



**COMMISSION
AGENDA MEMORANDUM**

Item No. 8e

ACTION ITEM

Date of Meeting March 28, 2023

DATE: March 21, 2023

TO: Stephen P. Metruck, Executive Director

FROM: Darrell Dare, Sr. Manager Recreational Boating
Marie Ellingson, Sr. Manager Cruise Ops and Business Development
Julie Yun, Capital Project Manager

**SUBJECT: Bell Harbor Marina Pile Wrap and Cathodic Protection (CIP #C800539)
Pier 66 Break Water Cathodic Protection (CIP #C800517)**

Amount of this request: \$ 815,000 (\$395,000 - C800539 / \$420,000 - C800517)

Total estimated project cost: \$ 4,500,000 (\$2,750,000 - C800539 / \$1,750,000 - C800517)

ACTION REQUESTED

Request Commission authorization for the Executive Director to authorize \$815,000 (\$395,000 for C800539 / \$420,000 for C800517) to complete design and permitting for the Corrosion Protection projects at Bell Harbor Marina and Pier 66, including overall cathodic protection replacement and south apron pile wrap.

EXECUTIVE SUMMARY

Built in the mid-1990s, Pier 66 and Bell Harbor Marina (BHM) support several functions including public-use recreational marina and berthing for cruise ships and other vessels. The steel piles supporting the pier structure at Pier 66 and BHM were coated at the time of installation to withstand marine water conditions. The recent condition assessment from 2021 monitoring the condition of the steel piling has revealed that the corrosion protection system has reached the end of its life. Varying degrees of coating oxidation and anode depletion are evident. This memo requests Commission approval for \$815,000 for design, permitting, and project management for a new corrosion protection system at Bell Harbor Marina and Pier 66. This system includes pile-wrap for the inter-tidal zone and cathodic protection for the submerged portions of the steel piling for a target design life of 30-50 years. This project aims to preserve the existing asset and is reflected in the 2023 Plan of Finance. The total project cost is estimated at \$4,500,000 (\$2,750,000 for C800539 / \$1,750,000 for C800517). Following design, staff will return to Commission to seek authorization for construction.

JUSTIFICATION

This project supports the following Century Agenda and Maritime Division priorities:

- (1) Advance this region as a leading tourism destination and business gateway.

Meeting Date: March 28, 2023

- (2) Asset Management – Develop, maintain, and operate Maritime facilities to ensure long-term viability and efficiency, to meet our customer’s needs.

Corrosion Protection systems include coating systems, pile wrap, and cathodic protection and are a critical element of steel pile maintenance of Port waterfront facilities. Past condition assessments monitoring the condition of the steel piling have revealed that various elements of the corrosion protection system at Pier 66 and Bell Harbor Marina have reached the end of their design life. Varying degrees of coating oxidation and anode depletion are evident. This project proposes to install pile wrap and replace the existing cathodic protection system on steel piles supporting Bell Harbor Marina and Pier 66, thereby preventing continued corrosion and extending the assets’ useful life.

Diversity in Contracting

Project design will leverage a Docks and Diving IDIQ Contract (currently in procurement) that will have an overall women and minority-owned business enterprise (WMBE) goal of 15%.

DETAILS

Scope of Work

This project will design and install a new corrosion protection system at Bell Harbor Marina and Pier 66. At Bell Harbor Marina, a pile-wrap system for the inter-tidal splash zone will be installed (similar in scope to the WP#104616 and 104663 Pier 66 and Pier 69 Corrosion Control projects in 2013-2014) at (92) 24” steel piling. At both Pier 66 and Bell Harbor Marina, the cathodic protection system will be replaced to protect the submerged portions of (498) steel piling of varying sizes (18” to 24” diameter) below the inter-tidal splash zone. At Pier 66, the currently depleted cathodic protection system will be replaced to protect the submerged portions of steel piling below the inter-tidal splash zone.

Schedule

This project is expected to occur over (2) in-water work windows based on coordination with the permitted fish window under the Port’s 10-year Pile Programmatic Permit (pending renewal Q2 2023), seasonal Cruise and Rec Boating activity, and simultaneous Port capital projects at BHM and Pier 66 (Pier 66 Shore Power, Pier 66 Fender System Rehabilitation). Pile wrap and replacement anode materials are not anticipated to have long procurement lead times.

