

Earthwork Balance Sheet

Volumes in Cubic Yards

PROJECT: B-5989

COUNTY: Madison

DATE: 9/28/2022

COMPILED BY: JAS

SHEET 1 OF 1 SHEETS

STATION	STATION	EXCAVATION					EMBANKMENT				BORROW	WASTE			
		TOTAL UNCLASS.	ROCK	UNDERCUT	UNSUIT. UNCLASS.	SUITABLE UNCLASS.	TOTAL	ROCK	EARTH	EMBANK. +15%		ROCK	SUITABLE	UNSUIT.	TOTAL
-DET- STA. 11+69.41	-DET- STA. 13+30.00	6				6	1,056		1,056	1,214	1,208				
DETOUR BRIDGE															
-DET- STA. 14+75.00	-DET- STA. 14+89.00	5				5	1		1	2				3	3
	SUBTOTAL	11				11	1,057		1,057	1,216	1,208			3	3
-L- STA. 11+50.00	-L- STA. 15+53.00	13				13	169		169	194	181				
MAINLINE BRIDGE															
-L- STA. 16+83.00	-L- STA. 19+50.00	9				9	288		288	331	322				
	SUBTOTAL	22				22	457		457	525	503				
-Y- STA. 11+25.00	-Y- STA. 13+22.25	1				1	41		41	47	46				
	SUBTOTAL	1				1	41		41	47	46				
	DETOUR REMOVAL														
-DET- STA 11+69.41	-DET- STA 13+30.00	1,283				1,283								1,283	1,283
-DET- STA 14+75.00	-DET- STA 14+89.00	1				1	3		3	4	3				
	SUBTOTAL	1,284				1,284	3		3	4	3			1,286	1,286
	TOTAL	1,318				1,318	1,558		1,558	1,792	1,760			1,286	1,286
MATERIAL FOR SHOULDER CONSTRUCTION															
LOSS DUE TO CLEARING & GRUBBING															
ADDITIONAL UNDERCUT															
ROCK WASTE TO REPLACE BORROW															
ADJUST FOR ROCK WASTE															
WASTE IN LIEU OF BORROW											-3			-3	-3
	PROJECT TOTAL	1,318				1,318	1,558		1,558	1,792	1,757			1,283	1,283
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT											88				
	GRAND TOTAL	1,318				1,318	1,558		1,558	1,792	1,845			1,283	1,283
	SAY	1,400									1,900				

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

UNDERCUT EXCAVATION (CONTINGENCY) = 450 CUBIC YARDS

BALANCE EARTHWORK CHECK			
TOTAL UNCL. EXC:	1,318	EMB + %:	1,792
UNDERCUT EXC:		TOTAL WASTE:	1,286
BORROW EXC:	1,760		
TOTAL:	3,078	TOTAL:	3,078

PROJECT NO.: B-5989

SHEET OF

COMPUTED BY: DYP

CHECKED BY: JAS

SECTION: 226

GRADING (LUMP SUM)

(THIS COMPUTATION SHEET APPLIES ONLY TO PROJECTS WHICH HAVE BEEN PREDETERMINED TO USE THIS PAY ITEM. SEE ROADWAY DESIGN MANUAL, PART I, 11-6)

ITEM	QUANTITIES	UNIT	UNIT PRICE	PRICE
CLEARING AND GRUBBING	<u>0.10</u>	ACRES	\$ 15,000.00	<u>\$ 1,500.00</u>
UNCLASSIFIED EXCAVATION	<u>1,400</u>	YD ³	\$ 10.00	<u>\$ 14,000.00</u>
BORROW EXCAVATION	<u>1,900</u>	YD ³	\$ 10.00	<u>\$ 19,000.00</u>
SHOULDER BORROW	<u> </u>	YD ³	\$ 10.00	<u>\$ -</u>
FINE GRADING	<u>675</u>	YD ²	\$ 4.00	<u>\$ 2,700.00</u>
REMOVAL OF EXISTING ASPHALT PAVEMENT	<u>950</u>	YD ²	\$ 6.00	<u>\$ 5,700.00</u>
REMOVAL OF EXISTING CONCRETE PAVEMENT	<u> </u>	YD ²	\$ 15.00	<u>\$ -</u>
BREAKING OF EXISTING ASPHALT PAVEMENT	<u> </u>	YD ²	\$ 4.00	<u>\$ -</u>
BREAKING OF EXISTING CONCRETE PAVEMENT	<u> </u>	YD ²	\$ 8.00	<u>\$ -</u>
			TOTAL	<u>\$ 42,900.00</u>

IF THE SUMMATION OF THE ITEM AMOUNTS IS \$1,000,000.00 OR LESS, THEN THE GRADING MAY BE LET ON A "LUMP SUM" BASIS WITH CONCURRENCE OF THE DIVISION ENGINEER. IF THE COST OF ANY ONE OF THE ITEMS, EXCLUDING CLEARING AND GRUBBING AND FINE GRADING, IS 50% OR MORE OF THE TOTAL COST CALCULATED, THEN THAT ITEM SHALL BE INCLUDED AS AN INDIVIDUAL ITEM WITH THE OTHER ITEMS BEING DONE ON A "LUMP SUM GRADING" BASIS. A SPECIAL PROVISION WILL BE NEEDED IN THIS CASE AND THE PAY ITEM "GRADING" SHOULD BE INDICATED AS A "SP" IN THE ESTIMATE. IF THE SUM OF THE LUMP SUM ITEMS AMOUNTS EXCEEDS \$1,000,000.00 OR IS 25% MORE OF THE TOTAL COST OF THE PROJECT, THE PROJECT SHALL CONTAIN THE INDIVIDUAL ITEMS, IT WILL BE NECESSARY TO CALCULATE AND SHOW THE PAVEMENT STRUCTURE VOLUME ON THE SUMMARY OF EARTHWORK.

OTHER CONSIDERATIONS FOR LUMP SUM GRADING MAY UTILIZE A DOLLAR LIMIT. FOR EXAMPLE 3R PROJECTS WITH "TRENCHING & WIDENING" AND MINOR GRADING SHOULD BE CONSIDERED WHEN USE OF CROSS-SECTIONS FOR EARTHWORK BY THE RESIDENT ENGINEER IS NOT PRACTICAL. WHEN APPLYING LUMP SUM GRADING TO THESE SPECIAL APPLICATIONS, APPROVAL BY THE ASSISTANT STATE ROADWAY DESIGN ENGINEER AND PROPOSALS AND CONTRACTS SECTION ENGINEER IS REQUIRED ON A PROJECT-BY-PROJECT BASIS.

