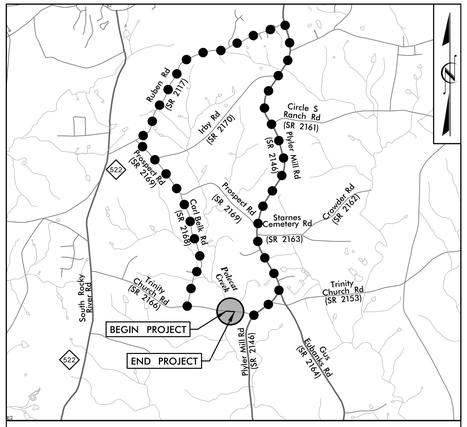
TIP PROJECT: B-5801

CONTRACT: DJ00283

See Sheet 1A For Index of Sheets
See Sheet 1B For Standard Symbology Sheet



FINAL PLANS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UNION COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5801	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
45755.1	BRZ-2166(001)	P.E.
45755.2	BRZ-2166(001)	ROW & UTILITIES
45755.3.1	BRZ-2166(001)	CONSTRUCTION

LOCATION: BRIDGE #163 OVER POLECAT CREEK ON SR 2166 (TRINITY CHURCH RD)

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

NAD 83 • NA 2011

BEGIN TIP PROJECT B-5801
-L- STA. 10+80.00

END TIP PROJECT B-5801
-L- STA. 16+40.00

BEGIN BRIDGE
-L- STA. 13+43.87

END BRIDGE
-L- STA. 14+16.12

4

5

BEGIN CONSTRUCTION
-L- STA. 9+20.00

END CONSTRUCTION
-L- STA. 17+60.00

TO NC 522

-L-
SR 2166 (TRINITY CHURCH ROAD)

TO SR 2146

JS

POLE CAT CREEK

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

20 10 0 20 40
PLANS

20 10 0 20 40
PROFILE (HORIZONTAL)

4 2 0 4 8
PROFILE (VERTICAL)

DESIGN DATA

ADT 2011 = 620
ADT 2025 = 1040
DHV = N/A
D = N/A
T = 6%
V = 55 MPH

FUNC. CLASSIFICATION: LOCAL

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-5801 = 0.092 MILES

LENGTH OF STRUCTURE TIP PROJECT B-5801 = 0.014 MILES

TOTAL LENGTH OF TIP PROJECT B-5801 = 0.106 MILES

NCDOT CONTACT: GARLAND HAYWOOD, PE
Division Bridge Manager

PLANS PREPARED FOR THE NCDOT BY:

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 24, 2017

LETTING DATE:
APRIL 18, 2018

NIKKI T. HONEYCUTT, PE
PROJECT ENGINEER

MAAMOON K. ABDELAZIZ
PROJECT DESIGNER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 029388 ENGINEER EDWARD J. VANCE

DocuSigned by: Edward J. Vance
SIGNATURE: 3/14/2018

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 039234 ENGINEER NIKKI T. HONEYCUTT

DocuSigned by: Nikki T. Honeycutt
SIGNATURE: 3/14/2018

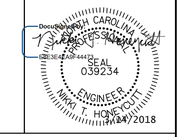
STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

3/14/2018
R:\Roadway\Proj\SHT\B580l_rdy_psh0l_tsh.dgn
washamer

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

PROJECT REFERENCE NO.	SHEET NO.
B-5801	1A
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
3	SUMMARIES AND TYPICAL SECTIONS SHEET
4-5	PLAN AND PROFILE SHEETS
TMP-1	TRAFFIC MANAGEMENT PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS
X-1 THRU X-4	CROSS-SECTIONS

GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS
EFFECTIVE: 01-01-2018

GRADE LINE:
GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED 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 II.

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.

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.

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.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY THE DIVISION.

STANDARD DRAWINGS

2012 ROADWAY ENGLISH STANDARD DRAWINGS EFF. January, 2018

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	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 4 - MAJOR STRUCTURES	
422.02	Bridge Approach Fills - Type II Modified Approach Fill
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
846.01	Concrete Curb, Gutter and Curb & Gutter
876.02	Guide for Rip Rap at Pipe Outlets
DIVISION 11 - WORK ZONE TRAFFIC CONTROL	
1101.03	Temporary Road Closures
1110.01	Stationary Work Zone Signs - Mounting Height & Lateral Clearance
1145.01	Barricades - Type III
DIVISION 16 - EROSION CONTROL AND ROADSIDE DEVELOPMENT	
1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1622.01	Temporary Berms and Slope Drains
1631.01	Matting Installation
1633.01	Temporary Rock Silt Check Type A
1640.01	Coir Fiber Baffle

12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
B-5801	1B

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 — EIP
- Computed 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
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil — S
- Potential Contamination Area: Soil — S
- Known Contamination Area: Water — W
- Potential Contamination Area: Water — W
- 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 — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Secondary Horiz and Vert Control Point
- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Exist Permanent Easment Pin and Cap
- New Permanent Easement Pin and Cap
- Vertical Benchmark
- Existing Right of Way Marker
- Existing Right of Way Line
- New Right of Way Line — RW
- New Right of Way Line with Pin and Cap — RW
- New Right of Way Line with Concrete or Granite R/W Marker — RW
- New Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- New Control of Access — CA
- Existing Easement Line — E
- New Temporary Construction Easement — E
- New Temporary Drainage Easement — TDE
- New Permanent Drainage Easement — PDE
- New Permanent Drainage / Utility Easement — DUE
- New Permanent Utility Easement — PUE
- New Temporary Utility Easement — TUE
- New Aerial Utility Easement — AUE

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

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 — P
- 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 — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- 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 — W
- 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 — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- 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 — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- 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.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

PROJECT REFERENCE NO.	SHEET NO.
B-5801	3
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

DocuSigned by: NORTH CAROLINA ENGINEERING SEAL 039234 ENGINEER MICHAEL T. HONEYCUTT 3/14/2018

PAVEMENT DESIGN ENGINEER

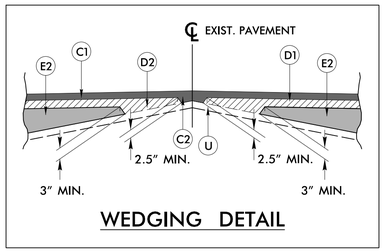
PAVEMENT DESIGN PROVIDED BY NCDOT

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

EARTHWORK SUMMARY (IN CUBIC YARDS)

CHAIN	FROM STATION	TO STATION	SIDE	UNCL. EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
–L–	10+80.00	13+43.87	LT & RT	52		643	591	
–L–	14+16.12	16+40.00	LT & RT	122		594	472	
TOTAL				174		1,237	1,063	
LOSS DUE TO CLEARING AND GRUBBING								
WASTE IN LIEU OF BORROW								
PROJECT TOTAL				130		1,237	1,107	
ESTIMATE 5% FOR TOPSOIL ON BORROW PITS							64	
GRAND TOTAL				130		1,237	1,171	
SAY							1,200	

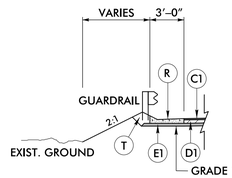
NOTE: Approximate quantities only. Unclassified Excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing, Breaking of Existing Pavement, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."



