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09/08/09

CONTRACT: DN01003

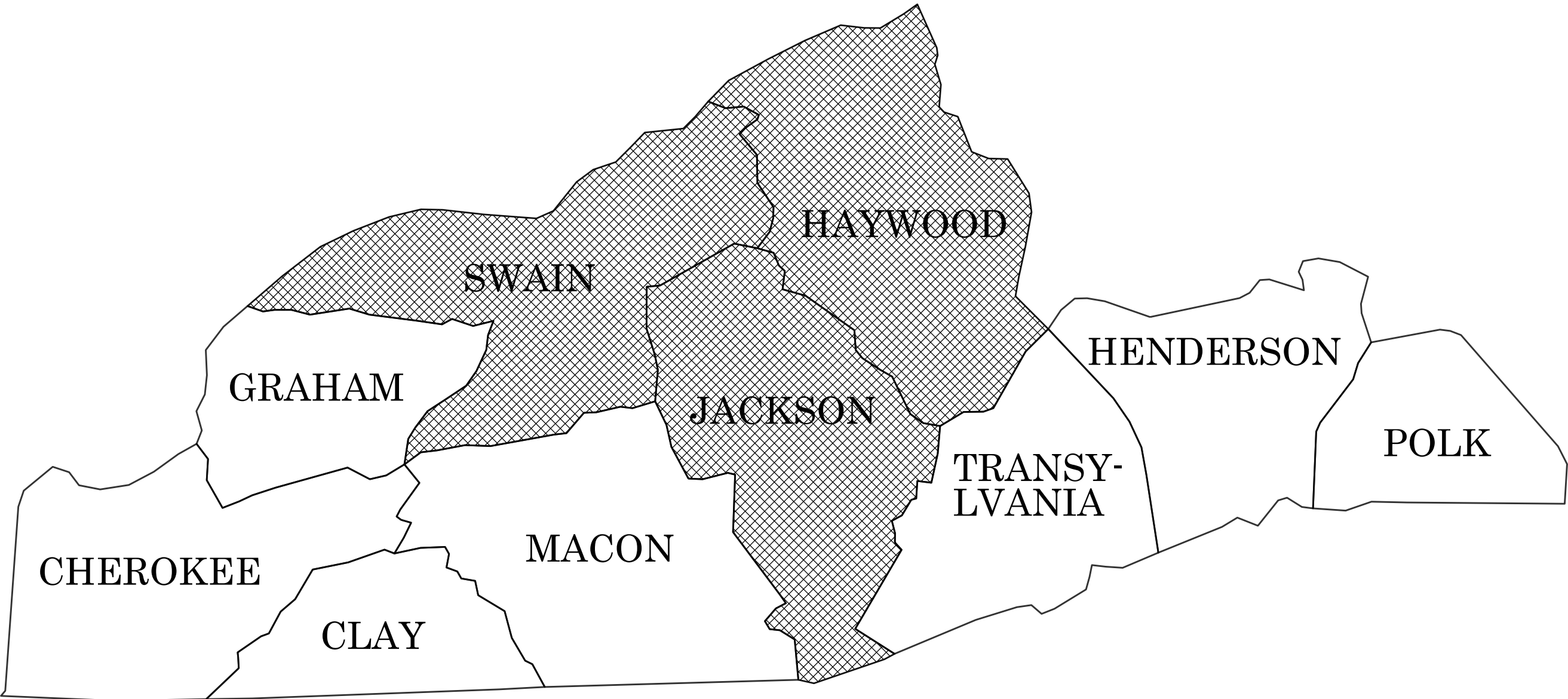
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DISTRICT 2 / DIVISION 14

LOCATION: *VARIOUS LOCATIONS*
ACROSS DISTRICT 2 IN DIVISION 14

TYPE OF WORK: *GUARDRAIL*

INDEX OF SHEETS	
SHEET NUMBER	SHEET
1	TITLE SHEET
2 THRU 3	SS-6014Q
4 THRU 5	SS-6014Z
6 THRU 7	SS-6214E
8 THRU 9	SS-6214F



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	49589	1	10
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
49589.3.1	N/A	CONSTRUCTION	
49846.3.1	N/A	CONSTRUCTION	
50335	N/A	CONSTRUCTION	
50336	N/A	CONSTRUCTION	

