

UPDATED: 02.14.25

Project: CUY-00014-06.930  
 Proj. No.:

564 White Pond Dr.  
 Akron, Ohio 44320

ESTIMATED QUANTITIES											CALCULATED BY: RG		2/6/2023	
											CHECKED BY: ERM		2/13/2023	
ITEM ODOT	EXT.	PARTICIPATION 01/BRO/10	TOTAL	UNIT	DESCRIPTION	CUY-00014-06.930							REF. SHEET	
						WALL 1	WALL 2	WALL 3	WALL 4	WALL 5	WALL 6	WALL 7		GENERAL
203	98500	LS	LS		ROADWAY, MISC.: COLUMN-SUPPORTED EMBANKMENTS AND WALLS									LS
503	11100	LS	LS		COFFERDAMS AND EXCAVATION BRACING									LS
509	10000	216,815	216,815	LB	EPOXY COATED STEEL REINFORCMENT	43827		42669		50406	58833	21080		
511	34450	182	182	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	43		45		31	42	21		
511	51512	1,126	1,126	CY	CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK	174		173		289	400	90		
511	53012	943	943	CY	CLASS QC2 CONCRETE WITH QC/QA, MOMENT SLAB	159		159		232	321	72		
512	10050	1,816	1,816	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	278		289		477	637	135		
512	10100	4,795	4,795	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	903		1191		806	1329	566		
512	10001	806	806	SY	SEALING OF CONCRETE SURFACES, AS PER PLAN (PERMANENT GRAFFITI PROTECTION)					806				
516	13200	2,085	2,085	SF	1/2" PREFORMED EXPANSION JOINT FILLER	333		361		501	723	167		
516	13600	4,860	4,860	SF	1" PREFORMED EXPANSION JOINT FILLER	1153		1201		832	1112	562		
607	39901	1,616	1,616	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	383		399		277	370	187		
840	20000	37,571	37,571	SF	MECHANICALLY STABILIZED EARTH WALL	6637		9221		6438	10812	4463		
840	21000	3,773	3,773	CY	WALL EXCAVATION	253		499		141	2639	241		
840	22000	3,870	3,870	SY	FOUNDATION PREPARATION	729		939		655	1046	501		
840	23000	31,673	31,673	CY	SELECT GRANULAR BACKFILL	3461		9907		3664	11374	3267		
840	25010	3,194	3,194	FT	6" DRAINAGE PIPE, PERFORATED	766		762		553	739	374		
840	26000	1,598	1,598	FT	CONCRETE COPING	383		381		277	370	187		
840	26050	6,438	6,438	SF	AESTHETIC SURFACE TREATMENT					6438				
840	27000	5	5	DAY	ON-SITE ASSISTANCE								5	
840	28000	LS	LS		SGB INSPECTION AND COMPACTION TESTING								LS	
867	00100	LS	LS		TEMPORARY WIRE FACED MECHANICALLY STABILIZED EARTH WALL		LS		LS					

Item 509 - Epoxy Coated Reinforcing Steel

Ext. 10000

CUY-00014-06.930

		Wall 1	Wall 2	Wall 3	Wall 4	Wall 5	Wall 6	Wall 7
Total	lbs	43827		42669		50406	58833	21080

CUY-00014-06.930				
Ext-53010	Item 511-			
<b>Moment Slab+Parapet (TOTAL)</b>				
Wall 1	Moment Slab 1 length	ft	382.89	REF:1
	Area	ft <sup>2</sup>	26.04	
	Volume	yd <sup>3</sup>	369.29	
	Triangle Volume	yd <sup>3</sup>	5.60	
	Moment Slab 1 volume	yd <sup>3</sup>	374.89	
Wall 3	Moment Slab 3 Length	ft	398.68	REF:1
	Area	ft <sup>2</sup>	26.04	
	Volume	yd <sup>3</sup>	384.52	
	Triangle Volume	yd <sup>3</sup>	-9.27	
	Moment Slab 2 Volume	yd <sup>3</sup>	375.25	
Wall 5	Moment Slab 5 Length	ft	276.09	REF:2
	Area	ft <sup>2</sup>	53.91	
	Volume	yd <sup>3</sup>	551.22	
	Triangle Volume	yd <sup>3</sup>	0.00	
	Moment Slab 3 Volume	yd <sup>3</sup>	551.22	
Wall 6	Moment Slab 6 Length	ft	369.11	REF:2
	Area	ft <sup>2</sup>	53.91	
	Volume	yd <sup>3</sup>	736.93	
	Triangle Volume	yd <sup>3</sup>	23.90	
	Moment Slab 4 Volume	yd <sup>3</sup>	760.84	
Wall 7	Moment Slab 7 Length	ft	186.54	REF:1
	Area	ft <sup>2</sup>	26.04	
	Volume	yd <sup>3</sup>	179.91	
	Triangle Volume	yd <sup>3</sup>	1.54	
	Moment Slab 5 Volume	yd <sup>3</sup>	181.45	
Total Concrete (Moment Slab+ Parapet)=			2243.65	yd <sup>3</sup>

