

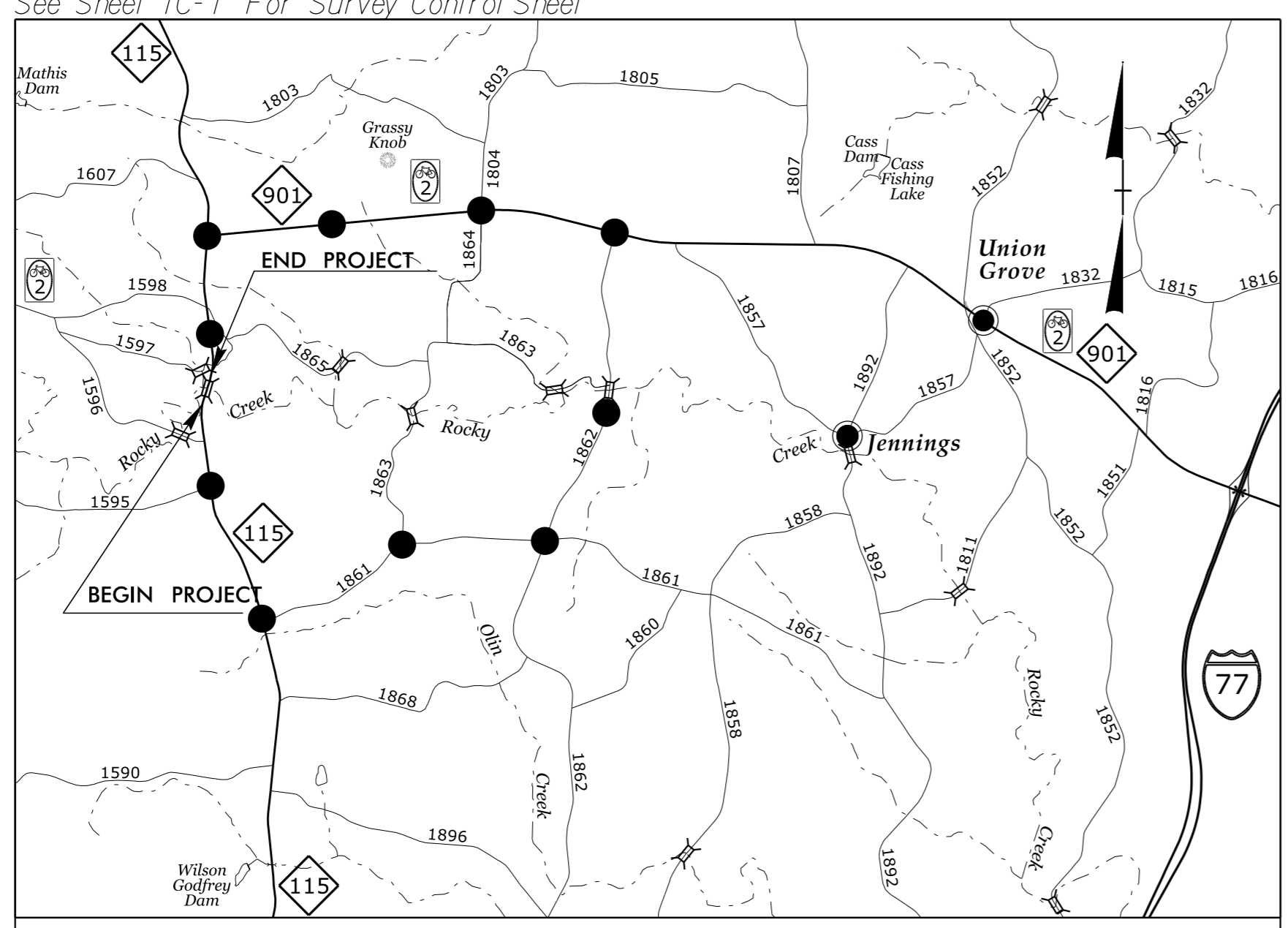
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09/08/99