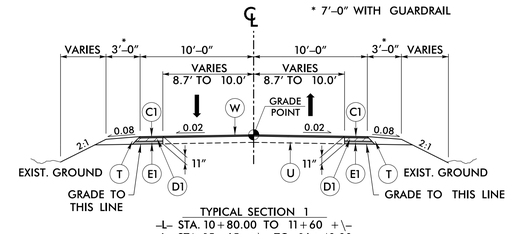
WEDGING DETAIL

ALL PAVEMENT SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

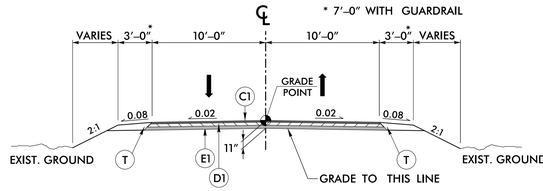
	PAVEMENT SCHEDULE
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2.0" IN DEPTH.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 4.0" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3.0" IN DEPTH OR GREATER THAN 5.5" IN DEPTH.
R	CONCRETE SHOULDER BERM GUTTER
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	PAVEMENT WEDGING



DETAIL A
–L– STA. 13+00.12 TO 13+33.00 (LT & RT)



TYPICAL SECTION 1
–L– STA. 10+80.00 TO 11+60 +\–
–L– STA. 15+65 +\– TO 16+40.00



TYPICAL SECTION 2
–L– STA. 11+60 +\– TO 13+43.87 (BEGIN BRIDGE)
–L– STA. 14+16.12 (END BRIDGE) TO 15+65 +\–

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48" & UNDER)

STATION	SIZE / THICKNESS OR GAUGE	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	CLASS III R.C. PIPE (UNLESS NOTED OTHERWISE) 12"	15"	15" CL–IV	18" CL–IV	24"	30"	36"
–L– STA. 13+07		LT	0502	0501	584.63	578.05	576.83			20					
–L– STA. 13+07		RT	0504	0503	584.63	580.35	579.43			16					
–L– STA. 15+79		RT	0506	OUT		588.00	587.79					44			
–L– STA. 17+38		LT	0507	OUT		602.43	599.93				40				
–L– STA. 9+42		RT	0401	OUT		594.77	593.38				40				
TOTAL										36	80	44			

STATION	BITUMINOUS COATED C.S. PIPE TYPE B (UNLESS NOTED OTHERWISE) 48"	15"	18"	24"	30"	36"	42"	48"	CLASS III R.C. PIPE OR ALUMINIZED C.S. PIPE, TYPE IR OR HDPE PIPE, TYPE S OR D 12"	15"	18"	24"	30"	36"	42"	48"
–L– STA. 13+07																
–L– STA. 13+07																
–L– STA. 15+79																
–L– STA. 17+38																
–L– STA. 9+42																
TOTAL																

STATION	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	CU. YDS. C.S.P.	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. "A" + (1.3 X COL. "B") LIN. FT. A (5.0' THRU 10.0')	B (10.0' AND ABOVE)	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G
–L– STA. 13+07						1	1.58					
–L– STA. 13+07						1	0					
–L– STA. 15+79												
–L– STA. 17+38												
–L– STA. 9+42												
TOTAL						2	1.58					

STATION	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATE STD. 840.16	G.D.I. TYPE "A" STD. 840.17 OR 840.26	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. TYPE "D" STD. 840.19 OR 840.28	TRAFFIC BEARING G.D.I. STD. 840.35	G.D.I. FRAME WITH GRATE STD. 840.20	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.29	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	J.B. STD. 840.31 OR 840.32	CORR. STEEL ELBOWS NO. & SIZE	CONC. COLLARS CL. "B" C.Y. STD. 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
–L– STA. 13+07						1			1							
–L– STA. 13+07						1			1							
–L– STA. 15+79																
–L– STA. 17+38																
–L– STA. 9+42																
TOTAL						2			2							

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I. (N.S.)	GRATED DROP INLET (NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

* W MEASURED FROM "N" AT THE BEGINNING OF THE ANCHOR TO "N" AT THE END OF THE ANCHOR.
"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
TOTAL SHOULDER WIDTH = DISTANCE FROM EDGE OF TRAVEL LANE TO SHOULDER BREAK POINT.
FLARE LENGTH = DISTANCE FROM LAST SECTION OF PARALLEL GUARDRAIL TO END OF GUARDRAIL.
W = TOTAL WIDTH OF FLARE FROM BEGINNING OF TAPER TO END OF GUARDRAIL.
G = GATING IMPACT ATTENUATOR TYPE 350
NG = NON-GATING IMPACT ATTENUATOR TYPE 350

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH STRAIGHT	LENGTH SHOP CURVED	LENGTH DOUBLE FACED	WARRANT POINT APPROACH END	WARRANT POINT TRAILING END	"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH APPROACH END	FLARE LENGTH TRAILING END	W* APPROACH END	W* TRAILING END	ANCHORS XI MOD	ANCHORS B–77	ANCHORS GREU TL–3	ANCHORS GREU TL–2	ANCHORS TYPE III	ANCHORS CAT–1	ANCHORS VI MOD	ANCHORS BIC	ANCHORS AT–1	IMPACT ATTENUATOR TYPE 350 EA	IMPACT ATTENUATOR TYPE 350 G	IMPACT ATTENUATOR TYPE 350 NG	SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
–L–	12+50.13	13+43.87	LT	93.75				13+43.87	3.9 – 4.9	4.0		50		1.0			1		1											
–L–	12+50.13	13+43.87	RT	93.75			13+43.87		3.9 – 4.9	4.0	50		1.0				1		1											
–L–	14+16.12	14+97.37	LT	81.25			14+16.12		3.9 – 4.9	4.0	50		1.0				1		1											
–L–	14+16.12	14+97.37	RT	81.25				14+16.12	3.9 – 4.9	4.0		50		1.0			1		1											
TOTAL:				350													4		4											
TOTAL ANCHOR LENGTH:				275																										
TOTAL GUARDRAIL LENGTH:				75																										
SAY:				75 LF																										

