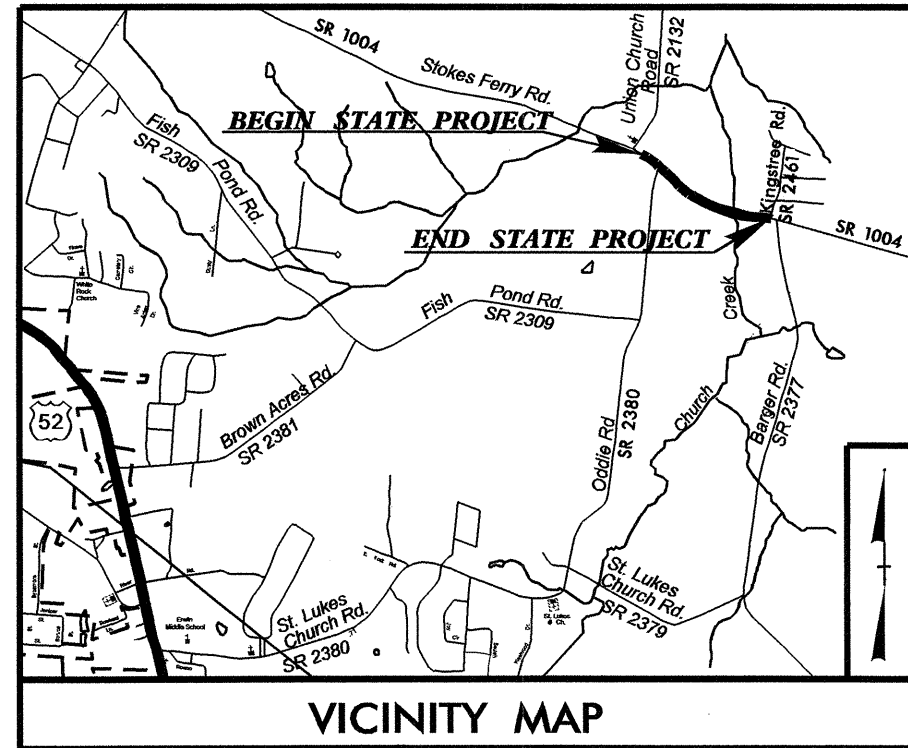


09/28/09

TIP PROJECT: W-5303 / B-4257

CONTRACT: C202821

See Sheet 1-A For Index of Sheets



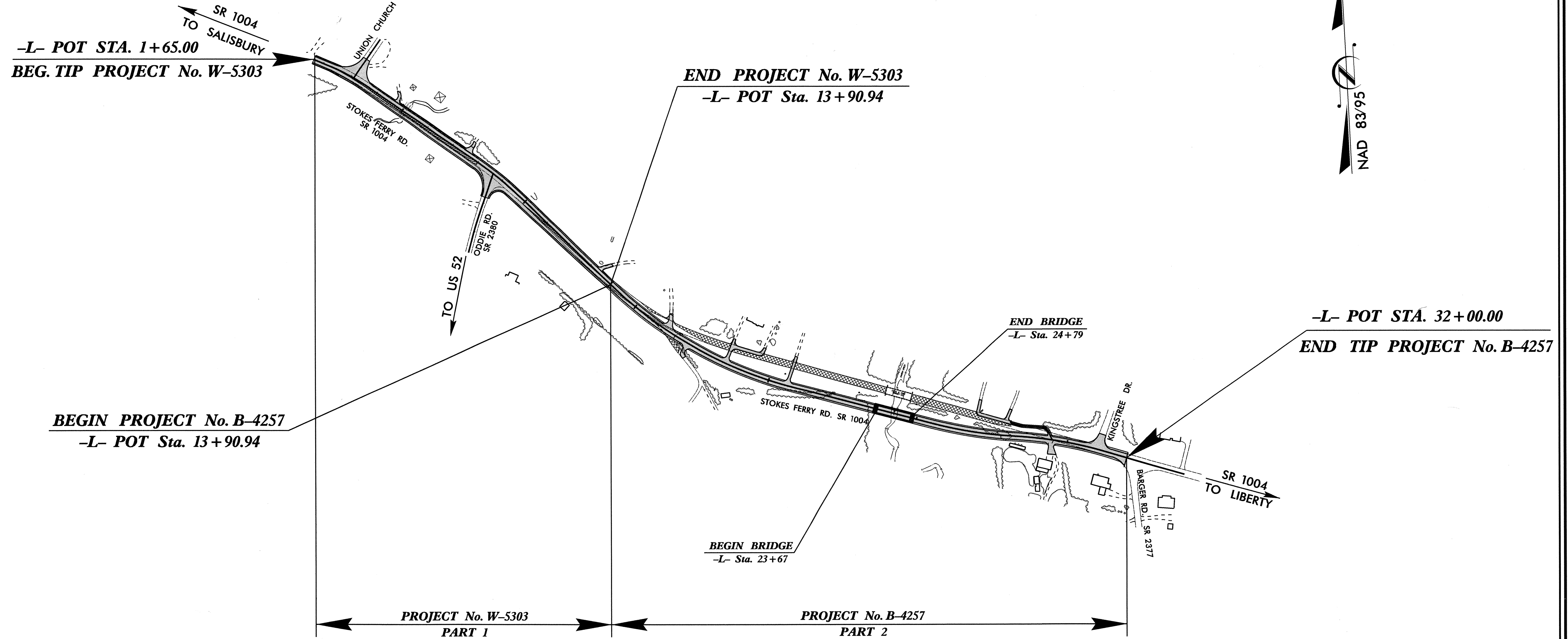
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ROWAN COUNTY

**LOCATION: BRIDGE 143 OVER CHURCH CREEK ON SR 1004
(STOKES FERRY ROAD); INTERSECTION IMPROVEMENTS
AT SR 2380 (ODDIE ROAD) INTERSECTION.**

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE, PAVING.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5303 / B-4257	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
33599.1.1	STP-1004(44)	(W-5303) P.E.	
46127.1.1	BRSTP-1004(15)	(B-4257) P.E.	
46127.2.1	STP-1004(44)	(W-5303) R/W & UTIL.	
33599.2.1	BRSTP-1004(15)	(B-4257) R/W & UTIL.	
33599.3.1	BRSTP-1004(15)	(W-5303/B-4257) CONST.	



PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT W-5303/B-4257 = .554 MI
 LENGTH STRUCTURE TIP PROJECTS W-5303/B-4257 = 0.021 Miles
 TOTAL LENGTH OF TIP PROJECT W-5303 /B-4257 = 0.575 Miles

Prepared In the Office of:
DIVISION OF HIGHWAYS

1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: (B-4257) MAY-19-2011

RIGHT OF WAY DATE: (W-5303) DECEMBER-22-2011

LETTING DATE: SEPTEMBER 18, 2012

20-JUN-2012 08:27
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8/17/99

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO. W-5303 / B-4257	SHEET NO. 1-A
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**2012 ROADWAY ENGLISH
STANDARD DRAWINGS**

EFF. 01-17-12

GENERAL NOTES

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

INDEX OF SHEETS

N. C. Department of Transportation – Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans. The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch –

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
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 – PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 4 – MAJOR STRUCTURES	
422.11	Reinforced Bridge Approach Fills – Sub Regional Tier
DIVISION 5 – SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction – High Side of Superelevated Curve – Method I
DIVISION 6 – ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 – INCIDENTALS	
806.01	Concrete Right-of-Way Marker
806.02	Granite Right-of-Way Marker
815.03	Pipe Underdrain and Blind Drain
840.00	Concrete Base Pad for Drainage Structures
840.18	Concrete Grated Drop Inlet Type 'B' – 12" thru 36" Pipe
840.24	Frames and Narrow Slot Sag Grates
840.25	Anchorage for Frames – Brick or Concrete or Precast
840.27	Brick Grated Drop Inlet Type 'B' – 12" thru 36" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.31	Concrete Junction Box – 12" thru 66" Pipe
840.32	Brick Junction Box – 12" thru 66" Pipe
840.35	Traffic Bearing Grated Drop Inlet – for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
840.66	Drainage Structure Steps
840.71	Concrete and Brick Pipe Plug
840.72	Pipe Collar
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
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets
876.04	Drainage Ditches with Class 'B' Rip Rap

GRADE LINE:
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 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.

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-SECTIONS PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:
 UTILITY OWNERS ON THIS PROJECT ARE:
 Duke Power – Aerial Service Lines
 Bell South – Aerial & Underground Telephone Cable
 Time Warner Cable Television – Underground Service
 Piedmont Natural Gas – 6" Steel Transmission

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:
 ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY CONTRACT.

COMBINED PROJECTS W-5303 /B-4257

SHEET No.	SHEET
1	COMBINED TITLE SHEET
1-A	INDEX OF SHEETS, STANDARD DRAWINGS, GENERAL NOTES
2	CONVENTIONAL PLAN SHEET SYMBOLS
3	SUMMARY OF QUANTITIES

PART 1 – W-5303

SHEET No.	SHEET
1	TITLE SHEET
1-A & 1-B	SURVEY CONTROL SHEET
2	PAVEMENT SCHEDULE, AND TYPICAL SECTIONS
2-A	DRAINAGE DETAILS
2-B	ENDWALL EXTENSION DETAIL
3-A THRU 3-C	W-5303 /B-4257 DRAINAGE SUMMARY, W-5303 /B-4257 EARTHWORK SUMMARY, W-5303 /B-4257 GUARDRAIL SUMMARY, W-5303 /B-4257 PARCEL INDEX
4	PLAN /PROFILE SHEET
TMP-1 THRU TMP-8	TRAFFIC CONTROL PLANS
PMP-1 THRU PMP-2	W-5303 /B-4257 PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-3	W-5303 /B-4257 SIGNING PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS
X-1	CROSS-SECTION SUMMARY
X-2 THRU X-10	CROSS-SECTIONS

PART 2 – B-4257

SHEET No.	SHEET
1	TITLE SHEET
1-A & 1-B	SURVEY CONTROL SHEET
1C	CENTERLINE COORDINATE LIST
2	PAVEMENT SCHEDULE, TYPICAL SECTION, TYPICAL SECTION ON STRUCTURE, SKETCH SHOWING BRIDGE /PAVEMENT RELATIONSHIP, AND WEDGING DETAIL
2-A	TEMPORARY ANCHOR UNIT W-BEAM
2-B THRU 2-D	STANDARD TEMPORARY WALL DETAILS
3A THRU 3C	DRAINAGE SUMMARY, EARTHWORK SUMMARY, GUARDRAIL SUMMARY, PARCEL INDEX
4 & 5	PLAN SHEETS
6	PROFILE SHEET
EC-1 THRU EC-7	HIGHWAY EROSION CONTROL PLANS
SD-1	SIGN DESIGN
RF-1	REFORESTATION DETAIL SHEET
UO-1 THRU UO-3	UTILITIES BY OTHERS PLANS
X-1	CROSS-SECTION SUMMARY
X-2 THRU X-11	CROSS-SECTIONS
S-1 THRU S-27	STRUCTURE PLANS

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Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	✕
Property Monument	□ EOM
Parcel/Sequence Number	⑩②③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-w-l-b-
Proposed Wetland Boundary	-w-l-b-
Existing Endangered Animal Boundary	-e-a-b-
Existing Endangered Plant Boundary	-e-p-b-
Known Soil Contamination: Area or Site	☠
Potential Soil Contamination: Area or Site	☠?

