



MUNICIPALITY OF MT. LEBANON

SIDEWALK TSL STUDY

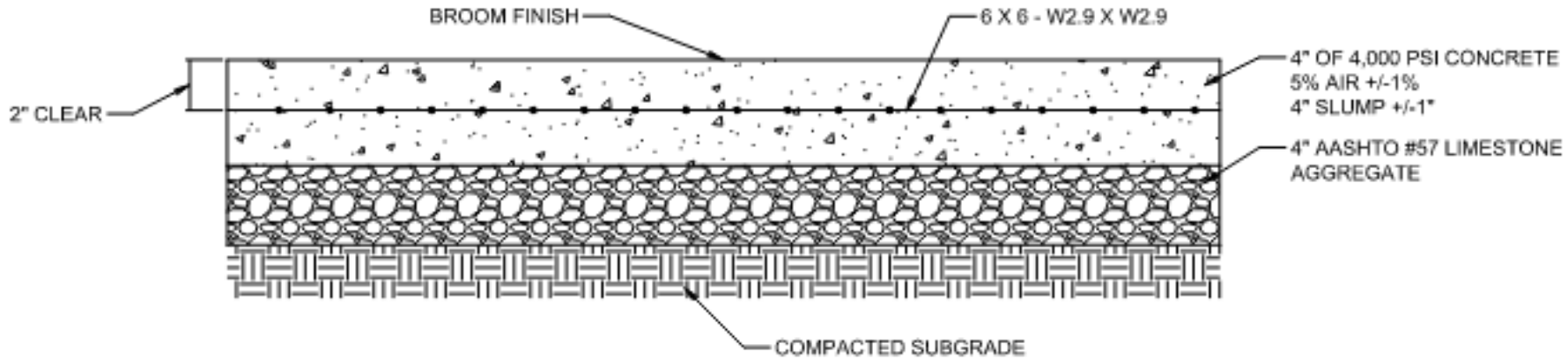
SEPTEMBER 12, 2023



OVERVIEW

- Gateway was tasked with performing a Type, Size, and Location study for sidewalks on select streets within Mt. Lebanon.
- The process for determining the TSL study involved a site walk for each street with existing mapping data. The information was then used to determine the optimum side of the street to place the sidewalk and the associated quantities for the cost estimate. In all cases, in order to minimize cost, sidewalks were considered to start at the back of the existing curbs with no grass planted between the sidewalk and the curb.
- An opinion of cost was developed for each block on each street and totaled for each street. The cost per home was developed using the sidewalk policy and is an average per block and may vary.
- SALDO Section 805.9: Sidewalks shall be located in line with existing sidewalks on adjacent lots or, where none exists, shall be located a minimum of six feet from the edge of any curb or paving where practical and constructed to municipal standards.”₂

TYPICAL DETAIL



NOTES:

1. CONTRACTOR SHALL PLACE CONTROL JOINTS AT INTERVALS EQUAL TO THE PAVEMENT WIDTH NOT TO EXCEED 12'.
2. EXPANSION JOINTS SHALL BE INSTALLED AT 50' MAXIMUM INTERVALS.
3. CURING SHALL BE BY ABSORPTIVE COVER; MOISTURE-RETAINING COVER; OR APPROVED CURING COMPOUND. CONTRACTOR SHALL SUBMIT PROPOSED CURING METHOD TO OWNER FOR APPROVAL PRIOR TO CONCRETE INSTALLATION.
4. APPLY WATER BASED 40% SILANE PENETRATING SEALER AFTER A MINIMUM OF 28 DAYS PER MANUFACTURERS RECOMMENDATIONS.
5. PROVIDE MINIMUM CROSS-SLOPE OF 1.5% TO MAXIMUM CROSS SLOPE OF 2%.

1	4" THICK CONCRETE SIDEWALK	PA-COP-004
C600		

SIDEWALK POLICY COST SHARING FORMULA

2. Project costs will be determined and divided between municipal and non-municipal sources

a. The non-municipal share will be assessed to the property owners abutting the improvements but may be paid by other sources. The Municipality may require the entire amount be paid before the Municipality will proceed with sidewalk installation.

b. The non-municipal share will be the greater of:

i. **10% of the sidewalk construction cost** or

ii. **50% of the total project cost over \$9.50 per square foot.** Total project cost will include additional costs associated with sidewalk installation such as E&S controls, traffic controls, and mobilization costs. Relocation of private structures or landscaping shall not be considered part of the total project cost and are addressed in Section I.2.d.

