

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: A-0009CC

COUNTY: Graham

DATE: 10/12/2022

ROCK SWELL = 25% COMPILED BY: SGM

SHEET ___ OF ___ SHEETS

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +15%		ROCK	SUITABLE	UNSUIT.	TOTAL
-L- 414+50.00	-L- 444+50.00	22,650	4,395			18,255	1,381	1,105		1,105		3,290	18,255		21,545
Retaining Wall #27				560										560	560
-DR3- 10+20.00	-DR3- 11+72.03	4,055				4,055							4,055		4,055
	SUBTOTAL 1	26,705	4,395	560		22,310	1,381	1,105		1,105		3,290	22,310	560	26,160
-L- 444+50.00	-L- 474+19.52	13,476	587			12,889	2,143	587	1,409	2,208			11,268		11,268
	SUBTOTAL 2	13,476	587			12,889	2,143	587	1,409	2,208			11,268		11,268
-Y2- 12+60.00	-Y2- 40+00.00	90,331	3,445			86,886	21,994	3,445	17,688	23,786			66,545		66,545
Retaining Wall #30				2,850										2,850	2,850
	SUBTOTAL 3	90,331	3,445	2,850		86,886	21,994	3,445	17,688	23,786			66,545	2,850	69,395
-Y2- 40+00.00	-Y2- 70+00.00	24,372	848			23,524	54,562	848	53,502	62,375	38,003				
Retaining Wall #32				8,150										8,150	8,150
-DR4- 10+12.13	-DR4- 11+10.00	57				57	3,435		3,435	3,950	3,893				
	SUBTOTAL 4	24,429	848	8,150		23,581	57,997	848	56,937	66,325	41,896			8,150	8,150
-Y2- 70+00.00	-Y2- 90+00.00	11,189	1,015			10,174	5,534	1,015	4,265	5,920			5,269		5,269
	SUBTOTAL 5	11,189	1,015			10,174	5,534	1,015	4,265	5,920			5,269		5,269
TOTAL		166,130	10,290	11,560		155,840	89,049	7,000	80,299	99,344	41,896	3,290	105,392	11,560	120,242
UNSUITABLE WASTE (PER GEOTECH)														1,000	-1,000
LOSS DUE TO CLEARING & GRUBBING															-7,000
ADDITIONAL UNDERCUT (PER GEOTECH)							2,300							2,300	2,300
ADDITIONAL UNDERCUT (PER CFI)							3,150							3,150	3,150
HARD ROCK WASTE TO REPLACE BORROW									3,290	-3,290		-3,290	-3,290		-3,290
ADJUST ROCK SWELL										-823		-823			
ELIMINATE EARTH SHRINKAGE FACTOR													-5,465	-5,465	
EARTH WASTE TO REPLACE BORROW												-32,318	-32,318		-32,318
GRAND TOTAL		159,130	10,290	17,010	1,000	147,840	89,049	10,290	76,186	93,056			65,074	18,010	83,084
SAY		161,000		17,010											

NOTE: EARTHWORK QUANTITIES ARE CALCULATED BY TGS ENGINEERS. THESE EARTHWORK QUANTITIES ARE BASED IN PART ON SUBSURFACE DATA PROVIDED BY THE GEOTECHNICAL ENGINEERING UNIT.

EST. DDE = 1,870 CUBIC YARDS

SELECT GRANULAR MATERIAL, CLASS III = 6,670 CY

EST. SHALLOW UNDERCUT = 1,200 CY

PER GEOTECH RECOMMENDATION, ESTIMATED 22,600 CUBIC YARDS OF UNDERCUT FOR TOE SHEAR KEY.

PAVEMENT STRUCTURE VOLUME: 4,150 CY