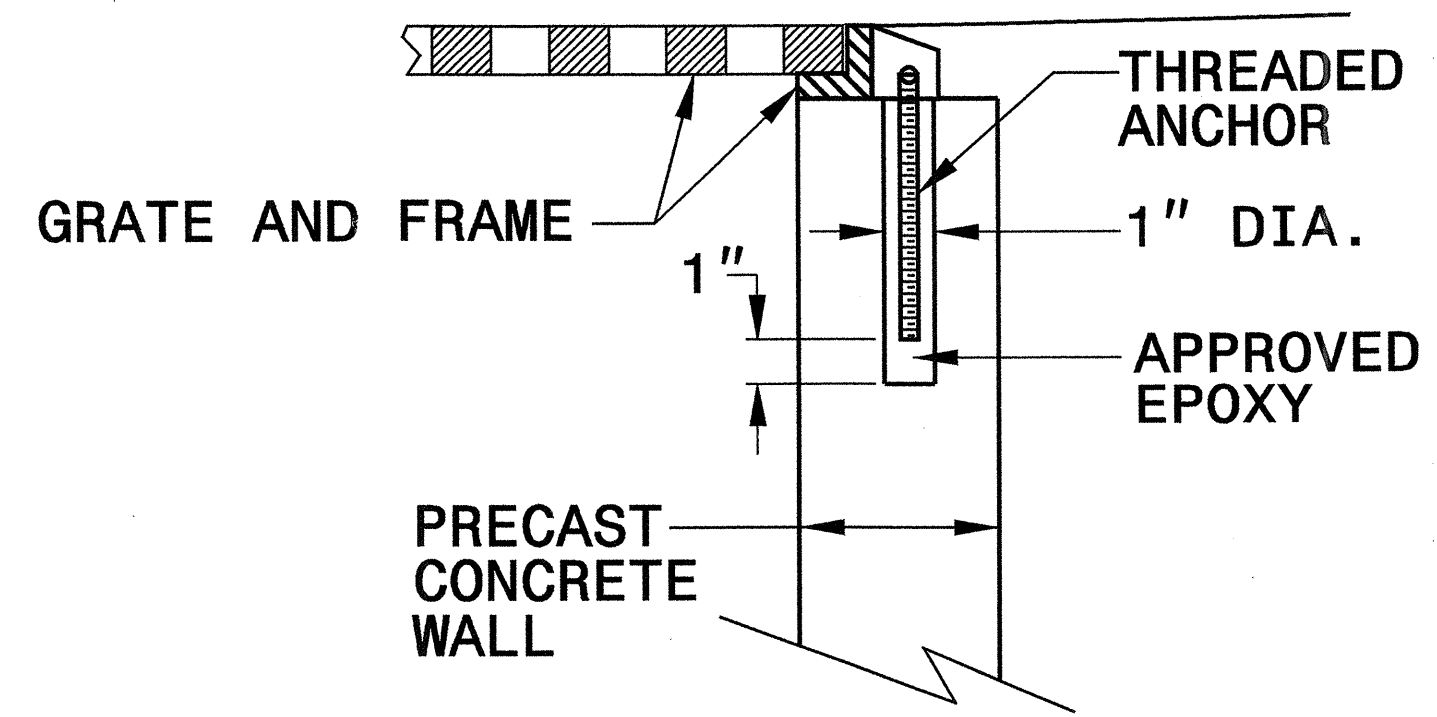
SHEET 1 OF 1
840D25



BRICK MASONRY CONSTRUCTION



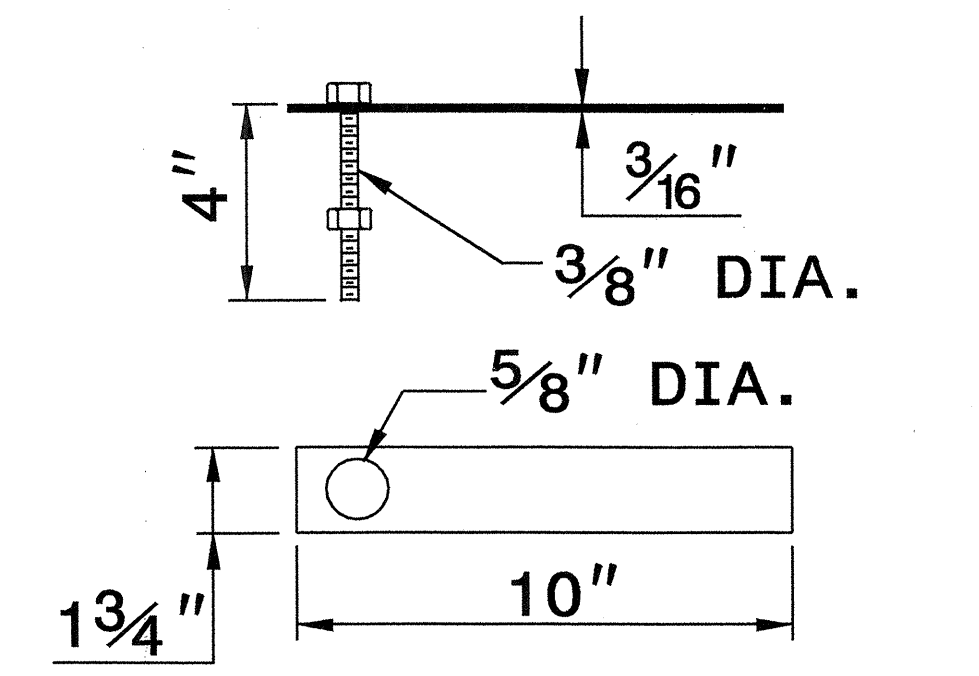
CONCRETE CONSTRUCTION



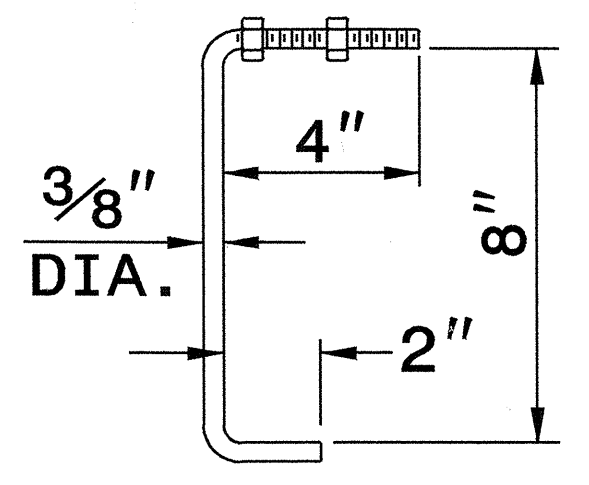
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

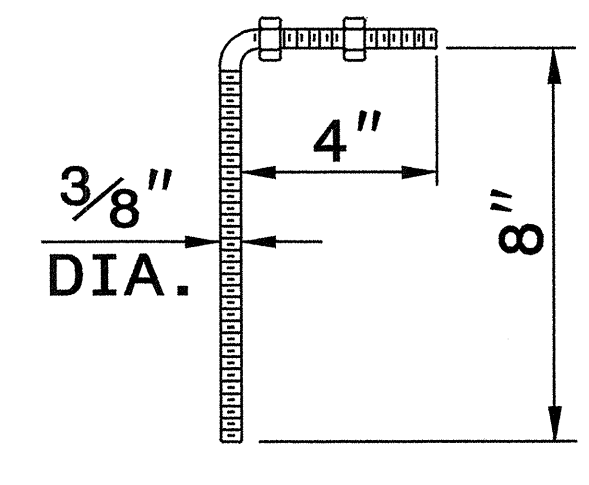
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



