

Capital Delivery Cost Workplan Update

System Expansion Committee

12/11/2025



Agenda

- Capital Delivery Cost Workplan Overview
- **Tacoma Dome Link Extension:** Overview & Opportunities
- **Maintenance Facilities Program:** Overview & Opportunities
- Next Steps

Cost Saving Workplan

- Following the Board's directives from Motions Nos. M2024-59 & M2025-36
- **Programmatic opportunities** identified as opportunities across the portfolio of projects.
-  **Project opportunities** identified as unique opportunities for specific capital projects.
- Opportunities will provide benefits to include improving passenger experience, lower O&M costs as well as cost savings.

Today's
focus

Projects Developing Cost Savings Opportunities

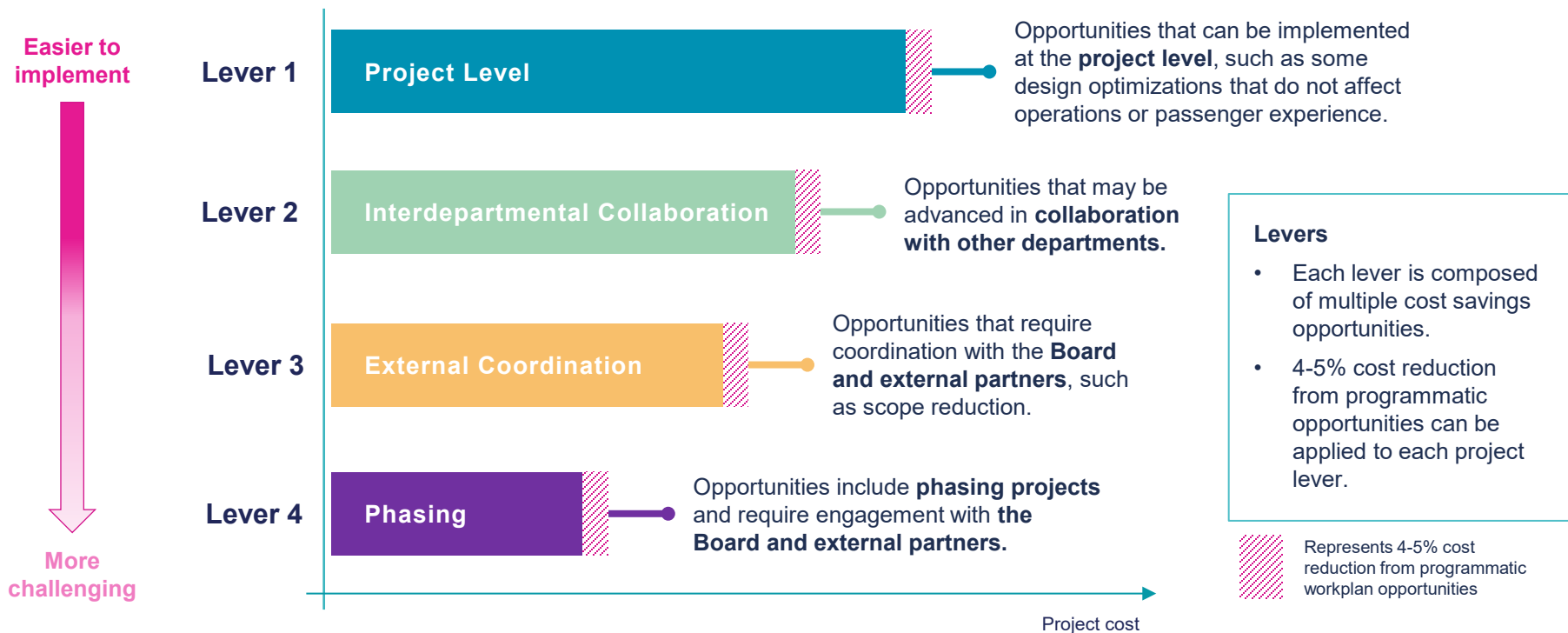
Conceptual Engineering:

