

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
3	SUMMARY OF QUANTITIES
3-A THRU 3-I	SUMMARY OF GUARDRAIL
4 THRU 16	MAPS
TCP-1 THRU TCP-8	TRAFFIC CONTROL PLANS

2006 ROADWAY STANDARD DRAWINGS

EFF. 07-18-06

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 8 - INCIDENTALS	
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
862.04	Anchoring End of Guardrail - B-77 and B-83 Anchor Units

GENERAL NOTES: 2006 SPECIFICATIONS
 GUARDRAIL: EFFECTIVE: 07-18-06

REVISED: 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.

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF QUANTITIES

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
ROADWAY SUMMARY OF QUANTITIES FOR CONTRACT - C201448

ItemNumber	Sec #	Quantity	Unit	Description
0000100000-N	800	Lump Sum		MOBILIZATION
2724000000-E	857	90	LF	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACED
3000000000-N	SP	1	EA	IMPACT ATTENUATOR UNIT, TYPE 350
3030000000-E	862	14,350	LF	STEEL BM GUARDRAIL
3045000000-E	862	250	LF	STEEL BM GUARDRAIL, SHOP CURVED
3150000000-N	862	66	EA	ADDITIONAL GUARDRAIL POSTS
3195000000-N	862	5	EA	GUARDRAIL ANCHOR UNITS, TYPE AT-1
3210000000-N	862	55	EA	GUARDRAIL ANCHOR UNITS, TYPE CAT-1
3215000000-N	862	20	EA	GUARDRAIL ANCHOR UNITS, TYPE III
3270000000-N	SP	285	EA	GUARDRAIL ANCHOR UNITS, TYPE 350
3285000000-N	SP	59	EA	GUARDRAIL ANCHOR UNITS, TYPE M-350
3317000000-N	862	4	EA	GUARDRAIL ANCHOR UNITS, TYPE B-77
3360000000-E	863	29,360	LF	REMOVE EXISTING GUARDRAIL
4589000000-N	SP	Lump Sum		GENERIC TRAFFIC CONTROL ITEM TRAFFIC CONTROL
5255000000-N	1413	Lump Sum		PORTABLE LIGHTING

COMPUTED BY: TDJ DATE: 5/29/2006
 CHECKED BY: CAW DATE: 5/25/2006

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-A	
F. A. PROJ. NO.			

6/16/99
 "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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS							IMPACT ATTENUATOR TYPE 350		GUARDRAIL TO BE REMOVED	REMARKS		
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE 111	B-77	TYPE III MODIFIED	NO.	PERMITTED				
														G			NG	
1. US 220 in Guilford County - South of Greensboro from Guilford county line to I-40 heading North																		
(1) 4.3 mile from Randolph/Guilford county line to North	NB					1											50'	Replace damaged GRAU - 350
(2) Mile Marker 7.7, Exit 79 SB approach on bridge over Vandalia Rd.	SB	225'				1											225'	Replace BCT-1, Leave Bridge Anchor
(3) Mile Marker 7.7, North bound Trail at structure over Vandalia Rd.	NB	312.5'									1						312.5'	Replace Damaged CAT-1
(4) Mile Marker 8.5, South of I-40 EB on ramp to US 220 SB	SB	25'															25'	Replace Damaged CAT-1
(5) Mile Marker 8.5, South of I-40 off ramp to I-40 EB Exit 81	NB					1					1						50'	Remove BCT - 1 and 12.5' Guard rail
(6) Mile Marker 8.5, Gore Area off at I-40 EB Exit 81	NB	100'											1		X		125'	Remove 2 BCT-1, Protects 2 Lines of Guard Rail
Section 1 Sub-Total		662.5				3		2			1		1				787.5'	
Type GRAU-350 (1) @ 50' each		-50'				(1) Ded.		(2) Ded.										
Type CAT-1 (2) @ 6.25' each		-12.5'																
SECTION 1 TOTAL		600'				3		2			1						787.5'	
2. US 220 in Rockingham County - North of Greensboro from US 421 to NC /VA state line Beginning 7.03 @ Guilford/Rockingham County Line																		
(16) 10.3 mile, Section near SR 1120	NB					1											37.5'	Replace BCT - 1
(17) 10.7 mile, Section near SR 1120	SB					1											37.5'	Replace BCT - 1
(18) 11.8 mile, Section north of SR 1122	SB					1											37.5'	Replace BCT - 1
(19) 12.2 mile, North of SR 2324	NB					1											37.5'	Replace BCT - 1
(20) 12.5 mile, North of SR 2324	NB					1											50'	Replace BCT - 1
(21) 12.6 mile, North of SR 2324	NB					1											37.5'	Replace BCT - 1
(22) 13.2 mile, North of SR 2319	SB					1											37.5'	Replace BCT - 1
(23) 13.8 mile, North of SR 1125	NB					1											37.5'	Replace BCT - 1
(24) 13.9 mile, North of SR 1125	SB					1											37.5'	Replace BCT - 1
(25) 14.7 mile, North of SR 1125	NB					1											37.5'	Replace BCT - 1
(26) 14.8 mile, North of SR 1125	NB					1											37.5'	Replace BCT - 1
(27) 14.9 mile, North of SR 1125	SB					1											37.5'	Replace BCT - 1
(28) 15.5 mile, Interchange at US 220 and NC 704	NB					1											37.5'	Replace BCT - 1
(29) 15.5 mile, Interchange at US 220 and NC 704	MED								4								150'	Replace BCT - 1
(30) 15.5 mile, Interchange at US 220 and NC 704	SB					1											37.5'	Replace BCT - 1
SHEET TOTAL FOR US 220						14			4								687.5'	

01-SEP-2006 14:17 4403_rdu_sum.dgn
 psc/1457

COMPUTED BY: TDJ DATE: 5/9/2006
 CHECKED BY: CAW DATE: 5/25/2006

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-B	
F. A. PROJ. NO.			

