

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-3613	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33164.1.1	BRSTP-41 (5)	PE	
33164.2.2	BRSTP-41(5)	R/W & UTIL	
33164.3.1	BRSTP-41(25)	CONST.	

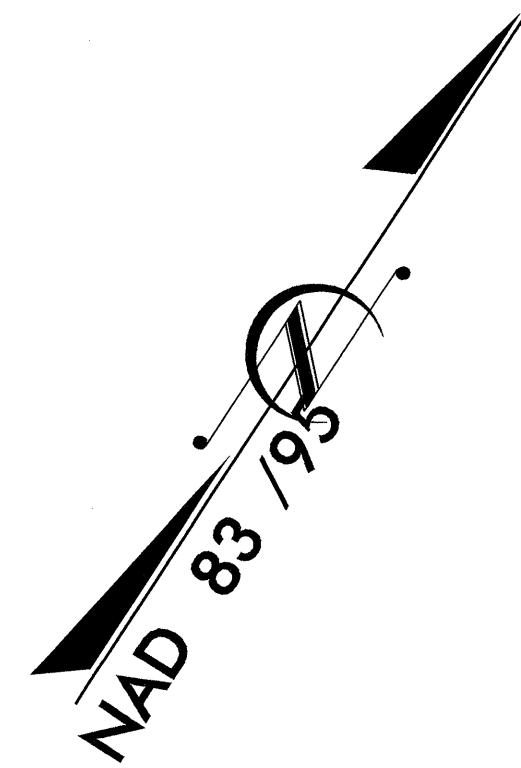
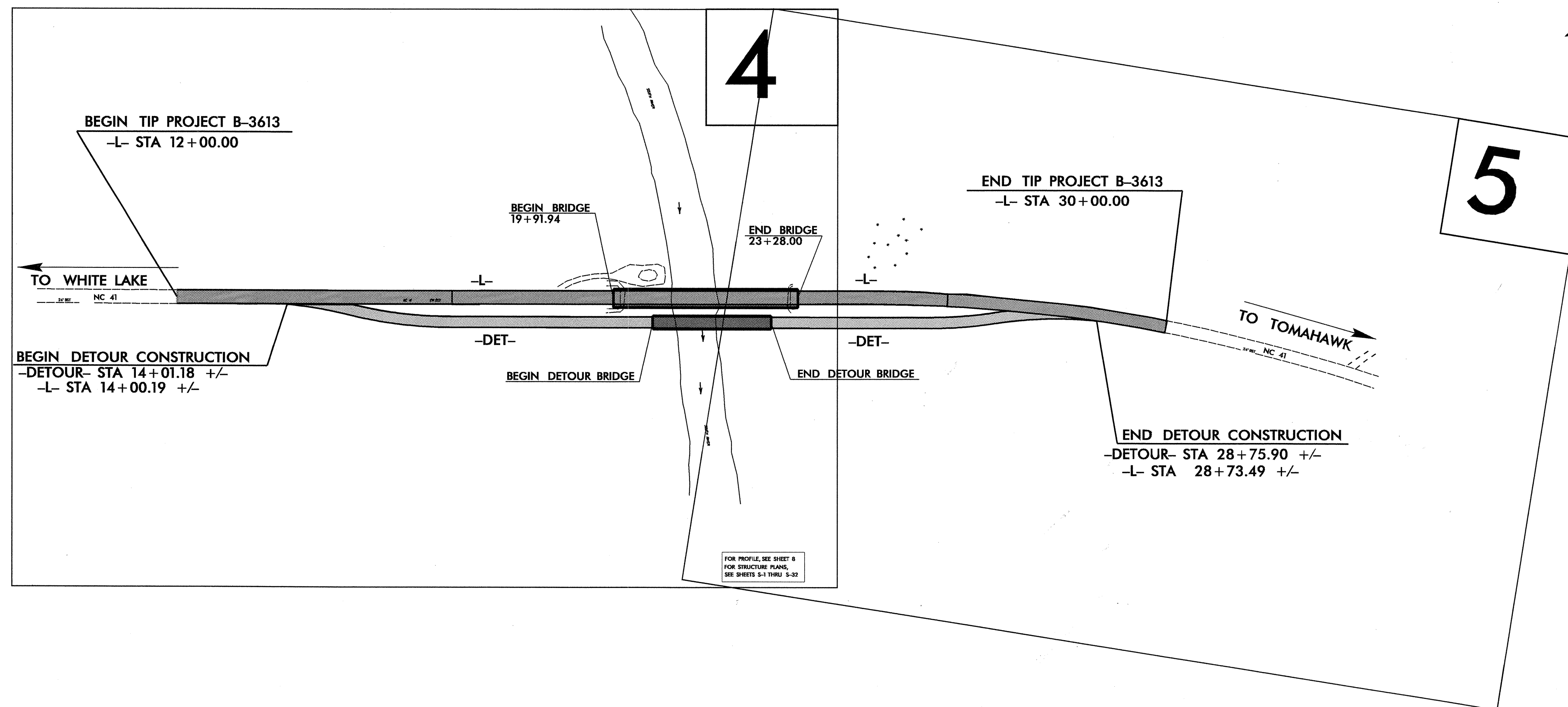
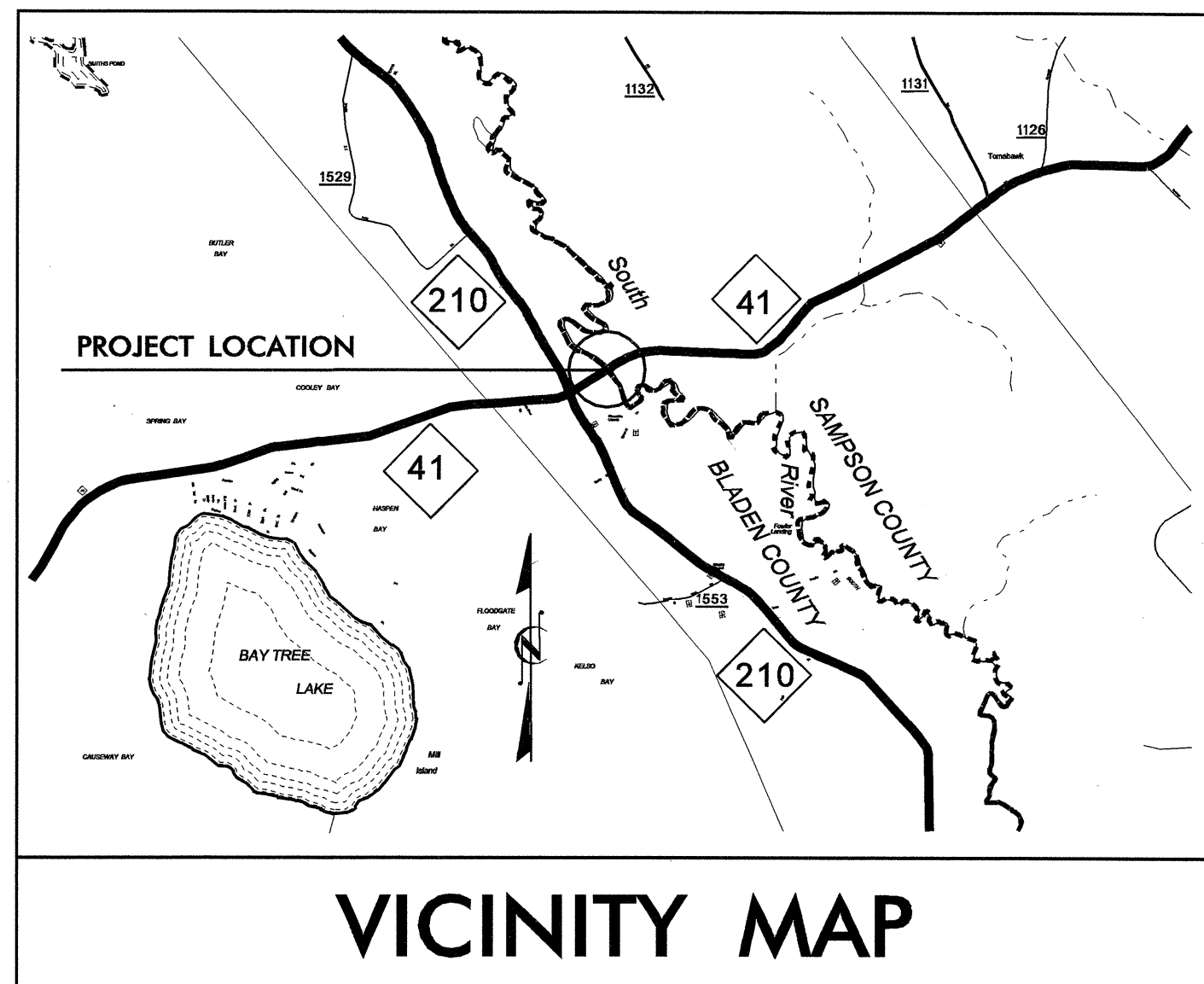
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BLADEN / SAMPSON COUNTIES

**LOCATION: BRIDGE NO. 44 ON NC 41 AND APPROACHES
OVER THE SOUTH RIVER**

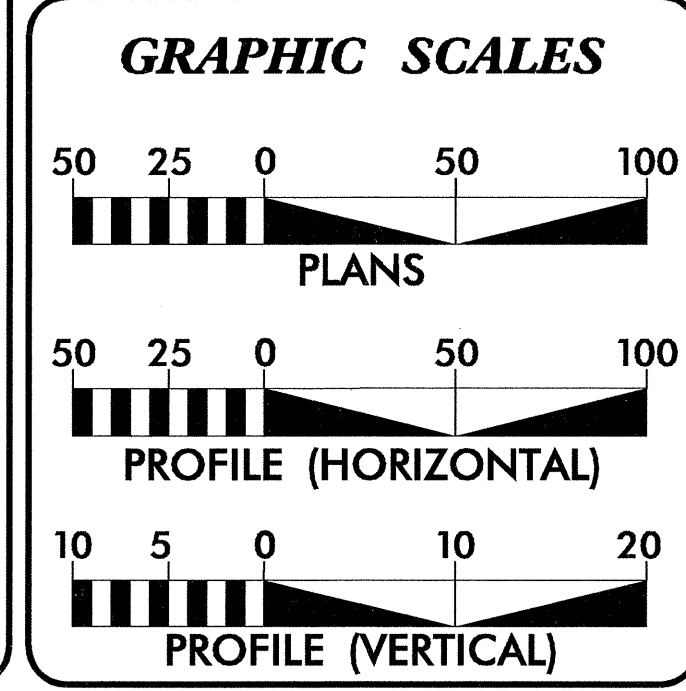
**TYPE OF WORK: STRUCTURE, DRAINAGE, GRADING, PAVING
AND RESURFACING.**

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



TIP PROJECT: B-3613

CONTRACT: C201252



DESIGN DATA

ADT 2007 =	2200 VPD
ADT 2025 =	3200 VPD
DHV =	10 %
D =	60 %
T =	22 % *
V =	60 MPH
* TTST 4	DUAL 18
FUNC CLASS =	COLLECT.

