


Water Operations Facilities 20-Year Master Plan Update

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Agenda

- Background
 - Tacoma Water 20-Year Master Plan
 - Phase 1: Water Warehouse & Shops
 - Scope
 - Schedule
 - Budget
 - Recap and Next Steps
 - Questions
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Water Operations Facilities

Background

2016 All Hazards Vulnerability Assessment (AHVA)

- Water Operations Building is Essential Facility

2018 Seismic Assessment of Existing Building

- Structural capacity below industry standard for Life Safety and Immediate Occupancy
- Likely no access to warehouse, shops, and offices until structural repairs are made
- Without access to warehouse, limits Tacoma Water's ability to repair water system
- Begin design to retrofit existing building
- Cost of retrofit exceeds cost of new building with no additional space for growth

2020 Paused during COVID

2019-2021 TPU Master Plan (Helix)

- Determined existing building undersized to meet current and future needs
- Pandemic confirmed need for essential staff and facilities to be available during emergent situations
- Tacoma Power doesn't have additional space for Water Operations beyond Water Control Center

2022 Second Alternatives Analysis

- Reconstitution - Water implemented the TPU space standards
- New alternatives for hybrid-work, reintroduce building resiliency, accommodate future growth identified in the 2021 Master Plan
- Determined new warehouse and shops to precede retrofit/replacement of offices



Alternatives Analysis

(Jacobs, 2022)

Figure 4-11. MODA Results Compared to Life-Cycle Cost



Alternatives 1 & 2 were recommended and moved into the 23/24 Budget & CIP.

- Phase 1 New Warehouse & Shops Building
- Phase 2 Renovate Operations Building

Alternative 7 scored the highest, the process to determine feasibility of demo of WOB would push the project further out delaying moving essential functions to more resilient spaces.

An aerial photograph of an industrial or commercial site. In the upper left, there is a large, light-colored rectangular building with a flat roof. To its right is a large parking lot filled with many cars. Below the building and parking lot, there are several smaller structures and more parking areas. A multi-lane highway runs diagonally across the lower half of the image. The background shows more industrial buildings and parking lots under a clear sky.

Water Operations 20-year Master Plan

- Data Gathering, Site Survey, and Detailed Workshops
- Detailed Program Documentation
- Multiple site layouts reviewed by project team
- Follows the TPU Space Standards

Findings & Recommendations

- Covered and enclosed shop spaces are undersized based on current needs
- Controlled inventory is being stored in multiple locations across the site
- Complicated site with many constraints, utility easements, railroad, and well
- 20-year projections for 180 vehicles and 265 people shows need for 120,000 s.f. of buildings and covered/enclosed structures
- Site access for long loads is challenging on Water property; possible joint access for Water and Power

