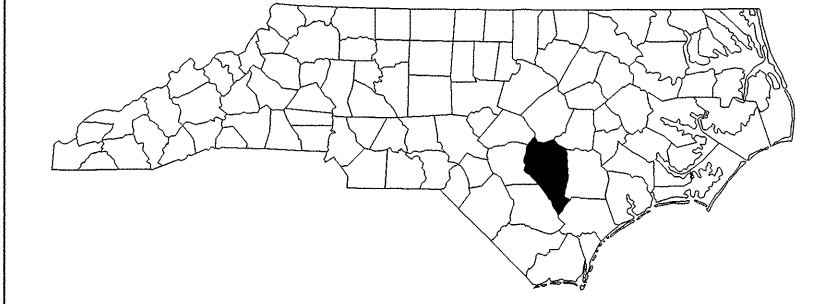


STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-1382	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
32595.1.1	BRSTP-41(8)	P.E.	
32595.2.2	BRSTP-41(8)	R /W & UTL.	
32595.3.1	BRSTP-41(8)	CONST.	

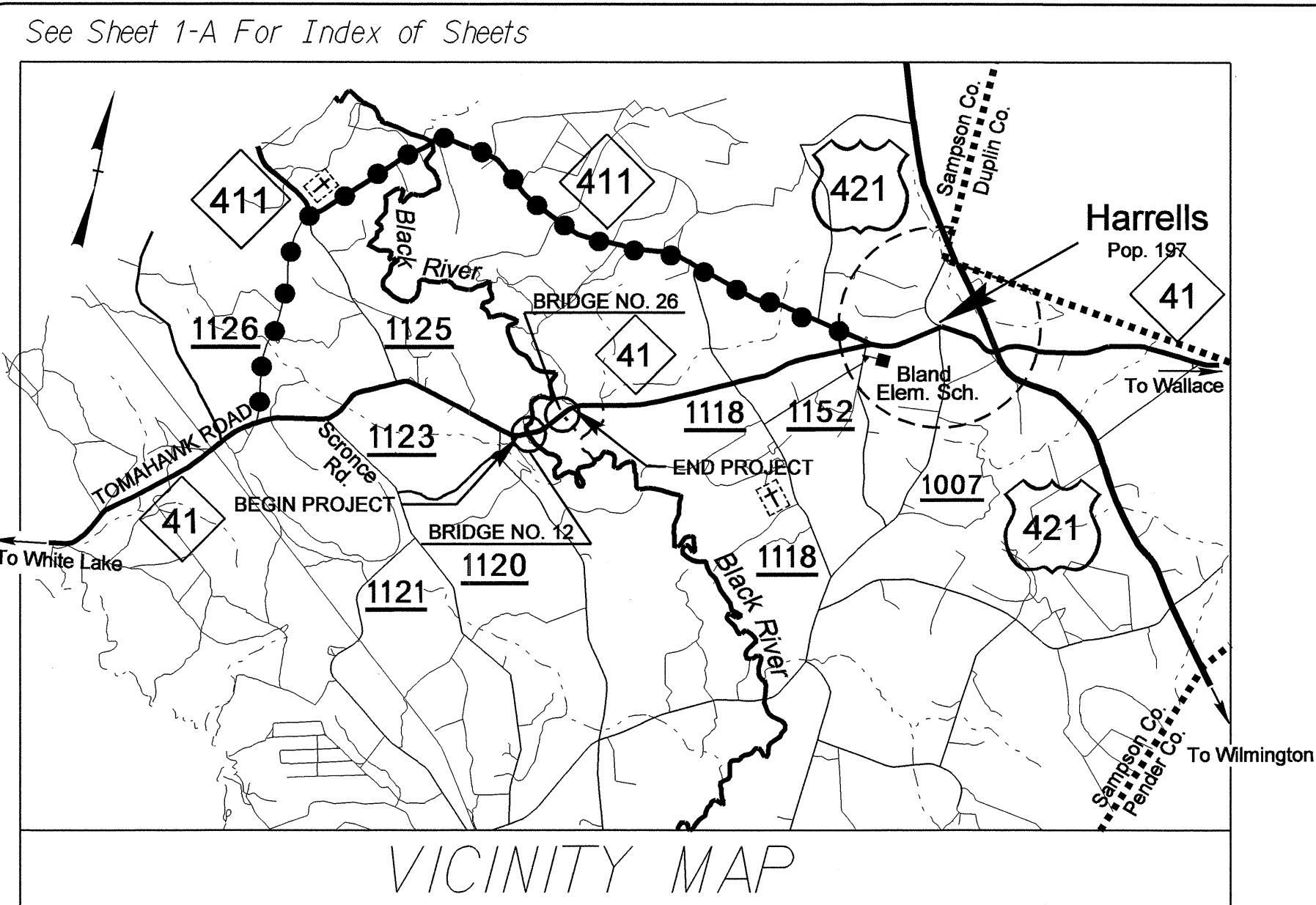


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SAMPSON COUNTY

LOCATION: BRIDGE NO. 12 AND NO. 26 OVER BLACK RIVER AND BLACK RIVER OVERFLOW ON NC 41 (TOMAHAWK ROAD)

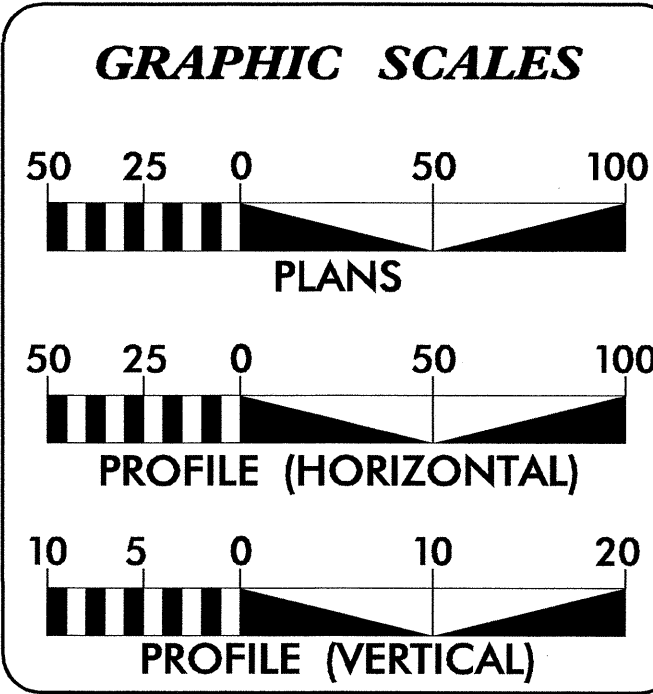
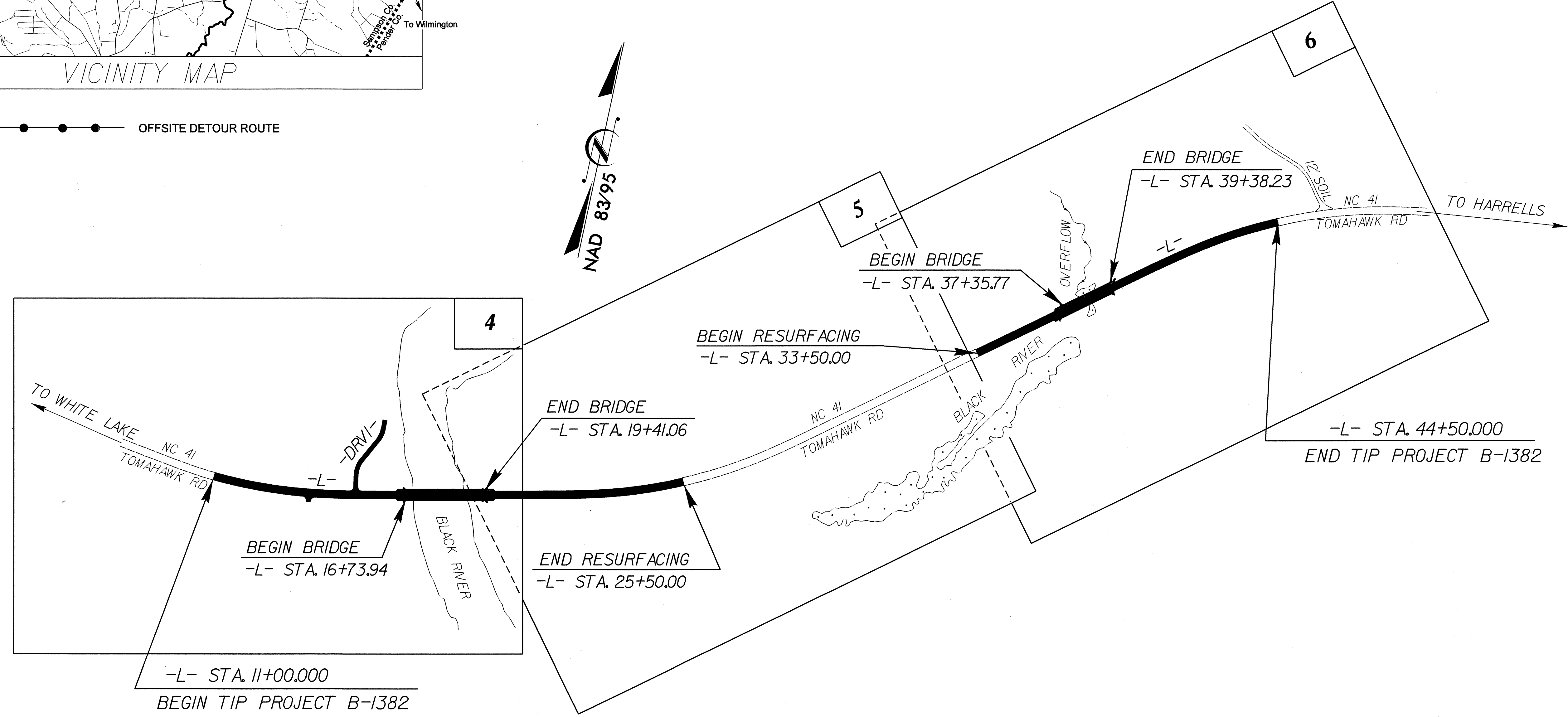
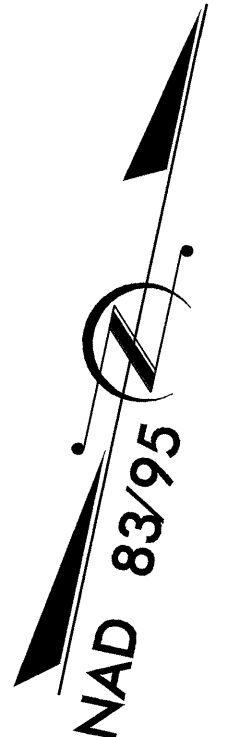
TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURES



TIP PROJECT: B-1382

CONTRACT: C201605

●●●● OFFSITE DETOUR ROUTE



DESIGN DATA

ADT 2008 = 2,800
ADT 2030 = 4,900
DHV = 12 %
D = 55 %
T = 20 %*
V = 60 MPH
* TTST 15% DUAL 5%
FUNCTIONAL CLASS = RURAL MAJOR COLLECTOR

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-1382 = 0.394 MILES
LENGTH OF STRUCTURE TIP PROJECT B-1382 = 0.051 MILES
LENGTH OF STRUCTURE TIP PROJECT B-1382 = 0.038 MILES
TOTAL LENGTH OF TIP PROJECT B-1382 = 0.483 MILES

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
DECEMBER 21, 2005

LETTING DATE:
AUGUST 19, 2008

G.E. BREW, PE
PROJECT ENGINEER

D. WILLIAMS
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 31977
SIGNATURE: *K. B. [unclear]*
DATE: 8-13-08

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 18903
SIGNATURE: *[unclear]*
DATE: 8-13-08

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

[Signature]
STATE DESIGN ENGINEER

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED
DIVISION ADMINISTRATOR

DATE

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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SHEET NUMBER	TITLE
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 THRU 2A	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
2B	ANCHORAGE FOR FRAMES
3	SUMMARY OF QUANTITIES
3-A	SUMMARY OF DRAINAGE QUANTITIES
3-B	SUMMARY OF GUARDRAIL, EARTHWORK SUMMARY, AND ASPHALT PAVEMENT <i>BREAKING AND</i> REMOVAL SUMMARY
3-C	PARCEL INDEX SHEET
4 THRU 6	PLAN SHEETS
7 THRU 8	PROFILE SHEETS
TCP-1 THRU TCP-3	TRAFFIC CONTROL PLANS
EC-1 THRU EC-8	EROSION CONTROL PLANS
UO-1 THRU UO-4	UTILITIES PLANS
X-1A	CROSS-SECTIONS SUMMARY
X-1 THRU X-14	CROSS-SECTIONS
S-1 THRU S-52	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 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.

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.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE Four County Elec. Membership,
Star 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.