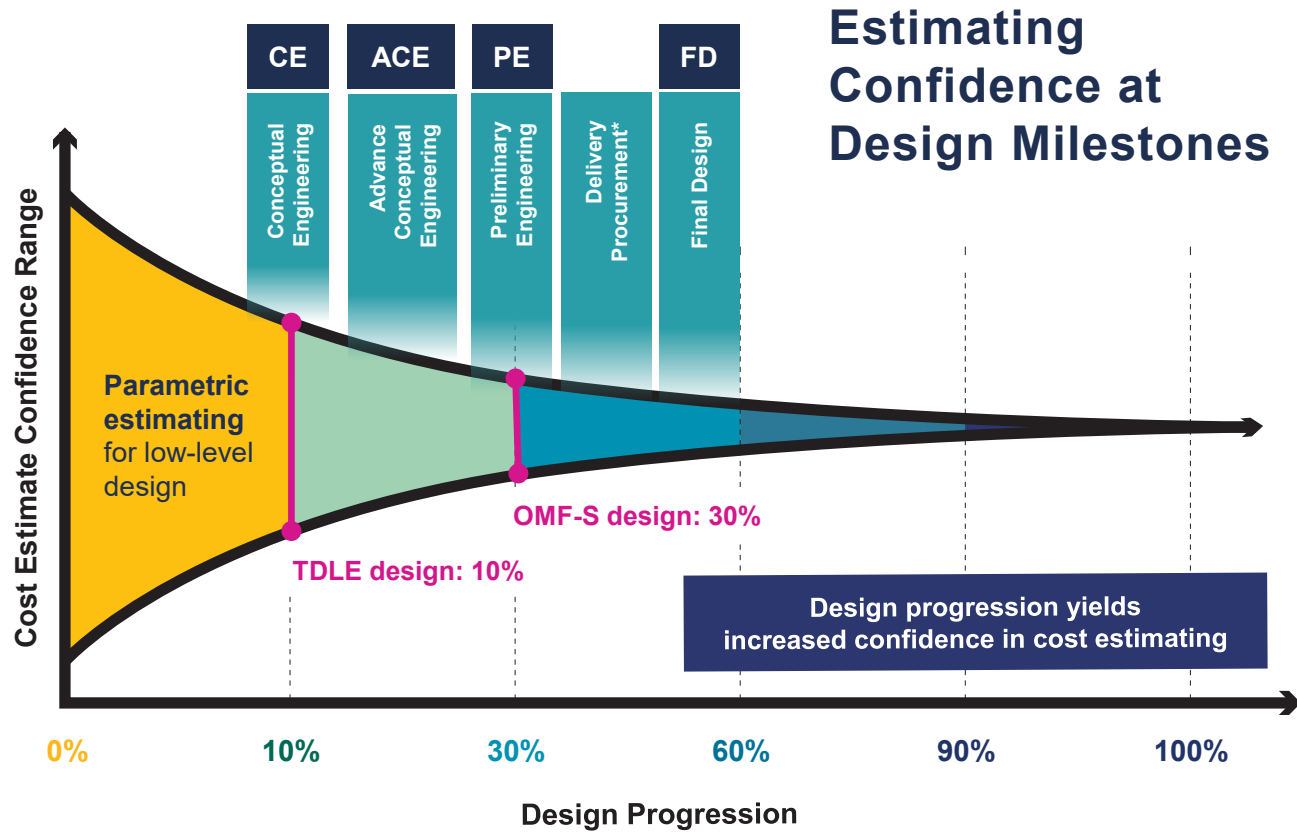
- Ballard Link Extension
- **Tacoma Dome Link Extension**
- Everett Link Extension
- Infill Stations
- Sounder Program
- **OMF North**

Post-Preliminary Engineering:

- STRIDE Bus Rapid Transit
- **OMF South**
- West Seattle Link Extension

Cost Savings Workplan Levers





Early estimates used the **Parametric Method** and **Unit Cost Library (UCL) Method** to define **Rough Orders of Magnitude (ROM)**: using historical data (e.g., cost per mile of track, cost per station). Typical method for minimal to no design.