BUILDINGS AND OTHER CULTURE:

Gas Pump Vent or U/G Tank Cap	○
Sign	○
Well	○
Small Mine	✕
Foundation	□
Area Outline	□
Cemetery	+
Building	□
School	□
Church	□
Dam	▬

HYDROLOGY:

Stream or Body of Water	-----
Hydro, Pool or Reservoir	□
Jurisdictional Stream	-j-s-
Buffer Zone 1	-b-z-1-
Buffer Zone 2	-b-z-2-
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	▬
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 R/W Marker	-----
Proposed Control of Access Line with Concrete C/A 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 Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	-----

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb 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	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole (S.U.E.*)	⊕
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C202821

ItemNumber	Sec #	Quantity	Unit	Description
000100000-N	800	Lump Sum		MOBILIZATION
000400000-N	801	Lump Sum		CONSTRUCTION SURVEYING
003000000-N	SP	Lump Sum		BRIDGE APPROACH FILL - SUB REGIONAL TIER, STATION ***** (24+25-L-)
005000000-E	226	1	ACR	SUPPLEMENTARY CLEARING & GRUB-BING
005700000-E	226	600	CY	UNDERCUT EXCAVATION
006300000-N	SP	Lump Sum		GRADING
010600000-E	230	32,000	CY	BORROW EXCAVATION
013400000-E	240	435	CY	DRAINAGE DITCH EXCAVATION
019500000-E	265	2,500	CY	SELECT GRANULAR MATERIAL
019600000-E	270	4,100	SY	GEOTEXTILE FOR SOIL STABILIZATION
019900000-E	SP	1,995	SF	TEMPORARY SHORING
031800000-E	300	140	TON	FOUNDATION CONDITIONING MATERIAL, MINOR STRUCTURES
032000000-E	300	420	SY	FOUNDATION CONDITIONING GEOTEXTILE
033530000-E	305	20	LF	18" DRAINAGE PIPE
034300000-E	310	216	LF	15" SIDE DRAIN PIPE
034400000-E	310	36	LF	18" SIDE DRAIN PIPE
037200000-E	310	72	LF	18" RC PIPE CULVERTS, CLASS III
038400000-E	310	76	LF	30" RC PIPE CULVERTS, CLASS III
044840000-E	310	104	LF	24" RC PIPE CULVERTS, CLASS IV
058200000-E	310	264	LF	15" CS PIPE CULVERTS, 0.064" THICK
063600000-E	310	8	EA	*** CS PIPE ELBOWS, ***** THICK (15", 0.064")
099500000-E	340	90	LF	PIPE REMOVAL
109950000-E	505	850	CY	SHALLOW UNDERCUT
109970000-E	505	1,690	TON	CLASS IV SUBGRADE STABILIZATION
122000000-E	545	400	TON	INCIDENTAL STONE BASE
148900000-E	610	2,250	TON	ASPHALT CONC BASE COURSE, TYPE B25.0B
149800000-E	610	1,300	TON	ASPHALT CONC INTERMEDIATE COURSE, TYPE I19.0B
151900000-E	610	2,035	TON	ASPHALT CONC SURFACE COURSE, TYPE S9.5B
157500000-E	620	290	TON	ASPHALT BINDER FOR PLANT MIX
169300000-E	654	21	TON	ASPHALT PLANT MIX, PAVEMENT REPAIR
200000000-N	806	44	EA	RIGHT OF WAY MARKERS
202200000-E	815	56	CY	SUBDRAIN EXCAVATION
203300000-E	815	42	CY	SUBDRAIN FINE AGGREGATE
204400000-E	815	250	LF	6" PERFORATED SUBDRAIN PIPE
207000000-N	815	1	EA	SUBDRAIN PIPE OUTLET
207700000-E	815	6	LF	6" OUTLET PIPE
225300000-E	840	3.25	CY	PIPE COLLARS
226400000-E	840	0.5	CY	PIPE PLUGS
228600000-N	840	5	EA	MASONRY DRAINAGE STRUCTURES
230800000-E	840	0.5	LF	MASONRY DRAINAGE STRUCTURES
236600000-N	840	3	EA	FRAME WITH TWO GRATES, STD 840.24
236700000-N	840	1	EA	FRAME WITH TWO GRATES, STD 840.29
249500000-E	SP	20	CY	GENERIC DRAINAGE ITEM ENDWALL EXTENSION
255600000-E	846	30	LF	SHOULDER BERM GUTTER
303000000-E	862	1,737.5	LF	STEEL BM GUARDRAIL
304500000-E	862	62.5	LF	STEEL BM GUARDRAIL, SHOP CURVED
315000000-N	862	10	EA	ADDITIONAL GUARDRAIL POSTS
319500000-N	862	2	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1
321500000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE III

ItemNumber	Sec #	Quantity	Unit	Description
327000000-N	SP	6	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
338700000-N	862	1	EA	TEMPORARY GUARDRAIL ANCHOR UNITS, TYPE ***** (W-BEAM)
362800000-E	876	180	TON	RIP RAP, CLASS I
364900000-E	876	95	TON	RIP RAP, CLASS B
365600000-E	876	1,920	SY	GEOTEXTILE FOR DRAINAGE
407200000-E	903	217	LF	SUPPORTS, 3-LB STEEL U-CHANNEL
409600000-N	904	4	EA	SIGN ERECTION, TYPE D
410200000-N	904	6	EA	SIGN ERECTION, TYPE E
415500000-N	907	13	EA	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
440000000-E	1110	587	SF	WORK ZONE SIGNS (STATIONARY)
440500000-E	1110	96	SF	WORK ZONE SIGNS (PORTABLE)
441000000-E	1110	228	SF	WORK ZONE SIGNS (BARRICADE MOUNTED)
443000000-N	1130	130	EA	DRUMS
443500000-N	1135	50	EA	CONES
444500000-E	1145	160	LF	BARRICADES (TYPE III)
445000000-N	1150	4,320	HR	FLAGGER
446500000-N	1160	2	EA	TEMPORARY CRASH CUSHIONS
447000000-N	1160	2	EA	RESET TEMPORARY CRASH CUSHION
448000000-N	1165	1	EA	TMA
448500000-E	1170	285	LF	PORTABLE CONCRETE BARRIER
450000000-E	1170	205	LF	RESET PORTABLE CONCRETE BARRIER
465000000-N	1251	40	EA	TEMPORARY RAISED PAVEMENT MARKERS
469500000-E	1205	144	LF	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)
471000000-E	1205	121	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24", 120 MILS)
472500000-E	1205	1	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOL (90 MILS)

ItemNumber	Sec #	Quantity	Unit	Description
481000000-E	1205	23,524	LF	PAINT PAVEMENT MARKING LINES (4")
484700000-E	1205	14,675	LF	POLYUREA PAVEMENT MARKING LINES (4", *****) (HIGHLY REFLECTIVE ELEMENTS)
490000000-N	1251	90	EA	PERMANENT RAISED PAVEMENT MARKERS
600000000-E	1605	3,300	LF	TEMPORARY SILT FENCE
600600000-E	1610	555	TON	STONE FOR EROSION CONTROL, CLASS A
600900000-E	1610	1,455	TON	STONE FOR EROSION CONTROL, CLASS B
601200000-E	1610	500	TON	SEDIMENT CONTROL STONE
601500000-E	1615	6	ACR	TEMPORARY MULCHING
601800000-E	1620	250	LB	SEED FOR TEMPORARY SEEDING
602100000-E	1620	3.75	TON	FERTILIZER FOR TEMPORARY SEEDING
602400000-E	1622	925	LF	TEMPORARY SLOPE DRAINS
602900000-E	SP	700	LF	SAFETY FENCE
603000000-E	1630	2,100	CY	SILT EXCAVATION
603600000-E	1631	11,000	SY	MATTING FOR EROSION CONTROL
603700000-E	SP	250	SY	COIR FIBER MAT
603800000-E	SP	1,679	SY	PERMANENT SOIL REINFORCEMENT MAT
604200000-E	1632	300	LF	1/4" HARDWARE CLOTH
607101000-E	SP	120	LF	WATTLE
607102000-E	SP	280	LB	POLYACRYLAMIDE (PAM)
607103000-E	1640	720	LF	COIR FIBER BAFFLE
607105000-E	SP	8	EA	*** SKIMMER (1-1/2")
608400000-E	1660	6	ACR	SEEDING & MULCHING
608700000-E	1660	3	ACR	MOWING
609000000-E	1661	100	LB	SEED FOR REPAIR SEEDING
609300000-E	1661	0.5	TON	FERTILIZER FOR REPAIR SEEDING
609600000-E	1662	200	LB	SEED FOR SUPPLEMENTAL SEEDING
610800000-E	1665	5.25	TON	FERTILIZER TOPDRESSING
611450000-N	1667	40	MHR	SPECIALIZED HAND MOWING
611700000-N	SP	50	EA	RESPONSE FOR EROSION CONTROL
612300000-E	1670	0.25	ACR	REFORESTATION

