Item No. <u>8b supp</u>
Meeting Date: April 18, 2023

Deaerator (DA) and Condensate System Upgrades (Hot Project)

Joe Cook

AV F&I – Mech. Engineering Manager

Matthew Piccolo

AV PMG – Capital Project Manager



Project Overview

Project replaces old heating system components in SEA's Central Mechanical Plant that supply space heating and domestic hot water heating throughout concourse areas, and replaces old secondary air compressor needed for redundancy.

Requesting Commission Authorization for:

- Design and construction of secondary air compressor portion of project,
- A project specific designer for removal and replacement of tanks and pumps,
- Approval of total revised project budget of \$14,656,000 (a \$4.8 million increase)



Project Scope

- Replace deaerator ('DA') tank, steam condensate tank, blowdown flash tank
- Install new feedwater pumps with energy-efficient variable frequency drives
- Remove Boiler Room air handling unit and three old air compressor systems
- Install new secondary air compressor in Mechanical Room 211 (discretionary change, added from small works project)



Schedule

Milestone	Date
Commission Authorization for Design	Q2 2023
Commission Authorization Construction – Air Compressor	Q2 2023
Commission Authorization Construction – DA & Condensate	Q3 2025
Notice to Proceed – Secondary Air Compressor	Q4 2024
Notice to Proceed – DA & Condensate Tanks	Q4 2025
Substantial Completion – Air Compressor	Q4 2025
Substantial Completion – DA & Condensate	Q1 2028

Budget

Cost Estimate	Capital	ERL	Total
Status 2 Estimate (2020)	\$9,805,000	\$220,000	\$10,025,000
Revised Project Estimate (2022)	\$14,444,000	\$212,000	\$14,656,000

Cone of Certainty Project Definition Concept +100% +50% SCOPE DEFINITION +30%; We are here: +15% Cost Range of Certainty Notebook Development, IC Approval, **Commission Authorization Planning** Design Construction Closeout COST & SCHEDULE ESTIMATE ACCURACY Highly Certain

-30%

-50%

Action Requested

- Increase project budget by \$4,851,000 for a total revised budget of \$14,656,000
- Execute a professional services contract for design services
- Prepare design and construction bid documents for the Deaerator and Condensate System Upgrade project
- Advertise and execute a major works construction contract for the secondary air compressor portion of the project
- Authorize the use of Port of Seattle Crews for pre-construction activities

QUESTIONS?