2006 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 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 Superlevation - 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	
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
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.66	Drainage Structure Steps
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
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units

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

8/17/09

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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	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

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	-----
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY:

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite Marker	-----
Existing Control of Access	○ CA
Proposed Control of Access	○ CA
Existing Easement Line	----- E
Proposed Temporary Construction Easement	----- E
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	----- WCR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	⊗

VEGETATION:

Single Tree	○
Single Shrub	○
Hedge	-----
Woods Line	-----
Orchard	-----
Vineyard	----- Vineyard

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	----- CONC
Bridge Wing Wall, Head Wall and End Wall	----- CONC WW
MINOR:	
Head and End Wall	----- CONC HW
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	□ CB
Paved Ditch Gutter	-----
Storm Sewer Manhole	○ S
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	□ PH
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	□ PH
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	□ PH
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:

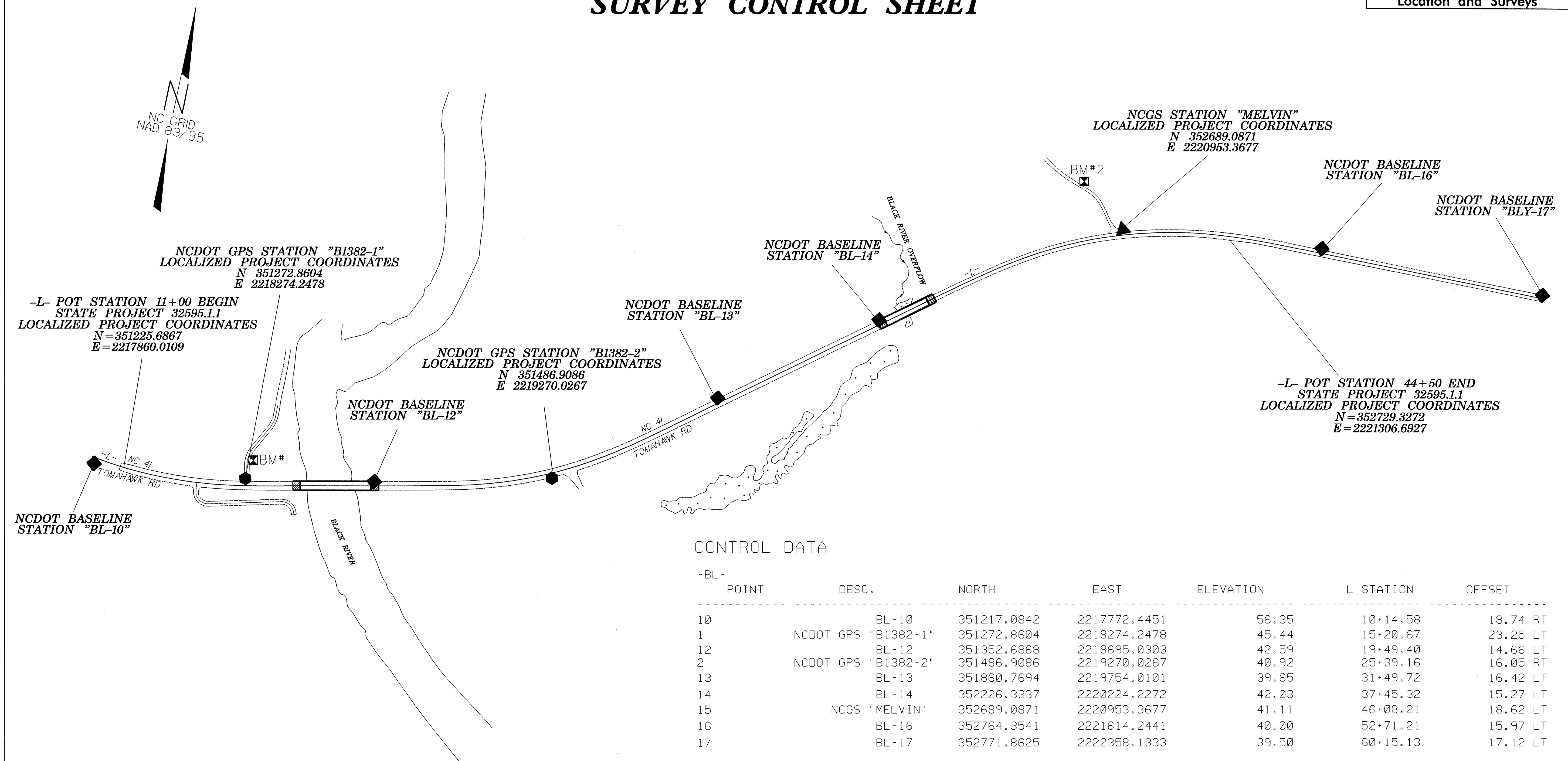
Sanitary Sewer Manhole	⊕
Sanitary Sewer Cleanout	⊕
U/G Sanitary Sewer Line	----- SS
Above Ground Sanitary Sewer	----- A/G Sanitary Sewer
Recorded SS Forced Main Line	----- FSS
Designated SS Forced Main Line (S.U.E.*)	----- FSS

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line	----- TUTL
U/G Tank; Water, Gas, Oil	□
AG 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

6/2/99
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CONTROL DATA

-BL-	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
	10	BL-10	351217.0842	2217772.4451	56.35	10+14.58	18.74 RT
	1	NCDOT GPS "B1382-1"	351272.8604	2218274.2478	45.44	15+20.67	23.25 LT
	12	BL-12	351352.6868	2218695.0303	42.59	19+49.40	14.66 LT
	2	NCDOT GPS "B1382-2"	351486.9086	2219270.0267	40.92	25+39.16	16.05 RT
	13	BL-13	351860.7694	2219754.0101	39.65	31+49.72	16.42 LT
	14	BL-14	352226.3337	2220224.2272	42.03	37+45.32	15.27 LT
	15	NCGS "MELVIN"	352689.0871	2220953.3677	41.11	46+08.21	18.62 LT
	16	BL-16	352764.3541	2221614.2441	40.00	52+71.21	15.97 LT
	17	BL-17	352771.8625	2222358.1333	39.50	60+15.13	17.12 LT

BENCHMARK DATA

```

*****
BM#1    ELEVATION = 46.08
N 351337    E 2218289
L STATION 15+47 83 LEFT
12" PINE TREE
*****

*****
BM#2    ELEVATION = 39.25
N 352819    E 2220794
L STATION 45+11 195 LEFT
6" OAK TREE
*****

```

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.DOH.DOT.STATE.NC.US/PRECONSTRUCTHIGHWAY/LOCATION/PROJECT](http://www.doh.dot.state.nc.us/preconstructhighway/location/project)
- 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 MONUMENTS NAD 83
- SEE GPS CALIBRATION SHEET FOR HORIZONTAL AND VERTICAL COORDINATE VALUES.

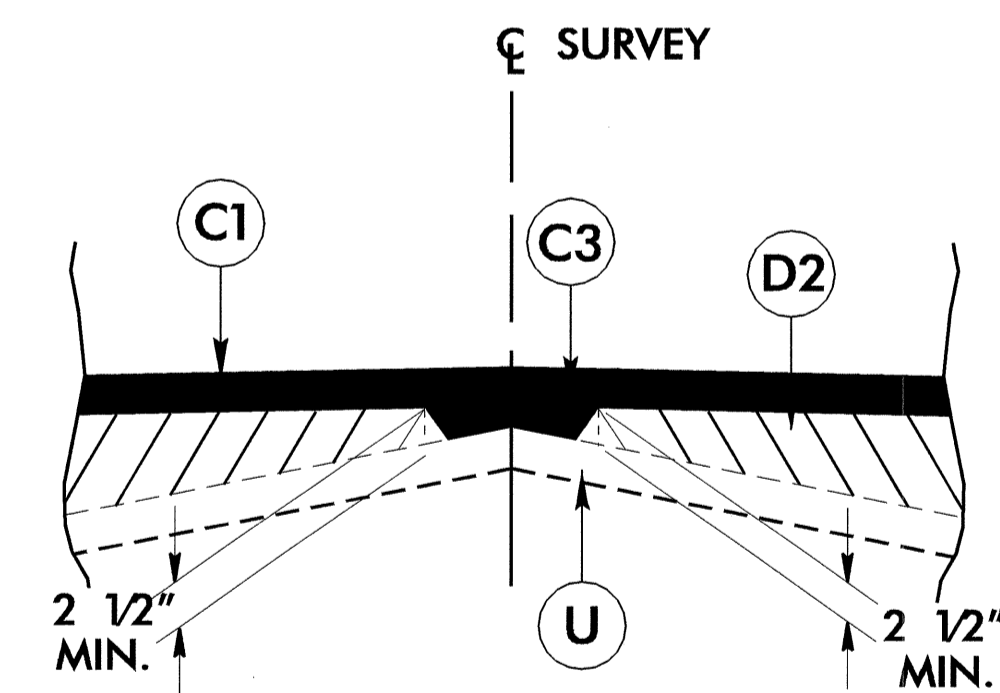
NOTE: DRAWING NOT TO SCALE

DATUM DESCRIPTION

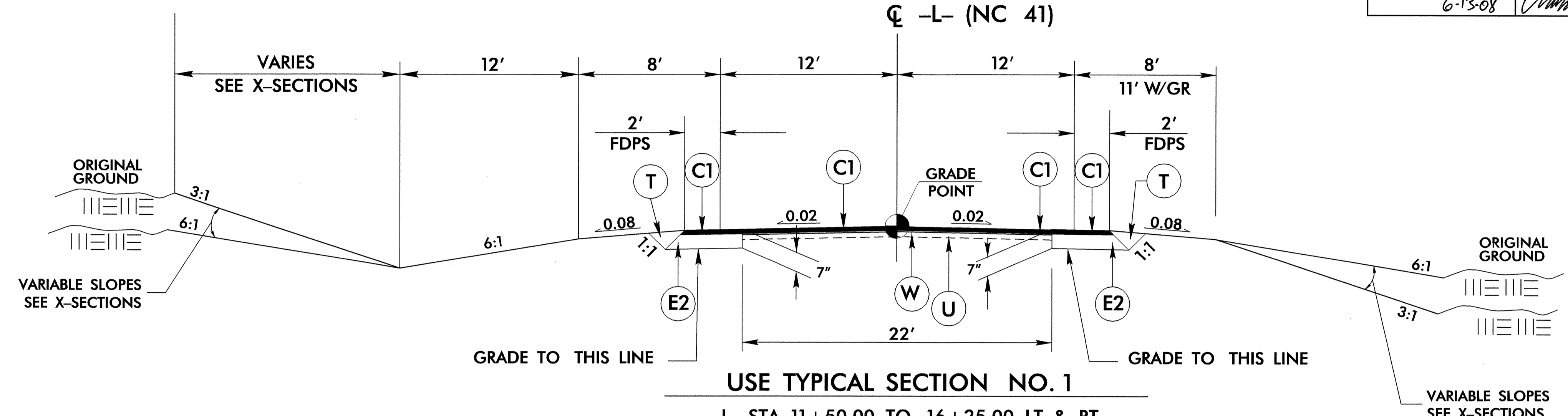
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B-1382-1" WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 351272.8610(ft) EASTING: 2218274.2480(ft) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99991827 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B-1382-1" TO -L- L STATION 10+00.00 IS S 86°05'49.9" E 514.67' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

FINAL PAVEMENT SCHEDULE	
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 1½" IN DEPTH.
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. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. APPROX. 5½" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 627 LBS. PER SQ. YD.
J1	PROP. 6" AGGREGATE BASE COURSE
R1	SHOULDER BERM GUTTER
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
W	WEDGING

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



Detail Showing Method of Wedging

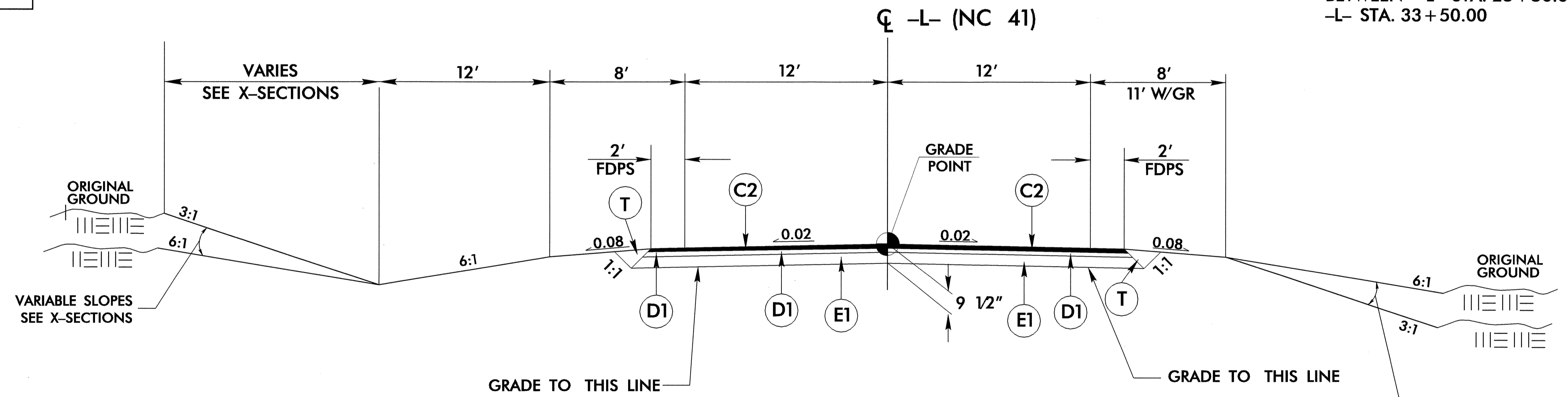


USE TYPICAL SECTION NO. 1

- L- STA. 11+50.00 TO 16+25.00 LT. & RT.
- L- STA. 20+00.00 TO 25+00.00 LT. & RT.
- L- STA. 34+00.00 TO 36+85.00 LT & RT.
- L- STA. 41+50.00 TO 44+00.00 LT. & RT.