5/28/99
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 \$\$\$\$SHEETNAME\$\$\$\$

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5303	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46127.1.1	STP-1004(44)	P.E.	
46127.2.1	STP-1004(44)	RW & UTILITIES	
46127.3.1	STP-1004(44)	CONSTRUCTION	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

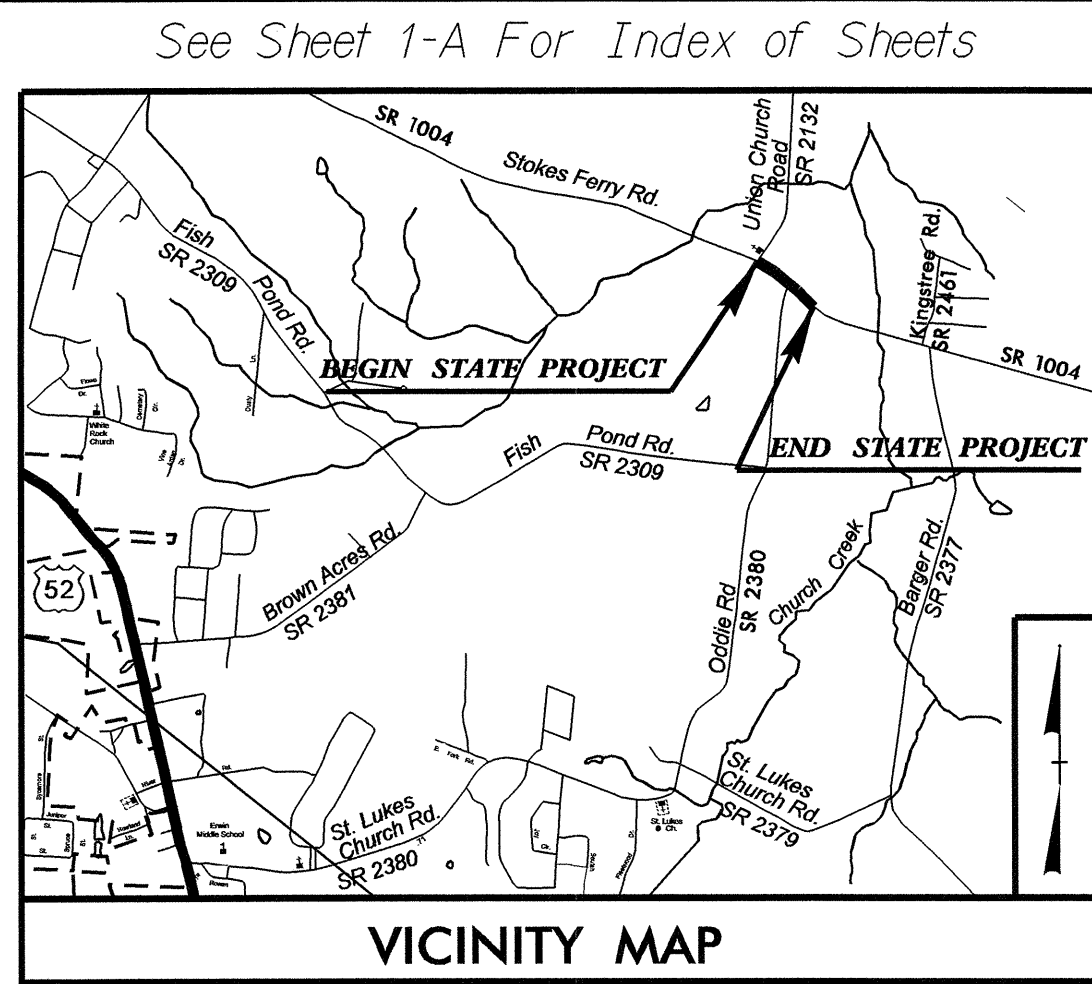
ROWAN COUNTY

LOCATION: INTERSECTION IMPROVEMENTS AT SR 2380
(ODDIE ROAD) INTERSECTION.

TYPE OF WORK: GRADING, DRAINAGE, STRUCTURE, PAVING.

PART 1 OF 2

4



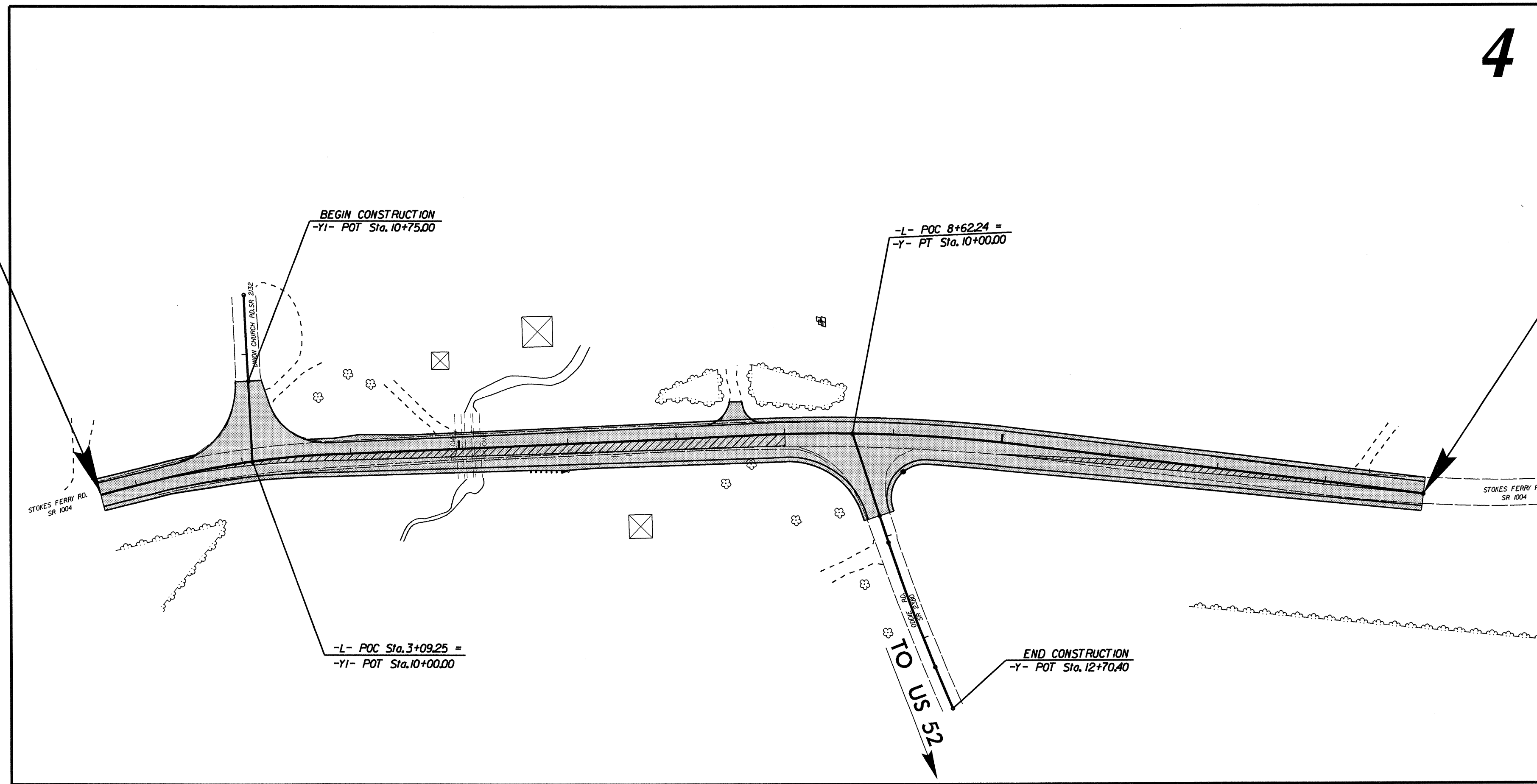
BEGIN PROJECT No. W-5303
-L- POT Sta. 1+65.00

BEGIN CONSTRUCTION
-YI- POT Sta. 10+75.00

-L- POC 8+62.24 =
-Y- PT Sta. 10+00.00

END PROJECT No. W-5303
-L- POT Sta. 13+90.94

TO SALISBURY
SR 1004

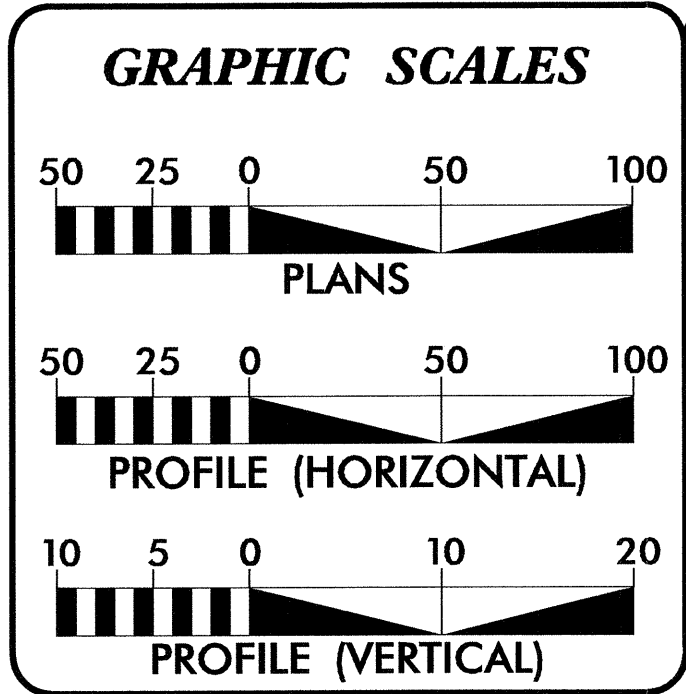


TO LIBERTY
SR 1004

-L- POC Sta. 3+09.25 =
-YI- POT Sta. 10+00.00

END CONSTRUCTION
-Y- POT Sta. 12+70.40

CONTRACT: C202821 TIP PROJECT: W-5303



DESIGN DATA

ADT 2012	=	8,364
ADT 2030	=	12,291
DHV	=	10 %
D	=	65 %
T	=	4 % *
V	=	55 MPH
* TTST	=	1 %
DUAL	=	3 %
FUNC CLASS	=	LOCAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5303	=	0.232 MILES
TOTAL LENGTH TIP PROJECT W-5303	=	0.232 MILES

SUB-TIER DESIGN GUIDELINES USED FOR DESIGN.

