Portland - Milwaukie Light Rail

Citizen Advisory Committee

Willamette River Bridge

05.21.09

PORTLAND-MILWAUKIE
LIGHT RAIL PROJECT

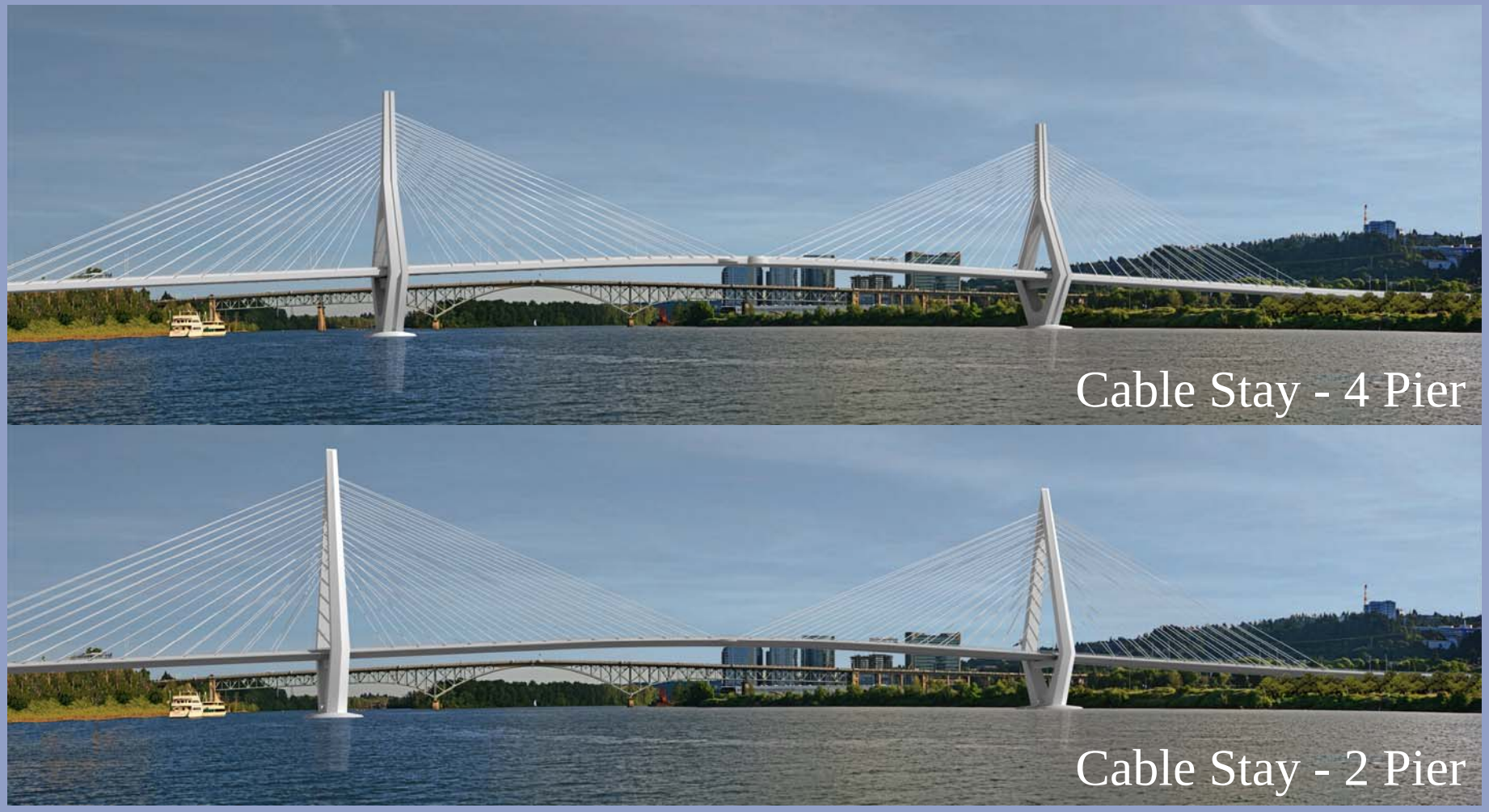
Bridge Type – Status Update

Bicycle – Pedestrian Path Width

Bridge Type – Status Update

WRBAC Recommendation:

