COMMISSION
AGENDA MEMORANDUM **Item No.** 8g

ACTION ITEM **Date of Meeting** April 28, 2026

DATE : March 19, 2026

TO: Stephen P. Metruck, Executive Director

FROM: Linda Springmann, Director, Cruise Operations & Maritime Marketing
Kelly Purnell, Capital Project Manager, Waterfront Project Management

SUBJECT: Terminal 91/Pier 66 Cruise Shore Power Extension – Early Work Amendment (CIP # C801983 – T91/P66 Shore Power; CIP# C802116 – P91 South Bollards)

Amount of this request:	$5,200,000
Total estimated project cost:	$59,800,000

ACTION REQUESTED

Request Commission authorization for the Executive Director to approve funding to execute an Early Work Amendment to the alternative public works Progressive Design Build contract, MC-0322060, for the T91/P66 Cruise Shore Power Extension (C801983) (includes C802116 - P91 South Bollards) project to procure long-lead materials in advance of the Guaranteed Maximum Price Amendment. Total requested for this action is $5,200,000 for a total project authorization of $20,650,000.

EXECUTIVE SUMMARY

In July 2024, the Port passed Commission Order No. 2024-08 mandating all homeport cruise ships to connect to shore power by 2027, three years earlier than the 2030 goal set in the Port's adopted Maritime Climate and Air Action Plan. The provision of shore power for cruise ships is the Port's greatest opportunity to reduce greenhouse gas (GHG) emissions and improve local air quality.

Currently, the Port's Smith Cove Cruise Terminal at Pier 91 (P91) which opened in 2009 provides shore power at its two cruise berths. The single berth at the Bell Street Pier Cruise Terminal at Pier 66 (P66) which opened in 1999 has a new shore power system completed in September 2024. While all three of the Port's cruise berths are now electrified, upgrades to the systems are required to provide the additional flexibility needed to accommodate all vessel and berthing configurations to meet Commission Order No. 2024-08.

The team is utilizing the Progressive Design Build (PDB) alternative delivery and selected Skanska USA Building, Inc. (Skanska) as the design-builder. In December 2025, a Post-Validation Amendment was authorized by Commission to provide funding to move forward with design and

final Guaranteed Maximum Price (GMP) development. The project is currently at 60% design. During the design process, Port and Skanska determined that an Early Work amendment would be necessary to allow for early procurement of long-lead precast deck panels and electrical cables to ensure that delivery of these materials will not delay construction. The requested action will provide funding for a Guaranteed Maximum Price specific to this early procurement ("Mini-GMP") administered separately from the not-to-exceed amount previously authorized for GMP Development.

JUSTIFICATION

The Port of Seattle is an industry and regional leader in economic development and sustainability. The Port's investment in cruise terminals at P66 and P91 results in a significant contribution to the region's economy, generating more than 5,500 jobs and nearly $1.2 billion in total local business revenue each cruise season. The Port also recognizes its responsibility and the importance of concerted efforts to balance economic growth with sustainability. The Seattle Waterfront Clean Energy Strategic Plan and the adopted Maritime Climate and Air Action Plan provide a Port investment strategy to protect the environment and improve community health.

As a global leader in sustainability, the Port is committed to addressing global climate change and improving local air quality. In 2017 the Port's Commission adopted GHG reduction targets in alignment with the Paris Climate Agreement, then updated goals in October 2021 in recognition of the climate crisis. In November 2021, the Port Commission adopted the Maritime Climate and Air Action Plan which identifies strategies and actions the Port can take through 2030 to achieve Port's Century Agenda GHG target to reduce GHG emissions 50% by 2030 and to position the Port to phase out seaport-related emissions entirely by 2050. The plan includes a specific commitment to install shore power at all cruise berths and maximize connections by 2030. In May 2022, the Port launched a collaborative effort to explore the feasibility of a maritime green corridor aimed at accelerating the deployment of low and zero GHG emission cruise ships and operations between Alaska, British Columbia, and Washington. Most recently, the Port passed Commission Order No. 2024-08 mandating that all home ported cruise ships must connect to shore power by 2027, three (3) years earlier than the Maritime Climate and Air Action Plan 2030 goal.