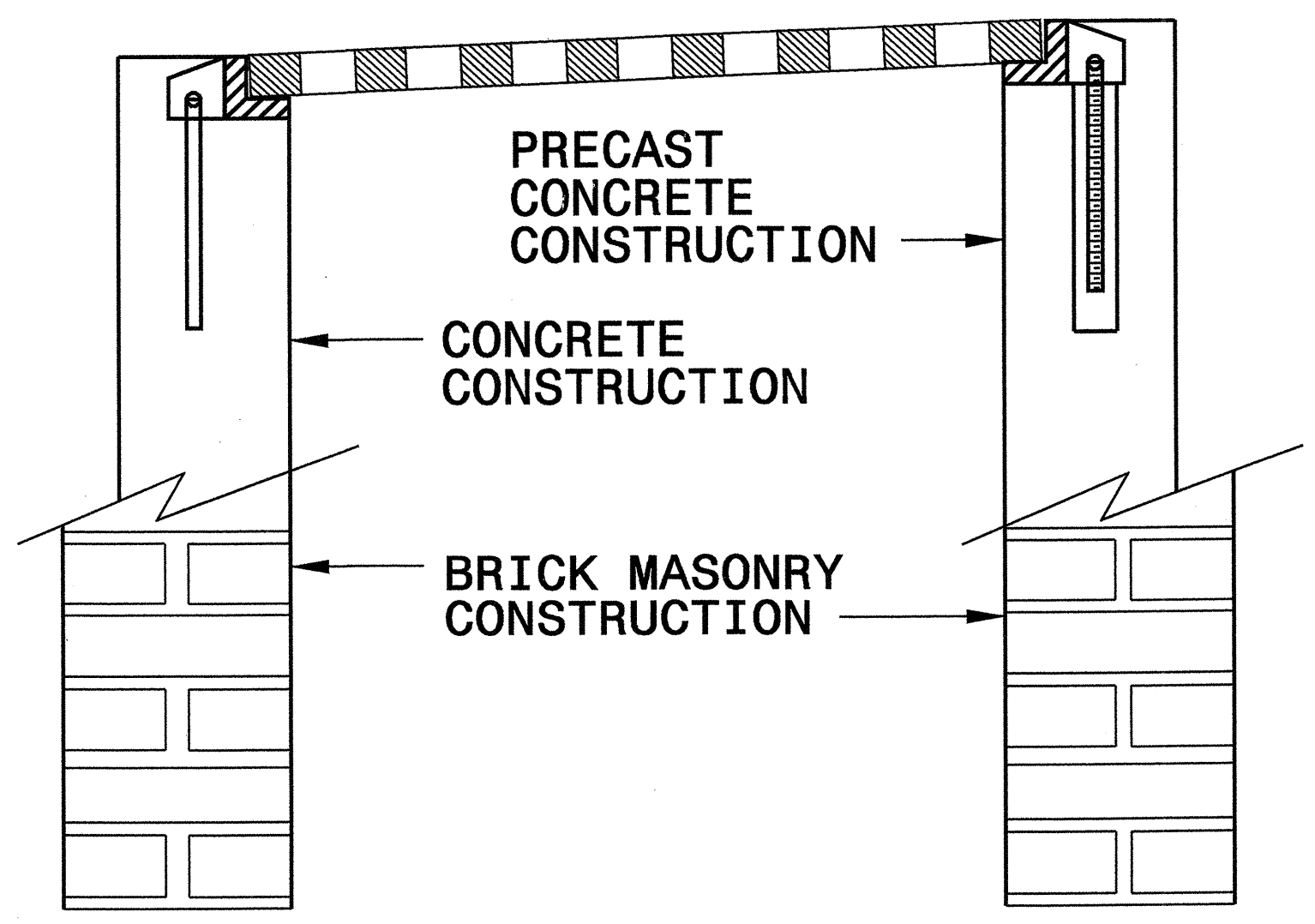
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



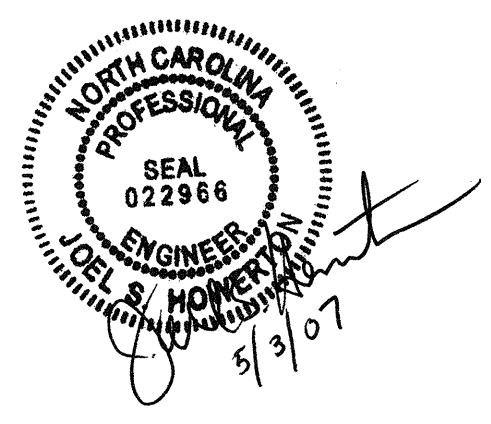
CONCRETE ANCHOR
3/8" DIA. BENT BAR



PRECAST CONCRETE ANCHOR
3/8" DIA. BENT BAR



FRAME AND GRATE INSTALLATION FOR NORMAL CROWN AND SUPERELEVATED SECTIONS



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: DATE:
FILE SPEC.:

O:\MP-2007_09\04
 ss\contracts\contracts\special details\review\d\stds\06\stds to special details\84025 anchorage for frames\0840d25.dgn
 .jhowerston AT PS212260

