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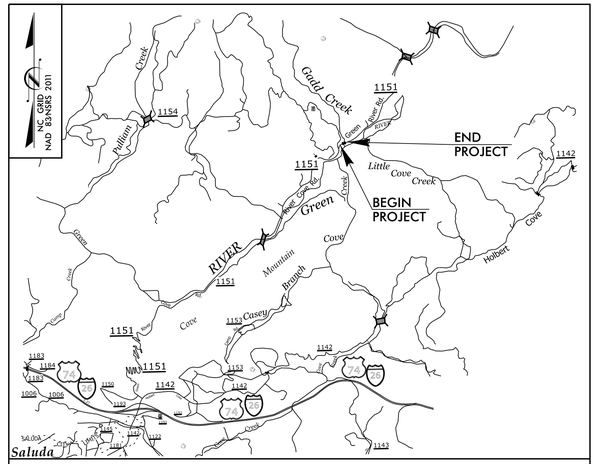
08/17/11

PROJECT: 17BP.14.R.142

CONTRACT: DN00122

SEE SHEET 1A FOR INDEX OF SHEETS



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

POLK COUNTY

LOCATION: BRIDGE NO. 740189 OVER GADD CREEK ON SR 1151 (GREEN RIVER COVE ROAD)

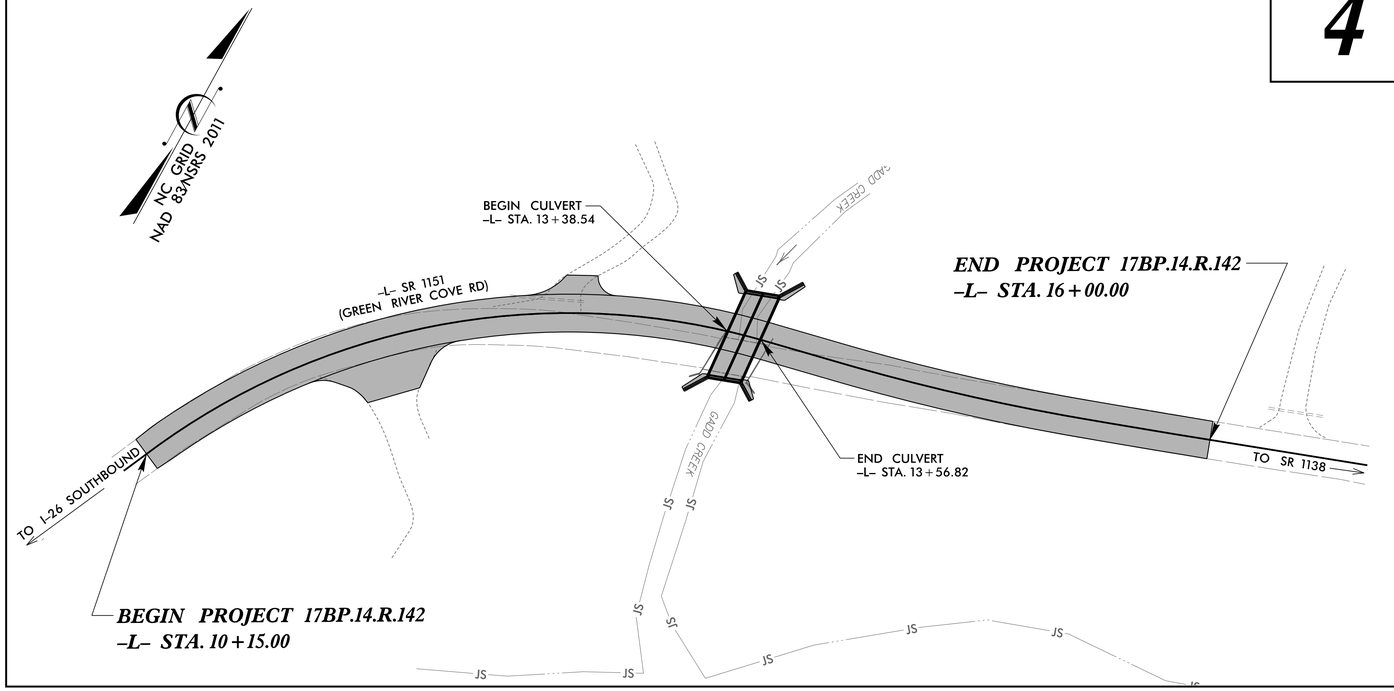
TYPE OF WORK: GRADING, DRAINAGE, PAVING, AND CULVERT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.14.R.142	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
17BP.14.R.142	N/A	PE
17BP.14.R.142	N/A	ROW/UTIL.
17BP.14.R.142	N/A	CONST.

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

4



Vaughn & Melton
Consulting Engineers
Asheville, North Carolina 828-253-2796
Charlotte, North Carolina 704-357-0488
Tri-Cities, Tennessee 423-467-8400
Knoxville, Tennessee 865 646-5800
Middlesboro, Kentucky 606-248-6600
Spartanburg, South Carolina 864-574-4775

GRAPHIC SCALES

PLANS: 30 15 0 30 60

PROFILE (HORIZONTAL): 30 15 0 30 60

PROFILE (VERTICAL): 6 3 0 6 12

DESIGN DATA

ADT 2016 = 190
ADT 2036 = 280
T = 6%
V = 35 MPH
FUNC CLASS = LOCAL
SUB REGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY PROJECT 17BP.14.R.142 = 0.111 MI

TOTAL LENGTH OF PROJECT 17BP.14.R.142 = 0.111 MI

Prepared in the Office of:
VAUGHN & MELTON
1318-F PATTON AVE.
ASHEVILLE NC, 28806
FOR THE NORTH CAROLINA DIVISION OF HIGHWAYS

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MAY 29, 2015

LETTING DATE:
MAY 9, 2017

REECE SCHULER, PE, PLS
PROJECT ENGINEER

ALEX FITZPATRICK
PROJECT DESIGN ENGINEER

NCDOT CONTACT:
JOSH DEYTON, PE
DIVISION 14 BRIDGE PROGRAM MANAGER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 033023 ENGINEER BRADLEY S. RIDMOUR

DocuSigned by: Bradley S. Ridmour, PE 4/6/2017 P.E.
73D412120A31454...
SIGNATURE:

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26960 ENGINEER REECE M. SCHULER

DocuSigned by: Reece M. Schuler 4/6/2017 P.E.
1983402AC7E04FC...
SIGNATURE:

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION

4/4/2017
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User:cjmartell

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	PROJECT REFERENCE NO.	SHEET NO.
	17BPJ4.R.142	1A

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26960 ENGINEER Kristie M. Sewell

4/6/2017

INDEX OF SHEETS

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12

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 BY THE ENGINEER AT THEIR BEGINNING AND ENDING 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.

SIDE ROADS:

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

GUARDRAIL:

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

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC NOT SHOWN ON THE PLANS WILL BE PAID FOR AT THE CONTRACT PRICE FOR "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.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE: DUKE ENERGY AND TDS TELECOM.

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 CONTRACT IN ACCORDANCE WITH SECTION 801 OF THE 2012 NORTH CAROLINA STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES.

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated July 18, 2006 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation
876.02	Guide for Rip Rap at Pipe Outlets

4/5/2017
S:\Construction\31235-13 1441 Polk 189\Roadway\Proj\tbd5114a.rdy_sum_1a.dgn
User:amizzatrick

12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
17BPJ4RJ42	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.

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.RJ.42	2A-1

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26960 ENGINEER

DocuSigned by: Rita Ann Suddreth

4/6/2017

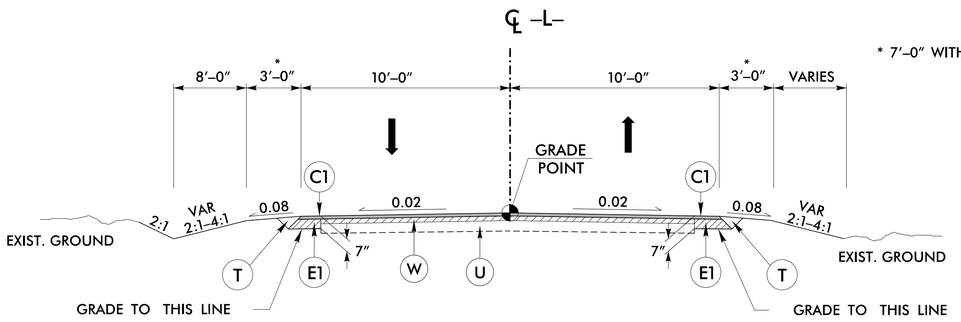
PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 20134 ENGINEER ROBERT M. CRISP

DocuSigned by: Robert M. Crisp

4/4/2017

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

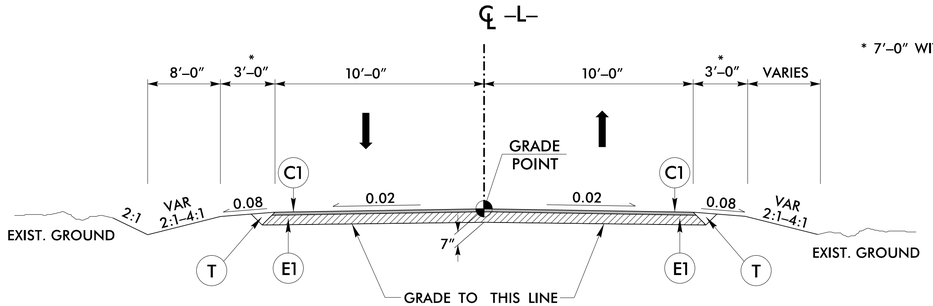


* 7′–0″ WITH GUARDRAIL

TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1

–L– STA. 10+15.00 TO –L– STA. 11+25.00
–L– STA. 14+40.00 TO –L– STA. 16+00.00

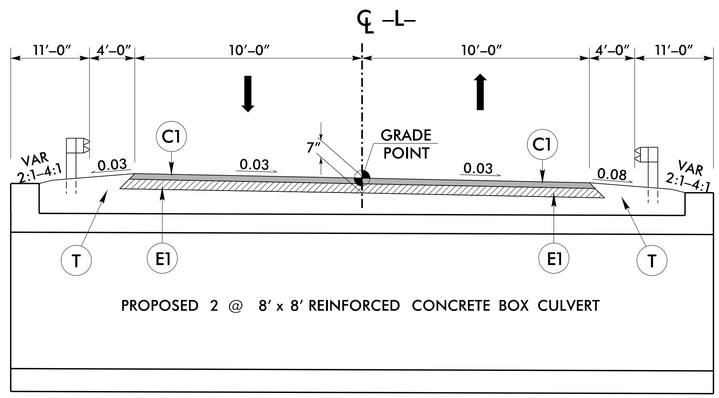


* 7′–0″ WITH GUARDRAIL

TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

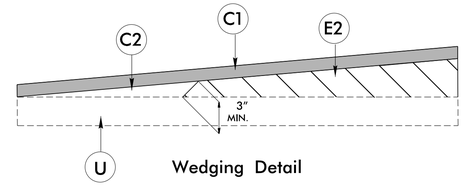
–L– STA. 11+25.00 TO –L– STA 13+38.54 (BEGIN CULVERT)
–L– STA. 13+56.82 (END CULVERT) TO –L– STA 14+40



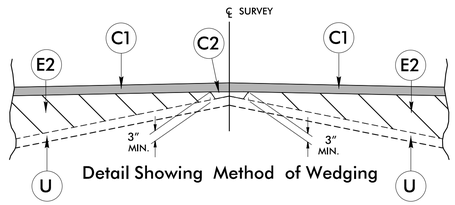
TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

–L– STA. 13+38.54 (BEGIN CULVERT) TO
–L– STA. 13+56.82 (END CULVERT)



Wedging Detail



Detail Showing Method of Wedging

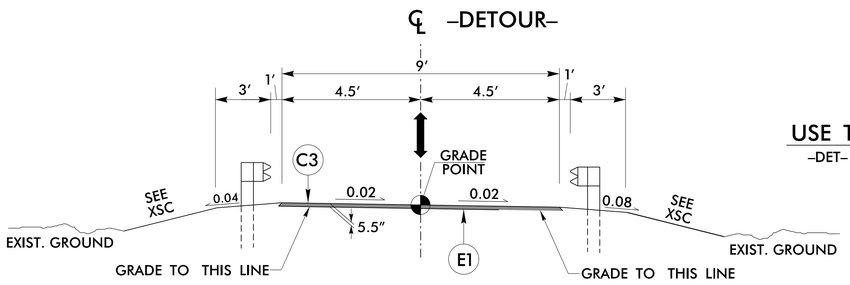
	PAVEMENT SCHEDULE
C1	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1″ DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½″ IN DEPTH.
C3	PROP. APPROX. 1½″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	PROP. APPROX. 4″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1″ DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3″ IN DEPTH OR GREATER THAN 5½″ IN DEPTH.
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W	PROPOSED WEDGING (SEE APPROPRIATE DETAILS)

NOTES:
1. PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
2. SEE STD. DWG. 862.01 (SHEET 10 OF 12) FOR CULVERT GUARDRAIL ANCHORAGE DETAILS.
3. SEE CROSS SECTIONS FOR POSSIBLE VARIATIONS TO TYPICAL SECTIONS.

3/28/2017
S:\Transportation\31235-13 I40I Polk 18A\Roadway\Proj\bd5114a1_rdy_typ.dgn
User: rdavis

6/2/99

	PAVEMENT SCHEDULE
C3	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.



