

PAVING  
PLAN  
MATERIALS  
FROM  
08/10/2021

2022 CAPITAL IMPROVEMENT  
PLAN  
EXCEL SPREADSHEETS  
OF  
ENGINEERING ESTIMATES  
FOR  
PRIORITY #1 PROJECTS  
IDENTIFIED BY  
TOWN COUNCIL

**Town of Pittsfield  
 Summary of Road Construction Costs  
 Engineering Estimates  
 Plymouth Engineering Road Costs Only  
 Provided for Pittsfield 2022 Road Plan**

**July 1, 2021  
 Costs are in  
 2021 dollars**

**Town Council Priority #1 Projects for Construction:**

<b>Road or Bridge/Drainage</b>	<b>Engineering Cost Road Only</b>	<b>Construction Cost Road Only</b>	<b>Total Estimate Road Only</b>
Hamilton Terrace	\$40,369.00	\$914,308.00	\$954,677.00
Birchwood Terrace	\$29,936.00	\$255,952.00	\$285,888.00
Maple Terrace	\$21,623.00	\$98,285.00	\$119,908.00
Hemlock Terrace	\$21,786.00	\$100,424.00	\$122,210.00
Arbor Terrace	\$22,437.00	\$124,890.00	\$147,327.00
West Street	\$28,308.00	\$214,087.00	\$242,395.00
Library Street	\$27,006.00	\$200,343.00	\$227,349.00
Connors Street	\$19,335.00	\$84,992.00	\$104,327.00
School Street	\$29,936.00	\$349,994.00	\$379,930.00
Spring Road	\$57,969.00	\$1,401,741.00	\$1,459,710.00
Mosher Bridge, Crawford	\$37,571.00	\$94,979.00	\$132,550.00
Sebasticook Street Culvert/s	\$35,571.00	\$268,209.00	\$303,780.00
Farnham Brook Drainage	\$9,000.00		\$9,000.00
<b>Total:</b>	<b>\$380,847.00</b>	<b>\$4,108,204.00</b>	<b>\$4,489,051.00</b>

PLYMOUTH ENGINEERING  
COST ESTIMATES  
FOR  
EACH 2022 CAPITAL  
IMPROVEMENT PROJECT  
ROAD PRICING ONLY



# Plymouth Engineering, Inc.

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Tel: (207) 257-2071 fax: (207) 257-2130

June 28, 2021

Project No. 20222

Town of Pittsfield  
Attn: Ms. Kathryn Ruth, Town Manager  
112 Somerset Avenue  
Pittsfield, ME 04967

## **Engineering and Design Services for Various Roadway, Bridge and Drainage Projects** **CAPITAL IMPROVEMENTS PLAN INITIAL COST ESTIMATES**

Dear Ms. Ruth:

Plymouth Engineering, Inc. is pleased to provide this initial opinion of construction costs for various projects in Pittsfield for your use in the town's capital improvements planning. Pursuant to our Agreement, Plymouth Engineering has made site visits to each of the project sites gathering data to verify lengths, widths, and other surficial features to assist with our cost estimating.

Our opinion of costs is limited to what was visually apparent on the surface of each project. No test pits, sewer or water subsurface investigations, televising, or other subsurface investigations were undertaken. We also limited our widening of investigations to stay primarily within the town's rights-of-way so as not to trespass or create unnecessary concerns from private land owners.

We also understand that the Town is currently discussing a similar project for the sidewalks in town. It should be noted that the cost estimates contained herein, include curb and sidewalk that would be impacted by roadwork. The exception to this is on Birchwood Terrace where there are remnants of a sidewalk that has been long since abandoned and not maintained. In most locations, it actually no longer exists. That sidewalk is not considered in any cost estimate.

The cost estimates summarized below and detailed in attached spreadsheets were generated with the focus of upgrading the roads or bridges without consideration of utility replacement. The sewer and water departments should be consulted regarding age, condition, and history of maintenance issues for the sewer and water systems. We have used their mapping to give us a better idea of what features may need to be adjusted during road reconstruction.

Concept design criteria for the cost estimates included the following for each type of project. In addition, the scopes will include adjustment of surface covers/grates, erosion/sedimentation control, limited seeding at edges of work, and cast-in-place concrete curbing to replace existing curbing.

### Reclaim and Pave:

- Reclaim to 10" thickness and use material as surface gravel.
- Excess reclaim material to be trucked by contractor to Town-owned site for future use.
- 4" pavement thickness

Full-depth Reconstruction:

- Geotextile fabric
- 18" MDOT Type D gravel
- 6" MDOT Type A gravel
- 4" pavement thickness

The cost estimates assume that excess reclaim or milled materials will be trucked from the site by the contractor to a Town-owned facility for future use within a mile of the project.

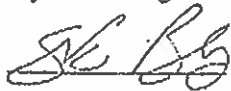
SUMMARY OF COST ESTIMATES\*

PROJECT	SUMMARY OF WORK	OPINION OF CONSTRUCTION COST
Hamilton Terrace	full depth reconstruction	\$ 914,308
Birchwood Terrace	reclaim	\$ 255,952
Maple Terrace	reclaim	\$ 98,285
Hemlock Terrace	reclaim	\$ 100,424
Arbor Terrace	reclaim	\$ 124,890
West Street	reclaim	\$ 214,087
Library Street	reclaim	\$ 200,343
Connors Street	full depth reconstruction	\$ 84,992
School Street	reclaim	\$ 349,994
Spring Road	full depth reconstruction	\$1,401,741
Crawford Road Bridge	repair undermine/repair road/replace guardrail	\$ 94,979
Sebasticook St. Culvert	replace previously repaired culvert	\$ 268,209

\*see individual spreadsheets for scope of services for each project.

The cost estimates above are based on our opinion regarding the existing condition, and optimum means of upgrading the project areas to provide a realistic life cycle for the town of 10-15 years. By this, we mean the time after which some level of paving and/or mill and pave or reclaim may be necessary. More of the roads could be considered for full reconstruction, but we've limited full depth reconstruction to areas where there is definite evidence of roadway "foundation" issues. In an attempt to prioritize with the life cycle in mind, we have not simply suggested full reconstruction of everything.

Sincerely,  
Plymouth Engineering, Inc.



Scott E. Braley, PE, CPESC  
President

Enc.