Current estimate is based on **Bottom-Up Method**: quantifying labor, materials, equipment, and time for each activity or component. It is more detailed, time-intensive, and typically used later in design when scope and quantities are better defined. **This method increases confidence in the estimate.**

Tacoma Dome Link Extension



Link light rail

Tacoma Dome Link Extension

Preferred route and station alternatives

Other Final EIS route alternatives

Other Final EIS station alternatives

Route profiles

Elevated

Surface

Puyallup Tribe of Indians Reservation

Other train service

Link 1 Line: Angle Lake–Federal Way (future)

Link T Line: Tacoma Dome–St Joseph (current)

Sounder S Line: Lakewood–Seattle (current)

Existing station

N

Tacoma Dome Station

Portland Ave Station

South Federal Way Station

Fife Station

Federal Way Downtown

Federal Way

48th Ave E

12th St E

15th St E

30th Ave E

35th Ave E

37th Ave E

39th Ave E

41st Ave E

43rd Ave E

45th Ave E

47th Ave E

49th Ave E

51st Ave E

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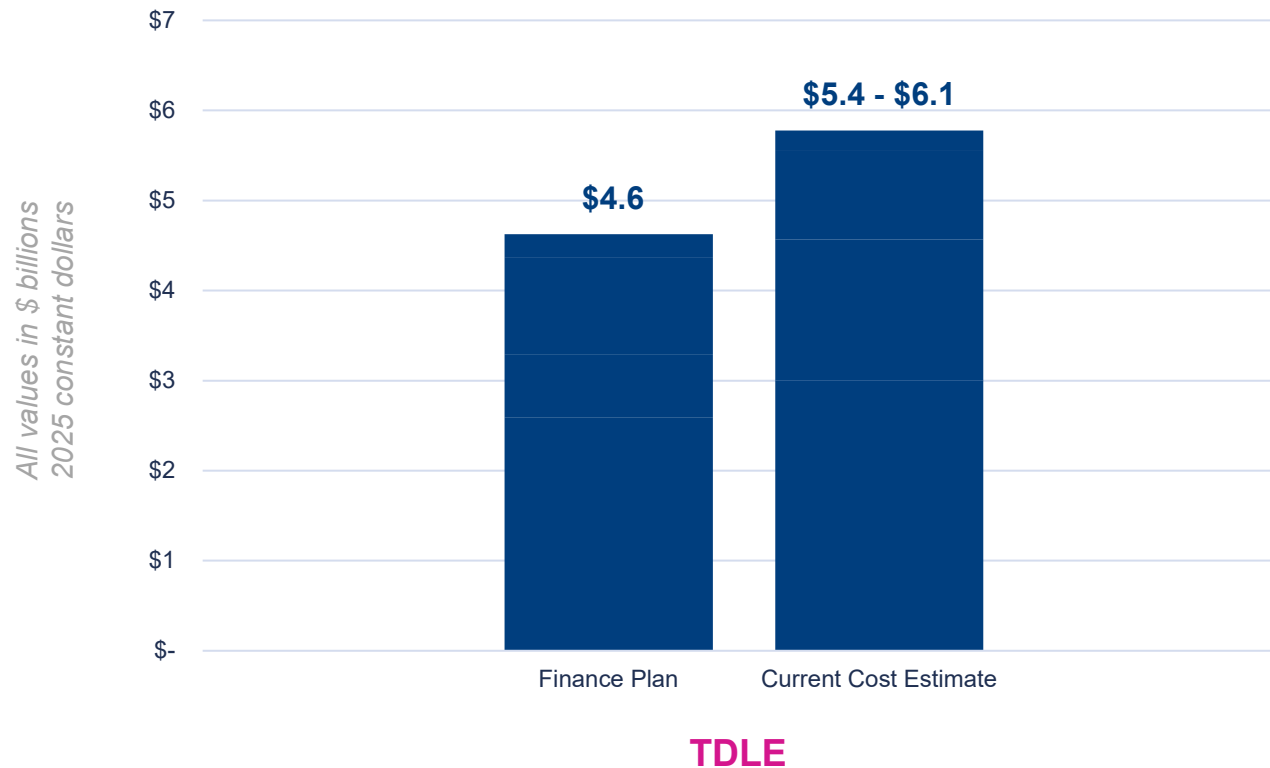
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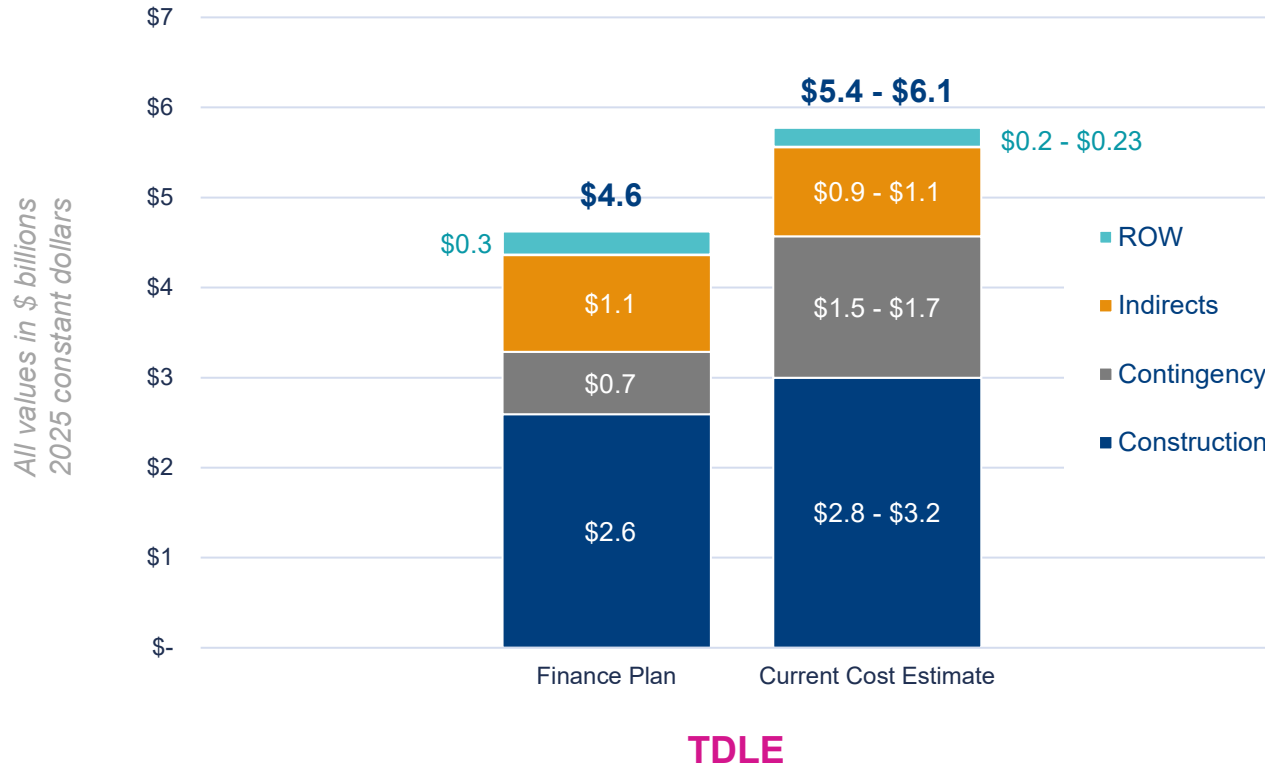
2025 Financial Plan vs. Current Cost Estimate (2025\$) Comparison