TYPICAL SECTION NO. 4

NOTE: DETOUR IN PLACE ONLY 4–6 WEEKS

USE TYPICAL SECTION NO. 4

–DET– STA. 10+20.97 TO STA. 12+28.05

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.RJ.42	2A-2

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 26960 ENGINEER KATE A. SCHULER

4/6/2017

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 20134 ENGINEER ROBERT M. CRIBB

4/4/2017

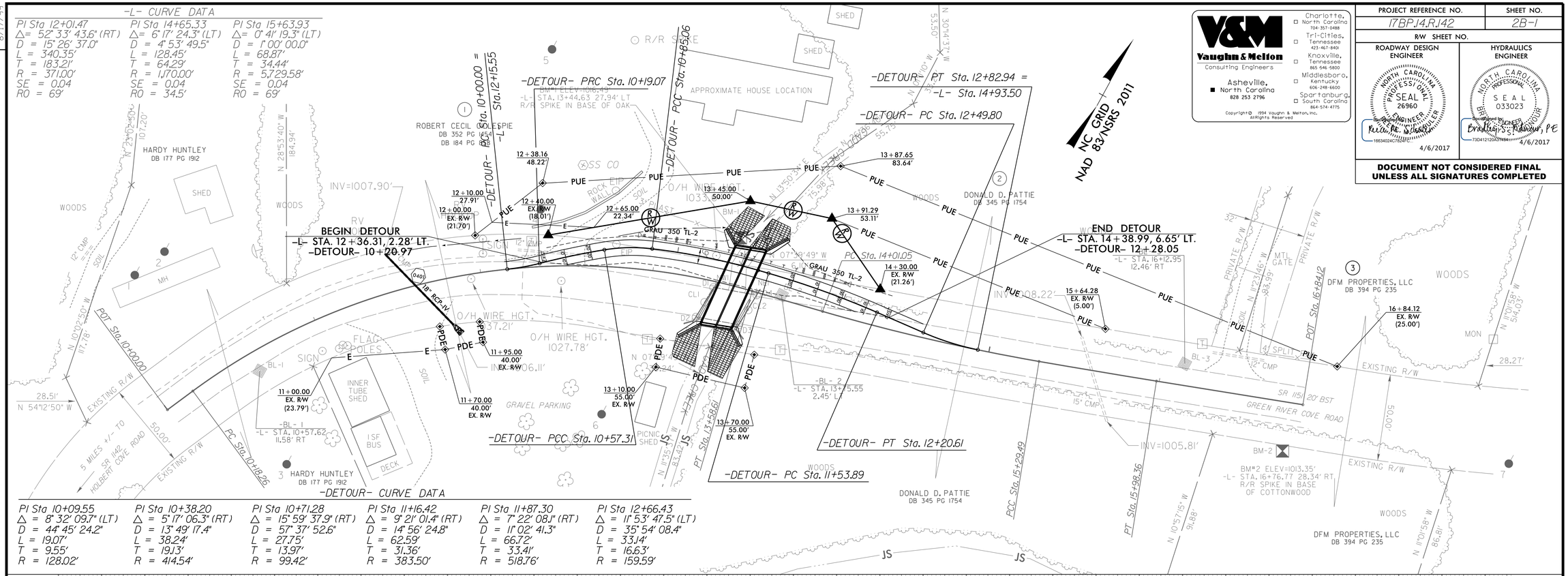
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

8/17/99

REVISIONS

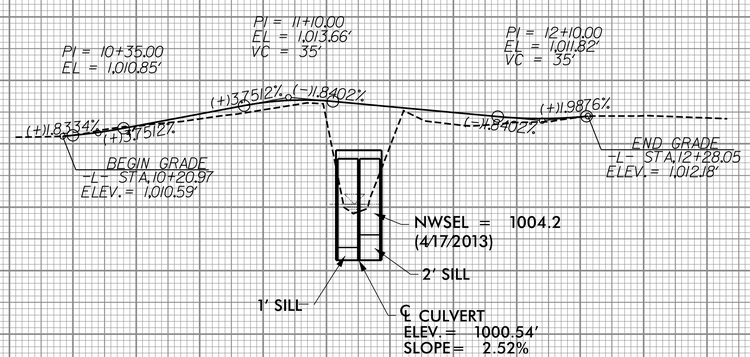
-L- CURVE DATA

PI Sta 12+01.47	PI Sta 14+65.33	PI Sta 15+63.93
△= 52° 33' 43.6" (RT)	△= 6° 17' 24.3" (LT)	△= 0° 41' 19.3" (LT)
D = 15° 26' 37.0"	D = 4° 53' 49.5"	D = 1° 00' 00.0"
L = 340.35'	L = 128.45'	L = 68.87'
T = 183.21'	T = 64.29'	T = 34.44'
R = 371.00'	R = 1,170.00'	R = 5,729.58'
SE = 0.04	SE = 0.04	SE = 0.04
RO = 69'	RO = 34.5'	RO = 69'



-L- CURVE DATA

PI Sta 10+09.55	PI Sta 10+38.20	PI Sta 10+71.28	PI Sta 11+16.42	PI Sta 11+87.30	PI Sta 12+66.43
△ = 8° 32' 09.7" (LT)	△ = 5° 17' 06.3" (RT)	△ = 15° 59' 37.9" (RT)	△ = 9° 21' 01.4" (RT)	△ = 7° 22' 08.1" (RT)	△ = 11° 53' 47.5" (LT)
D = 44° 45' 24.2"	D = 13° 49' 17.4"	D = 57° 37' 52.6"	D = 14° 56' 24.8"	D = 11° 02' 41.3"	D = 35° 54' 08.4"
L = 19.07'	L = 38.24'	L = 27.75'	L = 62.59'	L = 66.72'	L = 33.14'
T = 9.55'	T = 19.13'	T = 13.97'	T = 31.36'	T = 33.41'	T = 16.63'
R = 128.02'	R = 414.54'	R = 99.42'	R = 383.50'	R = 518.76'	R = 159.59'



STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 650 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 1008.3 FT
BASE DISCHARGE	= 950 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1009.3 FT
OVERTOPPING DISCHARGE	= 1530 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING ELEVATION	= 1011.0 FT
W.S. ELEVATION AT DATE OF SURVEY (4/17/2013)	= 1004.2 FT

BM #1
N 576248 E 1018006
ELEVATION = 1,016.49'
-L- STATION 13+44.63 27.94' LT.

1,035 / 1,030 / 1,025 / 1,020 / 1,015 / 1,010 / 1,005 / 1,000 / 995 / 990 / 985

10+00 11+00 12+00 13+00

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

PROJECT REFERENCE NO.	SHEET NO.
17BPJ4.R.142	2B-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 26960 ENGINEER
Electronically signed by Kristie R. Walker, PE
1663402AC7BF4...
4/6/2017

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 033023 ENGINEER
Electronically signed by Bradley S. Robinson, PE
73D41212D3794B8...
4/6/2017

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4/5/2017
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6/21/00

COMPUTED BY: JDD DATE: 1-30-15
CHECKED BY: WCC DATE: 1-30-15

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
17BPJ4,RJ42	3B-1

PAVEMENT REMOVAL SUMMARY

	IN SQUARE YARDS				
LINE	LOCATION	ASPHALT REMOVAL	ASPHALT BREAK-UP	CONCRETE REMOVAL	CONCRETE REMOVAL
-L-	11+25 TO 13+36	430			
-L-	13+62 TO 15+00	174			
-L-	TEMPORARY PAVEMENT	121			
	TOTAL	725			
	SAY	725			

Approximate quantities only. Unclassified excavation, borrow excavation, fine grading, clearing and grubbing, and removal of existing pavement will be paid for at the contract lump sum price for "grading".

SUMMARY OF EARTHWORK

IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
SUMMARY NO.1					
LT -L- STA. 10+15.00 TO STA. 16+00.00	22		289	267	
SUBTOTAL SUMMARY NO.1	22		289	267	
SUMMARY NO.2					
RT -L- STA. 10+15.00 TO STA. 16+00.00	0		214	214	
SUBTOTAL SUMMARY NO.2	0		214	214	
SUMMARY NO.3					
-DETOUR- STA. 10+00.00 TO STA. 12+75.00	3		115	112	
SUBTOTAL SUMMARY NO.3	3		115	112	
PROJECT SUBTOTAL	25		618	593	
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT				30	
GRAND TOTAL	22			623	
SAY	25			630	

CONTINGENCY ITEMS:
INCIDENTAL STONE = 70 TONS
UNDERCUT EXCAVATION = 50 CY
SELECT GRANULAR MATERIAL = 50 CY
CLASS IV SUBGRADE STABILIZATION = 50 TONS
GEOTEXTILE FOR SOIL STABILIZATION = 50 SY

Approximate quantities only. Unclassified excavation, borrow excavation, fine grading, clearing and grubbing, and removal of existing pavement will be paid for at the contract lump sum price for "grading".

"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			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS								IMPACT ATTENUATOR TYPE 350			SINGLE FACED GUARDRAIL	REMOVE EXISTING GUARDRAIL	REMOVE AND STOCKPILE EXISTING GUARDRAIL	REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	XI MOD	XI	GRAU 350 TL-2	M-350	TEMP TYPE 350 TL-2	TYPE III SHOP CURVED	B-77	BIC	AT-1	EA	G	NG				
-L-	12+89.20	14+14.20	LT	125'					4'	7'							2													
-L-	12+79.60	14+04.60	RT	125'					4'	7'							2													
			SUBTOTAL	250'													4													
			LESS DEDUCTIONS FOR ANCHORS																											
			GRAU-350 TL-2 4 @ 25'=	-100'																										
			PROJECT TOTALS:	150'													4													
			SAY	150'																										
			ADDITIONAL GUARDRAIL POSTS=5 EA.																											

TEMPORARY GUARDRAIL SUMMARY

-L-	12+85.00	14+15.00	LT	130'													2													
			LESS DEDUCTIONS FOR ANCHORS																											
			GRAU 350 TL-2 2 @ 25'=	-50'																										
			TOTAL:	80'													2													
			SAY	81.25'																										

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User:jdavis

6/21/00

COMPUTED BY: JDD DATE: 1-30-15
CHECKED BY: WCC DATE: 1-30-15

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
17BPJ4.RJ42	3D-1

NOTE: Invert Elevations are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

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

| STATION | LOCATION (LT,RT, OR CL) | STRUCTURE NO. FROM | STRUCTURE NO. TO | TOP ELEVATION | INVERT ELEVATION | INVERT ELEVATION | SLOPE CRITICAL | DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) SIZE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE | C.S. PIPE THICKNESS OR GAUGE .064 | .064 | .064 | .064 | .079 | .109 | .109 | R.C. PIPE (CLASS III) 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE (CLASS IV) 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | *** R. C. PIPE (CLASS V) | *** R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE | *** R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE | 15" SIDE DRAIN PIPE | 18" SIDE DRAIN PIPE | ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) R.C.P. | C.S.P. | QUANTITIES FOR DRAINAGE STRUCTURES * TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') PER EACH (0' THRU 5.0') | LIN. FT. A 5.0' THRU 10.0' | LIN. FT. 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 | CONCRETE TRANSITIONAL SECTION CATCH BASIN | DROP INLET | 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 |
|---|---|---

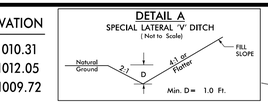
8/17/99

-L- CURVE DATA

PI Sta 12+01.47	PI Sta 14+65.33	PI Sta 15+63.93
△= 52° 33' 43.6" (RT)	△= 6° 17' 24.3" (LT)	△= 0° 41' 19.3" (LT)
D = 15° 26' 37.0"	D = 4° 53' 49.5"	D = 1° 00' 00.0"
L = 340.35'	L = 128.45'	L = 68.87'
T = 183.21'	T = 64.29'	T = 34.44'
R = 371.00'	R = 1,170.00'	R = 5,729.58'
SE = 0.04	SE = 0.04	SE = 0.04
R0 = 69'	R0 = 34.5'	R0 = 69'

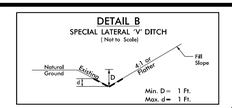
DESC.	NORTH	EAST	ELEVATION
BL-1	576,046.9716	1,017,799.2559	1010.31
BL-2	576,230.6936	1,018,042.5002	1012.05
BL-3	576,308.2228	1,018,266.0060	1009.72

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



FROM STA. 12+00 TO STA. 12+25 LT.
FROM STA. 12+80 TO STA. 13+25 LT.

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



FROM STA. 11+50 TO STA. 12+00 LT

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "17BP.14.R.142 BL-2" WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF NORTHING: 576230.6936(ft) EASTING: 1018042.5002(ft) ELEVATION: 1012.05(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99978250
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "17BP.14.R.142 BL-2" TO -L- STATION 10+15 IS 347.76' AT S51°42'00"W
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.142	4
RW SHEET NO.	