Shore power can significantly reduce GHG and air pollution emissions with each connection. Staff estimate shore power can avoid approximately 268 thousand metric tons of carbon (CO2e) cumulatively through 2050. Assuming a 25-year infrastructure life and $44 million cost, that represents a cost per ton of carbon reduced over the full lifespan to range from $164 to $406 per metric ton CO2e. This range is based on the 2025 cruise schedule with the current ability to connect cruise ships to shore power at P91 and P66 (86% of homeport calls). If 100% of homeport ships plug-in consistent with the Commission Order No. 2024-08 in 2027, shore power use would result in an additional 45 thousand metric tons of cumulative carbon emissions avoided over a 25-year infrastructure life.

Diversity in Contracting

The project team in coordination with the Diversity in Contracting Department has included a 6% WMBE aspirational goal in the Progressive Design Build major work contract for this work to design and construct the pathway for the shore power system and other structural elements of the project and to install the Watts designed and procured shore power equipment.

Status:

The T91/P66 Cruise Shore Power Extension project is progressing on schedule to meet the Commission order to plug-in all homeport ships by 2027. Following completion of the Validation phase in November that resulted in the development of a Basis of Design, Target Budget, and Target Schedule, the project returned to Commission in December 2025 and received authorization to proceed into the design and GMP Development phase of the contract. The project has now progressed through 60% design. The current phase includes advancement of design through 90% and permitting at which point the project will return to Commission for authorization of the final GMP once it is negotiated and cost certainty is established. Currently the project requires an interim authorization for a Mini-GMP for procurement of long-lead materials.

Due to the proprietary nature of the electrical shore power equipment and the anticipated long lead time, a sole source purchasing contract with Watts Marine was executed to ensure that design and procurement of the equipment is completed and ready for installation in Q4 of 2026. Since the Commission authorization to purchase Watts shore power equipment, the transformer for the T91 West berth has been ordered and design of the remaining equipment continues to advance.

Post-Validation: 60% Design Outcomes:

Terminal 91:

<u>Sawtooth boxes</u>

During design, the location of the sawtooth boxes for the east and west berths of P91 and the final location of the P66 sawtooth box have been finalized.

<u>Bollards</u>

Two (2) new bollards on the north end of the project near footmark 1,200’ have been confirmed and structural design has advanced.

To maximize efficiency, two (2) new 100-ton bollards have been added to the south end of P91 to accommodate additional berthing arrangements. This scope is funded by a separate CIP C802116 – P91 South Bollard upgrade.

<u>Deck Panels</u>

Ninety-five (93) deck panels within the west apron area of P91 have been confirmed to need to be replaced. These panels were initially incorporated into the Terminal 91 Dock Rehabilitation

project and due for replacement as result of their condition. However, given the accelerated schedule of the shore power project and the preferred pathway placement of the shore power conduit duct bank in the ballast above the deck panels, the identified deck panels within the project route will be replaced as part of the shore power project to avoid unnecessary and costly rework to replace the panels at a later date as part of the dock rehabilitation project. The budget forecast for the Terminal 91 Dock Rehabilitation project (CIP# C801294) has been reduced by $7M to accommodate the cost of these (93) panels under the Terminal 91 cruise shore power project.

Twelve (12) additional deck panels within the west apron of P91 have been identified as having advanced deterioration and their condition classified as "critical". Port Engineering has implemented operational load restrictions. The shore power project overlaps or is immediately adjacent to most of these panels. Due to the critical operational impact of the load restrictions, these panels have been incorporated into the shore power project scope to expedite the replacement and minimize the duration of the operational impacts to both Cruise and Commercial Fishing Operations. The budget forecast for the Terminal 91 Dock Rehabilitation project (CIP# C801294) has been reduced by $3M to accommodate the cost of these (12) panels under the Terminal 91 cruise shore power project.

Pier 66
Final analysis of P66 was completed, and while the current system is sufficient for all current and scheduled vessels through 2027, two (2) new vessels have been confirmed for 2028 that will require the north connection point. The additional sawtooth box will allow for these ships. Therefore, the full scope for P66 will progress through construction. The final sawtooth box location has been identified, and design has progressed along with T91.

Scope:

This funding request is for the early procurement of long-lead materials to ensure on-time delivery for construction.