- Current cost estimate based on bottom-up estimate
- **All numbers shown are in 2025 \$**
- No Cost Savings reflected
- Does not include parking

2025 Financial Plan vs. Current Cost Estimate (2025\$) Comparison

Drivers of Cost Growth



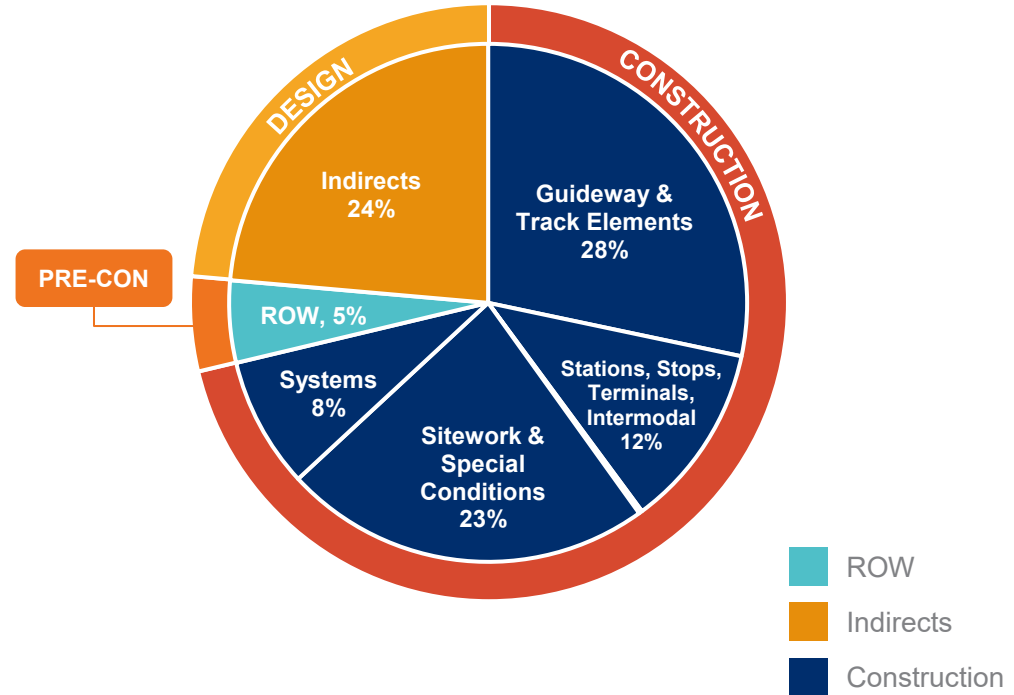
- Construction increases reflect current market conditions
- Contingency allocation aligned with FTA Oversight Procedure 40
- Indirect costs will be carried as a percentage of hard costs (dependent on project complexity and durations)
- ROW costs have contingency removed, reallocated to Contingency bucket
- No Cost Savings reflected