- TRANSITION FROM EXIST. TO TS. NO. 1
- L- STA. 11+00.00 TO STA. 11+50.00
- TRANSITION FROM TS. NO. 1 TO EXIST.
- L- STA. 25+00.00 TO STA. 25+50.00
 - L- STA. 33+50.00 TO STA. 34+00.00
 - L- STA. 44+00.00 TO STA. 44+50.00

NOTE: NO RESURFACING TO BE DONE BETWEEN -L- STA. 25+50.00 AND -L- STA. 33+50.00



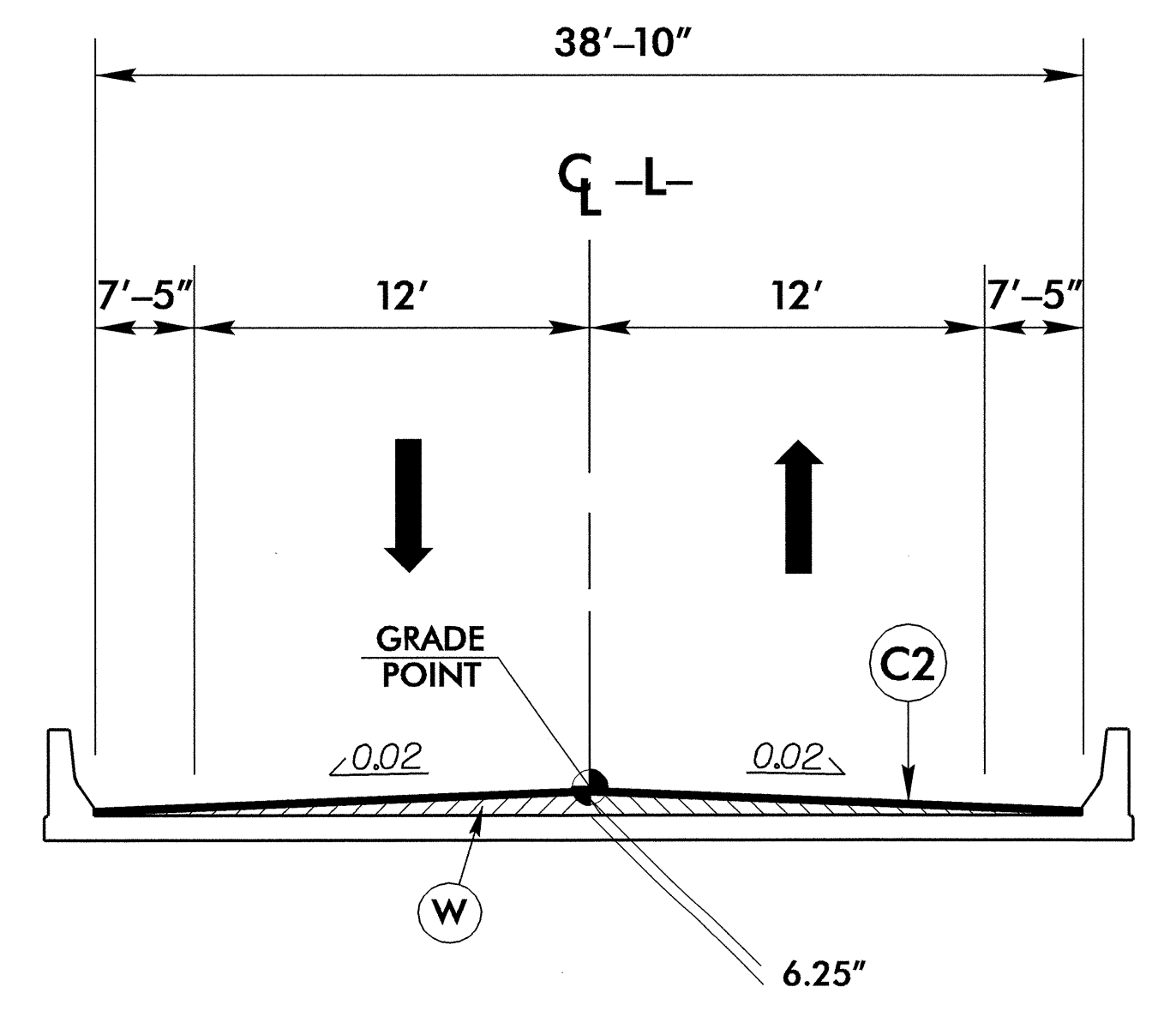
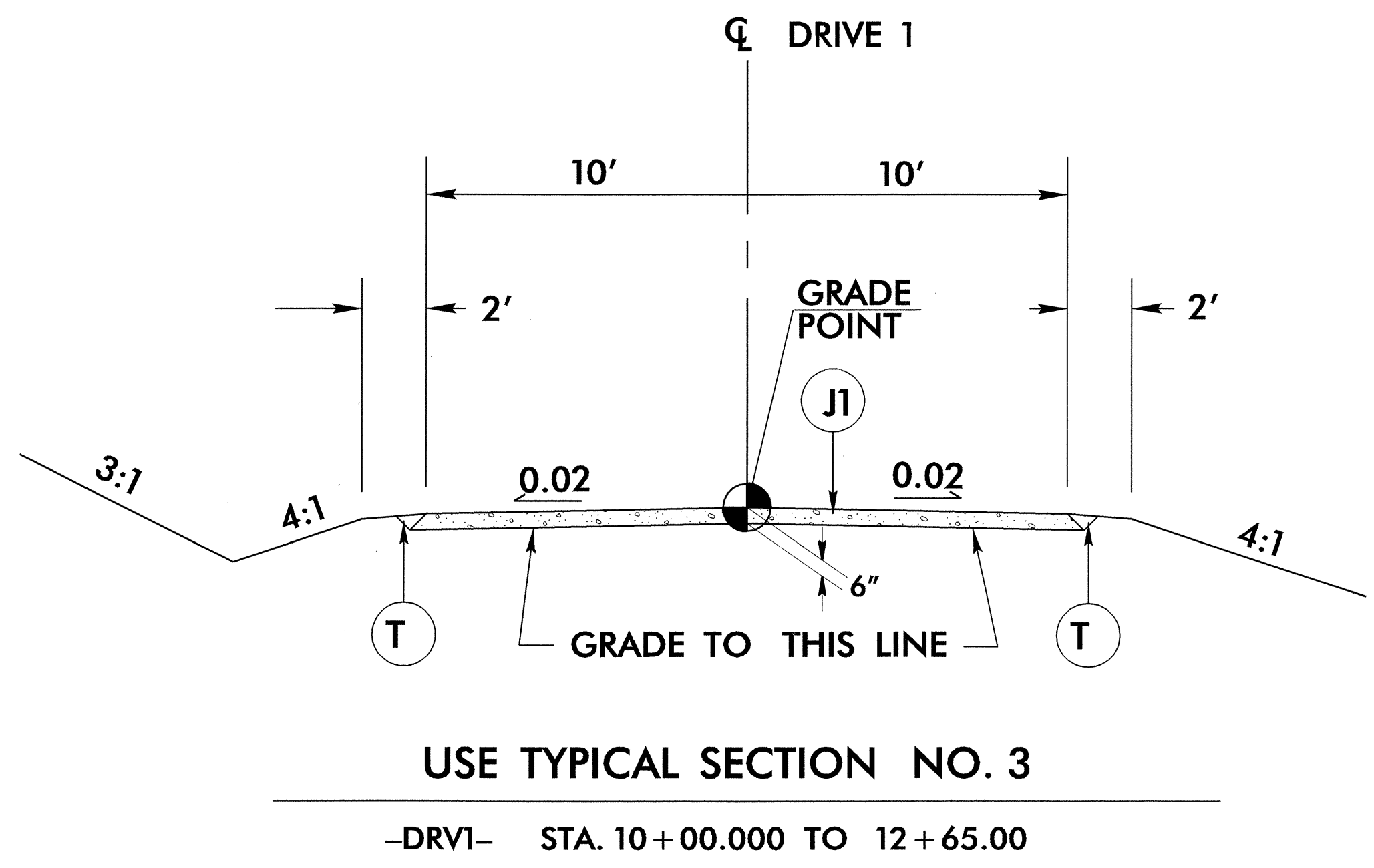
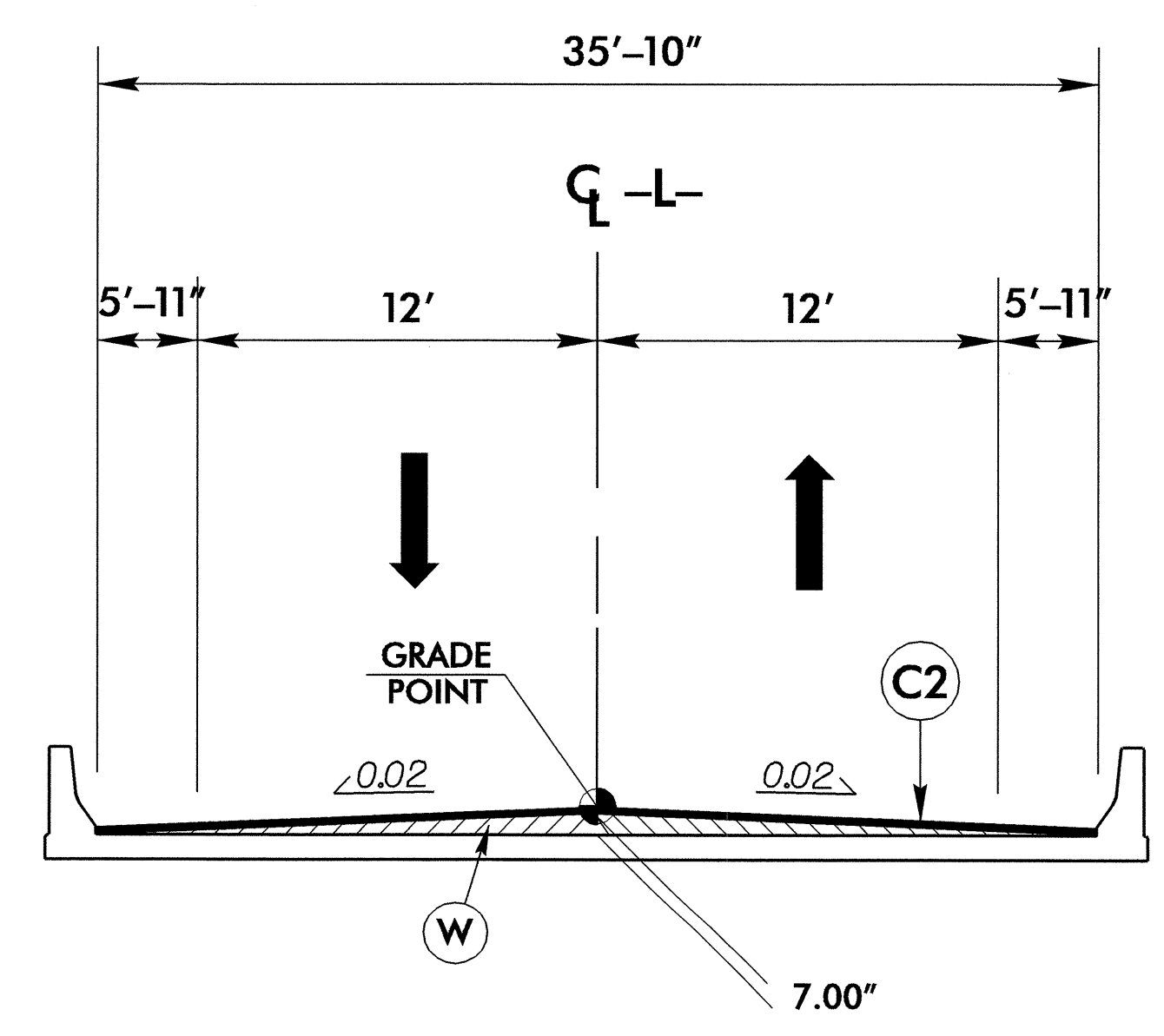
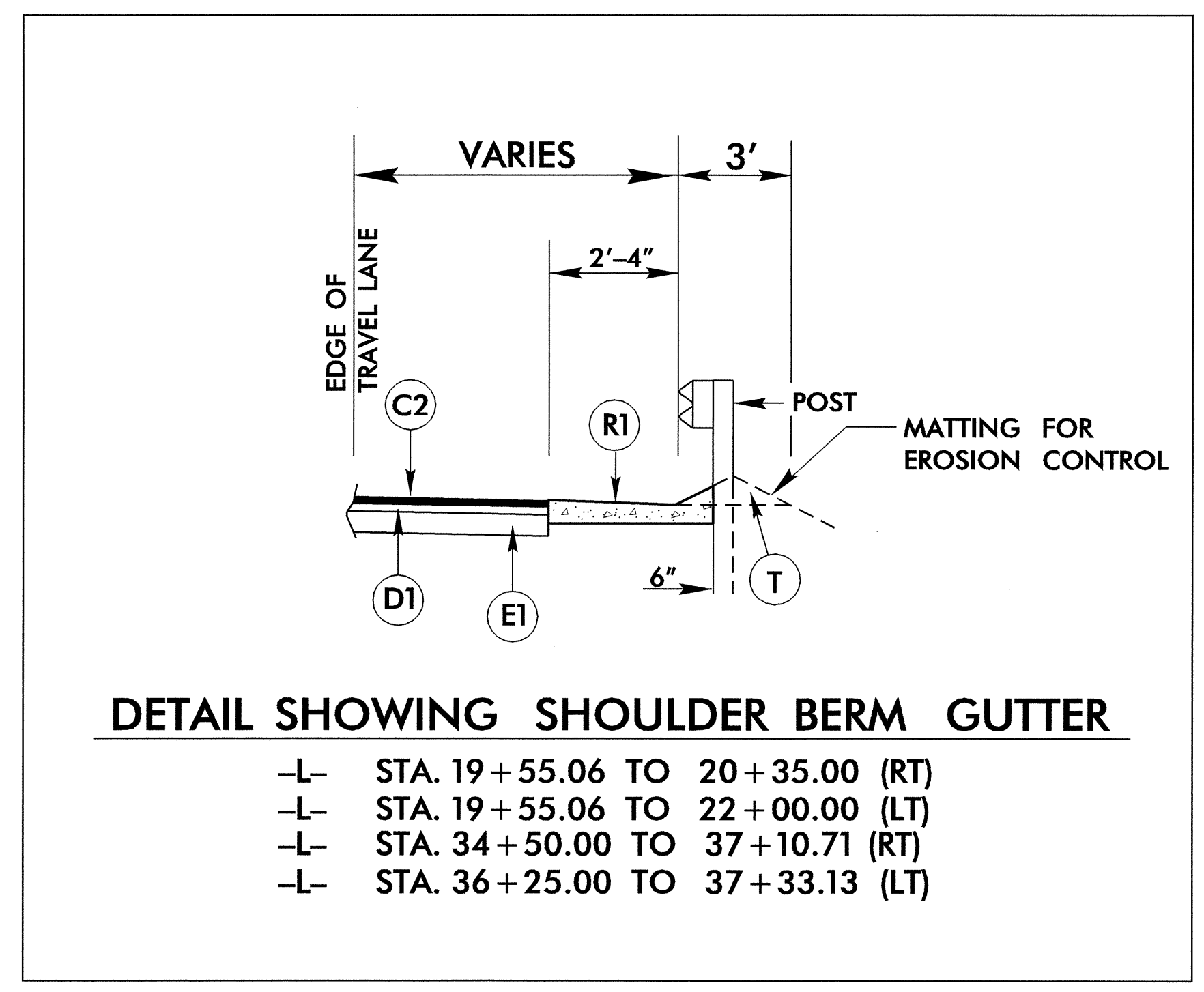
USE TYPICAL SECTION NO. 2

