

#### **4G – Marine and Environmental Affairs – Water Street Parking Lot Contamination**

##### **RECOMMENDATION: Approval \$737,000 (12-0-0)**

The Advisory & Finance Committee recommends Town Meeting approve this appropriation. This project will prevent contaminated soil from underneath the parking lot from migrating into Plymouth Harbor and impacting Marine Life. It will create a physical separation from human contact and ensure regulatory compliance with the Massachusetts Contingency Plan. The funding sources for this project are \$100,000 from PGDC, \$369,345 EPA Grant funding, \$240,000 from the Environmental Affairs fund, \$13,000 already spent from the 2017 DMEA budget and \$14,655 from free cash.

**TOWN OF PLYMOUTH CAPITAL IMPROVEMENT PLAN REQUEST FORM  
FY19 FALL ANNUAL TOWN MEETING REQUEST FORM**

<b>Department: Marine and Environmental Affairs</b>		<b>1</b>
<b>Project Title and Description:</b> Capping and re-construction of Water Street Parking Lot	<b>Total Project Cost:</b>	<b>\$737,000</b>

Department/Division Head: David Gould

Cost estimate was developed: Internally ☐ Externally ☒ X

Basis of Estimated Costs (attach additional information if available)			If project has impact on 5 Year Plan and future operating budgets, insert estimated amounts.		
Capital:	Cost	Comments	Fiscal Year:	Capital	O & M
<i>Planning and Design</i>	\$737,000		<i>FY19</i>		
<i>Labor and Materials</i>			<i>FY20</i>		
<i>Administration</i>			<i>FY21</i>		
<i>Land Acquisition</i>			<i>FY22</i>		
<i>Equipment</i>			<i>FY23</i>		
<i>Other</i>					
<i>Contingency</i>					
<b>Total Capital</b>	\$737,000				

**Possible sources and amounts of funding, if known:** \$100,000 from PGDC, \$600,000 from EPA (of which \$369,345 remains for construction) and \$240,000 from the Environmental Affairs Fund and \$14,655 from the General Fund.

**Project Justification and Objective:** The project will prevent contaminated soil from underneath the parking lot from migrating into Plymouth Harbor and impacting marine life. It will create a physical separation from human contact and ensure regulatory compliance with the Massachusetts Contingency Plan.

**Justification for Request at Fall Annual Town Meeting:** This would allow for the project to be bid this fall and construction to begin late fall and be completed in early spring before the tourist season to minimize impact to parking and revenue generation during the spring/summer season.

**For Capital Project Requests:**

Will this project be phased over more than one fiscal year? If yes, enter it on the next 5 Year Plan Yes ☐ No ☒ X  
Can this project be phased over more than one fiscal year? Yes ☐ No ☒ X

**For Capital Equipment Requests:**

☐ Check if equipment requested is replacement and enter the year, make & model, VIN and present condition of existing equipment

Attach additional information, estimates, or justification.

Project: Revere Copper - Brownfield Redevelopment with Shoreline Protection  
 Location: Water Street, Plymouth, MA  
 Project #: 154-115

Estimated By: KPS  
 Checked By: JK

Date: 8/23/2018  
 Date: 8/23/2018

**Title: Funding Allocations**

**EPA Grant**

Total Grant	\$ 600,000
Current Consulting Contracts	
Original	\$ (120,800)
Addendum 1	\$ (109,855)
Remaining Grant Funds	\$ 369,345

**Funding**

	Estimate
Total Estimated Construcion Cost (with 20% Contingency) <sup>1</sup>	\$ 737,000
Remaining Grant Funds	\$ (369,345)
Amount Paid from Operating Expense Account (2017)	\$ (13,000)
PGDC Funding Allocation	\$ (100,000)
Town Funds Required	\$ 254,655

**Notes**

- 1 Refer to attached Opinion of Probable Construcion Cost. Total Rounded to nearest \$1,000.



Civil &amp; Environmental Consultants, Inc.

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# **Title: ENGINEER'S OPINION OF PROBABLE CONSTRUCTION COST**

ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE (\$)	TOTAL	NOTES
<b>1.000 Site Improvements</b>						
1.001	Siltfence and Haybales	700	LF	\$ 5.00	\$ 3,500	
1.002	Siltsacks	4	EA	\$ 150.00	\$ 600	Siltsacks in adjacent inlets, plus site inlets until removal.
1.003	Site Erosion Construcion Entrance	1	EA	\$ 2,500.00	\$ 2,500	Rip Rap apron at entrance.
1.004	Site Security Fencing	900	LF	\$ 7.50	\$ 6,750	Assumes fence around entire perimeter for 3 months
1.005	Clear and Grub Existing Vegetation	1	LS	\$ 6,000.00	\$ 6,000	Strip topsoil and remove trees/shrubs within limit of work.
1.006	Bituminous Pavement Removal	3,650	SY	\$ 5.00	\$ 18,250	Assume pavement is not re-used as base material.
1.007	Remove and Reset Existing Parking Kiosk	1	EA	\$ 2,500.00	\$ 2,500	
1.008	Remove and Reset Existing Signs	2	EA	\$ 200.00	\$ 400	
1.009	Remove and Dispose Existing Catch Basins	2	EA	\$ 500.00	\$ 1,000	
1.010	Remove and Dispose Existing 12" RCP Drainage Cuvliert	150	LF	\$ 5.00	\$ 750	
1.011	Remove and Stockpile Existing Revetment Stones	500	CY	\$ 10.00	\$ 5,000	Assumed 48" thick revetment extending 6ft below grade with no toe stones. Evaluate potential re-use of stones. Assumed no disposal cost.
1.012	Earthwork & Rough Grading	1	LS	\$ 30,000.00	\$ 30,000	Movement of +/- 1,000 cy of material within Site. Assumes balance of Material beneath pavement / landscape areas.
1.013	Marker Barrier	3,200	SY	\$ 4.00	\$ 12,800	Non-woven geotextile placed beneath pavement and landscape areas
1.014	Fine Grading	4,200	SY	\$ 2.50	\$ 10,500	Fine Grading beneath pavement, sidewalks and marker barrier.
1.015	Stone Revetment	215	LF	\$ 1,000.00	\$ 215,000	Approxiamtely 500 cy of 24-48" stone and 33-35 72" (8-9 ton) Toe Stones
1.016	Bituminous Pavement (1-1/2" over 2-1/2")	660	TONS	\$ 100.00	\$ 66,000	
1.017	Bituminous Sidewalk (1" over 1-1/2")	27	TONS	\$ 150.00	\$ 4,050	
1.018	Bituminous Berm Curb	1,125	LF	\$ 9.00	\$ 10,125	
1.019	Bituminous Curb	185	LF	\$ 9.00	\$ 1,665	
1.020	Dense Grade Crushed Stone for Sub-Base	1,200	CY	\$ 45.00	\$ 54,000	Assume 12" uniform section above maker barrier throughout.
1.021	Stone Dust Path (4")	28	SY	\$ 65.00	\$ 1,820	4" Thick Stone Dust Path