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

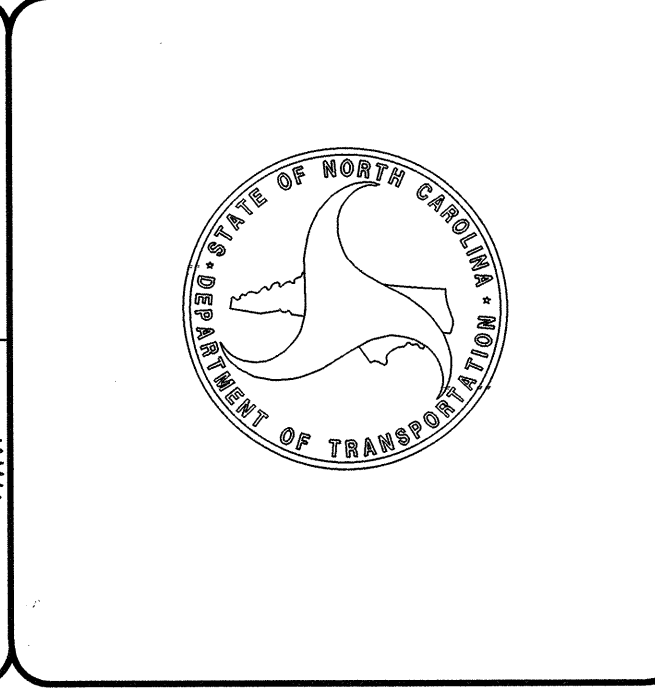
2012 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: DECEMBER 22, 2011	JIMMY GOODNIGHT, PE PROJECT ENGINEER
LETTING DATE: SEPTEMBER 18, 2012	STEVE KENDALL, PE PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: *Steven D. Kendall*

ROADWAY DESIGN ENGINEER

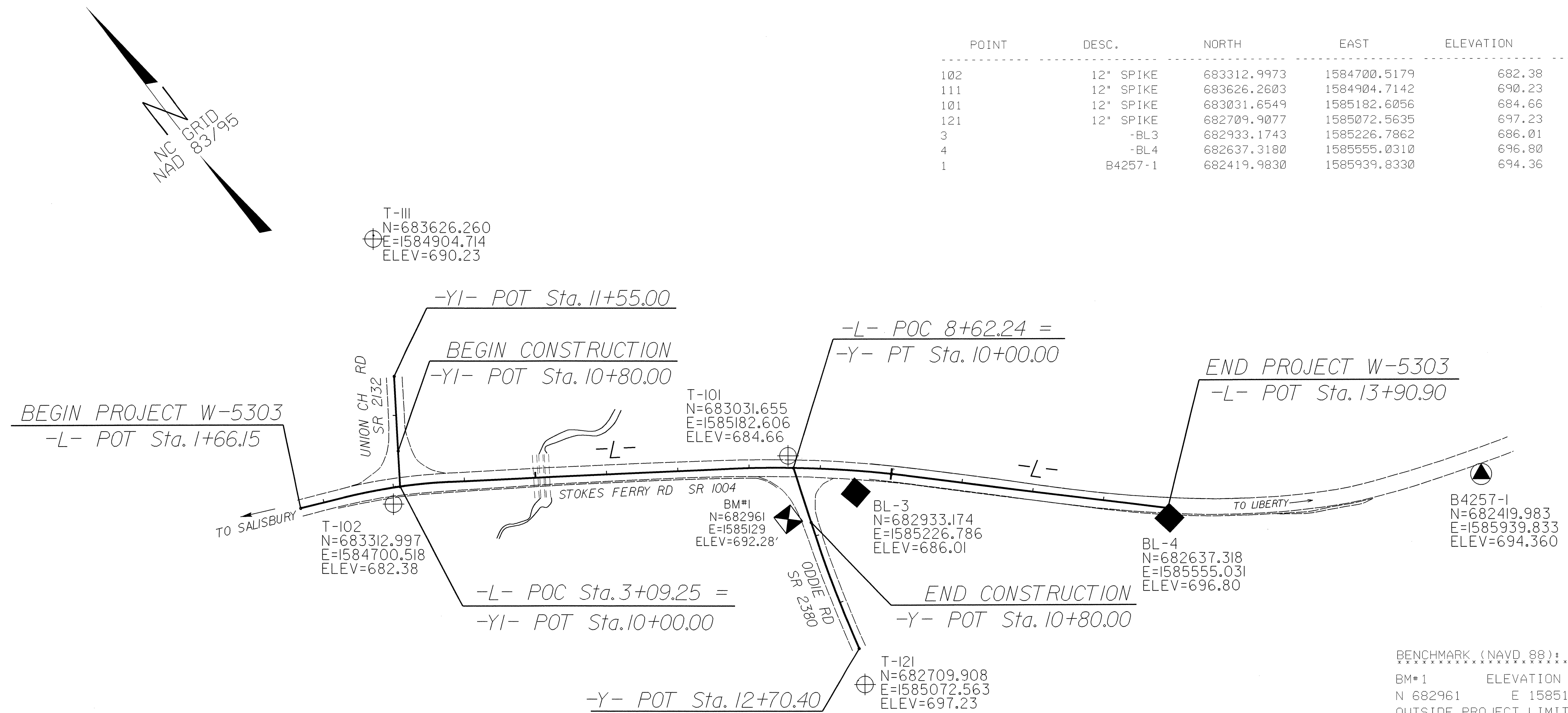
SIGNATURE: *Steven D. Kendall* 6-27-12 P.E.



25-JUN-2012 14:52 R:\Roadway\Proj\W5303.Rdy-t.sh.dgn

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SURVEY CONTROL SHEET W-5303

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
102	12" SPIKE	683312.9973	1584700.5179	682.38	2+96.12	23.00 RT
111	12" SPIKE	683626.2603	1584904.7142	690.23	3+17.50	350.07 LT
101	12" SPIKE	683031.6549	1585182.6056	684.66	8+54.45	17.29 LT
121	12" SPIKE	682709.9077	1585072.5635	697.23	9+93.70	298.96 RT
3	-BL3	682933.1743	1585226.7862	686.01	9+51.87	30.14 RT
4	-BL4	682637.3180	1585555.0310	696.80	OUTSIDE PROJECT LIMITS	
1	B4257-1	682419.9830	1585939.8330	694.36	OUTSIDE PROJECT LIMITS	



BENCHMARK (NAVD 88):
 BM#1 ELEVATION = 692.28'
 N 682961 E 1585129
 OUTSIDE PROJECT LIMITS
 R/R SPIKE IN ROOT OF DOUBLE WALNUT

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/)
 THE FILES TO BE FOUND ARE AS FOLLOWS:
 W5303_LS_CONTROL.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 NGS ONLINE POSITIONING USER SERVICE (OPUS)

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "B4257 GPS-1"
 WITH NAD 83/95 STATE PLANE GRID COORDINATES OF
 NORTHING: 682419.9836(ft) EASTING: 1585939.8334(ft)
 ELEVATION: 694.36(ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99986453
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4257 GPS-1" TO -L- STATION 1+66.15 IS
 N 54°19'12.7" W 1657.91'
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

5/28/99
03 MAY 2012 09:40
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SURVEY CONTROL SHEET W-5303

DESIGN ALIGNMENTS

L			
TYPE	STATION	NORTH	EAST
POT	1+65.00	683387.4156	1584592.0741
PC	2+27.38	683363.0086	1584649.4766
PT	3+78.95	683290.0569	1584782.0417
PC	7+70.59	683067.5836	1585104.3680
PT	10+21.57	682908.1010	1585297.7660
POT	13+90.90	682649.6680	1585561.6099

Y			
TYPE	STATION	NORTH	EAST
POT	10+00.00	683013.2046	1585178.1210
PC	11+05.95	682913.1687	1585143.2197
PT	12+28.47	682795.9679	1585107.6264
POT	12+70.40	682755.3875	1585097.0913

Y1			
TYPE	STATION	NORTH	EAST
POT	10+00.00	683326.9271	1584722.9263
POT	11+55.00	683454.8274	1584810.4849

ROW MARKER CONCRETE OR GRANITE-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	1+66.15	50.00	683340.9522	1584573.5679
L	1+66.15	30.26	683359.1196	1584581.2926
L	1+66.15	-29.76	683414.3565	1584604.7788
L	1+98.00	-45.00	683415.9151	1584640.0510
L	2+27.38	50.00	683316.9952	1584629.9121
L	2+50.00	-45.00	683394.7054	1584689.0093
L	2+87.21	-69.67	683399.1590	1584735.8338
L	3+66.00	-45.00	683334.7892	1584796.2431
L	3+78.95	50.00	683248.9070	1584753.6395
L	4+00.00	50.00	683236.9475	1584770.9669
L	4+00.00	65.00	683224.6025	1584762.4463
L	5+50.00	-45.00	683229.9259	1584948.3808
L	7+00.00	65.00	683054.1895	1585009.3459
L	7+25.00	-50.00	683134.6333	1585095.2458
L	7+70.59	-50.00	683108.7336	1585132.7701
L	8+16.00	90.00	682968.7639	1585087.9425
L	9+45.00	60.00	682915.2393	1585201.9966
L	10+21.57	-50.00	682943.8207	1585332.7532
L	10+21.57	55.00	682868.8095	1585259.2803
L	10+69.77	50.00	682838.6565	1585297.2097
L	13+50.00	30.00	682656.8563	1585511.4003
L	13+90.90	-50.00	682685.3877	1585596.5971
L	13+90.90	50.00	682613.9483	1585526.6227
L	13+90.90	-32.34	682672.7745	1585584.2426