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-3613	= 0.277
LENGTH OF STRUCTURE TIP PROJECT B-3613	= 0.064
TOTAL LENGTH TIP PROJECT B-3613	= 0.341

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: FEBRUARY 15, 2008	JIMMY GOODNIGHT PE PROJECT ENGINEER
LETTING DATE: March 17, 2009	TIM GOINS PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: *Stephen R. Morgan* 11-20-08

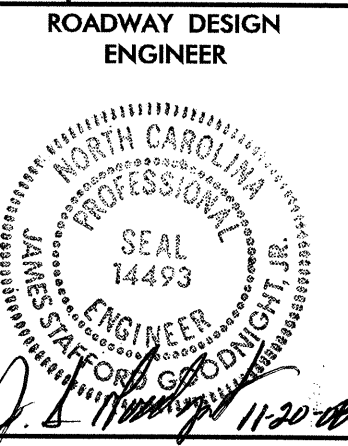
ROADWAY DESIGN ENGINEER

SIGNATURE: *Jimmy Goodnight* 11-20-08

**DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA**

Ant McMillan P.E.
STATE HIGHWAY DESIGN ENGINEER

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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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 THRU 2A	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B	DETAIL OF ANCHORAGE FOR FRAMES
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF DRAINAGE QUANTITIES
3B	SUMMARY OF GUARDRAIL, EARTHWORK SUMMARY, AND ASPHALT PAVEMENT REMOVAL SUMMARY
3C	PARCEL INDEX SHEET
4 THRU 7	PLAN SHEET
8 THRU 9	PROFILE SHEET
TCP-1 THRU TCP-5	TRAFFIC CONTROL PLANS
RF-1	REFORESTATION PLANS
EC-1 THRU EC- 8	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-5	SIGNING PLANS
UO-1 THRU UO-3	UTILITIES PLANS
X-1 THRU X- 15	CROSS-SECTIONS
S-1 THRU S- 32	STRUCTURE PLANS

GENERAL NOTES: 2006 SPECIFICATIONS
EFFECTIVE: 07-18-06
REVISED: 07-30-08

GRADING AND SURFACING OR RESURFACING AND WIDENING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III.

SUPERELEVATION:
ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

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

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

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

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

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 Star Telephone Membership Corporation- Telephone and Fiber Optic.
Four County EMC-Power Distribution.
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

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

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'
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	
840.17	Concrete Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.19	Concrete Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.26	Brick Grated Drop Inlet Type 'A' - 12" thru 72" Pipe
840.28	Brick Grated Drop Inlet Type 'D' - 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.45	Precast Drainage Structure
840.66	Drainage Structure Steps
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
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

Table listing symbols for 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:

Table listing symbols for 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:

Table listing symbols for hydrology: Stream or Body of Water, Hydro, Pool or Reservoir, Jurisdictional Stream, Buffer Zone 1, Buffer Zone 2, Flow Arrow, Disappearing Stream, Spring, Wetland, Proposed Lateral, Tail, Head Ditch, False Sump.

RAILROADS:

Table listing symbols for railroads: Standard Gauge, RR Signal Milepost, Switch, RR Abandoned, RR Dismantled.

RIGHT OF WAY:

Table listing symbols for 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:

Table listing symbols for roads and related features: Existing Edge of Pavement, Existing Curb, Proposed Slope Stakes Cut, Proposed Slope Stakes Fill, 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:

Table listing symbols for vegetation: Single Tree, Single Shrub, Hedge, Woods Line, Orchard, Vineyard.

EXISTING STRUCTURES:

Table listing symbols for 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:

Table listing symbols for 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:

Table listing symbols for 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:

Table listing symbols for 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:

Table listing symbols for gas: Gas Valve, Gas Meter, Recorded U/G Gas Line, Designated U/G Gas Line (S.U.E.*), Above Ground Gas Line.

SANITARY SEWER:

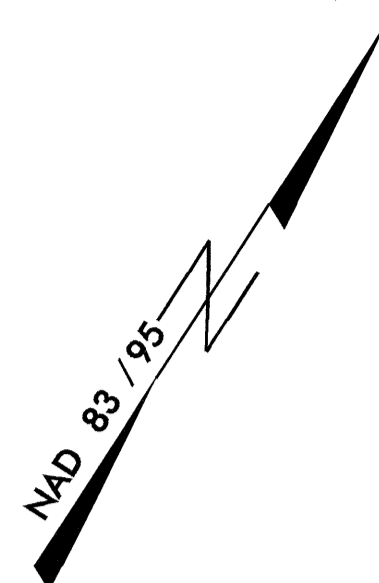
Table listing symbols for sanitary sewer: Sanitary Sewer Manhole, Sanitary Sewer Cleanout, U/G Sanitary Sewer Line, Above Ground Sanitary Sewer, Recorded SS Forced Main Line, Designated SS Forced Main Line (S.U.E.*).

MISCELLANEOUS:

Table listing symbols for 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, End of Information.

SURVEY CONTROL SHEET B-3613

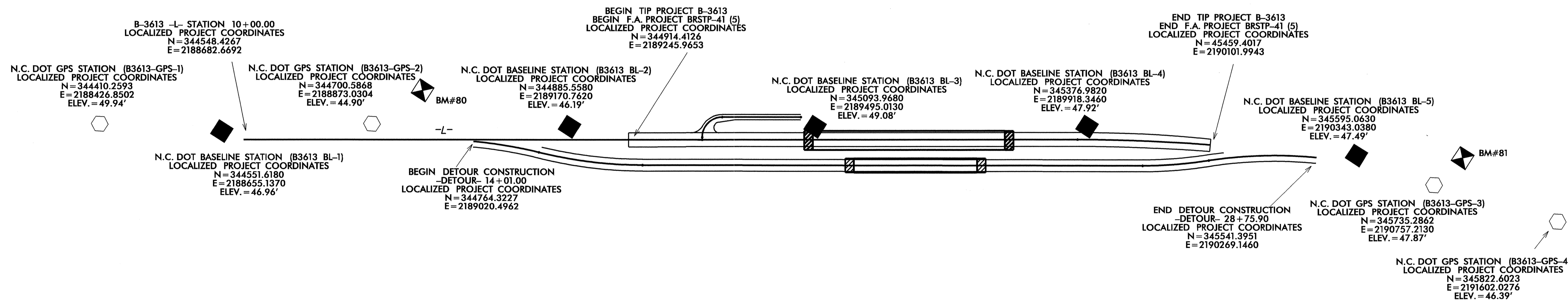
PROJECT REFERENCE NO. B-3613	SHEET NO. 1-C
Location and Surveys	



BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
						OUTSIDE PROJECT LIMITS	
1		B-3613 BL-1	344551.6180	2188655.1370	46.96		
2		B-3613 BL-2	344885.5580	2189170.7620	46.19	15+92.97	16.78 LT
3		B-3613 BL-3	345093.9680	2189495.0130	49.08	19+78.42	14.88 LT
4		B-3613 BL-4	345376.9820	2189918.3460	47.99	24+87.35	21.74 LT
5		B-3613 BL-5	345595.0630	2190343.0380	47.49	29+61.99	18.11 LT

 BM80 ELEVATION = 43.95
 N 344783 E 2188918
 L STATION 13+26 69 LEFT
 R/R SPIKE IN BASE OF 20 INCH GUM

 BM81 ELEVATION = 45.59
 N 345770 E 2190716
 L STATION 33+66 64 LEFT
 P-K NAIL IN CORNER OF CONC. SLAB



DATUM DESCRIPTION

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

WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF
 NORTHING: 363924.548(11) EASTING: 2173859.465(11)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
 (GROUND TO GRID) IS: 0.99994450

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM
 "FOLK" TO -L- STATION 10+00.00
 IS S 37 25 00.73 E 24,395.931'

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.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:
 B3613_LS_CONTROL_070810.TXT

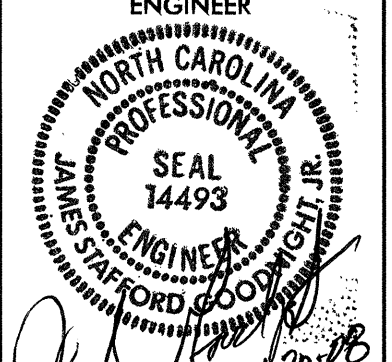
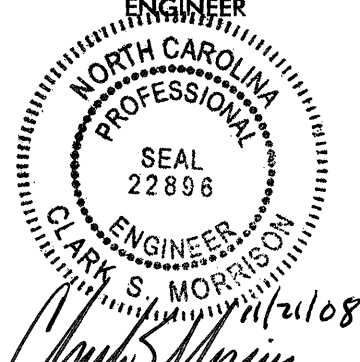
SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

© 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

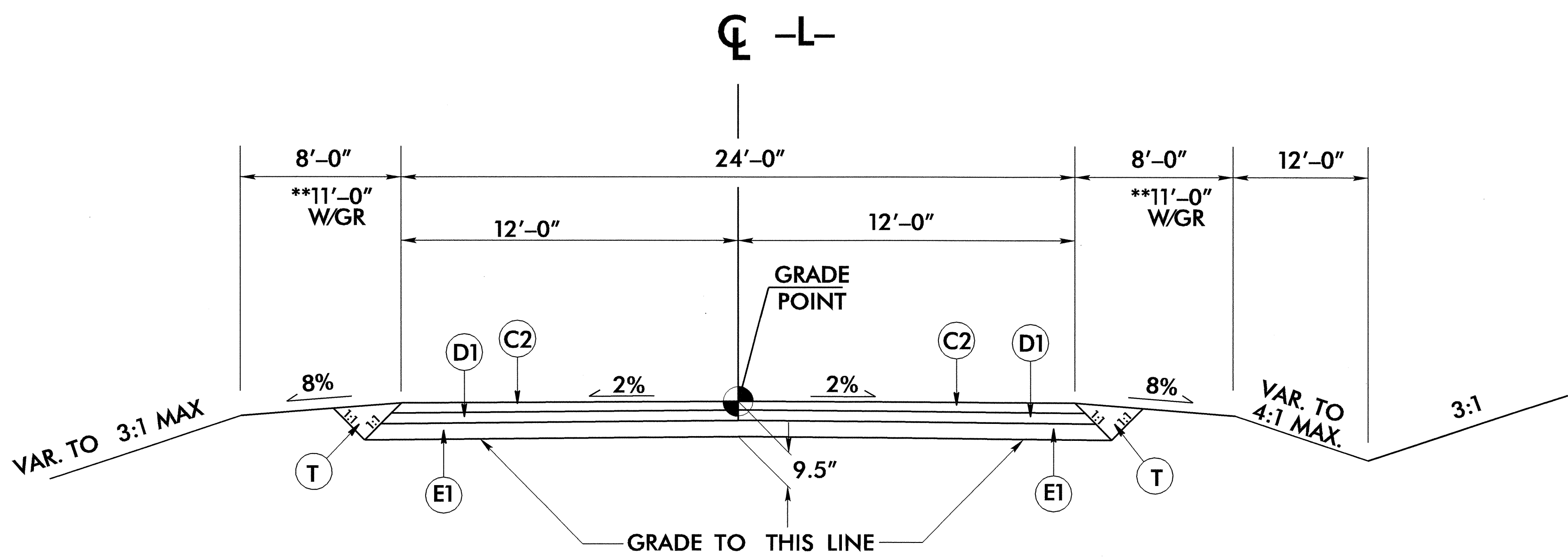
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 6/2/99

6/2/99

PROJECT REFERENCE NO. B-3613	SHEET NO. 2
ROADWAY DESIGN ENGINEER FORD GOOSNIGHT	PAVEMENT DESIGN ENGINEER CLARK S. MORRISON
	

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1 1/2" 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.
D1	PROP. APPROX. 2 1/2" 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 2 1/2" 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. 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	PROP. 8" AGGREGATE BASE COURSE.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.