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



VICINITY MAP

●●● OFF-SITE DETOUR

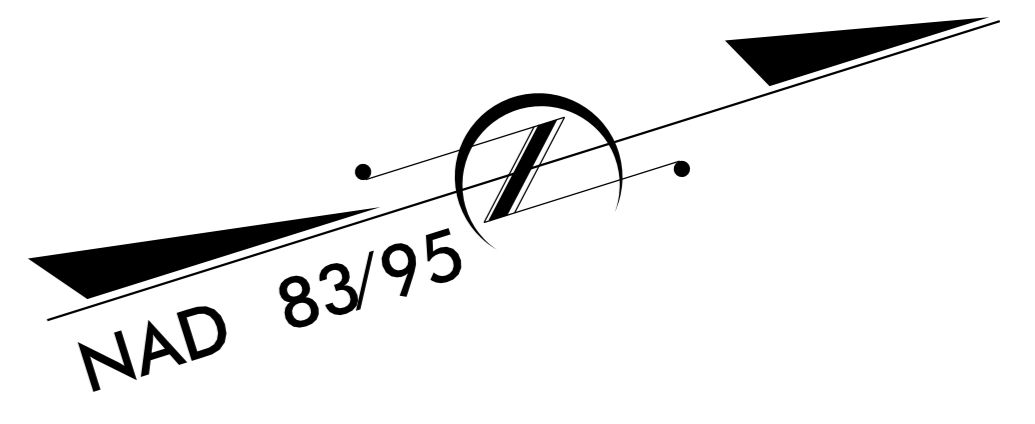
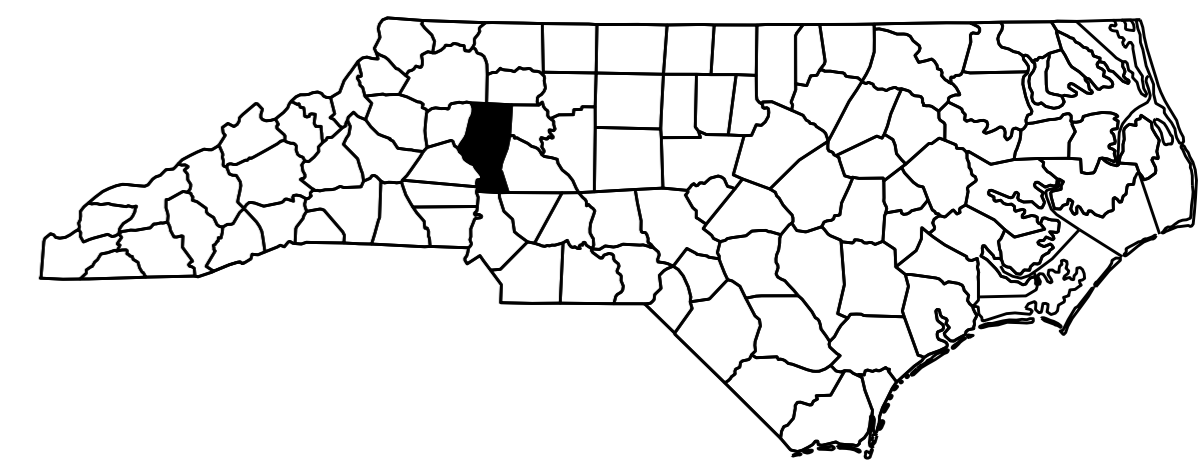
STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

IREDELL COUNTY

**LOCATION: BRIDGE No. 69 OVER ROCKY CREEK ON
NC 115**

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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4766	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
38538.1.2	BRSTP-0115(7)	PE	
38538.2.1		RW, UTIL	
38538.3.1		CONST.	