511 - RAILING				
Wall 1	Rail 1 length	ft	382.89	REF:1
	Area	ft <sup>2</sup>	3.00	
	Volume	yd <sup>3</sup>	42.54	
Wall 3	Moment Slab 3 Length	ft	398.68	REF:1
	Area	ft <sup>2</sup>	3.00	
	Volume	yd <sup>3</sup>	44.30	
Wall 5	Moment Slab 5 Length	ft	276.09	REF:2
	Area	ft <sup>2</sup>	3.00	
	Volume	yd <sup>3</sup>	30.68	
Wall 6	Moment Slab 6 Length	ft	369.11	REF:2
	Area	ft <sup>2</sup>	3.00	
	Volume	yd <sup>3</sup>	41.01	
Wall 7	Moment Slab 7 Length	ft	186.54	REF:1
	Area	ft <sup>2</sup>	3.00	
	Volume	yd <sup>3</sup>	20.73	

CAD Measured, STA.

TOTAL MINUS RAILING (CY)

Wall 1 332.35 CY

Wall 3 330.95 CY

Wall 5 520.54 CY

Wall 6 719.82 CY

Wall 7 160.73 CY

SIDEWALK TO MOMENT SLAB SPLIT

0.522 0.478 RATIO%

173.48661 158.8632147

0.522 0.478

172.75689 158.1950073

0.555 0.445

288.89899 231.6397316

0.555 0.445

399.50175 320.3212202

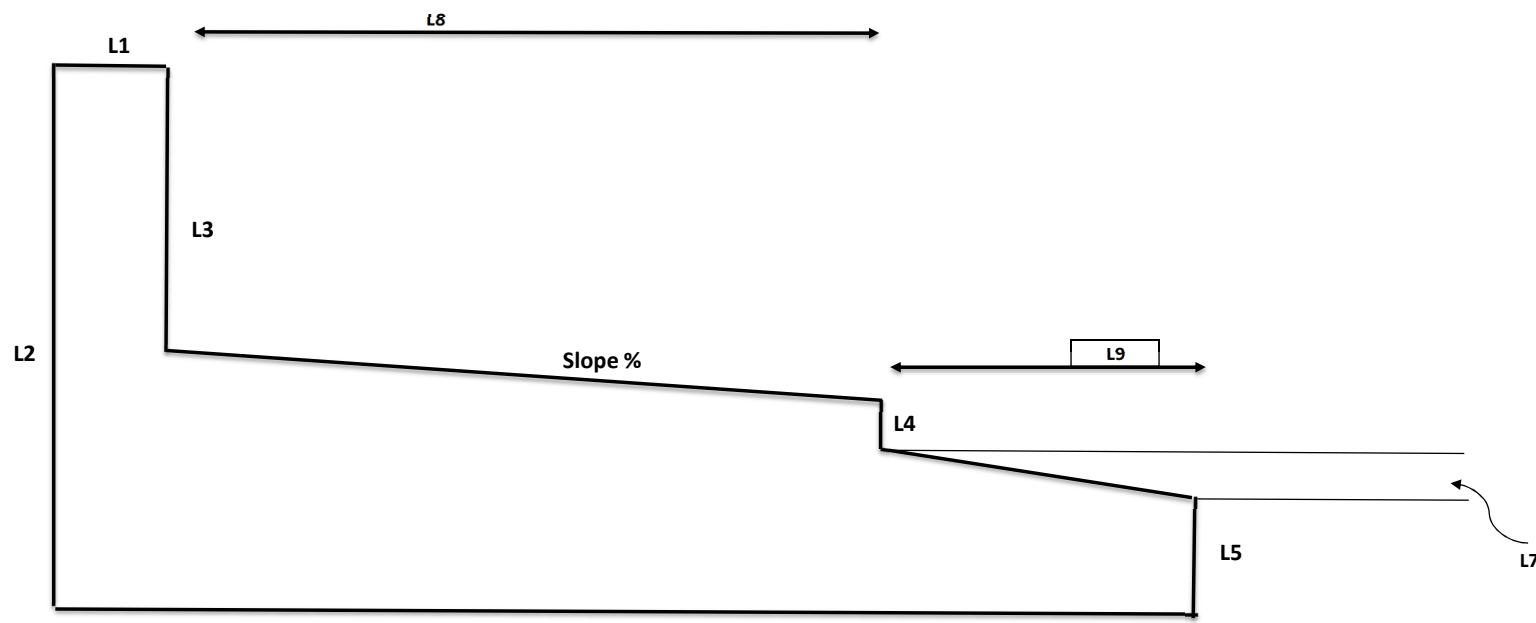
0.555 0.445

89.202412 71.52265492

SIDEWALK

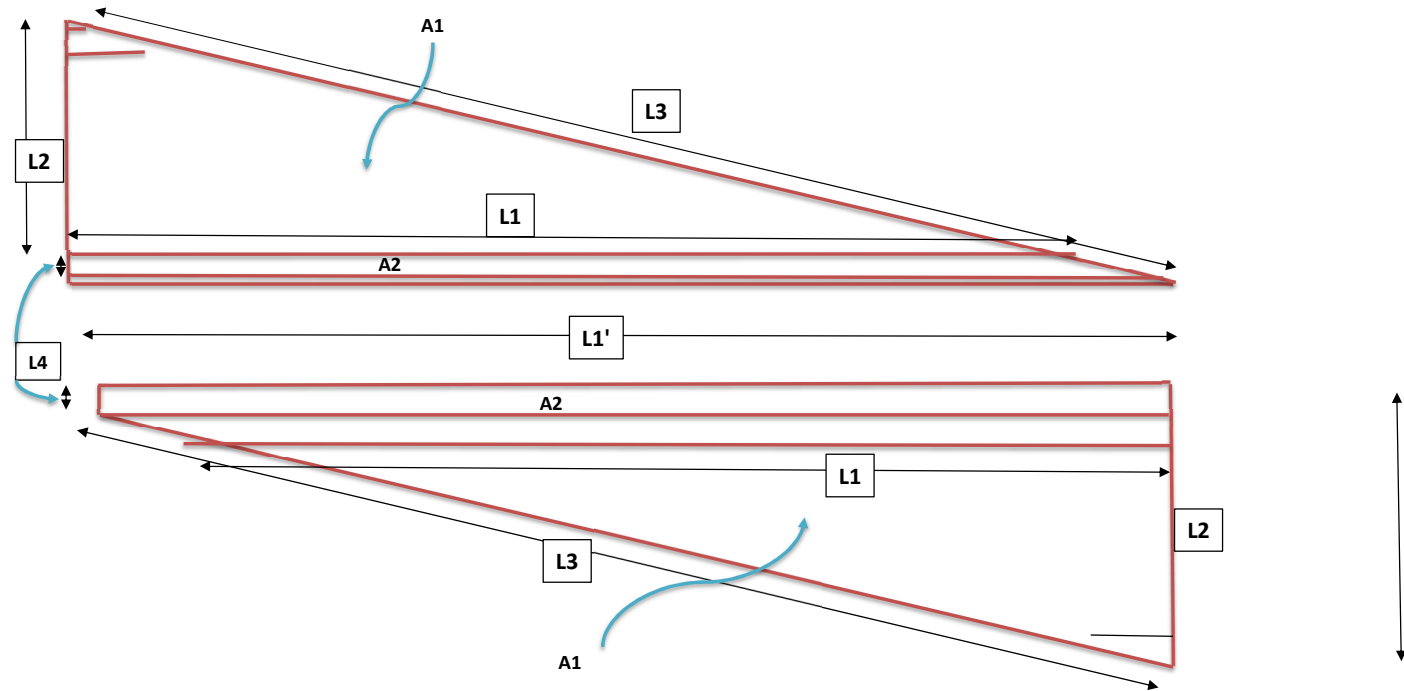
MOMENT SLAB

Temporary Walls (For Ref.)	
Wall no.	Length (ft)
Wall 2	469.73
Wall 4	475.34



L6		
Ref:1	L1	1.00
	L2	6.01
	L3	3.00
	L4	1.67
	L5	1
	L6	9
	L7	0.25
	L8	6
	L9	2
	Slope %	1.56%
<b>Total</b>	<b>Area (ft<sup>2</sup>)=</b>	<b>26.04</b>