Prepared in the Office of:
DIVISION OF HIGHWAYS
253 WEBSTER RD., SYLVA NC, 28779

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
N/A

LETTING DATE:
SEPTEMBER 27, 2022

CHRIS LEE, P.E.
PROJECT ENGINEER

GARRETT B HIGDON, E.I.
PROJECT DESIGN ENGINEER



09/08/09

TIP PROJECT: SS-6014Q

CONTRACT: DN01003

"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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	49589	3	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
49589.3.1	N/A	PE	
49589.2.1	N/A	R/W	
49589.3.1	N/A	CONSTRUCTION	

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS										IMPACT ATTENUATOR TYPE 350.			EXTRA LENGTH GUARDRAIL POSTS (8')			REMARKS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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GENERAL NOTES: 2018 SPECIFICATIONS

GUARDRAIL:

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2018 ROADWAY ENGLISH STANDARD DRAWINGS

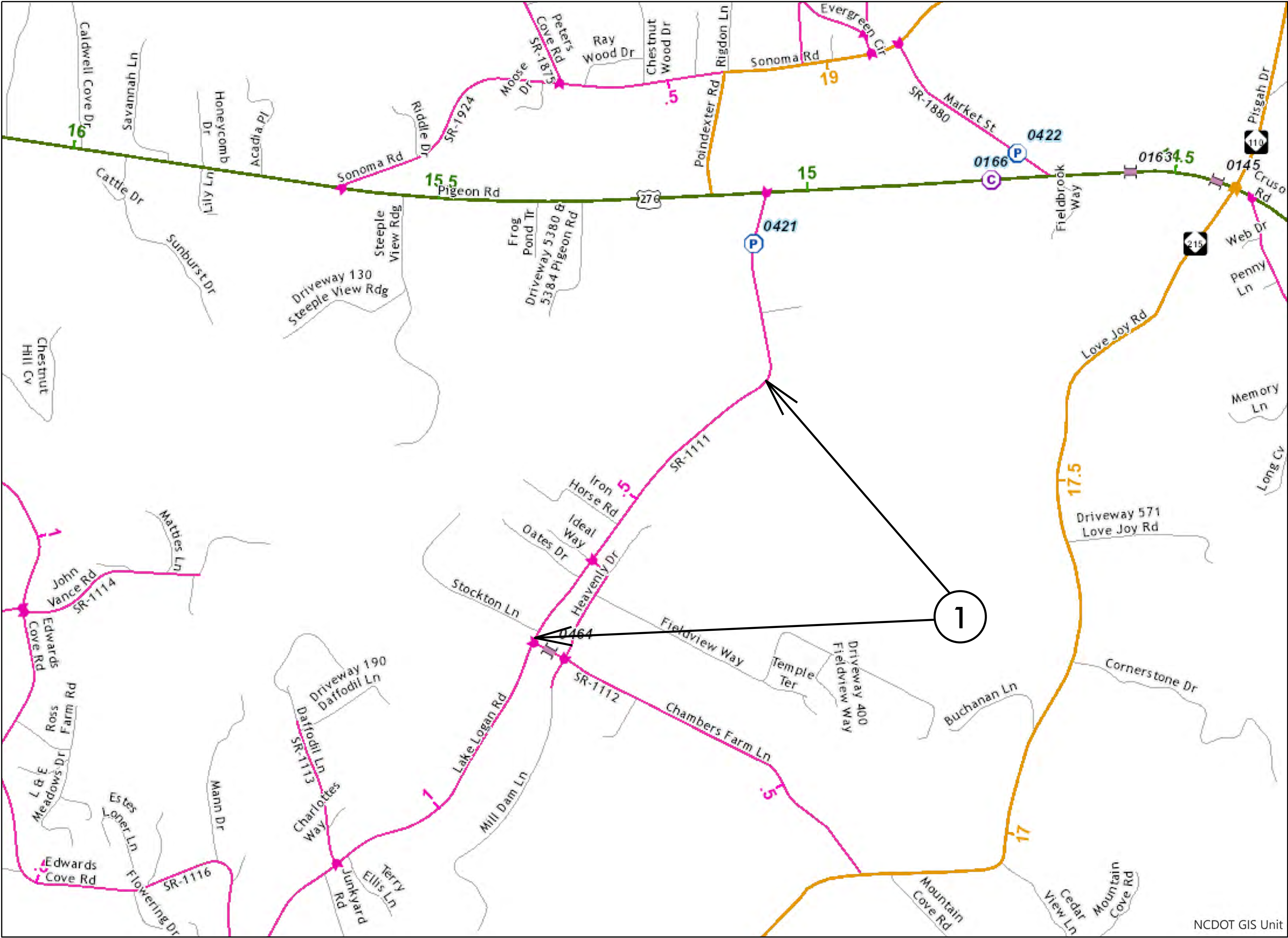
The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch – N. C. Department of Transportation – Raleigh, N. C., Dated January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 8 – INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation
DIVISION 11 – WORK ZONE TRAFFIC CONTROL	
1101.02	Temporary Lane Closures