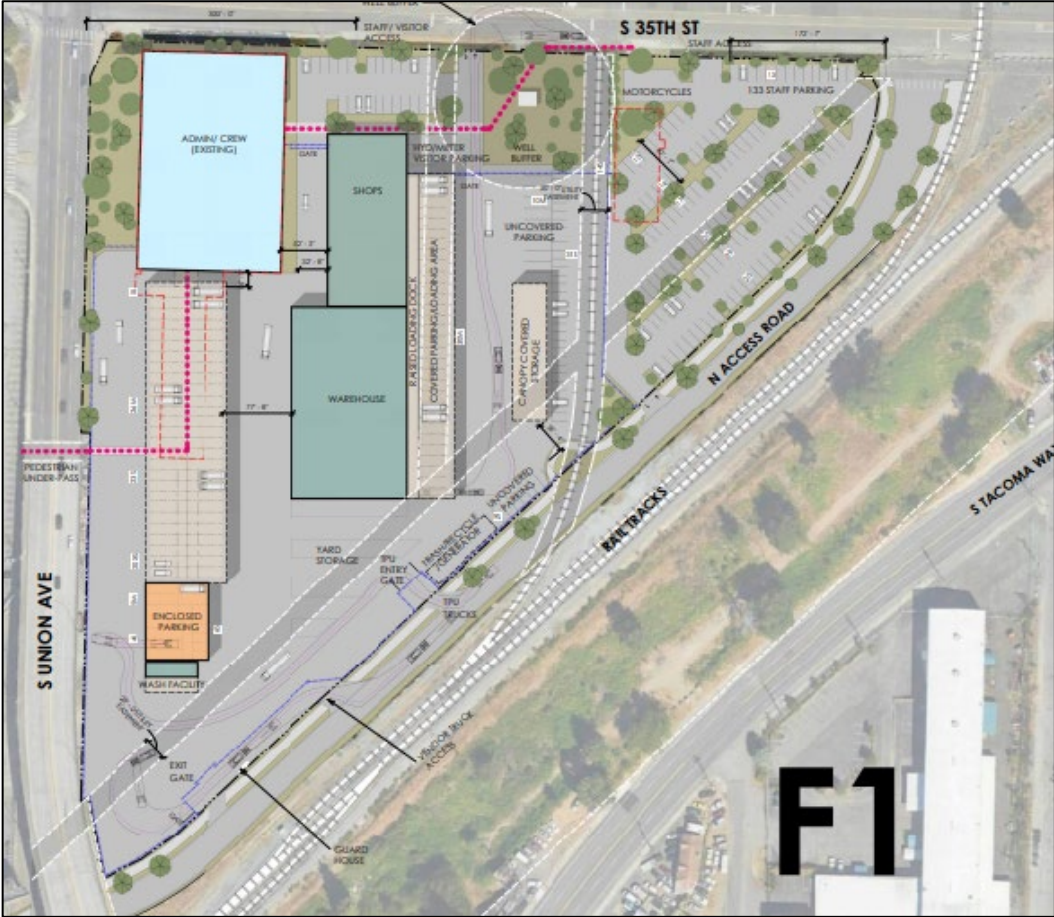
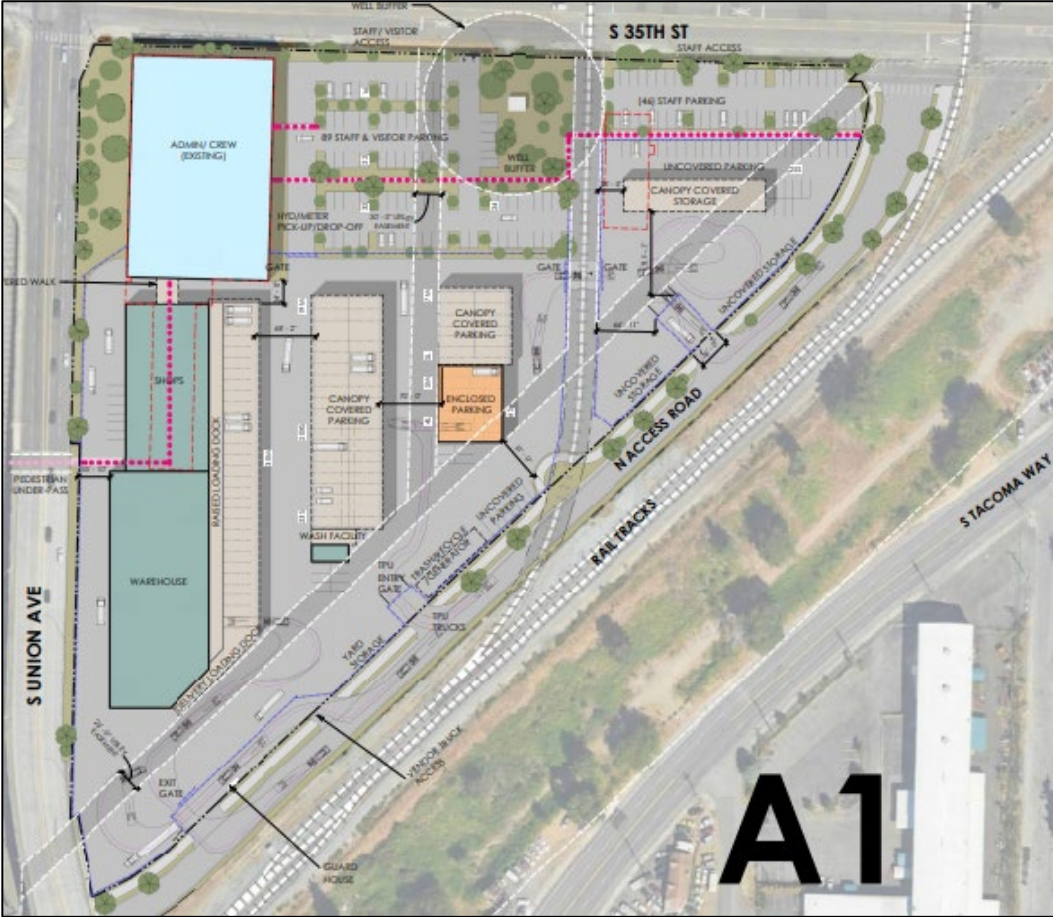