"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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS						IMPACT ATTENUATOR TYPE 350			GUARDRAIL TO BE REMOVED	REMARKS	
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE 111	B-77	PERMITTED					
												NO.	G	NG			
(31) 15.9 mile (on ramp)	NB					1										37.5'	Replace BCT - 1
(32) 16.0 mile, On ramp to US 220 from NC 704	NB					1										37.5'	Replace BCT - 1
(33) 16.1 mile	NB					1										37.5'	Replace BCT - 1
(34) 16.2 mile	NB					1										37.5'	Replace BCT - 1
(35) 16.3 mile, On Dan River Bridge	NB					1							1			56.25'	Replace BCT-1 & damaged structure anchor unit
(36) 16.3 mile, On Dan River Bridge	MED								4							150'	Replace BCT - 1 (4)
(37) 16.7 mile, On Dan River Bridge	SB					1										37.5'	Replace BCT - 1
(38) 17.1 mile, North of Dan River	NB					1										37.5'	Replace BCT - 1
(39) 17.2 mile, North of Dan River	SB					1										37.5'	Replace BCT - 1
(40) 17.3 mile, North of Dan River	NB					1										37.5'	Replace BCT - 1
(41) 17.5 mile, North of Dan River	NB					1										37.5'	Replace BCT - 1
(42) 17.7 mile, North of Dan River	SB					1										37.5'	Replace BCT - 1
(43) 18.1 mile, Bridge over US 220 at SR 2150	NB					1										37.5'	Replace BCT - 1
(44) 18.1 mile, Bridge over US 220 at SR 2150	MED								4							150'	Replace BCT - 1 (4)
(45) 18.2 mile, Bridge over US 220 at SR 2150	SB					1										37.5'	Replace BCT - 1
(46) 18.3 mile, Off ramp at NC 135	NB					1										37.5'	Replace BCT - 1
(47) 18.6 mile, Bridge over US 220 at NC 135	NB					1										37.5'	Replace BCT - 1
(48) 18.6 mile, Bridge over US 220 at NC 135	MED								4							150'	Replace BCT - 1 (4)
(49) 18.7 mile, Bridge over US 220 at NC 135	SB					1										37.5'	Replace BCT - 1
(50) 19.3 mile, North of NC 135 at SR 2210	NB					1										37.5'	Replace BCT - 1
(51) 19.8 mile, North of SR 2212	NB					1										37.5'	Replace BCT - 1
(52) 20.3 mile, Bridge over Northern and Western Rail way (approach)	NB					1										37.5'	Replace BCT - 1
(53) 20.5 mile, Bridge over Northern and Western Rail Way	MED								4							150'	Replace BCT - 1 (4)
(54) 20.6 mile, Bridge over Northern and Western Rail Way (approach)	SB					1										37.5'	Replace BCT - 1
(55) 20.8 mile, Bridge at BUS 220	NB								1							37.5'	Replace BCT - 1
(56) 20.8 mile, Bridge at BUS 220	MED								4							150'	Replace BCT - 1 (4)
(57) 20.7 mile, Bridge at BUS 220 SB (approach)	SB					1										37.5'	Replace BCT - 1
(58) 20.7 mile, Bridge at BUS 220 Trail	SB							1								37.5'	Replace Damaged CAT - 1
(59) 21.1 mile, North of BUS 220 On ramp	NB					1										37.5'	Replace BCT - 1
(61) 21.5 mile, North of BUS 220	NB					1			1							50'	Replace BCT -1 and CAT - 1
(62) 21.5 mile, North of BUS 220	SB					1										37.5'	Replace BCT - 1
(60) 21.2 mile, North of BUS 220	SB	25'				1										62.5'	Replace BCT - 1
(63) 21.2 mile, North of BUS 220	SB					1										37.5'	Replace BCT - 1
(65) 22.4 mile, Interchange of US 220 and NC 770	NB					1										37.5'	Replace BCT - 1
(66) 22.4 mile, Interchange of US 220 and NC 770	MED								2							75'	Replace BCT - 1 (2)
(67) 22.5 mile, Interchange of US 220 and NC 770	SB					1										37.5'	Replace BCT - 1
(68) 22.7 mile, North of NC 770	SB					1										37.5'	Replace BCT - 1
(64) 22.3 mile, North of NC 770 (on ramp)	SB					1										37.5'	Replace BCT - 1
(69) 22.9 mile, North of NC 770	NB					1										37.5'	Replace BCT - 1
(70) 23.3 mile, North of NC 770	SB					1										37.5'	Replace BCT - 1
(71) 23.4 mile, North of NC 770	SB					1										37.5'	Replace BCT - 1
(73) 23.7 mile, North of NC 770	SB					1										37.5'	Replace BCT - 1
(72) 23.6 mile, North of NC 770	NB					1										37.5'	Replace BCT - 1
(74) 23.8 mile, North of NC 770	NB					1										37.5'	Replace BCT - 1
(75) 24.4 mile, North of NC 770	SB					1										37.5'	Replace BCT - 1
(76) 24.8 mile, Interchange at US 220 and SR 1360	NB					1										37.5'	Replace BCT - 1
(77) 24.8 mile, Interchange at US 220 and SR 1360	MED								4							150'	Replace BCT - 1 (4)
(78) 24.9 mile, Interchange at US 220 and SR 1360	SB					1										37.5'	Replace BCT - 1
(79) 25.0 mile, Interchange at US 220 and SR 1360 (on ramp)	NB					1										37.5'	Replace BCT - 1
(80) 25.1 mile, Interchange at US 220 and SR 1360	SB					1										37.5'	Replace BCT - 1
(81) 25.2 mile, North of SR 1360	NB					1										37.5'	Replace BCT - 1
SHEET TOTAL		25'				42		2		27		1				2643.75'	