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



TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

FROM -L- STA. 12+00 TO -L- STA. 18+90
 OVERLAY THE EXISTING PAVEMENT WITH 1 1/2" S9.5B

*NOTE: TRANSITION FROM EXISTING AT -L- STA. 16+71.75 TO TYPICAL SECTION NO. 1 (-L- STA. 18+90)

-L- STA. 18+90 TO -L- STA. 19+91.94 (BEG. BRIDGE)
 -L- STA. 23+28 (END BRIDGE) TO -L- STA. 24+80

FROM -L- STA. 24+80 TO -L- STA. 30+00
 OVERLAY THE EXISTING PAVEMENT WITH 1 1/2" S9.5B

*NOTE: TRANSITION FROM TYPICAL SECTION NO. 1 (-L- STA. 24+80) TO EXISTING AT -L- STA. 26+86.75

**IN GUARDRAIL LOCATIONS, PAVE FULL DEPTH OUT TO FACE OF GUARDRAIL

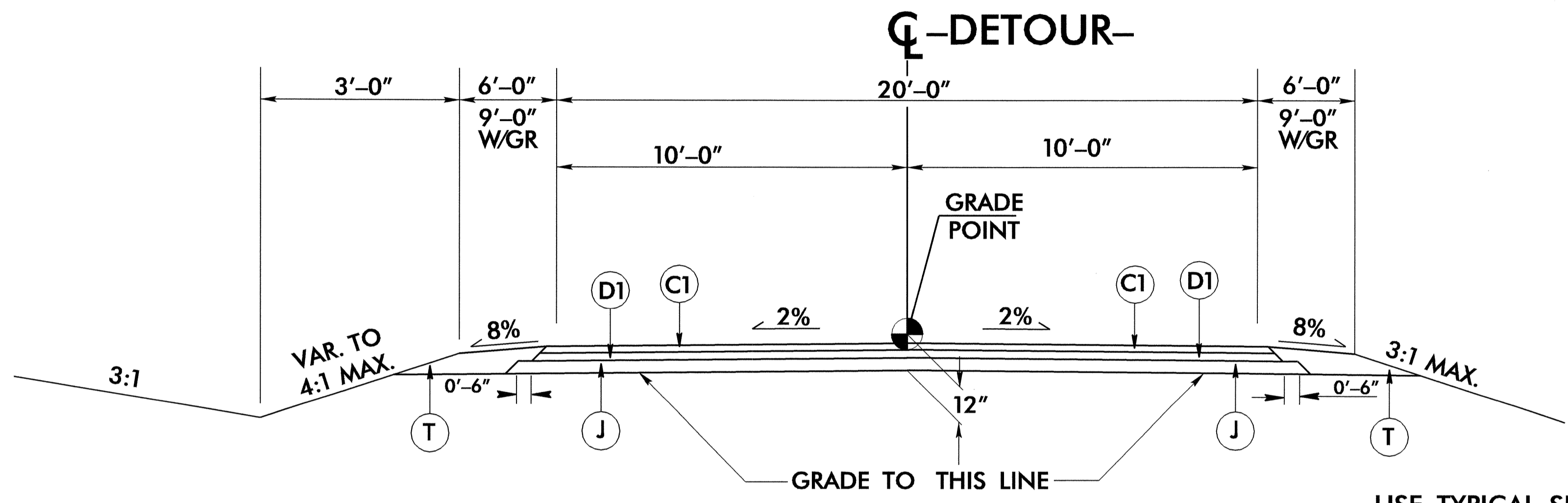
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6/2/99

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PAVEMENT SCHEDULE	
C1	1 1/2" S9.5B
C2	3" S9.5B
C3	VAR. DEPTH S9.5B
D1	2 1/2" I19.0B
D2	VAR. DEPTH I19.0B
E1	4" B25.0B
E2	VAR. DEPTH B25.0B
J	8" ABC
T	EARTH MATERIAL
U	EXISTING PAVEMENT

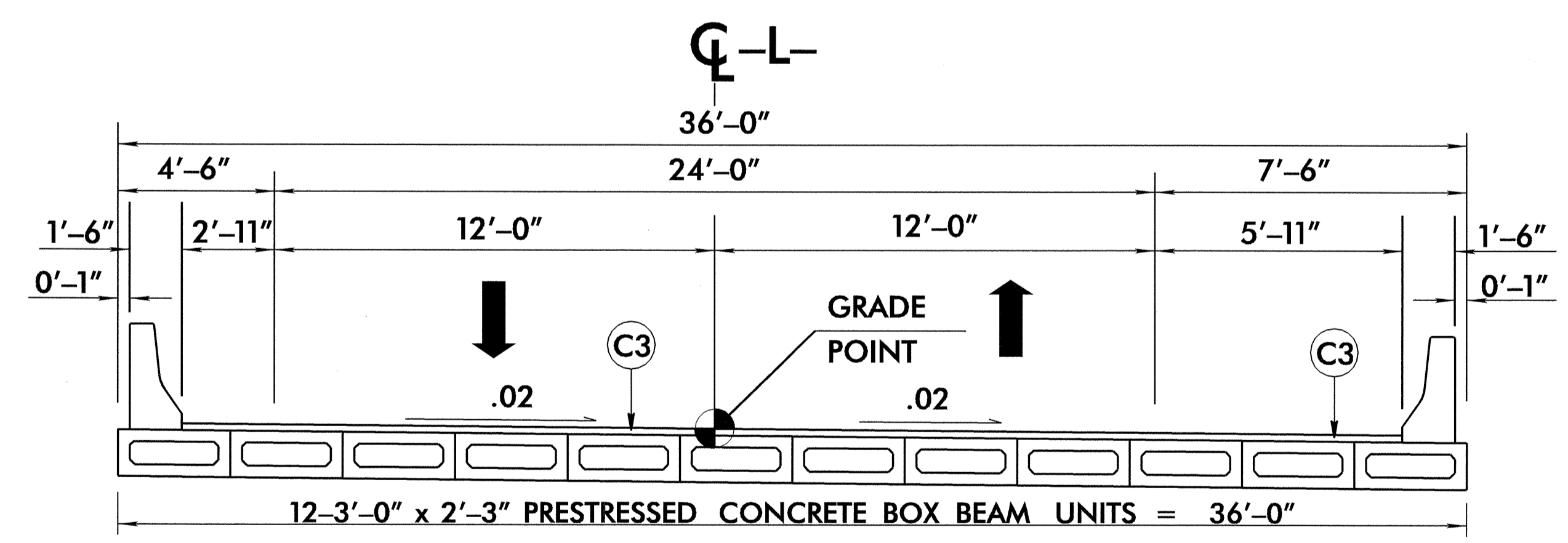
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

-DET- STA. 14+01.18 +/- TO -DET- 20+60 +/- (BEGIN DET. BRIDGE)
 -DET- STA 22+60 +/- (END DET. BRIDGE) TO -DET- 28+75.90 +/-



TYPICAL SECTION ON BRIDGE

-L- STA. 19+91.94 (BEG. BRIDGE) TO STA -L- STA. 23+28.00 (END BRIDGE)

