



**COMMISSION**  
**AGENDA MEMORANDUM**

**Item No.** 6d\_Attach\_B

**ACTION ITEM**

**Date of Meeting** November 14, 2017

**DATE:** November 7, 2017

**Attachment B**

**SUBJECT:** Shilshole Bay Marina Paving (CIP #C800355)

**EXECUTIVE SUMMARY**

The work consists of pavement replacement and/or overlay to address failed or failing areas along the entire length of the parking lot that were not replaced or rehabilitated during the 2005-2008 capital redevelopment of the Marina site.

The current condition of the pavement throughout much of the site is poor, including some localized failed areas which will be entirely replaced. The majority of the site will be ground and overlaid with a 2.5 inch overlay of asphalt pavement, then restriped.

A significant portion of the replaced asphalt section will be pervious pavement, allowing surface water to drain directly into the ground rather than through traditional stormwater conveyance methods and eventually to the Puget Sound. Staff is also proposing the introduction of similar pervious strips of pavement throughout the site to test the efficacy of this type of system in intercepting stormwater before it enters the catch basin system. These will be 4 foot wide strips between the head to head parking areas along the site.

Cost estimates have increased since initial scoping due to progressing deterioration leading to larger areas of reconstruction than anticipated and increased construction pricing in the market.

**JUSTIFICATION**

In November 2013, the Port commissioned an evaluation of the current pavement condition at Shilshole Bay Marina by Pavement Consultants Inc. The study was undertaken to assess the condition of the parking lot pavements at Shilshole Bay Marina and to identify strategies for improving condition and extending pavement life. The condition assessment included three field investigation tasks: a visual inspection of the pavement surface, non-destructive deflection testing and geotechnical investigation. This study found that in general most of the pavement is structurally sound even though the asphalt exhibits significant cracking and surface irregularities.

Based on the evaluation results, several feasible repair alternatives were investigated. They would extend the life of the pavement between 5 and 40 years. The recommended alternative,

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which provides a 20 year design life, encompassed dig-out and replacement of pavement near some catch basins and a 2.5 inch asphalt overlay in other affected areas.

This work will significantly extend the life of the paving at Shilshole Bay Marina, while also improving its environmental performance by incorporating pervious pavement sections in non-traffic bearing areas.

**DETAILS**

The replacement and overlay improvements proposed will extend the life of the parking lot pavement for 20 years, or more

**Scope of Work**

The scope of work consists of full depth replacement of failed areas of asphalt pavement, edge grinding and a 2.5 inch overlay of other areas and full restriping of the parking areas. No significant changes to the traffic flow, islands or channelization are planned as part of this work. The parking areas will retain the current angled parking configuration, which is the tenants’ strong preference as expressed at public meetings and open houses.

The work will also include areas of pervious pavement, both in fully reconstructed areas, and along the parking strips where the vehicles meet bumper to bumper. This pavement, along with a new stormwater filtration system at the north end of the parking area, not only satisfies stormwater requirements but provides additional storm water treatment of parking lot runoff.

**Small Business**

The project team will coordinate with the small business group to maximize opportunities for small business participation either as direct contracts or through subcontract opportunities.

**Schedule**

Paving work is seasonal and generally should be completed before mid-October. Phasing language is being incorporated in the contract documents to limit the disruption to parking and ongoing marina operations during construction, allowing for no more than 200 parking stalls to be affected at any given time. Staff will work with the contractor to give as much advance warning of any closures to tenants as possible.

*Activity*

Design start	January 2016
Commission construction authorization	November 2018
Construction start	June 2018
In-use date	December 2018

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<b>Cost Breakdown</b>	<b>This Request</b>	<b>Total Project</b>
Design	\$0	\$ 250,000
Construction	\$1,750,000	\$1,750,000
<b>Total</b>	<b>\$1,750,000</b>	<b>\$2,000,000</b>

**ALTERNATIVES AND IMPLICATIONS CONSIDERED:**

**Alternative 1** - Continue to use the pavement in its current deteriorated condition.

Cost Implications: Some areas of the parking lot would still need immediate attention (~\$200K), but the remainder could continue to be serviceable in the short term. Subsequent rehabilitation costs would be as shown in alternatives below, but adjusted upwards for market changes.

Pros:

- (1) Lowest initial cost. No capital funding required and leaves capital funds available for other projects.

Cons:

- (1) Some areas currently failing would continue to ravel, increasing the work to be performed later.
- (2) Pervious pavement improvements are currently tied to the restroom development and would need to be incorporated or mitigated elsewhere.

This is not the recommended alternative.

**Alternative 2** - Minimal upgrades, seal coat and thin the overlay areas to 2”, remove pervious paving except where required

Cost Implications: \$1,700,000

Pros:

- (1) Will extend the life of the paving by ~10-15 years.

Cons:

- (1) Still requires full cost of striping all affected areas.
- (2) Lower life expectancy compared to thicker overlay option.
- (3) Pervious pavement areas would still need to be incorporated to address stormwater requirements of new paving.

This is not the recommended alternative

**Alternative 3:** - *Overlay and rehabilitation of all areas outside of the previously improved areas*

Cost Implications: \$2,000,000

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Pros:

- (1) Longest life alternative; will provide additional 20-25 year life on existing paving areas.
- (2) All stormwater requirements met plus additional storm water treatment of parking lot runoff

Cons:

- (1) Higher initial cost.

**This is the recommended alternative**

**FINANCIAL IMPLICATIONS**

<i>Cost Estimate/Authorization Summary</i>	Capital	Expense	Total
<b>COST ESTIMATE</b>			
Original estimate	\$1,914,000	\$0	\$1,914,000
Current change	\$ 86,000	0	\$ 86,000
Revised estimate	\$2,000,000	0	\$2,000,000
<b>AUTHORIZATION</b>			
Previous authorizations	\$ 250,000	0	\$ 250,000
Current request for authorization	\$1,750,000	0	\$1,750,000
Total authorizations, including this request	\$2,000,000	0	\$2,000,000
Remaining amount to be authorized	\$0	\$0	\$0

***Annual Budget Status and Source of Funds***

This project was included in the 2017 Plan of Finance under CIP #C800355 SBM Paving with a total cost of \$1,196,000. The additional \$804,000 required to fund this project is available under CIP #C800002 MD: Contingency Renewal & Replace. The increase in estimate is due to refinement of scope and increasing prices in the Seattle construction market.

This project will be funded by the General Fund.

***Financial Analysis and Summary***

Project cost for analysis	\$2,000,000
Business Unit (BU)	Recreational Boating
Effect on business performance (NOI after depreciation)	This project will support/maintain current moorage revenue at SBM. Incremental depreciation expense from this project is estimated at \$100,000 per year, based on a 20-year asset life. NOI after Depreciation will decrease by the associated depreciation from this project.

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IRR/NPV (if relevant)	The NPV is present value of the project cost
CPE Impact	N/A

***Future Revenues and Expenses (Total cost of ownership)***

No future revenues are anticipated as a result of this paving project.

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

None