Electric Bus Update
Powell Garage Renovation
it’s a total teardown
Current Powell by Numbers

• 1977: year built as a temporary facility while Center garage was constructed.
• 246: Current bus count
• 1:22 bay-to-bus ratio
• 16.65 ac LIFT moves to allow bus capacity growth by 100 (40’

[Image of a map showing the location of Powell garage]
Powell Design by Numbers

- 2021: scheduled completion of construction
- 300: Current bus count – designed to accommodate max 346 (40’), max 217 (60’)
- 1:18 bay to bus ratio
- 4 fuel lanes
- 2 bus washes
Powell project goals

Design goals redefined

"Innovation" - Be Leaders, Not Bleeders
"Happiness" - Remain The Core Family
"Resiliency" - Embrace Simplicity
"Beauty" - Find The Right Balance
"Health" - Safety Is Our Top Priority
Powell: an Artic’s Home

Accommodating the fleet
- Fuel and wash
- Specialty bays
- “Pits” LLWA
- Maintenance Training
- Stores
- Further defining TriMet operations
Powell Schedule and Phasing

2017
- Design Schedule: 30% design deliverables include preliminary phasing and high-level phasing to identify capacity and operational limitations

2018
- Design Schedule: 65% design deliverables include more details on phasing steps and schedule of those intermediate steps
- 100% design
- LIFT moves and Construction starts on Phase 1

Powell Staff Update
- 2017: Staff update
- 2018: Staff update

Service
- Transportation: Operators sign up
    - August, September, October, November, December

Maintenance
- Maintenance (Bus and FM) sign ups
    - August, September, October, November, December, January, February, March, April, May, June, July, August, September

Operators sign up
- Temporary adjusted routes and service to be identified to service planning
- Schedules complete
- Fall 2018 service starts

Maintenance (Bus and FM) sign ups
- Maintenance (Bus and FM) sign ups
- Maintenance (Bus and FM) sign ups
Powell Schedule and Phasing

September 2018 - March 2020

March 2020 - September 2021
Powell – 65% Material Renderings
Powell – 65% Design Renderings
Questions?
Reflect and Refine for Success

- Project has significant cost pressures - $14M Over budget
- Pursuing Opportunities to Reduce Costs at 35% Design

✓ Continues to deliver on project goals including meeting performance expectations
✓ Ensures competitiveness in the Federal process
✓ Creates resiliency in the challenges ahead
✓ Reduces project risk
✓ Ensures that the project continues to perform and achieves results
✓ Replicable as regional tool on other corridors
Project Update

- Project received “Medium-High” rating
- Pursuing Congressional Path
- Making good progress on closing the funding gap
- Wrap-up technical design & coordination (TDAC) workshops
- Establishing decision matrix to help prioritize & synthesize in April
- Determining refinement tools
- Feedback & start 35% design
Process

30% Design

Critical to Transit
Project Goals
Budget

Recalibration

35% Design

Eliminated or Deferred

ODM MSP
City of Portland
City of Gresham
Other

Signals
Stops
Laneways
Other (shelters, amenities, etc.)
## Division Transit Project

### 2018 Project Recalibration Schedule

<table>
<thead>
<tr>
<th></th>
<th>PHASE I</th>
<th>PHASE II</th>
<th>Review/Cost Est.</th>
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<tbody>
<tr>
<td></td>
<td>Project Recalibration Decision Process</td>
<td>35 Percent Design Plans</td>
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<tr>
<td>JANUARY</td>
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### Key Meetings

- **Design Team Meeting, Phase I**
- **Design Team Meeting, Phase II**
- **TDAC**
- **TAC**
- **Project Partners (PP)**
- **PMG**
- **CAC**
- **Policy & Budget**
Refinement
Findings
(To Date)
Signals

• Closely evaluated all signals along corridor

• Categorized by need:
  • Essential
  • Wish List
  • Eliminate

• Utilize categories to prioritize performance and outline cost effective approach
# Stations

Reducing Platform Height (6” vs. 9”)

<table>
<thead>
<tr>
<th>6” BENEFITS</th>
<th>9” BENEFITS</th>
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</thead>
<tbody>
<tr>
<td>May integrate better with adjacent properties</td>
<td>Potential to reduce lift requests</td>
</tr>
<tr>
<td>Smallest overall footprint</td>
<td>Flatter ramp access (=faster) to bus</td>
</tr>
<tr>
<td>Works with existing grades and requires less re-work</td>
<td>Reduces dwell time at key locations</td>
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<tr>
<td>Least Cost</td>
<td>Slightly higher costs than 6”</td>
</tr>
</tbody>
</table>
Platform Height & Footprint

12"
(30% island)

9"

6"
6” vs. 9” Platform Height
Protected Bicycle Infrastructure

• Shifting from bikes behind, to bikes up and over
• Creates clear bike/bus zones, some bike/ped space sharing
• Keep bus in lane to maximize travel time performance benefit
• Establish a modal tool that can be more readily used throughout region
Bikes “Up & Over” Platform

INTEGRATED 2B OPTION 2 - BIKE LANE THROUGH STATION - 9’ PLATFORM FARSIDE
Stations

Demand-Based Investment

— Level of investment corresponds to projected ridership demands (*Enhanced, Standard & Light Touch platforms*)

— Meets ADA & Universal Accessibility requirements

— Safe, equitable & replicable

— Provides same or improved service & amenities over existing

— Doesn’t preclude future investment

— Meets branding and shelter/protection per FTA requirements
Future Projected Ridership (40% Increase)
The “Light Touch” Platform Approach

- Lowest 25% projected ridership platforms receive “lighter touch”
- Provides same or improved service & amenities over existing
- Lighter touch platforms distributed across the corridor
- Level of “light touch” investment corresponds to context & need
- Equity, accessibility and safety are key factors guiding this approach
- Meets FTA guidelines & requirements
- Maintains need for weather protection
The “Light Touch” Platform
Laneways

• Evaluate travel lanes & contribution to corridor (BAT Lanes, Bike lanes, Bus Pads & Roadway improvements)
Next Steps & Timeline – March - June

**DESIGN**
- Wrap-up TDAC/Design Refinement Effort
- Project Cost Evaluation & Update
- Reassemble design based on priorities (*performance, cost, accessibility, equity, etc.*)
- Continue work with partners to resolve outstanding items
- Begin 35% Design
- Committee review & feedback
- Open House

**FEDERAL FUNDING**
- Expediting NEPA to submit to FTA
- Securing local funding
- Finalizing third party agreements
- Completing other Federal deliverables
- Aligning costs with budget
Questions?