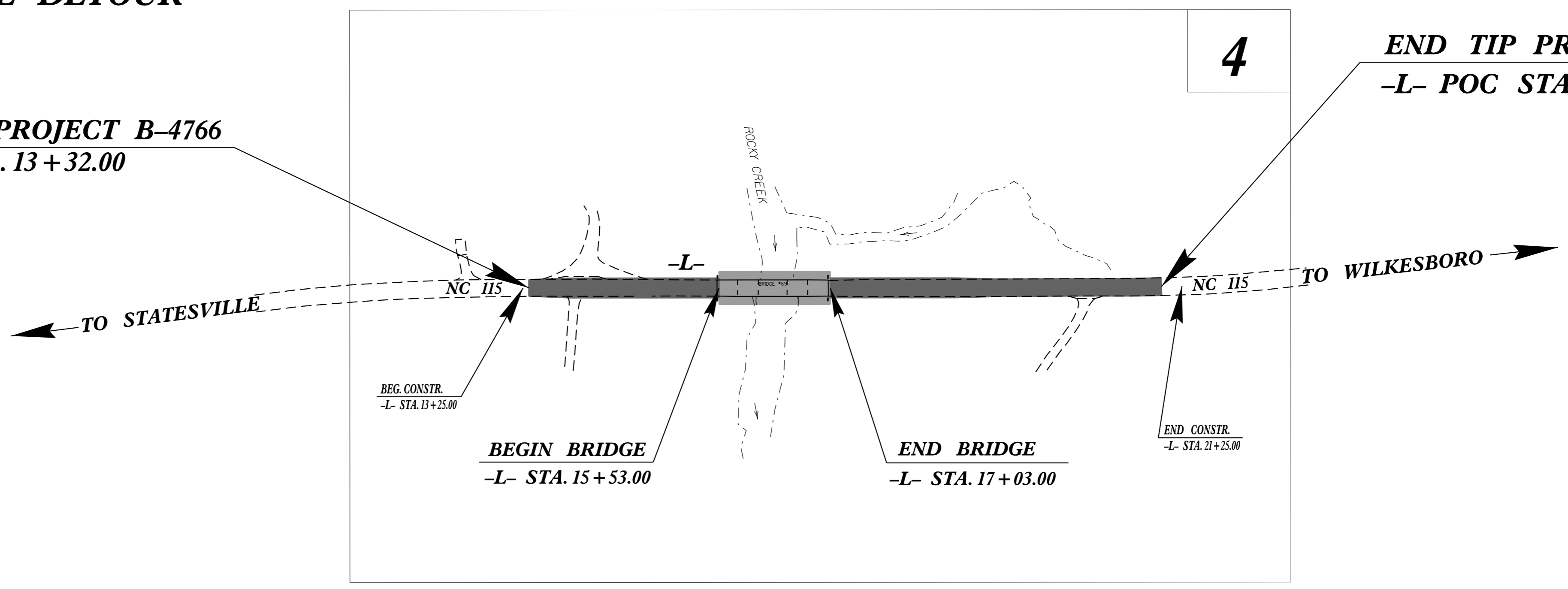


TIP PROJECT: B-4766

CONTRACT: C203809

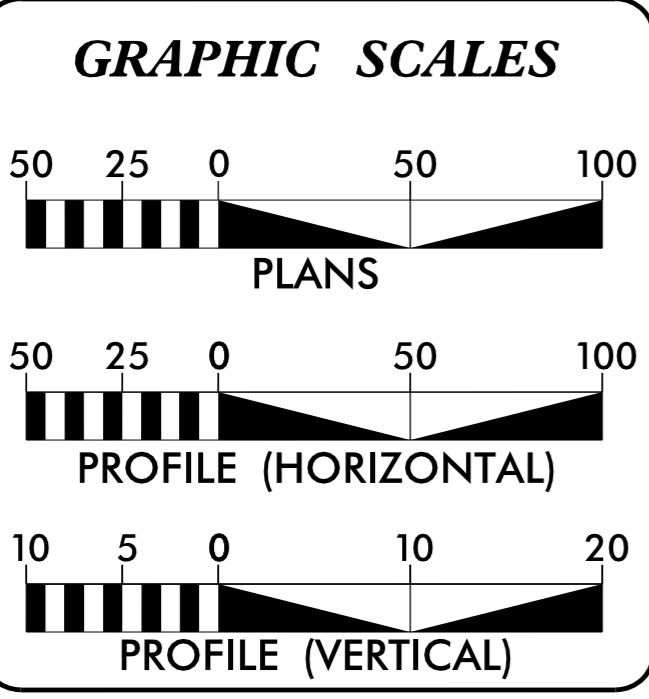
BEGIN TIP PROJECT B-4766
-L- POT STA. 13+32.00

END TIP PROJECT B-4766
-L- POC STA. 21+00.00



DESIGN EXCEPTION REQUIRED FOR VERTICAL CURVE, K-VALUES, AND ASSOCIATED NIGHT TIME STOPPING SIGHT DISTANCE.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2016 =	2,310
ADT 2040 =	3,600
DHV =	10 %
D =	55 %
T =	13 % *
V =	60 MPH
* TTST =	5% DUAL 8%
FUNC CLASS =	MAJOR COLLECTOR
REGIONAL TIER	

PROJECT LENGTH

LENGTH ROADWAY T.I.P. PROJECT B-4766 =	0.117 MI
LENGTH STRUCTURE T.I.P. PROJECT B-4766 =	0.028 MI
TOTAL LENGTH OF T.I.P. PROJECT B-4766 =	0.145 MI

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

2012 STANDARD SPECIFICATIONS	RIGHT OF WAY DATE:	JAMES A. SPEER, PE PROJECT ENGINEER
	SEPTEMBER 30, 2015	
	LETTING DATE:	NYA K. BOAYUE, PE PROJECT DESIGN ENGINEER
	JUNE 21, 2016	

HYDRAULICS ENGINEER

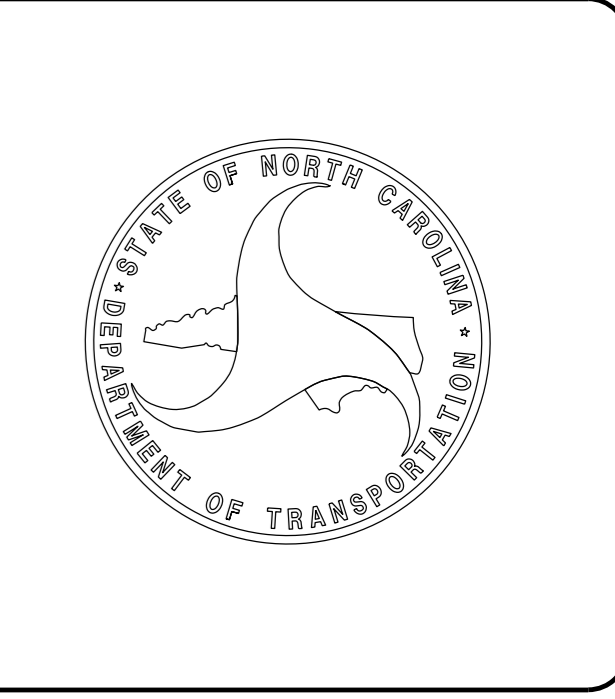
4/13/2016

DocuSigned by:
Burt Hobb
SIGNATURE: 939900406

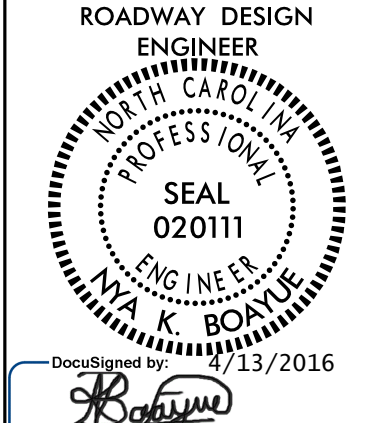
ROADWAY DESIGN ENGINEER

4/13/2016

DocuSigned by:
NYA K. BOAYUE
SIGNATURE: 939900406



04-APR-2016 15:08
R:\Roadway\Proj\B4766_RDY_TSh.dgn
\$\$\$\$\$USERNAME\$\$\$\$\$



GENERAL NOTES: 2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 10-31-2014

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 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.

SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 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 ENERGY UNITED POWER, YADKIN TELEPHONE, AND AT&T.

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.

2012 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-17-2012
REV. 10-30-2012

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - 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:

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
DIVISION 4 - MAJOR STRUCTURES	
422.10	Reinforced Bridge Approach Fills
DIVISION 5	
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	
815.02	Subsurface Drain
840.00	Concrete Base Pad for Drainage Structures
840.25	Anchorage for Frames - Brick or Concrete or Precast
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
840.45	Precast Drainage Structure
840.46	Traffic Bearing Precast Drainage Structure
840.54	Manhole Frame and Cover
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
862.04	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

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale *S.U.E. = Subsurface Utility Engineering

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EP
Property Corner	-----
Property Monument	□ EDM
Parcel/Sequence Number	⑫③
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	---RLB---
Proposed Wetland Boundary	---RLB---
Existing Endangered Animal Boundary	---EAB---
Existing Endangered Plant Boundary	---EPB---
Existing Historic Property Boundary	---HPB---
Known Contamination Area: Soil	☠☠
Potential Contamination Area: Soil	☠☠
Known Contamination Area: Water	☠☠
Potential Contamination Area: Water	☠☠
Contaminated Site: Known or Potential	☠☠?

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	○ CSX TRANSPORTATION 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	---RW---
Proposed Right of Way Line with Iron Pin and Cap Marker	---RW---▲
Proposed Right of Way Line with Concrete or Granite R/W Marker	---RW---▲
Proposed Control of Access Line with Concrete CA Marker	---RW---▲
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 Drainage / Utility Easement	---DUE---
Proposed Permanent Utility Easement	---PUE---
Proposed Temporary Utility Easement	---TUE---
Proposed Aerial Utility Easement	---AUE---
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	---C---
Proposed Slope Stakes Fill	---F---
Proposed Curb Ramp	○ CR
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊕
Pavement Removal	XXXX

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	○
H-Frame Pole	●●
U/G Power Line LOS B (S.U.E.*)	---P---
U/G Power Line LOS C (S.U.E.*)	---P---
U/G Power Line LOS D (S.U.E.*)	---P---

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	○
U/G Telephone Cable LOS B (S.U.E.*)	---T---
U/G Telephone Cable LOS C (S.U.E.*)	---T---
U/G Telephone Cable LOS D (S.U.E.*)	---T---
U/G Telephone Conduit LOS B (S.U.E.*)	---TC---
U/G Telephone Conduit LOS C (S.U.E.*)	---TC---
U/G Telephone Conduit LOS D (S.U.E.*)	---TC---
U/G Fiber Optics Cable LOS B (S.U.E.*)	---T FO---
U/G Fiber Optics Cable LOS C (S.U.E.*)	---T FO---
U/G Fiber Optics Cable LOS D (S.U.E.*)	---T FO---

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	---W---
U/G Water Line LOS C (S.U.E.*)	---W---
U/G Water Line LOS D (S.U.E.*)	---W---
Above Ground Water Line	---A/G Water---

TV:

TV Pedestal	⊕
TV Tower	⊗
U/G TV Cable Hand Hole	○
U/G TV Cable LOS B (S.U.E.*)	---TV---
U/G TV Cable LOS C (S.U.E.*)	---TV---
U/G TV Cable LOS D (S.U.E.*)	---TV---
U/G Fiber Optic Cable LOS B (S.U.E.*)	---TV FO---
U/G Fiber Optic Cable LOS C (S.U.E.*)	---TV FO---
U/G Fiber Optic Cable LOS D (S.U.E.*)	---TV FO---

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	---G---
U/G Gas Line LOS C (S.U.E.*)	---G---
U/G Gas Line LOS D (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---
SS Forced Main Line LOS B (S.U.E.*)	---FSS---
SS Forced Main Line LOS C (S.U.E.*)	---FSS---
SS Forced Main Line LOS D (S.U.E.*)	---FSS---

MISCELLANEOUS:

Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line LOS B (S.U.E.*)	---?UTL---
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	○
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