Cost Drivers: TDLE

- 8.5 miles of **aerial guideway**: limited ability for at-grade construction increases structural and foundation requirements.
- **Complex bridge structure** over the Puyallup River.
- **4 aerial stations** require significant structural and vertical access elements.
- **ROW lower** than other projects due to lower real estate costs.

Cost Drivers as a Percentage of Cost

Contingency is \$1.5B - \$1.7B, or approximately 30% of total cost estimate.

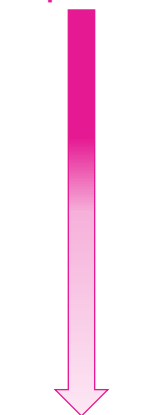


TDLE Cost Saving Levers (2025\$)

Decision Level

- Project/Capital Delivery
- Interdepartmental
- External Coordination

Easier to implement



More challenging

Total Project Cost

8.5 miles, 4 stations

\$5.4B-6.1B

Lever 1

8.5 miles, 4 stations

\$5.3B-6.0B

Lever 2

8.5 miles, 4 stations

\$5.1B-5.7B

Lever 3

8.5 miles, 2-4 stations

\$4.7B-5.3B

Lever 4

(MOS to Fife)

5 miles, 2 stations

\$2.6B-3.0B

Finance Plan \$4.6B

2 - 3%
Reduction

5% - 7%
Reduction

13% - 14%
Reduction

51% - 53%
Reduction

TDLE Register Highlighted Opportunities

Lever	Example Opportunities	Potential Cost Savings (ROM)
Lever 1	▶ Eliminate Mezzanines at Stations	\$30M - \$40M
	▶ Optimize Vertical Circulation to Ridership	\$25M - \$30M
Lever 2	▶ Eliminate Tail Tracks	\$40M - \$50M
	▶ Convert Stormwater Vaults to Pipe Systems	\$40M - \$50M

To Date:

67 total opportunities have been identified.
39 are under consideration and/or in feasibility review.
28 have been closed.

Eliminate Mezzanines at Stations

Benefits

- ↓ **Reduces construction cost** by lowering guideway and reducing the quantity of escalators and the additional floor.
- ↓ **Reduces** lifetime maintenance cost
- ✓ **Improved accessibility and passenger experience** from plaza to platform.
- ✓ **Assists with schedule** by simplifying station design.

Considerations

- ⚠ **Eliminates potential for direct connection** of pedestrian bridges into station.
- ⚠ **Longer escalators and stairs** without a mid-level transition

Reduce Guideway Height to Eliminate Mezzanine



Northgate Station w/Mezzanine



Federal Way Downtown Station w/o Mezzanine

Potential ROM Cost Savings:

\$30M-\$40M

Eliminate Tail Tracks at Terminus Station

Eliminate tail tracks to avoid demolishing Amtrak Station

Freighthouse Square + historic sign

Amtrak Station

Sounder Breezeway

SOUNDER/AMTRAK TRACKS

Benefits

- **Reduces** cost and schedule
- **Eliminates** the need to demolish newly built Amtrak Station and Sounder Breezeway
- **Avoids** temporary relocation of Amtrak Station during construction
- **Avoid** Federal repayment from demolishing newly built Amtrak station
- Potential to **maintain** west end of Freighthouse Square building

Considerations

- Train maintenance, sweeping, cleaning, and storage would need to occur elsewhere along corridor or at Tacoma Dome Station
- Assessment needed of potential service frequency and operational resiliency implications

Tacoma Dome Station
(Close to Sounder Alternative)

Note: The cost savings range may change depending on the results of the feasibility study, which will assess the need for additional infrastructure to support long-term operations usually served by tail tracks.