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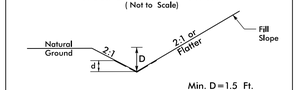
DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "BL-3"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 398821.8315(ft) EASTING: 1521394.7180(ft)
ELEVATION: 581.0013(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998758706
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-3" TO -L- EL STATION 10+80 IS
N 84 56' 43.6" W 345.746'
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

DETAIL A
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Type of Liner= PSRM

-L- STA. 11+50 LT. TO STA. 13+50 LT.
-L- STA. 14+30 LT. TO STA. 16+00 LT.
-L- STA. 15+79 RT. TO STA. 16+40 RT.

BL-2	N 398866.005	E 1520840.551	
BL-3	N 398821.832	E 1521394.718	
BM #1	N 398931.586	E 1520798.355	ELEV 602.41
BM #2	N 398888.539	E 1521401.653	ELEV 582.46

NOTE: INCIDENTAL MILL APPROXIMATELY 25' AT EACH TIE IN TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING ASPHALT PAVEMENT

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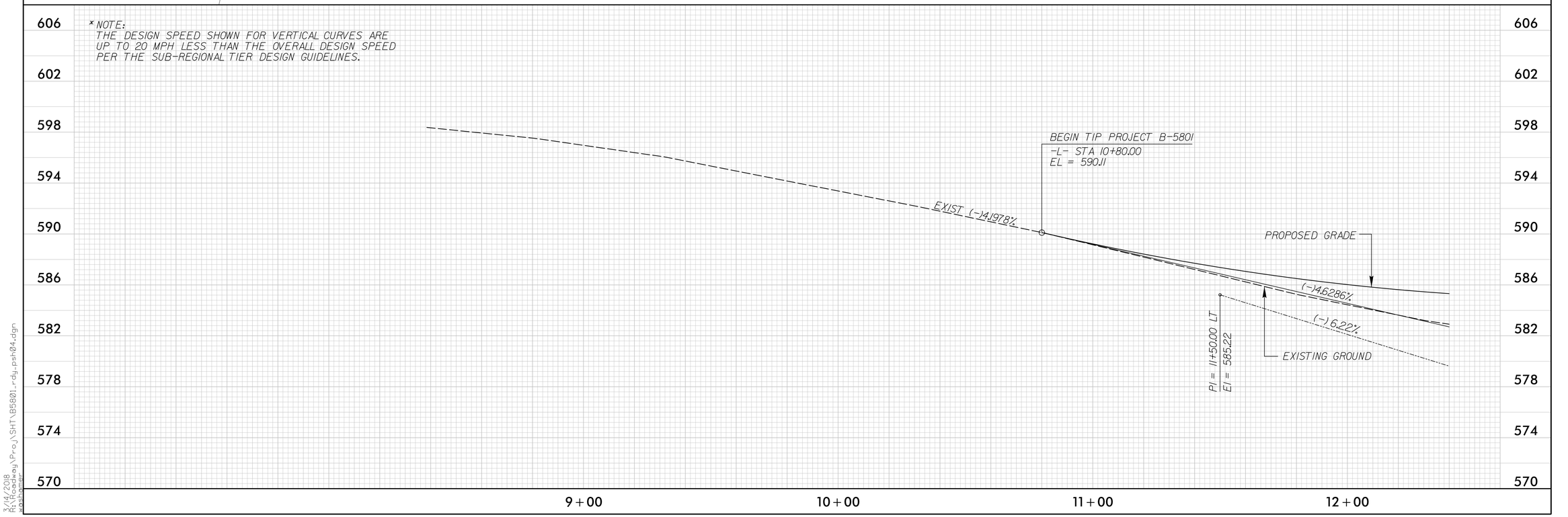
NC License Number F-0991

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
B-5801	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039234 ENGINEER NIKKI T. HONEYCUTT
3/14/2018

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029388 ENGINEER EDWARD J. VANCE
3/14/2018



3/14/2018
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PROJECT REFERENCE NO.	SHEET NO.
B-5801	5
R/W SHEET NO.	

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ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 039234 — ENGINEER NIKKI T. HONEYCUTT — 3/14/2018

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 029388 — ENGINEER EDWARD J. VANCE — 3/14/2018

NAD 83 NA 2011

MATCHLINE -L- STA 12+40 (SHEET 4)

① RYAN EDWARD MELTON DB 4898 PG 150

② JOHN M. GORDON AND WIFE TERESA GORDON DB 6997 PG 200

③ SEAN M. SMITH NICOLE C. SMITH DB 4876 PG 683

ADA C. ROBERTS LARRY J. ROBERTS DB 235 PG 726

TERRY A. WILLIAMS SANDRA A. WILLIAMS DB 5316 PG 701

TRINITY CHURCH ROAD SR 2166

POLE CAT CREEK

BEGIN BRIDGE -L- STA. 13+43.87

BEGIN APPROACH SLAB -L- STA. 13+33.00

END BRIDGE -L- STA. 14+16.12

END APPROACH SLAB -L- STA. 14+27.00

BEGIN SB&G +00.12

SPECIAL LATERAL 'V' DITCH EST. 210 S.Y. PSRM SEE DETAIL A

SPECIAL LATERAL 'V' DITCH EST. 34 S.Y. GEOTEXTILE FABRIC EST. 10 TONS CLASS I RIP RAP SEE DETAIL B

SPECIAL LATERAL 'V' DITCH EST. 170 S.Y. PSRM SEE DETAIL A

2 TON CLASS B RIP RAP 6 S.Y. GEOTEXTILE FABRIC

CLASS I RIP RAP EST. 2.5 TONS EACH GEOTEXTILE FABRIC EST. 9 S.Y. EACH SEE DETAIL C

CLASS I RIP RAP EST. 2 TONS EACH GEOTEXTILE FABRIC EST. 6 S.Y. EACH SEE DETAIL C

EST. 65 TONS 30.00' CLASS I RIP RAP EST. 70 SY GEOTEXTILE FABRIC

CLASS II RIP RAP SEE STRUCTURE PLANS

EST. 55 TONS CLASS I RIP RAP EST. 60 SY GEOTEXTILE FABRIC

CLASS II RIP RAP SEE STRUCTURE PLANS

+95.00 30.00', 50.00'

