



**COMMISSION  
AGENDA MEMORANDUM**

**Item No.** 6d

**ACTION ITEM**

**Date of Meeting** August 11, 2020

**DATE:** July 3, 2020  
**TO:** Stephen P. Metruck, Executive Director  
**FROM:** Melinda Miller, Director, Real Estate and Asset Management  
James Truhan, Sr. Real Estate Manager  
Rod Jackson, Capital Project Manager

**SUBJECT:** Central Waterfront Elevator Modernizations (CIP # C801016) Design and Construction

<b>Amount of this request:</b>	\$1,658,000
<b>Previously Authorized</b>	\$150,000
<b>Total estimated project cost:</b>	\$1,808,000

**ACTION REQUESTED**

Request Commission authorization for the Executive Director to direct staff to develop, advertise, and execute a Public Works Building Engineering Systems Contract for the Central Waterfront Elevator Modernizations (Lenora and Bell Street Elevators). The scope is to modernize the elevators' operation, control systems, stair treads at Lenora, and refurbish the Lenora street structural tower, for an estimated total project cost of \$1,808,000. The amount requested under this authorization is \$1,658,000 (the remaining \$150,000 was previously authorized by the Economic Development Division division).

**EXECUTIVE SUMMARY**

The Lenora and Bell Street elevators - installed in 2000 and 1998 respectively - provide critical access for thousands of people each year to the Seattle waterfront from the upland areas of the city. Due to their advanced age and despite diligent preventative maintenance, their critical components are nearing the end of their programmed service lives.

The proposed project will upgrade both elevator's electrical, HVAC, hydraulic and control systems, perform replacements to adjacent stairs - and install new cab interiors at the Lenora elevator. This project is needed now to ensure continued service reliability, protect user safety and maintain current levels of user experience.

The timing of this project is particularly critical, as it will be coordinated with the ongoing Waterfront Construction Project being performed under the auspices of the City of Seattle. That project has shut down the bridge for two years and includes work to replace the eastern segment

Meeting Date: August 11, 2020

of the Lenora Pedestrian Bridge to align with the new Elliott Way sidewalk and roadway. Completion is expected by early 2022.

Detailed design documentation will be part of the upcoming procurement for design and construction, which will utilize a Building Engineering Systems (BES) procurement contract. This approach allows the Port to hire a single contractor to both design and construct an integrated system.

A Basis of Design document, including performance specifications, will be developed as part of the Request for Proposals that is expected to be issued in September 2020. Selection of a contractor will be based on meeting these design elements and performance specifications. System performance will be monitored as part of the contract.

This funding request will allow the design development, permitting and the construction phase to begin. The target date for completion is Q4/2021 with closeout scheduled for Q2/2022.

### **JUSTIFICATION**

This Central Waterfront Elevator Modernization project supports all four of the Port's Century Agenda objectives under the following strategies:

- (1) Position the Puget Sound region as a premier international logistics hub
- (2) Advance this region as a leading tourism destination and business gateway
- (3) Use the Port's influence as an institution to promote women and minority business enterprise (WMBE) growth, small business growth, and workforce development
- (4) Be the greenest, and most energy-efficient port in North America

Further, the project supports the following additional imperatives:

A. Minimize Risk of Failure

The two existing elevator units are nearing the end of their service lives and are approaching failure with limited supply of obsolete replacement parts.

B. Leverage Specialized Expertise

Elevator upgrade work is a specialty market and local availability of experienced contractors is limited – especially now. Further, public projects are perceived as more labor intensive and therefore less profitable. This makes early procurement imperative.

C. Meet Contemporary User Experience Expectations

The existing cab design, now over 20 years old, is past due to be refreshed to meet current expectations for look, feel and function.

D. Achieve a Lower Cost of Ownership

Replace existing equipment with non-proprietary components that can be maintained by any qualified elevator maintenance company.

Meeting Date: August 11, 2020

E. Align with Complementary Projects

With the Lenora elevator off-line through 2022 due to the City of Seattle Waterfront Construction project, this an opportune time to complete this work.

**DIVERSITY IN CONTRACTING**

Project staff along with the Diversity in Contracting Department have set a woman and minority business enterprise (WMBE) aspirational goal of 4% for this project.