Activity

Commission design authorization	2023 Q1
Design start	2023 Q2
Commission construction authorization	2024 Q1
Construction start	2024 Q4
In-use date	2026 Q1

Cost Breakdown	This Request		Total Project	
	C800539	C800517	C800539	C800517
Design	\$395,000	\$420,000	\$625,000	\$550,000
Construction	\$0	\$0	\$2,125,000	\$1,200,000
Total – per project	\$395,000	\$420,000	\$2,750,000	\$1,750,000
Total – both projects		\$815,000		\$4,500,000

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Defer the design and permitting scope of work identified for this project.

Cost Implications: Reduces needs in the Capital Plan by \$815,000.

Pros:

- (1) Retains Port capital and staff resources for other priority projects and financial initiatives.
- (2) Defers temporary construction impacts.

Cons:

- (1) Continued corrosion and deterioration of the steel piles supporting Bell Harbor Marina and Pier 66.
- (2) Increased risk of failure and higher cost of repair/replacement as compared to preemptive corrosion control.

This is not the recommended alternative.

Alternative 2 – Proceed with design and permitting of corrosion control project scope as proposed.

Cost Implications: requires allocation of \$815,000 in the Capital Plan.

Pros:

- (1) Preservation of critical assets to support long-term use and revenue generation at Bell Harbor Marina and Pier 66.
- (2) Good durability to initial cost ratio (30-50- year design life).
- (3) Minimize risk of failure and subsequent operational disruption through preemptive corrosion control measures.

Cons:

- (1) Temporary coordination and impact to Bell Harbor Marina and Pier 66 during construction.

This is the recommended alternative.

Meeting Date: March 28, 2023

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary	Capital (\$1000)			Total (\$1000)		
	C800539	C800517	Both projects	C800539	C800517	Both projects
COST ESTIMATE						
Original estimate	\$4,360	\$1,150	\$5,510	\$4,360	\$1,150	\$5,510
Current change	(\$1,610)	\$600	\$1,010	(\$1,610)	\$600	\$1,010
Revised estimate	\$2,750	\$1,750	\$4,500	\$2,750	\$1,750	\$4,500
AUTHORIZATION						
Previous authorizations	\$230	\$130	\$360	\$230	\$130	\$360
Current request for authorization	\$395	\$420	\$815	\$395	\$420	\$815
Total authorizations, including this request	\$625	\$550	\$1,175	\$625	\$550	\$1,175
Remaining amount to be authorized	\$2,125	\$1,200	\$3,325	\$2,125	\$1,200	\$3,325

Annual Budget Status and Source of Funds

Both projects are included in the approved 2023 Capital Plan under C800539 BHM Pile Wrap and Cathodic Protection (\$4.3M) and C800517 P66 Wave Break Cathodic Protection (\$1.M) with a total project cost of \$5.31M.

Both projects are funded by the General Fund.

Financial Analysis and Summary

Project cost for analysis	\$5,309,000
Business Unit (BU)	Recreational Boating/Cruise and other vessel Operations
Effect on business performance (NOI after depreciation)	<ul style="list-style-type: none"> No incremental operating revenue is associated with this project. Estimated useful life of infrastructure is between 30-50 years, resulting in a depreciation expense of \$106k-\$177k annually. NOI after depreciation will reduce by that respective amount.
IRR/NPV (if relevant)	N/A
CPE Impact	N/A

Meeting Date: March 28, 2023

Future Revenues and Expenses (Total cost of ownership)

Annual depreciation expenses will increase after the capital project is completed; however, as a preemptive corrosion control project, this will mitigate increased risk of failure that would have a significant impact on revenue and also decrease expenses for higher cost of repair/replacement.

ADDITIONAL BACKGROUND

This project allows the Port to continue to provide safe and versatile piers. As such, it is funded by the general fund (comprised of revenues generated from the marina, cruise passenger feeds, and dockage fees) allocated for maintaining Port assets, avoiding costly repairs, and safeguarding the ability to offer uninterrupted premium facilities.

ATTACHMENTS TO THIS REQUEST

- (1) Presentation slides

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

None