- L- STA. 16+25.00 TO 16+73.94 (BEGIN BRIDGE)
- L- STA. 19+41.06 (END BRIDGE) TO 20+00.00
- L- STA. 36+85.00 TO 37+35.77 (BEGIN BRIDGE)
- L- STA. 39+38.23 (END BRIDGE) TO 41+50.00

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FINAL PAVEMENT SCHEDULE	
C2	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B
D1	PROP. APPROX. 2½" ASPHALT CONCRETE INTERMEDIATE COURSE
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B
J1	PROP. 6" AGGREGATE BASE COURSE
R1	SHOULDER BERM GUTTER
T	EARTH MATERIAL.
W	WEDGING

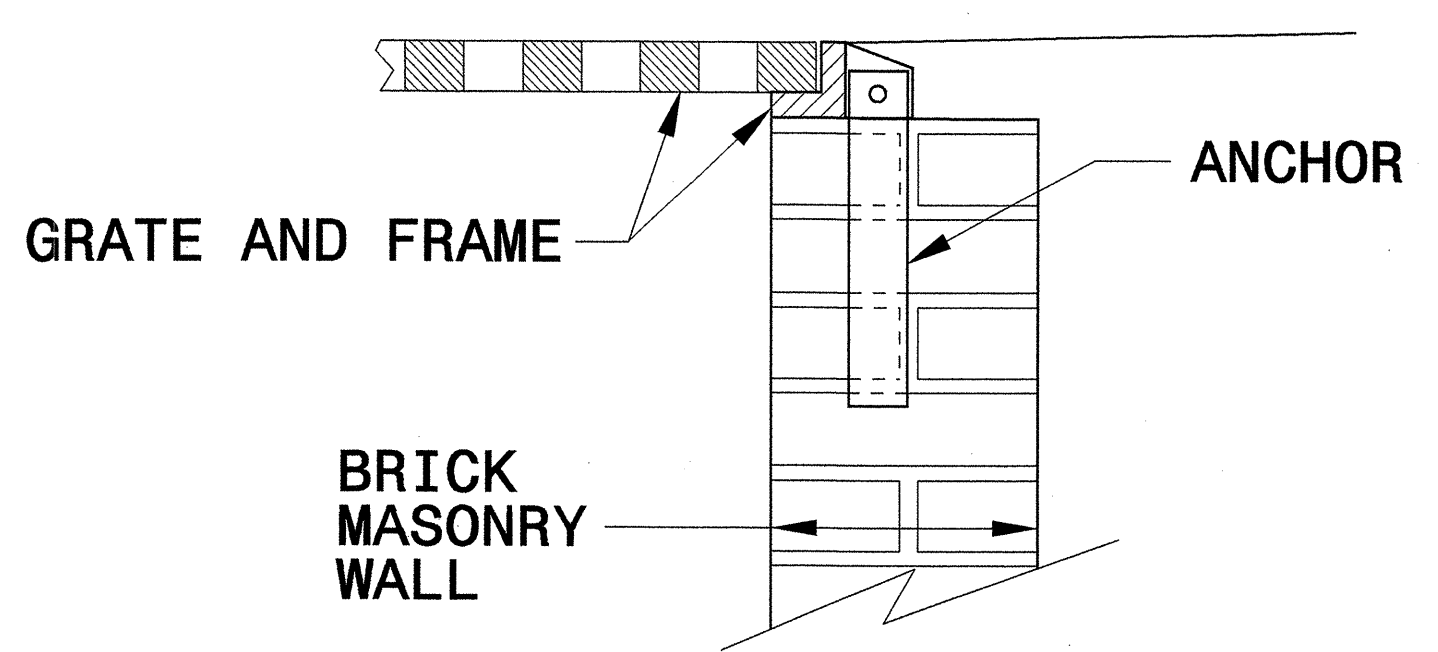
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS OTHERWISE NOTED



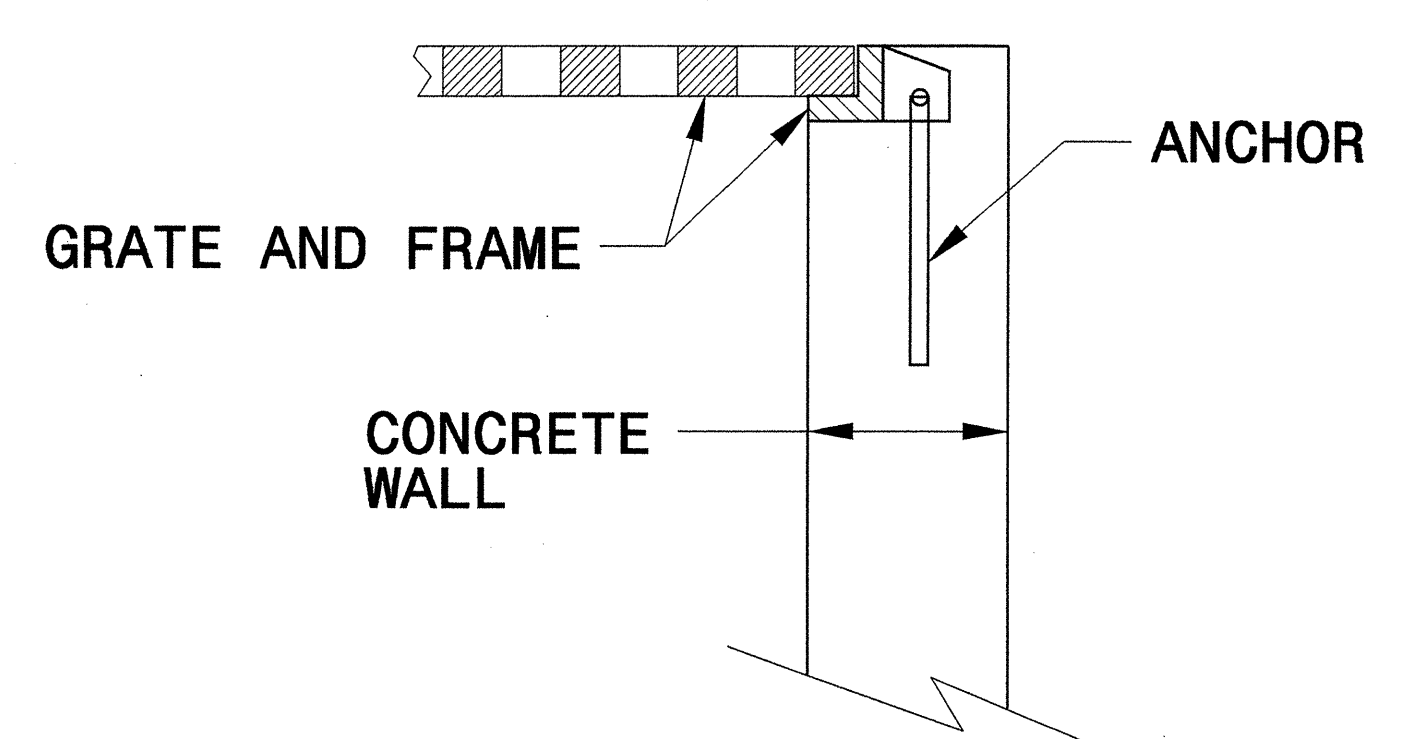
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STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

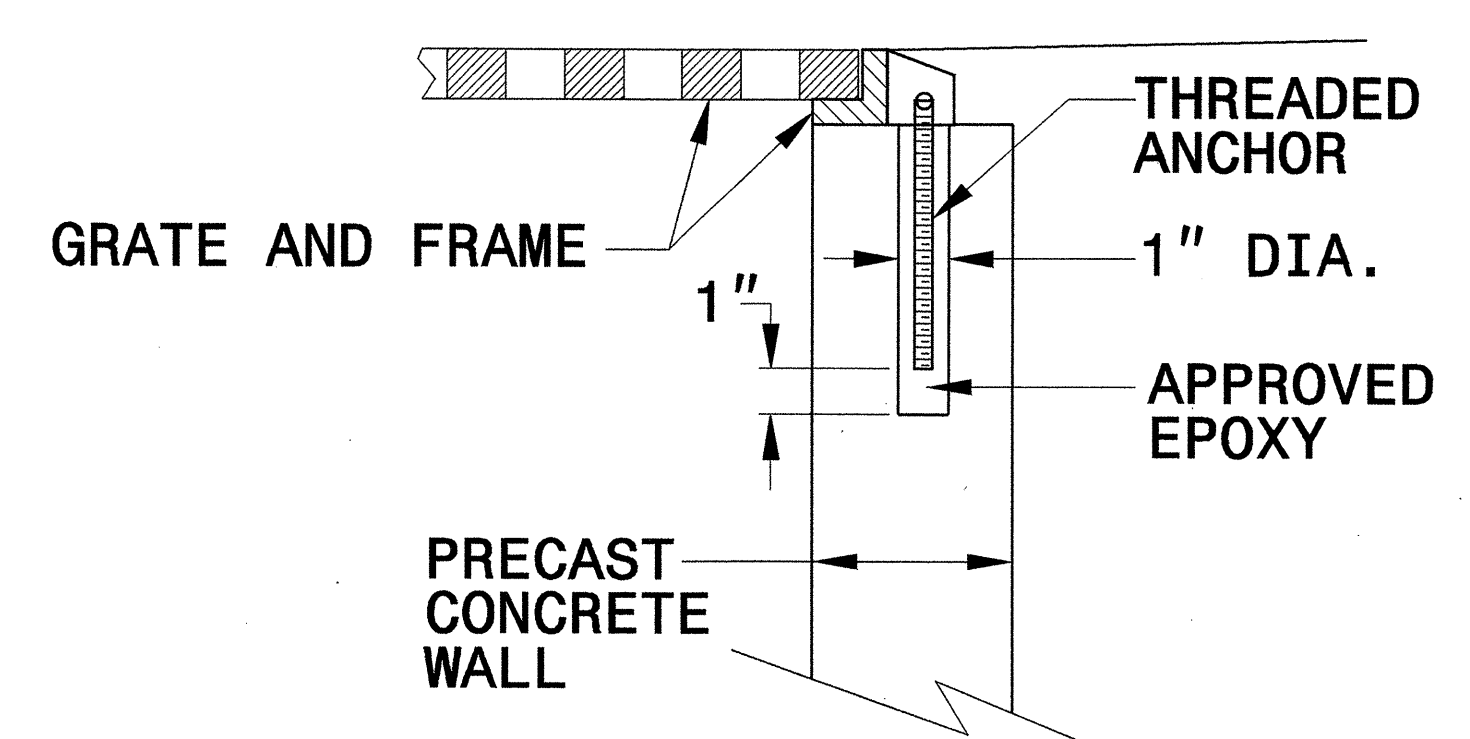
ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE



BRICK MASONRY CONSTRUCTION



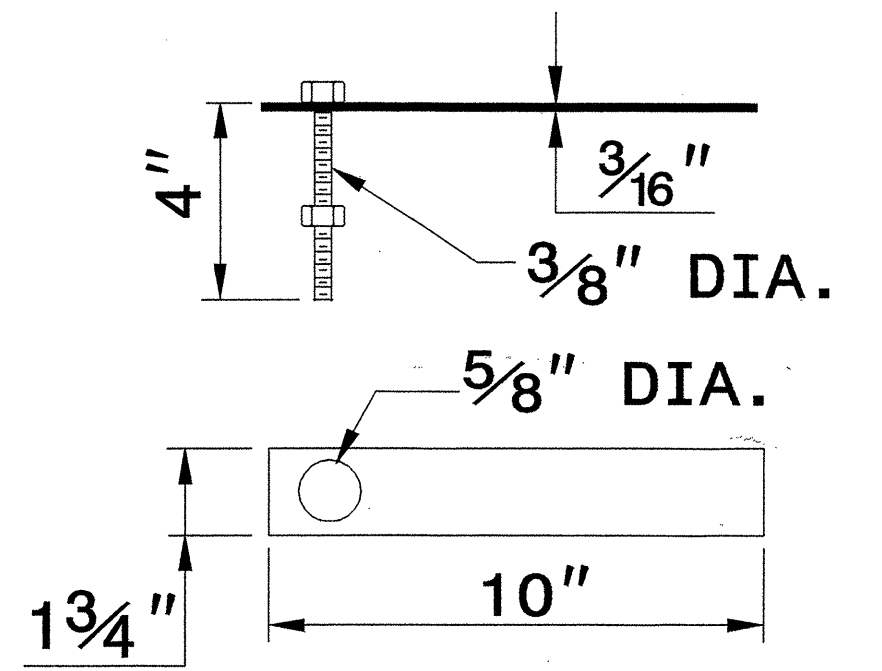
CONCRETE CONSTRUCTION



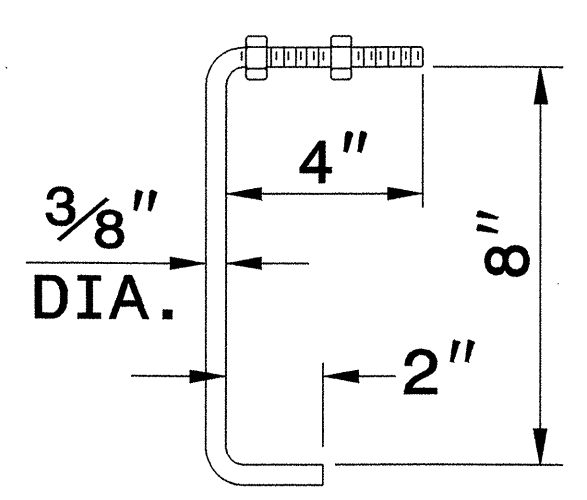
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

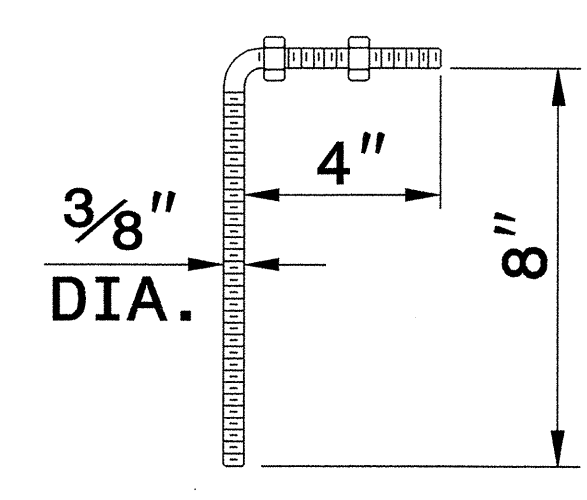
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



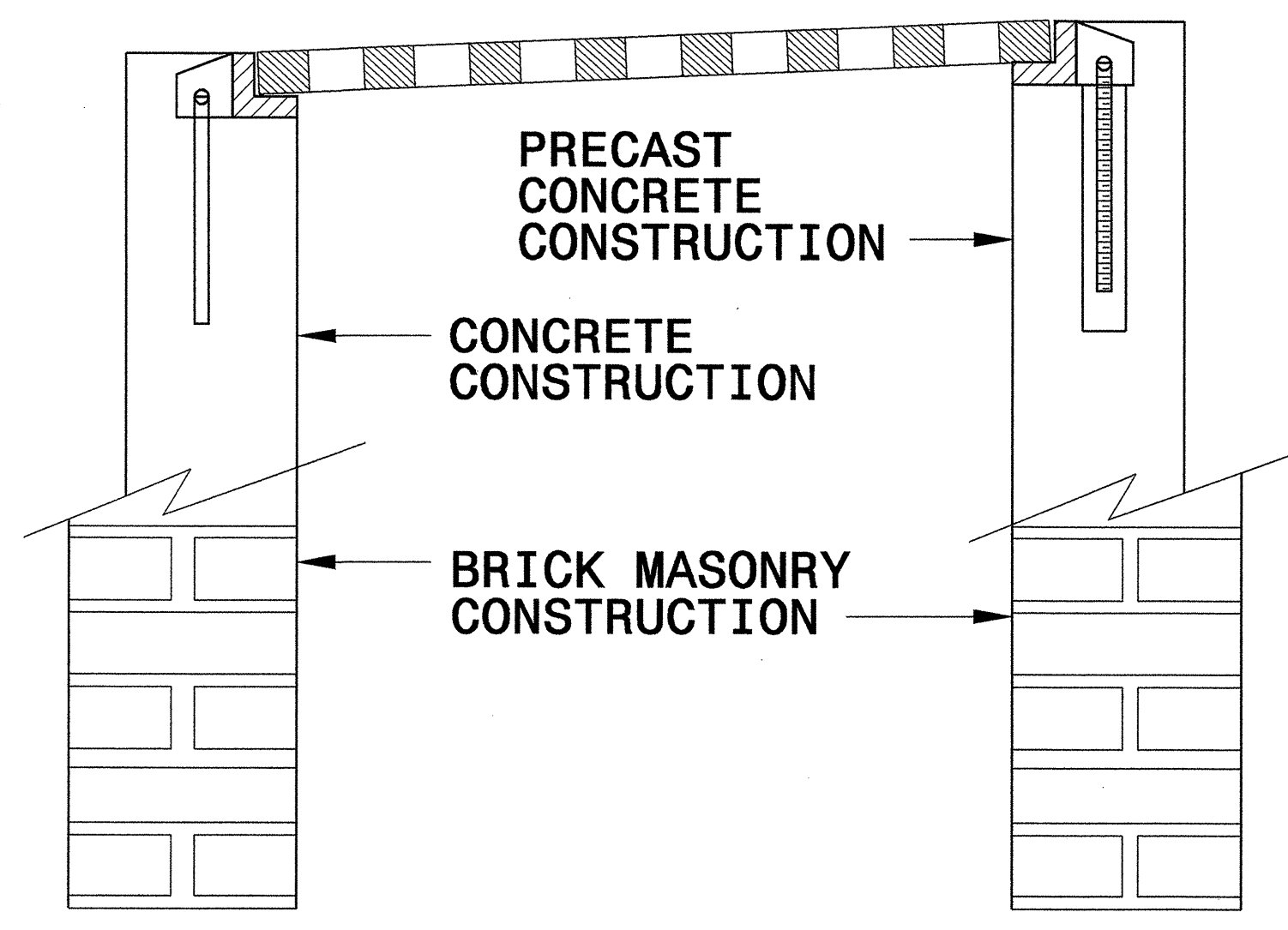
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



CONCRETE ANCHOR
3/8" DIA. BENT BAR



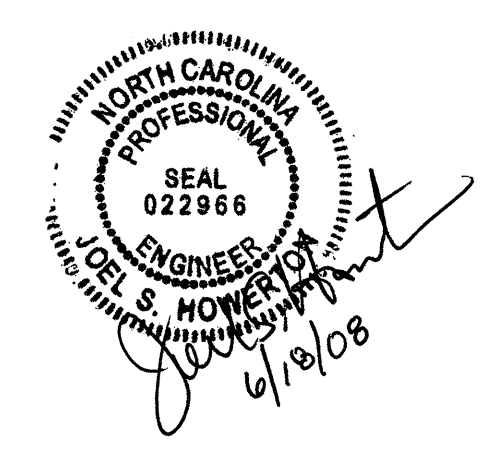
PRECAST CONCRETE ANCHOR
3/8" DIA. BENT BAR



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:	DATE:
FILE SPEC.:	

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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 - C201605


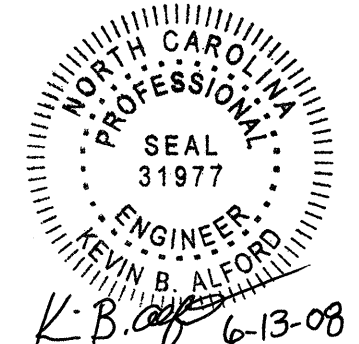
ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
0008000000-E	200	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (18+07.50)
0029000000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (38+37.00)
0043000000-N	226	Lump Sum		GRADING
0057000000-E	226	200	CY	UNDERCUT EXCAVATION
0134000000-E	240	28	CY	DRAINAGE DITCH EXCAVATION
0196000000-E	270	100	SY	FABRIC FOR SOIL STABILIZATION
0234000000-E	SP	100	CY	GENERIC GRADING ITEM SELECT GRANULAR MATERIAL
0318000000-E	300	90	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS
0343000000-E	310	68	LF	15" SIDE DRAIN PIPE
0366000000-E	310	628	LF	15" RC PIPE CULVERTS, CLASS III
0708000000-E	310	116	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK
0806000000-E	310	6	EA	15" BIT COAT CS PIPE ELBOWS, TYPE B 0.064" THICK (15", 0.064")
1121000000-E	520	210	TON	AGGREGATE BASE COURSE
1220000000-E	545	50	TON	INCIDENTAL STONE BASE
1489000000-E	610	1,430	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
1498000000-E	610	570	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
1519000000-E	610	1,160	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
1560000000-E	620	160	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22
2022000000-E	815	25	CY	SUBDRAIN EXCAVATION
2033000000-E	815	20	CY	SUBDRAIN FINE AGGREGATE
2044000000-E	815	100	LF	6" PERFORATED SUBDRAIN PIPE

ItemNumber	Sec #	Quantity	Unit	Description
2055000000-E	815	3	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	8	EA	MASONRY DRAINAGE STRUCTURES
2355000000-N	840	8	EA	FRAME WITH GRATE, STD 840.29
2556000000-E	846	695	LF	SHOULDER BERM GUTTER
3030000000-E	862	1,325	LF	STEEL BM GUARDRAIL
3150000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS
3270000000-N	SP	8	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3317000000-N	862	8	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
3649000000-E	876	29	TON	RIP RAP, CLASS B
3656000000-E	876	445	SY	FILTER FABRIC FOR DRAINAGE
3659000000-N	SP	3	EA	PREFORMED SCOUR HOLES WITH LEVEL SPREADER APRON
4400000000-E	1110	320	SF	WORK ZONE SIGNS (STATIONARY)
4410000000-E	1110	57	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
4430000000-N	1130	10	EA	DRUMS
4445000000-E	1145	96	LF	BARRICADES (TYPE III)
4450000000-N	1150	8	HR	FLAGGER
4847000000-E	1205	14,400	LF	POLYUREA PAVEMENT MARKING LINES (4", *****) (STANDARD GLASS BEADS)
4900000000-N	1251	50	EA	PERMANENT RAISED PAVEMENT MARKERS
6000000000-E	1605	2,900	LF	TEMPORARY SILT FENCE
6006000000-E	1610	100	TON	STONE FOR EROSION CONTROL, CLASS A
6009000000-E	1610	200	TON	STONE FOR EROSION CONTROL, CLASS B
6012000000-E	1610	155	TON	SEDIMENT CONTROL STONE
6015000000-E	1615	2.5	ACR	TEMPORARY MULCHING

ItemNumber	Sec #	Quantity	Unit	Description
6018000000-E	1620	100	LB	SEED FOR TEMPORARY SEEDING
6021000000-E	1620	0.5	TON	FERTILIZER FOR TEMPORARY SEEDING
6024000000-E	1622	500	LF	TEMPORARY SLOPE DRAINS
6027000000-N	1622	15	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
6029000000-E	SP	1,275	LF	SAFETY FENCE
6030000000-E	1630	5,030	CY	SILT EXCAVATION
6036000000-E	1631	725	SY	MATTING FOR EROSION CONTROL
6037000000-E	SP	60	SY	COIR FIBER MAT
6042000000-E	1632	450	LF	1/4" HARDWARE CLOTH
6071030000-E	SP	275	LF	COIR FIBER BAFFLES
6084000000-E	1660	3	ACR	SEEDING & MULCHING
6087000000-E	1660	2	ACR	MOWING
6090000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
6093000000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
6096000000-E	1662	75	LB	SEED FOR SUPPLEMENTAL SEEDING
6108000000-E	1665	2.25	TON	FERTILIZER TOPDRESSING
6114000000-N	SP	4	HR	SPECIALIZED HAND MOWING
6117000000-N	SP	12	EA	RESPONSE FOR EROSION CONTROL