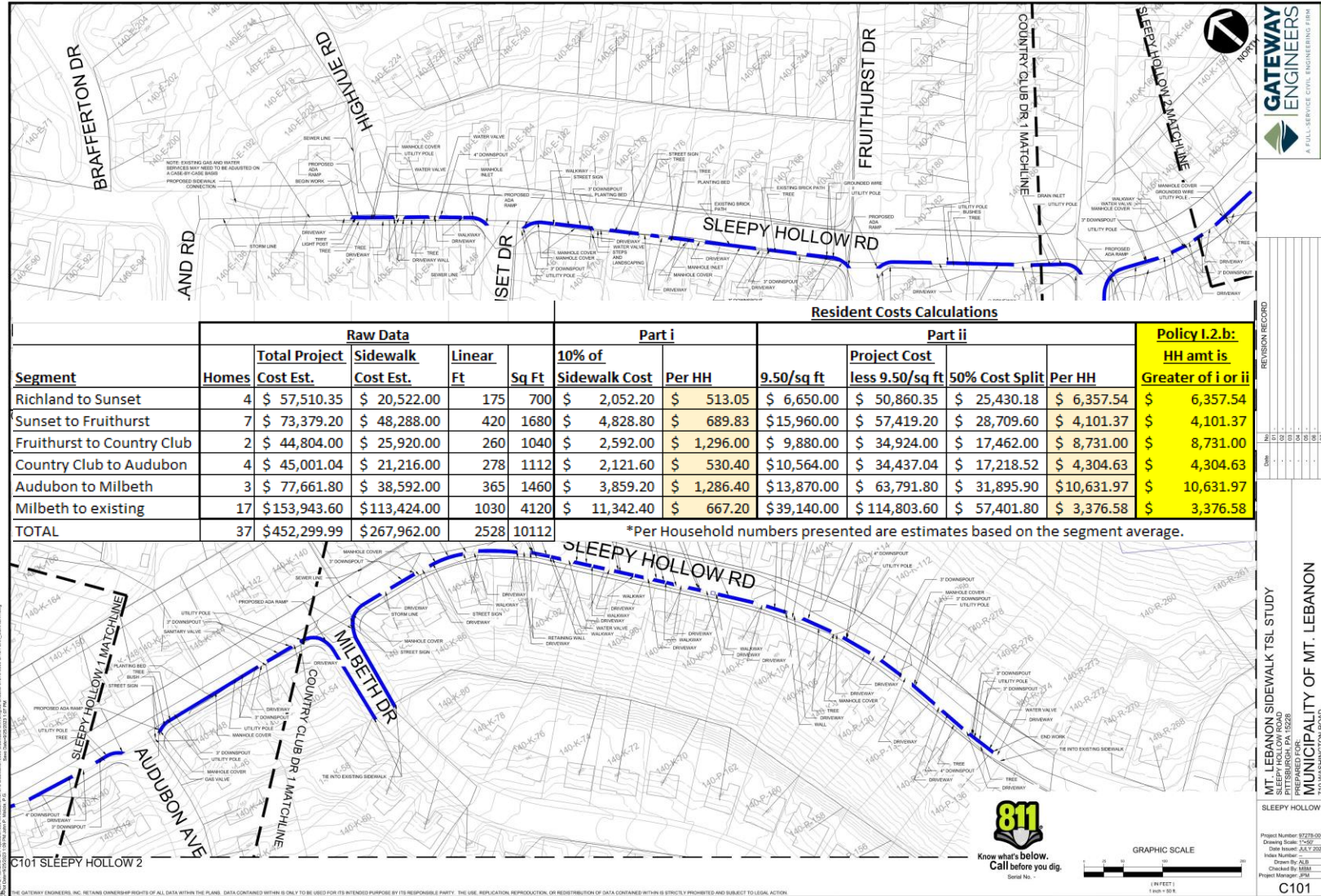
SELECTED STREETS AND PROCESS

- Sleepy Hollow
- Woodland
- Greenhurst
- Lakemont
- Kelso
- Robb Hollow
- Country Club

Description	Units	Quantity	Unit Price	Cost
Richland Rd to Sunset Drive				
Site Clearing / Site Prep (Allowance)	L.S.	1	\$1,000.00	\$1,000.00
Site Cleanup / Site Restoration (Allowance)	L.S.	1	\$3,000.00	\$3,000.00
Erosion and Sedimentation Control (Allowance)	L.S.	1	\$1,000.00	\$1,000.00
Handicap Ramps	EA.	1	\$7,000.00	\$7,000.00
Concrete Driveway remove and replace	EA.	2	\$3,000.00	\$6,000.00
Rain Conductors (assume two per home)	EA.	8	\$200.00	\$1,600.00
Concrete Sidewalk	S.F.	616	\$24.00	\$14,784.00
Cheek Wall	S.F.	75	\$75.00	\$5,625.00
Tree Removal	L.S.	2	\$5,000.00	\$10,000.00
			Subtotal	\$50,009.00
			Contingency 15%	\$7,501.35
			Total for Richland to Sunset	\$57,510.35

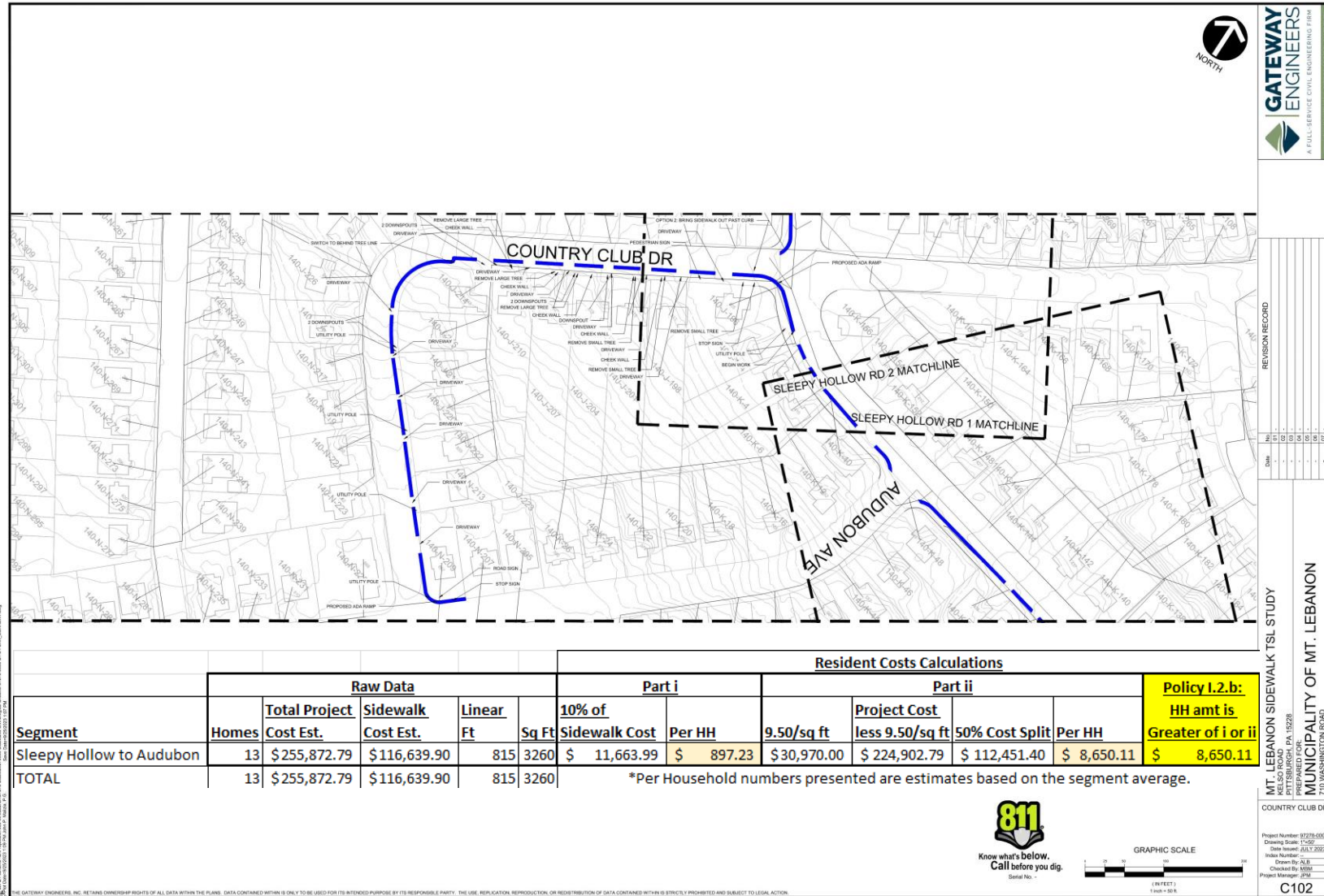
*Note: The resident costs are an average cost per household based on the length of the block. Actual costs per each resident will be completed upon final design

