

**MED-18-12.99**

**RETAINING WALL NO. 2**

**Medina County**

**PID No. 92953**

**WALL ESTIMATED QUANTITIES  
Final Tracing Submittal**

for

**Ohio Department of Transportation – District 3**

Prepared by:



520 South Main Street  
Suite 2531  
Akron, Ohio 44311  
(330) 572-2100

June 28, 2020

ESTIMATED QUANTITIES



**GPD GROUP**  
Glaus, Pyle, Schomer, Burns & Dellaven, Inc.

Job MEO-18-12.99 - RETAINING WALL NO. 2  
Sheet No. 1 of \_\_\_\_\_  
Calculated by RFV Date 6/4/18  
Checked by DJC Date 6/7/18

ITEM 503 - UNCLASSIFIED EXCAVATION

CADD AREA BELOW EXISTING GROUND @ FACE OF WALL =  $307 \text{ ft}^2$   
" " " " " @ BACK " " =  $619 \text{ ft}^2$

APPROXIMATE THICKNESS OF EXCAVATION FOR WALL CONSTRUCTION =  $4.0'$

$\therefore$  TOTAL FOR ITEM =  $\frac{1}{2} \times (307 \text{ ft}^2 + 619 \text{ ft}^2) \times 4.0' \div 27 = 68.59 \text{ CY} \Rightarrow$  SAY 69 CY

ITEM 507 - STEEL PILES, MISC: HP 14x73

• EMBEDMENT DEPTH + HEIGHT ABOVE SHAFTS  
EMBED

TOTAL =  $12.0' \times 14 + (8.2' + 9.6' + 10.9' + 11.8' + 3 \times 13.3' + 3 \times 12.5' + 11.7' + 9.7' + 2 \times 7.8')$   
=  $322.9'$   $\Rightarrow$  SAY 325 FT.

ITEM 509 - EPOXY COATED REINFORCING STEEL

FROM REINFORCING STEEL LIST IN PLANS = 6378 LB

ITEM 511 - CLASS QC2 CONCRETE, SUBSTRUCTURE

• CONCRETE COPING  $\rightarrow$  LENGTH

TOTAL =  $2.5833' \times 1.50' \times 78.167' \div 27 = 11.22 \text{ CY} \Rightarrow$  SAY 12 CY

ITEM 511 - CLASS QC1 CONCRETE, MISC: CAST-IN-PLACE CONCRETE FACING, AS PER PLAN

CADD AREA OF FACING =  $736.3 \text{ ft}^2$   $\therefore$  TOTAL FOR ITEM =  $736.3 \text{ ft}^2 \times (10'/12) \div 27$   
=  $22.7 \text{ CY} \Rightarrow$  SAY 23 CY

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

CADD AREA BELOW COPING AND ABOVE FINISHED GROUND =  $518.25 \text{ ft}^2$   
COPING PERIMETER =  $1.5' + 2.5833' + 1.5' + 0.17' = 5.75'$

$\therefore$  TOTAL FOR ITEM =  $[518.25 \text{ ft}^2 + 5.75' \times 78.167'] \div 9 = 107.55 \text{ SY} \Rightarrow$  SAY 110 SY

ESTIMATED QUANTITIES



**GPD GROUP**  
Glaus, Pyle, Schomer, Burris & DeHaven, Inc.

Job MED-18-12.99 - RETAINING WALL NO. 2  
Sheet No. 2 of \_\_\_\_\_  
Calculated by RFV Date 6/4/18  
Checked by DJC Date 6/7/18

ITEM 512 - TYPE 2 WATERPROOFING

CADD AREA OF 3.0' WIDE STRIP @ STEPPED EXPANSION JOINT =  $32.5 \text{ sq}'$   
 $\therefore$  TOTAL FOR ITEM =  $32.5 \text{ sq}' / 9 = 3.61 \text{ SY} \Rightarrow$  SAY 4 SY

ITEM 518 - STRUCTURE DRAINAGE, MISC: MIRADRAIN 5000 DRAINAGE SYSTEM OR EQUAL

- CADD AREA BETWEEN PILES @ EXPANSION JOINT =  $95.24 \text{ sq}'$
- CADD AREA WEST OF JOINT AREA =  $325.8 \text{ sq}'$
- CADD AREA EAST OF JOINT AREA =  $360.1 \text{ sq}'$

• DEDUCT FOR PILES + 3" EACH SIDE OF FLANGE = 20" TOTAL WIDTH DEDUCTION

$$\begin{aligned} \therefore \text{TOTAL} &= 95.24 \text{ sq}' + 325.8 \text{ sq}' + 360.1 \text{ sq}' \\ &\quad - (20/12)(8.2' + 9.6' + 10.9' + 11.8' + 13.3' + 12.5' + 12.5' + 11.7' + 9.7' + 7.8' + 7.8') \\ &= 588.14 \text{ sq}' \Rightarrow \text{SAY } \underline{590 \text{ SF}} \end{aligned}$$

ITEM 524 - DRILLED SHAPTS, 30" DIAMETER, AS PER PLAN

$$\text{TOTAL FOR ITEM} = 14 \times 12.0' = \underline{168 \text{ FT}}$$

ITEM 610 - RETAINING WALL, MISC: 3" TIMBER LAGGING

$$\text{CADD AREA} = 850.3 \text{ sq}' / 9 = 94.47 \text{ SY} \Rightarrow \text{SAY } \underline{95 \text{ SY}}$$

ITEM 530 - SPECIAL - FORM LINER

$$\text{AREA OF CAST-IN-PLACE WALL FACING} = \underline{\underline{736 \text{ SF}}}$$