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 26960 ENGINEER
Docusigned by: Kevin C. Mercer
C. M. SEC
4/6/2017

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 033023 ENGINEER
Docusigned by: Bradley S. Honour, PE
4/6/2017

Vaughan & Melton
Consulting Engineers
Asheville, North Carolina 828 253 2796
Charlotte, North Carolina 704.357-0488
Tri-Cities, Tennessee 423.467.8400
Knoxville, Tennessee 865.546.5800
Middlesboro, Kentucky 606.248.6600
Spartanburg, South Carolina 864.574.4775

NC GRID NAD 83/NSRS 2011

ROBERT CECIL GILLESPIE
DB 352 PG 1454
DB 184 PG 858

HARDY HUNTLEY
DB 177 PG 1912

DONALD D. PATTIE
DB 345 PG 1754

DFM PROPERTIES, LLC
DB 394 PG 235

JACQUELINE M. GILLESPIE
DB 352 PG 1454
DB 184 PG 858

BM#1 ELEV=1016.49'
-L- STA. 13+44.63 27.94' LT
R/R SPIKE IN BASE OF OAK

BM#2 ELEV=1013.35'
-L- STA. 16+76.77 28.34' RT
R/R SPIKE IN BASE OF COTTONWOOD

SEE SHEET C-7 FOR FLOODPLAIN BENCH DETAIL

SPECIAL LATERAL 'V' DITCH. SEE DETAIL A

SPECIAL CUT DITCH SEE DETAIL 'A'

SPECIAL LATERAL 'V' DITCH SEE DETAIL 'B'

DO NOT DISTURB WALL

EST. 36 TONS CLASS II RIP RAP (STRUCTURAL PAY ITEM)
EST. EXCAVATION=102 CY

EST. 20 TONS CLASS II RIP RAP (STRUCTURAL PAY ITEM)
EST. EXCAVATION=70 CY

12+38.16 48.22'
12+10.00 27.91'
12+00.00 EX. R/W (21.70')
12+40.00 EX. R/W (18.01')
12+65.00 22.34'
13+45.00 50.00'
13+87.65 83.64'
13+91.29 53.11'
14+30.00 EX. R/W (21.26')
15+64.28 EX. R/W (5.00')
16+84.12 EX. R/W (25.00')
11+00.00 EX. R/W (23.79')
11+95.00 40.00' EX. R/W
11+70.00 40.00' EX. R/W
13+10.00 55.00' EX. R/W
13+70.00 55.00' EX. R/W

PC Sta. 14+01.05

BEGIN CULVERT
-L- STA. 13+38.54

END CULVERT
-L- STA. 13+56.82

EST. 2 TONS CLASS B RIP-RAP
7 S.Y. GEOTEXTILE

EST. 45 TONS CLASS II RIP RAP (STRUCTURAL PAY ITEM)
EST. EXCAVATION=81 CY

EST. 26 TONS CLASS II RIP RAP (STRUCTURAL PAY ITEM)
EST. EXCAVATION=57 CY

PC Sta. 10+18.26
PT Sta. 13+58.61
PCC Sta. 15+29.49
PT Sta. 15+98.36
POT Sta. 10+00.00
POT Sta. 16+84.12

BEGIN PROJECT 17BP.14.R.142
-L- STA. 10+15.00

END PROJECT 17BP.14.R.142
-L- STA. 16+00.00

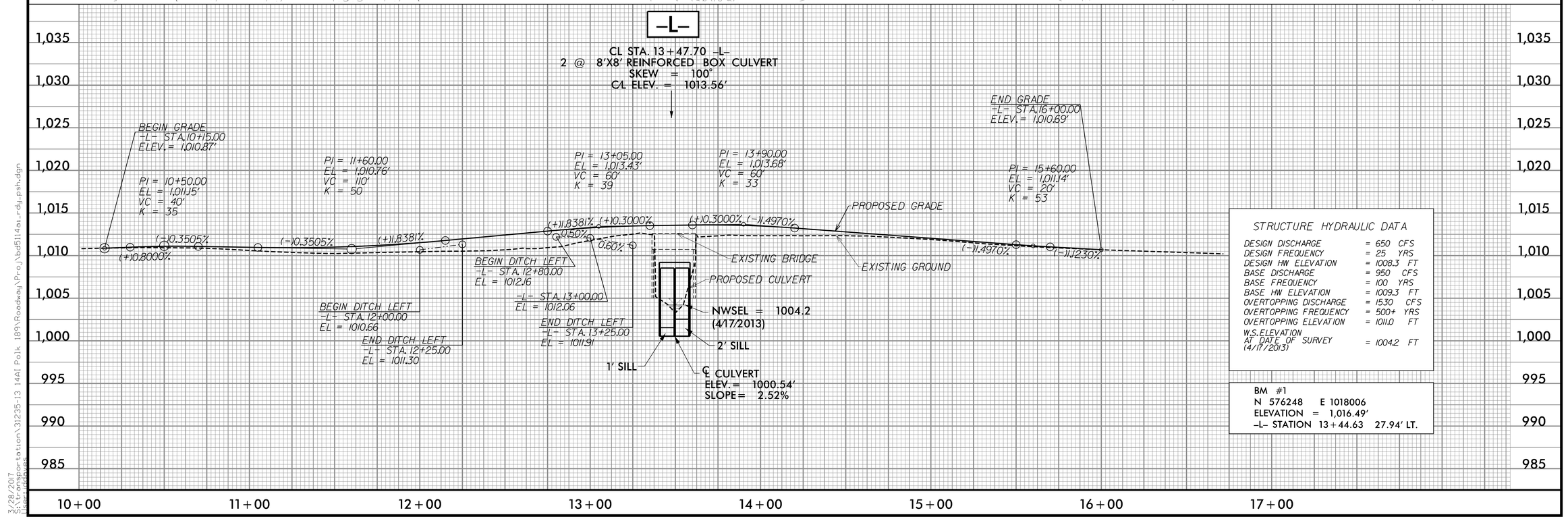
NOTE: ROAD SHOULDERS THAT HAVE BEEN USED FOR PARKING WILL BE CLOSED DURING CONSTRUCTION.

SEE SHEETS C-1 THRU C-10 FOR CULVERT PLANS

PAVEMENT REMOVAL
PERMANENT SOIL REINFORCING MATTING

-BL- 1 -L- STA. 10+57.62 11.58' RT
-BL- 2 -L- STA. 13+75.55 2.45' LT
-BL- 3 -L- STA. 16+12.95 12.46' RT

GRAU 350 TL-2
REMOVE
RETAIN
REMOVE EXISTING 18" RCP
EXISTING R/W
GREEN RIVER COVE ROAD SR 1152
5 MILES +/- TO HOLBERT COVE ROAD SR 1142
10' TAPER TO EXIST. (LT & RT.)
INNER TUBE SHED
ISF BUS
DECK
GRAVEL PARKING
PICNIC SHELTER
MH
MON
MTL GATE
PRIVATE R/W
12" CMP
15" CMP
20" BST
4' SPLIT



STRUCTURE HYDRAULIC DATA

DESIGN DISCHARGE	= 650 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 1008.3 FT
BASE DISCHARGE	= 950 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 1009.3 FT
OVERTOPPING DISCHARGE	= 1530 CFS
OVERTOPPING FREQUENCY	= 500+ YRS
OVERTOPPING ELEVATION	= 1011.0 FT
W.S.ELEVATION AT DATE OF SURVEY (4/17/2013)	= 1004.2 FT

BM #1
N 576248 E 1018006
ELEVATION = 1,016.49'
-L- STATION 13+44.63 27.94' LT.

3/28/2017
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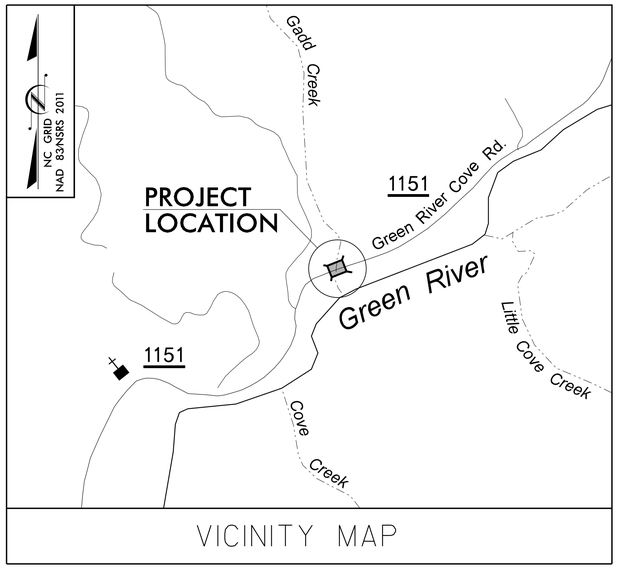
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

POLK COUNTY

DIVISION 14



VICINITY MAP

LOCATION: BRIDGE NO. 740189 OVER GADD CREEK ON SR 1151 (GREEN RIVER COVE ROAD)

INDEX OF SHEETS

SHEET NO.
TMP-1

PROJECT: 17BP.14.R.142

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

N.C.D.O.T. WORK ZONE TRAFFIC CONTROL
1580 MAIL SERVICE CENTER (MSC) RALEIGH, NC 27699-1580
1020 BIRCH RIDGE DRIVE, RALEIGH, NC 27610 (DELIVERY)
PHONE: (919) 250-4094 FAX: (919) 250-4098

J. S. BOURNE, P.E.	*STATE TRAFFIC MANAGEMENT ENGINEER*
LLOYD D. BROWN, P.E.	*TRAFFIC CONTROL PROJECT ENGINEER*
LLOYD D. BROWN, P.E.	*TRAFFIC CONTROL PROJECT DESIGN ENGINEER*
ALEX FITZPATRICK	*TRAFFIC CONTROL DESIGN ENGINEER*

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

V&M Vaughn & Melton
Consulting Engineers
Asheville, North Carolina 828-253-2796
Charlotte, North Carolina 704-837-7815

PROJECT ENGINEER LLOYD D. BROWN, P.E.
DESIGN ENGINEER ALEX FITZPATRICK

APPROVED: Lloyd DeWayne Brown 33954D47F7F94D8...
DATE: 4/7/2017

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

4/7/2017
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PROJ. REFERENCE NO.	SHEET NO.
17BP.14.R.142	TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW PANELS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY-DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES & OFFSETS
1205.08	PAVEMENT MARKINGS - SYMBOLS & WORD MESSAGES
1205.12	PAVEMENT MARKINGS - BRIDGES
1261.01	GUARDRAIL & BARRIER DELINEATOR SPACING
1261.02	GUARDRAIL & BARRIER DELINEATOR TYPES
1262.01	GUARDRAIL END DELINEATION

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- WORK AREA
- TEMPORARY PAVEMENT
- TEMPORARY PAVEMENT TO BE REMOVED

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION
	PAINT
PA	WHITE EDGE LINE (4")
PI	YELLOW DOUBLE CENTER (4")
P2	STOP BAR (24"WHITE)

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW PANEL (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

SIGNALS

EXISTING PROPOSED TEMPORARY (TEMP)

- PORTABLE TRAFFIC SIGNAL

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

APPROVED: DocuSigned by: Lloyd D. Wayne Brown DATE: 4/7/2017

SEAL — NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD DRAWINGS & LEGEND

4/5/2017
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PROJ. REFERENCE NO.	SHEET NO.
17BP.14.R.142	TMP-1B

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

A) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

B) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

C) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

E) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

F) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

G) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

LOCAL NOTES:

1) EMERGENCY VEHICLE ACCESS MUST BE MAINTAINED AT ALL TIMES.

2) NOTIFY THE POLK COUNTY SCHOOL BOARD 30 DAYS PRIOR TO ANY LANE CLOSURES.

TRAFFIC PATTERN ALTERATIONS

H) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

I) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

J) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

K) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 100 ft IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

L) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

M) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKING

N) INSTALL TEMPORARY PAVEMENT MARKINGS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
SR1151 (GREEN RIVER COVE ROAD)	PAINT	NONE

O) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

P) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

Q) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS BY THE END OF EACH DAY'S OPERATION.

MISCELLANEOUS

R) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 100 ft AND 200 ft RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

MANAGEMENT STRATEGIES

PHASE I DEPICTS SR 1151 (GREEN RIVER COVE ROAD) TRAFFIC TO BE MAINTAINED ON THE EXISTING ROAD AS THE -DETOUR- ALIGNMENT IS CONSTRUCTED.

PHASE II DEPICTS SR 1151 (GREEN RIVER COVE ROAD) VEHICLES SHIFTED ONTO THE NEW -DETOUR- ALIGNMENT ON A ONE-LANE TWO-WAY TRAFFIC PATTERN USING TEMPORARY PORTABLE SIGNALS, TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS, AS THE PROPOSED -L- ALIGNMENT IS CONSTRUCTED.

PHASE III DEPICTS SR 1151 (GREEN RIVER COVE ROAD) VEHICLES SHIFTED ONTO THE NEW -L- ALIGNMENT (EB) ON A ONE-LANE TWO-WAY TRAFFIC PATTERN USING TEMPORARY PORTABLE SIGNALS, TRAFFIC CONTROL DEVICES AND PAVEMENT MARKINGS, AS THE REMAINDER OF THE PROPOSED -L- CONSTRUCTED.
A FLAGGING OPERATION WILL BE USED TO CONSTRUCT THE NEW TIE-INS, SHIFT TRAFFIC, AND INSTALL FINAL PAVEMENT MARKINGS.

APPROVED: DocuSigned by: Lloyd DeWayne Brown DATE: 4/7/2017

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS PLAN

(MANAGEMENT STRATEGIES, GENERAL NOTES AND LOCAL NOTES)

4/7/2017
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User:jgaaves

PROJ. REFERENCE NO.	SHEET NO.
17BP.14.R.142	TMP-2

PROJECT PHASING

NOTE: USING RDWY STD 1101.02, SHEET 1 OF 15, MAINTAIN ACCESS TO ADJACENT PROPERTIES AND ACCESS ROADS AT ALL TIMES AND DURING ALL PHASES OF CONSTRUCTION.