SLEEPY HOLLOW



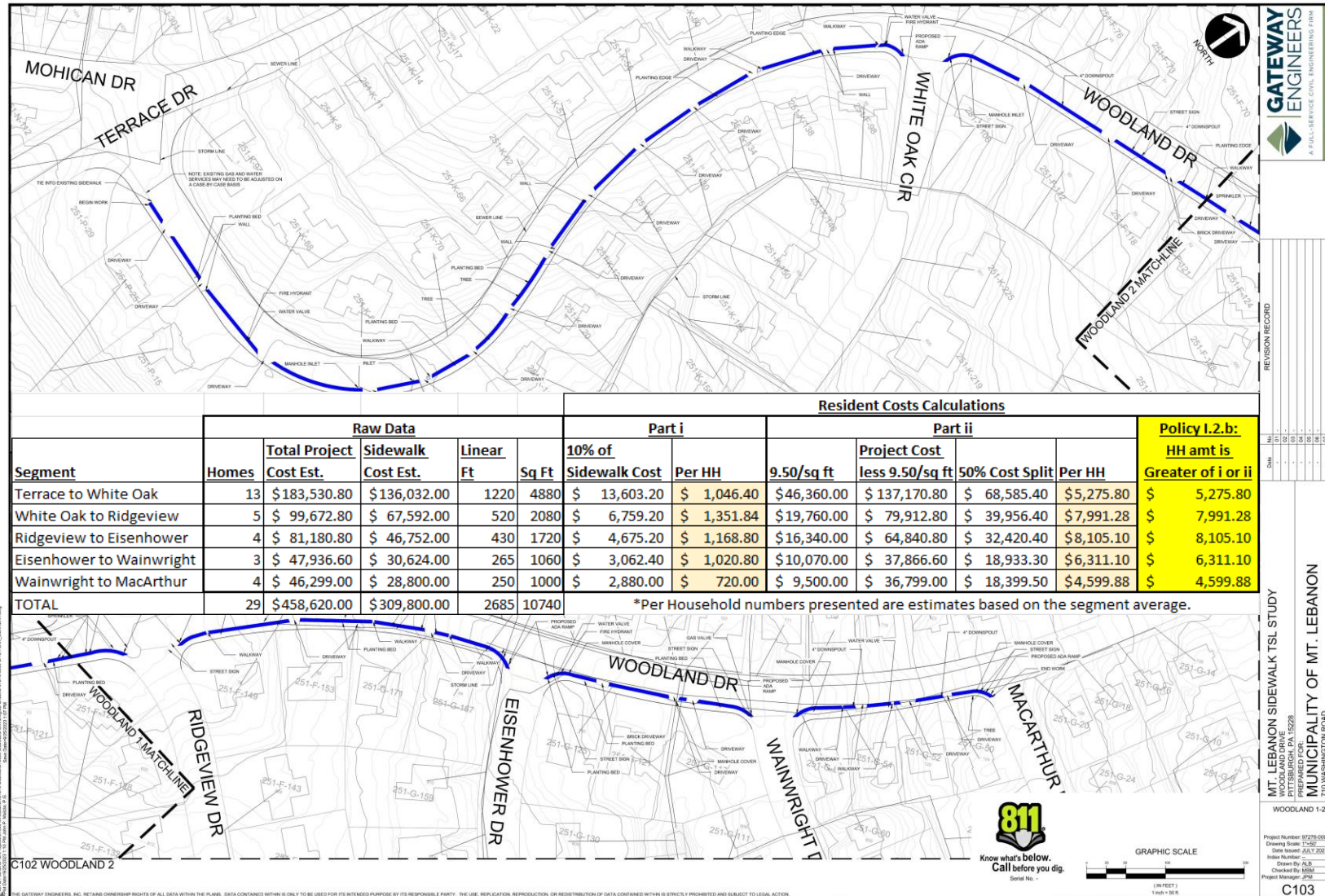
Nearest schools
Howe Elem: 0.4mi

COUNTRY CLUB



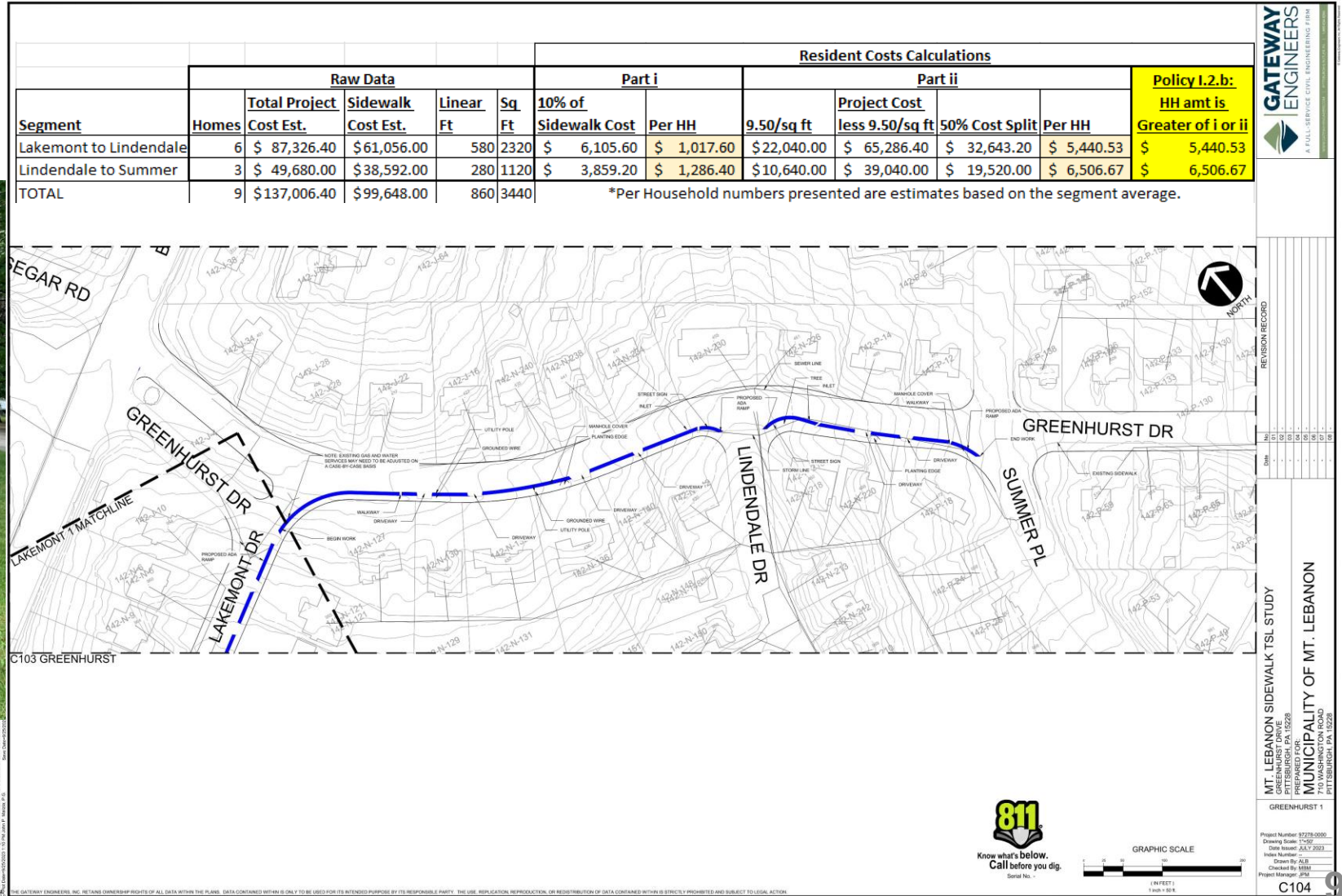
Nearest school:
Howe Elementary

WOODLAND



Nearest school:
Foster Elementary 500 ft
from Woodland/Vermont

GREENHURST



Nearest schools:
 Hoover: 0.2 mi
 Jefferson Schools: 0.4 mi

GATEWAY ENGINEERS
 A FULL SERVICE CIVIL ENGINEERING FIRM