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## ***OPINON OF PROBABLE CONSTRUCTION COST***

PITTSFIELD ROADS - HAMILTON TERRACE  
project length - 4774'  
PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	1641	TON	\$ 90	\$ 147,690
3	1 1/2" 12.5 mm Surface Pavement	985	TON	\$ 90	\$ 88,650
4	6" Type A Gravel	1945	CY	\$ 35	\$ 68,075
5	18" Type D Gravel	5835	CY	\$ 30	\$ 175,050
6	Ditching	0	LF	\$ 10	\$ -
7	Reclaim	0	SY	\$ 5	\$ -
8	Reset SMH frame & cover	7	EA	\$ 1,000	\$ 7,000
9	bit curb	0	LF	\$ 13	\$ -
10	Reset CB frame & cover	1	EA	\$ 1,000	\$ 1,000
11	15" HDPE Culvert	45	LF	\$ 50	\$ 2,250
12	24" HDPE CULVERT	45	LF	\$ 150	\$ 6,750
13	36" HDPE CULVERT	0	LF	\$ 225	\$ -
14	18" HDPE Culvert	45	LF	\$ 75	\$ 3,375
15	Erosion Control	1	EA	\$ 7,000	\$ 7,000
16	MIRAFI 600X	11670	SY	\$ 7	\$ 81,690
17	common excavation	9076	CY	\$ 20	\$ 181,520
18	clearing	0	AC	\$ 3,000	\$ -
					\$ -
					\$ -
					\$ -
Sub Total					\$ 795,050
15% Contingency					\$ 119,258
Total Opinon of Cost					\$ 914,308









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## **OPINON OF PROBABLE CONSTRUCTION COST**

PITTSFIELD ROADS - Arbor Terrace  
 project length - 1140'

PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	428	TON	\$ 90	\$ 38,520
3	1 1/2" 12.5 mm Surface Pavement	257	TON	\$ 90	\$ 23,130
4	6" Type A Gravel	0	CY	\$ 35	\$ -
10	Reclaim	3040	SY	\$ 5	\$ 15,200
11	Reset SMH frame & cover	1	EA	\$ 1,000	\$ 1,000
12	Replace/Reset Valve Box	0	EA	\$ 1,000	\$ -
12	Reset CB frame & cover	0	EA	\$ 1,000	\$ -
13	Rebedding culvert	0	EA	\$ 1,500	\$ -
14	15" HDPE Culvert	0	LF	\$ 50	\$ -
15	24" HDPE CULVERT	0	LF	\$ 150	\$ -
16	36" HDPE CULVERT	0	LF	\$ 225	\$ -
17	18" HDPE Culvert	50	LF	\$ 75	\$ 3,750
18	Erosion Control	1	EA	\$ 2,000	\$ 2,000
19	Common Excavation	0	cy	\$ 20	\$ -
20	MIRAFI 600X	0	SY	\$ 7	\$ -
					\$ -
					\$ -
					\$ -
				Sub Total	\$ 108,600
	15% Contingency				\$ 16,290
				Total Opinon of Cost	\$ 124,890

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## **OPINON OF PROBABLE CONSTRUCTION COST**

PITTSFIELD ROADS - WEST STREET

project length - 1937

PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	575	TON	\$ 90	\$ 51,750
3	1 1/2" 12.5 mm Surface Pavement	345	TON	\$ 90	\$ 31,050
4	6" Type A Gravel	0	CY	\$ 35	\$ -
5	18" Type D Gravel	0	CY	\$ 30	\$ -
6	Ditching	0	LF	\$ 10	\$ -
7	Reclaim	4090	SY	\$ 5	\$ 20,450
8	Reset SMH frame & cover	4	EA	\$ 1,000	\$ 4,000
9	bit curb	1921	LF	\$ 13	\$ 24,013
10	Reset CB frame & cover	6	EA	\$ 1,000	\$ 6,000
11	15" HDPE Culvert	0	LF	\$ 50	\$ -
12	36" HDPE CULVERT	84	LF	\$ 225	\$ 18,900
13	18" HDPE Culvert	0	LF	\$ 75	\$ -
14	Erosion Control	1	EA	\$ 5,000	\$ 5,000
15	MIRAFI 600X	0	SY	\$ 7	\$ -
16	clearing	0	AC	\$ 3,000	\$ -
					\$ -
					\$ -
			Sub Total		\$ 186,163
	15% Contingency				\$ 27,924
	Total Opinon of Cost				\$ 214,087

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## ***OPINON OF PROBABLE CONSTRUCTION COST***

PITTSFIELD ROADS - Library Street

project length - 1520'

PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	570	TON	\$ 90	\$ 51,300
3	1 1/2" 12.5 mm Surface Pavement	342	TON	\$ 90	\$ 30,780
4	6" Type A Gravel	0	CY	\$ 35	\$ -
8	6" BIT Curb	617	LF	\$ 13	\$ 8,021
9	5' Side Walk	617	LF	\$ 25	\$ 15,425
10	Reclaim	4053	SY	\$ 5	\$ 20,265
11	Reset SMH frame & cover	8	EA	\$ 1,000	\$ 8,000
12	Reset CB frame & cover	8	EA	\$ 1,000	\$ 8,000
17	Erosion Control	1	EA	\$ 4,000	\$ 4,000
18	Common Excavation	171	cy	\$ 20	\$ 3,420
19	MIRAFI 600X	0	SY	\$ 7	\$ -
20	demo	0	EA	\$ 5,000	\$ -
					\$ -
					\$ -
					\$ -
				Sub Total	\$ 174,211
	15% Contingency				\$ 26,132
				Total Opinon of Cost	\$ 200,343

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## ***OPINON OF PROBABLE CONSTRUCTION COST***

PITTSFIELD ROADS - Connors Street

project length - 155'

PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	46	TON	\$ 90	\$ 4,140
3	1 1/2" 12.5 mm Surface Pavement	28	TON	\$ 90	\$ 2,520
4	6" Type A Gravel	55	CY	\$ 35	\$ 1,925
5	18" Type D Gravel	164	CY	\$ 30	\$ 4,920
7	6" CIP Concrete curb	225	LF	\$ 13	\$ 2,813
8	5' Side Walk	225	LF	\$ 28	\$ 6,300
9	Reclaim	0	SY	\$ 5	\$ -
10	Reset SMH frame & cover	0	EA	\$ 1,000	\$ -
12	Reset CB frame & cover	0	EA	\$ 1,000	\$ -
17	Erosion Control	1	EA	\$ 2,500	\$ 2,500
18	Common Excavation	325	cy	\$ 20	\$ 6,500
19	MIRAFI 600X	327	SY	\$ 7	\$ 2,289
20	demo	1	EA	\$ 5,000	\$ 5,000
21	ancillary regarding bldg. foundations	1	EA	\$ 10,000	\$ 10,000
					\$ -
			Sub Total		\$ 73,907
	15% Contingency				\$ 11,086
			Total Opinon of Cost		\$ 84,992

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## ***OPINON OF PROBABLE CONSTRUCTION COST***

PITTSFIELD ROADS - School Street

project length - 2469'

PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	887	TON	\$ 90	\$ 79,830
3	1 1/2" 12.5 mm Surface Pavement	532	TON	\$ 90	\$ 47,880
4	6" Type A Gravel	0	CY	\$ 35	\$ -
7	6" CIP Concrete curb	1895	LF	\$ 13	\$ 23,688
8	6" BIT Curb	0	LF	\$ 13	\$ -
9	5' Side Walk	1895	LF	\$ 25	\$ 47,375
10	Reclaim	6310	SY	\$ 5	\$ 31,550
11	Reset SMH frame & cover	6	EA	\$ 1,000	\$ 6,000
12	Replace/Reset Valve Box	4	EA	\$ 1,000	\$ 4,000
12	Reset CB frame & cover	13	EA	\$ 1,000	\$ 13,000
13	15" HDPE Culvert	80	LF	\$ 50	\$ 4,000
14	24" HDPE CULVERT	0	LF	\$ 150	\$ -
15	36" HDPE CULVERT	0	LF	\$ 225	\$ -
16	18" HDPE Culvert	0	LF	\$ 75	\$ -
17	Erosion Control	1	EA	\$ 5,000	\$ 5,000
18	Common Excavation	351	cy	\$ 20	\$ 7,020
19	MIRAFI 600X	0	SY	\$ 7	\$ -
20	demo	1	EA	\$ 10,000	\$ 10,000
					\$ -
					\$ -
				Sub Total	\$ 304,343
	15% Contingency				\$ 45,651
				Total Opinon of Cost	\$ 349,994

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## ***OPINON OF PROBABLE CONSTRUCTION COST***

PITTSFIELD ROADS - Spring Road

project length - 8236'

PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	887	TON	\$ 90	\$ 79,830
3	1 1/2" 12.5 mm Surface Pavement	532	TON	\$ 90	\$ 47,880
4	6" Type A Gravel	3737	CY	\$ 35	\$ 130,795
5	18" Type D Gravel	11210	CY	\$ 30	\$ 336,300
6	Ditching	4000	LF	\$ 10	\$ 40,000
10	Reclaim	0	SY	\$ 5	\$ -
13	Rebedding culvert	2	EA	\$ 1,500	\$ 3,000
14	15" HDPE Culvert	40	LF	\$ 50	\$ 2,000
15	24" HDPE CULVERT	0	LF	\$ 150	\$ -
16	30" Hdpe culvert	80	LF	\$ 180	\$ 14,400
17	36" HDPE CULVERT	80	LF	\$ 225	\$ 18,000
18	18" HDPE Culvert	120	LF	\$ 75	\$ 9,000
19	Erosion Control	1	EA	\$ 7,000	\$ 7,000
20	Common Excavation	17438	cy	\$ 20	\$ 348,760
21	MIRAFI 600X	22420	SY	\$ 7	\$ 156,940
22	clearing	0	AC	\$ 3,000	\$ -
					\$ -
					\$ -
					\$ -
				Sub Total	\$ 1,218,905
	15% Contingency				\$ 182,836
				Total Opinon of Cost	\$ 1,401,741



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## ***OPINON OF PROBABLE CONSTRUCTION COST***

PITTSFIELD ROADS - Crawford Road Bridge repairs

project length - 200'

PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	63	TON	\$ 90	\$ 5,670
3	1 1/2" 12.5 mm Surface Pavement	38	TON	\$ 90	\$ 3,420
4	Erosion Control	1	EA	\$ 2,500	\$ 2,500
5	Common Excavation	0	cy	\$ 20	\$ -
6	demo	1	EA	\$ 10,000	\$ 10,000
7	undermining repair	1	EA	\$ 20,000	\$ 20,000
8	guard rail	400	LF	\$ 40	\$ 16,000
			Sub Total		\$ 82,590
	15% Contingency				\$ 12,389
			Total Opinon of Cost		\$ 94,979

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## ***OPINON OF PROBABLE CONSTRUCTION COST***

PITTSFIELD ROADS - Sebasticook Street Culvert - replace previously repaired culvert  
project length - 200'

PROJECT NUMBER 20222

ITEM	DESCRIPTION	Qty	Units	Unit Cost	Total Cost
1	General Provisions	1	EA	\$ 25,000	\$ 25,000
2	2 1/2" 19 mm Binder Pavement	63	TON	\$ 90	\$ 5,670
3	1 1/2" 12.5 mm Surface Pavement	38	TON	\$ 90	\$ 3,420
4	6" Type A Gravel	77	CY	\$ 35	\$ 2,695
5	18" Type D Gravel	230	CY	\$ 30	\$ 6,900
7	6" CIP Concrete curb	200	LF	\$ 13	\$ 2,500
8	5' Side Walk	200	LF	\$ 28	\$ 5,600
9	Reclaim	0	SY	\$ 5	\$ -
10	Reset SMH frame & cover	0	EA	\$ 1,000	\$ -
12	Reset CB frame & cover	0	EA	\$ 1,000	\$ -
17	Erosion Control	1	EA	\$ 2,500	\$ 2,500
18	Common Excavation	0	cy	\$ 20	\$ -
19	MIRAFI 600X	460	SY	\$ 7	\$ 3,220
20	demo	1	EA	\$ 5,000	\$ 5,000
21	culvert replace / 3-sided concrete b	1	EA	\$ 150,000	\$ 150,000
22	guard rail	518	LF	\$ 40	\$ 20,720
			Sub Total		\$ 233,225
	15% Contingency				\$ 34,984
			Total Opinon of Cost		\$ 268,209

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## Individual Project Cost Tabulations

Project Name / Task Phase	Length	Phased Costs	CONSTRUCTION TIME (calendar days)
Hamilton Terrace	4753		60
I		\$ 15,655.08	
II		\$ 4,000.00	
III		\$ 20,714.29	
Birchwood Terrace	2481		45
I		\$ 8,649.75	
II		\$ 4,000.00	
III		\$ 17,285.71	
Maple Terrace	897		30
I		\$ 3,765.75	
III		\$ 4,000.00	
III		\$ 13,857.14	
Hemlock Terrace	950		30
I		\$ 3,929.17	
II		\$ 4,000.00	
III		\$ 13,857.14	

Arbor Terracc	1161	30	
I			\$ 4,579.75
II			\$ 4,000.00
III			\$ 13,857.14
West Street	1953	45	
I			\$ 7,021.75
II			\$ 4,000.00
III			\$ 17,285.71
Library Street	1531	45	
I			\$ 5,720.58
II			\$ 4,000.00
III			\$ 17,285.71
Connors Street	155	30	
I			\$ 1,477.92
II			\$ 4,000.00
III			\$ 13,857.14
Sebasticook Street Culverts	75	90	
I			\$ 4,000.00
II			\$ 4,000.00
III			\$ 27,571.43
School Street	2481	45	
I			\$ 8,649.75
II			\$4,000
III			\$ 17,285.71
Crawford Road Bridge	53	90	
I			\$ 6,000.00
II			\$ 4,000.00
III			\$ 27,571.43

Major Drainage / Run off	N/A		
I		\$ 5,000.00	
II		\$4,000	
III			
Spring Road	8237		90
I		\$ 26,397.42	
II		\$ 4,000.00	
III		\$ 27,571.43	
totals		\$ 100,846.92	
Phase II		\$ 52,000.00	
phase III		\$ 228,000.00	

*380,846.92 rounded to*  
~~380,847.00~~

PLEASE NOTE THAT COSTS ARE BASES ON STATED SCOPE OF SERVICES. CHANGES TO PROJECT DURATION OR PROJECT SIZE WILL ALTER THE COSTS. CHANGES MAY INCLUDE PROVISION OF WATER/SEWER/STORM DRAIN UPDATES. NO REDESIGN/REPLACEMENT OF THESE UTILITIES IS INCLUDED IN THE ABOVE-STATED COSTS.