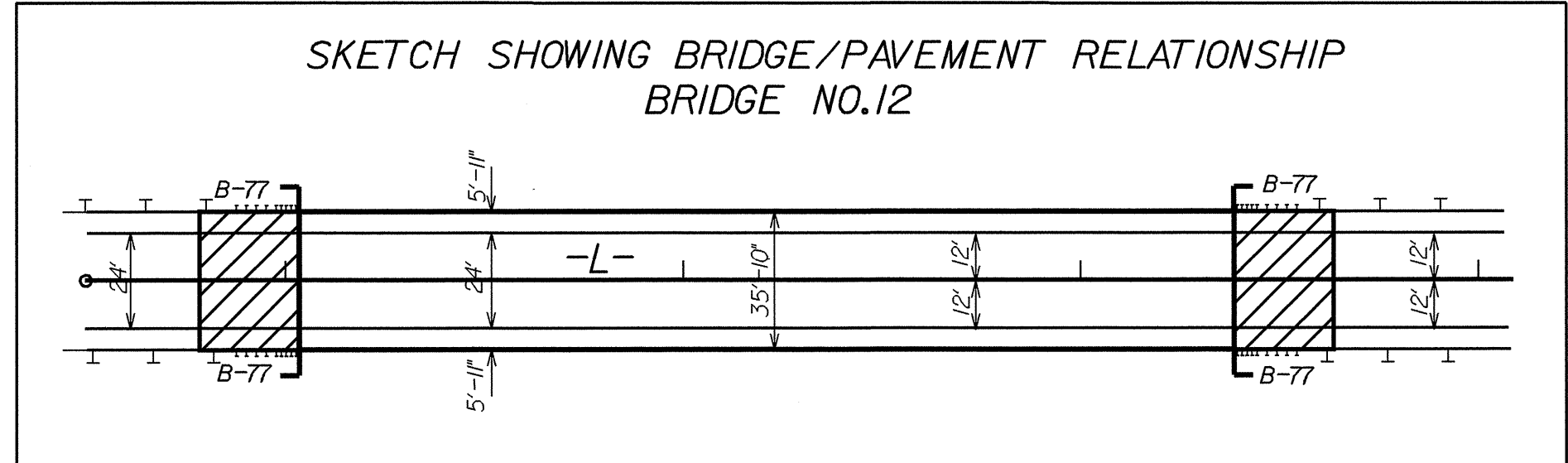
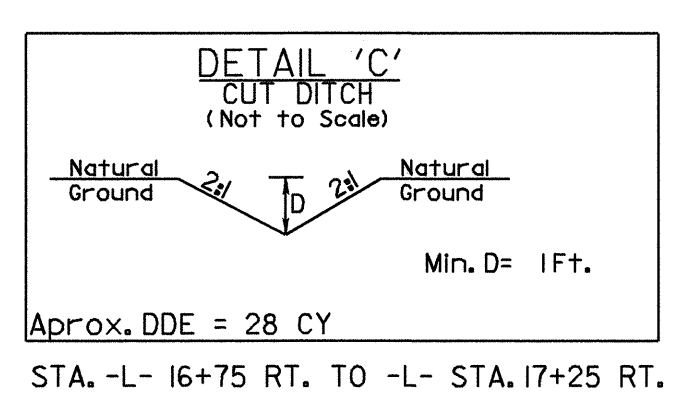
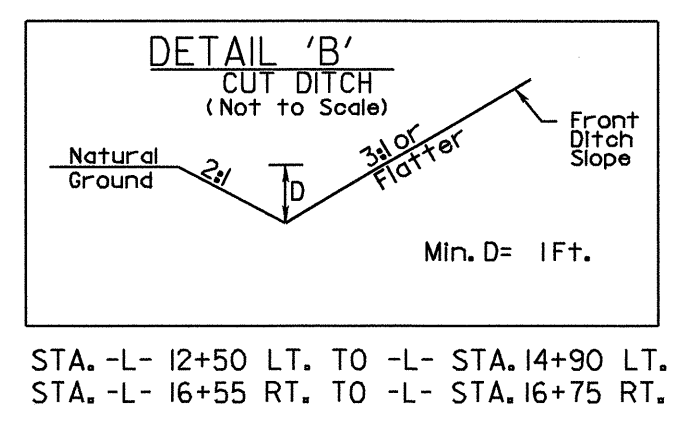
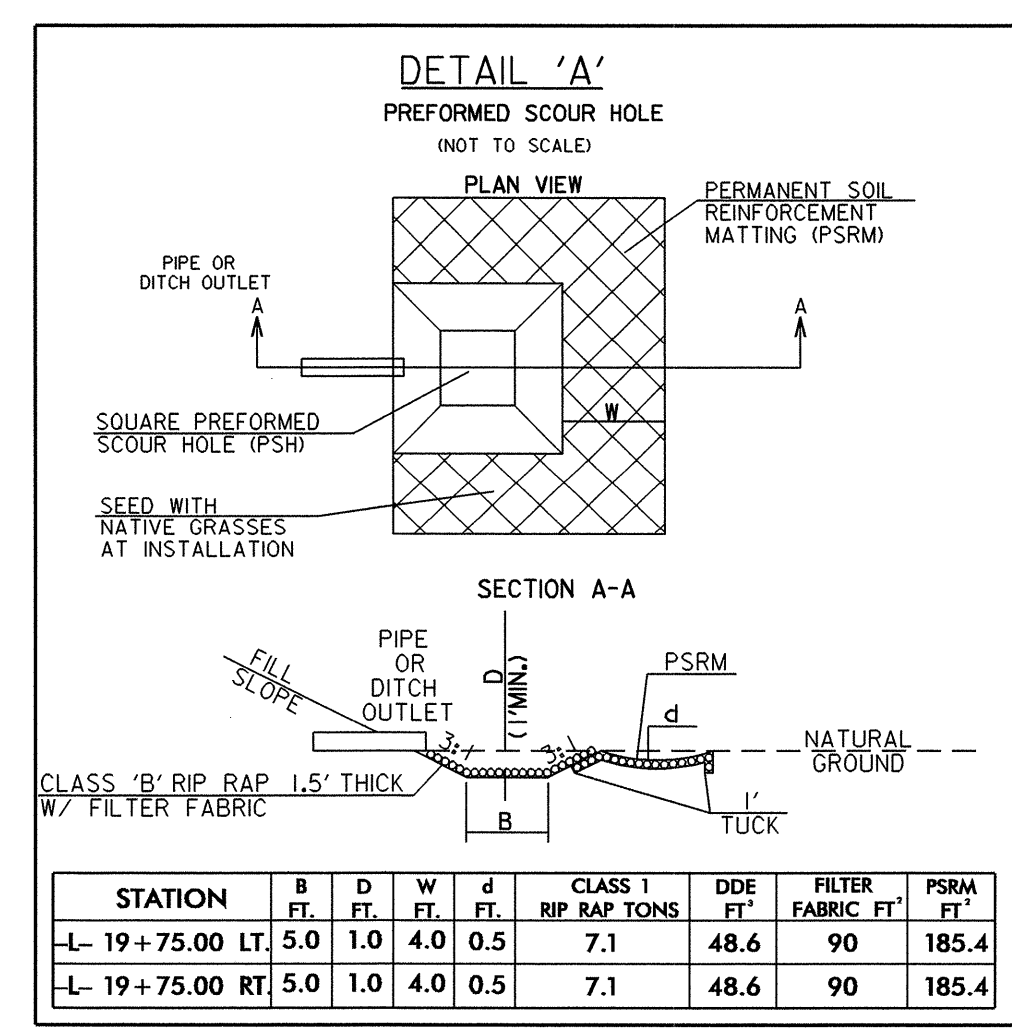
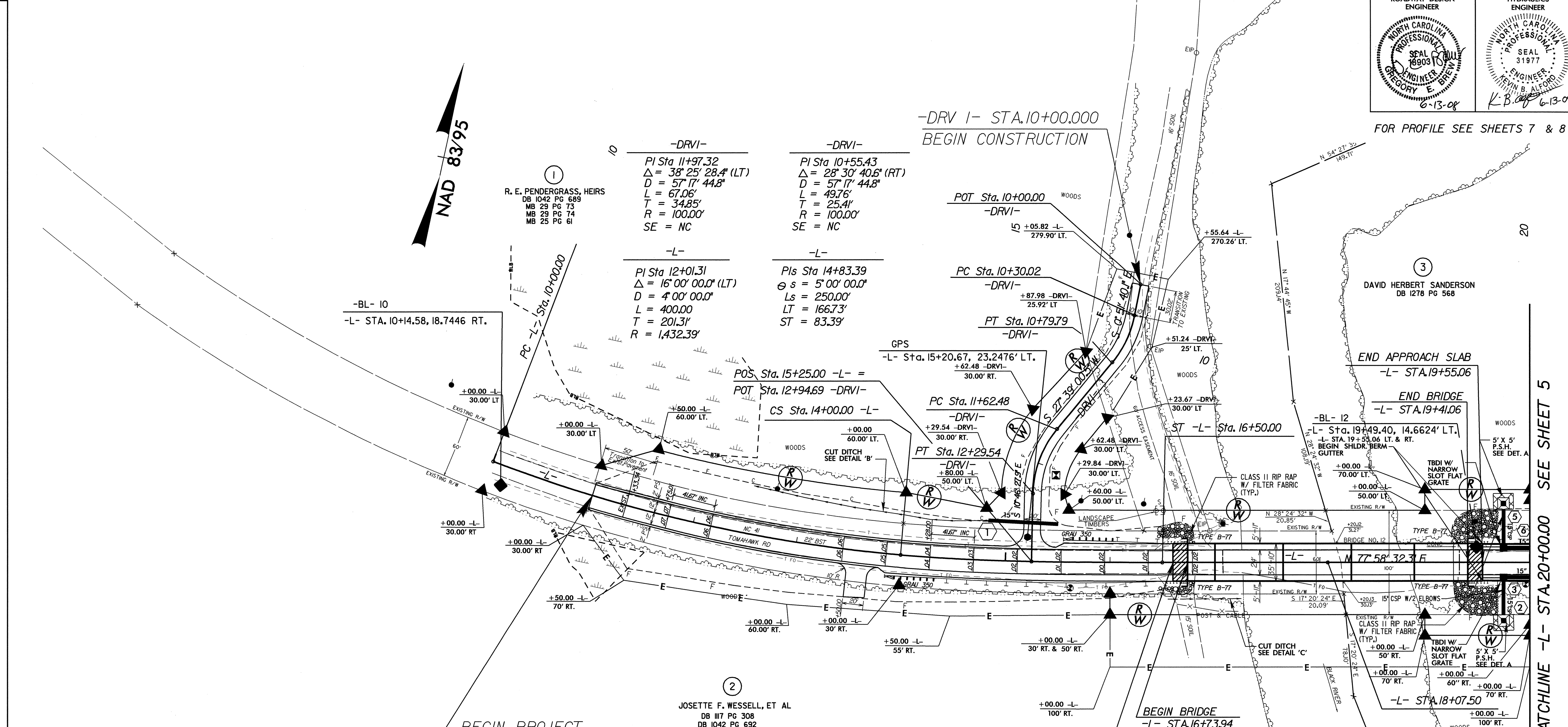
5/28/99

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PROJECT REFERENCE NO. B-1382	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 

FOR PROFILE SEE SHEETS 7 & 8

8/17/09



REVISIONS

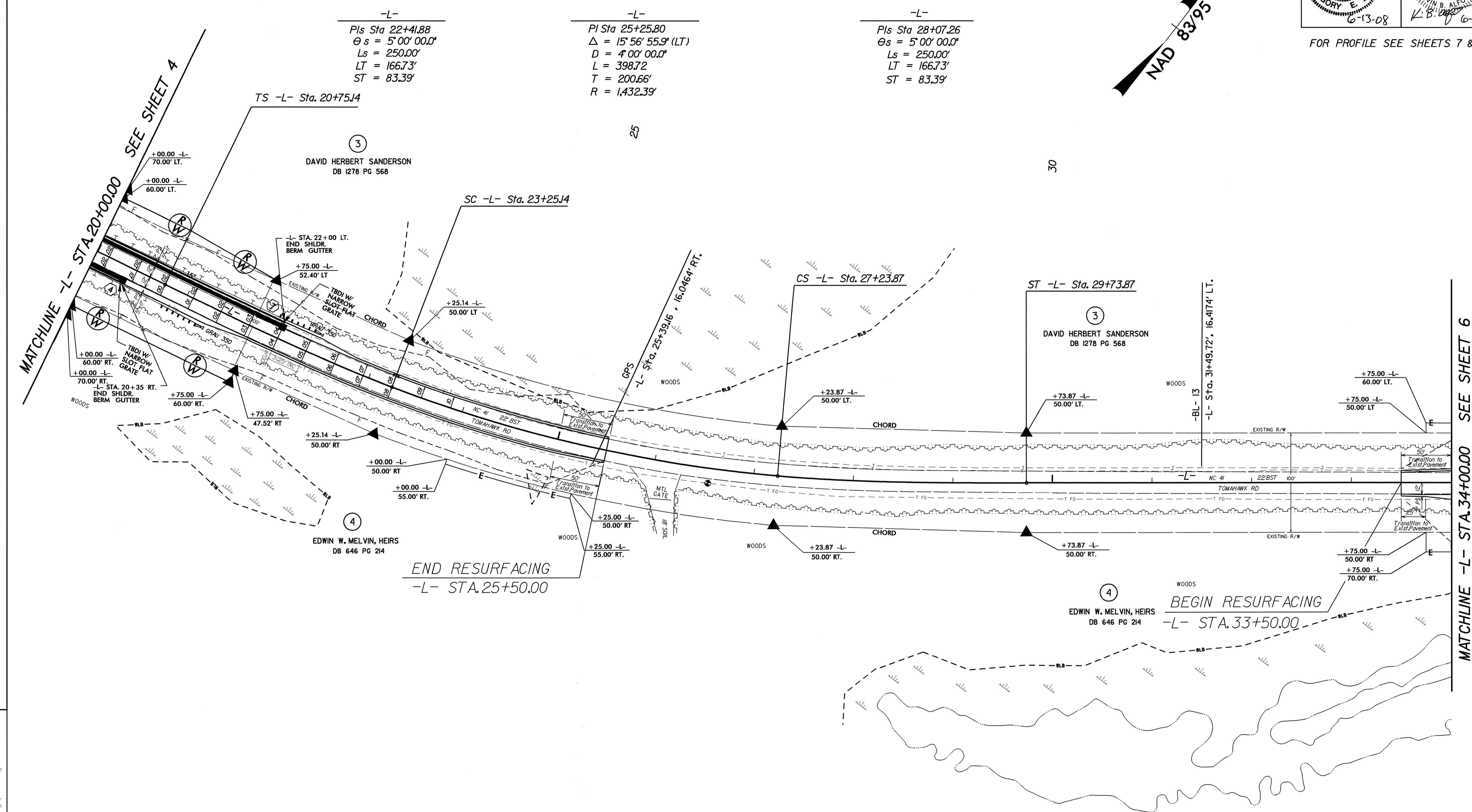
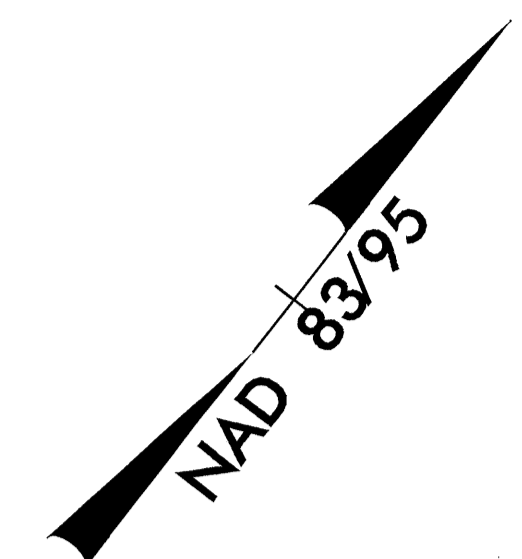
MATCHLINE -L- STA. 20+00.00 SEE SHEET 5