07-SEP-2006 14:17
 d:\val\corr\rected\4403_r54y_sum.dgn
 b1521557

COMPUTED BY: TDJ DATE: 5/25/2006
 CHECKED BY: CAV DATE: 5/25/2006

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-C	
F. A. PROJ. NO.			

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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS							IMPACT ATTENUATOR TYPE 350			GUARDRAIL TO BE REMOVED	REMARKS	
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE III	TYPE III MODIFIED	NO.	PERMITTED					
													G	NG				
(82) 25.3 mile, North of SR 1360	SB					1											37.5'	Replace BCT - 1
(83) 25.3 mile, North of SR 1360	NB					1											37.5'	Replace BCT - 1
(84) 25.4 mile, North of SR 1360	NB					1											37.5'	Replace BCT - 1
(85) 25.7 mile, North of SR 1360	SB					1											37.5'	Replace BCT - 1
(86) 25.9 mile, North of SR 1360	SB					1											37.5'	Replace BCT - 1
(87) 26.0 mile, North of SR 1360	NB					1											37.5'	Replace BCT - 1
(88) 26.1 mile, North of SR 1360	SB					1											37.5'	Replace BCT - 1
(89) 26.2 mile, North of SR 1360	NB					1											37.5'	Replace BCT - 1
(90) 26.3 mile, North of SR 1360	SB					1											37.5'	Replace BCT - 1
(91) 26.4 mile, North of SR 1360	NB					1											37.5'	Replace BCT - 1
(92) 26.5 mile, North of SR 1360	SB					1											37.5'	Replace BCT - 1
(93) 26.5 mile, North of SR 1360	NB					1											37.5'	Replace BCT - 1
(94) 26.6 mile, North of SR 1360	SB					1											37.5'	Replace BCT - 1
(95) 26.8 mile, North of SR 1360	SB					1											37.5'	Replace BCT - 1
(96) 26.9 mile, Bridge over US 220 at Northern and Western Rail Road	NB	100'				1											100'	Replace BCT - 1
(97) 26.9 mile, Bridge over US 220 at Northern and Western Rail Road	MED								4								150'	Replace BCT - 1
(98) 27.0 mile, Bridge over US 220 at Northern and Western Rail Road	SB					1											37.5'	Replace BCT - 1
(99) 27.2 mile, North of Rail Road	SB					1											37.5'	Replace BCT - 1
(100) 27.3 mile, North of Rail Road	NB					1											37.5'	Replace BCT - 1
(101) 27.7 mile, North of Rail Road	NB					1											37.5'	Replace BCT - 1
Sheet Total		100'				19			4								925'	
Section 2 Sub-Total		125'				75			2	35		1					4256.25'	
GRAU-350 (1) @ 50' =		-50'				(1) Deduction												
SECTION 2 TOTAL		75'				75			2	35		1					4256.25'	

07-SEP-2006 14:48 d:\v\p\proj\4403_rdy_sum.dgn

COMPUTED BY: TDI DATE: 5/09/2006
 CHECKED BY: CAW DATE: 5/25/2006

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-D	
F. A. PROJ. NO.			