Building Space Needs Identified in TCF Master Plan (excludes dock & covered storage)

Function	Existing	Proposed
Warehouse	19,580	30,550
Meter Shop	1,650	1,790
Pipe Shop	2,500	4,176
Tool Room	2,260	3,341
Hydrant/Flushing	6,300*	4,709
Operations Offices	12,500	12,000
TOTAL	44,790	56,566

*The Annex is used by Hydrants, Flushing, Locates, Electrical, and Supply Maintenance. These functions are included in the Proposed Spaces. The Annex would be demolished and the land repurposed.

20-Year Build Out Alternatives

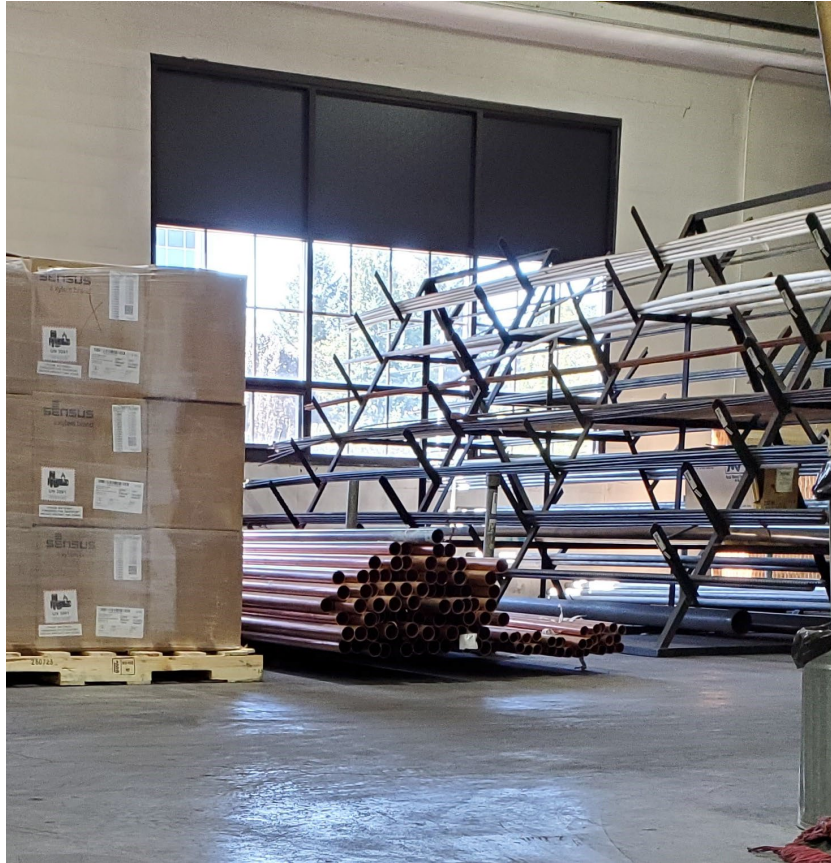


Phase 1 Project Water Warehouse & Shops



Purpose: Provide a resilient facility for Water's essential staff, warehousing, and shops functions for current and future needs.