THE SCOPE OF SERVICES FOR THE MAJOR DRAINAGE / RUNOFF IS NOT SPECIFIED IN THE RFP. AS SUCH, OUR PROPOSED SCOPE IS CURRENTLY LIMITED TO FIELD RECONNAISSANCE AND DATA COLLECTION OF THE INFRASTRUCTURE THAT IS PART OF THE DRAINAGE BETWEEN THE GOLF COURSE AND THE SEBASTICOOK RIVER.

THE SCOPE OF SERVICES FOR BOTH THE CRAWFORD ROAD BRIDGE AND SEBASTICOOK STREET CULVERTS ARE NOT PROVIDED IN DETAIL, SO THE PROPOSED COST IS LIMITED TO REPAIR OR REPLACEMENT AS NOTED IN THE MDOT REPORTS. FOR CRAWFORD ROAD, THAT IS LIMITED TO REPAIR OF UNDERMINING. FOR SEBASTICOOK STREET IT IS LIMITED TO REPAIR OF PROTECTION FAILURES

**OLVER ASSOCIATES  
PLANNING COST ESTIMATES  
FOR  
EACH 2022 CAPITAL  
IMPROVEMENT PROJECT  
BY ROAD/UTILITY BREAKDOWN**

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
HAMILTON TERRACE INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 818,400.00	\$ 986,700.00	\$ 57,200.00	\$ 1,395,000.00
Ledge Removal Allowance	\$ -	\$ 7,500.00	\$ 5,000.00	\$ 7,500.00
Construction Subtotal	\$ 818,400.00	\$ 994,200.00	\$ 62,200.00	\$ 1,402,500.00
Geotechnical/Permitting	\$ -	\$ 2,000.00	\$ 1,000.00	\$ 2,000.00
Design	\$ 34,000.00	\$ 43,000.00	\$ 3,000.00	\$ 60,000.00
Inspection	\$ 46,000.00	\$ 52,000.00	\$ 4,000.00	\$ 78,000.00
Contingency (10%)	\$ 90,000.00	\$ 109,000.00	\$ 7,000.00	\$ 153,700.00
<b>TOTAL BY UTILITY</b>	<b>\$ 988,400.00</b>	<b>\$1,200,200.00</b>	<b>\$ 77,200.00</b>	<b>\$ 1,696,200.00</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 3,962,000.00</b>

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
BIRCHWOOD TERRACE INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 416,300.00	\$ 539,250.00	\$ 168,500.00	\$ 187,750.00
Ledge Removal Allowance	\$ -	\$ 4,000.00	\$ 3,000.00	\$ 3,000.00
Construction Subtotal	\$ 416,300.00	\$ 543,250.00	\$ 171,500.00	\$ 490,750.00
Geotechnical/Permitting	\$ -	\$ 1,000.00	\$ -	\$ 1,000.00
Design	\$ 16,000.00	\$ 24,000.00	\$ 8,000.00	\$ 22,000.00
Inspection	\$ 25,000.00	\$ 40,000.00	\$ 10,000.00	\$ 40,000.00
Contingency (10%)	\$ 46,000.00	\$ 61,000.00	\$ 19,000.00	\$ 55,200.00
<b>TOTAL BY UTILITY</b>	<b>\$ 503,300.00</b>	<b>\$ 669,250.00</b>	<b>\$ 208,500.00</b>	<b>\$ 608,950.00</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 1,990,000.00</b>

Costs are based on 2021 construction dollars.



PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
 MAPLE TERRACE INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 159,000.00	\$ 225,250.00	\$ 81,800.00	\$ 221,950.00
Ledge Removal Allowance	\$ -	\$ 2,000.00	\$ 1,000.00	\$ 2,000.00
Construction Subtotal	\$ 159,000.00	\$ 227,250.00	\$ 82,800.00	\$ 223,950.00
Geotechnical/Permitting	\$ -	\$ 500.00	\$ -	\$ 500.00
Design	\$ 6,000.00	\$ 9,600.00	\$ 3,600.00	\$ 10,800.00
Inspection	\$ 10,000.00	\$ 18,000.00	\$ 6,000.00	\$ 18,000.00
Contingency (10%)	\$ 18,000.00	\$ 26,000.00	\$ 9,000.00	\$ 25,000.00
<b>TOTAL BY UTILITY</b>	<b>\$ 193,000.00</b>	<b>\$ 281,350.00</b>	<b>\$ 101,400.00</b>	<b>\$ 278,250.00</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 854,000.00</b>

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
HEMLOCK TERRACE INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 161,000.00	\$ 216,000.00	\$ 76,750.00	\$ 211,250.00
Ledge Removal Allowance	\$ -	\$ 2,500.00	\$ 1,000.00	\$ 2,500.00
Construction Subtotal	\$ 161,000.00	\$ 218,500.00	\$ 76,750.00	\$ 213,750.00
Geotechnical/Permitting	\$ -	\$ 500.00	\$ -	\$ 500.00
Design	\$ 6,000.00	\$ 9,600.00	\$ 3,600.00	\$ 10,800.00
Inspection	\$ 10,000.00	\$ 18,000.00	\$ 6,000.00	\$ 18,000.00
Contingency (10%)	\$ 18,000.00	\$ 26,000.00	\$ 9,000.00	\$ 25,000.00
<b>TOTAL BY UTILITY</b>	<b>\$ 195,000.00</b>	<b>\$ 268,600.00</b>	<b>\$ 95,350.00</b>	<b>\$ 267,050.00</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 826,000.00</b>

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
ARBOR TERRACE INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 212,000.00	\$ 267,050.00	\$ 85,900.00	\$ 258,050.00
Ledge Removal Allowance	\$ -	\$ 2,000.00	\$ 1,000.00	\$ 2,000.00
Construction Subtotal	\$ 212,000.00	\$ 269,050.00	\$ 86,900.00	\$ 260,050.00
Geotechnical/Permitting	\$ -	\$ 750.00	\$ -	\$ 750.00
Design	\$ 6,000.00	\$ 13,000.00	\$ 3,000.00	\$ 13,000.00
Inspection	\$ 50,000.00	\$ 20,000.00	\$ 5,000.00	\$ 20,000.00
Contingency (10%)	\$ 23,000.00	\$ 30,000.00	\$ 9,000.00	\$ 28,500.00
<b>TOTAL BY UTILITY</b>	<b>\$ 256,000.00</b>	<b>\$ 332,800.00</b>	<b>\$ 103,900.00</b>	<b>\$ 322,300.00</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 1,015,000.00</b>