+87.27 50.00'

+84.54

+27.21 50.77'

+25.36 16.28'

+40.00 30.00', 50.00'

+97.37

+50.13

+97.37

15" RCP-III

18" RCP-IV

15" RCP-IV

TB-2GI

TYPE-III

GREU TL-3

8:1

10'

02

30'

90°

WD

PK

WOODS

48" WW ELEC

48" WW

9" GR

18" BST

85° TAPER (LT & RT)

37.5' (TYP)

+32.50

10' R

S 85° 38' 36.6" E

8.7'

8.5'

SCHOOL BUS TURNAROUND (8" ABC)

+15.00 30.00', 60.00'

+25.00 50.00'

PRE-FENCE

+60.00 30.00', 60.00'

BEGIN FENCE 17+15.00

END FENCE 17+60.00

25'

POT Sta. 18+00.00

EXISTING R/W

60.00'

END TIP PROJECT B-5801 -L- STA 16+40.00

END CONSTRUCTION -L- STA 17+60.00

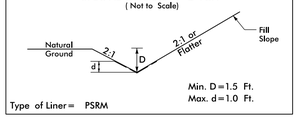
Frontier Communications of America Inc. (x 2)

S 01°45'10" E 85.48

S 03°24'39" E 109.36

N 02°57'14" W 84.53

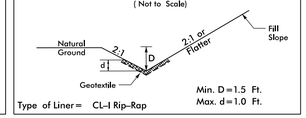
DETAIL A
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Type of Liner = PSRM
Min. D = 1.5 Ft.
Max. d = 1.0 Ft.

-L- STA. 11+50 LT. TO STA. 13+60 LT.
-L- STA. 14+30 LT. TO STA. 16+00 LT.
-L- STA. 15+79 RT. TO STA. 16+40 RT.

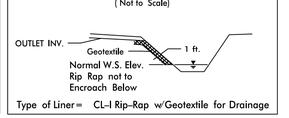
DETAIL B
SPECIAL LATERAL 'V' DITCH
(Not to Scale)



Type of Liner = CL-I Rip-Rap
Min. D = 1.5 Ft.
Max. d = 1.0 Ft.

-L- STA. 13+84 LT. TO STA. 14+30 LT.

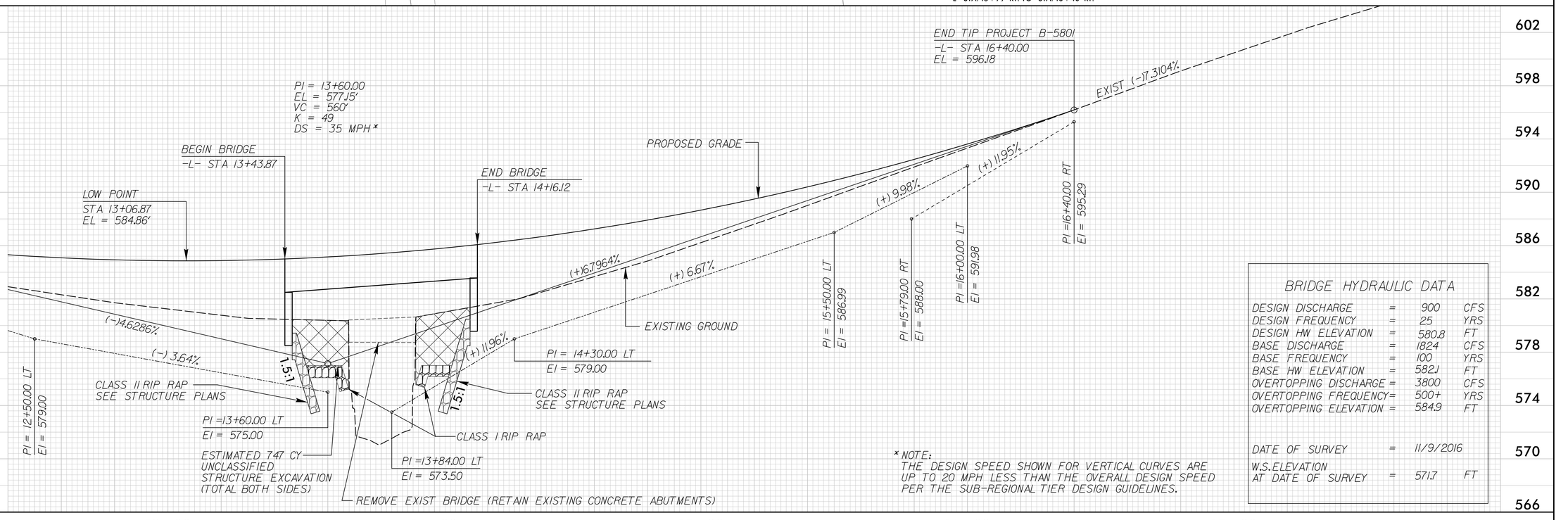
DETAIL C
RIP RAP AT EMBANKMENT
(Not to Scale)



Type of Liner = CL-I Rip-Rap w/Geotextile for Drainage

-L- STA. 13+60 LT. TO 13+62 LT.
-L- STA. 13+82 LT. TO 13+84 LT.

NOTE: INCIDENTAL MILL APPROXIMATELY 25' AT EACH TIE IN TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING ASPHALT PAVEMENT



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	900	CFS
DESIGN FREQUENCY	=	25	YRS
DESIGN HW ELEVATION	=	580.8	FT
BASE DISCHARGE	=	1824	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	582.1	FT
OVERTOPPING DISCHARGE	=	3800	CFS
OVERTOPPING FREQUENCY	=	500+	YRS
OVERTOPPING ELEVATION	=	584.9	FT
DATE OF SURVEY	=	11/9/2016	
W.S. ELEVATION AT DATE OF SURVEY	=	571.7	FT

* NOTE:
THE DESIGN SPEED SHOWN FOR VERTICAL CURVES ARE UP TO 20 MPH LESS THAN THE OVERALL DESIGN SPEED PER THE SUB-REGIONAL TIER DESIGN GUIDELINES.