ROW MARKER PERMANENT EASEMENT-E				
ALIGN	STATION	OFFSET	NORTH	EAST
L	4+50.00	-55.00	683294.9602	1584871.7614
L	4+50.00	-45.00	683286.7302	1584866.0810
L	5+50.00	-55.00	683238.1558	1584954.0613
L	8+87.64	-67.50	683049.6534	1585240.5903
L	8+91.92	-69.70	683048.5214	1585245.4512
L	8+95.90	-50.00	683030.6735	1585236.1399
L	9+01.31	-50.00	683027.1070	1585240.4498
L	9+64.78	58.82	682903.4668	1585216.9306

ROW MARKER PERMANENT EASEMENT-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y	12+50.00	-72.00	682757.0364	1585171.9061

ROW MARKER CONCRETE OR GRANITE-E				
ALIGN	STATION	OFFSET	NORTH	EAST
Y	12+00.00	33.48	682832.4818	1585082.7987
Y	12+00.00	40.00	682834.2390	1585076.5226
Y	12+50.00	-30.00	682767.5902	1585131.2537
Y	12+50.00	-23.07	682769.3313	1585124.5472

NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
[HTTP://WWW.NCDOT.ORG/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/](http://www.ncdot.org/DOH/PRECONSTRUCT/HIGHWAY/LOCATION/PROJECT/)

THE FILES TO BE FOUND ARE AS FOLLOWS:
W5303_LS_CONTROL.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 NGS ONLINE POSITIONING USER SERVICE (OPUS)

DATUM DESCRIPTION

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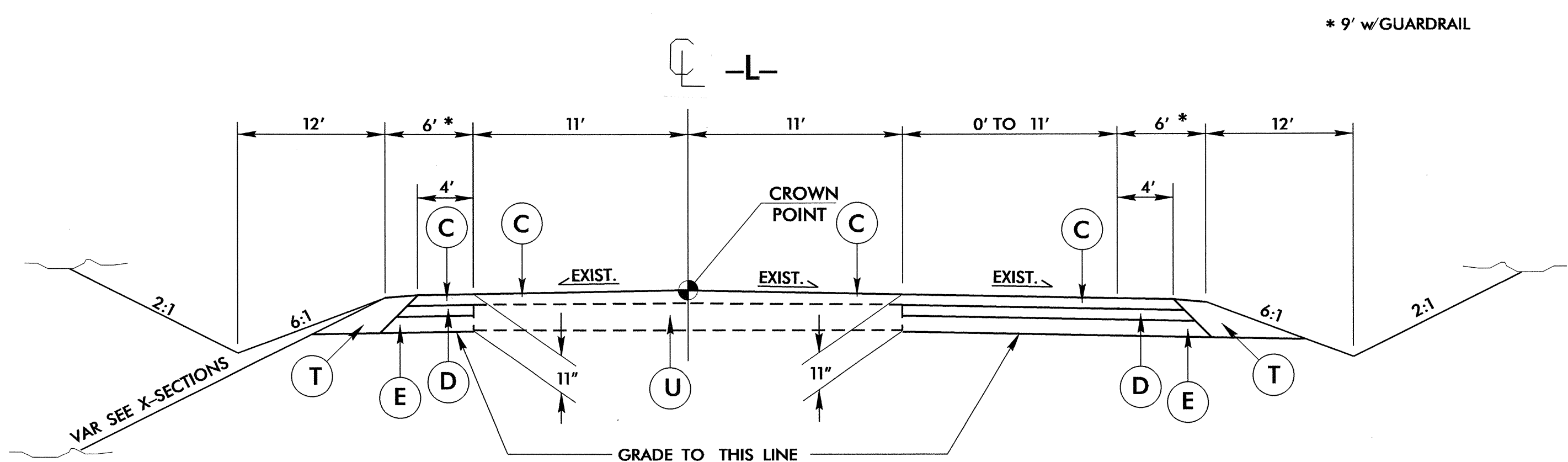
NOTE: DRAWING NOT TO SCALE

6/2/99

PROJECT REFERENCE NO. W-5303	SHEET NO. 2
ROADWAY DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 33296 STEVEN D. KENDALL 6-27-12	PAVEMENT DESIGN ENGINEER NORTH CAROLINA PROFESSIONAL SEAL 22896 CLARK S. MORRISON 6/21/12

PAVEMENT SCHEDULE	
FINAL PAVEMENT DESIGN	
C	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.
D	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 342 LBS. PER SQ. YD.
E	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.

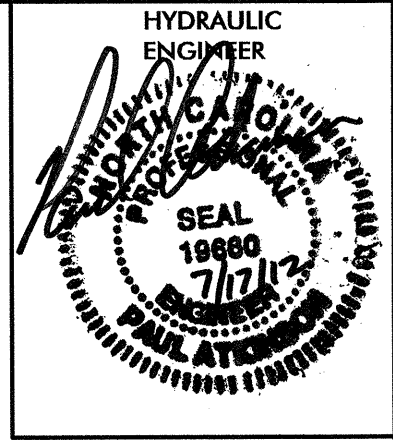
NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



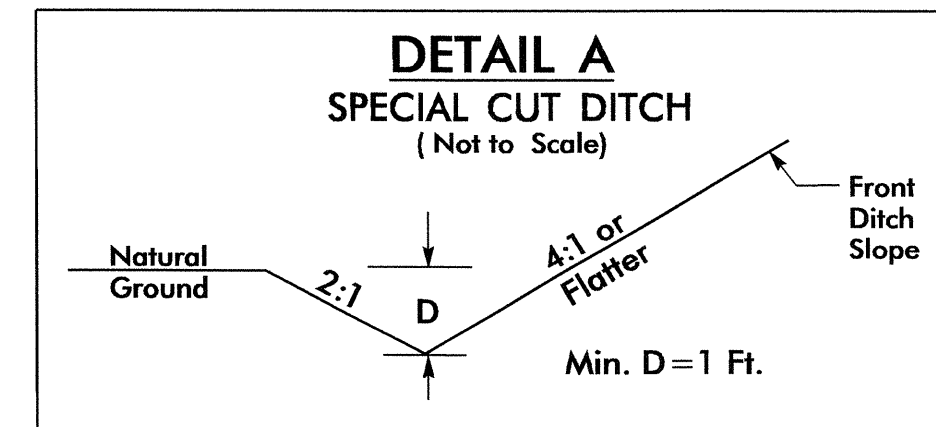
TYPICAL SECTION NO.1

USE TYPICAL SECTION NO. 1
-L- Sta. 1+65.00 to Sta. 13+90.94

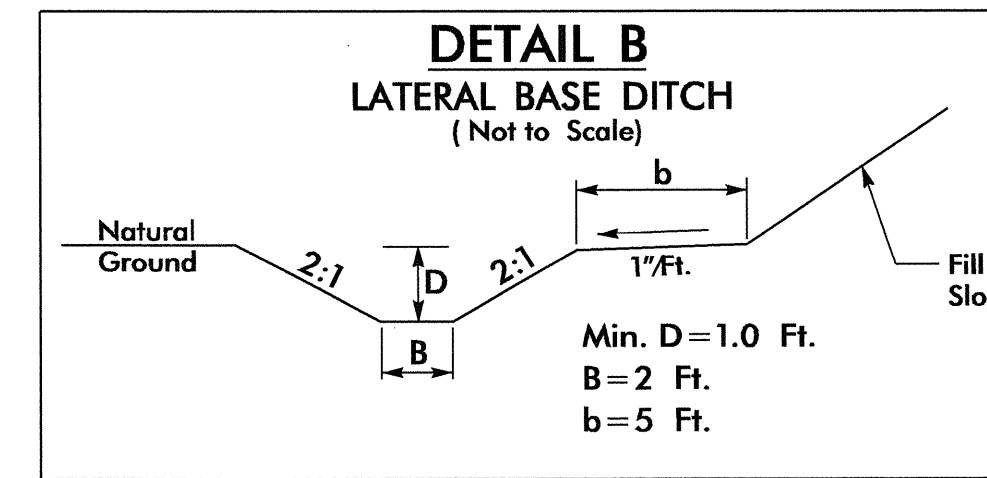
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33296



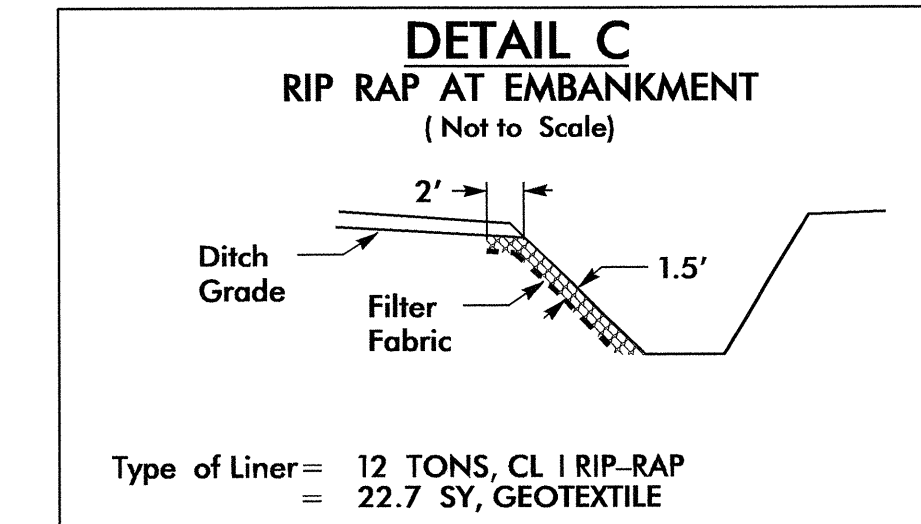
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
DRAINAGE DETAILS