SURVEY CONTROL SHEET

-Final-

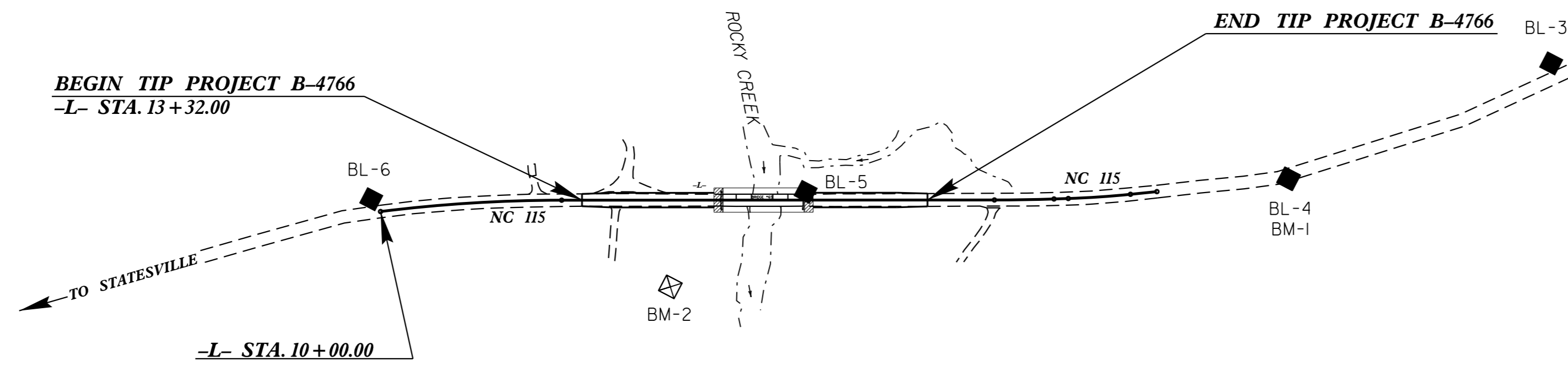
PROJECT REFERENCE NO.	SHEET NO.
B-4766	1C-1
Location and Surveys	

DATUM DESCRIPTION
 THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B4766-1" WITH NAD 83/95 STATE PLANE GRID COORDINATES OF NORTHING: 833029.2100(ft) EASTING: 1421500.4210(ft) ELEVATION: 1103.950(ft)
 THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99991558
 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B4766-1" TO -L- STATION 10+00.00 IS S 03°14'56.9" W 3427.52
 ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
6	BL-6	BL-6	829598.6082	1421282.1286	1025.55	OUTSIDE PROJECT LIMITS	
5	BL-5	BL-5	830283.6416	1421484.6645	1013.01	16+99.63	13.46 LT
4	BL-4	BL-4	831047.7083	1421702.0152	1055.47	OUTSIDE PROJECT LIMITS	
3	BL-3	BL-3	831516.4519	1421649.9935	1084.94	OUTSIDE PROJECT LIMITS	
2	B4766-2	B4766-2	832145.2960	1421566.9200	1095.88	OUTSIDE PROJECT LIMITS	
1	B4766-1	B4766-1	833029.2100	1421500.4210	1103.95	OUTSIDE PROJECT LIMITS	

.....
 BM1 ELEVATION = 1055.47
 N 831048 E 1421702
 L STATION 22+77.70
 N 11°51'54.3" E DIST 217.55
 REBAR AND CAP STAMPED "B4766 BL-4" SET FLUSH WITH THE GROUND IN GRAVEL DRIVE WAY.

 BM2 ELEVATION = 1008.63
 N 830025 E 1421567
 L STATION 14+77 143 RIGHT
 R/R SPIKE SET IN ROOT OF 28"X48" TR1 FORKED BEECH TREE



ROW MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
L	13+25.00	30.00	829913.1606	1421414.0733
L	13+25.00	22.50	829915.4041	1421406.9167
L	13+25.00	-22.50	829928.8648	1421363.9771
L	13+25.00	-30.00	829931.1082	1421356.8205
L	16+90.00	-30.00	830279.3961	1421466.0018
L	16+90.00	-40.00	830282.3874	1421456.4597
L	18+30.00	-40.00	830415.9773	1421498.3374
L	18+30.00	-30.00	830412.9860	1421507.8796
L	20+10.03	30.00	830566.8252	1421618.9841
L	20+10.03	-30.00	830584.7728	1421561.7313
L	21+08.02	-22.50	830675.7928	1421596.4596
L	21+08.02	30.00	830661.7330	1421647.0420
L	21+08.02	-30.00	830677.8013	1421589.2336
L	21+08.02	22.50	830663.7416	1421639.8159

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT: [HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION/](https://connect.ncdot.gov/resources/location/)

THE FILES TO BE FOUND ARE AS FOLLOWS:
B4766_LS_CONTROL.TXT
B4766_LS_LOCAL.TXT
- SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM, NETWORK ESTABLISHED FROM NGS ONLINE POSITIONING SERVICE (OPUS)

MONUMENTS USED OR SET FOR PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT:
 - INDICATES GEODETIC CONTROL MONUMENTS FOR HORIZONTAL CONTROL
 - INDICATES BASELINE MONUMENTS FOR HORIZONTAL PROJECT CONTROL
 - ⊠ INDICATES BENCHMARKS FOR VERTICAL CONTROL