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
WEST STREET INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 315,200.00	\$ 327,750.00	\$ 163,300.00	\$ 514,750.00
Ledge Removal Allowance	\$ -	\$ 8,000.00	\$ 4,000.00	\$ 8,000.00
Construction Subtotal	\$ 315,200.00	\$ 335,750.00	\$ 167,300.00	\$ 522,750.00
Geotechnical/Permitting	\$ -	\$ 2,000.00	\$ -	\$ 2,000.00
Design	\$ 12,000.00	\$ 18,000.00	\$ 6,000.00	\$ 24,000.00
Inspection	\$ 20,000.00	\$ 20,000.00	\$ 14,000.00	\$ 41,000.00
Contingency (10%)	\$ 35,000.00	\$ 38,000.00	\$ 19,000.00	\$ 59,000.00
<b>TOTAL BY UTILITY</b>	<b>\$ 382,200.00</b>	<b>\$ 413,750.00</b>	<b>\$ 206,300.00</b>	<b>\$ 648,750.00</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 1,651,000.00</b>

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
LIBRARY STREET INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 228,000.00	\$ 338,750.00	\$ -	\$ 452,250.00
Ledge Removal Allowance	\$ -	\$ 10,000.00	\$ -	\$ 10,000.00
Construction Subtotal	\$ 228,000.00	\$ 348,750.00	\$ -	\$ 462,500.00
Geotechnical/Permitting	\$ -	\$ 1,000.00	\$ -	\$ 1,000.00
Design	\$ 10,000.00	\$ 15,000.00	\$ -	\$ 15,000.00
Inspection	\$ 14,000.00	\$ 28,000.00	\$ -	\$ 28,000.00
Contingency (10%)	\$ 25,000.00	\$ 39,000.00	\$ -	\$ 51,000.00
<b>TOTAL BY UTILITY</b>	<b>\$ 277,000.00</b>	<b>\$ 431,750.00</b>	<b>\$ -</b>	<b>\$ 557,250.00</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 1,266,000.00</b>

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
CONNORS STREET INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 63,000.00	\$ 55,850.00	\$ 29,700.00	\$ 52,450.00
Ledge Removal Allowance	\$ -	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Construction Subtotal	\$ 63,000.00	\$ 60,850.00	\$ 34,700.00	\$ 57,450.00
Geotechnical/Permitting	\$ -	\$ 1,000.00	\$ -	\$ 1,000.00
Design	\$ 3,000.00	\$ 3,000.00	\$ 1,000.00	\$ 3,000.00
Inspection	\$ 4,500.00	\$ 4,500.00	\$ 1,500.00	\$ 4,500.00
Contingency (10%)	\$ 7,000.00	\$ 7,000.00	\$ 4,000.00	\$ 71,000.00
TOTAL BY UTILITY	\$ 77,500.00	\$ 76,350.00	\$ 41,200.00	\$ 72,950.00
COMBINED PROJECT TOTAL				\$ 268,000.00

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
SCHOOL STREET INFRASTRUCTURE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 443,895.00	\$ 112,000.00	\$ 161,800.00	\$ 378,500.00
Ledge Removal Allowance	\$ -	\$ 10,000.00	\$ -	\$ 10,000.00
Construction Subtotal	\$ 443,895.00	\$ 122,000.00	\$ 161,800.00	\$ 388,500.00
Geotechnical/Permitting	\$ -	\$ 1,000.00	\$ -	\$ 1,000.00
Design	\$ 20,000.00	\$ 12,000.00	\$ 6,000.00	\$ 12,000.00
Inspection	\$ 35,000.00	\$ 18,000.00	\$ 9,000.00	\$ 18,000.00
Contingency (10%)	\$ 49,805.00	\$ 15,000.00	\$ 18,000.00	\$ 42,000.00
TOTAL BY UTILITY	\$ 548,700.00	\$ 168,000.00	\$ 194,800.00	\$ 461,500.00
COMBINED PROJECT TOTAL				\$ 1,373,000.00

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
 SPRING ROAD DRAINAGE AND ROADWAY IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ 1,067,000.00	\$ -	\$ 20,000.00	\$ -
Ledge Removal Allowance	\$ -	\$ -	\$ -	\$ -
Construction Subtotal	\$ 1,067,000.00	\$ -	\$ 20,000.00	\$ -
Geotechnical/Permitting	\$ -	\$ -	\$ 2,000.00	\$ -
Design	\$ 45,000.00	\$ -	\$ 5,000.00	\$ -
Inspection	\$ 45,000.00	\$ -	\$ 5,000.00	\$ -
Contingency (10%)	\$ 116,000.00	\$ -	\$ 3,000.00	\$ -
<b>TOTAL BY UTILITY</b>	<b>\$ 1,273,000.00</b>	<b>\$ -</b>	<b>\$ 35,000.00</b>	<b>\$ -</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 1,308,000.00</b>

Costs are based on 2021 construction dollars.



PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
SEBASTICOOK STREET CULVERT REPAIR

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ -	\$ -	\$ 70,000.00	\$ -
Ledge Removal Allowance	\$ -	\$ -	\$ -	\$ -
Construction Subtotal	\$ -	\$ -	\$ 70,000.00	\$ -
Geotechnical/Permitting	\$ -	\$ -	\$ 3,000.00	\$ -
Design	\$ -	\$ -	\$ 5,000.00	\$ -
Inspection	\$ -	\$ -	\$ 6,000.00	\$ -
Contingency (10%)	\$ -	\$ -	\$ 8,000.00	\$ -
TOTAL BY UTILITY	\$ -	\$ -	\$ 92,000.00	\$ -
COMBINED PROJECT TOTAL				\$ 92,000.00

Costs are based on 2021 construction dollars.

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE  
FARNHAM BROOK MAJOR DRAINAGE IMPROVEMENTS

BY ROAD/UTILITY

DESCRIPTION	ROAD	SEWER	DRAIN	WATER
Construction	\$ -	\$ -	\$ 220,000.00	\$ -
Ledge Removal Allowance	\$ -	\$ -	\$ -	\$ -
<b>Construction Subtotal</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 220,000.00</b>	<b>\$ -</b>
Geotechnical/Permitting	\$ -	\$ -	\$ 6,000.00	\$ -
Design	\$ -	\$ -	\$ 10,000.00	\$ -
Inspection	\$ -	\$ -	\$ 10,000.00	\$ -
Contingency (10%)	\$ -	\$ -	\$ 25,000.00	\$ -
<b>TOTAL BY UTILITY</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 271,000.00</b>	<b>\$ -</b>
<b>COMBINED PROJECT TOTAL</b>				<b>\$ 271,000.00</b>

Costs are based on 2021 construction dollars.

