Portland–Milwaukie Light Rail
Citizens Advisory Committee

Leah Robbins, P.E.
East Segment Director
PMLR Project

January 17, 2013
Construction Status – West Segment
Civil Construction on SW Lincoln St.
Finished Roadway (4th looking east and 1st and Naito going toward bridge)
Aerial View of Harbor Structure
Harbor Structure/Cut Walls and Moody
Looking north (CLSB building to right)
Preparing for Unit 2 deck placement
Middle 1/3 of deck to be place this month
Walls 3 and 4 Low Density Cellular Concrete
Installing Utilities (looking south from Bent 10)
Construction Status – PMLR Bridge
Artist’s Rendering of the PMLR River Bridge
West Tower – Hoisting Temporary Cable Stays
West Tower – Pier Table Deck
East Tower
Pylon Construction
East Tower Pylon Rebar and Forms
Construction Status – East Segment
Water Avenue – Open to Traffic Feb 4; Sidewalks in progress
Water Avenue – Light Rail Crossing
Gideon Street – Initial Building Demolitions in Progress
Powell Structure – Wire wall construction in progress
Tillamook Branch – Pile Driving for Wall foundation
Kellogg Structure – Drilled Shaft west of McLoughlin
Trolley Trail Private Property Clearing
So how do you spend ~$1,500 million?

By spending 

~$1 million

Per day

Every day

Until spring 2014
Portland - Milwaukie Light Rail
Monthly Cash Flow

Peak Cash Flow: Summer 2012 to Spring 2014
Real Property
Square Footage by Date

Square footage Acquired

Square footage remaining

5.1 million
Square feet total

Square footage
2010 2011 2012 2013

Real Property
Square Footage by Date

Square footage Acquired

Square footage remaining

5.1 million
Square feet total

Square footage
2010 2011 2012 2013
Real Property
Square Footage by Date

Squarefootage Acquired
4.75 million Square feet Available

Squarefootage remaining
Real Property
Square Footage by Date

427,000 Square feet Remaining

Square footage Acquired
2010 2011 2012 2013

Square footage remaining
2010 2011 2012 2013
Cost Incurred - December 2012 ($497m)

33% Expended

67%

- Construction
- Professional Services/Misc
- Right of Way
- Interim Finance and Local Interest
- Remaining
Employment Status — January 2013

- **Firms**
  - 343 firms are or have worked on project
  - 100 are Disadvantaged Business Enterprises (DBE)

- **Jobs**
  - 14,500 total jobs are projected to be created
  - 4,719 as of January 2013 (33%)
    - 2,501 Direct Jobs
    - 2,218 Indirect and Induced Jobs
Direct Jobs

- **1,568** On Site Construction Jobs
- **933** Professional and Technical Jobs
Project by the Numbers
Contracted Firms
Project by the Numbers
Construction Workers

Cities without numbers indicate one worker. Map does not show workers who live outside of region.
Workforce Diversity

- People of Color: 106,655 Hours (24.3%)
- Women: 34,732 Hours (7.9%)
- Apprentices: 68,685 Hours (15.7%)

Total Construction Hours = 438,386 as of January 10, 2013.
Construction began April 2011
### Project Timeline

<table>
<thead>
<tr>
<th>Task Description</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
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<tbody>
<tr>
<td>FTA approves entry into Final Design</td>
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<td><em>March 2011</em></td>
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<td>Right-of-way Acquisition</td>
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<td><em>March 2011 - October 2013</em></td>
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<td>Bridge construction</td>
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<td><em>March 2011 - June 2014</em></td>
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<td>West segment advanced utility relocation</td>
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<td><em>November 2011 - October 2012</em></td>
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<td>Construct Harbor structure</td>
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<td><em>December 2011 - July 2013</em></td>
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<td>East segment advanced utility relocation</td>
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<td><em>March 2012 - October 2013</em></td>
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<td>Construct east segment structures</td>
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<td><em>May 2012 - April 2014</em></td>
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<td>FTA awards FFGA to project</td>
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<td><em>May 2012</em></td>
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<td>Light rail construction</td>
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<td><em>June 2012 - December 2014</em></td>
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<td>Systems installation and testing</td>
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<td><em>October 2013 - May 2015</em></td>
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<td>Operations training and simulated service</td>
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<td><em>June - September 2015</em></td>
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<td>Service begins</td>
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<td><em>September 2015</em></td>
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970 Days Remaining
Contract Update

- Systems Installation
- Ruby Junction
- Amenities Fabrication
- East Segment TCP

Remaining Construction Contract

- Park Avenue Park & Ride
East Segment – Total Contract Price

- Pricing
  - Contractor Price and TriMet Estimate within 0.5%
  - 50% of work sub-contracted
  - Of sub-contracted work – 45% low bid
East Segment – Total Contract Price

- **Scope**
  - Added elements during design, land use permitting
    - Wall types and footing depths
    - Close the Loop Streetcar
    - Milwaukie Station south access
    - Insley structure – Project share
    - Bybee south side pullout
East Segment – Total Contract Price

- **Budget**
  - Scope pushed initial TCP proposal over East Budget
  - Generally favorable market conditions allowed transfer of unused procurement contingency between construction contracts
  - Targeted cost reductions brought TCP within total project budget
East Segment – Total Contract Price

- Values
  - Safety and Security
  - Operational Reliability
  - Land Use Conditions
  - Aesthetics
East Segment – Total Contract Price

- Engineering Changes
  - Retaining Walls
  - Structures
  - Bybee Station terraces

- Materials Changes
  - Building Facades
  - Fences and railings

- Lighting and Landscaping changes
  - Tacoma Park & Ride