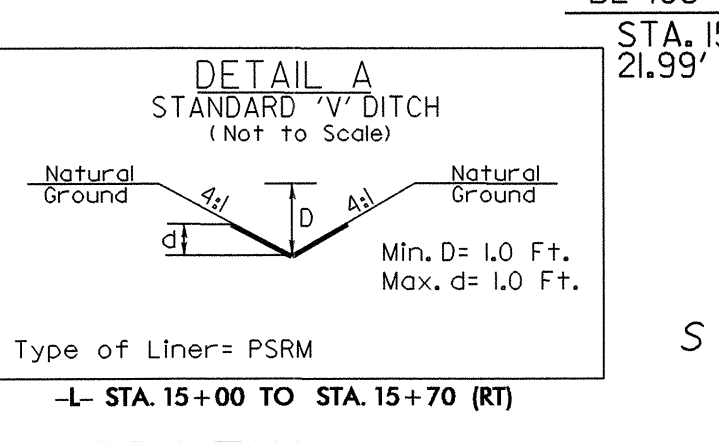
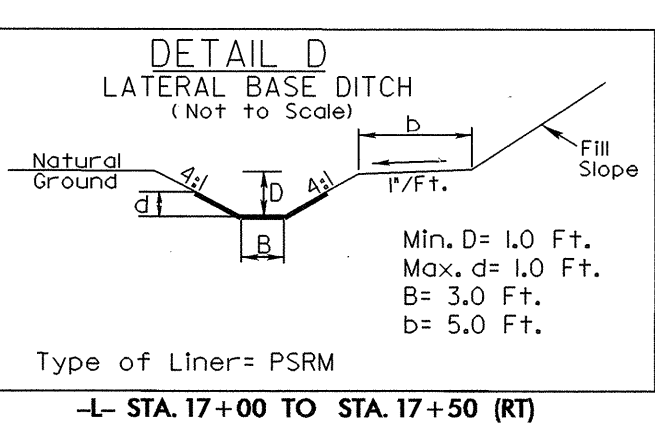
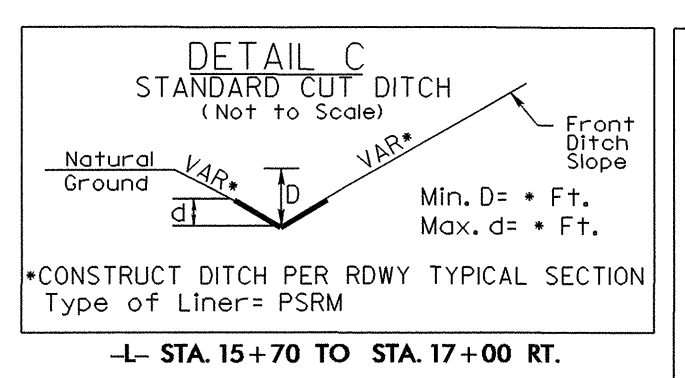
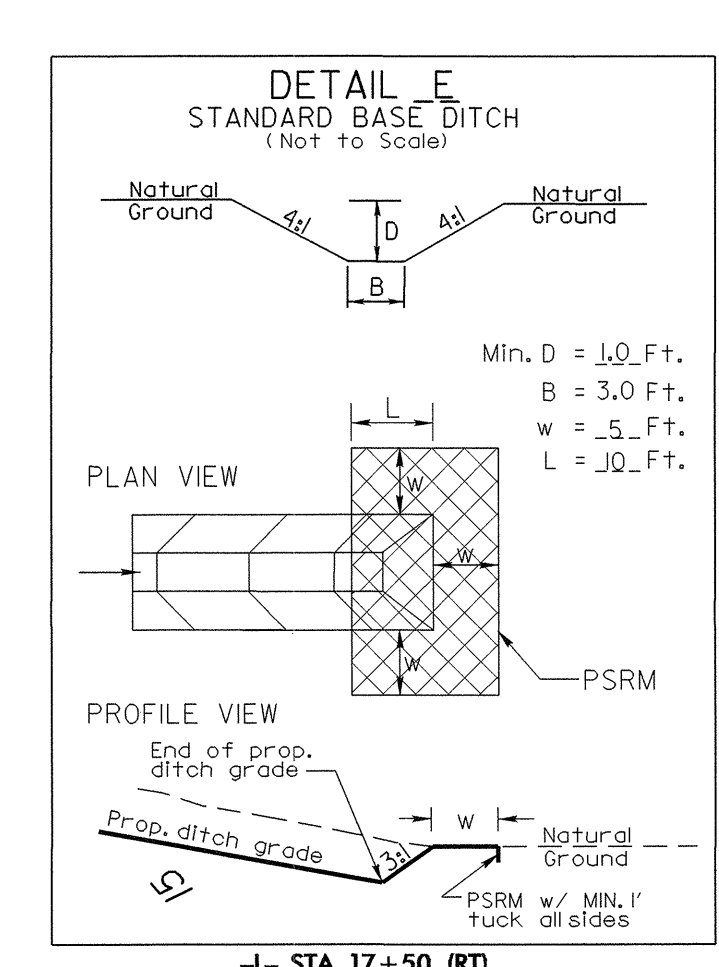
PROJECT REFERENCE NO.	SHEET NO.
B-3863	3
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