Early procurement of the following long-lead materials is included:

- **Pier 91**
    - West Berth
        - 93 precast deck panels assumed to be failing and are within the conduit pathways for shore power
        - 12 precast deck panels in "critical" condition and are load restricted
        - 15kV copper electrical conductors
    - East Berth
        - 15kV copper electrical conductors
- **Pier 66**
    - 15kV copper electrical conductors

Key Challenges & Solutions:

- Homeport Vessel Definition: Comprehensive berthing plan using 2025, 2026, and 2027 cruise schedules. Homeport Vessels were selected by the joint project team.
- Utility Conflicts: Subsurface utility engineering and potholing to confirm routing feasibility.
- Seasonal Constraints: Off-season work scheduling and phased construction plans.
- Concurrent Projects: Clash detection and coordination with gangway and dock rehab projects.
- Deck panel replacement: deck panels below the conduit pathways need to be replaced. This scope adds schedule constraints. Additional twelve (12) deck panels have been identified in "critical" condition and need to be replaced. This scope adds schedule constraints.
- A major design restriction for P66 is the fixed gangway, Bertha. It was found that a new articulating gangway would add more flexibility for future shore power as there is limited gangway flexibility.

Schedule

The schedule to meet Commission Order No. 2024-08 is aggressive. Project constraints including other concurrent or overlapping critical projects at P91, design and permitting schedule, supply chain uncertainty, and highly constrained construction work windows due to cruise and commercial fishing operations create the risk of schedule slippage. Schedule assumptions account for best case permitting scenarios, including avoidance of in-water work (work completed in the dry) and successful tribal negotiations to maximize the in-water work window. A Progressive Design Build project delivery with a sole source contract to Watts Marine for shore power equipment design and procurement was selected to mitigate schedule risk to the extent possible. This Progressive Design Build contract with Skanska allows for some acceleration of the design process and minimizes potential for unknown construction risks that cause delays assuming that all milestone dates are met, including this authorization of additional funding for early procurement of long-lead materials. Failure to meet schedule milestones will put the 2027 in-service date at risk.

Activity

Commission Authorization – T91 Mobile Cable Positioning Devices (CPDs) and T91 Cruise Shore Power Extension North initial design funding	August 8, 2023
DORA – Progressive Design Build Procurement and Preliminary Design	October 16, 2024
Commission Authorization – Watts Marine, LLC Purchasing Contract	April 22, 2025
Commission Authorization - Progressive Design Build Contract – Validation Phase	July 8, 2025
Progressive Design Build Validation Period Execution	August 22, 2025
Commission Authorization – Post-Validation Amendment funding	December 9, 2025
Commission Authorization – Early Work Amendment funding	April 28, 2026
Commission Authorization – GMP Amendment funding	Q3 2026

Construction	Q4 2026 – 2027
In-use date	2027

Cost Breakdown

	This Request	Total Project
Planning through Validation	**$0**	**$2,450,000**
Pier 91	$0	$1,620,000
Pier 66	$0	$830,000
GMP Development	**$0**	**$5,000,000**
Pier 91	$0	$3,800,000
Pier 66	$0	$1,200,000
Material Pre-Procurements (Watts)	**$0**	**$8,000,0000**
Pier 91	$0	$7,000,000
Pier 66	$0	$1,000,000
Early Work Amendment	**$5,200,000**	**$5,200,000**
Pier 91	$4,377,000	$4,377,000
Pier 66	$700,000	$700,000
P91 South Bollards (C802116)	$123,000	$123,000
Construction*	**$0**	**$39,150,000**
Pier 91	$0	$27,000,000
Pier 66	$0	$10,000,000
P91 South Bollards (C802116)		$2,150,000

*Costs for early work were deducted from construction costs. Overall project estimate has increased from last Commission authorization due to added scope and design refinement.

ALTERNATIVES AND IMPLICATIONS CONSIDERED

Alternative 1 – Advance Design and GMP development for shore power system without early material procurement.

Cost Implications:

Pros:

(1) Requires one Commission authorization for GMP.

Cons:

(1) Puts project schedule at risk to receive long-lead materials in time to prevent construction delays.
(2) Requires earlier GMP authorization introducing cost certainty risk due to less advancement of design.

This is not the recommended alternative.

Alternative 2 – Execute an Early Work amendment for early procurement of long-lead materials and allow additional time for final GMP development for better cost certainty for full scope of the shore power extension project at both P91 and P66.

Cost Implications: Requires costs for materials to be locked in prior to final authorization to construct the project.