L

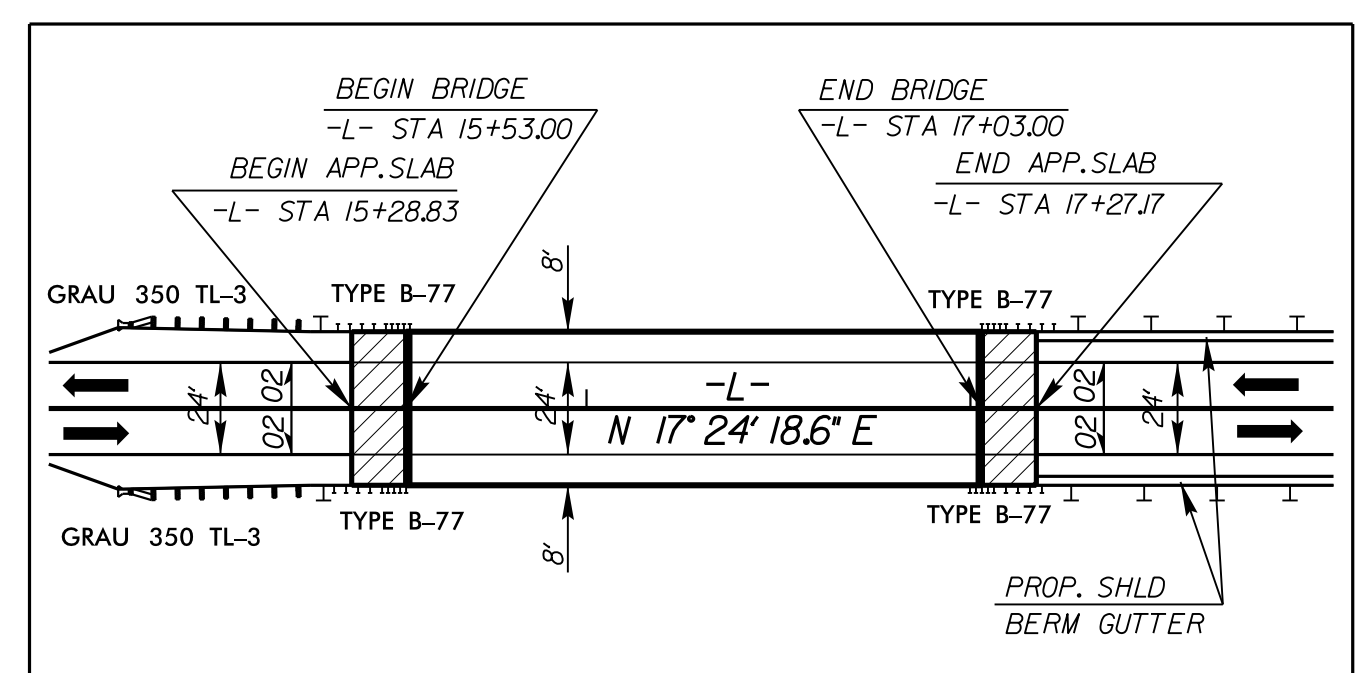
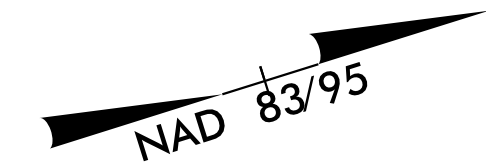
TYPE	STATION	NORTH	EAST
POT	10+00.00	829607.2019	1421306.1568
PC	10+00.00	829607.2019	1421306.1568
PT	12+98.55	829896.8942	1421377.5346
PC	20+10.03	830575.7990	1421590.3577
PT	21+08.02	830669.7672	1421618.1378
PC	21+31.54	830692.4277	1421624.4364
PT	22+34.02	830792.0194	1421648.4870
POT	22+77.70	830834.8029	1421657.2843