PHASE I

STEP 1: - ERECT WORK ZONE ADVANCED WARNING SIGNS USING DETAIL DRAWINGS FOR WORK ZONE SIGNS. (SEE RDWY STD. 1101.01)

STEP 2: - USING RDWY STD 1101.02, SHEET 1 OF 15, AND FLAGGERS AS NECESSARY, PERFORM THE FOLLOWING ON SR 1151 (GREEN RIVER COVE ROAD):

- INSTALL TEMPORARY GUARDRAIL AND TEMPORARY SHORING NO.1 BEHIND TEMPORARY GUARDRAIL FROM -L- STA 13+22 +/- TO STA 13+38 +/-. (SEE TMP-3)

- INSTALL TEMPORARY GUARDRAIL AND TEMPORARY SHORING NO. 2 BEHIND TEMPORARY GUARDRAIL FROM -L- STA 13+62 +/- TO STA 13+78 +/-. (SEE TMP-3)

STEP 3: - AWAY FROM TRAFFIC, CONSTRUCT CULVERT PER THE CULVERT PLANS (STAGE 1), AND ON-SITE DETOUR WITH TEMPORARY PAVEMENT AND TEMPORARY PAVEMENT MARKINGS, AS NEEDED, FROM STA 10+15 +/- TO STA 16+00 +/-. (SEE TMP-4)

PHASE II

NOTE: STEP 1 SHALL BE COMPLETED IN A CONTINUOUS OPERATION.

STEP 1: - USING RDWY STD 1101.02, SHEET 1 OF 15, AND FLAGGERS AS NECESSARY, PERFORM THE FOLLOWING ON SR 1151 (GREEN RIVER COVE ROAD):

- REMOVE PAVEMENT MARKINGS AS NECESSARY AND PLACE TEMPORARY PAVEMENT MARKINGS (PAINT), AS NEEDED, FROM -L- STA 10+15 +/- TO STA 16+00 +/-.(SEE TMP-4)

- INSTALL PORTABLE CRASH BARRIER FROM -L- STA 12+85 +/- TO STA 14+10 +/-.

- ACTIVATE PORTABLE TRAFFIC SIGNALS AND DIRECT SR 1151 (GREEN RIVER COVE ROAD) TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ON THE ON-SITE DETOUR. (SEE TMP-4)

STEP 2: - INSTALL TEMPORARY SHORING AS FOLLOWS:
TEMPORARY SHORING NO. 3 -L- STA 13+15 +/- TO STA 13+38 +/-
TEMPORARY SHORING NO. 4 -L- STA 13+57 +/- TO STA 13+80 +/-

- REMOVE EXISTING BRIDGE(SEE CULVERT PLANS).

STEP 3: - AWAY FROM TRAFFIC, CONSTRUCT CULVERT PER THE CULVERT PLANS (STAGE 2).

STEP 4: - USING RDWY STD 1101.02, SHEET 1 OF 15, AND FLAGGERS AS NECESSARY, PERFORM THE FOLLOWING ON SR 1151 (GREEN RIVER COVE ROAD):

- CONSTRUCT -L- (SR 1151 GREEN RIVER COVE ROAD) FROM STA 10+15 +/- TO STA 16+00 +/- EASTBOUND LANE EXCLUDING FINAL PAVEMENT LAYER.

- REMOVE TEMPORARY GUARDRAIL AND INSTALL PROPOSED GUARDRAIL.

PHASE III

NOTE: STEP 1 SHALL BE COMPLETED IN A CONTINUOUS OPERATION.

STEP 1: - USING RDWY STD 1101.02, SHEET 1 OF 15, AND FLAGGERS AS NECESSARY, PERFORM THE FOLLOWING ON SR 1151 (GREEN RIVER COVE ROAD):

- REMOVE PAVEMENT MARKINGS AS NECESSARY AND PLACE TEMPORARY PAVEMENT MARKINGS (PAINT) FROM -L- STA 10+15 +/- TO STA 16+00 +/-.(SEE TMP-5)

- REMOVE PORTABLE CRASH BARRIER INSTALLED IN STEP 1, PHASE II.

- ACTIVATE PORTABLE TRAFFIC SIGNALS AND DIRECT SR 1151 (GREEN RIVER COVE ROAD) TRAFFIC INTO A ONE-LANE TWO-WAY PATTERN ON THE PROPOSED ROADWAY (EB). (SEE TMP-5)

STEP 2: - REMOVE TEMPORARY PAVEMENT, AS NEEDED.

STEP 3: - USING RDWY STD 1101.02, SHEET 1 OF 15, AND FLAGGERS AS NECESSARY, PERFORM THE FOLLOWING ON SR 1151 (GREEN RIVER COVE ROAD):

- CONSTRUCT -L- (SR 1151 GREEN RIVER COVE ROAD) FROM STA 10+15 +/- TO STA 16+00 +/- WESTBOUND LANE EXCLUDING FINAL PAVEMENT LAYER.

STEP 4: - USING RDWY STD 1101.02, SHEET 1 OF 15, AND FLAGGERS AS NECESSARY, CONSTRUCT TIE-INS, PLACE FINAL LAYER OF SURFACE COURSE, AND THE FINAL PAVEMENT MARKINGS (PAINT) ON THE ENTIRE PROJECT.

- OPEN SR 1151 (GREEN RIVER COVE ROAD) IN ITS FINAL TRAFFIC PATTERN.

STEP 5: - USING RDWY STD 1101.02, SHEET 1 OF 15, AND FLAGGERS AS NECESSARY, REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES.

APPROVED: Docu Signed by: Lloyd DeWayne Brown DATE: 4/7/2017

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

PHASING

4/7/2017
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User:tdgoyes

PROJ. REFERENCE NO.	SHEET NO.
17BP.14.R.142	TMP-3

END ROAD WORK
G20-2 A
48" X 24"

PLACE SIGN (LEFT)
AT -L- STA 5+00 +/-

ROAD WORK AHEAD
W20-1
48" X 48"

PLACE SIGN (RIGHT)
AT -L- STA 5+00 +/-

NC GRID
NAD 83/NSRS 2011

TEMPORARY PAVEMENT

WORK AREA

MAINTAIN ACCESS TO DRIVEWAYS DURING CONSTRUCTION

SEE SHEET 2B-1 FOR DETOUR PLANS

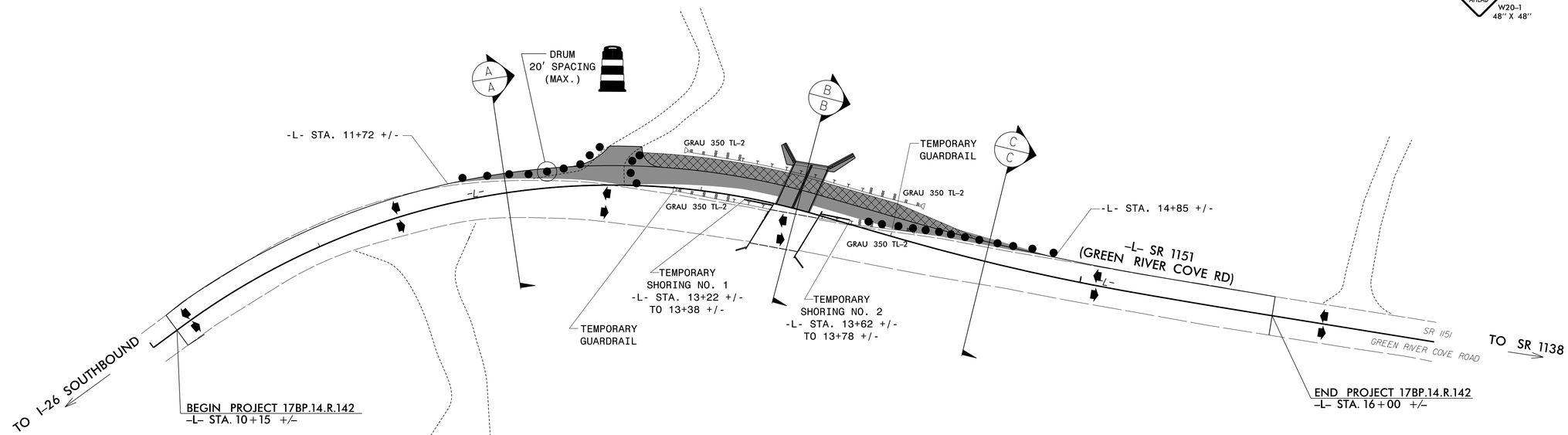
30 15 0 30 60
SCALE 1"=30'

END ROAD WORK
G20-2 A
48" X 24"

PLACE SIGN (RIGHT)
AT -L- STA 21+50 +/-

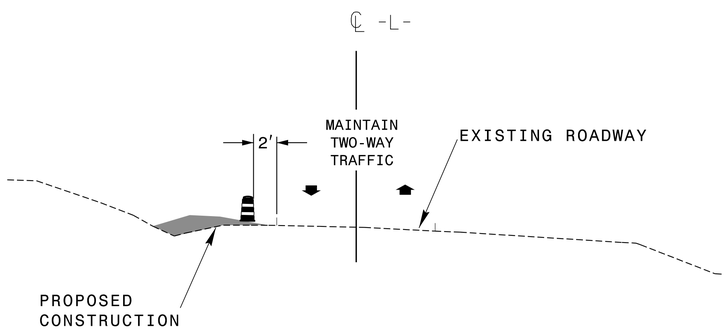
ROAD WORK AHEAD
W20-1
48" X 48"

PLACE SIGN (LEFT)
AT -L- STA 21+50 +/-



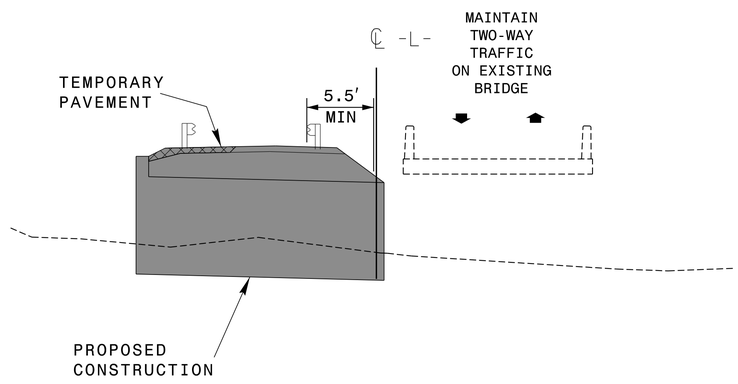
SECTION A-A

-L- STA 12+00



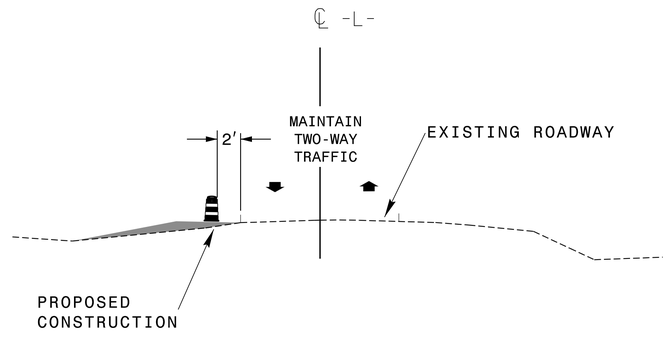
SECTION B-B

-L- STA 13+50



SECTION C-C

-L- STA 14+50



APPROVED: Digitally Signed by: Lloyd DeWayne Brown DATE: 4/7/2017

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE I

4/7/2017
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User:cmartell

PROJ. REFERENCE NO.	SHEET NO.
17BP.14.R.142	TMP-4

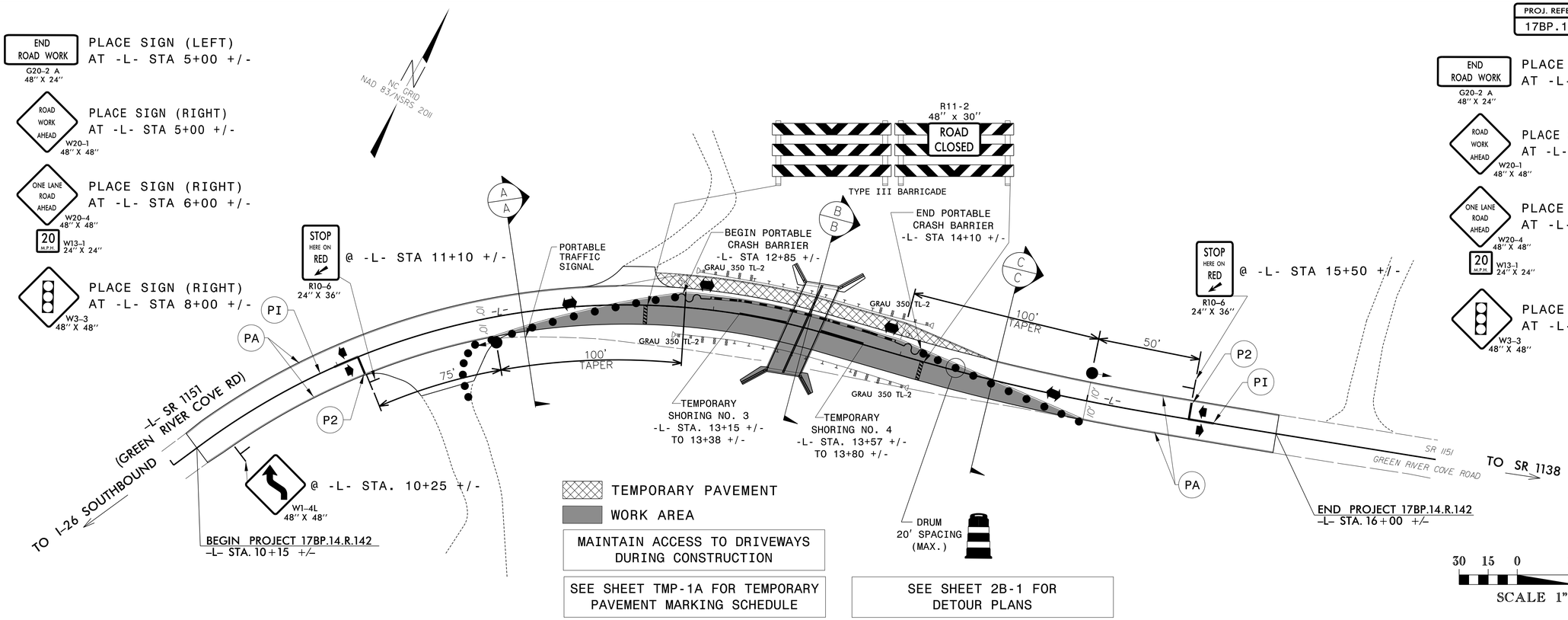
END ROAD WORK
G20-2 A
48" X 24"
PLACE SIGN (LEFT)
AT -L- STA 5+00 +/-