HAYWOOD COUNTY

LAKE LOGAN ROAD (SR 1111)

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	49846	4	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
49846.1.1	N/A	PE	
49846.2.1	N/A	R/W	
49846.3.1	N/A	CONSTRUCTION	



MAP 1



BEG



END

09/08/09

TIP PROJECT: SS-6014Z

CONTRACT: DN01003

"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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	49846	5	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
49846.1.1	N/A	PE	
49846.2.1	N/A	R/W	
49846.3.1	N/A	CONSTRUCTION	

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS										IMPACT ATTENUATOR TYPE 350			EXTRA LENGTH GUARDRAIL POSTS (8')			REMARKS		
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GREU TL-2												PERMITTED						
																											NO.					G	NG
-L-	13 + 85	38 + 50	LT	2465											3																		
CONTINGENT																																	
SUBTOTAL				2465											3											10			PLACE AS NEEDED				
DEDUCTIONS FOR DRIVEWAYS				30																						10							
DEDUCTIONS FOR GREU				75											3 @ 25' = 75'																		
TOTAL				2360																						10							

GENERAL NOTES: 2018 SPECIFICATIONS

GUARDRAIL:

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2018 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 January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 8 – INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation
DIVISION 11 – WORK ZONE TRAFFIC CONTROL	
1101.02	Temporary Lane Closures

09/08/09

TIP PROJECT: SS-6214E

CONTRACT: DN01003

JACKSON COUNTY

AIRPORT ROAD (SR 1535)

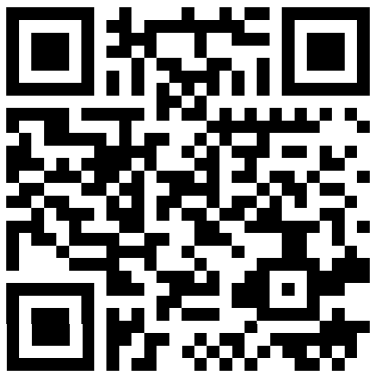
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	50335	6	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50335	N/A	CONSTRUCTION	