REVISION RECORD

MT. LEBANON SIDEWALK TSL STUDY
 GREENHURST DRIVE
 PITTSBURGH, PA 15228
 MUNICIPALITY OF MT. LEBANON
 PITTSBURGH, PA 15228

Project Number: 97778-0000
 Drawing Scale: 1"=50'
 Date Issued: JULY 2023
 Issue Number: 1
 Drawn By: JLB
 Checked By: MSH
 Project Manager: JPL

GRAPHIC SCALE
 1" = 50'
 1" = 100'

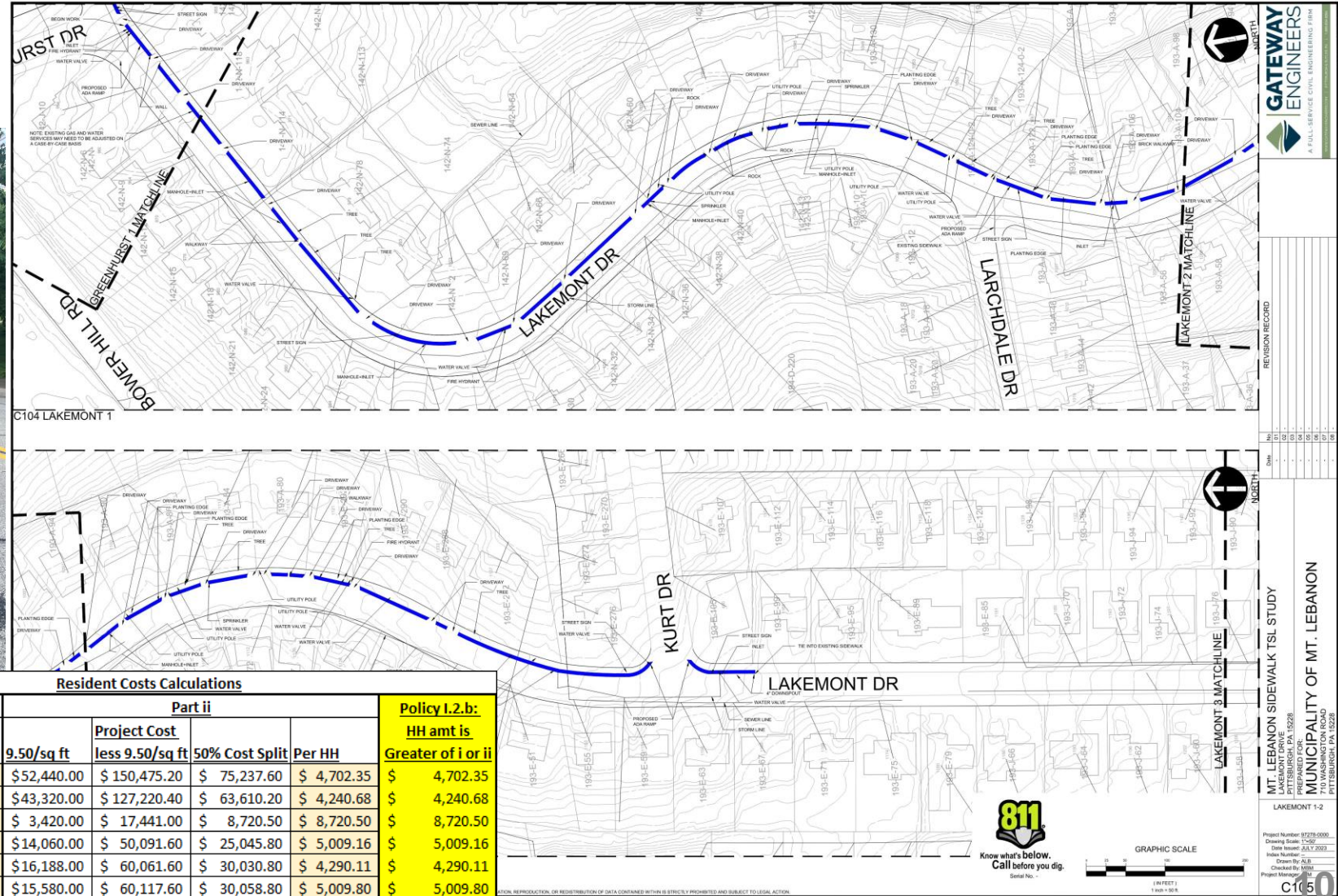
C104

LAKEMONT

Nearest schools:

Hoover: 0.2 mi

Jefferson Schools: 0.4 mi



Resident Costs Calculations

Segment	Homes	Raw Data				Part i		Part ii				Policy I.2.b: HH amt is Greater of i or ii
		Total Project Cost Est.	Sidewalk Cost Est.	Linear Ft	Linear Sq Ft	10% of Sidewalk Cost	Per HH	9.50/sq ft	Project Cost less 9.50/sq ft	50% Cost Split	Per HH	
Greenhurst to Larchdale	16	\$ 202,915.20	\$ 162,528.00	1380	5520	\$ 16,252.80	\$ 1,015.80	\$ 52,440.00	\$ 150,475.20	\$ 75,237.60	\$ 4,702.35	\$ 4,702.35
Larchdale to Kurt	15	\$ 170,540.40	\$ 134,496.00	1140	4560	\$ 13,449.60	\$ 896.64	\$ 43,320.00	\$ 127,220.40	\$ 63,610.20	\$ 4,240.68	\$ 4,240.68
Kurt to existing	1	\$ 20,861.00	\$ 8,640.00	90	360	\$ 864.00	\$ 864.00	\$ 3,420.00	\$ 17,441.00	\$ 8,720.50	\$ 8,720.50	\$ 8,720.50
Glads to Maplewood	5	\$ 64,151.60	\$ 41,184.00	370	1480	\$ 4,118.40	\$ 823.68	\$ 14,060.00	\$ 50,091.60	\$ 25,045.80	\$ 5,009.16	\$ 5,009.16
Maplewood to Harwood	7	\$ 76,249.60	\$ 50,784.30	426	1704	\$ 5,078.43	\$ 725.49	\$ 16,188.00	\$ 60,061.60	\$ 30,030.80	\$ 4,290.11	\$ 4,290.11
Harwood to existing	6	\$ 75,697.60	\$ 50,304.00	410	1640	\$ 5,030.40	\$ 838.40	\$ 15,580.00	\$ 60,117.60	\$ 30,058.80	\$ 5,009.80	\$ 5,009.80
TOTAL	50	\$ 610,415.40	\$ 447,936.30	3816	15264							

*Per Household numbers presented are estimates based on the segment average.



GATEWAY ENGINEERS
A FULL SERVICE CIVIL ENGINEERING FIRM

REVISION RECORD

No.	Date	Description
01		
02		
03		
04		
05		
06		

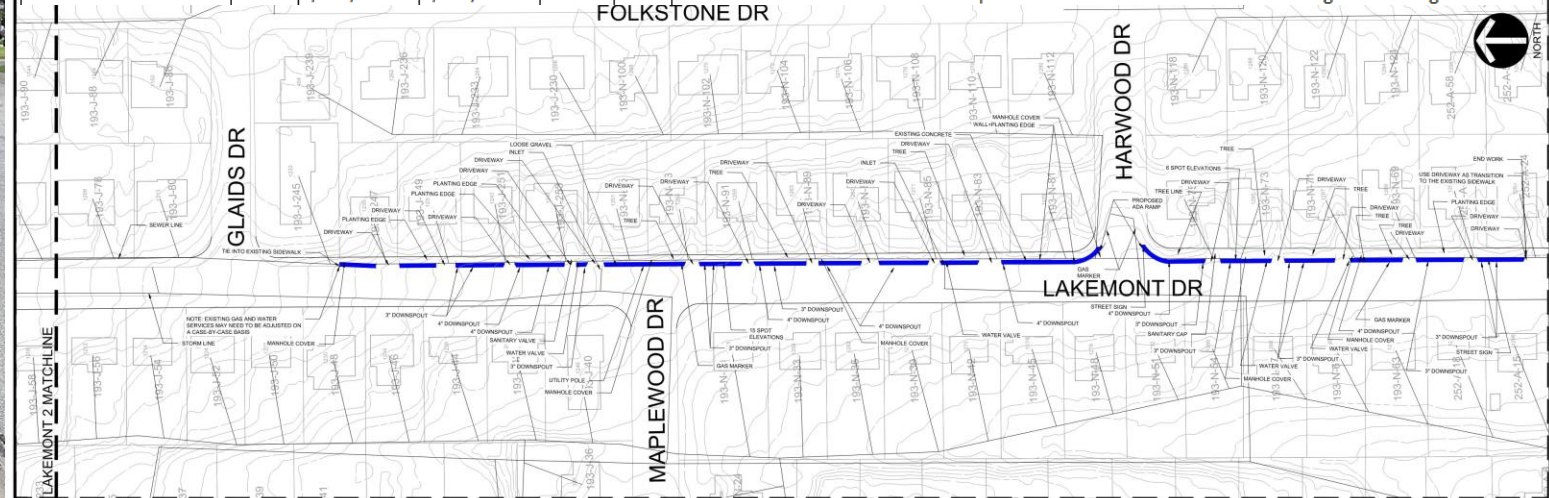
PROJECT: LAKEMONT DRIVE
MUNICIPALITY OF MT. LEBANON
PITTSBURGH, PA 15228

PROJECT MANAGER: [Name]