ROAD WORK AHEAD
W20-1
48" X 48"
PLACE SIGN (RIGHT)
AT -L- STA 5+00 +/-

ONE LANE ROAD AHEAD
W20-4
48" X 48"
20 M.P.H.
W13-1
24" X 24"
PLACE SIGN (RIGHT)
AT -L- STA 6+00 +/-

W3-3
48" X 48"
PLACE SIGN (RIGHT)
AT -L- STA 8+00 +/-

NC GRID
NAD 83/NSRS 2011



END ROAD WORK
G20-2 A
48" X 24"
PLACE SIGN (RIGHT)
AT -L- STA 21+50 +/-

ROAD WORK AHEAD
W20-1
48" X 48"
PLACE SIGN (LEFT)
AT -L- STA 21+50 +/-

ONE LANE ROAD AHEAD
W20-4
48" X 48"
20 M.P.H.
W13-1
24" X 24"
PLACE SIGN (LEFT)
AT -L- STA 20+50 +/-

W3-3
48" X 48"
PLACE SIGN (LEFT)
AT -L- STA 18+50 +/-

TEMPORARY PAVEMENT
WORK AREA

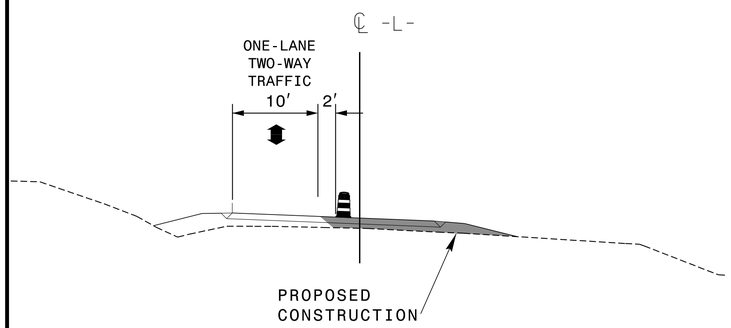
MAINTAIN ACCESS TO DRIVEWAYS DURING CONSTRUCTION

SEE SHEET TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE

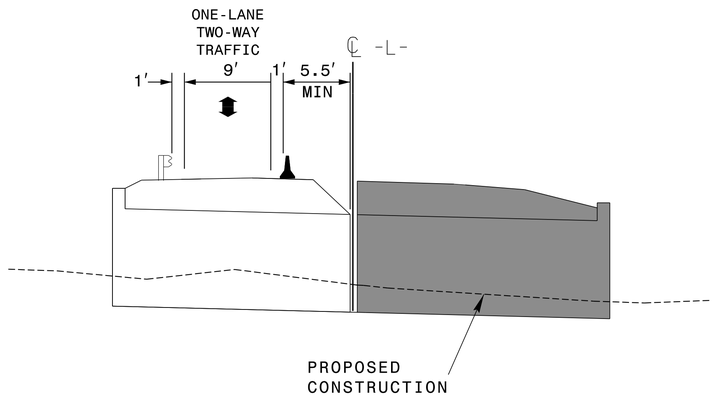
SEE SHEET 2B-1 FOR DETOUR PLANS

30 15 0 30 60
SCALE 1"=30'

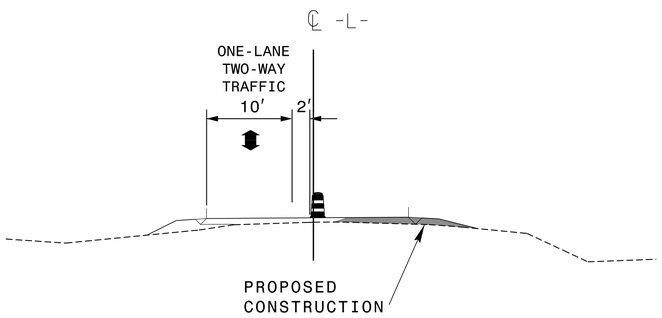
SECTION A-A
-L- STA 12+00



SECTION B-B
-L- STA 13+50



SECTION C-C
-L- STA 14+50



APPROVED: DocuSigned by: Lloyd DeWayne Brown DATE: 4/7/2017

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

PHASE II

4/7/2017
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User:jdgaves

PROJ. REFERENCE NO.	SHEET NO.
17BP.14.R.142	TMP-5

TEMPORARY PAVEMENT TO BE REMOVED

WORK AREA

MAINTAIN ACCESS TO DRIVEWAYS DURING CONSTRUCTION

SEE SHEET TMP-1A FOR TEMPORARY PAVEMENT MARKING SCHEDULE

SEE SHEET 2B-1 FOR DETOUR PLANS

NC GRID
NAD 83/NSRS 2011

30 15 0 30 60
SCALE 1"=30'

END ROAD WORK
G20-2 A
48" X 24"
PLACE SIGN (LEFT)
AT -L- STA 5+00 +/-

ROAD WORK AHEAD
W20-1
48" X 48"
PLACE SIGN (RIGHT)
AT -L- STA 5+00 +/-

ONE LANE ROAD AHEAD
W20-4
48" X 48"
20 M.P.H.
W13-1
24" X 24"
PLACE SIGN (RIGHT)
AT -L- STA 6+00 +/-

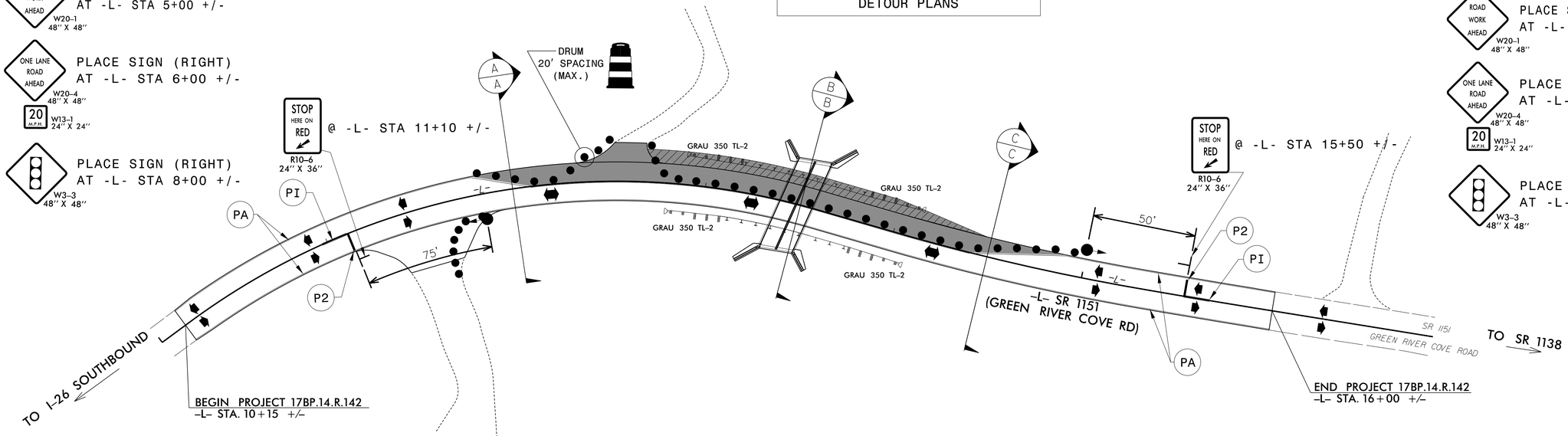
W3-3
48" X 48"
PLACE SIGN (RIGHT)
AT -L- STA 8+00 +/-

END ROAD WORK
G20-2 A
48" X 24"
PLACE SIGN (RIGHT)
AT -L- STA 21+50 +/-

ROAD WORK AHEAD
W20-1
48" X 48"
PLACE SIGN (LEFT)
AT -L- STA 21+50 +/-

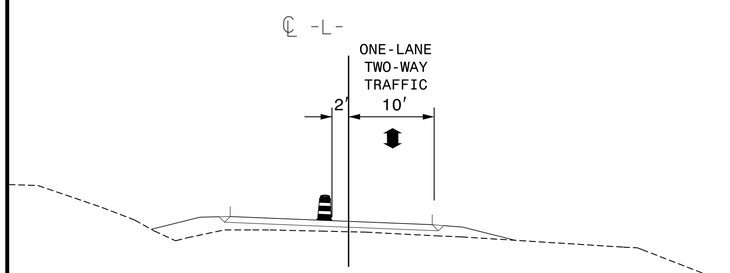
ONE LANE ROAD AHEAD
W20-4
48" X 48"
20 M.P.H.
W13-1
24" X 24"
PLACE SIGN (LEFT)
AT -L- STA 20+50 +/-

W3-3
48" X 48"
PLACE SIGN (LEFT)
AT -L- STA 18+50 +/-



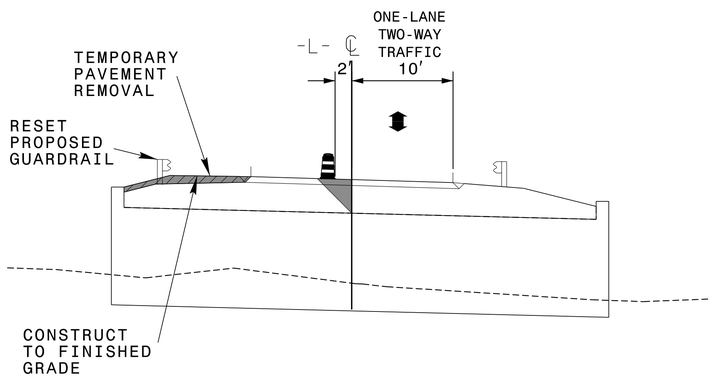
SECTION A-A

-L- STA 12+00



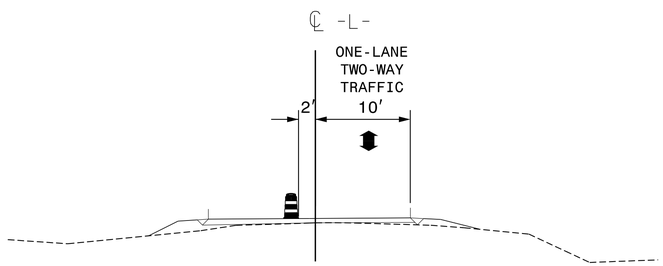
SECTION B-B

-L- STA 13+50



SECTION C-C

-L- STA 14+50



APPROVED: DocuSigned by: Lloyd DeWayne Brown DATE: 4/7/2017

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

PHASE III

4/7/2017
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PAVEMENT MARKING PLAN

PROJ. REFERENCE NO.	SHEET NO.
17BP.14.R.142	PMP-1

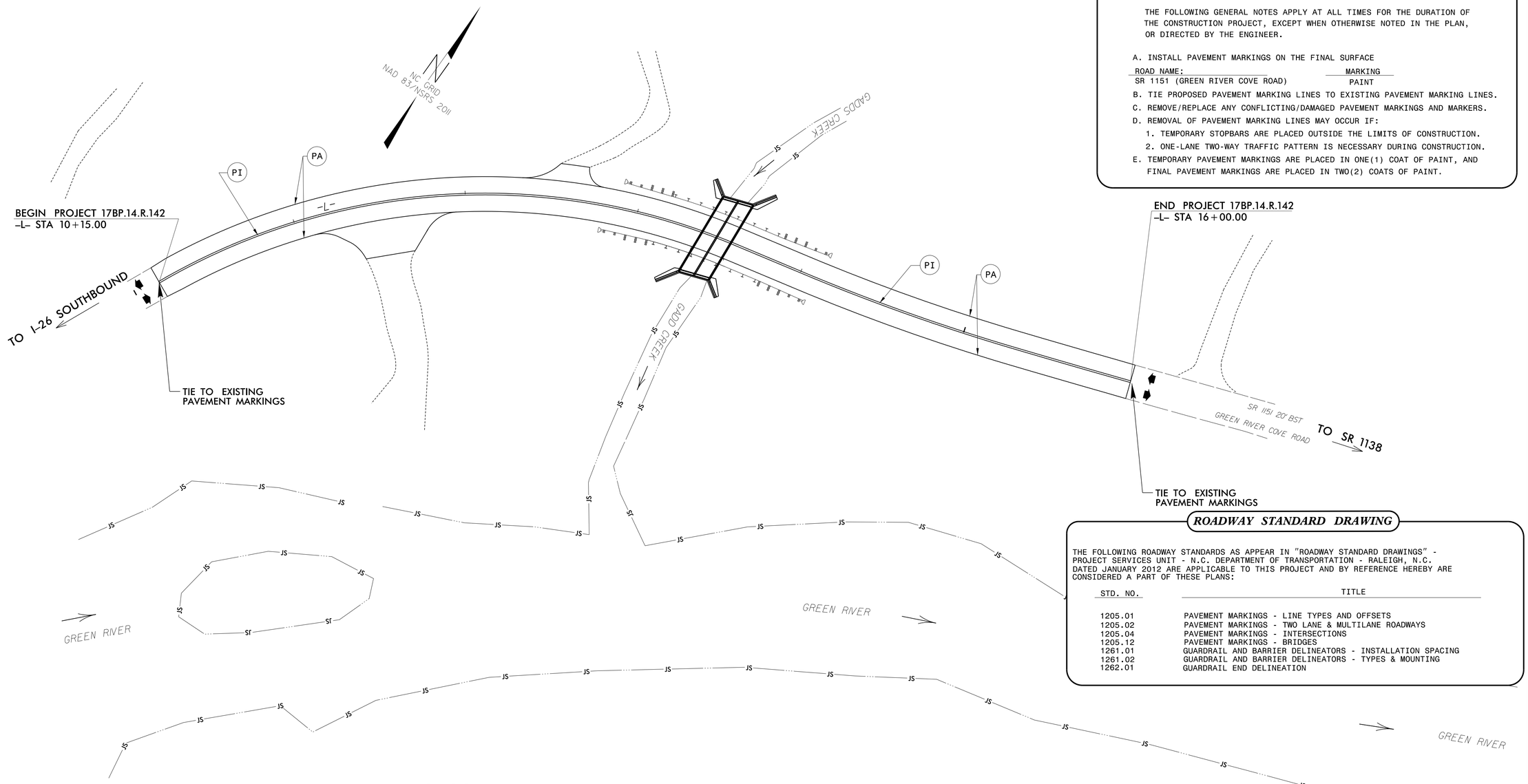
GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A. INSTALL PAVEMENT MARKINGS ON THE FINAL SURFACE

ROAD NAME:	MARKING
SR 1151 (GREEN RIVER COVE ROAD)	PAINT

B. TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
C. REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.
D. REMOVAL OF PAVEMENT MARKING LINES MAY OCCUR IF:
   1. TEMPORARY STOPBARS ARE PLACED OUTSIDE THE LIMITS OF CONSTRUCTION.
   2. ONE-LANE TWO-WAY TRAFFIC PATTERN IS NECESSARY DURING CONSTRUCTION.
E. TEMPORARY PAVEMENT MARKINGS ARE PLACED IN ONE(1) COAT OF PAINT, AND FINAL PAVEMENT MARKINGS ARE PLACED IN TWO(2) COATS OF PAINT.



ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - 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
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE & MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.12	PAVEMENT MARKINGS - BRIDGES
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES & MOUNTING
1262.01	GUARDRAIL END DELINEATION

FINAL PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION	QUANTITY BREAKDOWN	PAY ITEM	TOTAL QUANTITY
		PAVEMENT MARKING LINES		
PA	WHITE SOLID EDGE LINE	1,170 FT	PAINT (4")	2,340 FT
PI	YELLOW DOUBLE CENTER LINE	1,170 FT	PAINT (4")	2,340 FT

NOTE: TEMPORARY PAVEMENT MARKINGS = 1 COAT OF PAINT
FINAL PAVEMENT MARKINGS = 2 COATS OF PAINT

30 15 0 30 60
SCALE 1"=30'

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

APPROVED: DocuSigned by: Lloyd DeWayne Brown DATE: 4/7/2017

SEAL — NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

PERMANENT PAVEMENT MARKING PLAN

3/28/2017
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User:jddaves

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.14.R.142	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
45360.1.35	BRZ-1151(1)	PE
45360.2.35	BRZ-1151(1)	ROW / UTIL.
17BP.14.R.142		CONST.

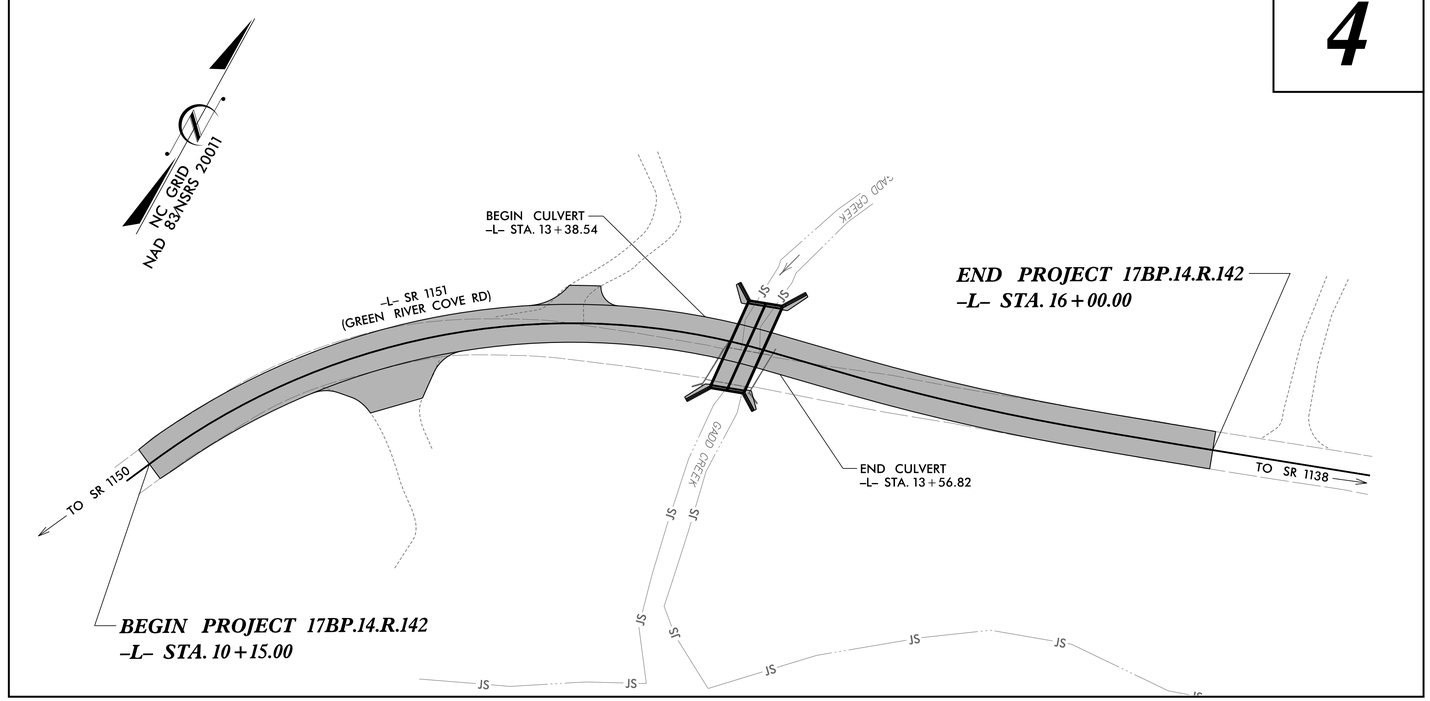
TIP PROJECT: 17BP.14.R.142

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

POLK COUNTY

4



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	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	
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	

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

Level III: Designer of Erosion and Sediment Control Plans
Christian J. Gonzalez-Martell
Date Issued: December 6, 2016
Date Expires: December 31, 2019
Certification Number: 3939

V&M Vaughn & Melton
Consulting Engineers
Asheville, North Carolina
828-253-2796
Boone, NC 828-355-9933
Tri-Cities, TN 423-467-8401
Knoxville, TN 865-546-5800
Spartanburg, SC 864-574-4775
Charleston, SC 843-974-5650
Middlesboro, KY 606-248-6600
Raleigh, NC 919-977-9455
Charlotte, NC 704-357-0488
Atlanta, GA 770-627-3509

GRAPHIC SCALE

15 0 30
PLANS
15 0 30
PROFILE (HORIZONTAL)
3 0 6
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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

Prepared In the Office of:
VAUGHN & MELTON
1318-F PATTON AVE.
ASHEVILLE NC, 28806
FOR THE NORTH CAROLINA DIVISION OF HIGHWAYS

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

2012 STANDARD SPECIFICATIONS

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 2012 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	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	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		

3/28/2017
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User: mgrtell

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.142	EC-2

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)
		11+50	12+00		40
		12+00	12+25		20
		12+80	13+25	LT	40
			SUBTOTAL		100
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					1000
				TOTAL	1100
				SAY	1100
	**EROSION CONTROL MATTING TO BE PLACED ON ALL DISTURBED SLOPES				

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
			SUBTOTAL		
		ADDITIONAL PSRM TO BE INSTALLED			
				TOTAL	
				SAY	

PROJECT REFERENCE NO.	SHEET NO.
17BPJ4.RJ42	EC-3

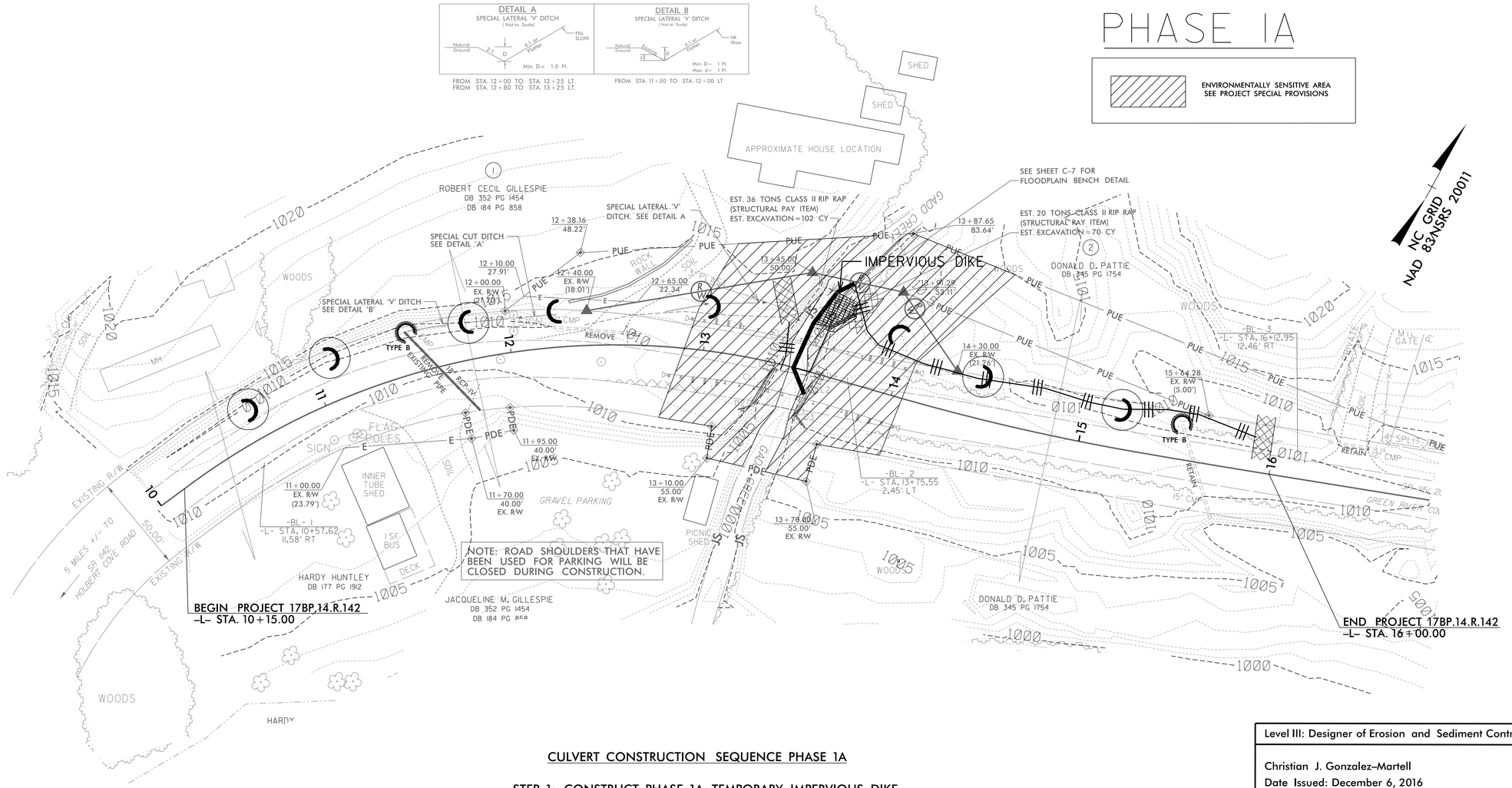
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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.

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.142	EC-4/CONS-4

EROSION CONTROL PLAN



CULVERT CONSTRUCTION SEQUENCE PHASE 1A

STEP 1: CONSTRUCT PHASE 1A TEMPORARY IMPERVIOUS DIKE
STEP 2: CONSTRUCT NORTH EAST PORTION RCBC PER STRUCTURE PLAN

ONSITE CONCRETE WASHOUT STRUCTURE TO BE PLACED AT A LOCATION DETERMINED IN THE FIELD.

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.

