

**Green Lake Sanitary District  
Carpenter Lane Sanitary Sewer Extension Feasibility Report  
1-Sep-20**



**OPTION #1  
OPEN CUT GRAVITY SEWER - OUTSIDE OF ROAD**

<b>BID ITEM</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>TOTAL COST</b>
Mobilization	1	LS	\$10,000.00	\$10,000.00
8" Sanitary Sewer	1010	LF	\$70.00	\$70,700.00
Connect to Existing Manhole	1	EA	\$1,500.00	\$1,500.00
48" Sanitary Manhole/w Casting	40	VF	\$300.00	\$12,000.00
4" Rigid Insulation	1200	SF	\$5.00	\$6,000.00
8" x 4" Wye (gravity lateral)	12	EA	\$300.00	\$3,600.00
4" Gravity Sanitary Laterals	400	LF	\$65.00	\$26,000.00
Chimney Seals	4	EA	\$400.00	\$1,600.00
Rock Excavation	200	CY	\$200.00	\$40,000.00
Tree Removal	50	EA	\$500.00	\$25,000.00
Remove Asphalt Pavement	310	SY	\$5.00	\$1,550.00
Select Backfill	130	CY	\$25.00	\$3,250.00
Crushed Aggregate Base Course	80	CY	\$25.00	\$2,000.00
Asphalt Pavement 3" - Patch	310	SY	\$40.00	\$12,400.00
Sawcut	200	LF	\$3.00	\$600.00
Driveway Access to Manholes w Culvert	4	EA	\$1,500.00	\$6,000.00
Landscape Restoration	5000	SY	\$5.00	\$25,000.00
Erosion Mat	4000	SY	\$3.00	\$12,000.00
Silt Fence	500	LF	\$3.00	\$1,500.00
Rock Bags	40	EA	\$15.00	\$600.00
<b>PROBABLE CONSTRUCTION COST</b>				<b>\$261,300.00</b>
<b>CONTINGENCY - 10%</b>				<b>\$26,100.00</b>
<b>TECHNICAL, LEGAL, AND ADMINISTRATION</b>				<b>\$63,200.00</b>
<b>PROBABLE PROJECT COST OPTION #1 - OUTSIDE OF ROAD</b>				<b>\$350,600.00</b>

Number of Lots to Service	12 EA
Cost per Lot	\$29,200.00

**Note: Technical, Legal, GLSD Administration Staff, Legal**

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**OPTION #1  
OPEN CUT GRAVITY SEWER - IN ROAD**

<b>BID ITEM</b>	<b>QUANTITY</b>	<b>UNIT</b>	<b>UNIT COST</b>	<b>TOTAL COST</b>
Mobilization	1	LS	\$10,000.00	\$10,000.00
8" Sanitary Sewer	1010	LF	\$70.00	\$70,700.00
Connect to Existing Manhole	1	EA	\$1,500.00	\$1,500.00
48" Sanitary Manhole/w Casting	40	VF	\$300.00	\$12,000.00
4" Rigid Insulation	1200	SF	\$5.00	\$6,000.00
8" x 4" Wye (gravity lateral)	12	EA	\$300.00	\$3,600.00
4" Gravity Sanitary Laterals	400	LF	\$65.00	\$26,000.00
Chimney Seals	4	EA	\$400.00	\$1,600.00
Rock Excavation	200	CY	\$200.00	\$40,000.00
Tree Removal - Lateral Area Est.	10	EA	\$500.00	\$5,000.00
Remove Asphalt Pavement	1600	SY	\$5.00	\$8,000.00
Select Backfill	1000	CY	\$25.00	\$25,000.00
Crushed Aggregate Base Course	600	CY	\$25.00	\$15,000.00
Asphalt Pavement 3" - Full	1600	SY	\$25.00	\$40,000.00
Sawcut	100	LF	\$3.00	\$300.00
Landscape Restoration - Patch	1200	SY	\$7.00	\$8,400.00
Erosion Mat	1000	SY	\$3.00	\$3,000.00
Silt Fence	400	LF	\$3.00	\$1,200.00
Rock Bags	40	EA	\$15.00	\$600.00

<b>PROBABLE CONSTRUCTION COST</b>	\$277,900.00
<b>CONTINGENCY - 10%</b>	\$27,800.00
<b>TECHNICAL, LEGAL, AND ADMINISTRATION</b>	\$67,300.00

**PROBABLE PROJECT COST OPTION #1 - IN ROAD** **\$373,000.00**

Number of Lots to Service	12 EA
Cost per Lot	\$31,100.00

**Note: Technical, Legal, GLSD Administration Staff, Legal**

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**OPTION #2**  
**DIRECTIONAL DRILL/GRAVITY COMBINATION - OUTSIDE OF ROAD**

