RALPH WHITEHEAD ASSOCIATES
CONSULTING ENGINEERS
P.O. BOX 35624
CHARLOTTE, NORTH CAROLINA 28235

COMPUTED BY: TMT DATE: 05/24/05
CHECKED BY: SMK DATE:

PROJECT REFERENCE NO.	SHEET NO.
37613, ETC.	3

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

GUARDRAIL SUMMARY

"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.

SURVEY LINE	BEG. STA.	END STA.	LOCATION	LENGTH			WARRANT POINT		"N" DIST. FROM EOL	TOTAL SHOUL. WIDTH	FLARE LENGTH		W		ANCHORS								IMPACT ATTENUATOR TYPE 350			SINGLE FACED PRECAST CONCRETE BARRIER STD. 857.01			REMARKS
				STRAIGHT	SHOP CURVED	DOUBLE FACED	APPROACH END	TRAILING END			APPROACH END	TRAILING END	APPROACH END	TRAILING END	GRAU-350	TYPE III	AT-1						EA	G	NG				
MAP #2																													
- L -	23+25.00	32+25.00	LT	900.00			23+25.00	32+25.00	8.0	11.0	50.0		1.0		2														
- L -	22+25.00	32+25.00	RT	1000.00			32+25.00	22+25.00	8.0	11.0	50.0		1.0		2														
MAP #3																													
- L -	10+00.00	16+75.00	LT	675.00			10+00.00	16+75.00	8.0	11.0	50.0		1.0		2														CULVERT
- L -	10+75.00	16+75.00	RT	600.00			16+75.00	10+75.00	8.0	11.0	50.0		1.0		2														CULVERT
- L -	23+75.00	28+50.00	LT	475.00			23+75.00	28+50.00	8.0	11.0	50.0		1.0		2														CULVERT
- L -	23+75.00	29+25.00	RT	550.00			29+25.00	23+75.00	8.0	11.0	50.0		1.0		2														CULVERT
MAP #4																													
- L -	12+25.00	17+75.00	LT	550.00			12+25.00	17+75.00	8.0	11.0	50.0		1.0		2														
- Y3 -	11+00.00	11+75.00	LT		75.00		11+00.00	11+75.00	8.0	11.0	50.0		1.0		1														
- L -	35+00.00	40+25.00	LT	525.00			35+00.00	40+25.00	8.0	11.0	50.0		1.0		1														
- Y4 -	10+30.00	10+88.00	LT		81.25		10+30.00	10+88.00	8.0	11.0	50.0		1.0				1												
- L -	35+62.50	40+25.00	RT	462.50			40+25.00	35+62.50	8.0	11.0	50.0		1.0		1														
MAP #5																													
- L -	10+00.00	11+08.00	LT	87.50	25.00		10+00.00	11+08.00	2.5	5.5	0					1	1												BRIDGE
- L -	10+00.00	11+00.00	RT	100.00			11+00.00	10+00.00	1.5	4.5	BR				1	1													BRIDGE
- L -	14+04.00	17+79.00	RT	375.00			17+79.00	14+04.00	7.0	10.0	50.0		1.0		2														CULVERT
- L -	28+25.00	31+25.00	RT	300.00			31+25.00	28+25.00	7.0	10.0	50.0		1.0		2														CULVERT
MAP #7																													
- L -	7+10.50	8+48.00	LT	137.50			7+10.50	8+48.00	1.0	4.0	BR				1	1													BRIDGE
- L -	5+48.00	8+48.00	RT	300.00			8+48.00	5+48.00	2.0	5.0	50.0		1.0		1	1													BRIDGE
- L -	10+00.00	13+00.00	LT	300.00			10+00.00	13+00.00	3.0	6.0	50.0		1.0		1	1													BRIDGE
- L -	10+00.00	11+37.50	RT	137.50			11+37.50	10+00.00	3.0	6.0	BR				1	1													BRIDGE
- L -	54+40.00	61+15.00	LT	675.00			54+40.00	61+15.00	8.0	11.0	50.0		1.0		2														CULVERT
- L -	54+34.00	61+21.50	RT	687.5			61+21.50	54+34.00	8.0	11.0	50.0		1.0		2														CULVERT
																													UNDERPASS
MAP #9																													
- L -	13+75.00	16+25.00	LT	250.00			13+75.00	16+25.00	8.0	11.0	50.0		1.0		1														CULVERT
- Y -	11+90.00	12+24.00	RT		50.00		12+24.00	11+90.00	8.0	11.0	0						1												CULVERT
- L -	14+30.00	19+30.00	RT	500.00			19+30.00	14+30.00	8.0	11.0	50.0		1.0		1	1													BRIDGE
- L -	17+84.50	19+22.00	LT	137.50			17+84.50	19+22.00	1.8	4.8	BR				1	1													BRIDGE
- L -	21+02.00	25+64.50	LT	462.50			21+02.00	25+64.50	8.0	11.0	50.0		1.0		1	1													BRIDGE
- L -	21+08.50	26+21.00	RT	512.50			26+21.00	21+09.00	8.0	11.0	BR				1	1													BRIDGE
MAP #11																													
- L -	10+00.00	15+75.00	RT	575.00			15+75.00	10+00.00	8.0	11.0	50.0		1.0		2														CULVERT
- L -	10+75.00	15+25.00	LT	450.00			10+75.00	15+25.00	8.0	11.0	50.0		1.0		2														CULVERT
- L -	29+63.00	31+38.00	RT	137.50	87.5		31+38.00	29+63.00	8.0	11.0	50.0		1.0		1		1												CULVERT
- L -	29+96.50	32+23.00	LT	162.50	87.5		29+96.50	32+23.00	8.0	11.0	50.0		1.0		1		1												CULVERT
- L -	34+60.00	37+60.00	RT	300.00			37+60.00	34+60.00	8.0	11.0	50.0		1.0		2														CULVERT
- L -	38+02.00	40+77.00	RT	275.00			40+77.00	38+02.00	8.0	11.0	50.0		1.0		2														
- L -	53+75.00	58+25.00	RT	450.00			58+25.00	53+75.00	8.0	11.0	50.0		1.0		2														CULVERT
SUBTOTAL				13050.00			TOTAL								47	10	5												
	LESS ANCHOR DEDUCTIONS:																												
	GRAU-350	47@50.00=		-2350.00																									
	TYPEIII	10@18.75=		-187.50																									
	AT-1	5@6.25=		-31.25																									
			TOTAL	10481.25																									
			SAY	10512 FT																									