12 JUN 2008 14:01 b1382_rdy_psh4.dgn

SEE SHEETS S-1 THRU S-52 FOR STRUCTURE PLANS

PROJECT REFERENCE NO. B-1382	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER GREGORY E. BRUNN SEAL 18903 6-13-08	HYDRAULICS ENGINEER K. B. ALFORD SEAL 31977 6-13-08

FOR PROFILE SEE SHEETS 7 & 8



REVISIONS

8/17/99

12 JUN 2008 14:03 b1382_rdy_psh5cfd.dwg
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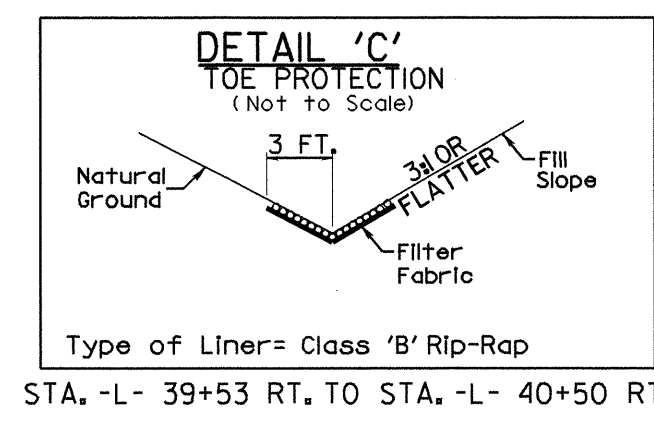
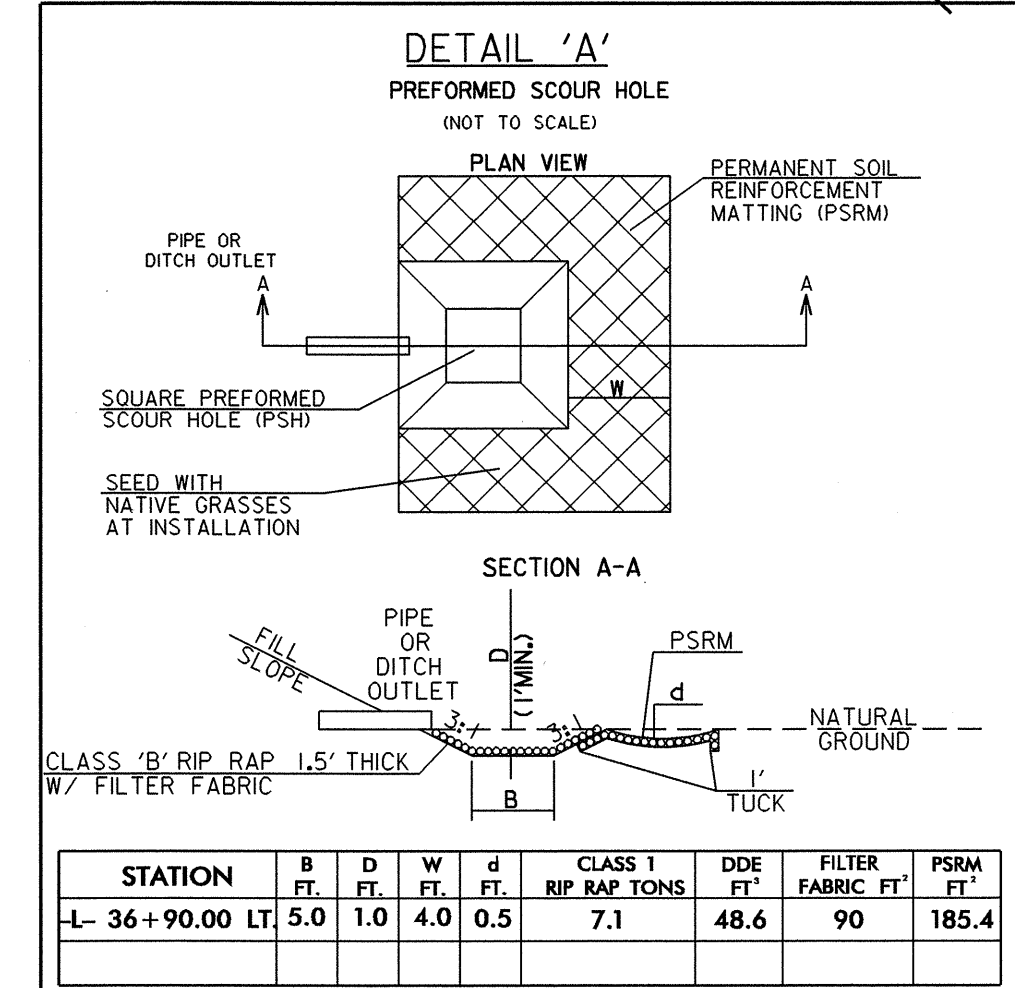
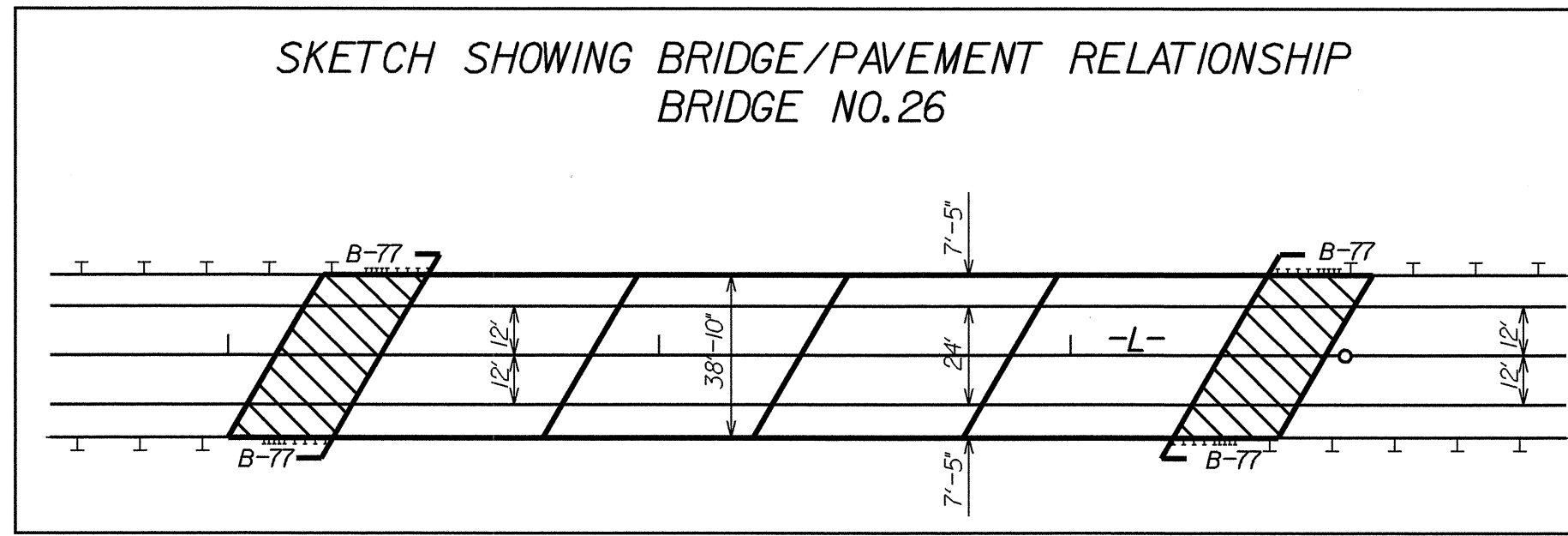
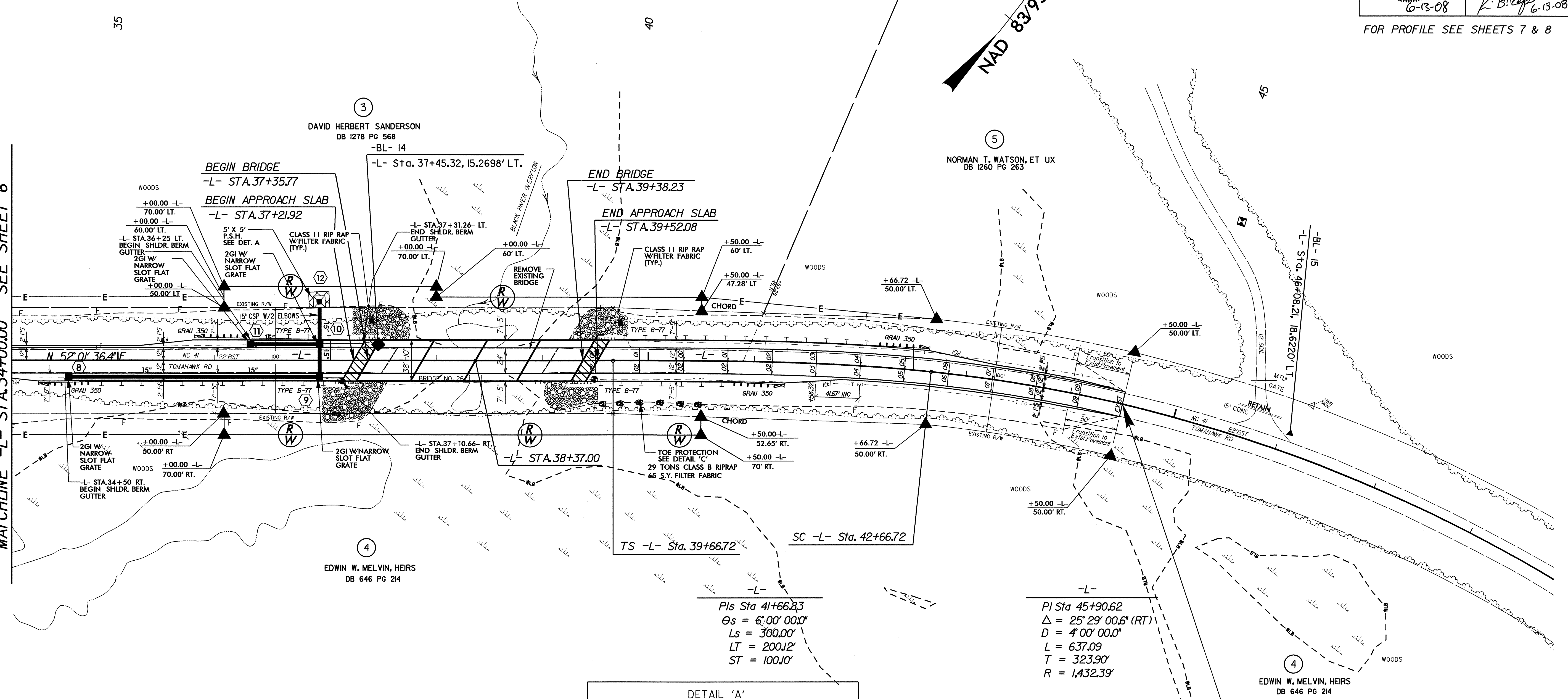
8/17/99

SEE SHEETS S-1THRU S-52 FOR STRUCTURE PLANS

PROJECT REFERENCE NO. B-1382	SHEET NO. 6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER GREGORY E. BREWSTER NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 18903 6-13-08	HYDRAULICS ENGINEER KEVIN B. ALFORD NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 31977 6-13-08