Ref:2	L1	1.0
	L2	6.2
	L3	3.0
	L4	1.7
	L5	1.0
	L6	18.0
	L7	0.3
	L8	15.0
	L9	2.0
	Slope %	1.56%
<b>Total</b>	<b>Area (ft<sup>2</sup>)=</b>	<b>53.91</b>



L1 (ft) 13.22			
L2 (ft) 5.89			
Area (ft <sup>2</sup> ) (Measured in ORD) 39.35	A1		
Thickness (ft) 2.963467			
Volume (ft <sup>3</sup> ) 116.6124			
<b>Volume (yd<sup>3</sup>) 4.32</b>			
L1' (ft) 17.57			
L4 (ft) 2			
Cross Sectional Area (ft <sup>2</sup> ) 2.25	A2		
<b>Volume (yd<sup>3</sup>) 1.28</b>			
<b>Total 5.60</b>			<b>Wall 1</b>

L1 (ft) 25.75			
L2 (ft) 15			
Area (ft <sup>2</sup> ) (Measured in ORD) 192.38	A1		
Thickness 3.033667			
Volume (ft <sup>3</sup> ) 583.6107			
<b>Volume (yd<sup>3</sup>) 21.62</b>			
L1' (ft) 29.2			
L4 (ft) 2			
Cross Sectional Area (ft <sup>2</sup> ) 2.25	A2		
<b>Volume (yd<sup>3</sup>) 2.29</b>			
<b>Total 23.90</b>			<b>Wall 6</b>

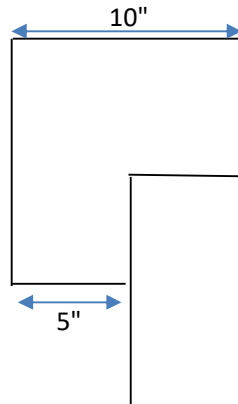
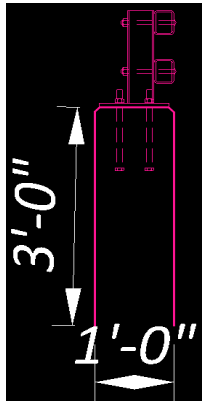
L1 (ft) 14.02			
L2 (ft) 8			
Area (ft <sup>2</sup> ) 56.08	A1		
Thickness (ft) 2.963467			
Volume (ft <sup>3</sup> ) -166.191			
<b>Volume (yd<sup>3</sup>) -6.16</b>			
L1' (ft) 14.02			
L4 (ft) 1			
Cross Sectional Area (ft <sup>2</sup> ) 6	A2		
<b>Volume (yd<sup>3</sup>) -3.12</b>			
<b>Total -9.27</b>			<b>Wall 3</b>

Area (ft <sup>2</sup> ) (Calculated in ORD) 9.17	A1		
Thickness (ft) 2.963467			
Volume (ft <sup>3</sup> ) 27.17499			
<b>Volume (yd<sup>3</sup>) 1.01</b>			
L1' (ft) 3.56			
L4 (ft) 2			
Cross Sectional Area (ft <sup>2</sup> ) 2.25	A2		
<b>Volume (yd<sup>3</sup>) 0.53</b>			
<b>Total 1.54</b>			<b>Wall 7</b>

Item-512; Ext.-10100  
 CUY-00014-06.930

**Epoxy Sealing (Wall+Coping+Parapet)**

	Surface Area from Profile view (from G/L to Top of Coping) (ft <sup>2</sup> ) (Measured in ORD)	Parapet surface width/Height (ft)	Additional Coping Surface width (ft)	Length (ft)	Total Area (yd <sup>2</sup> )
Wall 1	4961.2	7.0	1.25	383.15	902.5
Wall 2					
Wall 3	7426.0	7.0	1.25	398.73	1190.6
Wall 4					
Wall 5	4974.5	7.0	1.25	276.26	806.0
Wall 6	8912.8	7.0	1.25	369.2	1328.8
Wall 7	3551.1	7.0	1.25	186.5	565.5