Potential ROM Cost Savings:

\$40M-\$50M

2025\$, rounded to the nearest \$5M

Next Steps for TDLE

- ✓ **Continue advancing preliminary engineering** with design to budget strategy while retaining flexibility
- ✓ **Apply cost levers** – 1 & 2 progressively to narrow the financial gap
- ✓ **Maintain schedule** and publish FEIS in Q1 2027
- ✓ **Continue to provide updates** on progress
- ✓ Support the **enterprise initiative**

***Maintenance
Facilities
Program***

Maintenance Facilities Program

NEW - A network approach to maintenance facilities for the Sound Transit light rail vehicle fleet and the infrastructure:

- **Existing:**
 - Operations and Maintenance Facility (OMF) Central
 - Operations and Maintenance Facility (OMF) East
- **Under Development:**
 - Operations and Maintenance Facility (OMF) South
 - Operator support facilities
 - Light rail vehicle maintenance & storage
 - Maintenance of Way (infrastructure) support
 - Test track for vehicle testing
 - Operations and Maintenance Facility (OMF) North
 - Operator support facilities
 - Light rail vehicle maintenance & storage
 - Maintenance of Way (infrastructure) support
 - **Maintenance of Way (MOW) North (permanent facility)**
 - **Maintenance of Way (MOW) South (future)**



OMF South Project Scope

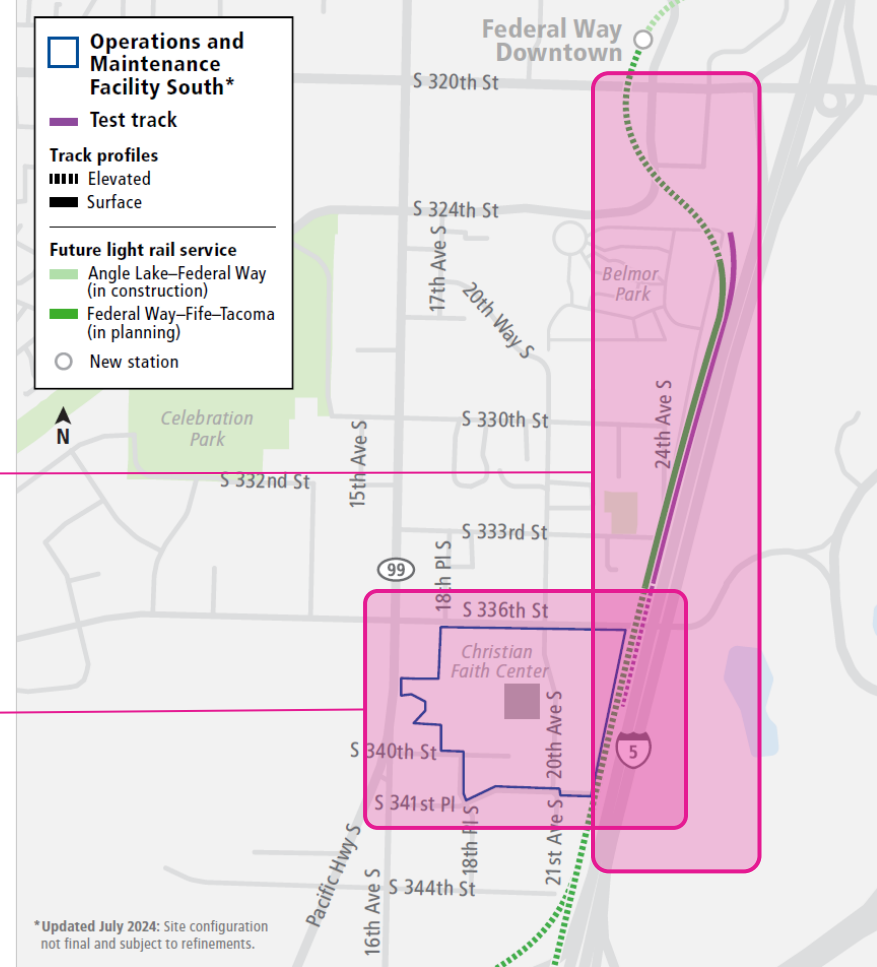
- The initial phase of design and construction for the OMF South includes the mainline connection, test track, new facility, and new storage yard
- Target completion is 2032