SUMMARY OF QUANTITIES

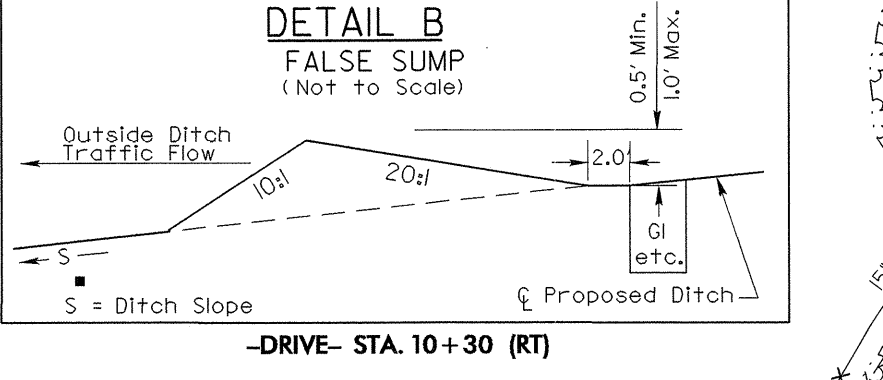
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 24-APR-2007 15:08 B-3863_rdy_sum.dgn

6/2/99

NAD 83



BEGIN CONSTRUCTION
-DRIVE- STA. 10+09.65



-BL-102 9+68.22 PINC
STA. 13+51.45
14.50' LEFT

PCSta. 12+68.78

DEBRA F. BROWN
DB 998 PG 384

MICHAEL T. BREWER
DB 1015 PG 686

BRUCE TRIMBLE
DB 1374 PG 989

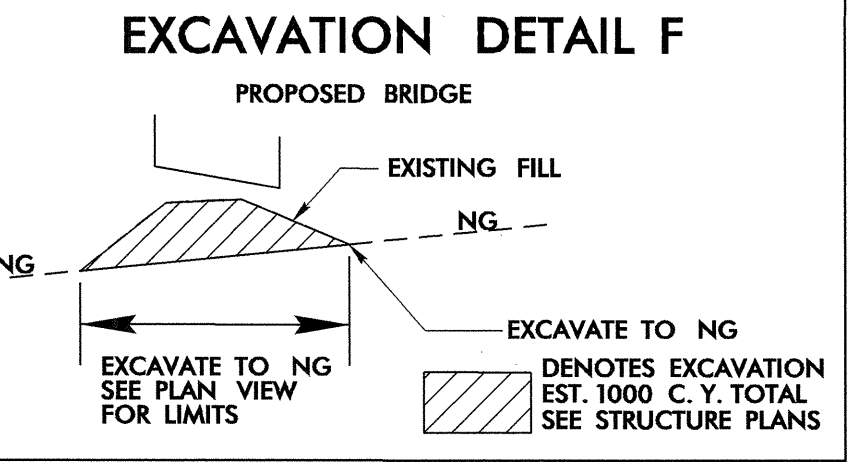
BM#1
-BL- STA. 6+48.48
49.08' RT.
ELEV. = 240.49'

-BI-101 5+00.00 POT

-BL-103 11+72.02
STA. 15+48.44
21.99' LEFT

DEBRA F. BROWN
DB 998 PG 387

MICHAEL J & YVONNE PETROLLA
DB 855 PG 36



BEGIN BRIDGE
-L- STA. 17+80.94

BEGIN APPROACH SLAB
-L- STA. 17+65.94

-DRIVE- POT Sta. 10+00.00

BEGIN STATE PROJECT B-3863
-L- STA. 15+50.00

BEGIN CONSTRUCTION
-L- STA. 15+00.00

BM#2
-BL- STA. 13+39.01
34.43' RT.
ELEV. = 213.18'

