

STRUCTURE ESTIMATED QUANTITIES

Retaining Wall No. 2

MSE Wall Below SUM-77-0927R Forward Abutment

**SUM-77/277/224-VARIOUS
PID No. 106002**

Summit County, Ohio

Prepared For:

**The Ohio Department of Transportation
District 4**



**520 South Main Street, Suite 2531
Akron, Ohio 44311
(330) 572-2100
www.gpdgroup.com**

January 18, 2021



Client: ODOT District 4
PID No.: 106002
Subject: MSE Wall 2 Estimated Quantities
Final Tracings

Job No.: 2017258
Sheet No.: 1 Of 1
Made By: DJC Date: 1/14/2021
Chk'd By: DGN Date: 1/15/2021

ITEM 203 - GRANULAR MATERIAL, TYPE B

Plan area = 449.00 sf
Depth = 10.00 ft ==> weighted average

Volume = 4,490 cf

Total = 167 cy

ITEM 509 - EPOXY COATED REINFORCING STEEL

Total from reinforcing steel lists = 13,478 lb ==> see rebar list

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ITEM 509 - NO. 5 GFRP DEFORMED BARS

Total from reinforcing steel lists = 669 ft ==> see rebar list

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ITEM 509 - NO. 6 GFRP DEFORMED BARS

Total from reinforcing steel lists = 1,925 ft ==> see rebar list

Total = 1,925 ft

ITEM 511 - CLASS QC2 CONCRETE, MISC.: PARAPET INCLUDING MOMENT SLAB

Moment slab area = 14.42 sf
Moment slab length = 166.97 ft

Volume = 2,408 cf

Total = 90 cy

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

Moment slab perimeter = 8.06 ft
MSE wall face area = 2009.50 sf
Coping top / bottom length = 1.21 ft
Moment slab length = 166.97 ft
Coping length = 262.60 ft
Back of coping area = 31.05 sf

Moment slab area = 1,346 sf
MSE wall area = 2,010 sf
Coping area = 349 sf

Total = 412 sy

ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER

Height = 2.00 ft
Length = 154.00 ft
Moment Slab Area = 14.42 sf

Total = 322 sf

ITEM 840 - MECHANICALLY STABILIZED EARTH WALL

Face area = 3,109 sf

Total = 3,109 sf

ITEM 840 - WALL EXCAVATION

Area	Plan Area (sf)	Exist. El.	Excavation El.	Volume (cf)
1	115	1043.5	1033	1,208
2	167	1045.1	1030.5	2,438
3	217.3	1047	1028	4,129
4	712.6	1047.3	1025.5	15,535
5	853.1	1046	1025.5	17,489
6	365	1044.9	1028	6,169
7	488	1044.5	1030.5	6,832
8	412	1044	1033	4,532
9	380	1043.4	1035.5	3,002
10	266	1043	1038	1,330

Volume = 62,662 cf

Total = 2,321 cy

ITEM 840 - FOUNDATION PREPARATION

Plan area = 3976.00 sf

Total = 442 sy

ITEM 840 - SELECT GRANULAR BACKFILL

Area	Plan Area (sf)	Depth (ft)	Volume (cf)
1	92	8.5	782
2	145	12.8	1,856
3	194.8	13	2,532
4	639	13.5	8,627
5	763.1	22	16,788
6	320	18.5	5,920
7	421	15	6,315
8	345	12.5	4,313
9	313	9	2,817
10	217	5.7	1,237

Volume = 51,187 cf

Total = 1,896 cy

ITEM 840 - NATURAL SOIL

Plan area = 495.00 sf
Depth = 2.00 ft
Volume = 990 cf
Total = 37 cy

ITEM 840 - 6" DRAINAGE PIPE, PERFORATED

Length = 500.00 ft
Total = 500 ft

ITEM 840 - 6" DRAINAGE PIPE, NON-PERFORATED

Length = 20.00 ft
Total = 20 ft

ITEM 840 - CONCRETE COPING

Length = 262.60 ft
Total = 263 ft

ITEM 840 - ON-SITE ASSISTANCE

Time = 5 days
Total = 5 days

ITEM 840 - SGB INSPECTION AND COMPACTION TESTING

Total = \$10,000 LS