BID ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
Mobilization	1	LS	\$10,000.00	\$10,000.00
8" Sanitary Sewer - Open Cut	285	LF	\$70.00	\$19,950.00
Pressure Sewer w/ Tracer Wire - Directional Drill	725	LF	\$60.00	\$43,500.00
Connect to Existing Manhole	1	EA	\$1,500.00	\$1,500.00
48" Sanitary Manhole/w Casting	40	VF	\$300.00	\$12,000.00
48" Air/Vacuum Relief Manhole/w Casting	1	LS	\$7,500.00	\$7,500.00
4" Rigid Insulation	1200	SF	\$5.00	\$6,000.00
Wye (pressure lateral)	6	EA	\$1,000.00	\$6,000.00
Pressure Sanitary Laterals	200	LF	\$65.00	\$13,000.00
8" x 4" Wye (gravity lateral)	6	EA	\$300.00	\$1,800.00
4" Gravity Sanitary Laterals	200	LF	\$50.00	\$10,000.00
Chimney Seals	4	EA	\$400.00	\$1,600.00
Rock Excavation - Shore Dr	50	CY	\$200.00	\$10,000.00
Tree Removal - Lateral Area/Gravity Area	25	EA	\$500.00	\$12,500.00
Remove Asphalt Pavement	225	SY	\$3.00	\$675.00
Select Backfill	130	CY	\$25.00	\$3,250.00
Crushed Aggregate Base Course	100	CY	\$25.00	\$2,500.00
Asphalt Pavement 3", Patch	225	SY	\$40.00	\$9,000.00
Sawcut	75	LF	\$4.00	\$300.00
Driveway Access to Manholes w Culvert	3	EA	\$1,500.00	\$4,500.00
Landscape Restoration	1300	SY	\$5.00	\$6,500.00
Erosion Mat	1000	SY	\$2.00	\$2,000.00
Silt Fence	400	LF	\$3.00	\$1,200.00
Rock Bags	40	EA	\$15.00	\$600.00
<b>PROBABLE CONSTRUCTION COST</b>				<b>\$155,925.00</b>
<b>CONTINGENCY - 10%</b>				<b>\$15,600.00</b>
<b>TECHNICAL, LEGAL, AND ADMINISTRATION</b>				<b>\$42,900.00</b>
<b>PROBABLE PROJECT COST OPTION #2 - OUTSIDE OF ROAD</b>				<b>\$214,400.00</b>

Number of Lots to Service 12 EA

Cost per Lot \$17,900.00

**Note: Technical, Legal, and Administration is for Soil Investigation, GLSD Administration Staff, GLSD Legal, and Cedar Corp**  
**Open cut gravity sewer installed where limited cover is available and sewer is at minimum grade.**  
**Rock elevations in the area could impact this method, if shallow.**  
**Pressure sewer has limited expansion for future development Area 9**

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**OPTION #2**  
**DIRECTIONAL DRILL/GRAVITY COMBINATION - IN ROAD**

BID ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
Mobilization	1	LS	\$10,000.00	\$10,000.00
8" Sanitary Sewer Open Cut	285	LF	\$70.00	\$19,950.00
Pressure Sewer w/ Tracer Wire - Directional Drill	725	LF	\$60.00	\$43,500.00
Connect to Existing Manhole	1	EA	\$1,500.00	\$1,500.00
48" Sanitary Manhole/w Casting	40	VF	\$300.00	\$12,000.00
48" Air/Vacuum Relief Manhole/w Casting	1	LS	\$7,500.00	\$7,500.00
4" Rigid Insulation	1200	SF	\$5.00	\$6,000.00
8" x 4" Wye (gravity lateral)	12	EA	\$300.00	\$3,600.00
4" Gravity Sanitary Laterals - Open Cut	400	LF	\$65.00	\$26,000.00
Chimney Seals	4	EA	\$400.00	\$1,600.00
Rock Excavation @ Shore Dr	50	CY	\$200.00	\$10,000.00
Tree Removal @ Laterals	10	EA	\$500.00	\$5,000.00
Remove Asphalt Pavement	300	SY	\$3.00	\$900.00
Select Backfill	200	CY	\$25.00	\$5,000.00
Crushed Aggregate Base Course	150	CY	\$25.00	\$3,750.00
Asphalt Pavement 3" Patch	300	SY	\$40.00	\$12,000.00
Sawcut	100	LF	\$4.00	\$400.00
Landscape Restoration - Patch	1300	SY	\$7.00	\$9,100.00
Erosion Mat	1000	SY	\$3.00	\$3,000.00
Silt Fence	400	LF	\$3.00	\$1,200.00
Rock Bags	40	EA	\$15.00	\$600.00

<b>PROBABLE CONSTRUCTION COST</b>	\$182,600.00
<b>CONTINGENCY - 10%</b>	\$18,300.00
<b>TECHNICAL, LEGAL, AND ADMINISTRATION</b>	\$50,200.00