Pros:

(1) Meets the mandate of Commission Order No. 2024-08.
(2) Ensures that the long-lead materials will be delivered on time and will delay construction.
(3) Provides additional time for design advancement and cost certainty for the GMP due to decoupling the long-lead material timeline from the critical path for GMP development.

Cons:

(1) Requires additional Commission authorization for final GMP.

This is the recommended alternative.

FINANCIAL IMPLICATIONS

Cost Estimate/Authorization Summary	Capital	Expense	Total
COST ESTIMATE			
Original estimate	$4,000,000	$0	$4,000,000
Previous changes – net	$48,100,000	$0	$48,100,000
Current change*	$7,700,000		$7,700,000
Revised estimate	**$59,800,000**	**$0**	**$59,800,000**
AUTHORIZATION			
Previous authorizations	**$15,450,000**	**$0**	**$15,450,000**
Pier 91	$5,420,000		$5,420,000
Pier 66	$2,030,000		$2,030,000
Watts Marine Sole Source Contract	$8,000,000		$8,000,000
Current request for authorization	**$5,200,000**	**$0**	**$5,200,000**
Pier 91	$4,377,000	$0	$4,377,000
Pier 66	$700,000	$0	$700,000
P91 South Bollards (C802116)	$123,000	$0	$123,000
Watts Marine Sole Source Contract	$0	$0	$0
Total authorizations, including this request	**$20,650,000**	**$0**	**$20,650,000**
Pier 91	$9,797,000	$0	$9,000
Pier 66	$2,730,000	$0	$2,910,000
P91 South Bollards (C802116)	$123,000		$123,000
Watts Marine Sole Source Contract	$8,000,000		$8,000,000
Remaining amount to be authorized * *	**$39,150,000**	**$0**	**$39,150,000**

* The work completed through the 60% design of the GMP Development phase of the contract resulted in the determination that twelve (12) additional deck panels need to be replaced, two (2) 100-ton

bollards will be added to the south end of P91 (funded under a separate CIP, C802116), and tie-downs for the new passenger gangways as these must be integrated in the shore power concrete work rather than waiting for construction of projects currently funded separately. $5M of the current change in estimated budget resulted due to addition of these scope elements and will draw down those separate project budgets

Annual Budget Status and Source of Funds

This project was included in the 2026 Capital Plan C801983 P66/P91 Shore Power Extension with a total project cost of $33,000,000 and C802116 P91 South Bollards with a total project cost of $650,000.

This project will be funded by the General Fund.

Financial Analysis and Summary

Project cost for analysis	$59,800,000
Business Unit (BU)	Cruise Operations
Effect on business performance (NOI after depreciation)	No incremental operating revenue or cost-savings is directly associated with this project. • On-going maintenance expenses, if any, are not yet known. • Estimated annual depreciation is $2.4M
IRR/NPV (if relevant)	N/A
CPE Impact	N/A

ADDITIONAL BACKGROUND

Originally, P91 and P66 cruise shore power projects were envisioned as two separate projects under two CIP #s. Initial funding for the P91 Cruise Shore Power Extension North was authorized by Commission on August 8, 2023, inclusive of the purchase of two (2) mobile cable positioning devices (CPD) under CIP # C801293. P66 Cruise Shore Power Extension was under CIP # C801983. As part of a DORA executed on October 16, 2024 for a Progressive Design Build procurement and early design for both projects, P91 Cruise Shore Power Extension, except for the costs associated with the purchase of the CPDs which remained under C801293, was transferred to CIP # C801983 with P66 to consolidate the projects under a single CIP and to help expedite both projects to meet the mandate of Commission Order No. 2024-008 to connect all home ported cruise ships to shore power by 2027.

ATTACHMENTS TO THIS REQUEST

(1) Presentation

PREVIOUS COMMISSION ACTIONS OR BRIEFINGS

December 9, 2025 – Funding authorization in the amount of $5,000,000 for execution and funding of the Post-Validation phase of the major public works Progressive Design Build project.

July 8, 2025 – Funding authorization in the amount of $1,100,000 for award and execution of the Validation Period of the major public works Progressive Design Build project.

April 22, 2025 – Funding authorization in the amount of $8M for Watts Marine contract to purchase shore power equipment.

August 8, 2023 - The Commission authorized funding for P91 Cruise Shore Power Extension and CPDs in the amount of $2,500,000 for the purchase of the CPDs and early design funding of the extension.