3/14/2018
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kashaner

OFF-SITE DETOUR SIGNING AND ROAD CLOSURE SIGNING

PROJECT REFERENCE NO.	SHEET NO.
B-5801	TMP-1
R/W SHEET NO.	

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Charlotte, NC 28202
NC License Number F-0991

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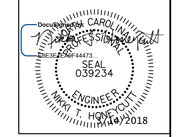
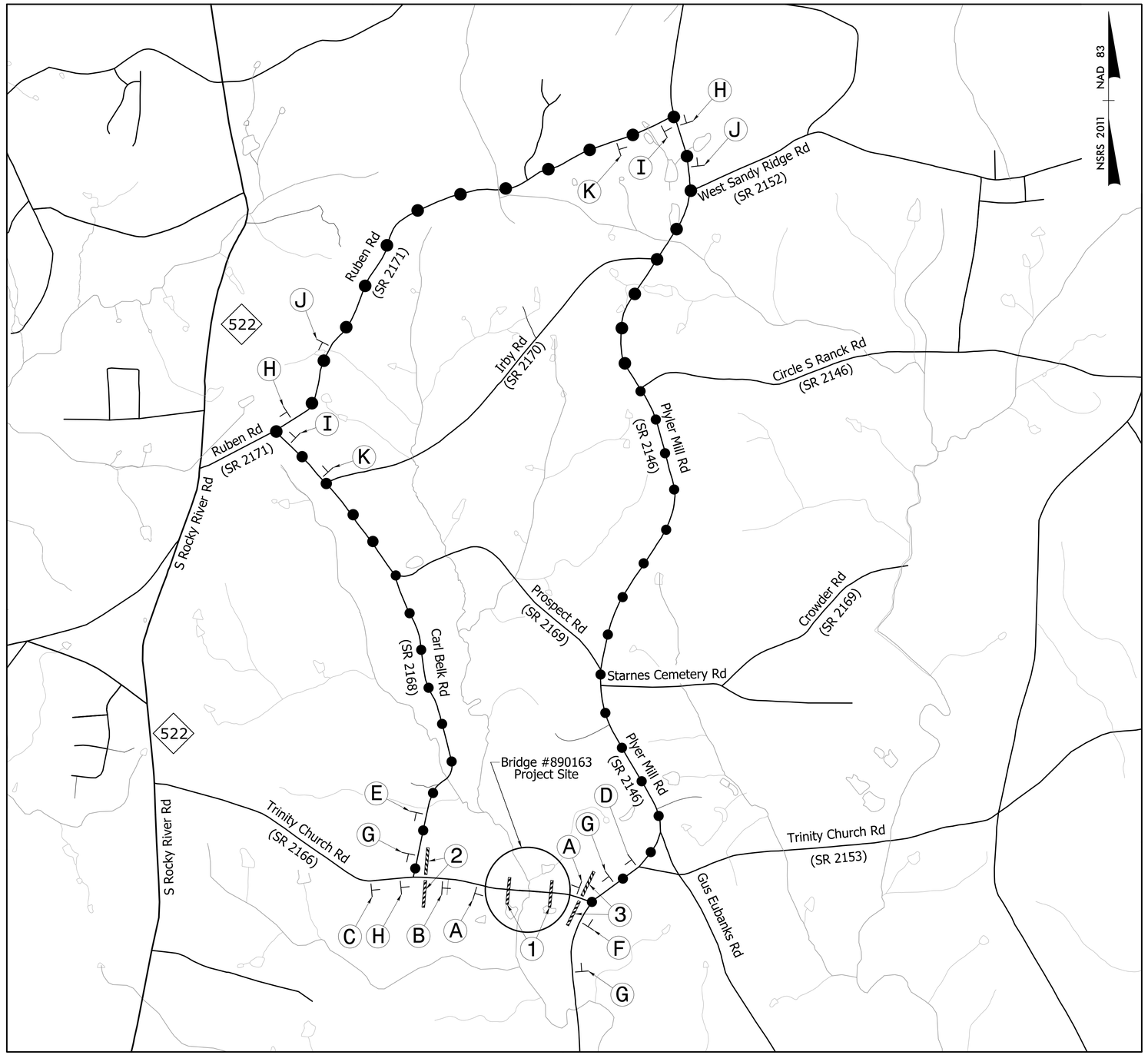
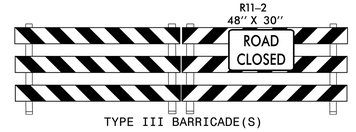
ROADWAY DESIGN ENGINEER







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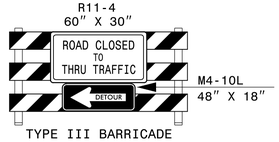

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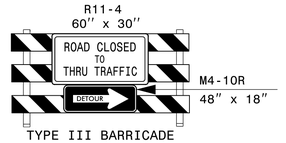


3

A

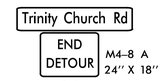
B

C

D

E

F



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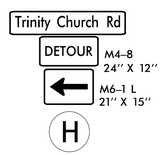

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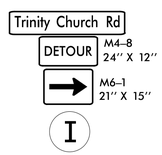

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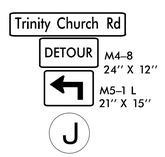
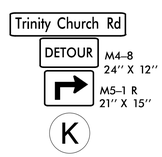


J



K

SEE ROADWAY STD DWG 1101.03, SHEET 1 OF 9 FOR ADVANCE WARNING AND BARRICADE PLACEMENT.