Water Operations Facilities



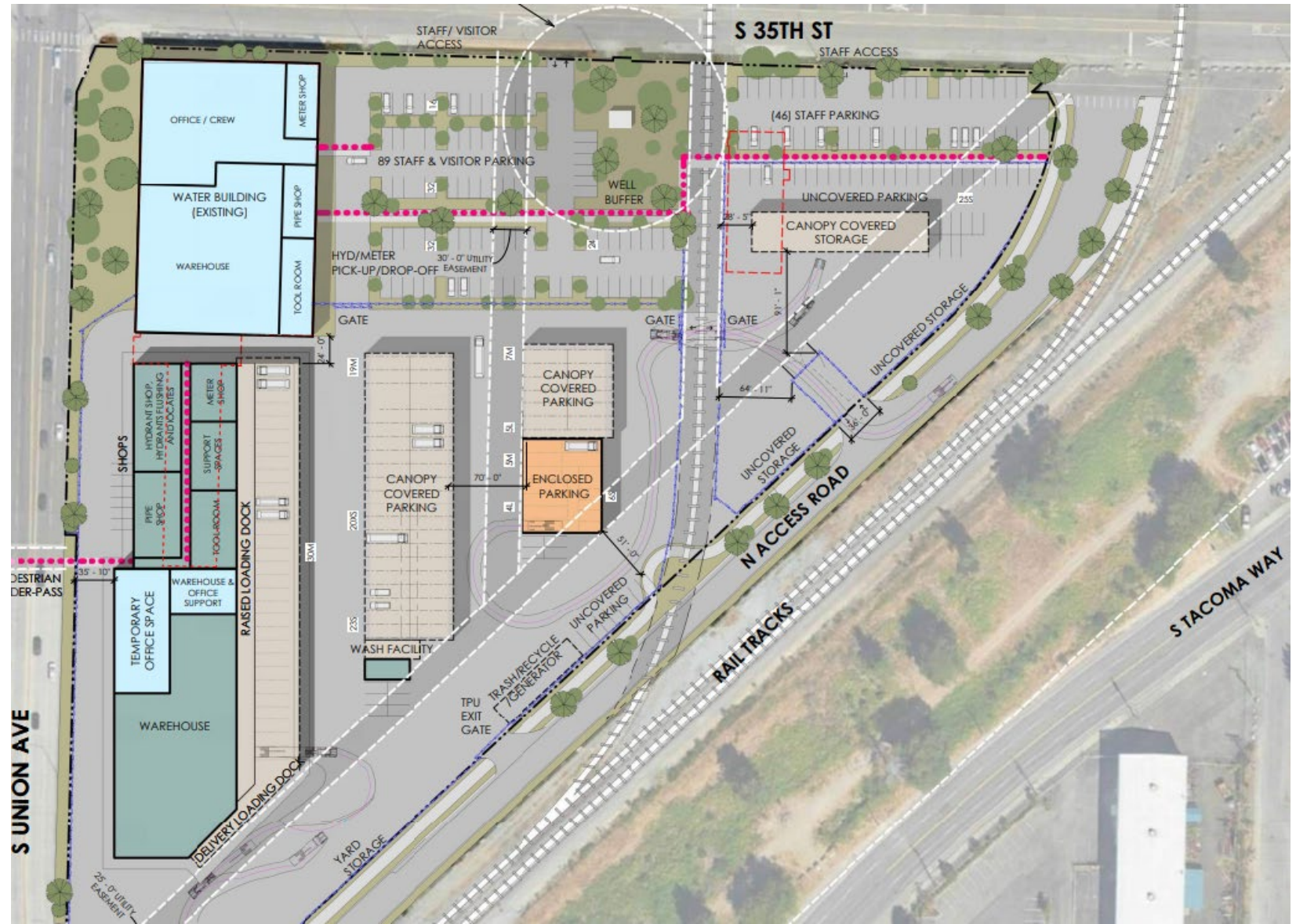
Project Goals

Operational Effectiveness, Building Resiliency, and Future Growth


- Improve operations with appropriate spaces, better workflow and adjacencies
- Design and build new warehouse and shops facility to the appropriate seismic level
- Accommodate anticipated growth

Preferred Alternative A.1.2

- Phase 1: New Warehouse & Shops Building with Temporary Office Space and Adjacent Covered Dock
- Phase 2: Retrofit & Renovate existing Building