FOR PROFILE SEE SHEETS 7 & 8

MATCHLINE -L- STA. 34+00.00 SEE SHEET 6



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5/28/09

BM NO.1 12" PINE TREE
BL STA.10+31.00, 60' LT, EL.46.08 =
-L- STA.15+47.20, 83.20' LT

BEGIN PROPOSED GRADE
-L- STA.11+50.00
EL.53.69

BEGIN CONSTRUCTION
-L- STA.11+00.00

PI = 13+00.00
EL = 51.40'
VC = 200'
K = 896

PI = 15+00.00
EL = 47.90'
VC = 180'
K = 187

STRUCTURE HYDRAULIC DATA	
DESIGN DISCHARGE	= 16000 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 41.20 FT
BASE DISCHARGE	= 19000 CFS
BASE FREQUENCY	= 50 YRS
BASE HW ELEVATION	= 42.0 FT
OVERTOPPING DISCHARGE	= 16700 CFS
OVERTOPPING FREQUENCY	= 50+ YRS
OVERTOPPING ELEVATION	= 41.43 FT

STA.18+07.50 -L-
SKEW = 90°
ELEV. = 45.49
39'-0" CONC. CORED SLAB
20' 54"-0" 30.53'-0"
35'-10" CLEAR ROADWAY
NO DECK DRAINS ALLOWED

END BRIDGE
-L- STA.19+41.06

PI = 21+50.00
EL = 42.80'
VC = 180'
K = 975

NOTE: FEATHER PROPOSED PAVEMENT
FROM -L- STA.11+50.00 BACK TO EXISTING
PAVEMENT STA.11+00.00

BEGIN CUT DITCH
STA.12+50.00 -L- LT.
ELEV. 42.00

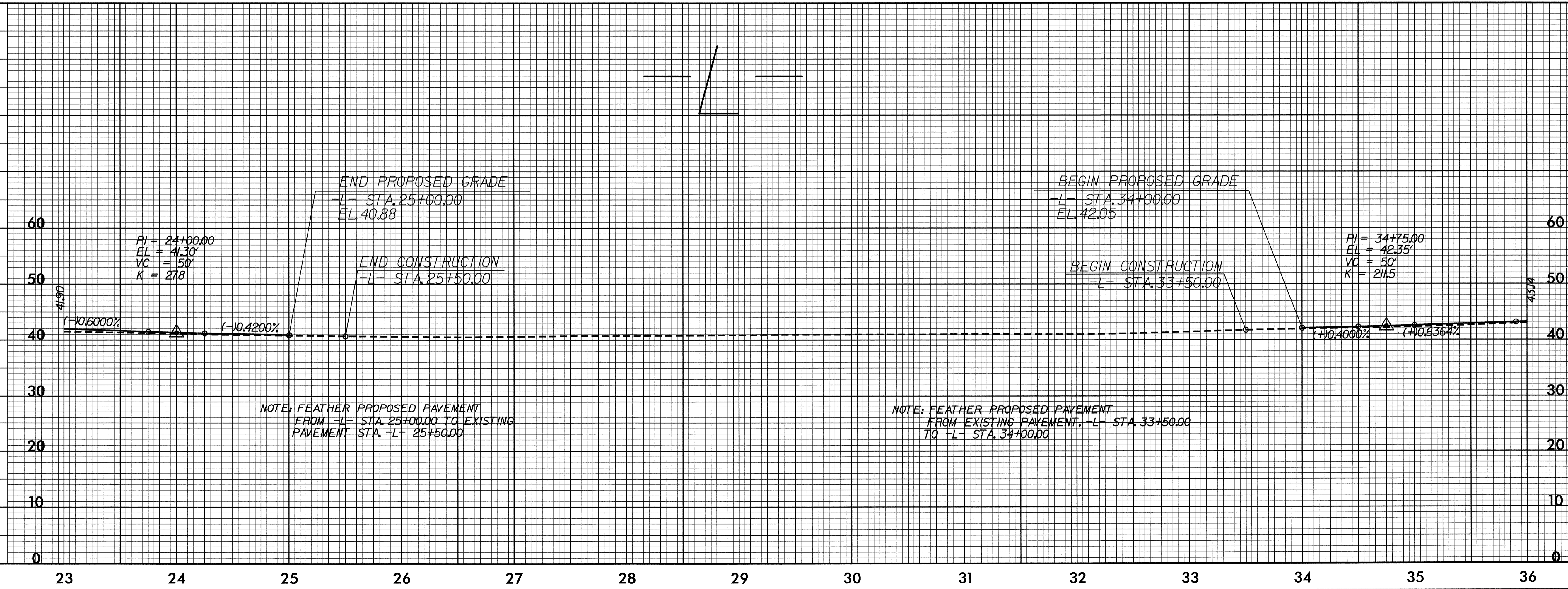
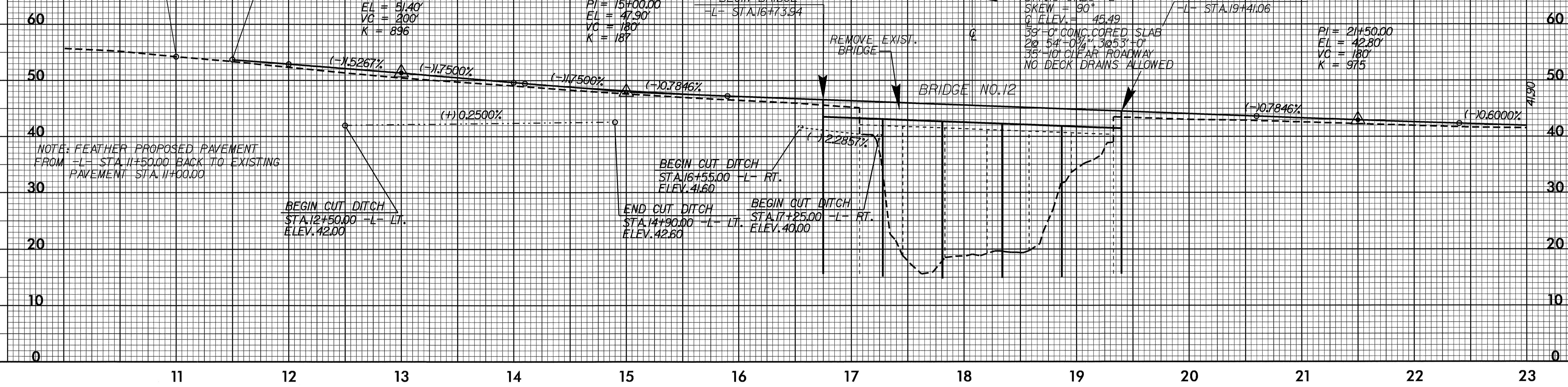
BEGIN CUT DITCH
STA.16+55.00 -L- RT.
ELEV. 41.60

END CUT DITCH
STA.14+90.00 -L- LT.
ELEV. 42.60

BEGIN CUT DITCH
STA.17+25.00 -L- RT.
ELEV. 40.00

FOR PLANS SEE SHEETS 4, 5 & 6

PROJECT REFERENCE NO. B-1382	SHEET NO. 7
ROADWAY DESIGN ENGINEER GREGORY E. BRIDGES NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 18908 6-13-08	HYDRAULICS ENGINEER K. B. BROWN NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 31977 6-13-08



NOTE: FEATHER PROPOSED PAVEMENT
FROM -L- STA. 25+00.00 TO EXISTING
PAVEMENT STA. -L- 25+50.00

NOTE: FEATHER PROPOSED PAVEMENT
FROM EXISTING PAVEMENT, -L- STA. 33+50.00
TO -L- STA. 34+00.00

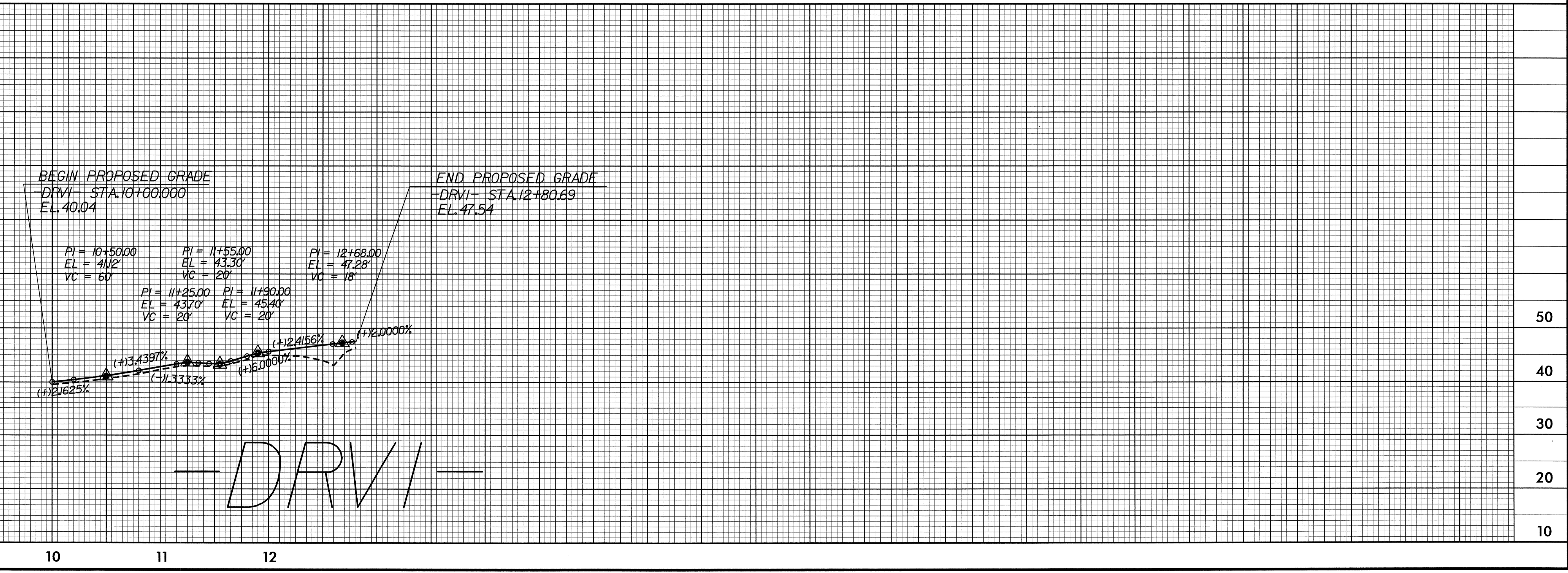
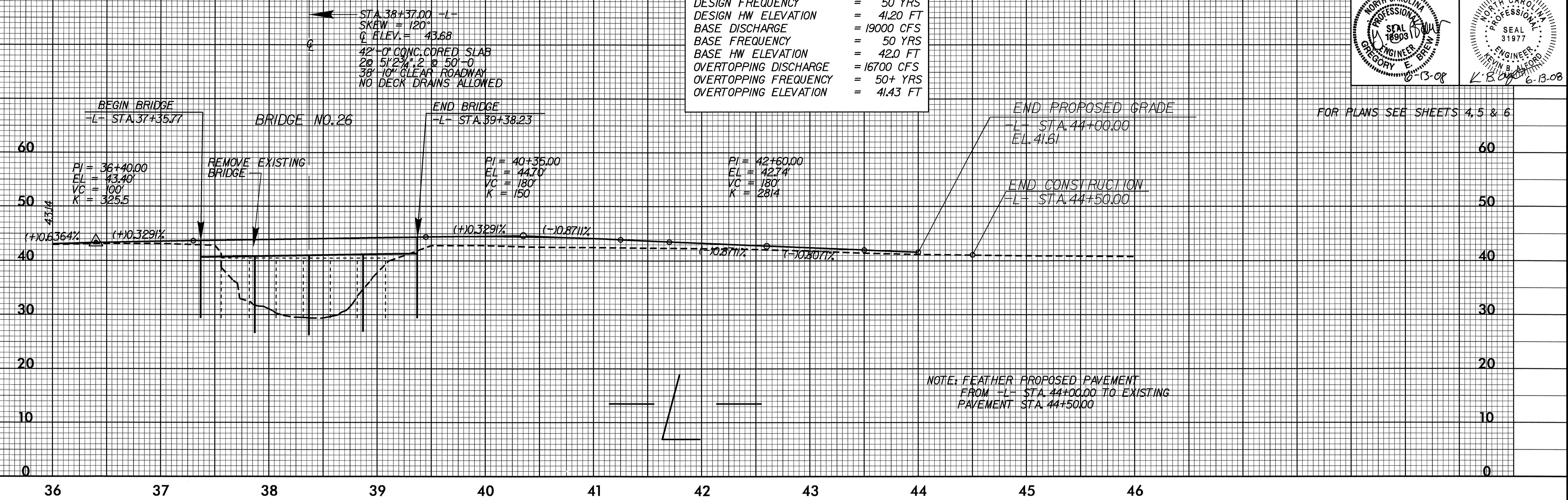
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5/28/99

BM NO.2 6" OAK TREE
BL STA.40+30.00, 195' LT, EL.39.25 =
-L- STA.45+11.9, 195.28' LT

STRUCTURE HYDRAULIC DATA	
DESIGN DISCHARGE	= 16000 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 41.20 FT
BASE DISCHARGE	= 19000 CFS
BASE FREQUENCY	= 50 YRS
BASE HW ELEVATION	= 42.0 FT
OVERTOPPING DISCHARGE	= 16700 CFS
OVERTOPPING FREQUENCY	= 50+ YRS
OVERTOPPING ELEVATION	= 41.43 FT

PROJECT REFERENCE NO. B-1382	SHEET NO. 8
ROADWAY DESIGN ENGINEER GREGORY E. BREW	HYDRAULICS ENGINEER KEVIN B. ALFORD



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