Willamette River Transit Bridge



- **Advance Cable Stayed bridge type into preliminary engineering**
- **Work to combine best features of each to provide options**

PE Work on Cable Stayed Type

Willamette River Transit Bridge

Cable Stay - 4 Pier

Cable Stay - 2 Pier

- **Work to combine best features of each to provide options**

PE Work on Cable Stayed Type

Willamette River Transit Bridge

4 – Pier Attributes

- Piers in deeper water
- Shorter span – more cost effective

2 – Pier Attributes

- Cables between transit way and bicycle – pedestrians

Hybrid Attributes

- Match tower height of Hybrid at 180’ versus 254’ for CS4

PE Work on Cable Stayed Type

Willamette River Transit Bridge

PE Work on Cable Stayed Type

Willamette River Transit Bridge

Cable Stay - 4 Pier Modified

PE Work on Cable Stayed Type

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PE Work on Cable Stayed Type

Willamette River Transit Bridge

Team Working on Cost Estimate

Estimates due next week

Cost TBD

Cable Stay - Self Anchored Suspension

Cost TBD

Cable Stay - 4 Pier Modified

Bridge Type – Status Update

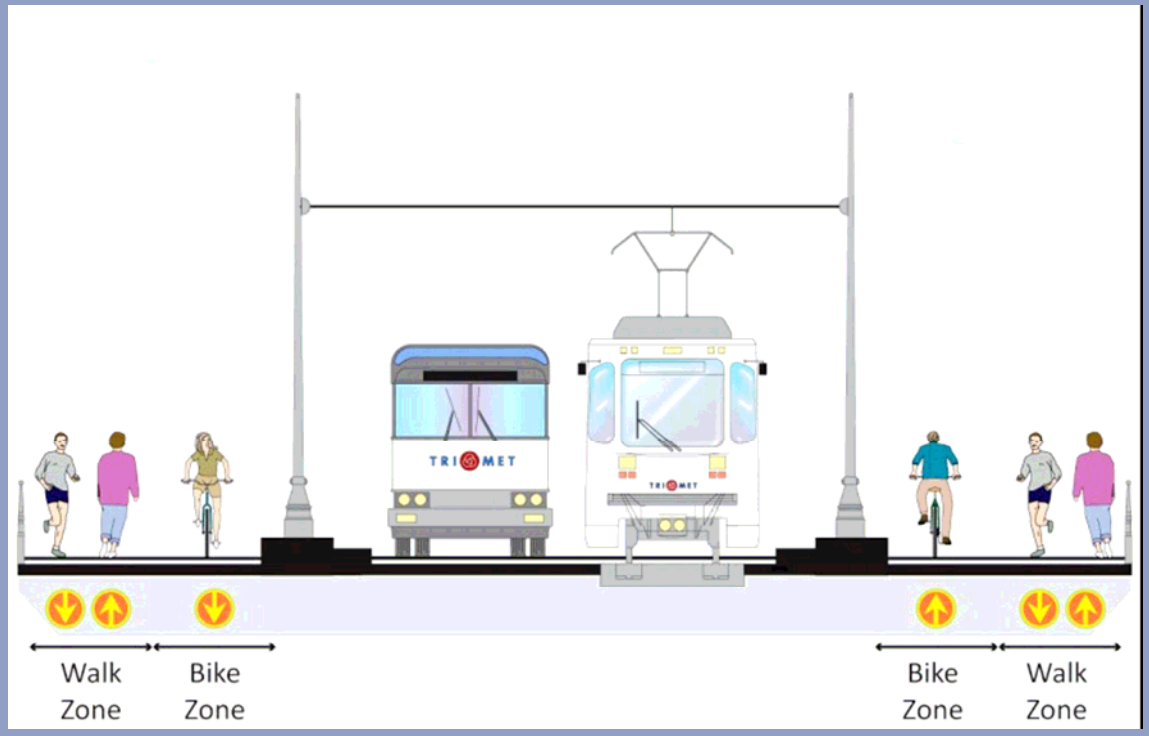
Bicycle – Pedestrian Path Width

Bicycle – Pedestrian Path Width

Willamette River Transit Bridge

Bicycle – Pedestrian Path Width

City Standards

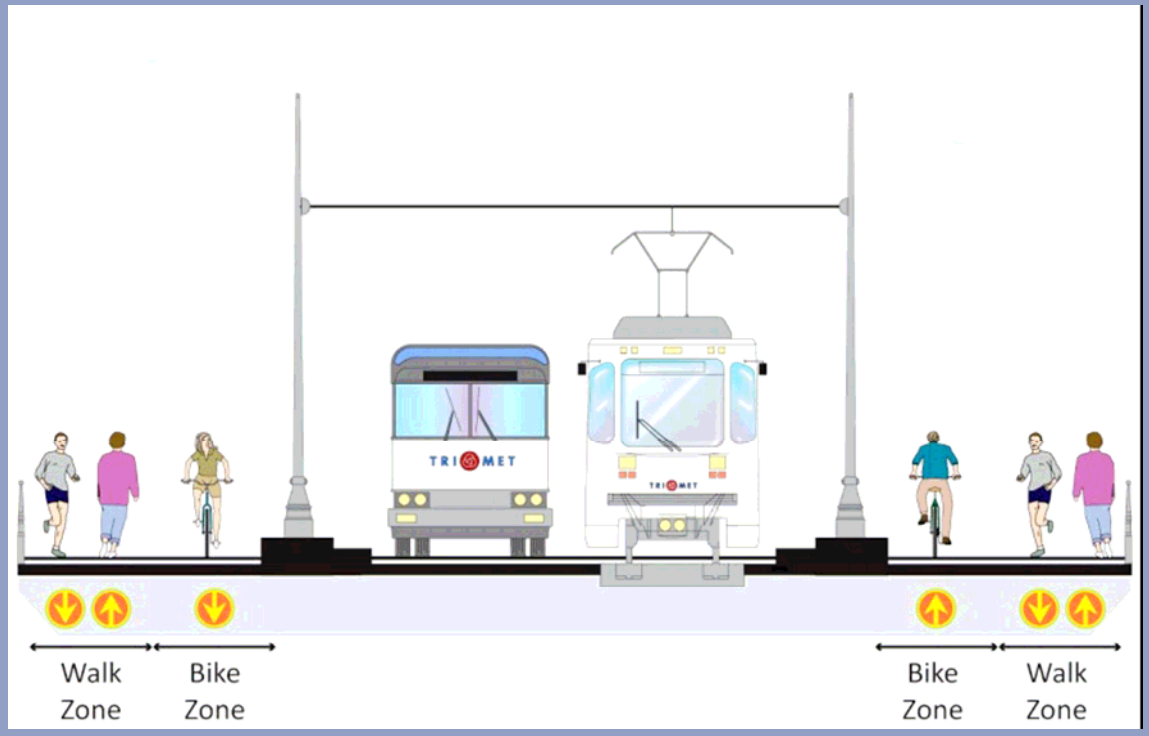


Pedestrian Sidewalk Through Zone

- **Pedestrian Districts with 80’ ROW . . . . . 8.0’**
- **City Walkways and Local Streets in Ped Districts . . . . . .6.0’**
- **Local Service Walkways . . . . . .5.0’**