PERMANENT EASEMENT MARKER IRON PIN AND CAP

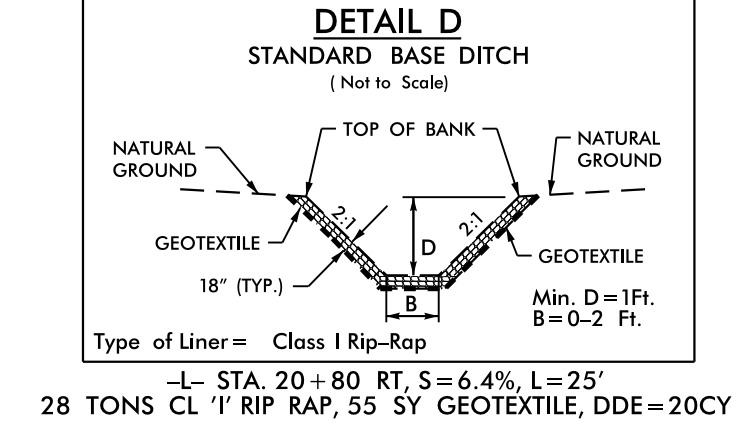
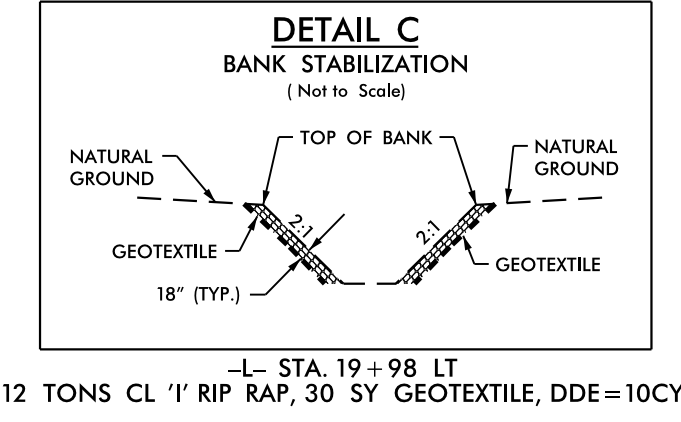
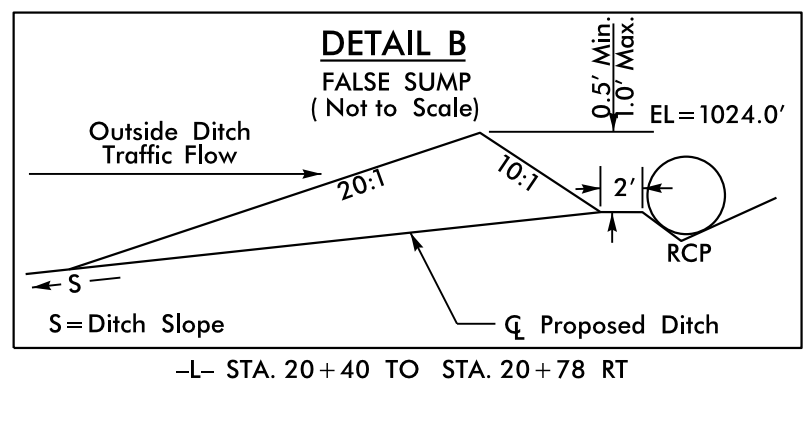
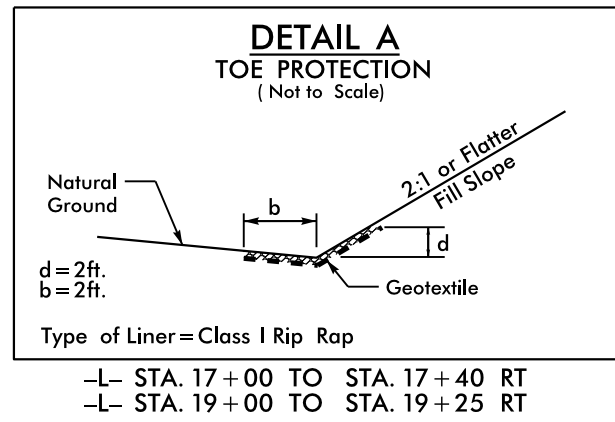
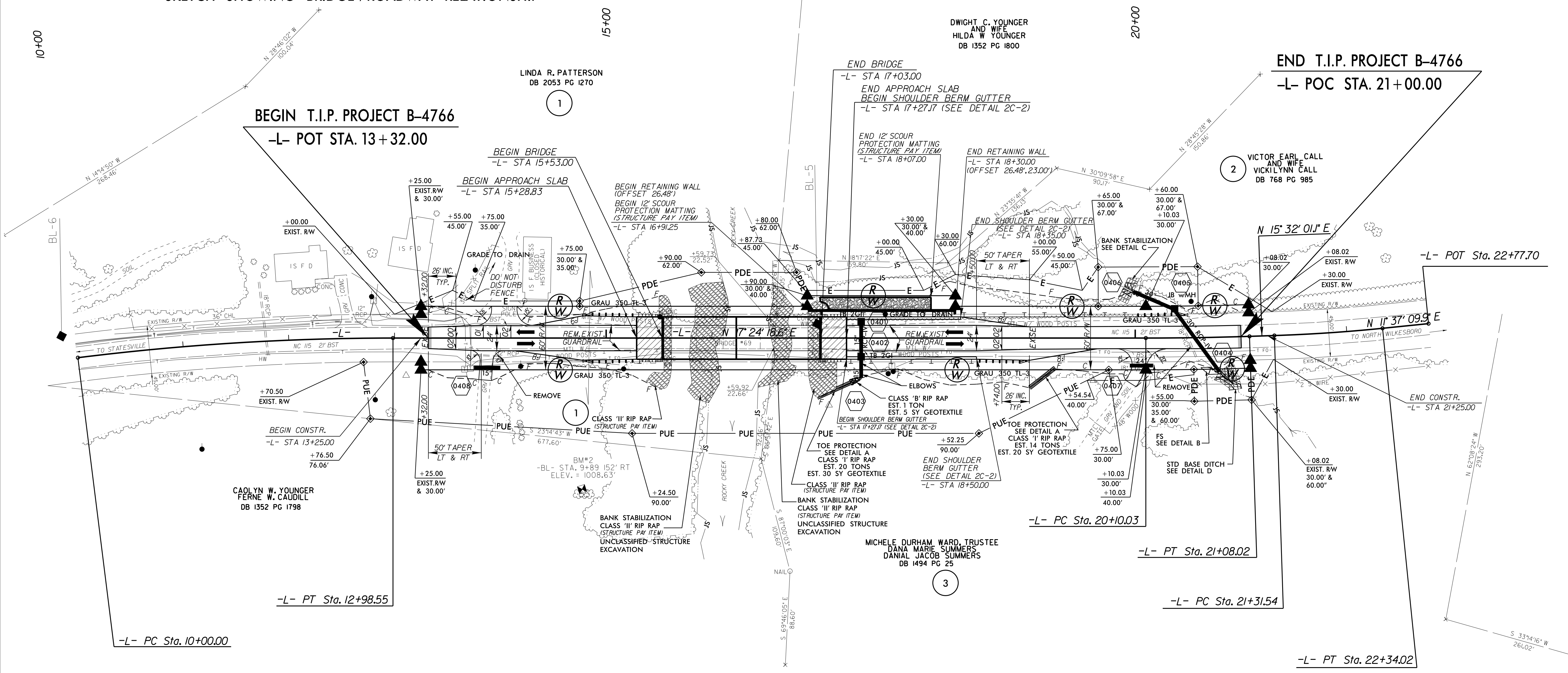
ALIGN	STATION	OFFSET	NORTH	EAST
L	12+70.50	22.50	829863.6024	1421390.8481
L	12+76.50	76.06	829853.7414	1421443.8188
L	14+75.00	-30.00	830074.2402	1421401.6895
L	14+75.00	-35.00	830075.7359	1421396.9185
L	15+24.50	90.00	830085.5786	1421531.0019
L	15+90.00	-62.00	830193.5468	1421405.5543
L	16+80.00	-62.00	830279.4260	1421432.4757
L	18+52.25	90.00	830398.3220	1421629.0407
L	19+65.00	-67.00	830552.8725	1421512.9558
L	19+65.00	-30.00	830541.8048	1421548.2617
L	19+75.00	30.00	830533.3993	1421608.5058
L	20+55.00	30.00	830610.2657	1421632.2451
L	20+55.00	60.00	830601.7220	1421661.0028
L	20+60.00	-67.00	830642.5774	1421540.6501
L	20+60.00	-30.00	830632.0993	1421576.1355
L	21+08.02	60.00	830653.6989	1421675.9462