-L- STA. 1+66 TO STA. 2+82 LT
-L- STA. 1+66 TO STA. 3+00 RT
-L- STA. 3+44 TO STA. 4+90 LT
-L- STA. 9+90 TO STA. 13+90 RT

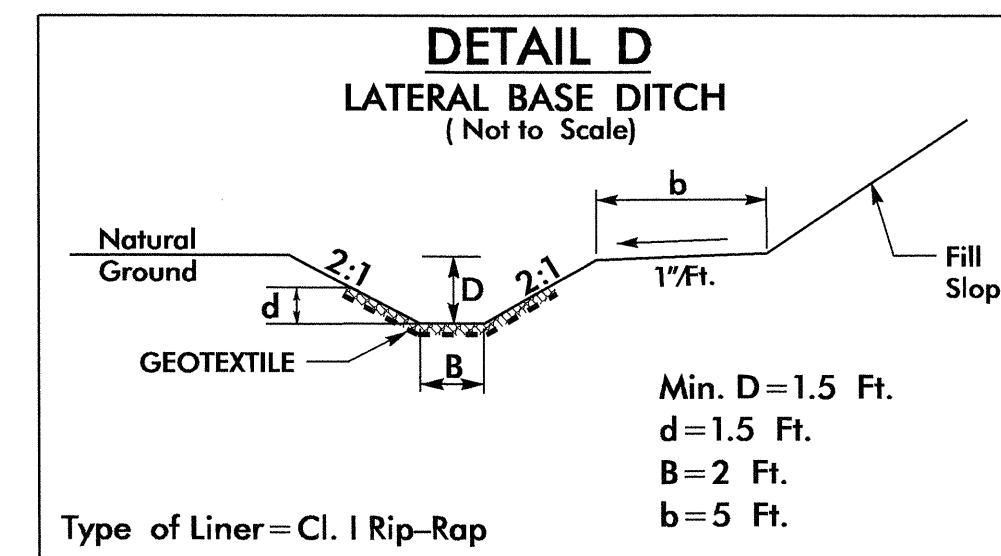


-L- STA. 3+50 TO STA. 4+85 RT



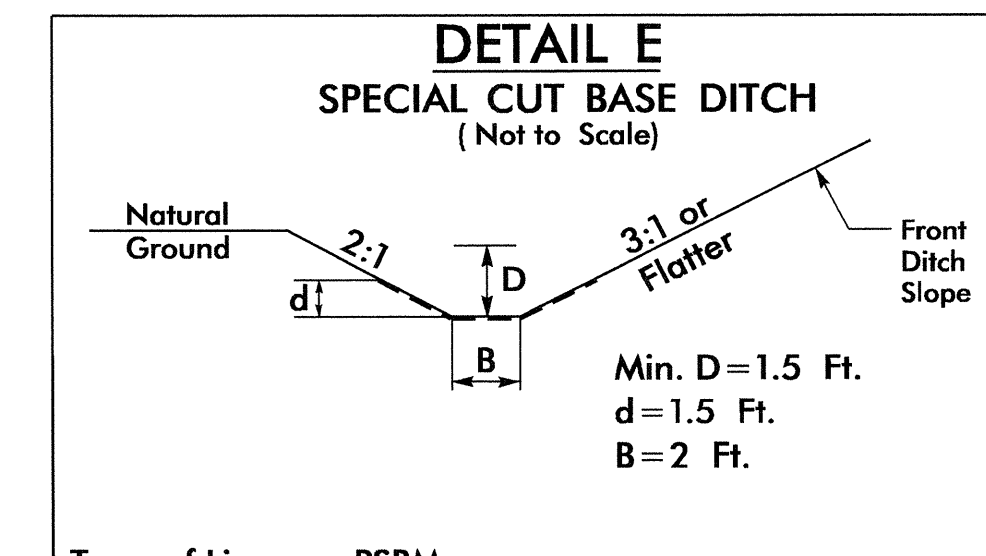
Type of Liner = 12 TONS, CL I RIP-RAP
= 22.7 SY, GEOTEXTILE