"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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS						IMPACT ATTENUATOR TYPE 350			GUARDRAIL TO BE REMOVED	REMARKS	
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE 111	B-77	NO.	PERMITTED				
													G	NG			
3. US 29 in Caswell County from North Carolina /Virginia State line heading South, 168.00 Mile Marker at NC /VA state line																	
(1) Mile Marker 167.9	SB					1										37.5'	Replace BCT - 1
(2) Mile Marker 167.3 (on ramp)	SB					1										37.5'	Replace BCT - 1
(3) Mile Marker 167.1	SB					1										37.5'	Replace BCT - 1
(4) Mile Marker 166.3	SB					1										37.5'	Replace BCT-1
(5) Mile Marker 165.8	SB					1										37.5'	Replace BCT - 1
(6) Mile Marker 165.6	SB					1										37.5'	Replace BCT - 1
(8) Mile Marker 164.8 (on ramp)	SB					1										37.5'	Replace BCT - 1
(9) Mile Marker 163.9	SB					1										37.5'	Replace BCT - 1
(7) Mile Marker 164.8 (off ramp)	SB					1										37.5'	Replace BCT - 1
(10) Mile Marker 163.00	SB					1										37.5'	Replace BCT - 1
(11) Mile Marker 162.5	SB					1										37.5'	Replace BCT - 1
Rockingham County																	
(12) Mile Marker 159.7	SB	150'				1										150'	Replace BIC
(13) Mile Marker 159.4	SB	150'				1										150'	Replace BIC
(14) Mile Marker 158.9 (Off ramp to BUS 29)	SB	150'				1										150'	Replace BIC
(15) Mile Marker 157.9	SB	300'				1		1								300'	Replace All
(16) Mile Marker 157.7	SB	150'				1										150'	Replace BIC
(17) Mile Marker 156.9	SB	150'				1										150'	Replace BIC
(18) Mile Marker 154.6	SB	150'				1										150'	Replace BIC
(19) Mile Marker 154.00	SB	150'				1										150'	Replace BIC
(20) Mile Marker 153.1	SB	150'				1										150'	Replace BIC
(21) Mile Marker 152.5	SB	175'				1										175'	Replace BIC
(22) Mile Marker 152.00	SB	150'				1										150'	Replace BIC
(23) Mile Marker 151.7	SB	150'				1										150'	Replace BIC
(24) Mile Marker 151.5	SB	150'				1										150'	Replace BIC
(25) Mile Marker 151.2	SB	150'				1										150'	Replace BIC
(26) Mile Marker 151.00	SB	150'				1										150'	Replace BIC
(27) Mile Marker 150.7	SB	150'				1										150'	Replace BIC
(28) Mile Marker 150.3	SB	150'				1										150'	Replace BIC
(29) Mile Marker 149.8	SB	150'				1										150'	Replace BIC
(30) Mile Marker 148.3	SB	150'				1										150'	Replace BIC
(31) Mile Marker 147.5	SB	150'		10		1										150'	Replace BIC
(32) Mile Marker 145.9	SB	150'				1										150'	Replace BIC
(33) Mile Marker 145.9(NB & SB Trail)	MED	350'				2				2							See Std. 862.01 (175' NB & 175' SB)
(34) Mile Marker 145.5	SB	150'		13		1		1								150'	Replace BIC
(35) Mile Marker 144.8	SB	250'				1										250'	Replace BIC
Guilford County																	
(36) Mile Marker 137.7	SB		50'					1								50'	Replace Shop Curved Guardrail
(37) Mile Marker 137.2	SB					1										37.5'	Replace BCT - 1
(38) Mile Marker 136.7 (near Hicone Rd.)	SB					1										37.5'	Replace BCT - 1
(38A) Mile Marker 136.7 (Hicone Rd. NB Trail & SB Approach)	MED								2							75'	Replace BCT-1 (2)
(39) Mile Marker 136.5	SB					1										37.5'	Replace BCT - 1
(40) Mile Marker 135.4	SB					1				1						37.5'	Replace BCT - 1
(41) Mile Marker 133.00	SB	212.5				1		1								212.5'	Replace All
Sheet Total		4287.5'	50'	23'		41	1	3	2	3						4625'	

07-SEP-2006 14:18 d:\p\proj\4403_rdy_sum.dgn

COMPUTED BY: TDJ DATE: 5/09/2006
 CHECKED BY: CAW DATE: 5/25/2006

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-E	
F. A. PROJ. NO.			