NOTE: DRAWING NOT TO SCALE

-L-		
PI Sta 11+49.47 Δ = 7' 07" 38.4" (RT) D = 2' 23" 14.4" L = 298.55' T = 149.47' R = 2,400.00'	PI Sta 20+59.03 Δ = 1' 52" 17.5" (LT) D = 1' 54" 35.5" L = 97.99' T = 49.00' R = 3,000.00'	PI Sta 21+82.80 Δ = 3' 54" 51.2" (LT) D = 3' 49" 11.0" L = 102.47' T = 51.26' R = 1,500.00'



SKETCH SHOWING BRIDGE /ROADWAY RELATIONSHIP



NOTE : SEE SHEET 5 FOR -L- PROFILE
SEE SHEETS S-1 THRU S-26 FOR STRUCTURE PLANS

REVISIONS

8/17/99

04-APR-2016 15:07 B4766.RDY_PSH_4.dgn
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5/28/99

-L- NC 115

*** DESIGN EXCEPTION REQUIRED FOR VERTICAL CURVE K-VALUES AND ASSOCIATED SSD.**

PROJECT REFERENCE NO. B-4766	SHEET NO. 5
ROADWAY DESIGN ENGINEER NORTH CAROLINA SEAL 020111 NINA K. BOYALUK ENGINEER 13/2016	HYDRAULICS ENGINEER NORTH CAROLINA SEAL 039168 ERNEST J. HUBBEN ENGINEER 1/13/2016
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

BEGIN GRADE
-L- STA 13+32.00
ELEV. = 1,020.48'

PI = 14+42.00
EL = 1,016.18'
VC = 220'
K = 65 *
V = 40 MPH

PI = 18+03.00
EL = 1,014.37'
VC = 190'
K = 66 *
V = 40 MPH

END GRADE
-L- STA 19+00.00
ELEV. = 1,016.69'

BEGIN BRIDGE
-L- STA. 15+53.00

END BRIDGE
-L- STA. 17+03.00

END RESURF.
-L- STA 21+00.00

BRIDGE HYDRAULIC DATA	
DESIGN DISCHARGE	= 5,360 CFS
DESIGN FREQUENCY	= 50 YRS
DESIGN HW ELEVATION	= 1,002.8 FT
BASE DISCHARGE	= 6,409 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1,004.12 FT
OVERTOPPING DISCHARGE	= 18,000 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING ELEVATION	= 1,014.4 FT
DATE OF SURVEY	= MAY 19, 2015
W.S. ELEVATION AT DATE OF SURVEY	= 989.6 FT
*OVERTOPPING ELEVATION EQUALS NORMAL CROWN AT SAG LOCATION, STATION 17+41 -L-	

ABUTMENT EXCAVATION 400 CY TO ELEVATION 1,003.0

BM#2 ELEV. = 1008.63'
(SEE SURVEY CONTROL SHEET 1C-1)

NORMAL WSE = 990.0
OBSERVED WSE = 989.6
MAY 19, 2015

ABUTMENT EXCAVATION 400 CY TO ELEVATION 1,000.0

BM#1 ELEV. = 1055.47'
(SEE SURVEY CONTROL SHEET 1C-1)

PIPE HYDRAULIC DATA	
30" RCP CL. IV Sta. 20+56.15 -L-	
DRAINAGE AREA	= 19.7 AC
DESIGN FREQUENCY	= 50 YRS
DESIGN DISCHARGE	= 28 CFS
DESIGN HW ELEVATION	= 1023.71 FT
100 YEAR DISCHARGE	= 34 CFS
100 YEAR HW ELEVATION	= 1024.16 FT
OVERTOPPING FREQUENCY	= 100+/- YRS
OVERTOPPING DISCHARGE	= 33 CFS
OVERTOPPING ELEVATION	= 1024.00 FT

NOTE : SEE SHEET 4 FOR PLAN VIEW

10+00 11 12 13 14 15+00 16 17 18 19 20+00 21 22

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