

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: 17BP.14.R.204

COUNTY: Jackson

DATE: 8/25/2023

ROCK SWELL = 20%

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- 17+00.00	-L- 23+71.00	1,912				1,912	1,705		1,705	1,961	49				
-DR2- 10+35.00	-DR2- 11+39.82	241				241	11		11	13			228		228
	SUBTOTAL 1	2,153				2,153	1,716		1,716	1,974	49		228		228
-L- 25+45.00	-L- 35+00.00	4,082	3,108			974	1,517	1,264		1,264		1,844	974		2,818
-DR- 10+12.00	-DR- 13+55.00	13,475	13,461			14	305	254		254		13,207	14		13,221
	SUBTOTAL 2	17,557	16,569			988	1,822	1,518		1,518		15,051	988		16,039
	TOTAL	19,710	16,569			3,141	3,538	1,518	1,716	3,492	49	15,051	1,216		16,267
	LOSS DUE TO CLEARING & GRUBBING	-120				-120							-120		-120
	HARD ROCK WASTE TO REPLACE BORROW							36	-36		-36	-36			-36
	ADJUST FOR ROCK SWELL								-7	-7	-7				
	ELIMINATE EARTH SHRINKAGE FACTOR SINCE NOW ROCK									-6	-6				
	HARD ROCK WASTE TO REPLACE EMBANKMENT							1,394	-1,394			-1,394	1,394		
	ADJUST FOR ROCK SWELL								-279	-279			279		279
	ELIMINATE EARTH SHRINKAGE FACTOR SINCE NOW ROCK									-251			251		251
	APPLY ROCK SWELL FACTOR TO PERMANENTLY WASTED HARD ROCK											2,724			2,724
	APPLY EARTH SHRINKAGE FACTOR TO PERMANENTLY WASTED HARD ROCK BECAUSE IT IS UNCOMPACTED											2,452			2,452
	PROJECT TOTAL	19,590	16,569			3,021	3,538	2,948	0	2,949	0	18,797	3,020		21,817
	GRAND TOTAL	19,590	16,569			3,021	3,538	2,948		2,949		18,797	3,020		21,817
	SAY	20,500													

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

SHOULDER BORROW = 340 CUBIC YARDS
 SELECT GRANULAR MATERIAL = 400 CUBIC YARDS
 EST. SHALLOW UNDERCUT = 100 CUBIC YARDS
 PER GEOTECH RECOMMENDATION, ESTIMATED 450 CUBIC YARDS OF UNDERCUT TO BE USED IN THE DISCRETION OF THE RESIDENT ENGINEER.