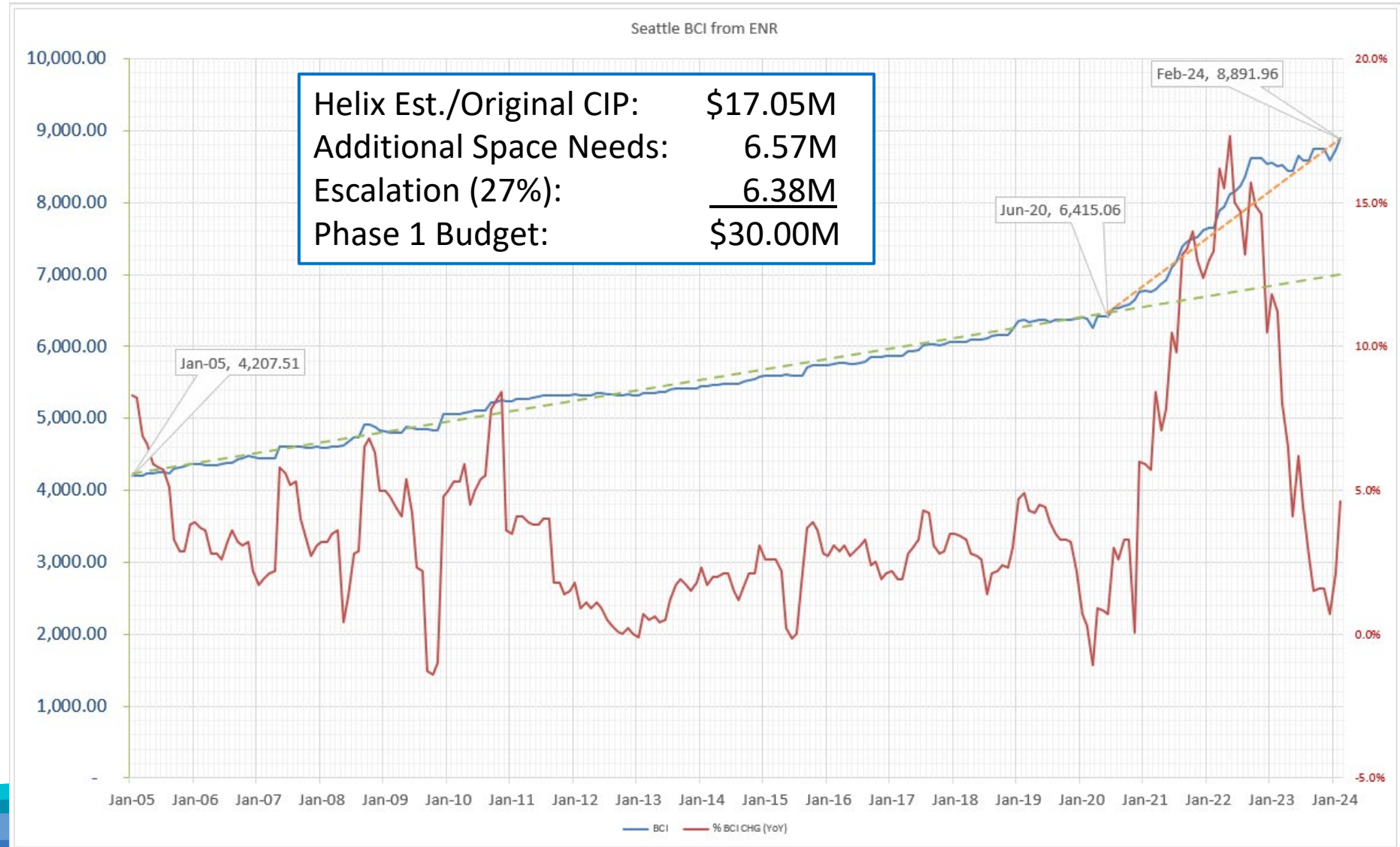
New Warehouse & Shops Building, Temp. Office

- Phase 1 New Warehouse & Shops Building and Adjacent Covered Dock
 - Warehouse and Shops staff move into respective spaces
 - Remaining operations staff housed in 5500 sf of future warehouse space
 - Includes crew rooms, small and medium meeting spaces
 - Requires existing building to remain operational for part time use: lockers, training room, full kitchen, office storage
 - Leaves some inventory under bridge and/or at Annex building until future phase
 - Phase 2 Renovate Existing Water Operations Building
 - Use TPU lockers, training room, etc. during renovations
 - Convert temporary office space back into Warehouse space
 - Moves all inventory-controlled items from under bridge and Annex to resilient warehouse
 - Build out Enclosed Parking, Covered Storage Areas, and associated parking
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Building Costs Escalation

ENR Building Cost Index
Blue line = monthly BCI
Index for Seattle
Red line = percentage
change, annually

The rate if building cost
escalation has slowed
but costs are not
decreasing.



Master Plan Scenarios - Summary (\$)

	A.1.2 WOWS, w/Temp Offices in Whse Renovate WOB
Phase 1	\$29,279,000
Phase 2	\$39,670,000
20-Yr Build Out	\$68,949,000

Capital Costs shown; Lifecycle Cost Analysis to be completed.

Design-Build Team will help evaluate the best placement for the Operations Personnel

1. Tenant Improvement in Warehouse
2. New Building
3. Retrofit a portion of the existing building

Questions/Comments?