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ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE (\$)	TOTAL	NOTES
1.022	Install New Signs	2	EA	\$ 500.00	\$ 1,000	
1.023	Pavement Markings	1,600	LF	\$ 2.00	\$ 3,200	Epoxy Striping (88 Parking Spaces)
1.024	Parking Space Numbering	88	EA	\$ 30.00	\$ 2,640	Numbering Parking Spaces
1.025	Adjust Structures	2	EA	\$ 200.00	\$ 400	Adjust sanitary sewer manholes
1.026	12" HDPE Drainage Culvert	15	LF	\$ 75.00	\$ 1,125	
1.027	12" Drainage Backflow and Shutoff Valves	2	EA	\$ 3,000.00	\$ 6,000	
1.028	Drainage Manhole	1	EA	\$ 4,000.00	\$ 4,000	
1.029	Bioretention Basin	1	LS	\$ 30,000.00	\$ 30,000	Includes Soil, Mulch, Underdrain, 24" Nyloplast outlet and Vegetation and Sediment Forebay
1.030	Rip Rap	5	CY	\$ 100.00	\$ 500	12" Thick Rip Rap overflows and forebay berm
1.031	Wetlands Replication	1,610	SF	\$ 5.00	\$ 8,050	Includes replacement of phragmites area with Salt Marsh
1.032	Landscaping	1	EA	\$ 15,000.00	\$ 15,000	Street Trees & Misc. Parking Lot Landscaping (excluding Bioretention Basin)
1.033	Loam and Seed	1,000	SY	\$ 10.00	\$ 10,000	4" Loam & Seed

**1.000 SUBTOTAL: \$ 535,125**

<b>2.000 General Conditions &amp; Site Management</b>						
2.001	Mobilization/Demobilization	5.0	%	5.0%	\$ 26,756	
2.002	Erosion Control & Dust Management	2.0	%	2.0%	\$ 10,703	
2.003	Traffic Control	0.5	%	0.5%	\$ 2,676	
2.004	Survey Stakeout, Record Drawings, Reporting	2.0	%	2.0%	\$ 10,703	
2.005	Environmental Construcion Services (Air Quality Testing, Soil Sampling, etc.)	1	LS	\$ 15,000.00	\$ 15,000	Assumes limited amount of air quality testing and soil sampling
2.006	Police Details	160	HR	\$ 55.00	\$ 8,800	Assume Police Details required for mobilization, delivery of materials & demobilization
2.007	Stormwater Pollution Prevention Plan	1	LS	\$ 4,000.00	\$ 4,000	

**2.000 SUBTOTAL: \$ 78,637**

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ITEM	DESCRIPTION	QTY	UNITS	UNIT PRICE (\$)	TOTAL	NOTES
PROBABLE CONSTRUCTION COST SUBTOTAL:					\$ 613,762	
	Contingency	20.0	%	20%	\$ 122,752	
PROBABLE CONSTRUCTION COST TOTAL:					\$ 736,514	

Cost Sources & References:

1. Previous Town of Plymouth Awarded Bids & 2017 DPW Unit Bid Prices
2. Engineering Experience/Judgment
3. Contractor information
4. MassDOT Unit Bid Prices

Opinion of Cost Notes/Assumptions:

A. Quantities and unit prices based on CEC Notice of Intent Plans dated January 18, 2018, as well as various assumptions outlined herein.

B. Assumptions, quantities, and unit prices are subject to change.

C. Several key assumptions will require verification with Town for adequacy including construction administration oversight, quality control, landscaping (if required), and similar issues.

D. Unit prices are shown in 2018 U.S. Dollars.

E. This estimate does not include on-going operational or maintenance costs.

F. The estimated quantities and costs presented are based on past experience and typical prices for similar work and are approximate. No material solicitation was performed in developing unit costs nor was consideration given to the economic environment at the time of construction. The actual unit costs and quantities may vary significantly from what is presented. The estimate is intended to give an order of magnitude estimate only.

G. This quantity takeoff has been prepared solely as a general reference document for the information of the Town of Plymouth. This opinion has not been prepared by a cost estimator or contractor and, as such, should not be considered a reliable estimate of the actual cost likely to be encountered. This opinion of probable cost has been fashioned in part to help meet the unique needs of the Town of Plymouth. Reliance on this opinion by any party other than the Town of Plymouth is expressly forbidden, except with the express written permission of the Town of Plymouth and Civil & Environmental Consultants, Inc.