ROBERT E. COVINGTON
DB 1999 PG 377

-BL-104 14+65.69 PINC =
STA. 18+40.68
12.46' RIGHT

-BL-105 18+15.99 PINC
STA. 21+90.97
14.23' RIGHT

COUNTY OF JOHNSTON
DB 1999 PG 383

END BRIDGE
-L- STA. 19+77.00

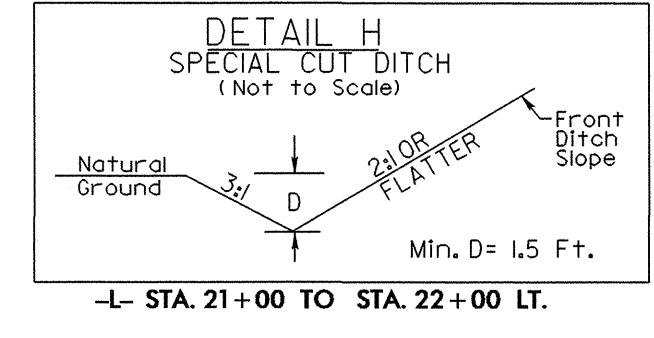
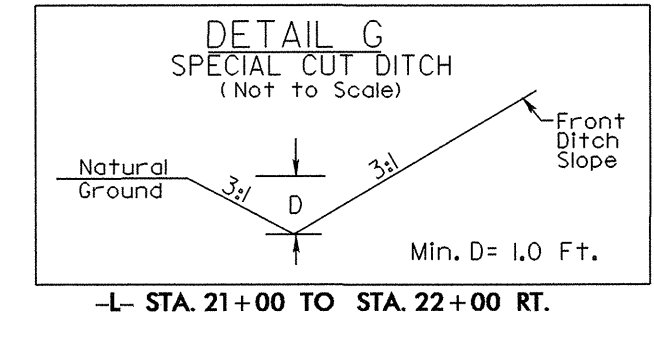
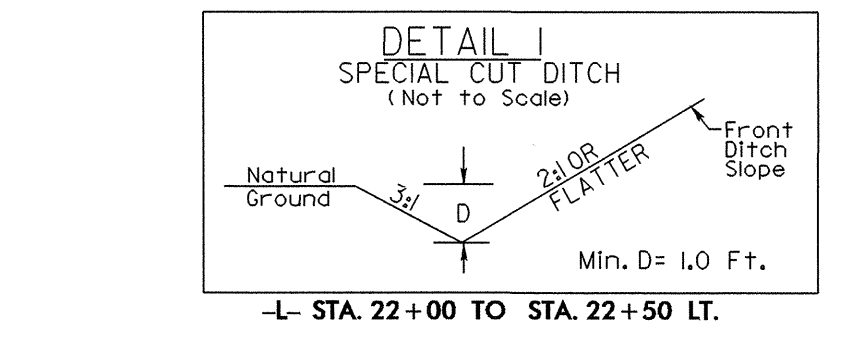
END APPROACH SLAB
-L- STA. 19+92.00