OLVER ASSOCIATES  
PLANNING COST ESTIMATES  
FOR  
EACH 2022 CAPITAL  
IMPROVEMENT PROJECT  
BREAKDOWN BY COST  
COMPONENT

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
HAMILTON TERRACE INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$50,000/LS	\$ 50,000
50 EA	Test pits @ \$500/EA	25,000
LS	Temporary erosion control @ \$10,000/LS	10,000
10 EA	Precast structure removal @ \$1,000/EA	10,000
4100 LF	8"Ø PVC sewer@ \$150/LF	615,000
1500 LF	4"Ø PVC building sewer@ \$140/LF	180,000
13 EA	4'Ø precast manholes@ \$6,000/EA	78,000
4800 LF	8"Ø DI water main@ \$150/LF	720,000
8 EA	8"Ø Wedge valves @ \$2,500/EA	20,000
30 EA	1"Ø Curb stops and boxes @ \$750/EA	22,500
30 EA	1"Ø Corporation stops @ \$500/EA	15,000
1500 LF	1"Ø CU water service @ \$80/LF	120,000
6 EA	Fire hydrants with valves @ \$6,000/EA	36,000
2000 LF	12"Ø SICPE storm drain @ \$125/LF	250,000
10 EA	4'Ø Precast catchbasins @ \$4300/EA	43,000
5800 CY	Roadway/Driveway excavation@ \$10/CY	58,000
5800 CY	Roadway/Driveway aggregate base/subbase @30/CY	174,000
2200 Tons	3" Roadway pavement @ \$200/Ton	440,000
3000 SF	Trench insulation @ \$3/SF	9,000
LS	Loam and seed@ \$10,000/LS	10,000
LS	Owner's testing allowance @ \$5,000/LS	5,000
LS	General conditions @ \$200,500/LS	200,500
	Subtotal	\$ 3,257,300
LS	Geotechnical/permitting allowance	5,000
LS	Design allowance	140,000
LS	Inspection allowance	180,000
LS	Ledge removal allowance	20,000
LS	Contingency allowance	359,700
	Estimate	\$ 3,962,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
BIRCHWOOD TERRACE INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization@ \$25,000/LS	\$ 25,000
25 EA	Test pits @ \$500/EA	12,500
LS	Temporary erosion control@ \$5,000/LS	5,000
4 EA	Precast structure removal@ \$1,000/EA	4,000
2300 LF	8"Ø PVC sewer @ \$150/LF	345,000
900 LF	4"Ø PVC building sewer@ \$120/LF	108,000
4 EA	4'Ø precast manholes@ \$6,000/EA	24,000
1000 LF	12"Ø SICPE storm drain@ \$125/LF	125,000
6 EA	4'Ø precast catchbasins @ \$4,300/EA	26,000
2100 LF	8"Ø DI water main@ \$150/LF	315,000
3 EA	8"Ø Wedge valves @ \$2,500/EA	7,500
18 EA	1"Ø Curb stops and boxes@ \$750/EA	13,500
18 EA	1"Ø Corporation stops @ \$500/EA	9,000
900 LF	1"Ø CU water service @ \$80/LF	72,000
3 EA	Fire hydrants with valves @ \$6,000/EA	18,000
3333 CY	Roadway/Driveway excavation@ \$10/CY	33,300
3333 CY	Roadway/Driveway aggregate base/subbase @ \$30/CY	100,000
1050 Tons	3" Roadway pavement @ \$200/Ton	210,000
2000 SF	Trench insulation @ \$3/SF	6,000
LS	Loam and seed@ \$5,000/LS	5,000
LS	Owner's testing allowance @ \$2,000/LS	2,000
LS	General conditions @ \$146,000/LS	146,200
	Subtotal	\$ 1,611,800
LS	Geotechnical/permitting allowance	2,000
LS	Design allowance	70,000
LS	Inspection allowance	115,000
LS	Ledge removal allowance	10,000
LS	Contingency allowance	181,200
	Estimate	\$ 1,990,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
MAPLE TERRACE INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$10,000/LS	\$ 10,000
12 EA	Test pits @ \$500/EA	6,000
LS	Temporary erosion control @ \$5,000/LS	5,000
2 EA	Precast structure removal @ \$1,000/EA	2,000
1000 LF	8"Ø PVC sewer @ \$150/LF	150,000
350 LF	4"Ø PVC building sewer@ \$120/LF	42,000
2 EA	4'Ø precast manholes @ \$6,000/EA	12,000
500 LF	12"Ø SICPE storm drain @ \$125/LF	62,500
2 EA	4'Ø precast catchbasins @ \$4,300/EA	8,600
1000 LF	8"Ø DI water main @ \$150/LF	150,000
2 EA	8"Ø Wedge valves @ \$2,500/EA	5,000
7 EA	1"Ø Curb stops and boxes @ \$750/EA	5,250
7 EA	1"Ø Corporation stops @ \$500/EA	3,500
350 LF	1"Ø CU water service @ \$80/LF	28,000
1 EA	Fire hydrants with valves @ \$6,000/EA	6,000
1100 CY	Roadway/Driveway excavation@ \$10/CY	11,000
1100 CY	Roadway/Driveway aggregate base/subbase @ \$30/CY	33,000
400 Tons	3" Roadway pavement @ \$200/Ton	80,000
700 SF	Trench insulation @ \$3/SF	2,100
LS	Loam and seed @ \$5,000/LS	5,000
LS	Owner's testing allowance @ \$1,000/LS	1,000
LS	General conditions @ \$60,050/LS	60,050
	Subtotal	\$ 688,000
LS	Geotechnical/permitting allowance	1,000
LS	Design allowance	30,000
LS	Inspection allowance	52,000
LS	Ledge removal allowance	5,000
LS	Contingency allowance	78,000
	Estimate	\$ 854,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
HEMLOCK TERRACE INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$10,000/LS	\$ 10,000
12 EA	Test pits @ \$500/EA	6,000
LS	Temporary erosion control@ \$5,000/LS	5,000
1 EA	Precast structure removal@ \$1,000/EA	1,000
2000 LF	8"Ø PVC sewer@ \$150/LF	150,000
250 LF	4"Ø PVC building sewer@ \$120/LF	30,000
1 EA	4'Ø precast manholes @ \$6,000/EA	6,000
500 LF	12"Ø SICPE storm drain@ \$125/LF	62,500
2 EA	4'Ø precast catchbasins@ \$4,300/EA	8,600
1000 LF	8"Ø DI water main@ \$150/LF	79,000
2 EA	8"Ø Wedge valves @ \$2,500/EA	5,000
5 EA	1"Ø Curb stops and boxes@ \$750/EA	3,750
5 EA	1"Ø Corporation stops @ \$500/EA	2,500
250 LF	1"Ø CU water service @ \$80/LF	20,000
1 EA	Fire hydrants with valves @ \$6,000/EA	6,000
1300 CY	Roadway/Driveway excavation@ \$10/CY	13,000
1300 CY	Roadway/Driveway aggregate base/subbase@ \$30/CY	39,000
400 Tons	3" Roadway pavement@ \$200/Ton	79,000
500 SF	Trench insulation @ \$3/SF	1,500
LS	Loam and seed@ \$5,000/LS	5,000
LS	Owner's testing allowance@ \$1,000/LS	1,000
LS	General conditions@ \$60,150/LS	60,150
	Subtotal	\$665,000
LS	Geotechnical/permitting allowance	1,000
LS	Design allowance	30,000
LS	Inspection allowance	50,000
LS	Ledge removal allowance	5,000
LS	Contingency allowance	752000
	Estimate	\$ 826 000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
ARBOR TERRACE INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$10,000/LS	\$ 10,000
12 EA	Test pits @ \$500/EA	7,500
LS	Temporary erosion control @ \$5,000/LS	5,000
2 EA	Precast structure removal @ \$1,000/EA	2,000
1200 LF	8"Ø PVC sewer @ \$150/LF	180,000
400 LF	4"Ø PVC building sewer @ \$120/LF	48,000
2EA	4' Ø precast manholes @ \$6,000/EA	12,000
500 LF	12"Ø SICPE storm drain @ \$125/LF	62,500
2 EA	4' Ø precast catchbasins @ \$4,300/EA	8,600
1200 LF	8"Ø DI water main @ \$150/LF	180,000
2 EA	8"Ø Wedge valves @ \$2,500/EA	5,000
8 EA	1"Ø Curb stops and boxes @ \$750/EA	6,000
8 EA	1"Ø Corporation stops @ \$500/EA	4,000
400 LF	1"Ø CU water service @ \$80/LF	32,000
1 EA	Fire hydrants with valves @ \$6,000/EA	6,000
1600 CY	Roadway/Driveway excavation @ \$10/CY	16,000
1600 CY	Roadway/Driveway aggregate base/subbase @ \$30/CY	48,000
540 Tons	3" Roadway pavement @ \$200/Ton	108,000
800 SF	Trench insulation @ \$3/SF	2,400
LS	Loam and seed @ \$5,000/LS	5,000
LS	Owner's testing allowance @ \$1,000/LS	1,000
LS	General conditions @ \$60,150/LS	60,150
	Subtotal	\$ 823,000
LS	Geotechnical/permitting allowance	1,500
LS	Design allowance	35,000
LS	Inspection allowance	60,000
LS	Ledge removal allowance	5,000
LS	Contingency allowance	90 500
	Estimate	\$ 1,015,000



PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
WEST STREET INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$15,000/LS	\$ 15,000
25 EA	Test pits @ \$500/EA	12,500
LS	Temporary erosion control @ \$7,000/LS	7,000
5 EA	Precast structure removal @ \$1,000/EA	5,000
850 LF	8"Ø PVC sewer @ \$140/LF	119,000
1250 LF	4"Ø PVC building sewer @ \$140/LF	150,000
3 EA	4'Ø precast manholes @ \$6,000/EA	18,000
6 EA	4'Ø precast catchbasins @ \$4,300/EA	25,800
1000 LF	12"Ø SICPE storm drain @ \$125/LF	125,000
2000 LF	8"Ø DI water main @ \$150/LF	300,000
8 EA	8"Ø Wedge valves @ \$2,500/EA	20,000
25 EA	1"Ø Curb stops and boxes @ \$750/EA	18,750
25EA	1"Ø Corporation stops @ \$500/EA	12,500
1250 LF	1"Ø CU water service @ \$80/LF	100,000
2 EA	Fire hydrants with valves @ \$6,000/EA	12,000
400 Tons	3" Trench pavement @ \$200/Ton	80,000
2500 SF	Trench insulation @ \$3/SF	7,500
LS	Loam and seed @ \$7,000/LS	7,000
LS	Owner's testing allowance @ \$4,000/LS	4,000
5200 SY	Mill 2" thick pavement @\$ 10/SY	52,000
60 Tons	Shim in 10% of overlay area @ \$200/TON	12,000
586 Tons	Pavement overlay @ \$200/TON	117,200
LS	General conditions @ \$100,750/LS	100,750
	Subtotal	\$ 1,321,000
LS	Geotechnical/permitting allowance	4,000
LS	Design allowance	60,000
LS	Inspection allowance	95,000
LS	Ledge removal allowance	20,000
LS	Contingency allowance	151,000
	Estimate	\$ 1,651,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
LIBRARY STREET INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$15,000/LS	\$ 15,000
25 EA	Test pits @ \$500/EA	12,500
LS	Temporary erosion control @ \$7,000/LS	7,000
4 EA	Precast structure removal @ \$1,000/EA	4,000
1300 LF	8"Ø PVC sewer@ \$140/LF	182,000
700 LF	4"Ø PVC building sewer@ \$120/LF	84,000
5 EA	4'Ø precast manholes @ \$6,000/EA	30,000
1950 LF	8"Ø DI water main @ \$150/LF	292,500
7 EA	8"Ø Wedge valves @ \$2,500/EA	17,500
14 EA	1"Ø Curb stops and boxes @ \$750/EA	10,500
14 EA	1"Ø Corporation stops @ \$500/EA	7,000
700 LF	1"Ø CU water service@ \$80/LF	56,000
2 EA	Fire hydrants with valves @ \$6,000/EA	12,000
1000 SF	Trench insulation @ \$3/SF	3,000
LS	Loam and seed @ \$7,000/LS	7,000
4100 SY	Mill 2" thick pavement@\$ 10/SY	41,000
50 Tons	Shim in 10% of overlay area@ \$200/TON	10,000
459 Tons	Pavement overlay @ \$200/TON	91,800
5000 SF	New sidewalk@ \$4/SF	20,000
4 EA	Detectable warning paver areas @ \$1000/EA	4,000
1000 LF	Bituminous curb at \$20/LF	20,000
LS	Owner's testing allowance @ \$2,000/LS	2,000
LS	General conditions @ \$90,200/LS	90,200
	Subtotal	\$ 1,019,000
LS	Geotechnical/permitting allowance	2,000
LS	Design allowance	40,000
LS	Inspection allowance	70,000
LS	Ledge removal allowance	20,000
LS	Contingency allowance	115,000
	Estimate	\$1,266,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
CONNORS STREET INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$5,000/LS	\$ 5,000
5 EA	Test pits @ \$500/EA	2,500
LS	Temporary erosion control @ \$2,000/LS	2,000
1 EA	Precast structure removal@ \$1,000/EA	1,000
160 LF	8"Ø PVC sewer@ \$140/LF	26,400
100 LF	4"Ø PVC building sewer@ \$120/LF	14,000
1 EA	4'Ø precast manholes@ \$6,000/EA	6,000
2 EA	4'Ø precast catchbasins @ \$4,300/EA	8,600
160 LF	12"Ø SICPE storm drain@ \$125/LF	20,000
160 LF	8"Ø DI water main@ \$150/LF	24,000
160 LF	1"Ø CU water service @ \$100/LF	16,000
2 EA	1"Ø Curb stops and boxes@ \$1,000/EA	2,000
2 EA	1"Ø Corporation stops @ \$1,000/EA	2,000
45 Tons	3" Trench pavement@ \$200/Ton	9,000
200 SF	Trench insulation @ \$3/SF	600
LS	Owner's testing allowance @ \$2,000/LS	2,000
LS	General conditions @ \$18,900/LS	18,900
	Subtotal	\$ 201,000
LS	Geotechnical/permitting allowance	2,000
LS	Design allowance	10,000
LS	Inspection allowance	15,000
LS	Ledge removal allowance	15,000
LS	Contingency allowance	252,000
	Estimate	\$ 268,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
SCHOOL STREET INFRASTRUCTURE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$20,000/LS	\$ 20,000
30 EA	Test pits @ \$500/EA	15,000
LS	Temporary erosion control @ \$5,000/LS	5,000
2 EA	Precast structure removal @ \$1,000/EA	2,000
300 LF	8"Ø PVC sewer @ \$165/LF	49,500
100 LF	4"Ø PVC building sewer @ \$140/LF	14,000
2 EA	4'Ø precast manholes @ \$6,000/EA	12,000
6 EA	4'Ø precast catchbasins @ \$4,300/EA	25,800
1000 LF	12"Ø SICPE storm drain @ \$125/LF	125,000
1600 LF	8"Ø water line @ \$150/LF	240,000
8 EA	8"Ø wedge valves @ \$2,500/EA	20,000
800LF	1"Ø CU water service @ \$80/LF	64,000
16 EA	1"Ø Curb boxes @ \$750/EA	12,000
1 6EA	1"Ø Curb stops @ \$500/EA	8,000
6340 SY	Mill 2" thick pavement @ \$ 10/SY	63,400
71 Tons	Shim in 10% of overlay area @ \$200/TON	14,280
714 Tons	Pavement overlay @ \$200/TON	142,715
9775 SF	New sidewalk @ \$4/SF	39,100
20 EA	Detectable warning paver areas @ \$1000/EA	20,000
2000 LF	Bituminous curb at \$20/LF	40,000
272 Tons	3" Trench pavement @ \$200/Ton	54,400
1000 SF	Trench insulation @ \$3/SF	3,000
LS	Loam and seed @ \$5,000/LS	5,000
LS	Owner's testing allowance @ \$2,000/LS	2,000
LS	General conditions @ \$100,400/LS	100,400
	Subtotal	\$ 1,096,195
LS	Geotechnical/permitting allowance	2,000
LS	Design allowance	50,000
LS	Inspection allowance	80,000
LS	Ledge removal allowance	20,000
LS	Contingency allowance	124,805
	Estimate	\$ 1,373,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
SPRING ROAD DRAINAGE AND ROADWAY IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Traffic control/mobilization @ \$50,000/LS	\$ 50,000
LS	Temporary erosion control @ \$20,000/LS	20,000
4485 Tons	4" Trench pavement (g) \$200/Ton	896,900
LS	Loam and seed @ \$20,000/LS	20,000
1000 LF	Ditching improvements @ \$10/LF	10,000
LS	General conditions @ \$90,100/LS	90,100
	Subtotal	\$ 1,087,000
LS	Geotechnical/permitting allowance	2,000
LS	Design allowance	50,000
LS	Inspection allowance	50,000
LS	Contingency allowance	119,000
	Estimate	\$ 1,308,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
CRAWFORD ROAD MOSHER BRIDGE REPAIR