Level III: Designer of Erosion and Sediment Control Plans

Christian J. Gonzalez-Martell
Date Issued: December 6, 2016
Date Expires: December 31, 2019
Certification Number: 3939

PROJECT NO. 17BP.14.R.142

STATION: 13+32.08 -L-
REPLACES BRIDGE NO. 189

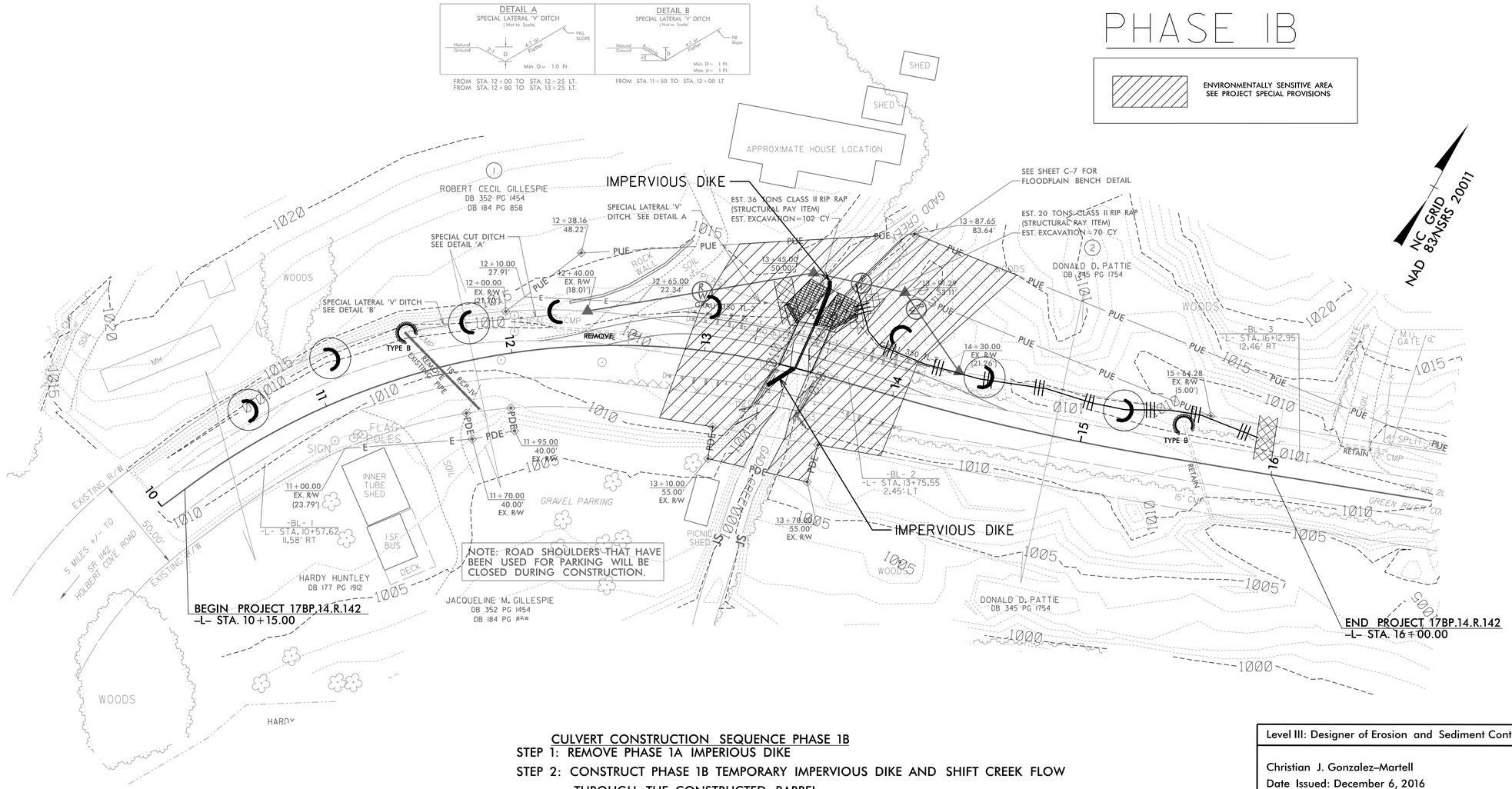
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STRUCTURE #189 ON SR 1151 OVER GADDS CREEK

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.142	EC-5/CONS-4

EROSION CONTROL PLAN



CULVERT CONSTRUCTION SEQUENCE PHASE 1B

STEP 1: REMOVE PHASE 1A IMPERIOUS DIKE

STEP 2: CONSTRUCT PHASE 1B TEMPORARY IMPERVIOUS DIKE AND SHIFT CREEK FLOW THROUGH THE CONSTRUCTED BARREL

STEP 3: CONSTRUCT NORTH WEST PORTION RCBC PER STRUCTURE PLAN

ONSITE CONCRETE WASHOUT STRUCTURE TO BE PLACED AT A LOCATION DETERMINED IN THE FIELD.

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

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STATE OF NORTH CAROLINA
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RALEIGH

STRUCTURE #189 ON SR 1151 OVER GADDS CREEK

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			

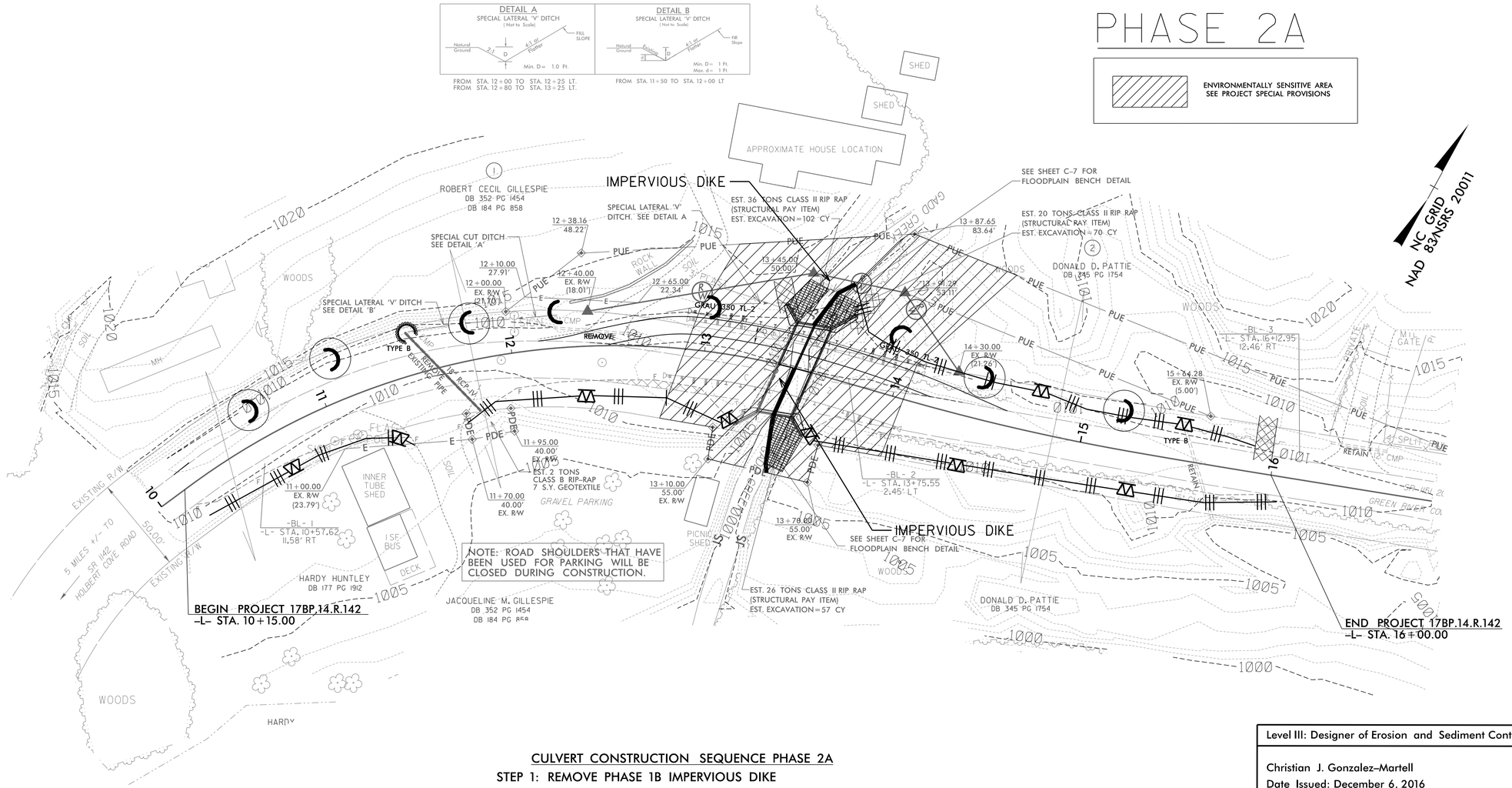
PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.142	EC-6/CONS-4

EROSION CONTROL PLAN

PHASE 2A

ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

NC GRID NAD 83/NSRS 2001



CULVERT CONSTRUCTION SEQUENCE PHASE 2A

STEP 1: REMOVE PHASE 1B IMPERVIOUS DIKE

STEP 2: CONSTRUCT PHASE 2A TEMPORARY IMPERVIOUS DIKE AND SHIFT CREEK FLOW THROUGH THE CONSTRUCTED BARREL

STEP 3: CONSTRUCT SOUTH EAST PORTION RCBC PER STRUCTURE PLAN

ONSITE CONCRETE WASHOUT STRUCTURE TO BE PLACED AT A LOCATION DETERMINED IN THE FIELD.

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PROJECT NO. 17BP.14.R.142

STATION: 13+32.08 -L-
REPLACES BRIDGE NO. 189

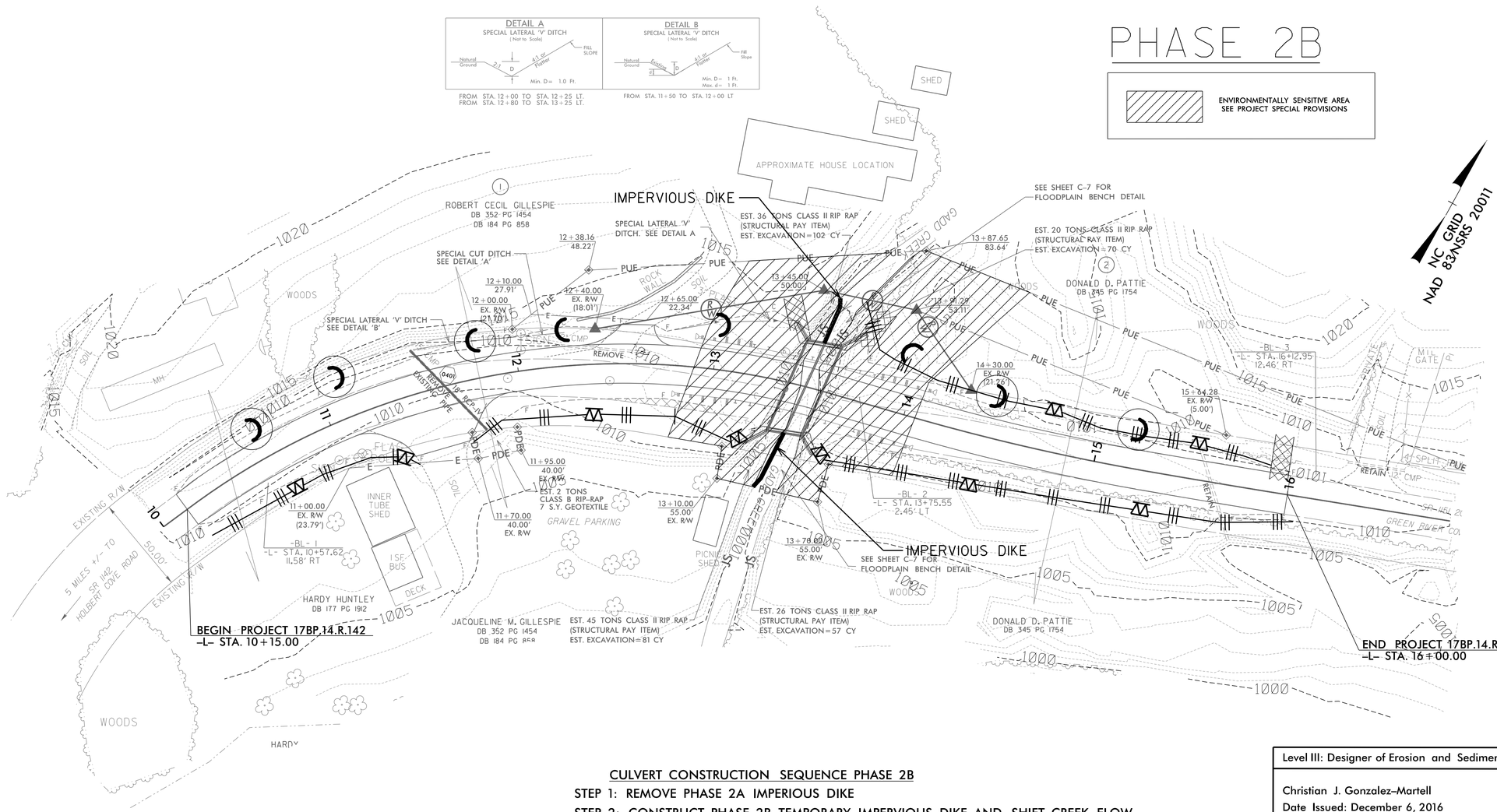
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STRUCTURE #189 ON SR 1151 OVER GADDS CREEK

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.142	EC-7/CONS-4

EROSION CONTROL PLAN



CULVERT CONSTRUCTION SEQUENCE PHASE 2B

STEP 1: REMOVE PHASE 2A IMPERIOUS DIKE

STEP 2: CONSTRUCT PHASE 2B TEMPORARY IMPERVIOUS DIKE AND SHIFT CREEK FLOW THROUGH THE CONSTRUCTED BARREL

STEP 3: CONSTRUCT SOUTH WEST PORTION RCBC PER STRUCTURE PLAN

STEP 4: REMOVE PHASE 2B IMPERIOUS DIKE

ONSITE CONCRETE WASHOUT STRUCTURE TO BE PLACED AT A LOCATION DETERMINED IN THE FIELD.