END CONSTRUCTION
-L- STA. 22+50.00

END STATE PROJECT B-3863
-L- STA. 22+00.00

CARL B. CREECH
DB 774 PG 232

VIVIAN RICHARDSON CREECH
DB 731 PG 25

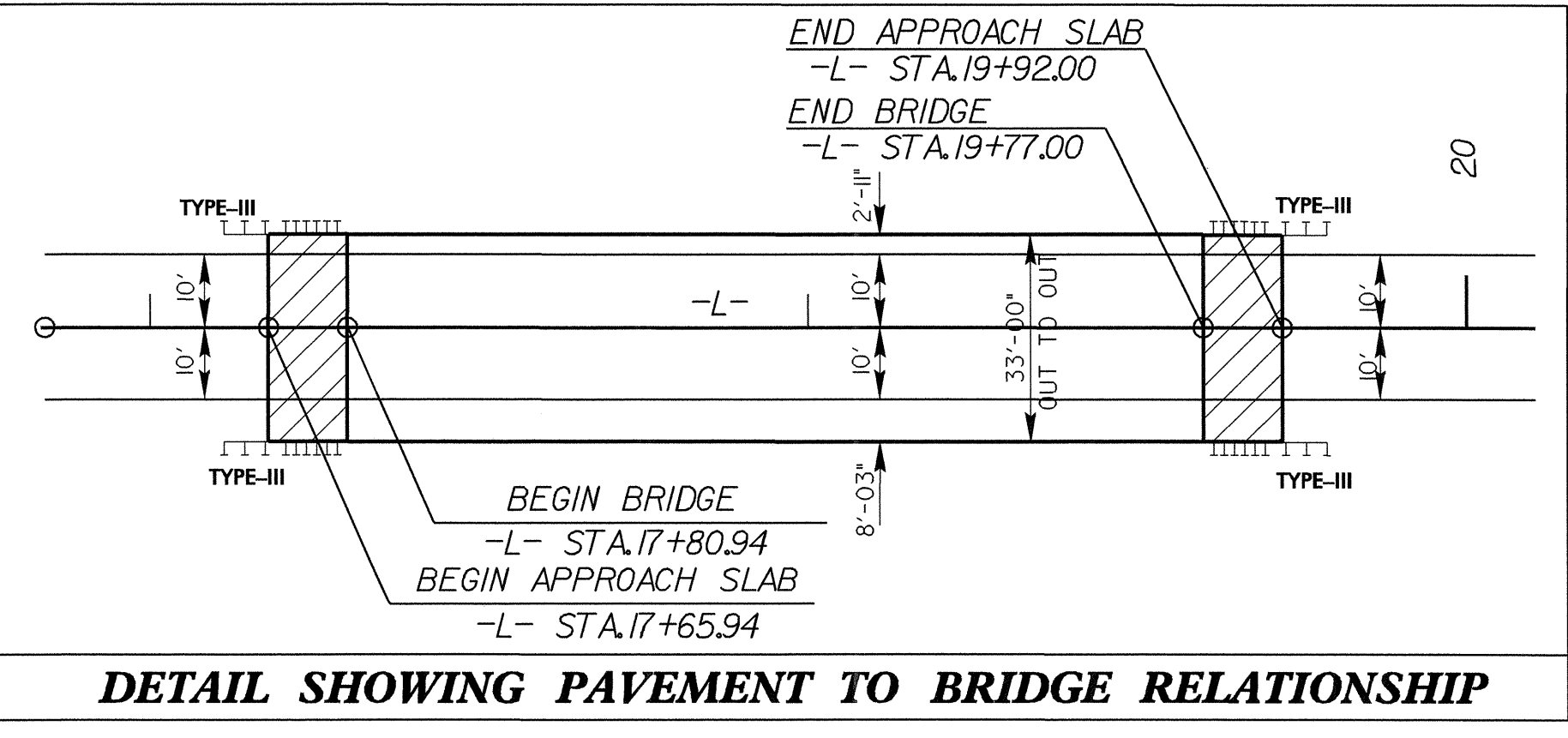


-DRIVE-
PI Sta 10+42.35
 $\Delta = 86^{\circ} 30' 26.2''$ (LT)
D = 38' 58' 18.7"
L = 22.65'
T = 14.1'
R = 15.00'

PI Sta 11+65.70
 $\Delta = 117^{\circ} 32' 27.5''$ (RT)
D = 163' 42' 08.0"
L = 71.80'
T = 57.72'
R = 35.00'

-L-
PI Sta 15+64.43
 $\Delta = 70^{\circ} 17' 12.5''$ (RT)
D = 13' 38' 30.7"
L = 515.23'
T = 295.66'
R = 420.00'
SE = EXIST.
RO = 138'