QUANTITY	DESCRIPTION	ESTIMATE
LS	Concrete abutment repairs @ \$200,000/LS	\$ 200,000
LS	General conditions @ \$20,000/LS	20,000
	Subtotal	\$ 220,000
LS	Geotechnical/permitting allowance	5,000
LS	Design allowance	15,000
LS	Inspection allowance	16,000
LS	Contingency allowance	26,000
	Estimate	\$ 282,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
SEBASTICOOK STREET CULVERT REPAIR

QUANTITY	DESCRIPTION	ESTIMATE
LS	Culvert Repair in Place @ \$60,000/LS	\$ 60,000
LS	General conditions @ \$10,000/LS	10,000
	Subtotal	\$ 70,000
LS	Geotechnical/permitting allowance	3,000
LS	Design allowance	5,000
LS	Inspection allowance	6,000
LS	Contingency allowance	8,000
	Estimate	\$ 92,000

PRELIMINARY ORDER-OF-MAGNITUDE PLANNING COST ESTIMATE FOR  
FARNHAM BROOK MAJOR DRAINAGE IMPROVEMENTS

QUANTITY	DESCRIPTION	ESTIMATE
LS	Establishing roadway ditching @ \$200,000/LS	\$ 200,000
LS	General conditions @ \$20,000/LS	20,000
	Subtotal	\$ 200,000
LS	Geotechnical/permitting allowance	5,000
LS	Design allowance	10,000
LS	Inspection allowance	10,000
LS	Contingency allowance	25,000
	Estimate	\$ 27,000



PROJECT SPECIFIC COST PROPOSAL

Project Location	Understanding of Preliminary Work Planned by Town	Preliminary Construction Estimate *1	Phase I Design Fees	Phase II Design Fees	Geotechnical *2	Environmental Permitting Beyond ER *3	Phase III -- Inspection Services
Hamilton Terrace	Drainage, Road Construction, Water/Sewer/Full Road Rebuild	\$3,200,000	\$120,000	\$20,000	\$5,000	-----	\$180,000
Birchwood Terrace	Drainage, Road Construction, Water/Sewer/Full Road Rebuild	\$1,600,000	\$60,000	\$10,000	\$2,000	-----	\$100,000
Maple Terrace	Drainage, Road Construction, Water/Sewer/Full Road Rebuild	\$700,000	\$25,000	\$5,000	\$1,000	-----	\$50,000
Hemlock Terrace	Drainage, Road Construction, Water/Sewer/Full Road Rebuild	\$670,000	\$25,000	\$5,000	\$1,000	-----	\$50,000
Arbor Terrace	Drainage, Road Construction, Water/Sewer/Full Road Rebuild	\$830,000	\$30,000	\$5,000	\$2,000	-----	\$60,000
West Street	Drainage, Road Construction, Water/Sewer/Milling/Overlay	\$1,350,000	\$55,000	\$5,000	\$2,000	-----	\$90,000
Library Street	Drainage, Road Construction, Water/Sewer/Milling/Overlay	\$990,000	\$35,000	\$5,000	\$2,000	-----	\$70,000
Connors Street	Building Sealing/Road Construction/Water/Sewer/Roadway Rebuild/Sidewalk and ADA improvements with Slipform Curb	\$200,000	\$10,000	\$2,000	\$1,000	-----	\$15,000
Sebasticock Street	Culvert Rehabilitation with Structural Support	\$70,000	\$5,000	\$2,000	-----	\$3,000	\$8,000
School Street	Building Sealing/Road Construction/Water/Sewer/Roadway Milling/Overlay/Sidewalk	\$1,100,000	\$45,000	\$5,000	\$2,000	-----	\$80,000
Crawford Road Bridge	Structural Abutment Repairs along footings and Scupper Installation	\$200,000	\$10,000	\$6,000	\$2,000	\$3,000	\$16,000
Major Drainage	Drainage from Golf Course to Farnum Brook	\$200,000	\$10,000	\$5,000	\$1,000	\$5,000	\$10,000
Spring Road	Drainage and Roadway Improvements (Grinding/Overlay)	\$1,100,000	\$45,000	\$5,000	\$2,000	-----	\$50,000
Totals	All Projects	\$12,210,000*1	\$475,000	\$80,000	\$23,000 *2	\$11,000 *3	\$779,000

\*1 Preliminary construction estimates are based on available information and require modification when more details on project scope are known

\*2 Included in Phase 1 Design Fees on Quotation Sheet

\*3 Included in Phase 2 Design Fees on Quotation Sheet

\$1,368,000