<b>Item-512; Ext.-10050</b>			
<b>CUY-00014-06.930</b>			
<b>Non-epoxy Sealing (Sidewalk)</b>			
	<b>Width (ft)</b>	<b>Length (ft)</b>	<b>Total Area (yd<sup>2</sup>)</b>
<b>Wall 1</b>	6.5	383.1	277.3
<b>Wall 2</b>			
<b>Wall 3</b>	6.5	398.7	288.6
<b>Wall 4</b>			
<b>Wall 5</b>	15.5	276.3	476.2
<b>Wall 6</b>	15.5	369.2	636.4
<b>Wall 7</b>	6.5	186.5	135.0

Item 516 - 1/2" Preformed Expansion Joint Filler

Ext. 13200

CUY-00014-06.930

	No. of Panels	No. of Seals	Moment Slab Area (ft2)	~Coping Area (ft2)	Total Seal Area (Moment Slab+Coping)
Wall 1	13	12	26.04	1.67	332.49
Wall 2					
Wall 3	14	13	26.04	1.67	360.20
Wall 4					
Wall 5	10	9	53.91	1.67	500.15
Wall 6	14	13	53.91	1.67	722.44
Wall 7	7	6	26.04	1.67	166.25



CUY-00014-06.930			
Item 516-1" Preformed Expansion Joint Filler			
	Moment Slab Length (ft)	Joint Height (ft)	Area (ft <sup>2</sup> )
Wall-1	382.89	3.01	1152.5
Wall-2			
Wall-3	398.68	3.01	1200.0
Wall-4			
Wall-5	276.09	3.01	831.0
Wall-6	369.11	3.01	1111.0
Wall-7	186.54	3.01	561.5

CUY-00014-06.930		
Item 607- Vandal Protection Fence		
Item		Length (ft)
Wall-1	Moment Slab-1	382.89
Wall-3	Moment Slab-2	398.68
Wall-5	Moment Slab-3	276.09
Wall-6	Moment Slab-4	369.11
Wall-7	Moment Slab-5	186.54

CUY-00014-06.930

Item-840 Mechanically Stabilized Earth Wall

MSE Wall

Wall No	Length (ft)	Additional Area with 6" Elev. (ft2)	Area (ft <sup>2</sup> ) (Measured in ORD)	Total
Wall 1	382.9	191.445	6445.3	6636.7
Wall 2	469.7	234.865	15568.66	15803.5
Wall 3	398.7	199.34	9020.95	9220.3
Wall 4	475.3	237.67	14888.81	15126.5
Wall 5	276.1	138.045	6299.32	6437.4
Wall 6	369.1	184.555	10626.6	10811.2
Wall 7	186.5	93.27	4369.58	4462.9

CUY-00014-06.930

Item 840-Foundation Preperation

MSE Wall			Design Wall Height to Reinforcement Ratio	Min. Soil Reinforcement Length (ft)	Foundation Preparation (yd <sup>2</sup> )
Wall No	Length (ft)	Area (ft <sup>2</sup> ) (Measured in ORD)			
Wall 1	382.89	6636.75	0.7	12.1	728.9
Wall 2	469.73	15803.53			
Wall 3	398.68	9220.29	0.7	16.2	938.6
Wall 4	475.34	15126.48			
Wall 5	276.09	6437.37	0.7	16.3	654.1
Wall 6	369.11	10811.16	0.7	20.5	1045.9
Wall 7	186.54	4462.85	0.8	19.1	500.3

CUY-00014-06.930

Item 840-Concrete Coping

Wall No.	Length (ft)
Wall 1	382.89
Wall 2	
Wall 3	380.68
Wall 4	
Wall 5	276.09
Wall 6	369.11
Wall 7	186.54

CUY-00014-06.930			
Item 840-6" Drainage Pipe, Perforated			
	Length (ft)	Sides (ft)	Total Length (ft)
Wall-1	382.89	2	765.78
Wall-2			
Wall-3	380.68	2	761.36
Wall-4			
Wall-5	276.09	2	552.18
Wall-6	369.11	2	738.22
Wall-7	186.54	2	373.08