SEE SHEET 5 FOR -L- PROFILE
SEE SHEET 5 FOR -DRV- PROFILE



REVISIONS

8/17/99

02:MANV:2007:0682P: 086863-dfd108fbhd9n

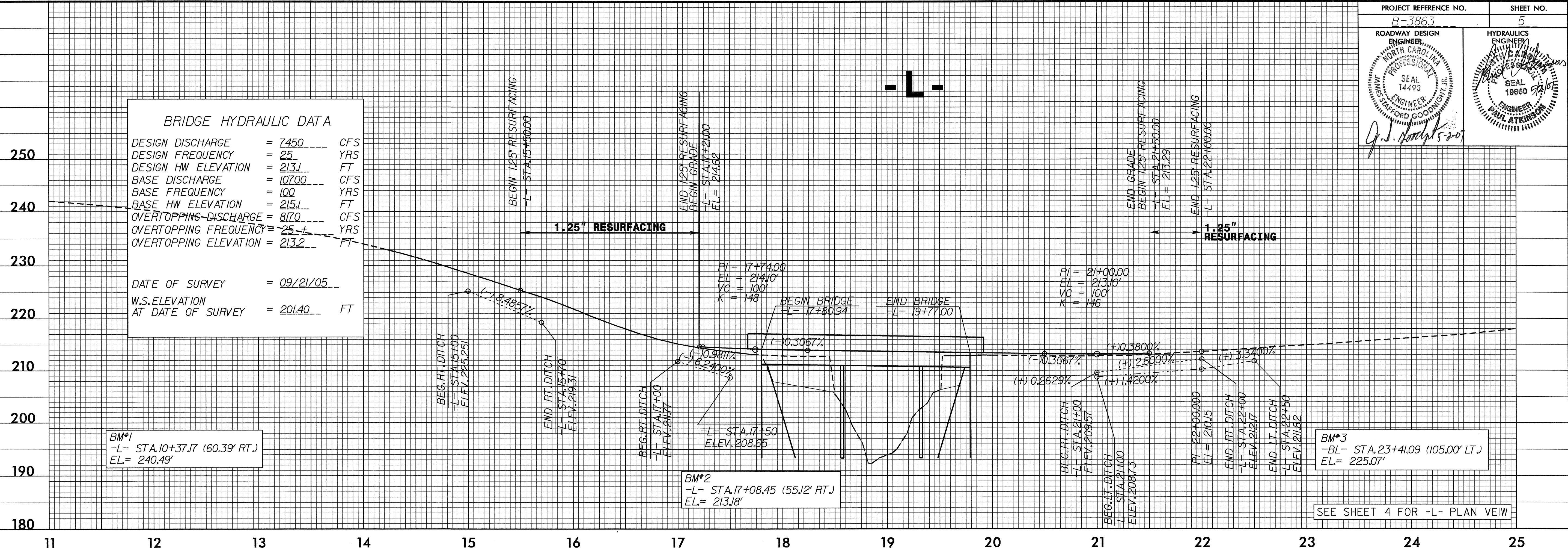
BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 7450 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 213.1 FT
BASE DISCHARGE	= 10700 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 215.1 FT
OVERTOPPING DISCHARGE	= 8170 CFS
OVERTOPPING FREQUENCY	= 25 YRS
OVERTOPPING ELEVATION	= 213.2 FT
DATE OF SURVEY = 09/21/05	
W.S. ELEVATION AT DATE OF SURVEY = 201.40 FT	