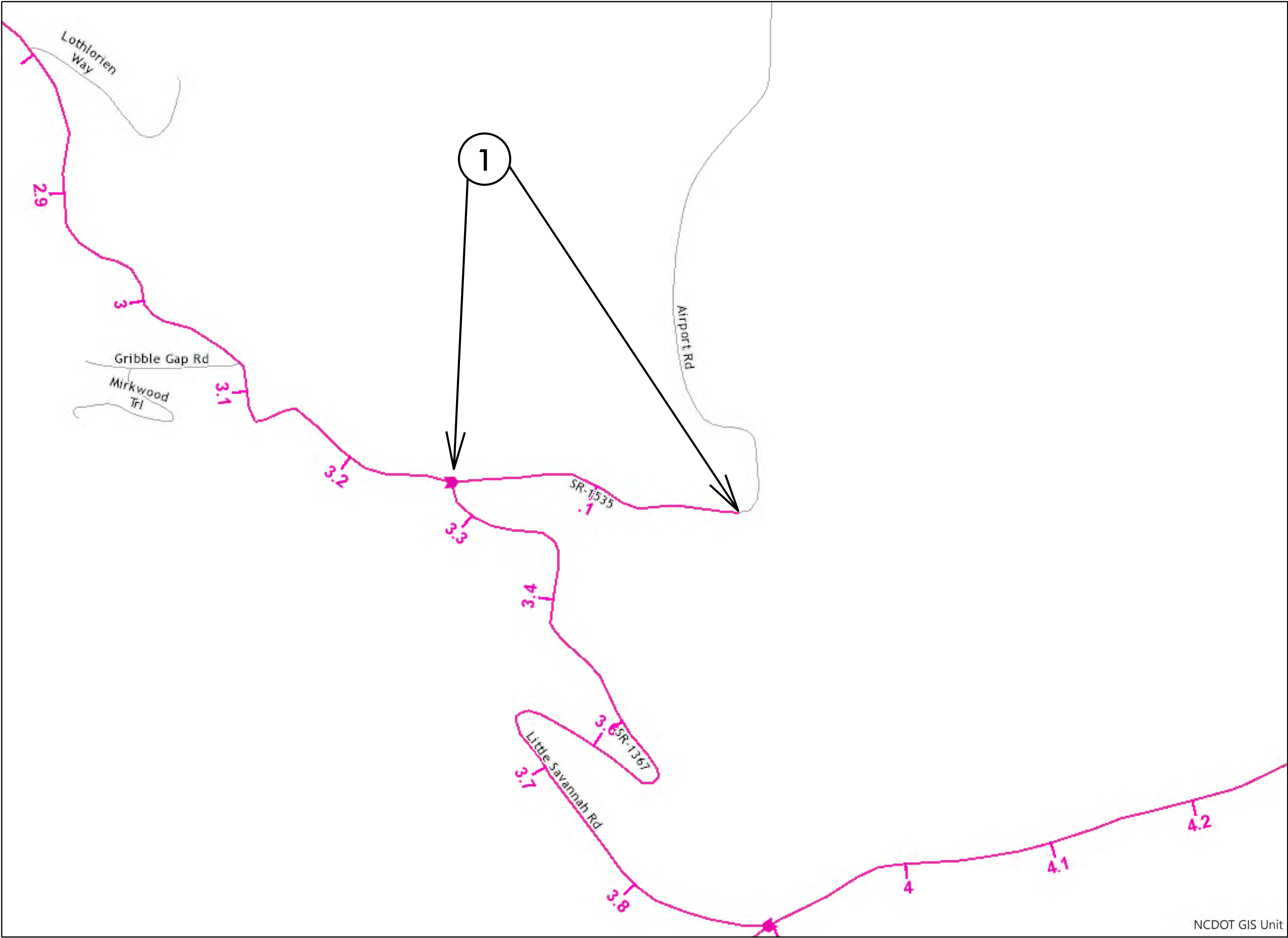
MAP 1



BEG



END



09/08/09

TIP PROJECT: SS-6214E

CONTRACT: DN01003

"N" = DISTANCE FROM EDGE OF LANE TO FACE OF GUARDRAIL.
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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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	50335	7	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50335	N/A	CONSTRUCTION	

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS										IMPACT ATTENUATOR TYPE 350			EXTRA LENGTH GUARDRAIL POSTS (8')			REMARKS			
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GREU TL-3																	PERMITTED		
																																NO.	G	NG
-L-	0+00	13+50	RT	1350											2																			
CONTINGENT																													10			PLACE AS NEEDED		
SUBTOTAL				1350											2														10					
DEDUCTIONS FOR GREU				50											2 @ 25' = 50'																			
TOTAL				1300																								10						

GENERAL NOTES: 2018 SPECIFICATIONS

GUARDRAIL:

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2018 ROADWAY ENGLISH STANDARD DRAWINGS