LAKEMONT



Segment	Raw Data					Resident Costs Calculations						Policy 1.2.b: HH amt is Greater of i or ii
	Homes	Total Project Cost Est.	Sidewalk Cost Est.	Linear Ft	Sq Ft	Part i		Part ii				
						10% of Sidewalk Cost	Per HH	9.50/sq ft	Project Cost less 9.50/sq ft	50% Cost Split	Per HH	
Greenhurst to Larchdale	16	\$ 202,915.20	\$ 162,528.00	1380	5520	\$ 16,252.80	\$ 1,015.80	\$52,440.00	\$ 150,475.20	\$ 75,237.60	\$ 4,702.35	\$ 4,702.35
Larchdale to Kurt	15	\$ 170,540.40	\$ 134,496.00	1140	4560	\$ 13,449.60	\$ 896.64	\$43,320.00	\$ 127,220.40	\$ 63,610.20	\$ 4,240.68	\$ 4,240.68
Kurt to existing	1	\$ 20,861.00	\$ 8,640.00	90	360	\$ 864.00	\$ 864.00	\$ 3,420.00	\$ 17,441.00	\$ 8,720.50	\$ 8,720.50	\$ 8,720.50
Gladds to Maplewood	5	\$ 64,151.60	\$ 41,184.00	370	1480	\$ 4,118.40	\$ 823.68	\$14,060.00	\$ 50,091.60	\$ 25,045.80	\$ 5,009.16	\$ 5,009.16
Maplewood to Harwood	7	\$ 76,249.60	\$ 50,784.30	426	1704	\$ 5,078.43	\$ 725.49	\$16,188.00	\$ 60,061.60	\$ 30,030.80	\$ 4,290.11	\$ 4,290.11
Harwood to existing	6	\$ 75,697.60	\$ 50,304.00	410	1640	\$ 5,030.40	\$ 838.40	\$15,580.00	\$ 60,117.60	\$ 30,058.80	\$ 5,009.80	\$ 5,009.80
TOTAL	50	\$ 610,415.40	\$ 447,936.30	3816	15264	*Per Household numbers presented are estimates based on the segment average.						



C105 LAKEMONT 3

811 Know what's below. Call before you dig.

GRAPHIC SCALE

MT. LEBANON SIDEWALK TSL STUDY
LAKEMONT DRIVE
PITTSBURGH, PA 15228
MUNICIPALITY OF MT. LEBANON
PITTSBURGH, PA 15228

LAKEMONT 3

Project Number: 97278-0000
Drawing Scale: 1"=50'
Date Issued: JULY 2023
Issue Number: 1
Drawn By: N.E.
Checked By: MBE
Project Manager: J.P. RYAN