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

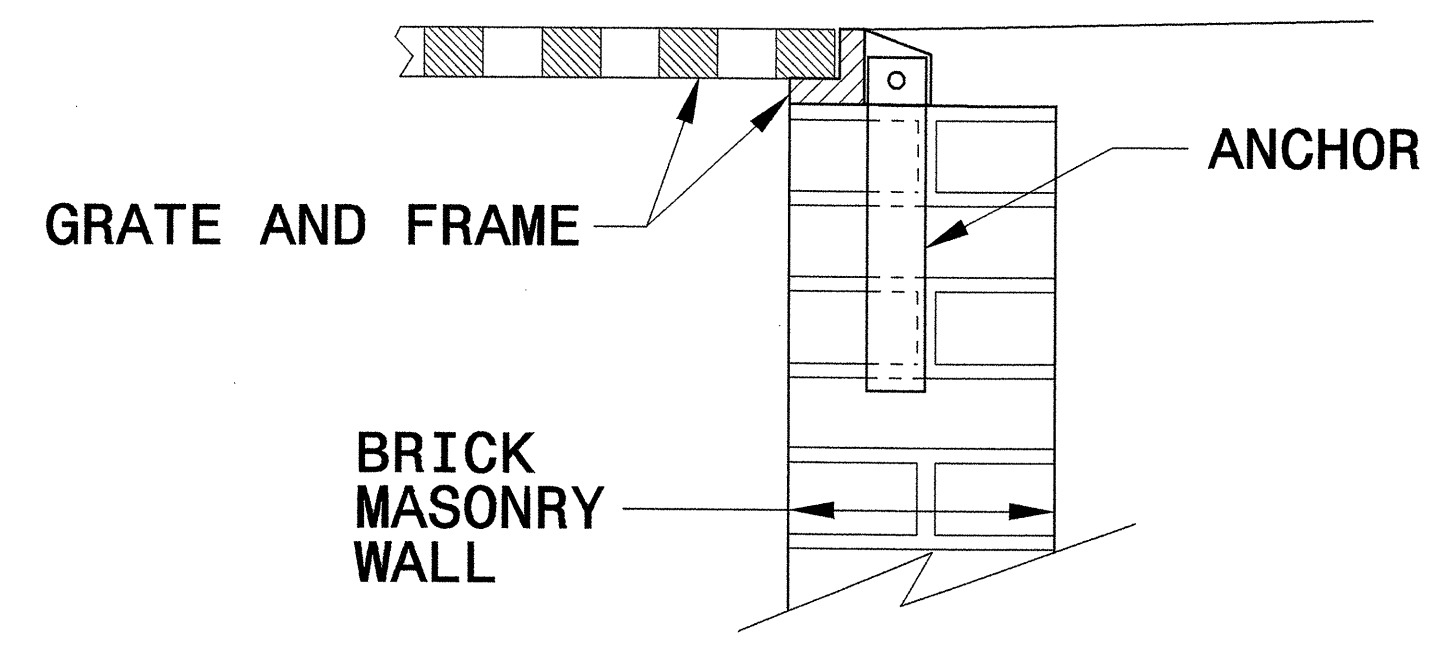
ENGLISH DETAIL DRAWING FOR
ANCHORAGE FOR FRAMES
BRICK/CONCRETE/PRECAST CONCRETE

SHEET 1 OF 1
840D25

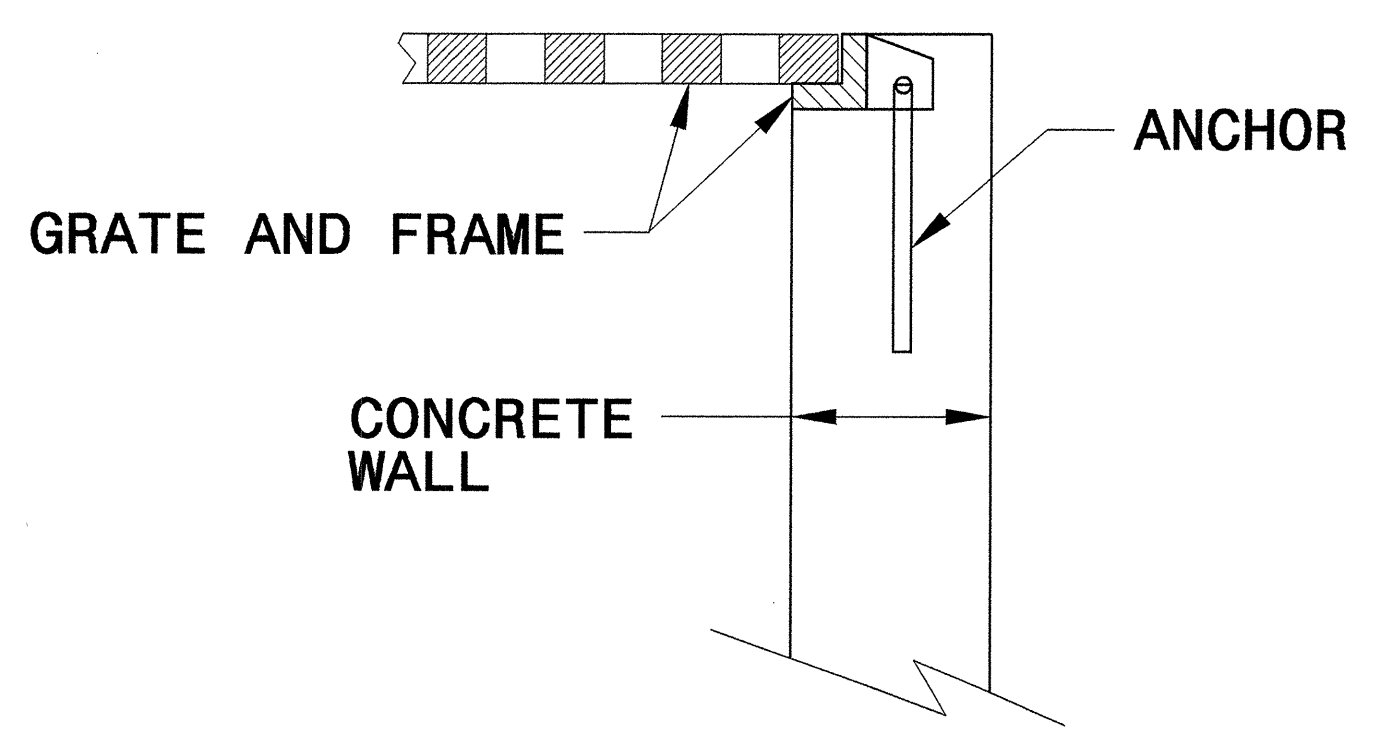
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

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

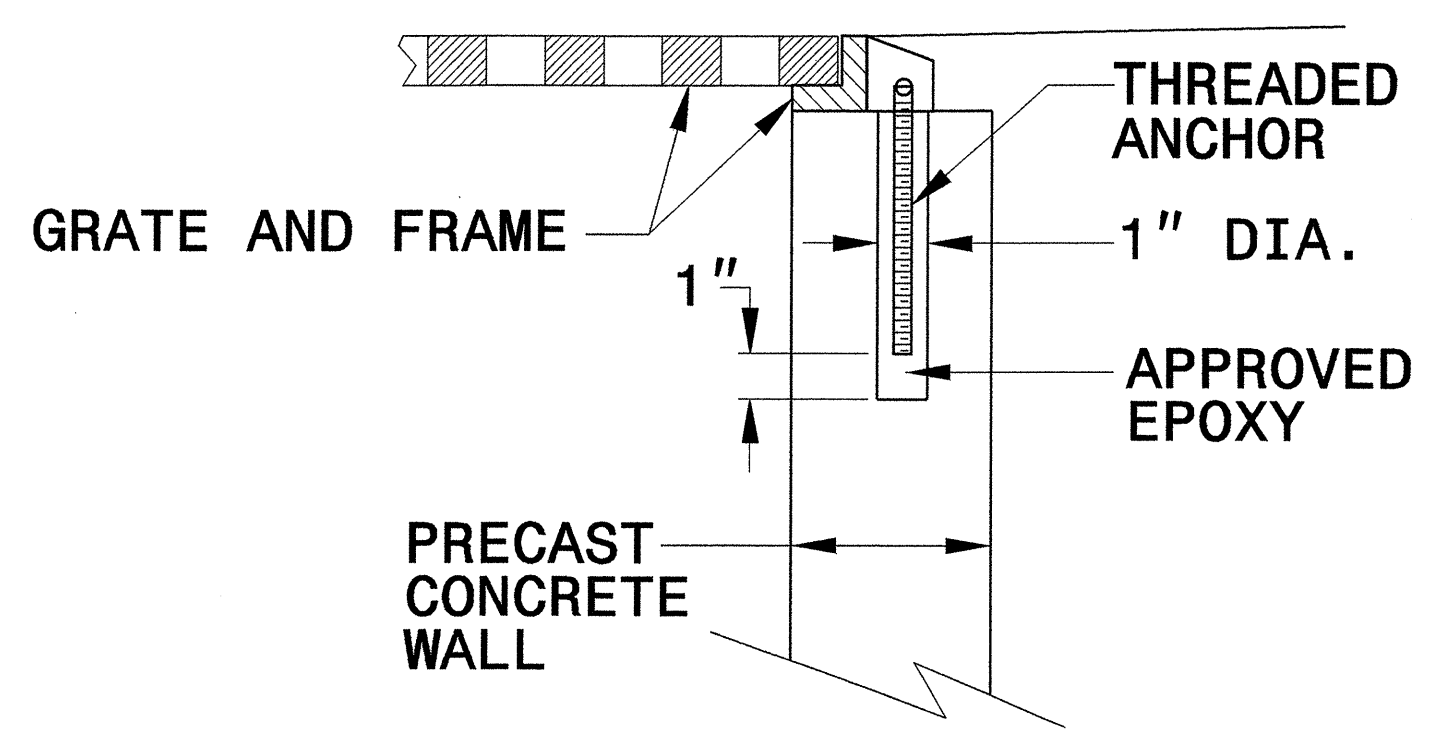
SHEET 1 OF 1
840D25



BRICK MASONRY CONSTRUCTION



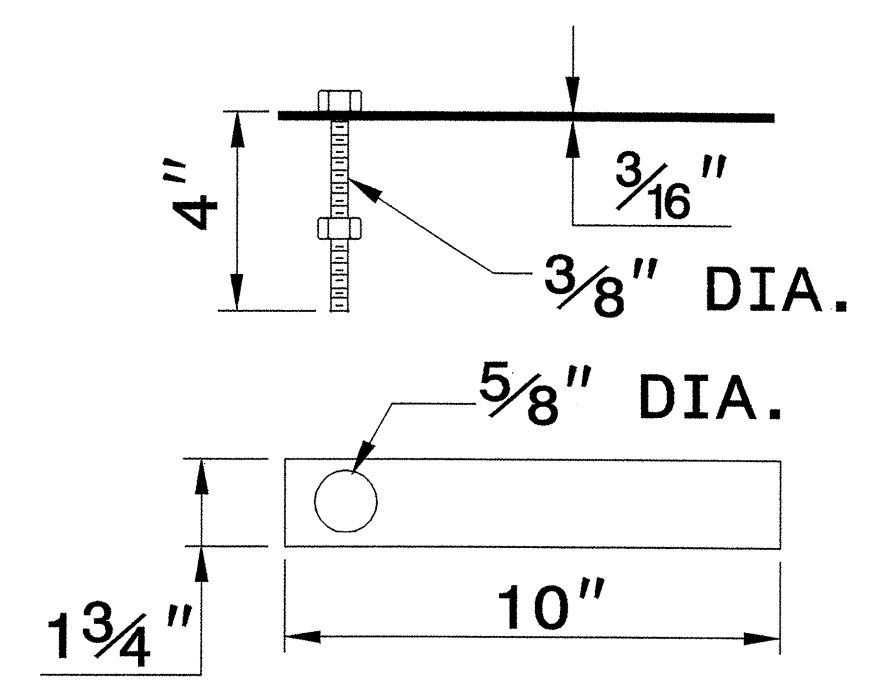
CONCRETE CONSTRUCTION



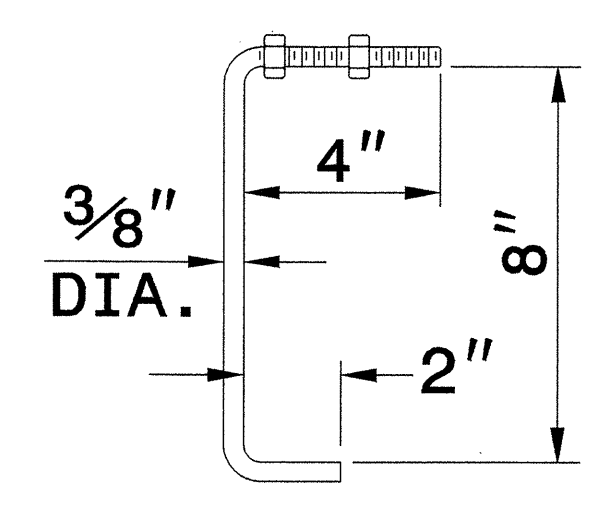
PRECAST CONCRETE CONSTRUCTION

DETAIL SHOWING ANCHORAGE OF FRAME FOR GRATED DROP INLET

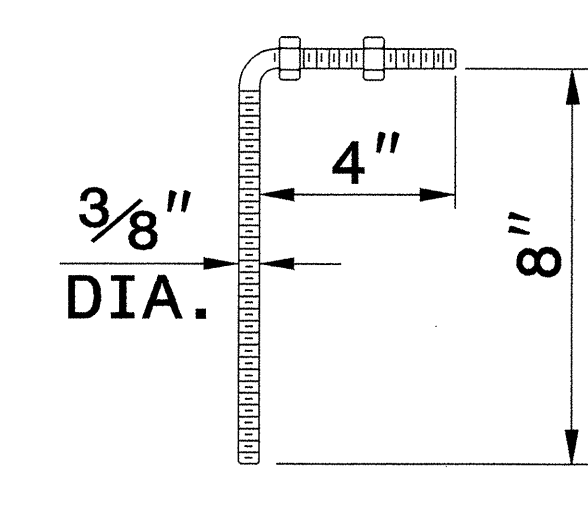
NOTE:
CONSTRUCT GRATED DROP INLET TO COINCIDE WITH NORMAL OR SUPERELEVATED SHOULDER OR PAVEMENT SLOPE.