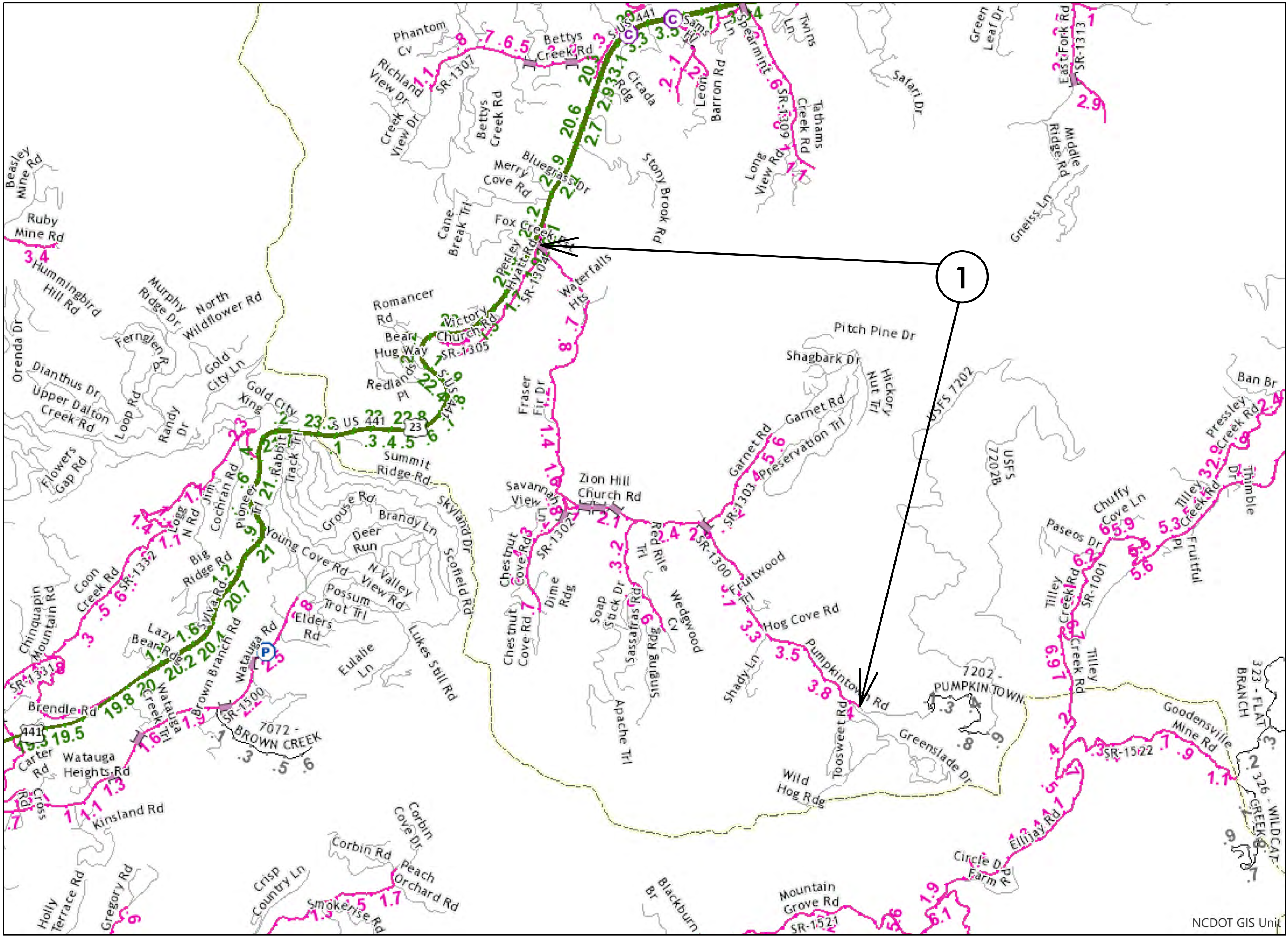
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STD.NO.	TITLE
DIVISION 8 – INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation
DIVISION 11 – WORK ZONE TRAFFIC CONTROL	
1101.02	Temporary Lane Closures

JACKSON COUNTY

PUMPKINTOWN ROAD (SR 1300)

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	50336	8	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50336	N/A	CONSTRUCTION	



MAP 1



BEG



END

09/08/09

TIP PROJECT: SS-6214F

CONTRACT: DN01003

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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

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	50336	9	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	
50336	N/A	CONSTRUCTION	

GUARDRAIL SUMMARY

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM E.O.L.	TOTAL SHOULDER WIDTH	FLARE LENGTH		W		ANCHORS										IMPACT ATTENUATOR TYPE 350			EXTRA LENGTH GUARDRAIL POSTS (8')			REMARKS			
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GREU TL-2																	PERMITTED		
																																NO.	G	NG
-L-	11+00	27+75	RT	1675											2																			
-L-	31+60	47+50	RT	1590											2																			
-L-	50+70	65+50	RT	1480											6																			
-L-	87+10	90+80	RT	370											2																			
-L-	95+60	102+40	RT	680											4																			
-L-	113+00	124+10	LT	1110											4																			
-L-	139+90	150+00	RT	1010											2																			
-L-	162+60	167+40	RT	480											2																			
CONTINGENT																																		
SUBTOTAL				8395											24												25			PLACE AS NEEDED				
DEDUCTIONS FOR GREU				600											24 @ 25' = 600'																			
TOTAL				7795																							25							