Bicycle – Pedestrian Path Width

City Standards

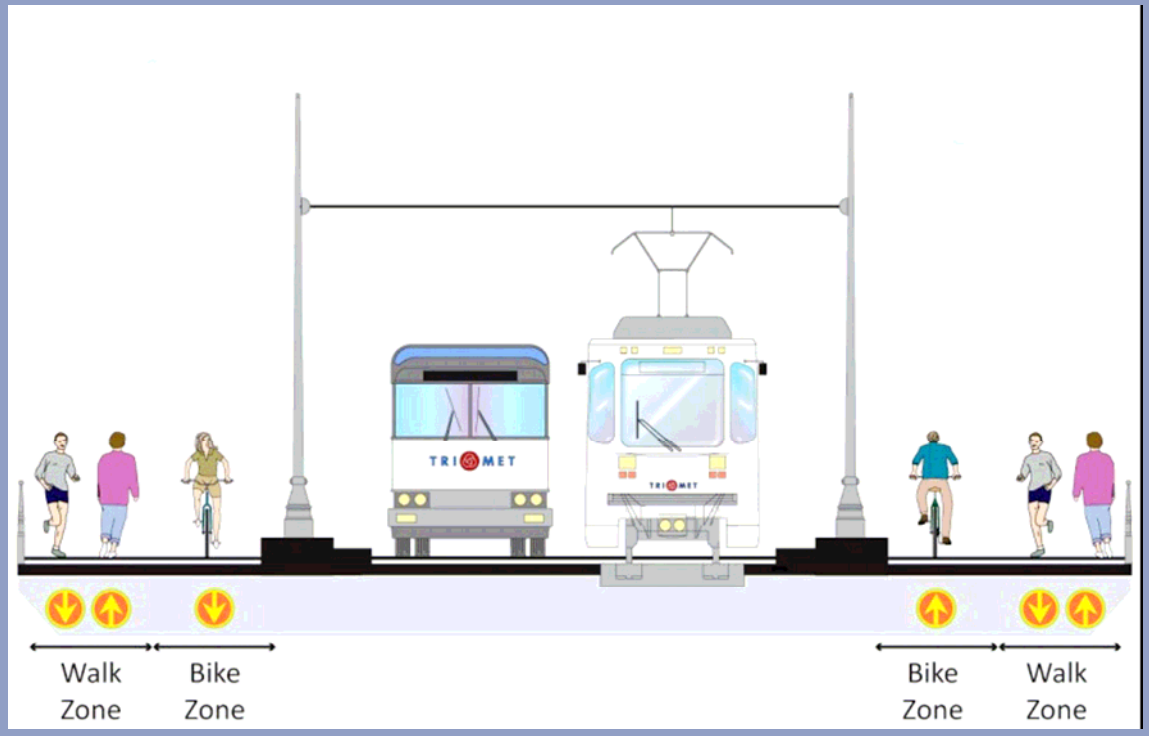


Bicycle Lanes (Curbed Streets)

- **A curbed street provides opportunities for passing**

Bicycle – Pedestrian Path Width

City Standards

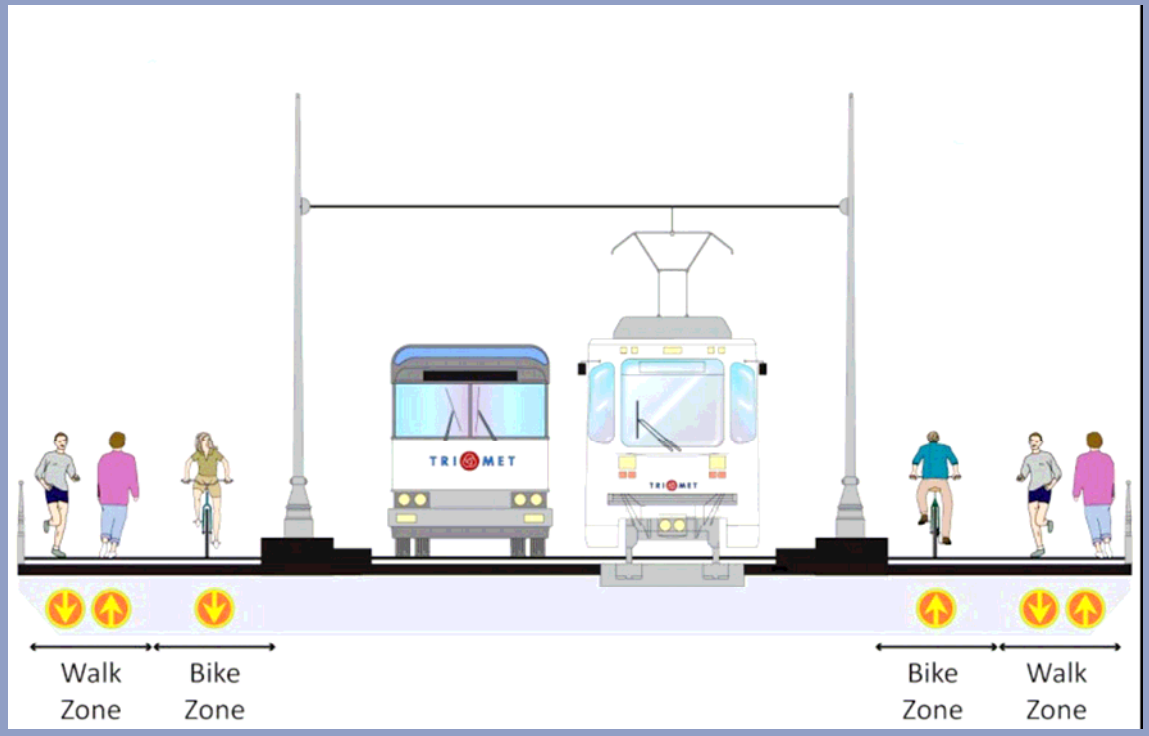


Bicycle Lanes (Curbed Streets)