Connecting Track & Test Track

- Extension of mainline track from Federal Way end of line to new OMF South yard
- Dedicated test track for testing and commissioning of light rail vehicles

Operation and Maintenance Facility South

- Storage for 72 long ST3 vehicles
- Light and heavy maintenance
- Maintenance of Way (MOW) facility
- Operator facilities
- Administration



2025 Financial Plan vs. Current Cost Estimate (2025\$) Comparison



OMF South

- All numbers shown are in 2025 \$
- **Progressive design-builder will identify additional cost savings** through design validation and progression
- Preliminary cost savings were applied in 2023
- The "Current Cost Estimate" range is still a rough order of magnitude and will be refined as design progresses further

Early Phase Cost Savings Efforts (2023)

Lever	Example Opportunities	Potential Cost Savings (ROM)
Lever 1	▶ OMF-S: Shift alignment of 18th Place South Extension out of Critical Areas	\$20M - \$25M
Lever 2	▶ Maintenance Program: Concept of Maintenance	\$25M - \$75M

46 total opportunities have been identified.
34 are assigned to Levers.
12 have been closed.

Concept of Maintenance

Potential from Concept of Maintenance work

Centralizing LRV maintenance

- **Right-size maintenance assets to optimize investment needs** for future OMFs
- Concentrate maintenance operations to **improve resource allocation**

Retrofitting existing facilities

- Evaluate **facility modifications** at OMF-E to either
 - **Accommodate** for **longer vehicles** (190ft)
 - **Overhaul Series 1 fleet** to extend lifespan

Ensuring stable train availability

- Develop strategies to **maintain fleet availability** despite procurement uncertainties of Series 3
- Optimizing vehicle allocation to **ensure service stability** and customer-friendly headways

Optimizing maintenance program

- **Harmonize** planned **maintenance program** to simplify and potentially stretch resource needs
- **Optimize** vehicle **overhaul strategy**

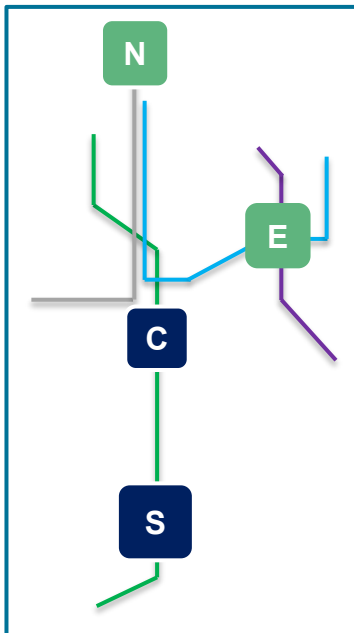
Concept of Maintenance

Benefits

- **Higher efficiency** through consolidation of maintenance services
- **Lower capital investment** by reducing duplicate assets such as vehicle wash, wheel lathes or paint/body shop at OMF-N
- **Improved workforce availability** due to optimized specialization and enhancing labor allocation
- **Ensured high fleet availability** by rotation optimized fleet allocation for dailies and cleaning
- **Decreased** overall OMF footprint and costs

Considerations

- Applies to all operations and maintenance facilities, not only new facilities.



Specialization and centralization of maintenance



Reduction of redundancies



Improvement of vehicle & workforce allocation

OMF functions:



Focus on maintenance, repairs and cleaning of LRVs



Focus on inspections and parking of LRVs

Potential ROM Cost Savings:

\$25M-\$75M

2025\$, rounded to the nearest \$5M

Next Steps for Maintenance Facilities Program

- ✓ **Award OMF-S progressive design-build contract** to continue to identify savings through final design and constructability: Q1 2026
- ✓ **Apply cost levers 1 & 2** progressively across the Maintenance Facilities Program and as part of design development for OMF South: 2026 – 2027
- ✓ **Implement cost savings** as part of Board-approved construction contracts for OMF South: 2026 – 2027

Thank you.



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