**DETAILS**

The project will replace critical components on the Lenora and Bell Street elevators while the Lenora bridge is shut down. This project will dovetail with the City of Seattle waterfront schedule for the City of Seattle Waterfront Construction Project. Proposed modernization and upgrades are needed now to improve reliability. Decommissioning of the elevators will be required in the future when replacement parts are no longer available to sufficiently repair these elevators. New technologies for elevator equipment are being developed to increase connectivity with future elevators, Internet-connections, predictive maintenance and interactive touch panels.

Staff reviewed the replacement of both elevators with an MRL (Machine Room Less) system but found the cost to be three times the cost of this modernization and upgrades. Staff also found that replacement with an MRL system would increase energy efficiency, lower horsepower requirements while using regenerative drives, remove potential exposure of having hydraulic oil from the elevator system below the water table and exceed the construction time allotted within the City of Seattle waterfront schedule because reconstruction of the existing elevator towers will be required.

Total project costs are estimated to be \$1,808,000. Funding for this project was included in the 2020 capital budget and plan of finance.

***Scope of Work***

Modernize the Lenora and Bell Street elevators to improve overall system reliability and performance. The work includes, but is not limited to, the following:

1. Install new cab interiors at the Lenora elevator. The existing cab interior at the Bell Street elevator will be refinished and deep-cleaned.
2. Install new doors, flooring, ceiling, lighting and ventilation components at both elevators.
3. Install new controls, HVAC, machine room equipment and car operating components.
4. Update the cabs at both elevators to support current accessibility standards and to be vandal resistant.
5. Include all new necessary components for Firefighter's operation to comply with life safety code requirements.

Meeting Date: August 11, 2020

6. Comply with current ASME (American Society of Mechanical Engineers) A.17.1, 2010 ADA, Seattle Building Code, Seattle Energy Code, State of Washington elevator safety code requirements, as well as Port of Seattle standards.
7. Recondition retained equipment to ensure reliable operation.
8. Replace the Lenora elevator tower stair treads, tower glazing and lighting which will include rust removal and painting.

**Schedule**

Elements within the scope of work may provide small business opportunities. The project team has coordinated with the small business team to help identify and outreach to those small businesses interested in this project.

*Activity*

Commission Design & Construction Authorization	August 2020
Advertisement and Award	September 2020 thru Q4 2020
Design start	Q1 2021
Construction start	Q4 2021
In-use date	Q2 2022

**Cost Breakdown**

	This Request	Total Project
Design and Construction	\$1,295,000	\$1,410,000
POS Oversight	\$363,000	\$398,000
<b>Total</b>	<b>\$1,658,000</b>	<b>\$1,808,000</b>

**ALTERNATIVES AND IMPLICATIONS CONSIDERED**

**Alternative 1** – Do nothing and continue to maintain aging equipment over a period of 5 years until an upgrade is increasingly urgent.

Cost Implications: \$150K

Pros:

- (1) Temporarily saves Port funding

Cons:

- (1) Risk of failure
- (2) Maintenance costs would rise over time
- (3) Decommissioning of elevators will be required in the future when replacement parts are no longer available
- (4) Increased maintenance cost as equipment continues to age
- (5) Eliminates a public access route to the waterfront
- (6) Does not take advantage of the opportunity to do work when the City of Seattle has the elevators shutdown
- (7) Eliminates critical mode of pedestrian mobility

Meeting Date: August 11, 2020

- (8) Increase in equipment failures results in dissatisfied patrons

This is not the recommended alternative.

**Alternative 2** – Upgrade Lenora street elevator, stair tower and controls with new technologies and complete the Bell street elevator and controls with new technologies at a later date, as a separate project.

Cost Implications: \$946K

Pros:

- (1) Building Engineering Systems delivery process allows the Port to combine design and construction into one contract and the selection of a contractor with the best combination of qualifications and cost
- (2) Shorter construction timeline since only the Lenora Street Elevator equipment is modernized
- (3) Minimal impact to pedestrians and the public
- (4) Saves Port funding
- (5) Accomplishes architectural repairs at Lenora while the stair tower is closed

Cons:

- (1) Reduces efforts to achieve Century Agenda goals
- (2) Duplicative soft and phasing costs will occur to execute work in two phases
- (3) Scope of work would be smaller, reducing elevator company interest reducing competition
- (4) Construction period does not fit within the construction window provided by the City of Seattle

This is not the recommended alternative.

**Alternative 3** – Upgrade both Lenora and Bell Street elevators, stair tower and controls with new technologies including converting both elevators to MRL (Machine Room Less) from older hydraulic technology.