- **Minimum** . . . . . **4.5’**
- **Preferred**. . . . . **5.0’**
- **Maximum** (high volumes and/or steep grades) . . . . . **6.0’**

Bicycle – Pedestrian Path Width

Current Design

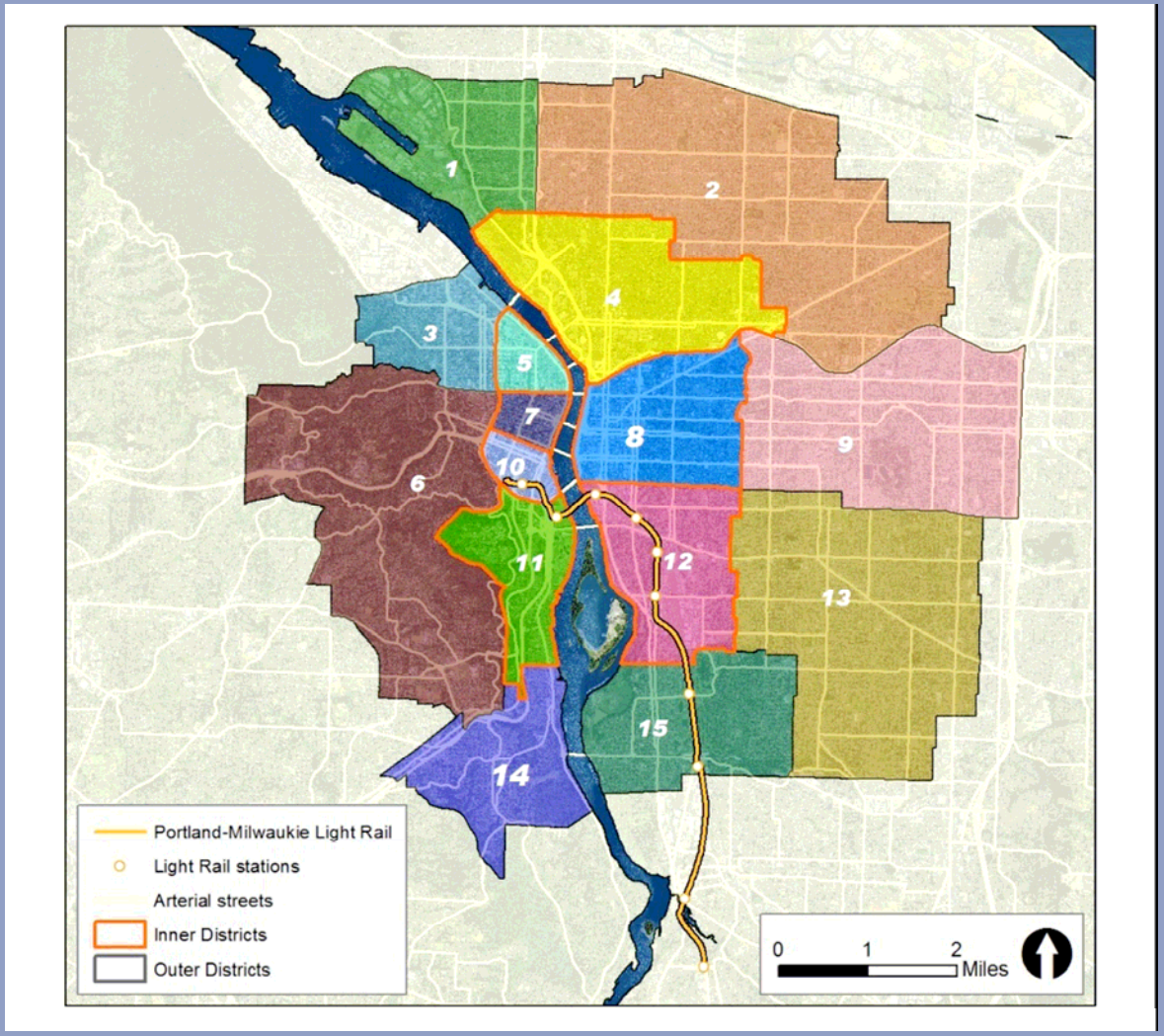


Dedicated Facilities

- **Bicycle lane. . . . . 6.0’**
- **Pedestrian through zone . . . . . 6.0’**
- **Potential opportunities for sharing**