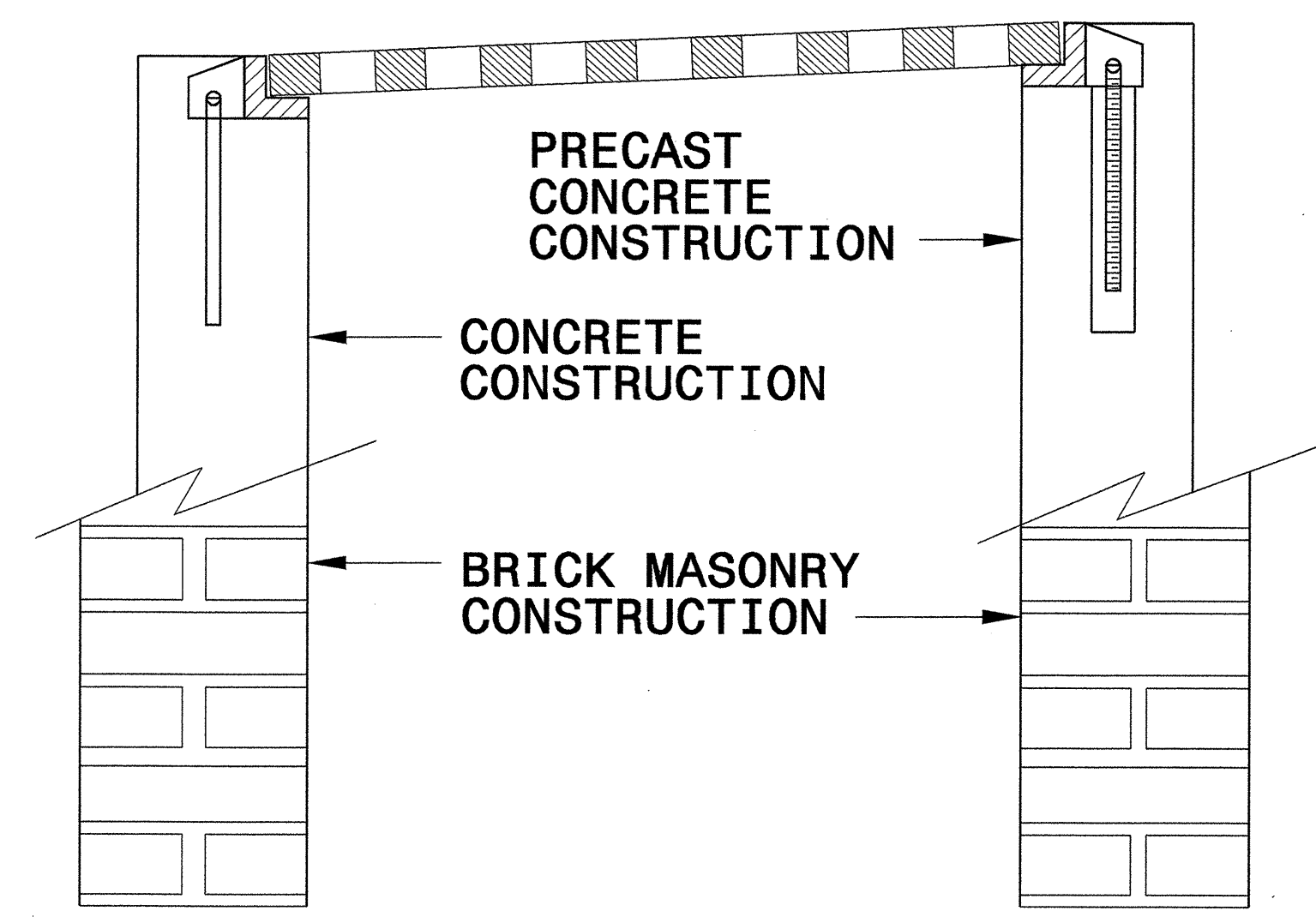
MASONRY ANCHOR
3/8" DIA. BOLT WITH PLATE



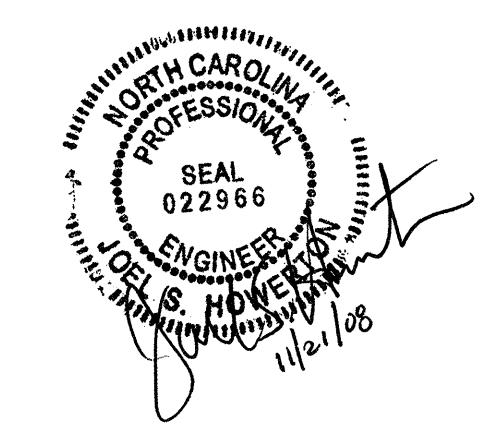
CONCRETE ANCHOR
3/8" DIA. BENT BAR



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: [Signature] DATE: 11/13/08
FILE SPEC.:

SYSTEMS
SERVICES
CONSULTANTS

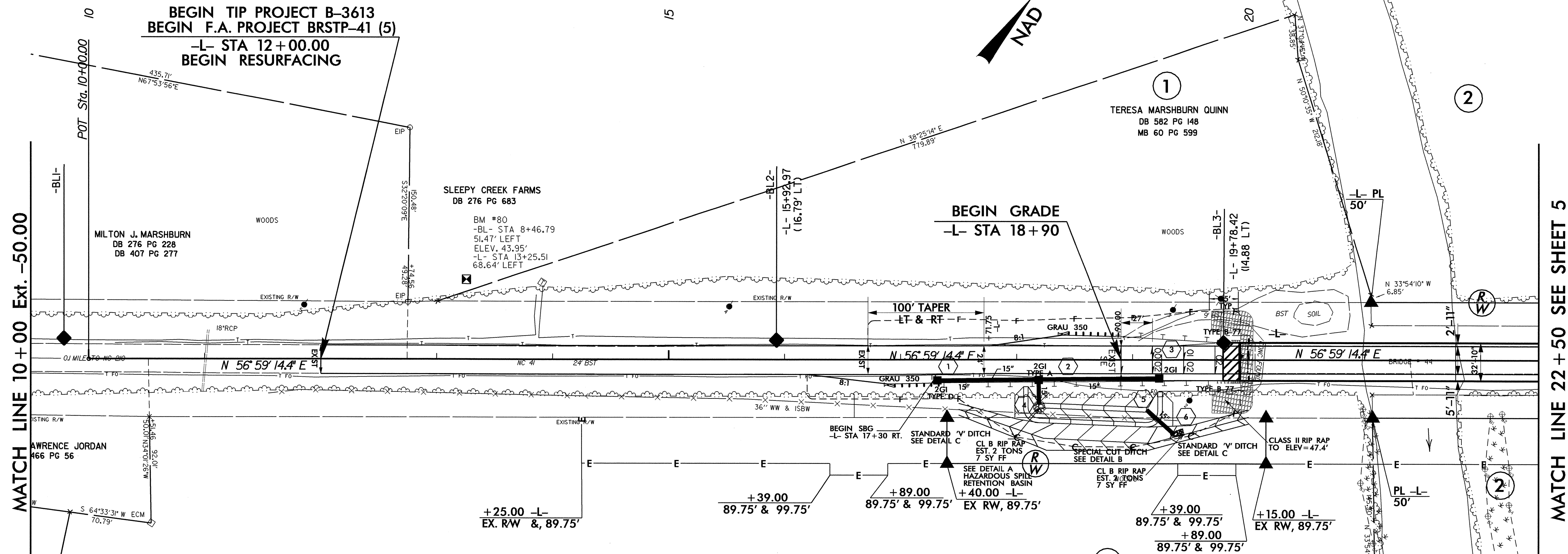
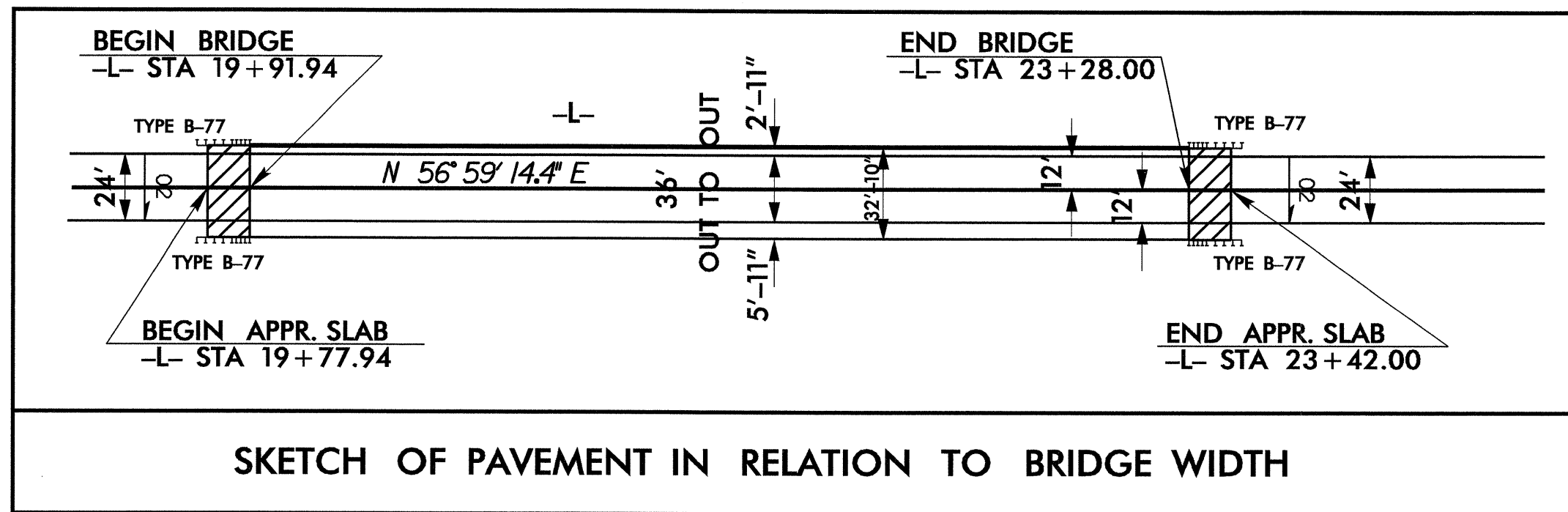
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201252

ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description	ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION	338000000-E	862	500	LF	TEMPORARY STEEL BM GUARDRAIL	600000000-E	1605	2,200	LF	TEMPORARY SILT FENCE
002900000-N	SP	Lump Sum		REINFORCED BRIDGE APPROACH FILL, STATION ***** (21+59.97-L-)	338910000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350 TEMPORARY	600600000-E	1610	225	TON	STONE FOR EROSION CONTROL, CLASS A
004300000-N	226	Lump Sum		GRADING	364900000-E	876	8	TON	RIP RAP, CLASS B	600900000-E	1610	125	TON	STONE FOR EROSION CONTROL, CLASS B
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUBBING	365600000-E	876	680	SY	FILTER FABRIC FOR DRAINAGE	601200000-E	1610	90	TON	SEDIMENT CONTROL STONE
005700000-E	226	200	CY	UNDERCUT EXCAVATION	407200000-E	903	208	LF	SUPPORTS, 3-LB STEEL U-CHANNEL	601500000-E	1615	5	ACR	TEMPORARY MULCHING
013400000-E	240	7	CY	DRAINAGE DITCH EXCAVATION	409600000-N	904	4	EA	SIGN ERECTION, TYPE D	601800000-E	1620	150	LB	SEED FOR TEMPORARY SEEDING
019500000-E	265	200	CY	SELECT GRANULAR MATERIAL	410200000-N	904	1	EA	SIGN ERECTION, TYPE E	602100000-E	1620	0.5	TON	FERTILIZER FOR TEMPORARY SEEDING
019600000-E	270	100	SY	FABRIC FOR SOIL STABILIZATION	410800000-N	904	1	EA	SIGN ERECTION, TYPE F	602400000-E	1622	275	LF	TEMPORARY SLOPE DRAINS
031800000-E	300	60	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRS	411610000-N	904	2	EA	SIGN ERECTION, RELOCATE, TYPE **** (GROUND MOUNTED) (D)	602700000-N	1622	5	EA	INLET PROTECTION AT TEMPORARY SLOPE DRAINS
036600000-E	310	296	LF	15" RC PIPE CULVERTS, CLASS III	411610000-N	904	2	EA	SIGN ERECTION, RELOCATE, TYPE **** (GROUND MOUNTED) (E)	602900000-E	SP	575	LF	SAFETY FENCE
070800000-E	310	228	LF	15" BIT COAT CS PIPE CULVERTS, TYPE B 0.064" THICK	414100000-N	907	1	EA	DISPOSAL OF SUPPORT, WOOD	603000000-E	1630	450	CY	SILT EXCAVATION
099500000-E	340	228	LF	PIPE REMOVAL	415500000-N	907	10	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	603600000-E	1631	675	SY	MATTING FOR EROSION CONTROL
112100000-E	520	1,294	TON	AGGREGATE BASE COURSE	419200000-N	907	3	EA	DISPOSAL OF SUPPORT, U-CHANNEL	603700000-E	SP	30	SY	COIR FIBER MAT
148900000-E	610	310	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B	440000000-E	1110	128	SF	WORK ZONE SIGNS (STATIONARY)	604200000-E	1632	175	LF	1/4" HARDWARE CLOTH
149800000-E	610	560	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B	441000000-E	1110	52	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)	607103000-E	SP	350	LF	COIR FIBER BAFFLES
151900000-E	610	890	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B	443000000-N	1130	90	EA	DRUMS	608400000-E	1660	5.5	ACR	SEEDING & MULCHING
156000000-E	620	95	TON	ASPHALT BINDER FOR PLANT MIX, GRADE PG 64-22	444500000-E	1145	96	LF	BARRICADES (TYPE III)	608700000-E	1660	2.5	ACR	MOWING
228600000-N	840	4	EA	MASONRY DRAINAGE STRUCTURES	445000000-N	1150	880	HR	FLAGGER	609000000-E	1661	50	LB	SEED FOR REPAIR SEEDING
236700000-N	840	4	EA	FRAME WITH TWO GRATES, STD 840.29	465000000-N	1251	61	EA	TEMPORARY RAISED PAVEMENT MARKERS	609200000-E	1661	0.25	TON	FERTILIZER FOR REPAIR SEEDING
255600000-E	846	410	LF	SHOULDER BERM GUTTER	468500000-E	1205	3,600	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	609600000-E	1662	100	LB	SEED FOR SUPPLEMENTAL SEEDING
303000000-E	862	650	LF	STEEL BM GUARDRAIL	468600000-E	1205	3,600	LF	THERMOPLASTIC PAVEMENT MARKING LINES (4", 120 MILS)	610800000-E	1665	2.75	TON	FERTILIZER TOPDRESSING
315000000-N	862	5	EA	ADDITIONAL GUARDRAIL POSTS	481000000-E	1205	27,400	LF	PAINT PAVEMENT MARKING LINES (4")	611400000-N	SP	5	HR	SPECIALIZED HAND MOWING
327000000-N	SP	4	EA	GUARDRAIL ANCHOR UNITS, TYPE 350	483000000-E	1205	3,600	LF	REMOVAL OF PAVEMENT MARKING LINES (4")	611700000-N	SP	12	EA	RESPONSE FOR EROSION CONTROL
331700000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77	490500000-N	1253	23	EA	SNOWFLOWABLE PAVEMENT MARKERS	612300000-E	1670	1	ACR	REFORESTATION

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DATUM DESCRIPTION

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

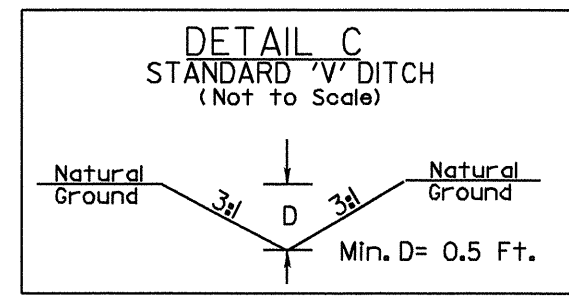
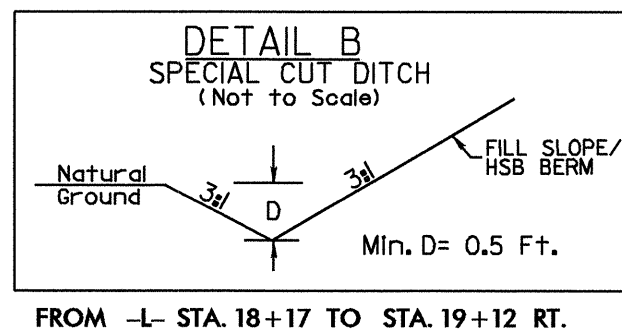
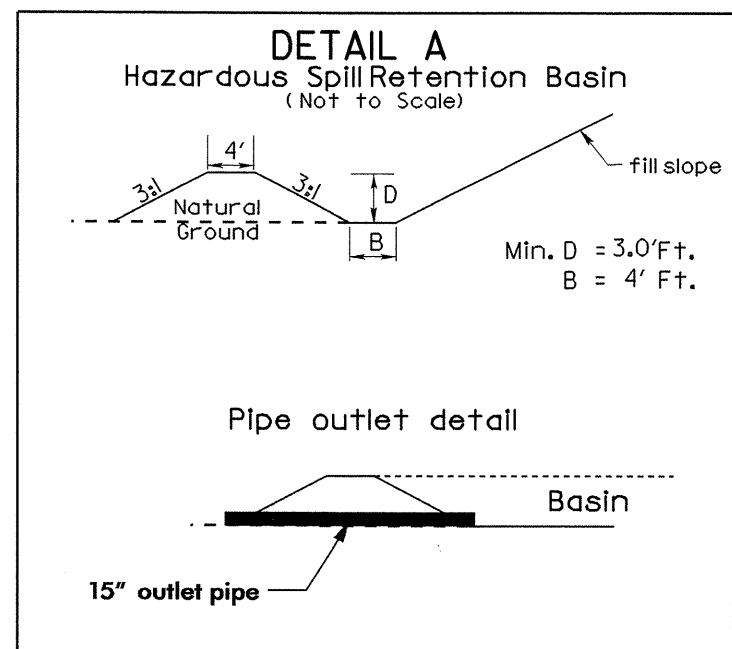
WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 363924548(1) EASTING: 2173859465(1)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99994450

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "FOLK" TO STATION 10+00.00 IS S 37° 25' 00.73" E 24,395.931'

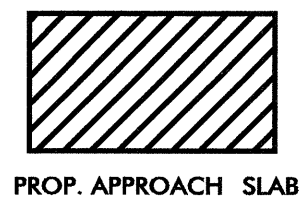
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES

VERTICAL DATUM USED IS NAVD 88



FROM -L- STA. 17+98 TO STA. 19+35 RT.
Est. 7 c.y. DDE, 150 c.y. Fill (Berm)

FROM -L- STA. 23+44 TO STA. 24+80 RT.
Est. 220 c.y. Fill (Berm)



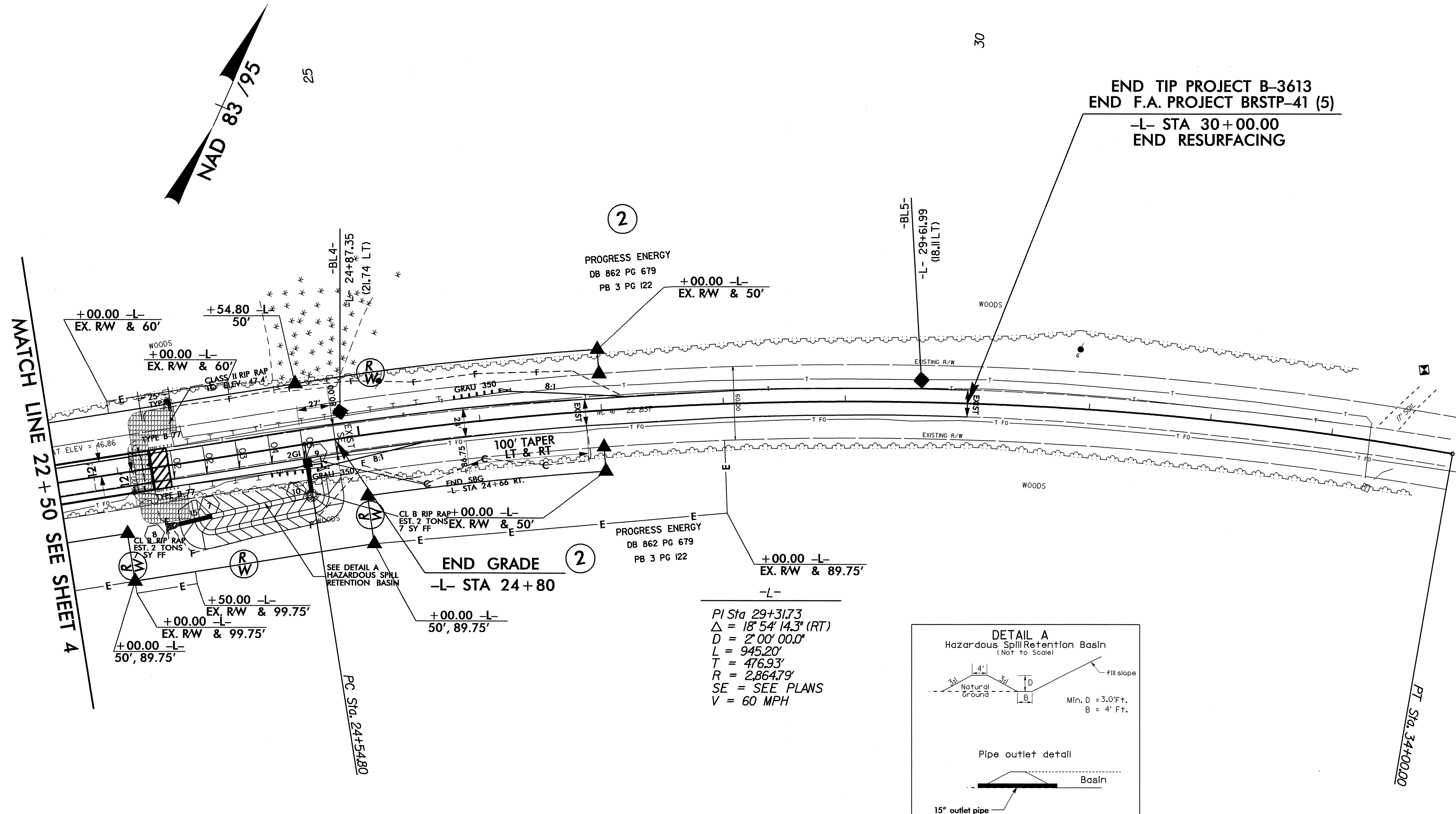
FOR PROFILE, SEE SHEET 8
FOR STRUCTURE PLANS,
SEE SHEETS S-1 THRU S-32

8/17/09

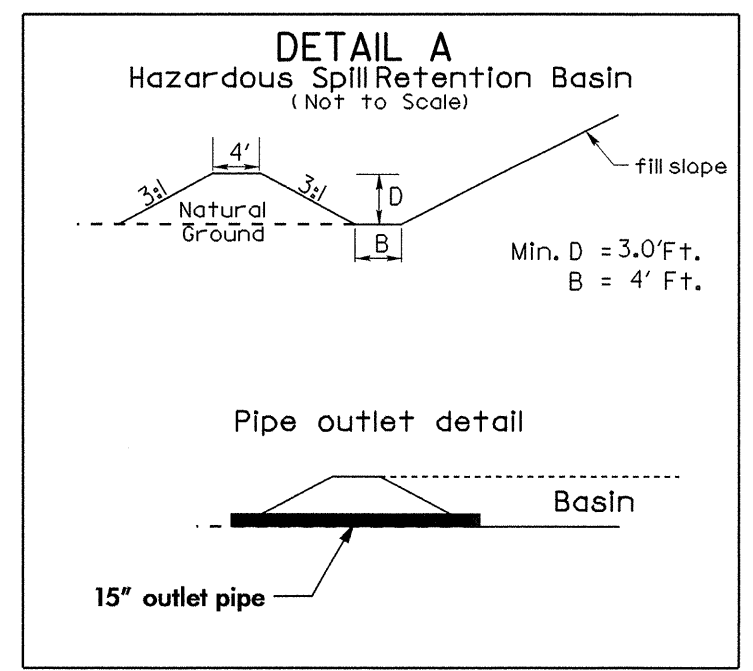
REVISIONS

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END TIP PROJECT B-3613
END F.A. PROJECT BRSTP-41 (5)
-L- STA 30+00.00
END RESURFACING