*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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS						IMPACT ATTENUATOR TYPE 350			GUARDRAIL TO BE REMOVED	REMARKS
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE III	B-77	NO.	PERMITTED			
													G	NG		
(42) Mile Marker 132.8 (Exit to Summit Ave LT)	SB					1									37.5'	Replace BCT - 1
(43) Mile Marker 132.8 (Exit to Summit Ave RT)	SB					1									37.5'	Replace BCT - 1
(44) Mile Marker 132.1 (Textile)	SB		50'												50'	Replace Shop Curve
(45) Mile Marker 131.5 (Bessemer)	SB	75'				1									75'	Replace BIC
(46) Mile Marker 131.4 (Wendover Ave.)	SB	150'				1									150'	Replace BCT-1, Place Guardrail @ Face of Curb
(47) Mile Marker 131.1	SB	150'		10		1		1							150'	Replace BCT-1, Place Guardrail @ Face of Curb
(48) Mile Marker 130.6 (R.R. Bridge)	SB	150'				1				1					150'	Attach Guardrail to R.R. Bridge
(49) Mile Marker 129.7	SB	150'				1									150'	Replace BIC
(50) Mile Marker 129.6	SB	150'				1									150'	Replace BIC
(51) Mile Marker 128.8	MED.								1							
(51A) Mile Marker 129.0	SB														37.5'	Replace BCT - 1
3. US 29 from Summit Ave., Mile Marker 133.00, heading North to NC /VA state line.																
Guilford County																
(1) Mile Marker 133.00 (Reference - Summit Ave.)	NB	212.5				1		1							212.5'	Replace BCT - 1 (All New)
(2) Mile Marker 133.3	NB					1									37.5'	Replace BCT - 1
(4) Mile Marker 134.8	NB					1									37.5'	Replace BCT - 1
(5) Mile Marker 135.2	NB								1						37.5'	Replace BCT-1
(5A) Mile Marker 136.6 (near Hicone Rd.)	NB					1									37.5'	Replace BCT - 1
(6) Mile Marker 137.2	NB					1									37.5'	Replace BCT - 1
(7) Mile Marker 137.5	NB					1									37.5'	Replace BCT - 1
(8) Mile Marker 142.6	NB	75'							1						75'	Replace BIC
(9) Mile Marker 144.8	NB	150'				1		1							150'	Replace BIC & CAT-1
(10) Mile Marker 145.2	NB	150'		13		1		1							150'	Replace BIC
(11) Mile Marker 145.3	NB	150'				1		1							150'	Replace BIC
(12) Mile Marker 145.8	NB	150'				1									150'	Replace BIC
(12A) Mile Marker 145.9	NB	150'				1									150'	Replace BIC
(12B) Mile Marker 146.9	NB	150'				1									150'	Replace BIC
(13) Mile Marker 147.3	NB	150'		10		1									150'	Replace BIC
(14) Mile Marker 147.9	NB	150'				1									150'	Replace BIC
(14A) Mile Marker 148.8 (on Off Ramp)	NB					1									37.5'	Replace BCT-1
(15) Mile Marker 150.1	NB	150'				1									150'	Replace BIC
(16) Mile Marker 150.6	NB	300'				1		1							300'	Replace BIC Trail and Approach
(17) Mile Marker 151.2	NB	150'				1									150'	Replace BIC
(18) Mile Marker 151.7	NB	150'				1									150'	Replace BIC
(19) Mile Marker 153.1	NB	150'				1									150'	Replace BIC
(20) Mile Marker 153.4	NB	150'				1									150'	Replace BIC
(21) Mile Marker 154.2	NB	150'				1									150'	Replace BIC
(22) Mile Marker 155.2	NB	150'				1									150'	Replace BIC
(23) Mile Marker 155.6	NB	150'				1									150'	Replace BIC
(24) Mile Marker 156.00	NB	150'				1									150'	Replace BIC
(25) Mile Marker 157.2	NB	150'				1									150'	Replace BIC
(26) Mile Marker 157.4	NB	150'				1									150'	Replace BIC
(27) Mile Marker 158.	NB	300'				1		1							300'	Replace BIC (2)
(28) Mile Marker 158.4	NB	150'				1									150'	Replace BIC
(29) Mile Marker 159.1	NB	162.5'				1		1							162.5'	Replace TES & BIC
(30) Mile Marker 159.2	NB	150'				1									150'	Replace BIC
(31) Mile Marker 160.00	NB	150'				1									150'	Replace BIC
(32) Mile Marker 160.6	NB	150'				1									150'	Replace BIC
(34) Mile Marker 164.1	NB					1									37.5'	Replace BCT - 1
(35) Mile Marker 164.2	NB					1		1							50'	Replace BCT - 1 & TES
(36) Mile Marker 164.5	NB					1									37.5'	Replace BCT - 1
(37) Mile Marker 167.7	NB					1									37.5'	Replace BCT - 1
(38) Mile Marker 167.2 (Off Ramp)	NB								1						37.5'	Replace BCT - 1
(39) Mile Marker 129.5	NB	150'				1									150'	Replace BIC
(40) Mile Marker 130.6 (R.R. Bridge)	NB	150'				1				1					150'	Attach Guardrail to R.R. Bridge
(41) Mile Marker 131.2 (Sullivan St.)	NB	100'		10		1		1							100'	Place Guardrail @ Face of Curb
(42) Mile Marker 131.4 (Bessemer)	NB	150'				1		1							150'	Replace BCT-1, Place Guardrail @ Face of Curb
(43) Mile Marker 131.6 (Wendover Ave.)	NB	150'				1		1							150'	Replace BCT-1, Place Guardrail @ Face of Curb
(44) Mile Marker 132.1 (Textile)	NB								1						37.5'	Replace BCT - 1
(45) Mile Marker 132.4	NB	150'				1		1							150'	Replace BCT-1, Place Guardrail @ Face of Curb
(46) Mile Marker 132.6 (On Ramp to Phillips Ave.)	NB					1									37.5'	Replace BCT - 1
Sheet Total		6175'	50'	43		52		13	5	2					6875.0'	
Section 3 Sub-Total		10462.5'	100'	66		93	1	16	7	5					11500'	
Type GRAU-350 (64) @ 50' =		-3200.0'														
CAT-1 (15) @ 6.25' =		-93.75'						(64) Deduction		(15) Deduction	(1) Deduction					
M-350 (1) @ 37.5' =		-37.5'									(4) Deduction					
TYPE III (4) @ 18.75' =		-75.0'														
SECTION 3 TOTAL		7056.25'	100'	66		93	1	16	7	5					11500'	

6/16/99
 07-SEP-2006 14:48
 ct:\ra\contractor\4403\rdly_sum.dgn
 d:\ra\contractor\4403\rdly_sum.dgn

COMPUTED BY: TDI DATE: 5/2/2006
 CHECKED BY: CAW DATE: 5/25/2006

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-F	
F. A. PROJ. NO.			