GENERAL NOTES: 2018 SPECIFICATIONS

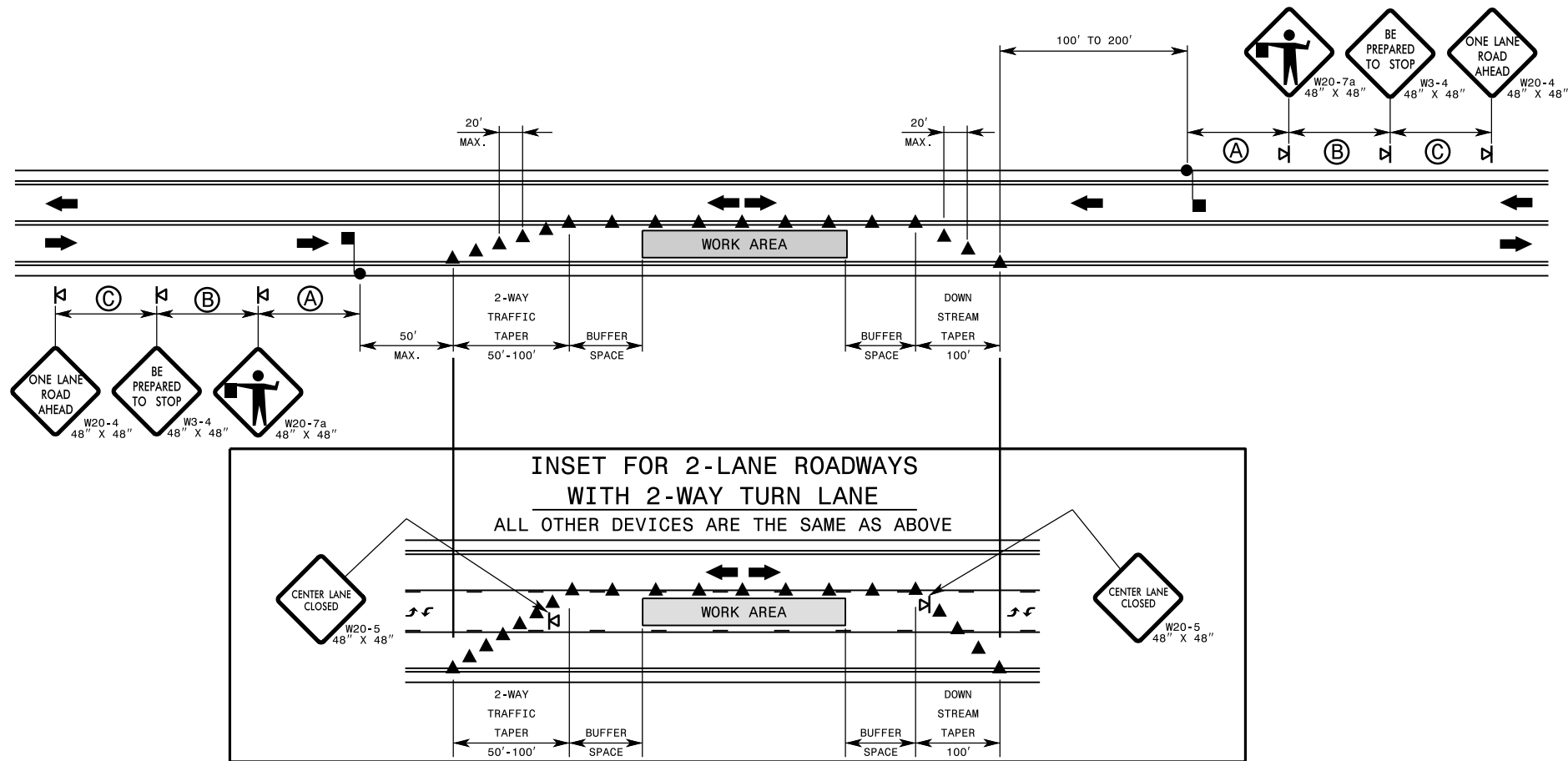
GUARDRAIL:

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2018 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 January, 2018 are applicable to this project and by reference hereby are considered a part of these plans:

- STD.NO. TITLE
- DIVISION 8 – INCIDENTALS
- 862.01 Guardrail Placement
- 862.02 Guardrail Installation
- DIVISION 11 – WORK ZONE TRAFFIC CONTROL
- 1101.02 Temporary Lane Closures