PI Sta 29+31.73
 $\Delta = 18^{\circ} 54' 14.3" (RT)$
 $D = 2^{\circ} 00' 00.0"$
 $L = 945.20'$
 $T = 476.93'$
 $R = 2,864.79'$
 $SE = \text{SEE PLANS}$
 $V = 60 \text{ MPH}$



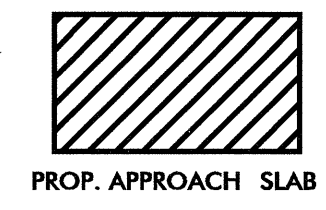
BM #81
 -BL- STA 28+98.22
 14.52' RIGHT
 ELEV. 45.59'
 -L- STA 33+66.12
 63.69' LEFT

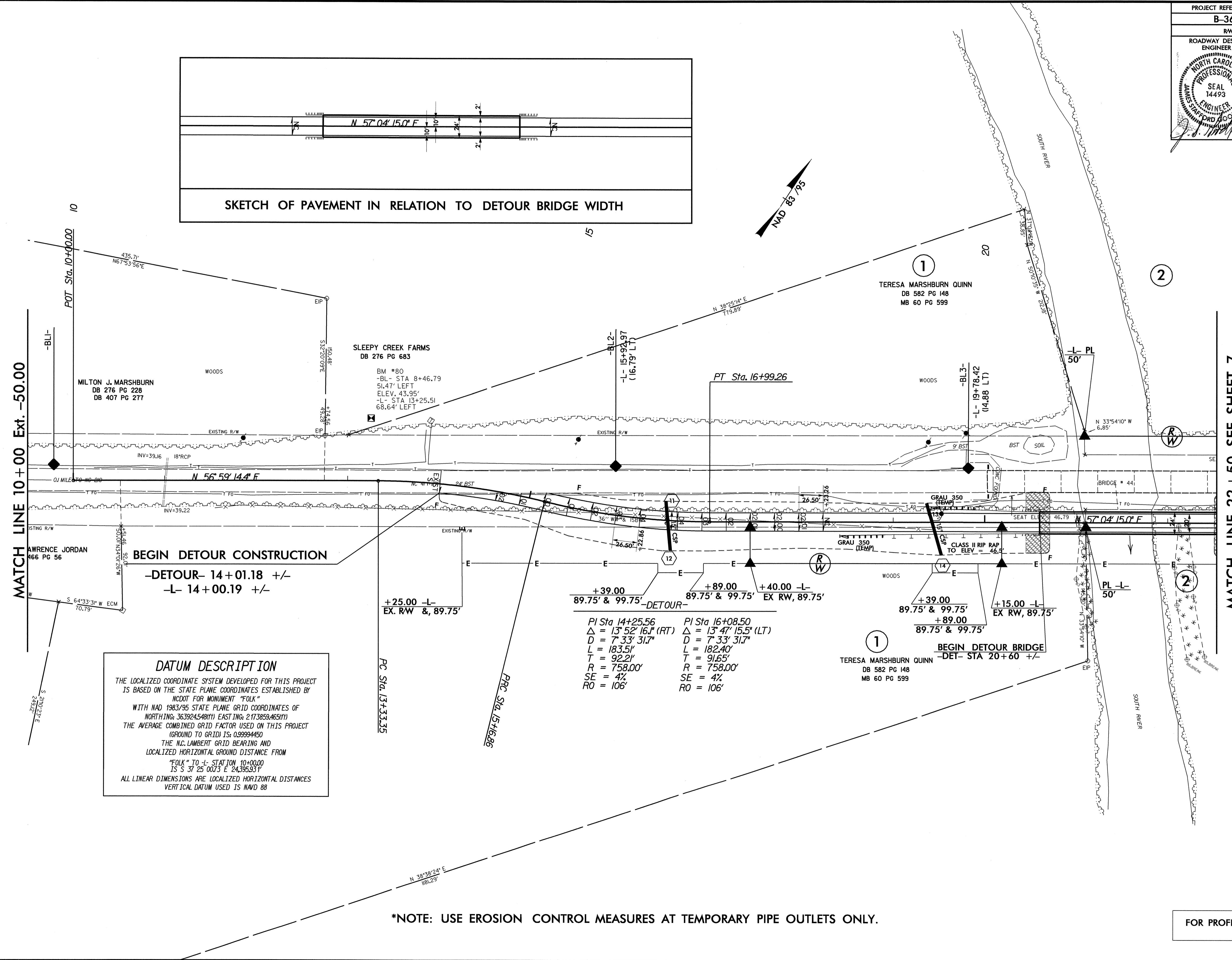
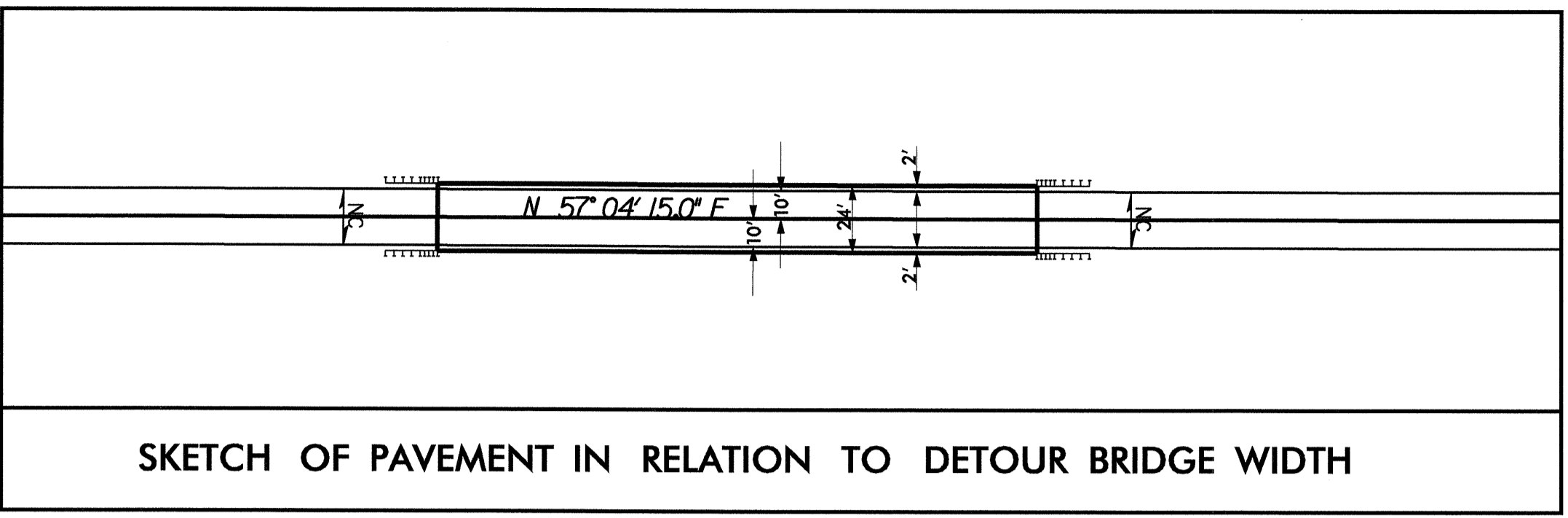
FOR PROFILE, SEE SHEET 8
 FOR STRUCTURE PLANS,
 SEE SHEETS S-1 THRU S-32

REVISIONS

8/17/99

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MATCH LINE 10 + 00 Ext. -50.00

MATCH LINE 22 + 50 SEE SHEET 7

BEGIN DETOUR CONSTRUCTION
 -DETOUR- 14+01.18 +/-
 -L- 14+00.19 +/-

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCCOT FOR MONUMENT "FOLK" WITH NAD 1983/95 STATE PLANE GRID COORDINATES OF NORTHING: 3639245481(1) EASTING: 21738594651(1) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99994450 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "FOLK" TO -L- STATION 10+00.00 IS S 37 25 00.73 E 24,395.931' ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

PI Sta 14+25.56 Δ = 13°52'16.1" (RT) D = 7°33'31.7" L = 183.51' T = 92.21' R = 758.00' SE = 4% RO = 106'	PI Sta 16+08.50 Δ = 13°47'15.5" (LT) D = 7°33'31.7" L = 182.40' T = 91.65' R = 758.00' SE = 4% RO = 106'
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BEGIN DETOUR BRIDGE
 -DET- STA 20+60 +/-
 TERESA MARSHBURN QUINN
 DB 582 PG 148
 MB 60 PG 599

*NOTE: USE EROSION CONTROL MEASURES AT TEMPORARY PIPE OUTLETS ONLY.

FOR PROFILE, SEE SHEET 9.