"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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS						IMPACT ATTENUATOR TYPE 350			GAURDRAIL TO BE REMOVED	REMARKS	
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE 111	B-77	NO.	PERMITTED				
													G	NG			
4. US 421 in Guilford County - South of Greensboro to Guilford/Randolph County line (Heading South)																	
0.00 Mile Marker at Intersection of I-40 and US 421																	
(1) Mile Marker 0.2, South of Alamance Church Road	SB															12.5'	Replace Damaged CAT-1
(2) Mile Marker 0.6 South of Alamance Church Road	SB	200'				1		1								200'	Replace BIC
(3) Mile Marker 1.3, South of Pleasant Garden Road	SB	300'				1										200'	Replace BIC
(4) Mile Marker 1.7, South of Pleasant Garden Road	SB	225'				1		1								200'	Replace BIC
(5) Mile Marker 2.3, Bridge over US 421 at Wiley Lewis Road	MED	350'							3							112.5'	Replace TES (3)
(6) Mile Marker 2.3, Bridge over US 421 at Wiley Lewis Road	SB							1								12.5'	Replace Damaged CAT-1
(7) Mile Marker 2.7, South of Wiley Lewis Road	SB	200'				1		1								200'	Replace BIC
(8) Mile Marker 3.9 South of New 85	SB							1								12.5'	Replace TES
(9) Mile Marker 4.3, South of Harmont Drive	SB	200'				1		1								200'	Replace BIC & TES
(10) Mile Marker 4.7, South of Neelley Road	SB	200'				1		1								200'	Replace BIC & TES
(11) Mile Marker 6.1 At Mindeen Road	SB					1		1								100'	Replace TES
(12) Mile Marker 6.3, North of Hagan Stone Park Road	SB	200'				1		1								200'	Replace BIC
(13) Mile Marker 7.4 North of Dual Bridge over creek (approach)	SB	200'				1				1						200'	Replace BIC
(14) Mile Marker 7.4, North of Dual Bridge over creek (Trail)	SB							1		1						30.75'	Replace TES & Bridge Anchor
(15) Mile Marker 7.4, North of Dual Bridge over creek	MED								2							75'	Replace TES (2)
(16) Mile Marker 7.8, South of Dual Bridge	SB	200'				1		1								200'	Replace BIC & TES
(17) Mile Marker 8.4, North of Monnett Road	SB	200'				1		1								200'	Replace BIC
(18) Mile Marker 9.4, Bridge over US 421 on Monnett Road	MED								4							150'	Replace BCT-1 (4)
(19) Mile Marker 9.4, Bridge over US 421 on Monnett Road	SB	150'				1		1								150'	Replace BIC and BCT-1
(20) Mile Marker 9.6, South of Monnett Road	SB					1		1								50'	Replace BCT-1 & CAT-1
Mile Marker 0.00 at US 421 and Guilford /Randolph County Line (Heading North)																	
(21) Mile Marker 1.6 South of Monnett Road	NB					1		1								50'	Replace BCT-1 & TES
(22) Mile Marker 2.1, Bridge over US 421 on Monnett Road	NB	100'				1		1								100'	Replace BIC and TES
(23) Mile Marker 2.4, North of Monnett	NB					1		1								50'	Replace TES (2)
(24) Mile Marker 2.8 South of Cade Road	NB					1		1								50'	Replace TES (2)
(25) Mile Marker 3.6 North of Dual Bridge	NB	200'				1		1								200'	Replace BIC & TES
(26) Mile Marker 3.8, South of Dual Bridge over Creek (approach)	NB	200'				1				1						200'	Replace BIC & Bridge Anchor
(27) Mile Marker 3.8, South of Dual Bridge over Creek	NB							1		1						30.75'	Replace TES & Bridge Anchor
(28) Mile Marker 4.1	NB	200'				1		1								200'	Replace BIC & TES
(29) Mile Marker 4.9, North of Hagan-Stone Park Rd	NB					1		1								50'	Replace TES (2)
(30) Mile Marker 5.3	NB	200'				1		1								200'	Replace BIC & TES
(31) Mile Marker 7.00, North of Harmont Drive	NB	200'				1		1								200'	Replace BIC & TES
(32) Mile Marker 7.3, South of New 85	NB					1		1								50'	Replace TES (2)
(33) Mile Marker 9.0, South of New 85	NB					1		1								12.5'	Replace TES
(34) Mile Marker 9.2, Bridge over US 421 at Wiley Lewis Road	NB	100'				1		1								100'	Replace BIC & TES
(35) Mile Marker 9.7, North of Edgement Road	NB	200'				1		1								200.00'	Replace BIC & TES
(36) Mile Marker 10.1 South of Pleasant Garden Rd.	NB	200'				1		1								200.00'	Replace BIC & TES
(37) Mile Marker 10.7 South of Alamance Church Road	NB	200'				1		1								200.00'	Replace BIC & TES
Section 4 Sub-Total		4425'				28		32	9	4						4799.0'	
GRAU-350 (21) @ 50' =		-1050'					(21) Deduction										
CAT-1(18) @ 6.25' =		-112.5'						(18) Deduction	(3) Deduction	(2) Deduction							
M-350 (3) @ 37.5' =		-112.5'															
TYPE III (2) @ 18.75' =		-37.5'															
SECTION 4 TOTAL		3112.5				28		32	9	4						4799.0'	

07-SEP-2006 14:48
 d:\vol\correc\4403_rdy_sum.dgn
 8/16/99

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-G	
F. A. PROJ. NO.			

