COMPUTED BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
17BP.8.R.119	3B-1

SUMMARY OF EARTHWORK

IN CUBIC YARDS

STATION	STATION	UNCL. EXCAV.	UNDERCUT	EMBANK. +%	BORROW	WASTE
–L– 15+30	18+53.88	60	325	833	773	325
	SUBTOTAL	60	325	833	773	325
–L– 19+26.13	23+15	22	632	1,565	1,543	632
	SUBTOTAL	22	632	1,565	1,543	632
	SUBTOTAL	82	957	2,398	2,316	957
TOTAL		82	957	2,398	2,316	957
MATERIAL FOR SHOULDER CONSTRUCTION				265	265	
LESS SELECT GRANULAR MATERIAL				–708	–708	
LESS CLASS A RIP RAP				–367	–367	
ADDITITONAL UNDERCUT			400	480	480	400
PROJECT TOTAL		82	1,357	2,068	1,986	1,357
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					99	
GRAND TOTALS:		82	1,357	2,068	2,085	1,357
SAY:		100			2,100	

SHALLOW UNDERCUT EXCAVATION CONTINGENCY PER GEOTECH REPORT = 100 CY
SELECT GRANULAR MATERIAL BACKFILL + CONTINGENCY PER GEOTECH REPORT = 708 CY + 200 CY = 908 CY
CLASS IV SUBGRADE MATERIAL CONTINGENCY PER GEOTECH REPORT = 100 TONS
CLASS A RIP RAP BACKFILL = 520 TONS
GEOTEXTILE FOR SOIL STABILIZATION CONTINGENCY PER GEOTECH REPORT = 400 SY

Earthwork quantities are calculated by the Roadway Design Unit. These earthwork quantities are based in part on subsurface data provided by the Geotechnical Engineering Unit.

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD^2
L	17+90	18+52	CL	138
L	19+10	19+70	CL	133
			TOTAL:	271
			SAY:	280

SHOULDER BERM GUTTER SUMMARY

SURVEY LINE	STATION	STATION	LENGTH
L (LT SIDE)	18+25	18+43	13.0
L (RT SIDE)	18+25	18+43	13.0
		TOTAL:	26.0
		SAY:	40

"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 CONCRETE BARRIER	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	M-350	TYPE III	CAT-1	VI MOD	BIC	AT-1	EA	G	NG				
L	17+61.25	18+55.00	LT	93.75				18+55				50		1			1		1											
L	17+61.25	18+55.00	RT	93.25			18+55				50		1				1		1											
L	19+25.00	20+68.25	LT	143.75			19+75				50		1				1		1											
L	19+25.00	20+68.25	RT	143.75				19+75	4	7		50		1			1		1											
		SUBTOTAL		475.00																										
		LESS ANCHOR DEDUCTIONS																												
		GRAU-350 4 @ 50'		–150.00																										
		TYPE III 4 @ 18.75'		–75.00																										
		TOTAL		250.00													4		4											
		SAY		250.00			5 ADDITIONAL GUARDRAIL POSTS										4		4											