11/23/23
1 inch = 50 ft

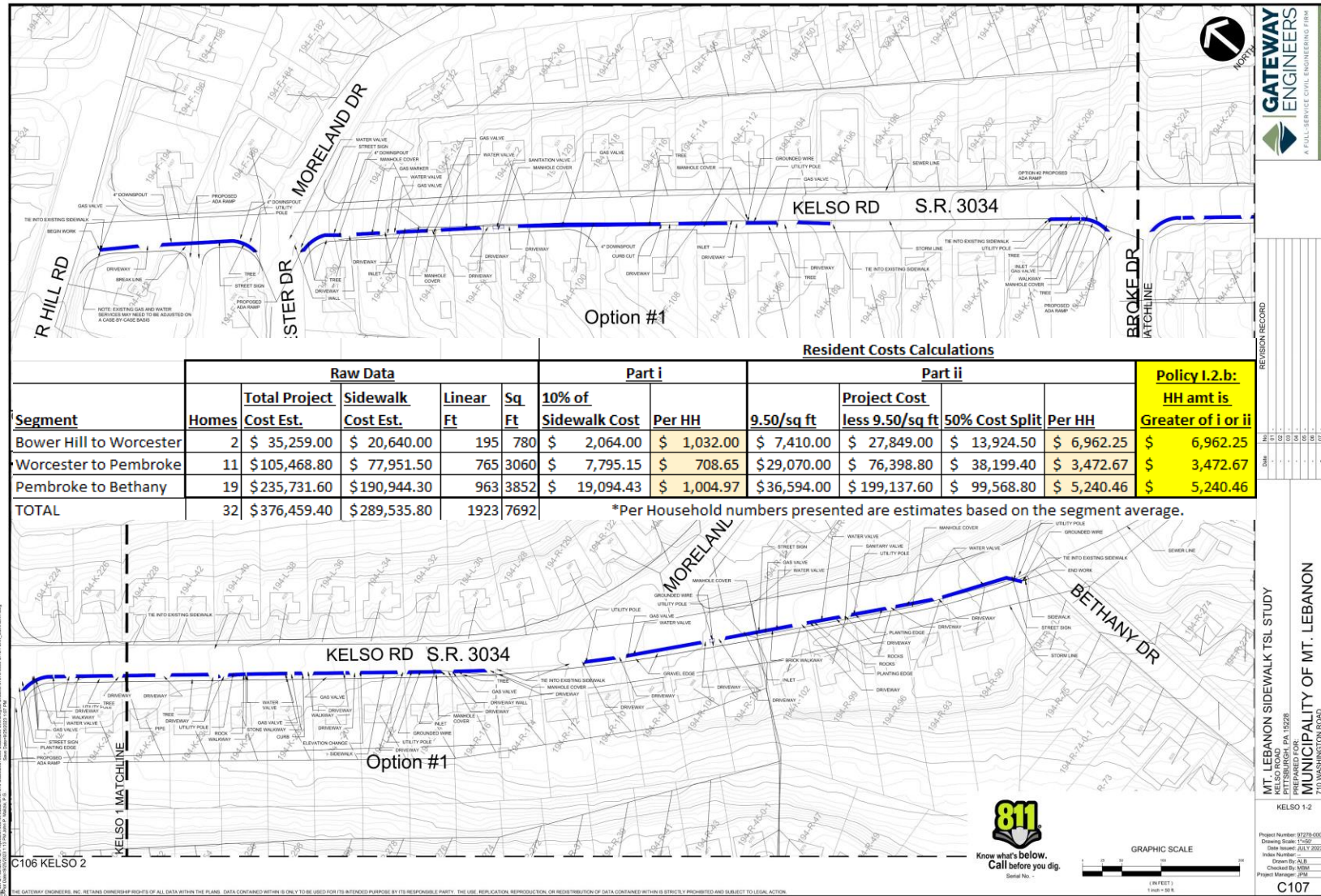
GATEWAY ENGINEERS
A FULL-SERVICE CIVIL ENGINEERING FIRM

REVISION RECORD

No.	Date	Description
01		
02		
03		
04		
05		
06		
07		
08		
09		
10		

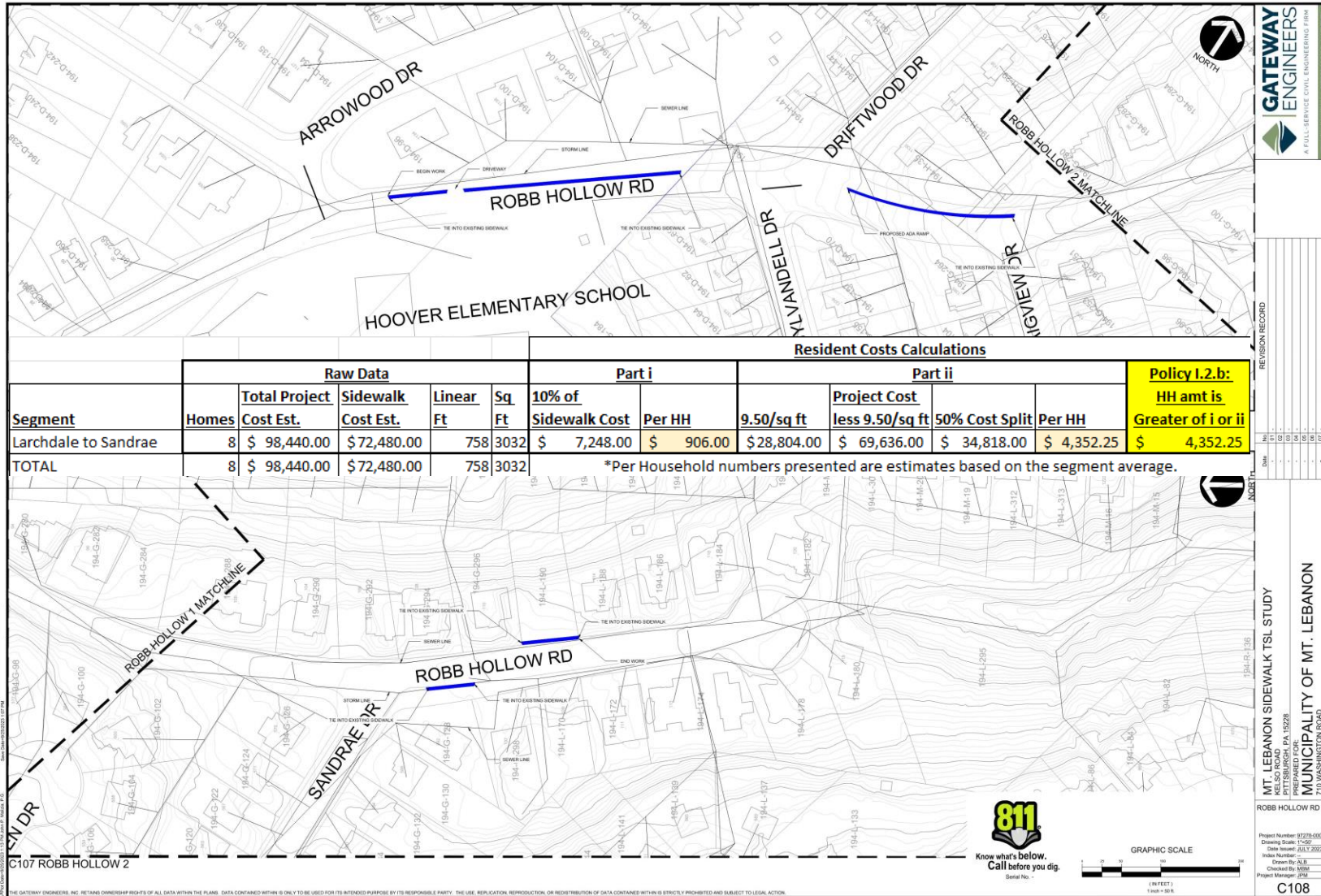
C105

KELSO



Nearest school:
Hoover Elem: 0.8 mi

ROBB HOLLOW



Nearest school:
Hoover Elementary

GATEWAY ENGINEERS
A FULL-SERVICE CIVIL ENGINEERING FIRM

REVISION RECORD

MT. LEBANON SIDEWALK TSL STUDY
HELSD ROAD
PITTSBURGH, PA 15228
MUNICIPALITY OF MT. LEBANON
14500 WOODBURY ROAD
PITTSBURGH, PA 15228

ROBB HOLLOW RD 1-2

Project Number: 97279-0000
Drawing Scale: 1"=50'
Date Issued: JULY 2023
Issue Number: 01
Drawn By: N.E.
Checked By: M.S.
Project Manager: J.M.

C108

SUMMARY

*Note: The cost per household is an average cost based on the length of the block. Actual costs per each resident will be completed upon final design and will vary based on linear footage of sidewalk through each property.