Cost Implications: \$5.4M

Pros:

- (1) Advances Century Agenda goals by leading the region as a tourism destination and business gateway
- (2) Building Engineering Systems delivery process allows the Port to combine design and construction into one contract and the selection of a contractor with the best combination of qualifications and cost
- (3) Removes potential exposure of having hydraulic oil from the elevator system below the water table
- (4) Increased energy efficiency, lower horsepower requirements while using regenerative drives
- (5) Modernizing a hydraulic system to an MRL will reduce the energy consumption

Meeting Date: August 11, 2020

Cons:

- (1) Construction period is several months longer, the longest of all alternatives
- (2) Delay of the project substantially to allow for the shaft construction
- (3) Requires demolition and rebuilding the elevator shafts due to size differences
- (4) Longer delivery schedule will not fit in construction window provided by the City of Seattle
- (5) Highest upfront expenditure for constructing both elevators cost going forward

This is not the recommended alternative.

**Alternative 4** – Upgrade both Lenora and Bell Street elevators and stair tower with controls and new technologies.

Cost Implications: \$1.8M

Pros:

- (1) Advances Century Agenda goals by leading the region as a tourism destination and business gateway
- (2) Building Engineering Systems delivery process allows the Port to combine design and construction into one contract and the selection of a contractor with the best combination of qualifications and cost
- (3) Minimal impact to pedestrians and the public
- (4) Optimizes funding requirements
- (5) Component technologies have greater energy efficiencies
- (6) Efficiencies achieved with Design and Construction in one contract
- (7) Equipment would be identical for both elevators making maintenance and repairs easier
- (8) Accomplishes architectural repairs at Lenora while the stair tower is closed

Cons:

- (1) Construction period fits within the (1) construction window provided by the City of Seattle

***This is the recommended alternative.***

**FINANCIAL IMPLICATIONS**

<b><i>Cost Estimate/Authorization Summary</i></b>	Capital	Expense	Total
<b>COST ESTIMATE</b>			
Original estimate	\$1,808,000	\$0	\$1,808,000
<b>AUTHORIZATION</b>			
Previous authorizations	\$150,000	0	\$150,000
Current request for authorization	\$1,658,000	0	\$1,658,000
Total authorizations, including this request	\$1,808,000	0	\$1,808,000
Remaining amount to be authorized	\$0	\$0	\$0

Meeting Date: August 11, 2020

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

This project was included in the 2020 Plan of Finance under CIP C801016, CW Elevator Modernization, at an estimated total project cost of \$1,500,000. The updated current total project cost estimate is \$1,808,000 and has been included in the draft 2021 Capital Plan.

This project will be funded by the Tax Levy.

***Financial Analysis and Summary***

Project cost for analysis	\$1,808,000
Business Unit (BU)	Portfolio Management
Effect on business performance (NOI after depreciation)	This project is expected to increase an annual depreciation expense by approximately \$60K based on a 30-year useful life.
IRR/NPV (if relevant)	No incremental revenue. The NPV is the present value of the project cost.
CPE Impact	N/A

**Sustainable Evaluation Framework Summary:**

The Lenora and Bell Street Elevator modernization project has been assigned a Tier 1 rating under the Sustainable Evaluation Framework during Sustainable Project Assessment and Review Collaboration (SPARC) Capital Improvement Project screening. The SPARC committee recommended sustainability considerations to include energy (elevator lighting and controls), materials, contractor selection, and waste diversion. The effort should be coordinated with other additional energy efficiency upgrades and assessed against existing building tune-up documentation. The SPARC committee also identified integration with the City project (interpretive signage, etc.) and equity/public access opportunities where possible.

An assessment was conducted for the elevators to recommend upgrades. The project involves the replacement of outdated equipment, resulting in the procurement of more energy efficient HVAC systems, motors, and drives than those currently in use. Energy efficient equipment will be specified in the procurement documents in order to minimize the carbon footprint of these systems. The elevators also will be upgraded to LED lighting. Retained equipment will be reconditioned and waste will be diverted where possible (stair treads and glazing). No additional upgrade projects are being considered within the project vicinity that could be combined with this project. All new car fixtures will be ADA-compliant and designed with raised Braille characters that contain descriptions to help individuals find their desired destinations more easily.

**ATTACHMENTS TO THIS REQUEST**

- (1) Presentation slides

**COMMISSION AGENDA – Action Item No. 6d**

Meeting Date: August 11, 2020

**PREVIOUS COMMISSION ACTIONS OR BRIEFINGS**

None