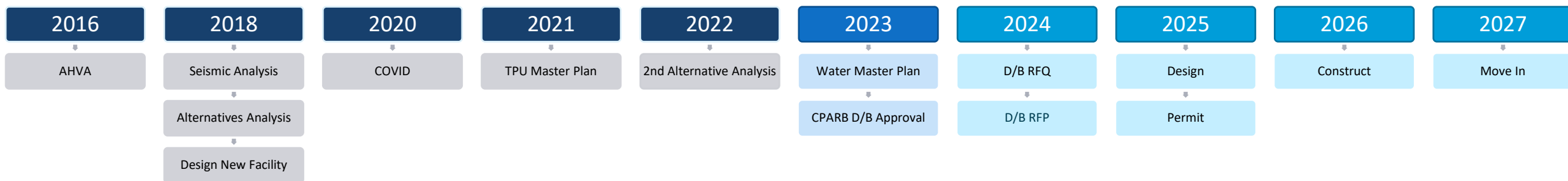


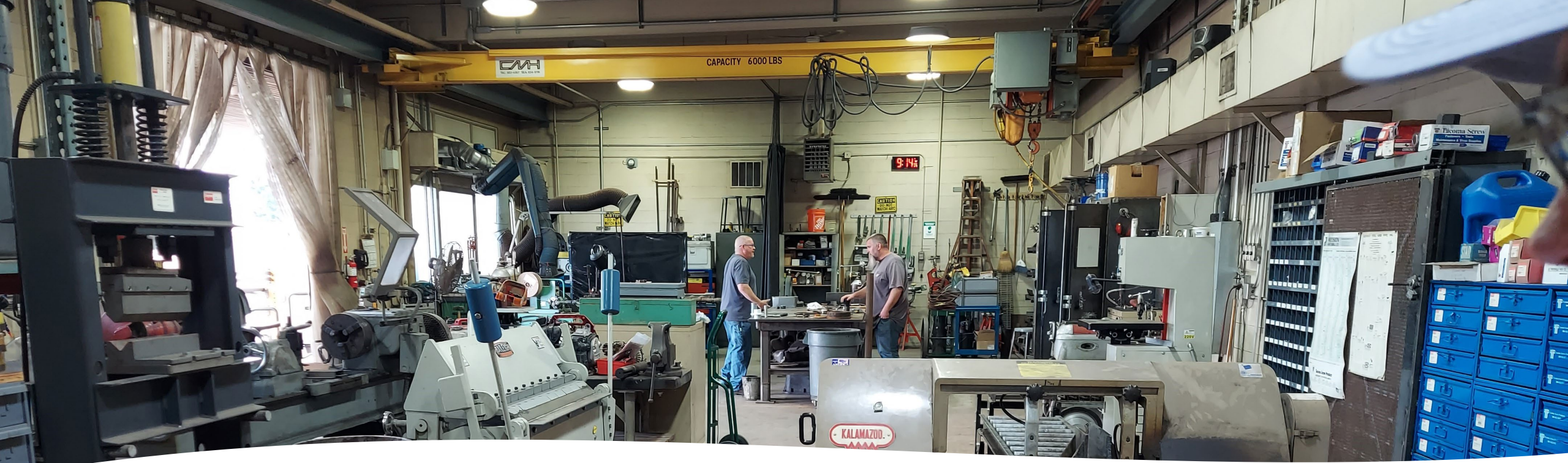
Appendix



Project Schedule - 2024

- Present Master Plan to PUB Study Session – February 14th
- Publish RFQ, Publish RFP, Select Design-Build Team – May
- Contract Negotiations & PUB Approval – July
- Begin 0-60% Design Phase - August





Project Critical Success Factors

- Reduce seismic risk and enhance safety
- Maximize operational efficiency
- Promote unity and cohesion within Tacoma Water
- Provide desirable employee work environment.
- Be good stewards of the environment.
- Minimize operational disruptions during construction
- Minimize capital cost and accommodate possible future layout changes and expansion

Progressive Design Build

- Approval received December 1, 2023 from WA state Capital Projects Advisory Review Board (CPARB)
- We are not locked into an alternative
- We want the Design-Build team to be creative and innovative
- Emphasis is on facility performance and maximizing the value of our budget within the Guaranteed Max Price

The Design-Build project delivery method allows the opportunity to maximize innovation and efficiencies between the designer and the builder that are not typically available with the traditional delivery methods. Additionally, the Progressive Design-Build delivery method supports an expedited design and construction schedule that may include early procurement as well as early permit and construction packages, allowing expedited project completion and occupancy.