	Raw Data					Resident Share Part i		Resident Share Part ii				Policy
	Homes	Total Project Cost Est.	Sidewalk Cost Est.	Linear Ft	Sq Ft	10% of Sidewalk Cost	Per HH	9.50/sq ft	Project Cost less 9.50/sq ft	50% Cost Split	Per HH	I.2.b. HH amt is Greater of
Sleepy Hollow Road												
Richland to Sunset	4	\$ 57,510.35	\$ 20,522.00	175	700	\$ 2,052.20	\$ 513.05	\$ 6,650.00	\$ 50,860.35	\$ 25,430.18	\$ 6,357.54	\$ 6,357.54
Sunset to Fruithurst	7	\$ 73,379.20	\$ 48,288.00	420	1680	\$ 4,828.80	\$ 689.83	\$ 15,960.00	\$ 57,419.20	\$ 28,709.60	\$ 4,101.37	\$ 4,101.37
Fruithurst to Country Club	2	\$ 44,804.00	\$ 25,920.00	260	1040	\$ 2,592.00	\$ 1,296.00	\$ 9,880.00	\$ 34,924.00	\$ 17,462.00	\$ 8,731.00	\$ 8,731.00
Country Club to Audubon	4	\$ 45,001.04	\$ 21,216.00	278	1112	\$ 2,121.60	\$ 530.40	\$ 10,564.00	\$ 34,437.04	\$ 17,218.52	\$ 4,304.63	\$ 4,304.63
Audubon to Milbeth	3	\$ 77,661.80	\$ 38,592.00	365	1460	\$ 3,859.20	\$ 1,286.40	\$ 13,870.00	\$ 63,791.80	\$ 31,895.90	\$ 10,631.97	\$ 10,631.97
Milbeth to existing	17	\$ 153,943.60	\$ 113,424.00	1030	4120	\$ 11,342.40	\$ 667.20	\$ 39,140.00	\$ 114,803.60	\$ 57,401.80	\$ 3,376.58	\$ 3,376.58
TOTAL	37	\$ 452,293.99	\$ 267,962.00	2528	10112							
Country Club Drive												
Sleepy Hollow to Audubon	13	\$ 255,872.79	\$ 116,639.90	815	3260	\$ 11,663.99	\$ 897.23	\$ 30,970.00	\$ 224,902.79	\$ 112,451.40	\$ 8,650.11	\$ 8,650.11
TOTAL	13	\$ 255,872.79	\$ 116,639.90	815	3260							
Woodland Drive												
Terrace to White Oak	13	\$ 183,530.80	\$ 136,032.00	1220	4880	\$ 13,603.20	\$ 1,046.40	\$ 46,360.00	\$ 137,170.80	\$ 68,585.40	\$ 5,275.80	\$ 5,275.80
White Oak to Ridgeview	5	\$ 99,672.80	\$ 67,592.00	520	2080	\$ 6,759.20	\$ 1,351.84	\$ 19,760.00	\$ 79,912.80	\$ 39,956.40	\$ 7,991.28	\$ 7,991.28
Ridgeview to Eisenhower	4	\$ 81,180.80	\$ 46,752.00	430	1720	\$ 4,675.20	\$ 1,168.80	\$ 16,340.00	\$ 64,840.80	\$ 32,420.40	\$ 8,105.10	\$ 8,105.10
Eisenhower to Wainwright	3	\$ 47,936.60	\$ 30,624.00	265	1060	\$ 3,062.40	\$ 1,020.80	\$ 10,070.00	\$ 37,866.60	\$ 18,933.30	\$ 6,311.10	\$ 6,311.10
Wainwright to MacArthur	4	\$ 46,299.00	\$ 28,800.00	250	1000	\$ 2,880.00	\$ 720.00	\$ 9,500.00	\$ 36,799.00	\$ 18,399.50	\$ 4,599.88	\$ 4,599.88
TOTAL	29	\$ 458,620.00	\$ 309,800.00	2685	10740							
Greenhurst Drive												
Lakemont to Lindendale	6	\$ 87,326.40	\$ 61,056.00	580	2320	\$ 6,105.60	\$ 1,017.60	\$ 22,040.00	\$ 65,286.40	\$ 32,643.20	\$ 5,440.53	\$ 5,440.53
Lindendale to Summer	3	\$ 49,680.00	\$ 38,592.00	280	1120	\$ 3,859.20	\$ 1,286.40	\$ 10,640.00	\$ 39,040.00	\$ 19,520.00	\$ 6,506.67	\$ 6,506.67
TOTAL	9	\$ 137,006.40	\$ 99,648.00	860	3440							
Lakemont Drive												
Greenhurst to Larchdale	16	\$ 202,915.20	\$ 162,528.00	1380	5520	\$ 16,252.80	\$ 1,015.80	\$ 52,440.00	\$ 150,475.20	\$ 75,237.60	\$ 4,702.35	\$ 4,702.35
Larchdale to Kurt	15	\$ 170,540.40	\$ 134,496.00	1140	4560	\$ 13,449.60	\$ 896.64	\$ 43,320.00	\$ 127,220.40	\$ 63,610.20	\$ 4,240.68	\$ 4,240.68
Kurt to existing	1	\$ 20,861.00	\$ 8,640.00	90	360	\$ 864.00	\$ 864.00	\$ 3,420.00	\$ 17,441.00	\$ 8,720.50	\$ 8,720.50	\$ 8,720.50
Gladds to Maplewood	5	\$ 64,151.60	\$ 41,184.00	370	1480	\$ 4,118.40	\$ 823.68	\$ 14,060.00	\$ 50,091.60	\$ 25,045.80	\$ 5,009.16	\$ 5,009.16
Maplewood to Harwood	7	\$ 76,249.60	\$ 50,784.30	426	1704	\$ 5,078.43	\$ 725.49	\$ 16,188.00	\$ 60,061.60	\$ 30,030.80	\$ 4,290.11	\$ 4,290.11
Harwood to existing	6	\$ 75,697.60	\$ 50,304.00	410	1640	\$ 5,030.40	\$ 838.40	\$ 15,580.00	\$ 60,117.60	\$ 30,058.80	\$ 5,009.80	\$ 5,009.80
TOTAL	50	\$ 610,415.40	\$ 447,936.30	3816	15264							
Kelso Road												
Bower Hill to Worcester	2	\$ 35,259.00	\$ 20,640.00	195	780	\$ 2,064.00	\$ 1,032.00	\$ 7,410.00	\$ 27,849.00	\$ 13,924.50	\$ 6,962.25	\$ 6,962.25
Worcester to Pembroke	11	\$ 105,468.80	\$ 77,951.50	765	3060	\$ 7,795.15	\$ 708.65	\$ 29,070.00	\$ 76,398.80	\$ 38,199.40	\$ 3,472.67	\$ 3,472.67
Pembroke to Bethany	19	\$ 235,731.60	\$ 190,944.30	963	3852	\$ 19,094.43	\$ 1,004.97	\$ 36,594.00	\$ 199,137.60	\$ 99,568.80	\$ 5,240.46	\$ 5,240.46
TOTAL	32	\$ 376,459.40	\$ 289,535.80	1923	7692							
Robb Hollow Road												
Larchdale to Sandrae	8	\$ 98,440.00	\$ 72,480.00	758	3032	\$ 7,248.00	\$ 906.00	\$ 28,804.00	\$ 69,636.00	\$ 34,818.00	\$ 4,352.25	\$ 4,352.25
TOTAL	8	\$ 98,440.00	\$ 72,480.00	758	3032							
GRAND TOTAL	178	\$ 2,389,113.98	\$ 1,604,002.00	13385	53540							

SUMMARY

Questions ?