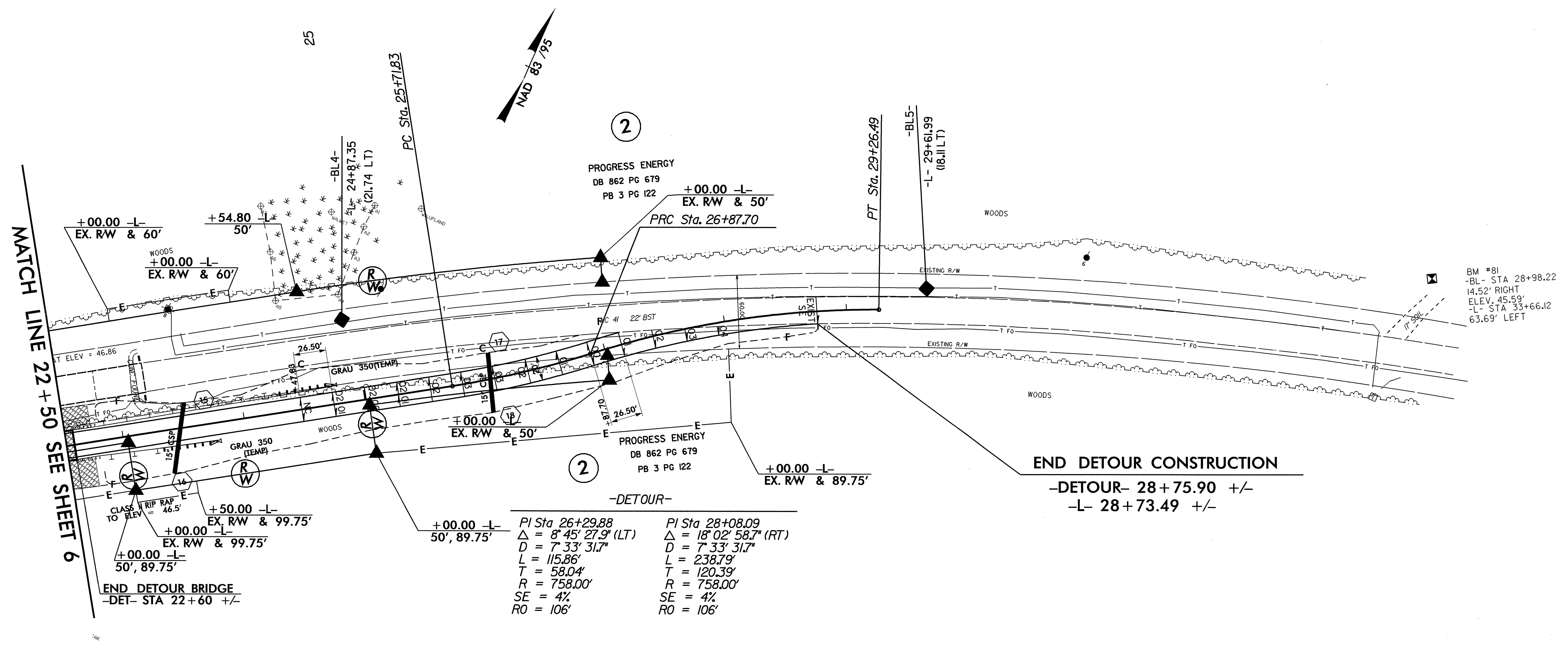
REVISIONS

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REVISIONS



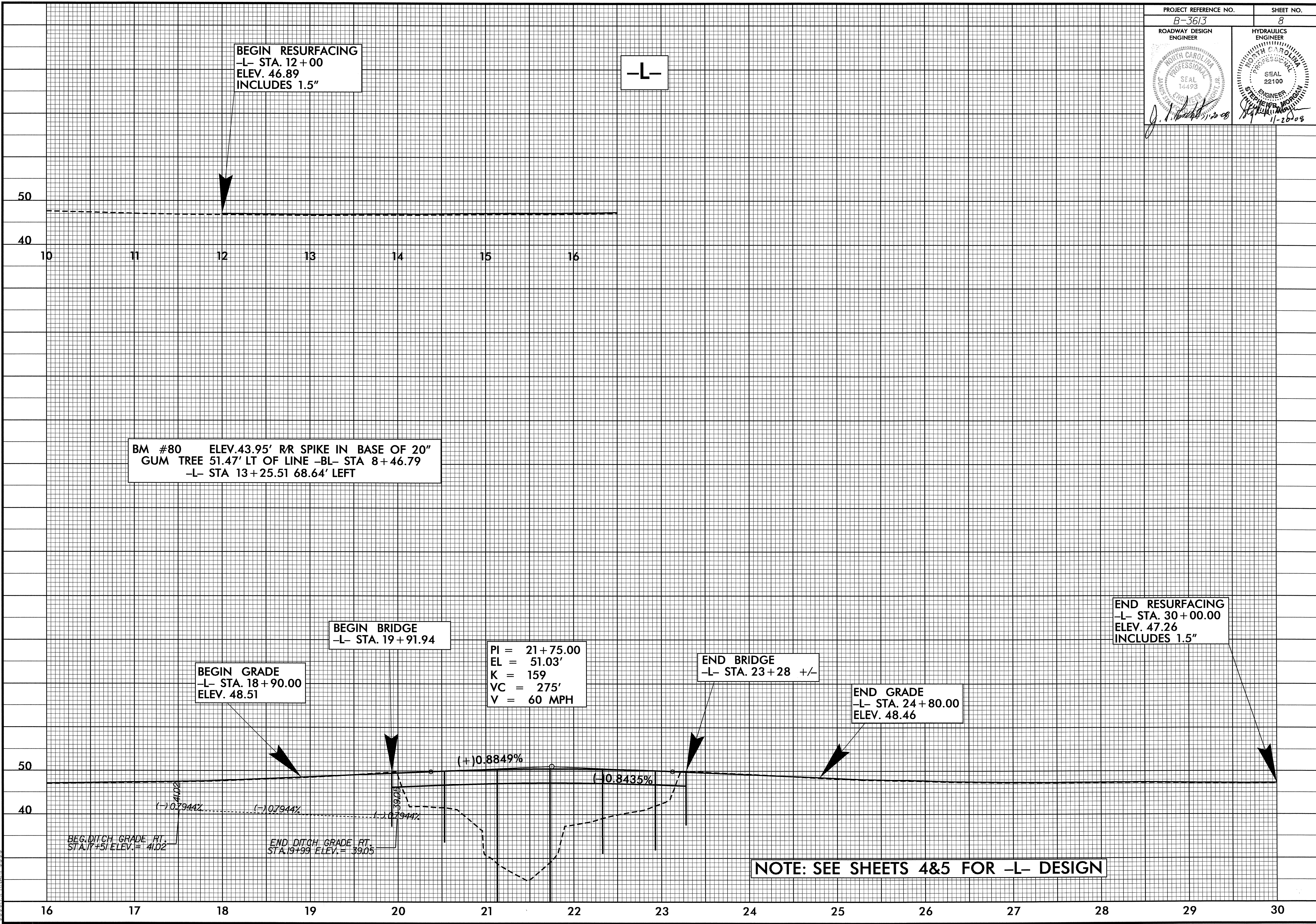
*NOTE: USE EROSION CONTROL MEASURES AT TEMPORARY PIPE OUTLETS ONLY.

FOR PROFILE, SEE SHEET 9.

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PROJECT REFERENCE NO. B-3613	SHEET NO. 8
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER



BEGIN RESURFACING
-L- STA. 12+00
ELEV. 46.89
INCLUDES 1.5"

-L-

BM #80 ELEV. 43.95' RR SPIKE IN BASE OF 20"
GUM TREE 51.47' LT OF LINE -BL- STA 8+46.79
-L- STA 13+25.51 68.64' LEFT

BEGIN BRIDGE
-L- STA. 19+91.94

PI = 21+75.00
EL = 51.03'
K = 159
VC = 275'
V = 60 MPH

BEGIN GRADE
-L- STA. 18+90.00
ELEV. 48.51

END BRIDGE
-L- STA. 23+28 +/-

END GRADE
-L- STA. 24+80.00
ELEV. 48.46

END RESURFACING
-L- STA. 30+00.00
ELEV. 47.26
INCLUDES 1.5"

BEG. DITCH GRADE - RT.
STA. 17+51 ELEV. = 41.02

END DITCH GRADE - RT.
STA. 19+99 ELEV. = 39.05

NOTE: SEE SHEETS 4&5 FOR -L- DESIGN

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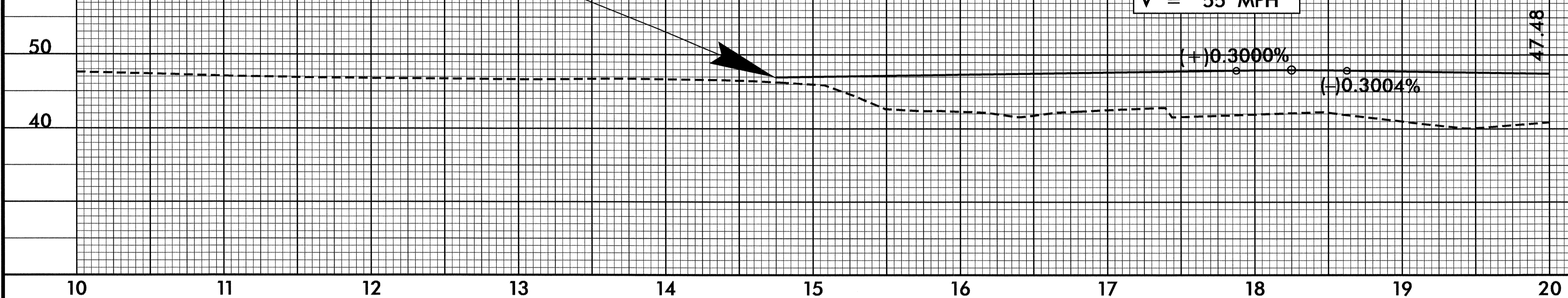
PROJECT REFERENCE NO. B-3613	SHEET NO. 9
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 14493	HYDRAULICS ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 22100

BM #80 ELEV. 43.95' RR SPIKE IN BASE OF 20"
GUM TREE 51.47' LT OF LINE -BL- STA 8+46.79
-DET- STA 13+25.51 68.64' LEFT

-DET-

BEGIN GRADE
-DET- STA. 14+74.68
ELEV. 46.95
INCLUDES 1.5"

PI = 18+25.00
EL = 48.00'
K = 125
VC = 75'
V = 55 MPH

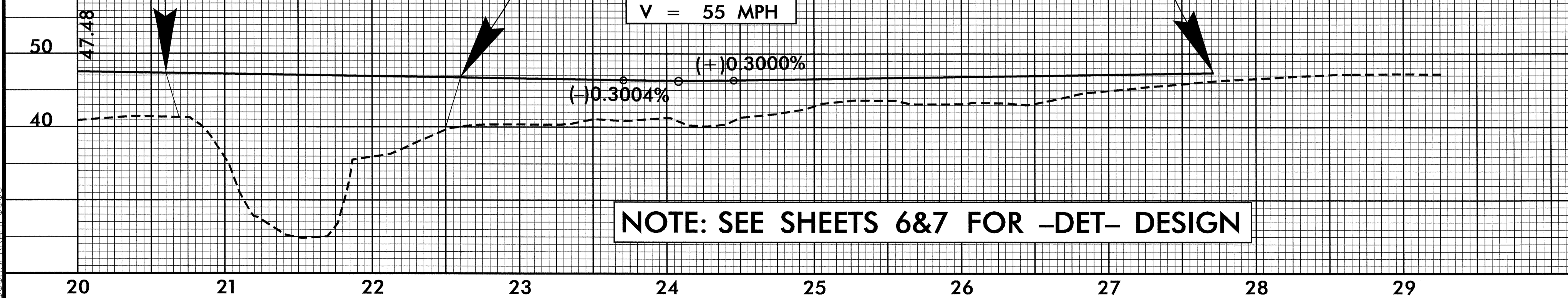


BEGIN TEMP. BRIDGE

END TEMP. BRIDGE

END GRADE
-DET- STA. 27+71.40
ELEV. 47.34
INCLUDES 1.5"

PI = 24+08.07
EL = 46.25'
K = 125
VC = 75'
V = 55 MPH



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