Scale: 1"=1200'

3/14/2018
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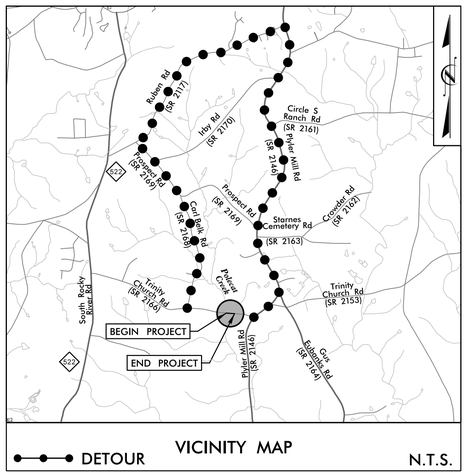
TIP PROJECT: B-5801



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL
UNION COUNTY

LOCATION: BRIDGE #163 OVER POLECAT CREEK ON SR 2166 (TRINITY CHURCH RD)

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

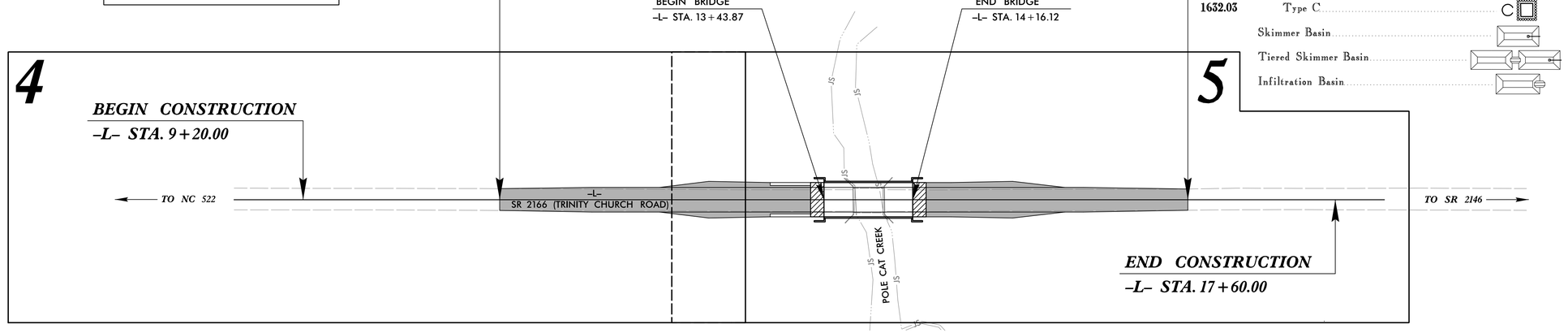
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5801	EC-1	8

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
45755.1	BRZ-2166(001)	P.E.
45755.2	BRZ-2166(001)	ROW & UTILITIES
45755.3	BRZ-2166(001)	CONSTRUCTION

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

BEGIN TIP PROJECT B-5801
-L- STA. 10+80.00

END TIP PROJECT B-5801
-L- STA. 16+40.00



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Guide For Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin For Pumped Effluent	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

GRAPHIC SCALE

10 0 20

PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER RESOURCES.

Prepared In the Office of:

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

Designed by:

MARK PUGH ***3960***
NAME *LEVEL III CERTIFICATION NO.*

Reviewed In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2018 STANDARD SPECIFICATIONS

Reviewed by:

PHIL SUGGS, CPESC

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Guide For Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin for Pumped Effluent	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

PROJECT REFERENCE NO.	SHEET NO.
B-5801	EC-2
R/W SHEET NO.	

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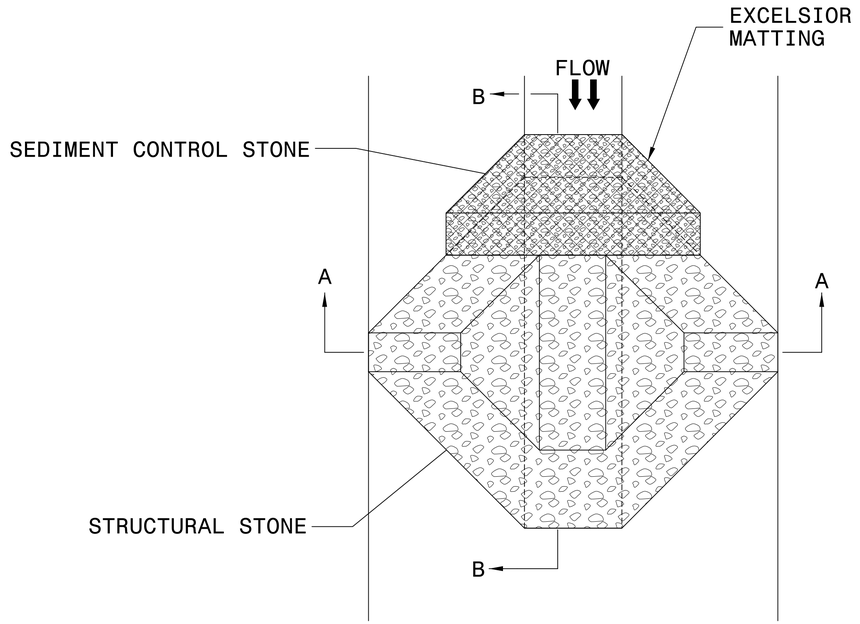
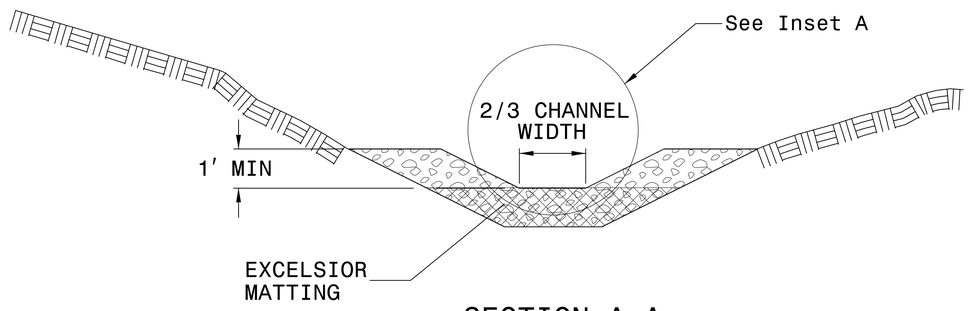
TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN



SECTION A-A

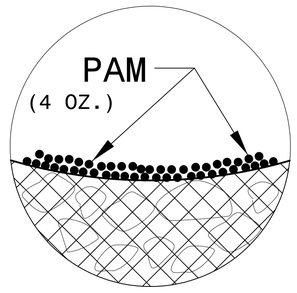
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

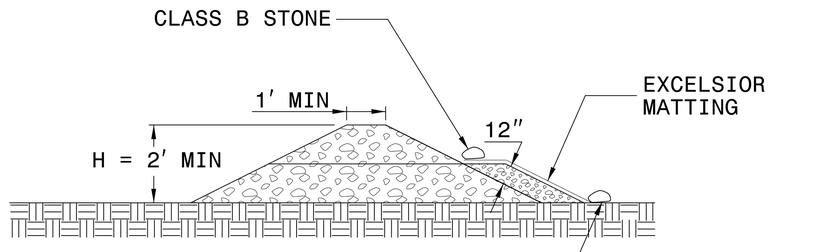
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION B-B

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
B-5801	EC-3
R/W SHEET NO.	