BM*1
-L- STA. 10+37.17 (60.39' RT.)
EL = 240.49'

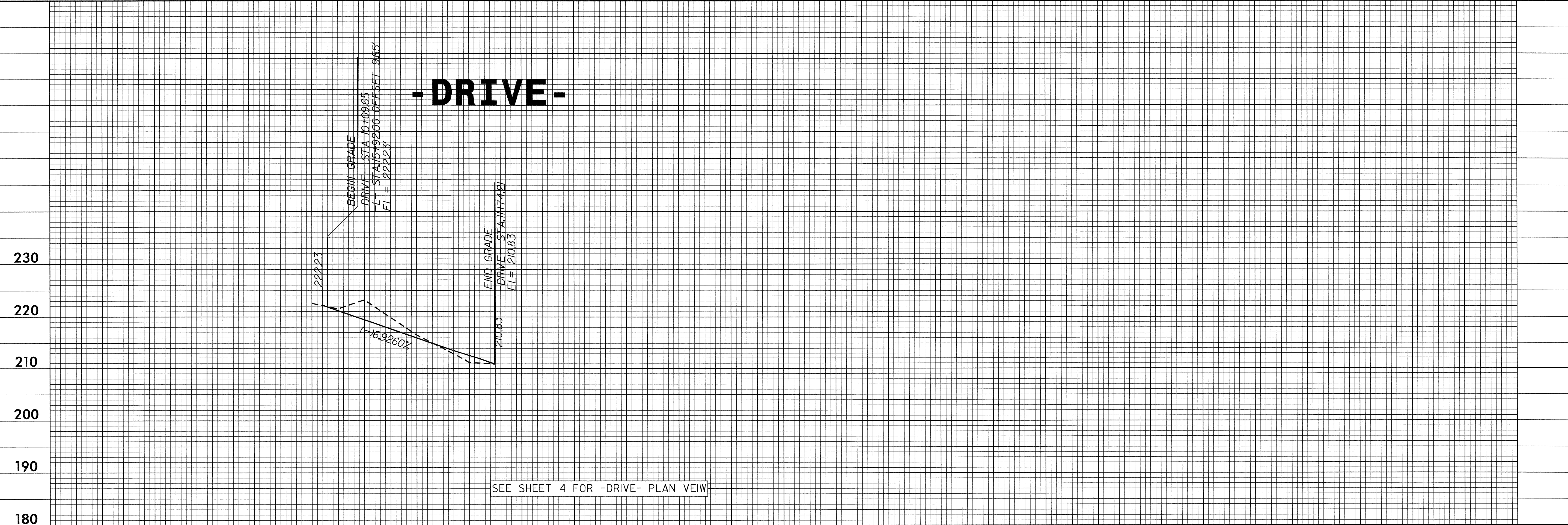
BM*2
-L- STA. 17+08.45 (55.12' RT.)
EL = 213.18'

BM*3
-BL- STA. 23+41.09 (105.00' LT.)
EL = 225.07'

SEE SHEET 4 FOR -L- PLAN VIEW



- DRIVE -



SEE SHEET 4 FOR -DRIVE- PLAN VIEW

5/28/09
02-MAY-2007 08:42:38 B-3863.rdy.plt.dgn
5:58:50 PM C:\PROJECTS\B-3863