GENERAL NOTES FOR FLAGGING OPERATIONS

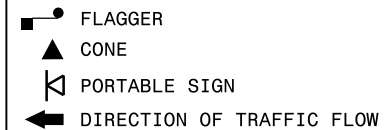
- 1- REFER TO RSD. 1101.11, SHEETS 1 & 4, FOR "L" DISTANCE AND SIGN SPACING.
- 2- INSTALL LANE CLOSURES WITH THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE UPSTREAM SIDE OF TRAFFIC.
- 3- REMOVE LANE CLOSURES AGAINST THE TRAFFIC FLOW, BEGINNING WITH DEVICES ON THE DOWNSTREAM SIDE OF TRAFFIC.
- 4- PLACE CONES THRU THE WORK AREA AT THE MAXIMUM SPACING EQUAL IN FEET TO 2 TIMES THE POSTED SPEED LIMIT.
- 5- EXTEND LANE CLOSURES AT THE BUFFER SPACE SUCH THAT STOPPING SIGHT DISTANCE IS PROVIDED TO THE FLAGGER (REFER TO RSD. 1101.11, SHEET 2).
- 6- DO NOT STOP TRAFFIC IN ANY ONE DIRECTION FOR MORE THAN 5 MINUTES AT A TIME.
- 7- DRUMS OR SKINNY DRUMS MAY BE USED IN LIEU OF CONES. REFER TO RSD. 1180.01 FOR SKINNY DRUM REQUIREMENTS.
- 8- USE FLAGGERS TO CONTROL TRAFFIC AT INTERSECTIONS AFFECTED BY THE LANE CLOSURE. SUPPLEMENT FLAGGERS LOCATED AT INTERSECTIONS WITH FLAGGER AHEAD SIGNS (W20-7a) PLACED APPROXIMATELY 250 FT. IN ADVANCE OF THE FLAGGER. FOR SIGNALIZED INTERSECTIONS PLACE SIGNALS IN THE FLASH MODE AND USE LAW ENFORCEMENT.
- 9- REFER TO THE CURRENT MUTCD FOR FLAGGER CONTROL, REQUIREMENTS, AND PROCEDURES.
- 10- DO NOT EXCEED A 1 MILE LANE CLOSURE LENGTH UNLESS OTHERWISE SHOWN IN THE TMP OR AS DIRECTED BY THE ENGINEER.

- 11- IF VEHICLE QUEUES WILL REACH WITHIN 15' OF EITHER SIDE OF ACTIVE RAILROAD TRACKS, PROVIDE A UNIFORMED LAW ENFORCEMENT OFFICER OR FLAGGER TO PREVENT VEHICLES FROM STOPPING WITHIN THE GRADE CROSSING. PROVIDE OFFICER OR FLAGGER EVEN IF AUTOMATIC WARNING MEASURES ALREADY EXIST.

GENERAL NOTES FOR PILOT CAR OPERATIONS

- 1- USE PILOT CARS WHEN DIRECTED BY THE ENGINEER.
- 2- IF ROADWAY WIDTH IS LESS THAN 22 FEET (EOP TO EOP), CONES MAY NOT BE REQUIRED ALONG WORK AREA, AND AT THE DISCRETION OF THE ENGINEER, CONES MAY BE OMITTED ALONG THE WORK AREA IF USING A PILOT CAR.
- 3- CONES ARE ALWAYS REQUIRED IN THE UPSTREAM AND DOWNSTREAM TAPERS.
- 4- MOUNT SIGN G20-4 "PILOT CAR FOLLOW ME" AT A CONSPICUOUS POSITION ON THE REAR OF THE PILOT VEHICLE.
- 5- DO NOT INSTALL MORE THAN ONE (1) MILE OF LANE CLOSURE, MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
- 6- ADVISE RESIDENTS AND BUSINESSES WITHIN THE LANE CLOSURE LIMITS ABOUT METHODS OF SAFE EGRESS AND INGRESS FROM DRIVEWAYS DURING FLAGGING AND PILOT CAR OPERATIONS.

LEGEND



ROADWAY STANDARD DRAWING FOR

TEMPORARY LANE CLOSURES

2-LANE, 2-WAY ROADWAY-1 LANE CLOSED

1-18

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

SHEET 1 OF 14

1101.02