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

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Level III: Designer of Erosion and Sediment Control Plans

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Date Issued: December 6, 2016
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PROJECT NO. 17BP.14.R.142

STATION: 13+32.08 -L-
REPLACES BRIDGE NO. 189

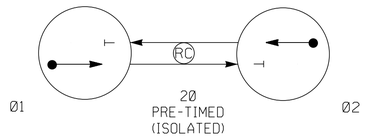
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
RALEIGH

STRUCTURE #189 ON SR 1151 OVER GADDS CREEK

REVISIONS						SHEET NO.
NO.	BY	DATE	NO.	BY	DATE	
1			3			TOTAL SHEETS
2			4			

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.142	SIG-1

PHASING DIAGRAM



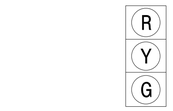
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

NC GRID
NAD 83/NSRS 2011

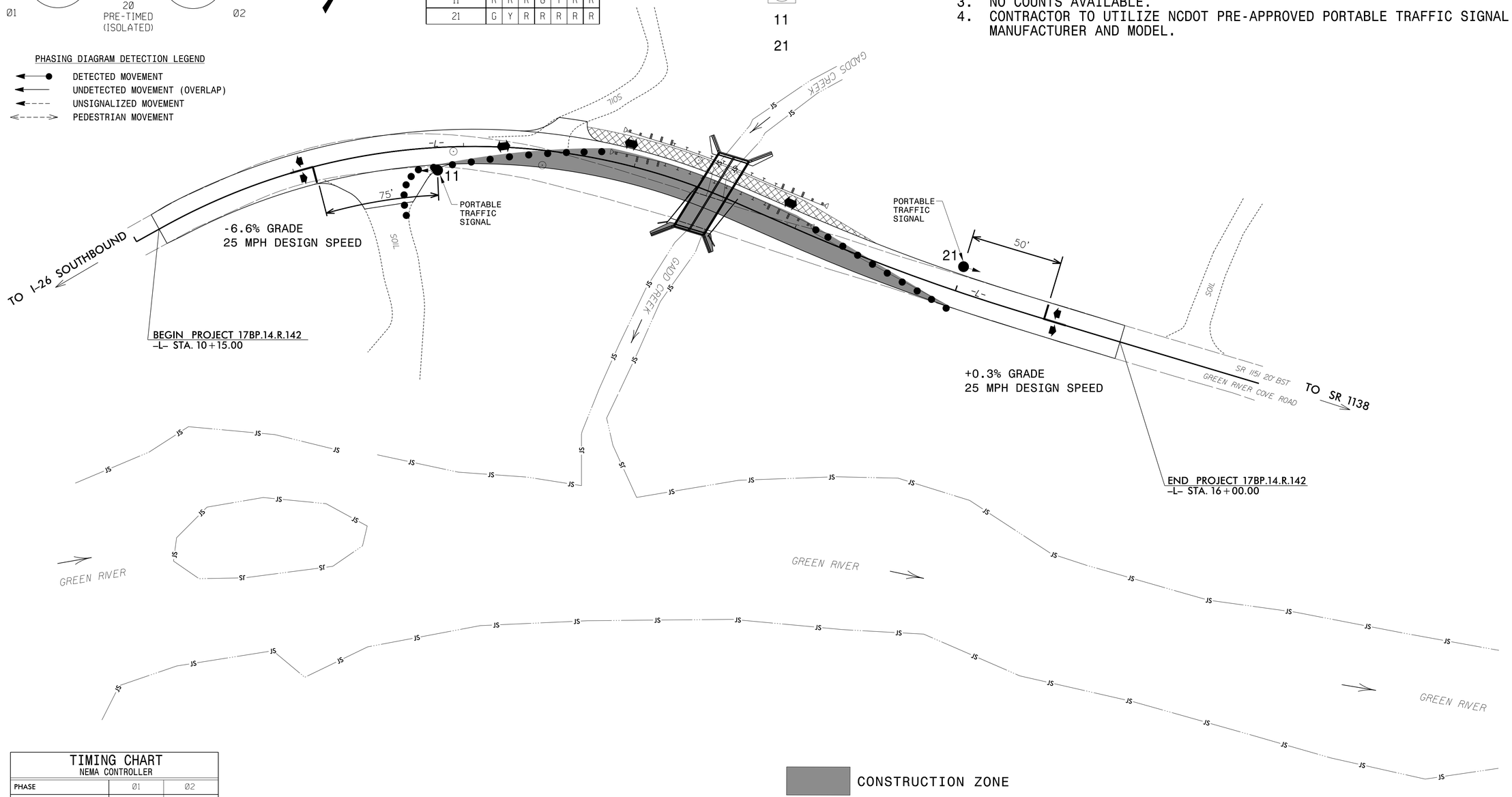
TABLE OF OPERATION							
SIGNAL FACE	Ø2			Ø1			FLASH
	R/W	CLEAR Ø1		R/W	CLEAR Ø2		
		1	2		1	2	
11	R	R	R	G	Y	R	R
21	G	Y	R	R	R	R	R

SIGNAL FACE I.D.



NOTES

1. PORTABLE TEMPORARY INSTALLATION.
2. SIGNAL HEADS SHALL BE NO CLOSER THAN 40 FEET FROM THE STOPLINE.
3. NO COUNTS AVAILABLE.
4. CONTRACTOR TO UTILIZE NCDOT PRE-APPROVED PORTABLE TRAFFIC SIGNAL MANUFACTURER AND MODEL.



CONSTRUCTION ZONE

TIMING CHART
NEMA CONTROLLER

PHASE	Ø1	Ø2
MINIMUM GREEN	40 SEC.	40 SEC.
PASSAGE/GAP	0 SEC.	0 SEC.
YELLOW CHANGE INT.	4.0 SEC.	4.0 SEC.
RED CLEARANCE	20 SEC.	20 SEC.
MAX. 1	65 SEC.	65 SEC.
RECALL POSITION	MAX. RECALL	MAX. RECALL
VEHI. CALL MEMORY	–	–

Prepared in the Offices of:
Vaughn & Melton
Consulting Engineers
Asheville, North Carolina 828-253-2796
Charlotte, North Carolina 704-367-0488
Tri-Cities, Tennessee 423-467-940
Knoxville, Tennessee 865-546-1600
Middlesboro, Kentucky 606-248-6600
Spartanburg, South Carolina 864-574-4775

PORTABLE TRAFFIC SIGNAL PLAN
SR 1151 GREEN RIVER COVE ROAD

DIV. 14 POLK COUNTY

PLAN DATE:	2/26/15	REVIEWED BY:	LDB
PREPARED BY:	WCC	REVIEWED BY:	

SCALE 0 30

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 20119 ENGINEER LLOYD D. BROWN

DocuSigned by: Lloyd DeWayne Brown 4/7/2017
SIGNATURE DATE

SIG. INVENTORY NO.

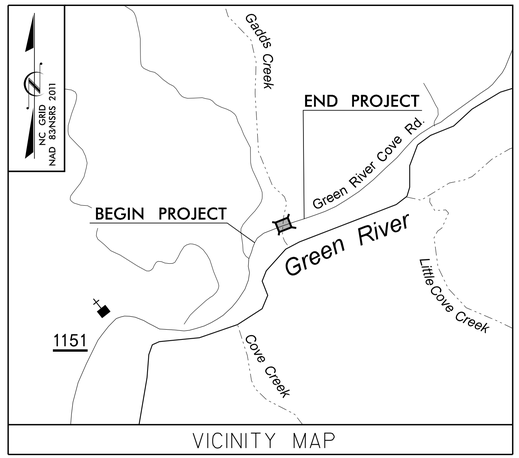
4/7/2017
S:\Traffic\Transportation\31235-13 14AI Polk 189\Traffic\Control\TCP\@D-5114AI_SIG-1.dgn
User:ddavis

4/23/14

PROJECT: 17BP.14.R.142

CONTRACT: DN00122

V&M PROJECT #31235-13
TRANSPORTATION\31235-13\UTILITIES\UO-1.DGN



VICINITY MAP

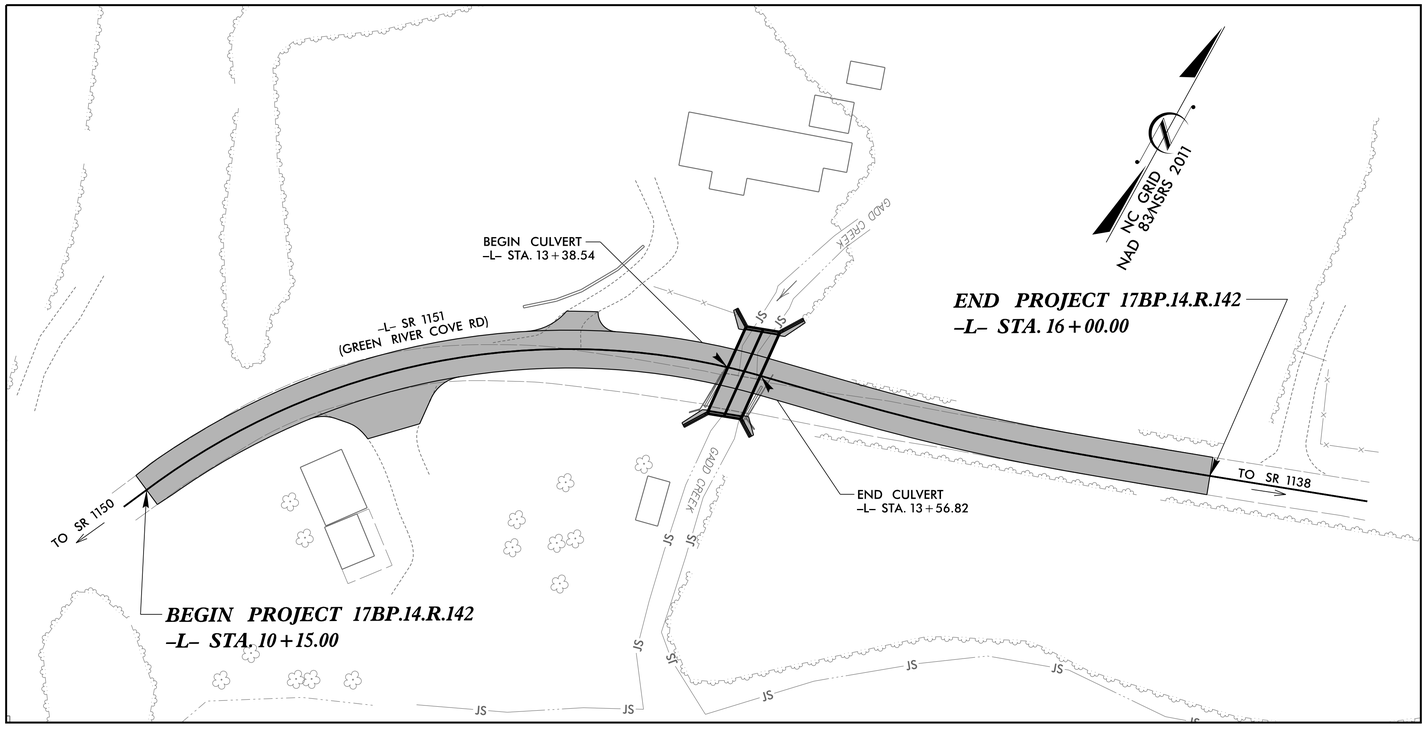
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITIES BY OTHERS PLANS
POLK COUNTY

	SHEET NO.
17BP.14.R.142	UO–1

LOCATION: BRIDGE NO. 740189 OVER GADDS CREEK ON SR 1151 (GREEN RIVER COVE ROAD)

TYPE OF WORK: AERIAL POWER AND UNDERGROUND TELEPHONE



Vaughn & Melton
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Charleston, SC 843·974·5650
Middlesboro, KY 606·248·6600
Charlotte, NC 704·357·0488
Boone, NC 828·355·9933
Atlanta, GA 770·627·3509

GRAPHIC SCALES

30 15 0 30 60
PLANS

INDEX OF SHEETS

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

UTILITY OWNERS ON PROJECT

(1) POWER – DUKE ENERGY

(2) TELEPHONE – TDS TELECOM

PLANS PREPARED BY:

Vaughn & Melton
Consulting Engineers
1318-F PATTON AVE.
Asheville, NC 28806
828·253·2796

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

Roger Worthington, P.E. — *UTILITIES SECTION ENGINEER*
Xxxxx Xxxxx, P.E. — *UTILITIES SQUAD LEADER PROJECT ENGINEER*
Lynn A. Mann, P.G. — *UTILITIES PROJECT DESIGNER*

5/18/15

PROJECT: 17BP.14.R.142

CONTRACT: DN00122

PROJECT REFERENCE NO.	SHEET NO.
17BP.14.R.142	U0-2

UTILITIES BY OTHERS

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

V&M Vaughn & Melton
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828-253-2796
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NC GRID
NAD 83/NSRS 2011

EXISTING ANCHOR IN FRONT OF THE ROCK WALL TO BE REMOVED TO AVOID CONFLICT WITH CONSTRUCTION

NEW PERMANENT POWER POLE & ANCHOR

BEGIN PROJECT 17BP.14.R.142
-L- STA. 10+15

END CULVERT
-L- STA. 13+56.82

BEGIN CULVERT
-L- STA. 13+38.54

RELOCATE EXISTING AREA LIGHT & ANCHOR, EXTEND AERIAL LINE

REMOVE EXISTING AERIAL POWER LINES

END PROJECT 17BP.14.R.142
-L- STA. 16+00

APPROXIMATE LOCATION OF POLE

ROBERT CECIL GILLESPIE
DB 352 PG 1454
DB 184 PG 858

HARDY HUNTLEY
DB 177 PG 1912

DONALD D. PATTIE
DB 345 PG 1754

DFM PROPERTIES, LLC
DB 394 PG 235

JACQUELINE M. GILLESPIE
DB 352 PG 1454
DB 184 PG 858

5 MILES +/- TO SR 1142 HOLBERT COVE ROAD

SR 1151 20' BST

GREEN RIVER COVE ROAD

GREEN RIVER

V&M PROJECT #31235-13
I:\TRANSPORTATION\31235-13\UTILITIES\U0-2.DGN