"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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS						IMPACT ATTENUATOR TYPE 350			GUARDRAIL TO BE REMOVED	REMARKS	
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE III	B-77	NO.					
												G	PERMITTED	NG			
5. US 158 in Rockingham County - from US 29 to Caswell/Person County Line																	
(1) 0.00 Mile, Bridge over US 29 on US 158 (approach)	EB					1										50'	Replace TES
(2) 0.00 Mile, Bridge over US 29 on US 158 (approach)	WB					1										50'	Replace TES
(3) 0.1 mile, East of off ramp from US 29	EB	100'				1		1								100'	Replace TES
(4) 0.1 mile, East of on ramp from US 29	WB	100'				1										100'	Replace BIC
(6) 6.3 mile, Bridge over Hogans Creek (approach)	EB	150'				1						1				168.25'	Place BIC & Bridge Anchor
(7) 6.3 mile, Bridge over Hogans Creek (Trail)	WB											1				18.25'	Place Bridge Anchor
(8) 6.3 mile, Bridge over Hogans Creek (Trail)	EB											1				18.25'	Place Bridge Anchor
(9) 6.3 mile, Bridge over Hogans Creek (approach)	WB	150'				1						1				168.25'	Place Bridge Anchor
Caswell County																	
0.00 Mile at Intersection of US 158 and NC 86																	
(15) 2.9 mile from Junction US 158 and NC 86 (approach)	EB	200'				1										150'	Replace BIC
(16) 2.9 mile from Junction of US 158 and NC 86 (Trail)	EB	150'				1										150'	Replace BIC
(17) 2.9 mile from Junction of US 158 and NC 86 (approach)	WB	150'				1										150'	Replace BIC
(18) 2.9 mile from Junction of US 158 and NC 86 (Trail)	WB		50'							1						56.25'	Replace Shop Curve & AT-1
(19) 3.3 mile, Bridge over Country Line Creek (approach)	EB	150'				1						1				168.25'	Replace BIC & Bridge Anchor
(20) 3.3 mile, Bridge over Country Line Creek (Trail)	WB	150'				1						1				168.25'	Replace BIC & Bridge Anchor
(22) 3.3 mile, Bridge over Country Line Creek (approach)	WB	50'				1						1				100'	Replace Shop Curve & Bridge Anchor
(23) 3.3 mile Bridge over Country Line Creek (Trail)	EB	150'				1						1				168.25'	Replace BIC & Bridge Anchor
(24) 3.8 mile from Junction of US 158 and NC 86	EB	300'				2										300'	Replace BIC (2)
(25) 3.8 mile from Junction of US 158 and NC 86	WB	260'				2										260'	Replace BIC (2), All New
(26) 3.9 mile from Junction US 158 and NC 86	EB	150'				2										187.5'	Replace BIC and BCT - 1
(27) 3.9 mile from junction of US 158 and NC 86	WB	200'				2										200'	Replace BIC & Rem Shop Curved
(28) 4.00 mile from Junction of US 158 and NC 86	EB	400'				2										400'	Replace BIC (2)
(29) 4.00 mile from Junction of US 158 and NC 86	WB	400'				2										400'	Replace BIC (2)
(30) 4.2 mile from Junction of US 158 and NC 86	EB	300'				4										300'	Replace BIC (2) & Shop Curve (2)
(31) 4.2 mile from Junction of US 158 and NC 86	WB	150'				2										150'	Rep BIC, Rem & Reset Grau 350 on Approach
(32) 4.3 mile from Junction of US 158 and NC 86 @ Cobb Rd.	EB					2										100'	Replace BIC & Shop Curve
(33) 4.7 mile from Junction of US 158 and NC 86	EB	700'				2										700'	All New, Move to 9' from EP
(34) 5.00 mile from Junction of US 158 and NC 86	WB	300'				2										300'	Replace BIC (2)
(35) 7.8 mile from Junction of US 158 and NC 86	EB					2										75'	Remove BCT - 1
(36) 7.8 mile from Junction of US 158 and NC 86	WB					2										75'	Remove BCT - 1
Section 5 Sub-Total		4660'	50'			41	1	1				8				5231.5'	
GRAU-350 (33) @ 50' =		-1650.0'				(33) Deduction		(1) Deduction				(6) Deduction					
CAT-1 (1) @ 6.25' =		-6.25'															
Type III (6) @ 18.25' =		-109.5'															
SECTION 5 TOTAL		2894.25'	50'			41	1	1				8				5231.5'	

COMPUTED BY: TDJ DATE: 5/25/2006
 CHECKED BY: CAW DATE: 5/25/2006

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-H	
F. A. PROJ. NO.			

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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS						IMPACT ATTENUATOR TYPE 350			GUARDRAIL TO BE REMOVED	REMARKS	
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE 111	B-77	NO.	PERMITTED				
													G	NG			
6. US 15/501 in Orange County from I-40 to Orange/Chatham County																	
(1) 0.00 Mile from I-40, bridge over on I-40 (approach)	SB					1										37.5'	Replace BCT-1
(2, 3) 1.6 mile from South of I-40, Franklin Street bridge over 15-501, needs column protection and guardrail	LT RT	212.5' 212.5'			45' 45'	1 1											Column Protection, All New Column Protection, All New
(4) 2.00 mile from I-40, Intersection of Elliot and US 15/501	NB	25'				1										37.5'	Replace BCT - 1
(5) 2.5 mile from I-40, Intersection of Estes Drive and US 15/501	SB		50'				1									56.25'	Replace Shop Curve & AT-1
(6) 2.5 mile from I-40, Intersection of Estes Drive and US 15/501	NB					1										37.5'	Replace BCT - 1
(7) 2.7 mile from I-40	SB					1										37.5'	Replace BCT - 1
(8) 3.6 mile from I-40, Dual bridge over Raleigh Road	SB					1		1								37.5'	Replace BCT - 1
(9) 3.6 mile from I-40, Dual bridge over Raleigh Road	MED								4							150'	Replace BCT-1
(10) 3.6 mile from I-40, Dual bridge over Raleigh Road	NB					1										37.5'	Replace BCT - 1
(11) 3.8 mile from I-40, Off ramp on US 15/501 to Raleigh Road	NB					1										37.5'	Replace BCT - 1
(12) 3.9 mile from I-40	NB	150'				1										150'	Replace BIC
(13) 4.5 mile from I-40, North of Manning Drive	SB															50'	Replace BCT-1
(14) 4.6 mile from I-40, North of Manning Drive	NB	25'	50'				1									81.25'	Replace Shop Curve & AT-1
(15) 4.8 mile from I-40	NB					1										37.5'	Replace BCT - 1
(16) 5.4 mile from I-40	NB	150'				1										150'	Replace BIC
(17) 5.4 mile from I-40	SB					1										37.5'	Replace BCT - 1
(18) 5.6 mile from I-40, Sign support	MED								3							112.5'	Replace BCT - 1 (3)
(19) 5.6 mile from I-40, off ramp to NC 54 left	SB					1										37.5'	Replace BCT - 1
(20) 5.8 mile from I-40, bridge over NC 54	NB	62.5'				1										62.5'	Replace BCT - 1
(21) 5.8 mile from I-40, On ramp to US 15/501-NC 54	NB	62.5'				1										62.5'	Replace BCT - 1
(22) 6.00 mile from I-40, bridge over Morgan Creek	NB									1						18.75'	Replace Bridge Anchor
Section 6 Sub-Total		900'	100'		90'	16	2	1	7	1	2					1268.75'	
GRAU-350 (7) @ 50' =		-350'				(7) Deduction					(2) Deduction						
B-77 (2) @ 18.75' =		-37.5'															
TOTAL		512.5'	100'		90'	16	2	1	7	1	2					1268.75'	