-L- STA. 4+88 TO STA. 5+06 LT



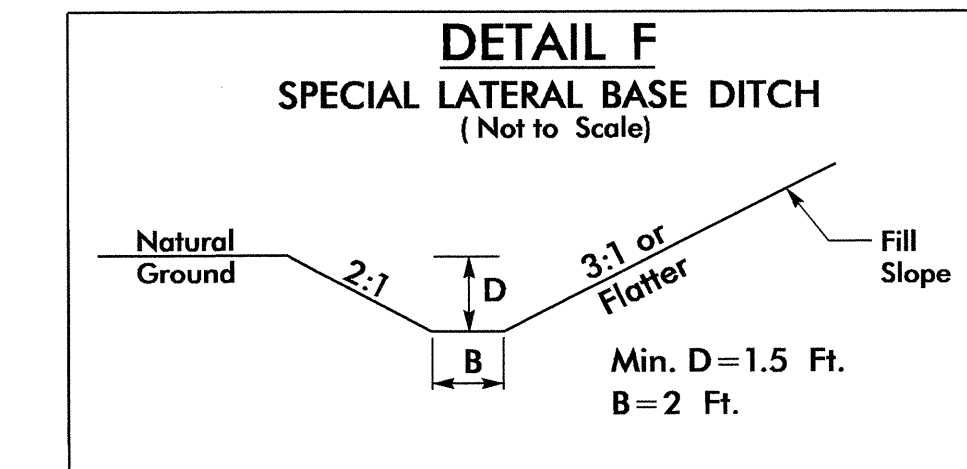
Type of Liner = Cl. I Rip-Rap

-L- STA. 4+96 TO STA. 6+50 RT

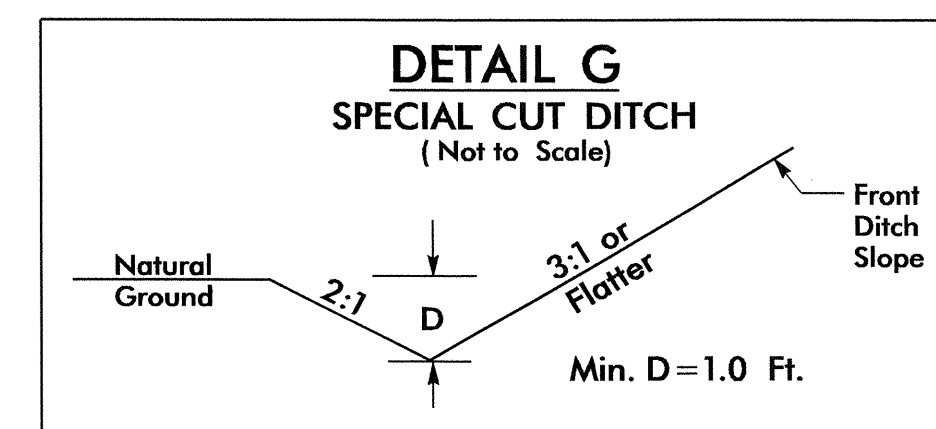


Type of Liner = PSRM

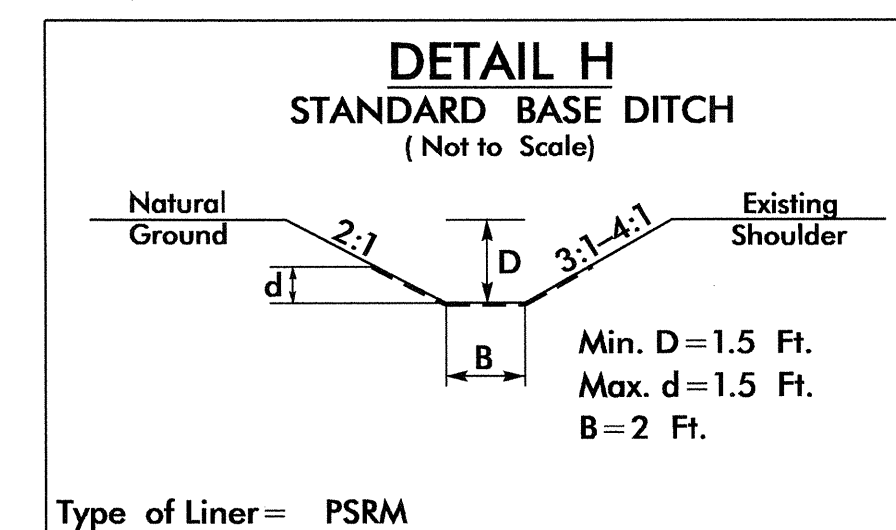
-L- STA. 6+50 TO STA. 8+43 RT



-L- STA. 8+00 TO STA. 9+90 LT

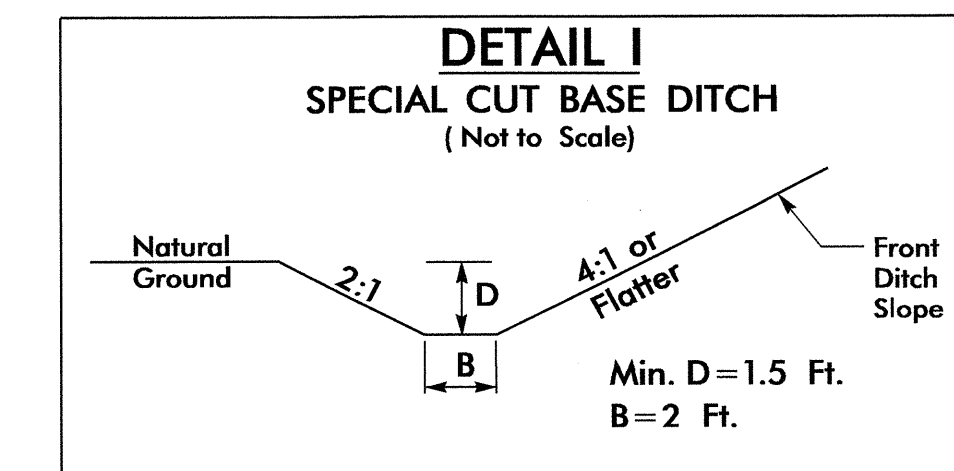


-L- STA. 9+90 TO STA. 13+90 LT

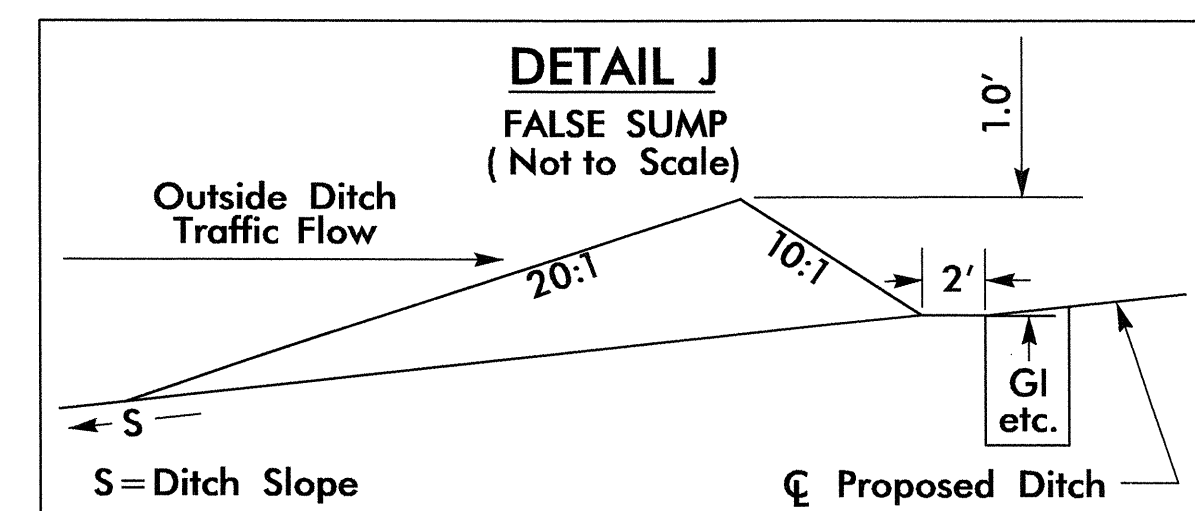


Type of Liner = PSRM

-Y- STA. 10+64 TO STA. 12+50 RT
-Y- STA. 10+68 TO STA. 12+00 RT



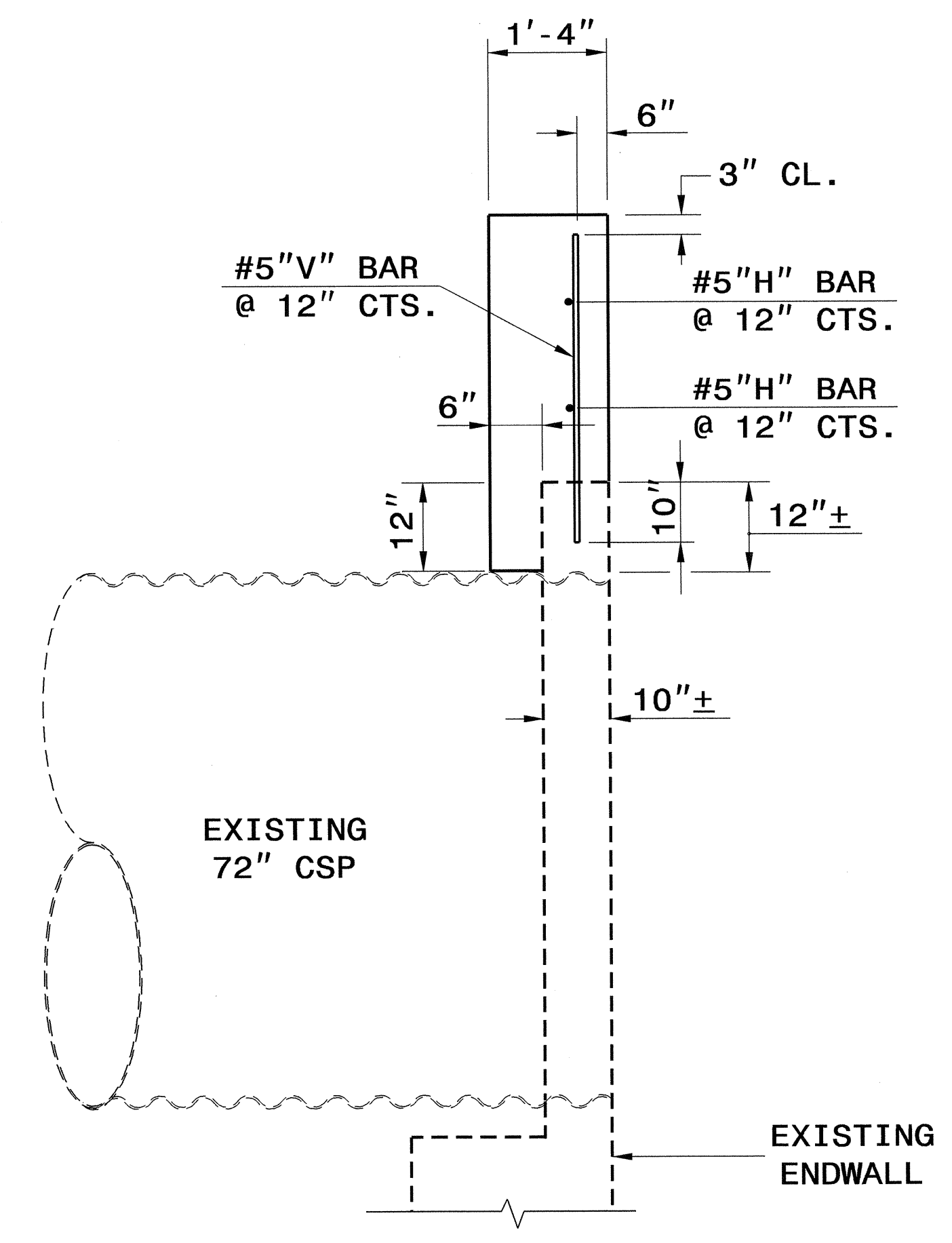
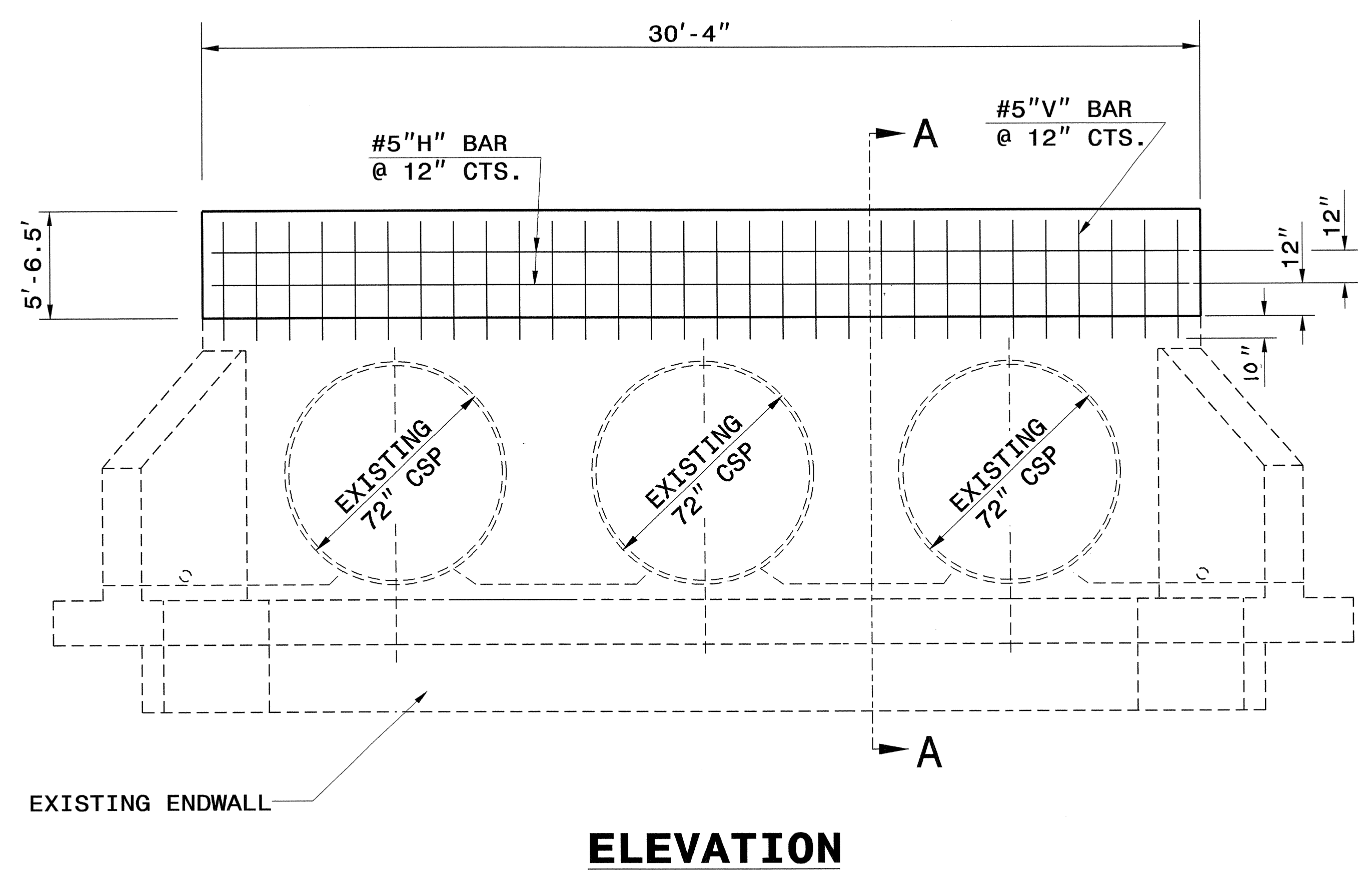
-L- STA. 9+19 TO STA. 9+90 RT



-L- STA. 9+90

8/17/99

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6434752.P006 5339



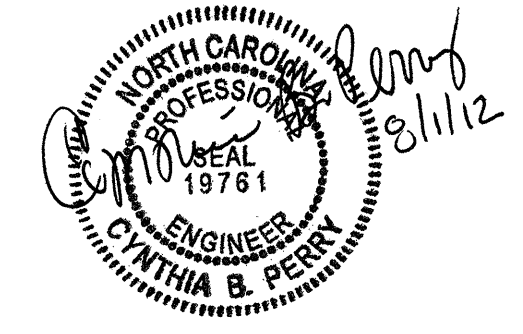
STA. 0414 LT

QUANTITIES				
BAR	NO.	SIZE	LENGTH	WEIGHT
H	4	#5	30'-0"	126.0
V	30	#5	6'-0"	187.7
TOTAL REINF. STEEL (lbs.)				313.7
CLASS "B" CONC. (cu. yds.)				9.0

STA. 0415 RT

QUANTITIES				
BAR	NO.	SIZE	LENGTH	WEIGHT
H	5	#5	30'-0"	156.4
V	30	#5	7'-0"	219.0
TOTAL REINF. STEEL (lbs.)				375.4
CLASS "B" CONC. (cu. yds.)				10.5

- NOTES:**
1. VERIFY DIMENSIONS OF EXISTING ENDWALL.
 2. DRILL A MINIMUM 1 1/4" HOLE FOR PLACEMENT OF #5 BARS IN EXISTING ENDWALL.
 3. USE AN APPROVED EPOXY TO SECURE #5 BARS INTO TOP OF EXISTING WALL.
 4. KEEP A MINIMUM OF 2" OF COVER FOR ALL REBAR.
 5. QUANTITIES MAY BE ADJUSTED AS DIRECTED BY THE ENGINEER.