**PROBABLE PROJECT COST OPTION #2 - IN ROAD** **\$251,100.00**

Number of Lots to Service	12 EA
Cost per Lot	\$20,900.00

**Note: Technical, Legal, and Administration is for Soil Investigation, GLSD Administration Staff, GLSD Legal, and Cedar Corp**  
**Rock elevations in the area could impact this method, if shallow.**

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**OPTION #3**  
**PRESSURE SEWER - OUTSIDE OF ROAD**

BID ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
Mobilization	1	LS	\$10,000.00	\$10,000.00
Pressure Sewer w/ Tracer Wire - Directional Drill	1010	LF	\$60.00	\$60,600.00
Connect to Existing Manhole	1	EA	\$1,500.00	\$1,500.00
48" Air/Vacuum Relief Manhole/w Casting	1	LS	\$7,500.00	\$7,500.00
4" Rigid Insulation	500	SF	\$5.00	\$2,500.00
Forcemain Clean Out	2	EA	\$900.00	\$1,800.00
Wye (pressure lateral)	12	EA	\$1,000.00	\$12,000.00
Pressure Sanitary Laterals - Directional Drill	400	LF	\$65.00	\$26,000.00
Chimney Seals	1	EA	\$500.00	\$500.00
Rock Excavation @ Shore Dr	50	CY	\$200.00	\$10,000.00
Remove Asphalt Pavement	150	SY	\$3.00	\$450.00
Select Backfill	40	CY	\$25.00	\$1,000.00
Crushed Aggregate Base Course	50	CY	\$25.00	\$1,250.00
Asphalt Pavement 3" - Patch	150	SY	\$40.00	\$6,000.00
Sawcut	100	LF	\$4.00	\$400.00
Landscape Restoration - Patching	1300	SY	\$7.00	\$9,100.00
Erosion Mat	1000	SY	\$3.00	\$3,000.00
Silt Fence	400	LF	\$3.00	\$1,200.00
Rock Bags	40	EA	\$15.00	\$600.00
<b>PROBABLE CONSTRUCTION COST</b>				<b>\$155,400.00</b>
<b>CONTINGENCY - 10%</b>				<b>\$15,500.00</b>
<b>TECHNICAL, LEGAL, AND ADMINISTRATION</b>				<b>\$42,700.00</b>
<b>PROBABLE PROJECT COST OPTION #3 - OUTSIDE OF ROAD</b>				<b>\$213,600.00</b>

Number of Lots to Service 12 EA  
 Cost per Lot \$17,800.00

**Note: Technical, Legal, and Administration is for Soil Investigation, GLSD Administration Staff, GLSD Legal, and Cedar Corp**

**Rock elevations in the area could impact this method, if shallow.  
 Pressure sewer has limited expansion for future development Area 9**

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**OPTION #3**  
**PRESSURE SEWER - IN ROAD**

BID ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
Mobilization	1	LS	\$10,000.00	\$10,000.00
Pressure Sewer w/ Tracer Wire - Directional Drill	1010	LF	\$60.00	\$60,600.00
Connect to Existing Manhole	1	EA	\$1,500.00	\$1,500.00
48" Air/Vacuum Relief Manhole/w Casting	1	LS	\$7,500.00	\$7,500.00
4" Rigid Insulation	500	SF	\$5.00	\$2,500.00
Forcemain Clean Out	2	EA	\$900.00	\$1,800.00
Wye (pressure lateral)	12	EA	\$1,000.00	\$12,000.00
Pressure Sanitary Laterals - Directional Drill	400	LF	\$65.00	\$26,000.00
Chimney Seals	1	EA	\$500.00	\$500.00
Rock Excavation @ Shore Dr	50	CY	\$200.00	\$10,000.00
Remove Asphalt Pavement	225	SY	\$3.00	\$675.00
Select Backfill	250	CY	\$25.00	\$6,250.00
Crushed Aggregate Base Course	200	CY	\$25.00	\$5,000.00
Asphalt Pavement 3" - Patch	225	SY	\$40.00	\$9,000.00
Sawcut	200	LF	\$4.00	\$800.00
Landscape Restoration - Patch	1300	SY	\$7.00	\$9,100.00
Erosion Mat	1000	SY	\$2.00	\$2,000.00
Silt Fence	400	LF	\$3.00	\$1,200.00
Rock Bags	40	EA	\$15.00	\$600.00
<b>PROBABLE CONSTRUCTION COST</b>				\$167,025.00
<b>CONTINGENCY - 10%</b>				\$16,700.00
<b>TECHNICAL, LEGAL, AND ADMINISTRATION</b>				\$45,900.00
<b>PROBABLE PROJECT COST OPTION #3 - IN ROAD</b>				<b>\$229,600.00</b>

Number of Lots to Service 12 EA  
 Cost per Lot \$19,100.00

**Note: Technical, Legal, and Administration is for Soil Investigation, GLSD Administration Staff, GLSD Legal, and Cedar Corp**

**Rock elevations in the area could impact this method, if shallow.  
 Pressure sewer has limited expansion for future development Area 9**