6/16/99
 07-SEP-2006 14:19
 d:\n\correction\4403\4403_sgm.dgn
 4403

COMPUTED BY: TDJ DATE: 5/22/2006
 CHECKED BY: CAW DATE: 5/25/2006

STATE OF NORTH CAROLINA
 DIVISION OF HIGHWAYS

STATE	PROJECT NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-4403	3-I	
F. A. PROJ. NO.			

"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
 NB = NORTH BOUND
 SB = SOUTH BOUND
 MED = MEDIAN
 BIC = BURY IN CUT

GUARDRAIL SUMMARY

DESCRIPTION	LOCATION	LENGTH				ANCHORS							IMPACT ATTENUATOR TYPE 350			GUARDRAIL TO BE REMOVED	REMARKS	
		STRAIGHT	SHOP CURVED	ADDITIONAL GUARDRAIL POSTS	PRECAST REINFORCED CONCRETE BARRIER, SINGLE FACE	GRAU 350	AT - 1	CAT - 1	M - 350	TYPE III	B-77	TYPE III MODIFIED	PERMITTED					
													NO.	G	NG			
7. NC 68 in Guilford County - Heading South beginning at I-40, mile marker 0.00																		
(1) 1.4 mile from I-40 (at Millwood School Road)	SB					1	1										50'	Replace TES
(2) 3.2 mile from I-40 (at Penny Road)	SB																175'	Guardrail Not Needed
(3) 3.2 mile from I-40 (at Penny Road)	NB	150'				1		1									150'	Replace BIC & CAT-1
(4) 5.2 mile from I-40 (Over creek bridge, approach)	SB					1					1						68.25'	Replace TES & Bridge Anchor
(5) 5.2 mile from I-40 (Over creek bridge, approach)	NB					1					1						68.25'	Replace TES & Bridge Anchor
(6) 5.9 mile from I-40 - Bridge over US 311 by pass (approach)	NB & SB					2											100'	Replace BCT - 1 (2)
Section 7 Sub-Total		150'				6	1	1			2						611.5'	
GRAU-350 (1) @ 50' each		-50'				(1) Deduction		(1) Deduction										
cat-1 (1) @ 6.25' each		-6.25'																
SECTION 7 TOTAL		93.75'				6	1	1			2						611.5'	
8. US 311 in Guilford County - Heading South beginning at Forsyth/Guilford County Line, mile marker 0.00																		
(1A) 0.4 mile from County Line (on ramp from business US 311)	NB					1											37.5'	Replace BCT - 1
(1) 0.5 mile from County Line	SB					1											37.5'	Replace BCT - 1
(2) 0.7 mile from County Line	SB					1											37.5'	Replace BCT - 1
(3) 0.8 mile from County Line	NB					1											37.5'	Replace BCT - 1
(4) 0.9 mile from County Line	SB					1											37.5'	Replace BCT - 1
(5) 1.0 mile from County Line	NB					1											37.5'	Replace BCT - 1
(6) 1.2 mile from County Line (off ramp to US 311 Business)	NB					1											37.5'	Replace BCT - 1
(7) 1.3 mile from County Line	SB					1											37.5'	Replace BCT - 1
(8) 1.4 mile from County Line	MED.					1											37.5'	Replace BCT - 1
(9) 1.5 mile from County Line	NB & MED.					2											75'	Replace BCT - 1 (2)
(10) 1.6 mile from County Line	SB					1											37.5'	Replace BCT - 1
(11) 1.9 mile from County Line	NB					1											37.5'	Replace BCT - 1
(12) 2.1 mile from County Line	SB					1											37.5'	Replace BCT - 1
(13) 2.3 mile from County Line	SB					1											37.5'	Replace BCT - 1
(14) 2.3 mile from County Line	NB					1											37.5'	Replace BCT - 1
(15) 2.3 mile from County Line (off ramp to Johnson St.)	NB					2											75'	Replace BCT - 1 (2)
(16) 2.5 mile from County Line	NB					1											37.5'	Replace BCT - 1
(17) 2.5 mile from County Line	SB					1											37.5'	Replace BCT - 1
(18) 2.7 mile from County Line	NB					1											37.5'	Replace BCT - 1
(19) 2.8 mile from County Line	SB					1											37.5'	Replace BCT - 1
(20) 2.9 mile from County Line	SB					1											37.5'	Replace BCT - 1
(21) 3.0 mile from County Line	SB								1								37.5'	Replace BCT - 1
SECTION 7 TOTAL						23			1								900'	
GRAND TOTAL		14,344.25'	250'	66	90'	285	5	55	59	20	4	1					29,354.5'	
SAY		14,350'	250'	66	90'	285	5	55	59	20	4	1					29,360'	

6/18/99
07 SEP 2006 14:20
d:\p51\caw\caw\p51\67
h:\p51\caw\caw\p51\67