CONTRACT STANDARDS AND DEVELOPMENT UNIT
 PLANS AND STANDARDS SECTION
 Office 919-707-6950 FAX 919-250-4119

ENDWALL EXTENSION

ORIGINAL BY: T. Spell DATE: 11-10-11
 MODIFIED BY: DATE:
 CHECKED BY: DATE: 4/10/12
 FILE SPEC.: details/838d40_ext_endwall.dgn

I:\APR-2012\3158
 S:\Contracts\Special_Details\spell\stand\838d40_ext_endwall.dgn
 \$\$\$USERNAME\$\$\$

DIVISION OF HIGHWAYS
 STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK
 IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT + 20%	BORROW	WASTE
SUMMARY No. 1 PHASE 1					
W-5303 -L- RT Sta. 1+65.00 to Sta. 13+90.94	1,931		707		1,224
W-5303 -Y- Sta. 10+50.00 to Sta. 12+70.00	202				202
SUMMARY TOTAL No. 1 PHASE 1	2,133		707		1,426
SUMMARY No. 2 PHASE 1					
B-4257 -L- Sta. 13+90.94 to Sta. 23+67.00	396		7,681	7,285	
SUMMARY TOTAL No. 2 PHASE 1	396		7,681	7,285	
SUMMARY No. 3 PHASE 1					
B-4257 -L- Sta. 24+79.00 to Sta. 32+00.00	150		22,148	21,998	
SUMMARY TOTAL No. 3 PHASE 1	150		22,148	21,998	
SUMMARY No. 4 PHASE 2					
W-5303 -L- LT Sta. 1+65.00 to Sta. 13+90.94	362		370	8	700
B-4257 -L- Sta. 23+30.00 to Sta. 23+93.71	700				790
B-4257 -L- Sta. 24+44.12 to Sta. 28+00.00	790				
B-4257 -DR1- Sta. 10+00.00 to Sta. 11+61.36	32		270	238	
SUMMARY TOTAL No. 4 PHASE 2	1,884		640	246	1,490
COMBINED TOTAL	4,563		31,176	29,529	2,916
MATERIAL FOR SHOULDER CONST.					
LOSS DUE TO CLEARING & GRUBBING	890		984	984	
WASTE IN LIEU OF BORROW				-890	-1,426
				-1,426	
COMBINED PROJECT TOTAL	3,673		32,160	29,977	1,490
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				1,499	
COMBINED GRAND PROJECT TOTAL	3,673		32,160	31,476	1,490
SAY	3,700			32,000	
DRAINAGE DITCH EXCAVATION					
W-5303	263				
B-4257	172				
COMBINED DDE TOTAL	435				
SHALLOW UNDERCUT					
W-5303	100				
B-4257	750				
COMBINED SHALLOW UNDERCUT TOTAL	850				
CLASS IV SUBGRADE STABILIZATION					
W-5303	190 Tons				
B-4257	1,500 Tons				
CLASS IV SUBGRADE STABILIZATION TOTAL	1,690 Tons				
ADDITIONAL UNDERCUT		600			

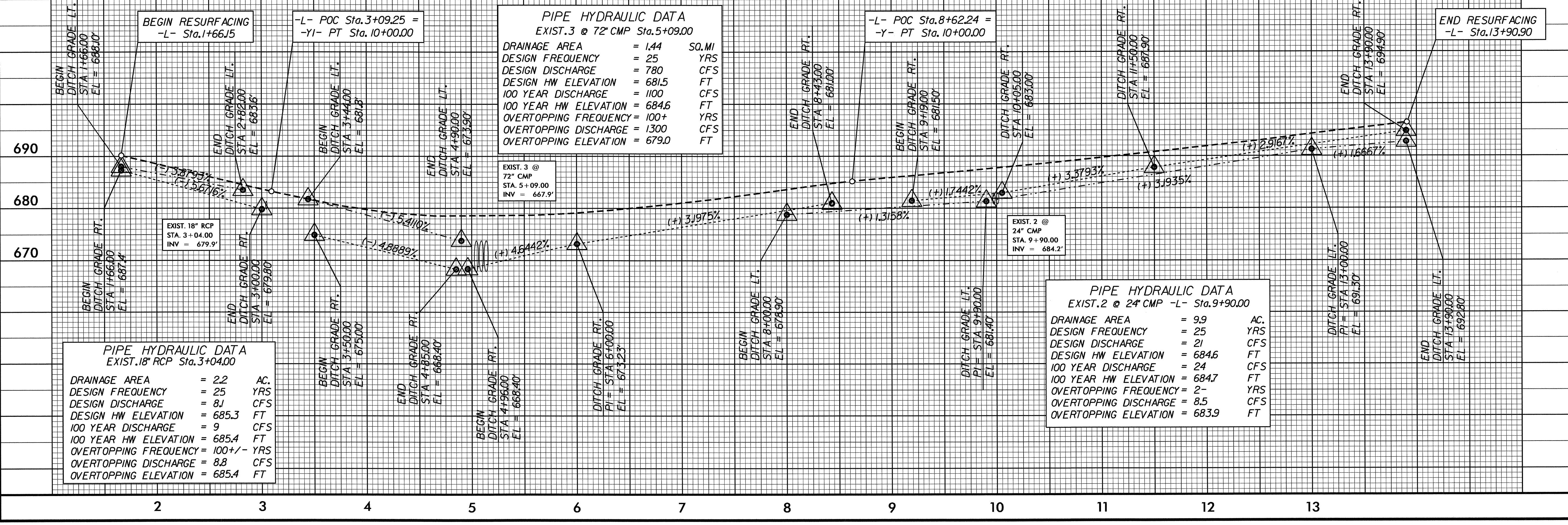
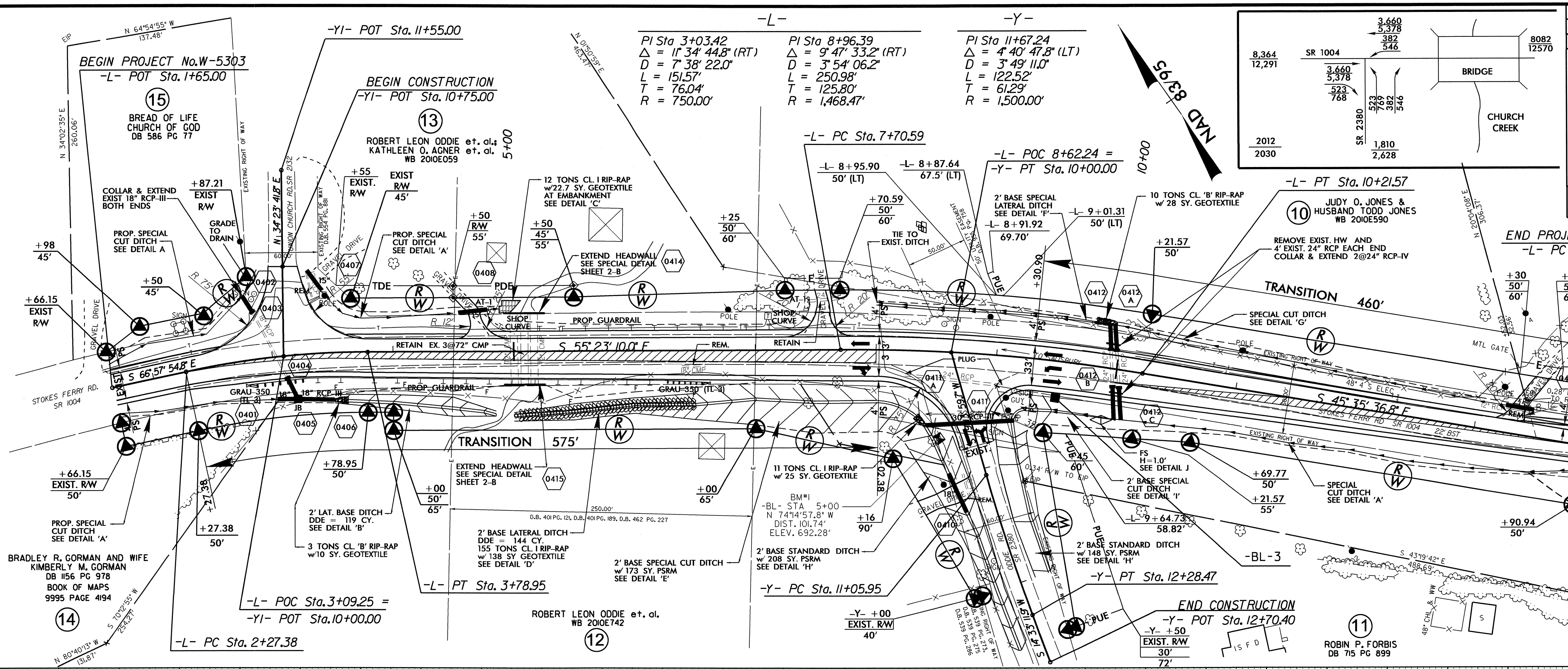
NOTE: Approximate quantities only. Unclassified Excavation, Fine Grading, Clearing & Grubbing, Breaking of Existing Pavement, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading".

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.

8/17/79

PROJECT REFERENCE NO.	W-5303	SHEET NO.	4
R/W SHEET NO.			
ROADWAY DESIGN			
HYDRAULICS ENGINEER			

NOTE:
SEE SHEET No.2-A FOR DITCH DETAILS



27-JUN-2012 11:55
R:\Projects\W5303\Fig\psh04.dgn