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Charlotte, NC 28202
NC License Number F-0991

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
			SUBTOTAL		0
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					610
				TOTAL	610
				SAY	700

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4/5	-L- 'V' DITCH	11+50	13+60	LT	210
5	-L- 'V' DITCH	14+30	16+00	LT	170
5	-L- 'V' DITCH	15+79	16+40	RT	65
			SUBTOTAL		445
		ADDITIONAL PSRM TO BE INSTALLED			0
				TOTAL	445
				SAY	500

3/14/2018 R:\Hydraulics\CADD\PSHNEC\B-5801_EC_PSH_03.dgn

PROJECT REFERENCE NO.	SHEET NO.
B-5801	EC-3A
R/W SHEET NO.	

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

3/14/2018 R:\Hydraulics\CADD\PSH\EC\B-5801_EC_PSH_03A.dgn

PROJECT REFERENCE NO.	SHEET NO.
B-5801	EC-4/CONST.4
R/W SHEET NO.	

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET __

NAD 83
NA 2011

BEGIN CONSTRUCTION
-L- STA 9+20.00

BEGIN PROJECT WBS B-5801
-L- STA 10+80.00

POT Sta. 8+00.00

RYAN EDWARD MELTON
DB 4898 PG 150

JOHN M. GORDON
AND WIFE
TERESA GORDON
DB 6997 PG 200

TRINITY CHURCH ROAD
SR 2166

18' BST

ROCK SILT CHECK
TYPE A (TYP.)

MATCHLINE -L- STA 12+40 (SHEET EC-5)

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

PROJECT REFERENCE NO.	SHEET NO.
B-5801	EC-5/CONST.5
R/W SHEET NO.	

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET __

NAD 83 NA 2011

MATCHLINE -L- STA 12+40 (SHEET EC-4)

1
RYAN EDWARD MELTON
DB 4898 PG 150

3
SEAN M. SMITH
NICOLE C. SMITH
DB 4876 PG 683

13+00 14+00 15+00 16+00 17+00

POLE CAT CREEK

LEAVE EXISTING CONCRETE ABUTMENTS IN PLACE FOR SLOPE PROTECTION

-L-
TRINITY CHURCH ROAD
SR 2166

POT Sta. 18+00.00

18" BST

END CONSTRUCTION
-L- STA 17+60.00

END PROJECT WBS B-5801
-L- STA 16+40.00

TERRY A. WILLIAMS
SANDRA A. WILLIAMS
DB 5316 PG 701

ROCK SILT CHECK TYPE B (TYP.)

ROCK SILT CHECK TYPE A (TYP.)

TEMPORARY SILT FENCE FENCE (TYP.)

2
JOHN M. GORDON
AND WIFE
TERESA GORDON
DB 6997 PG 200

SPECIAL SEDIMENT CONTROL FENCE (TYP.)

ADA C. ROBERTS
LARRY J. ROBERTS
DB 235 PG 726

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE – B AND TEMPORARY ROCK SILT CHECKS TYPE – A AT DRAINAGE OUTLETS.

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

3/14/2018
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mcastanet

PROJECT REFERENCE NO.	SHEET NO.
B-5801	EC-6/CONST.4
R/W SHEET NO.	

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

NAD 83
NA 2011

9+00

10+00

11+00

12+00

(1)
RYAN EDWARD MELTON
DB 4898 PG 150

BEGIN CONSTRUCTION
-L- STA 9+20.00

BEGIN PROJECT WBS B-5801
-L- STA 10+80.00

60.00'

F

E

-L-

TRINITY CHURCH ROAD
SR 2166

.028

.021

.02

.02

R/W

MATCHLINE -L- STA 12+40 (SHEET EC-7)

ROCK SILT CHECK
TYPE A (TYP.)

(2)
JOHN M. GORDON
AND WIFE
TERESA GORDON
DB 6997 PG 200

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

7/14/2018
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washgrei

PROJECT REFERENCE NO.	SHEET NO.
B-5801	EC-7/CONST.5
R/W SHEET NO.	

STV 100 Years
STV Engineers, Inc.
900 West Trade St., Suite 715
Charlotte, NC 28202
NC License Number F-0991

NAD 83
NA 2011

MATCHLINE -L- STA 12+40 (SHEET EC-6)

13+00 14+00 15+00 16+00 17+00

1 RYAN EDWARD MELTON DB 4898 PG 150

3 SEAN M. SMITH NICOLE C. SMITH DB 4876 PG 683

ROCK SILT CHECK TYPE B (TYP.)

POLECAT CREEK

-L-
TRINITY CHURCH ROAD
SR 2166

18" RCP-N

END CONSTRUCTION
-L- STA 17+60.00

END PROJECT WBS B-5801
-L- STA 16+40.00

ROCK SILT CHECK TYPE A (TYP.)

TERRY A. WILLIAMS
SANDRA A. WILLIAMS
DB 5316 PG 701

2 JOHN M. GORDON AND WIFE TERESA GORDON DB 6997 PG 200

TEMPORARY SILT FENCE FENCE (TYP.)

SPECIAL SEDIMENT CONTROL FENCE (TYP.)

ADA C. ROBERTS
LARRY J. ROBERTS
DB 235 PG 726

9' GR

60.00'

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

3/14/2018
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ashorter

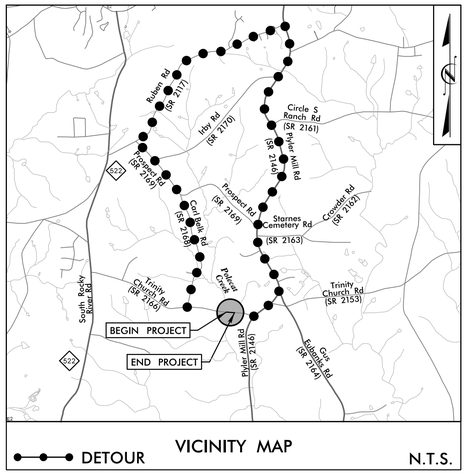
TIP PROJECT: B–5801

CONTRACT: DJ00283

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
B–5801	UO–1

UTILITIES BY OTHERS PLANS
UNION COUNTY



NAD 83 • NA 2011

LOCATION: BRIDGE #163 OVER POLECAT CREEK ON SR 2166 (TRINITY CHURCH RD)

TYPE OF WORK: OVERHEAD & UNDERGROUND TELEPHONE

BEGIN TIP PROJECT B–5801
–L– STA. 10+80.00

END TIP PROJECT B–5801
–L– STA. 16+40.00

UO–2

BEGIN BRIDGE
–L– STA. 13+43.87

END BRIDGE
–L– STA. 14+16.12

BEGIN CONSTRUCTION
–L– STA. 9+20.00

TO NC 522

–L–
SR 2166 (TRINITY CHURCH ROAD)

TO SR 2146

POLE CAT CREEK

JS

END CONSTRUCTION
–L– STA. 17+60.00

GRAPHIC SCALES

30 15 0 30 60
PLANS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UO–1	TITLE SHEET
UO–2	UTILITIES BY OTHERS PLANS

UTILITY OWNERS ON PROJECT

(1) TELEPHONE – FRONTIER COMMUNICATIONS
(2) POWER – UNION POWER COOPERATIVE

Vaughn & Melton
Consulting Engineers
3089-L Beam Road
Charlotte, NC 28217
704-357-0488
NC License Number F-1088

PREPARED FOR THE OFFICE OF:
DIVISION OF HIGHWAYS
UTILITIES ENGINEERING SECTION
1591 MAIL SERVICES CENTER
RALEIGH NC 27699–1591
PHONE (919) 250–4128
FAX (919) 250–4119

_____ *UTILITIES SECTION ENGINEER*
_____ *UTILITIES SQUAD LEADER PROJECT ENGINEER*
Reece Schuler, PE *UTILITIES PROJECT DESIGNER*

3/14/2018
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washamer

5/14/99

PROJECT REFERENCE NO.	SHEET NO.
B-5801	UO-2

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS

V&M
Vaughn & Melton
Consulting Engineers
Charlotte, North Carolina 704-357-0488
Asheville, North Carolina 828-253-2796
Tri-Cities, Tennessee 423-467-8401
Knoxville, Tennessee 865 546 5800
Middlesboro, Kentucky 606-248-6600
Spartanburg, South Carolina 864-574-4775

NC License Number F-1088

NAD 83 NA 2011

FRONTIER COMMUNICATIONS WILL RELOCATE UNDERGROUND COPPER TELEPHONE LINES TO AVOID PROPOSED DITCH CONSTRUCTION AT THIS LOCATION.

FRONTIER COMMUNICATIONS TO INSTALL SINGLE USE POLE FOR OVERHEAD COPPER TELEPHONE LINE

FRONTIER COMMUNICATIONS TO INSTALL SINGLE USE POLE FOR OVERHEAD COPPER TELEPHONE LINE

FRONTIER COMMUNICATIONS WILL RELOCATE UNDERGROUND COPPER TELEPHONE LINES TO AVOID PROPOSED DITCH CONSTRUCTION AT THIS LOCATION.

UNION POWER COOPERATIVE OWNS OVERHEAD POWER IN THE VACINITY OF THE PROJECT THAT WILL NOT BE IN CONFLICT WITH CONSTRUCTION.

FRONTIER COMMUNICATIONS TO ABANDON THIS SECTION OF UNDERGROUND TELEPHONE LINES

FRONTIER COMMUNICATIONS TO REMOVE SINGLE USE POLE

FRONTIER COMMUNICATIONS TO REMOVE SINGLE USE POLE AND PEDESTAL

FRONTIER COMMUNICATIONS TO ABANDON THIS SECTION OF UNDERGROUND TELEPHONE LINES

1 RYAN EDWARD MELTON
DB 4898 PG 150

2 JOHN M. GORDON
AND WIFE
TERESA GORDON
DB 6997 PG 200

3 SEAN M. SMITH
NICOLE C. SMITH
DB 4876 PG 683

ADA C. ROBERTS
LARRY J. ROBERTS
DB 235 PG 726

TERRY A. WILLIAMS
SANDRA A. WILLIAMS
DB 5316 PG 701

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 POT Sta. 18+00.00

PROP O/H TEL LINES
PROP U/G TEL CABLES
Frontier Communications of America Inc. (x 2)
ABANDON
REM
TRINITY CHURCH ROAD
SR 2166
POLE CAT CREEK
WOODS
EXISTING R/W
60.00'
9 GIR

3/14/2018
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kasloane

6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-5801	X-1

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

585.19

0.020 0.020

2:1 2:1 2:1

EP EP

582.61

579.00

12 + 50

585 580 575

586.02

590 585 580

0.020 0.020

2:1 2:1 2:1

EP EP

584.44

582.11

12 + 00

587.37

590 585 580

0.020 0.020

2:1 2:1

EP EP

586.73

11 + 50

589.23

590 585 580

0.023 0.020

2:1 2:1

EP EP

589.15

11 + 00

590 585 580

0.028 0.021

EP EP

590.11

BEGIN PROJECT

10 + 80

595 590 585

EP EP

591.37

10 + 50

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

3/14/2018
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washingtc

6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-5801	X-2

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

590 585 580 575 570

585.74

0.020 0.020

580.89

2:1 2:1

575.41

ELEV = 576.17'

14 + 00

585.05

0.020 0.020

580.44

2:1 2:1

575.36

ELEV = 575.85'

13 + 50

585.00

0.020 0.020

580.47

2:1 2:1

575.58

BEGIN BRIDGE
13 + 43.87

584.86

0.020 0.020

EP EP

2:1 2:1

581.24

577.18

13 + 00

—L—

3/14/2018
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wshooter

6/23/16

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-5801	X-3

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

595 590 585

590.89
0.020 0.020
EP EP
2:1 2:1 2:1
589.74
586.99
15 + 50

590 585 580

588.66
0.020 0.020
EP EP
2:1 2:1 2:1
586.22
583.66
15 + 00

590 585 580 575 570

586.95
0.020 0.020
EP EP
2:1 2:1 2:1
583.09
580.33
14 + 50

590 585 580 575 570

586.08
0.020 0.020
2:1 2:1
581.46
577.34
END BRIDGE
14 + 16.12

75 70 65 60 55 50 45 40 35 30 25 20 15 10 5 0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75

3/14/2018
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wshoemaker

0 2.5 5	PROJ. REFERENCE NO.	SHEET NO.
	B-5801	X-4

3/4/2018
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washamer