Bicycle – Pedestrian Path Width

Demand Analysis



Bicycle – Pedestrian Path Width

Demand Analysis

Table 1. Mode Split Scenarios		
Scenario	Trips ≤3.5 mi.	Trips >3.5 mi.
Lower-bound	8%	8%
Mid-range	16%	8%
Upper-bound	30%	14%
Walk	4%	

Table 2. Year 2030 Bike/Walk Trips on Proposed Bridge				
		PM Peak Hour		
	Daily	East-bound	West-bound	Two-way
Lower bound	5,935	327	267	594
Mid-range	8,328	458	375	833
Upper bound	15,173	834	683	1,517
Walk	2,968	163	134	297

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Hawthorne Bridge currently at 8,000 daily

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Willamette River Transit Bridge

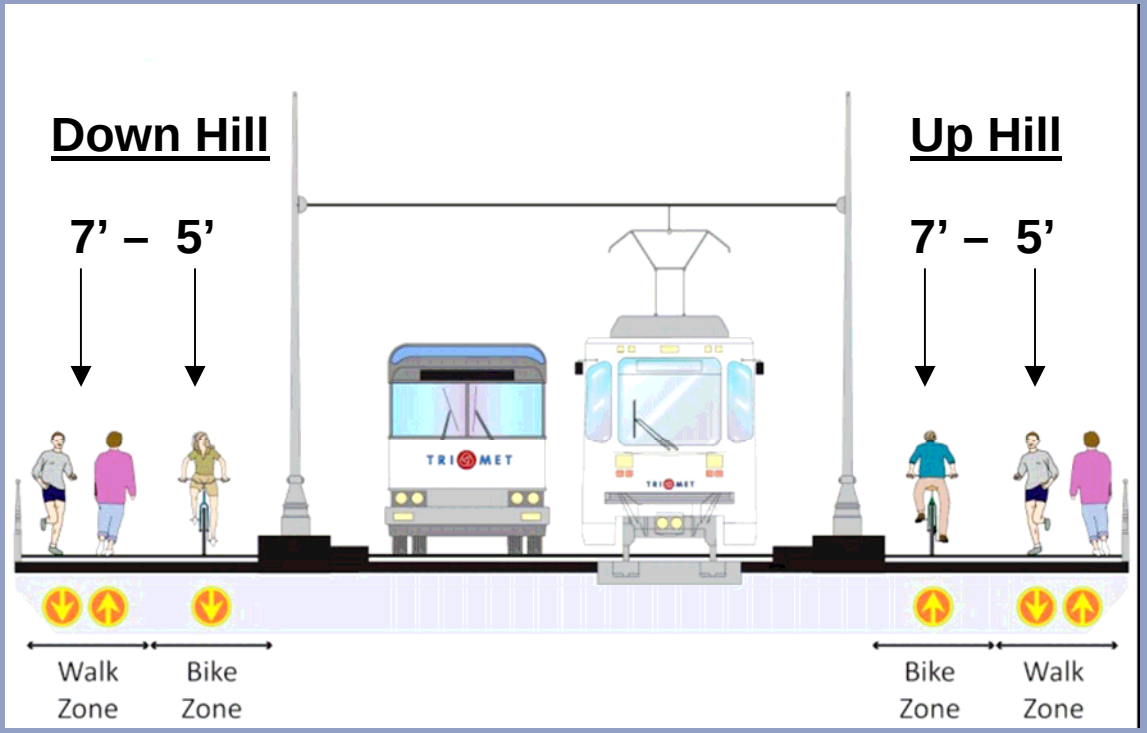
Demand Analysis - Findings

- Downhill operation not an issue
- Uphill traffic with varying climbing speeds create conflict events
- Opportunities to provide designated passing areas needed

Bicycle – Pedestrian Path Width

Demand Analysis - Findings

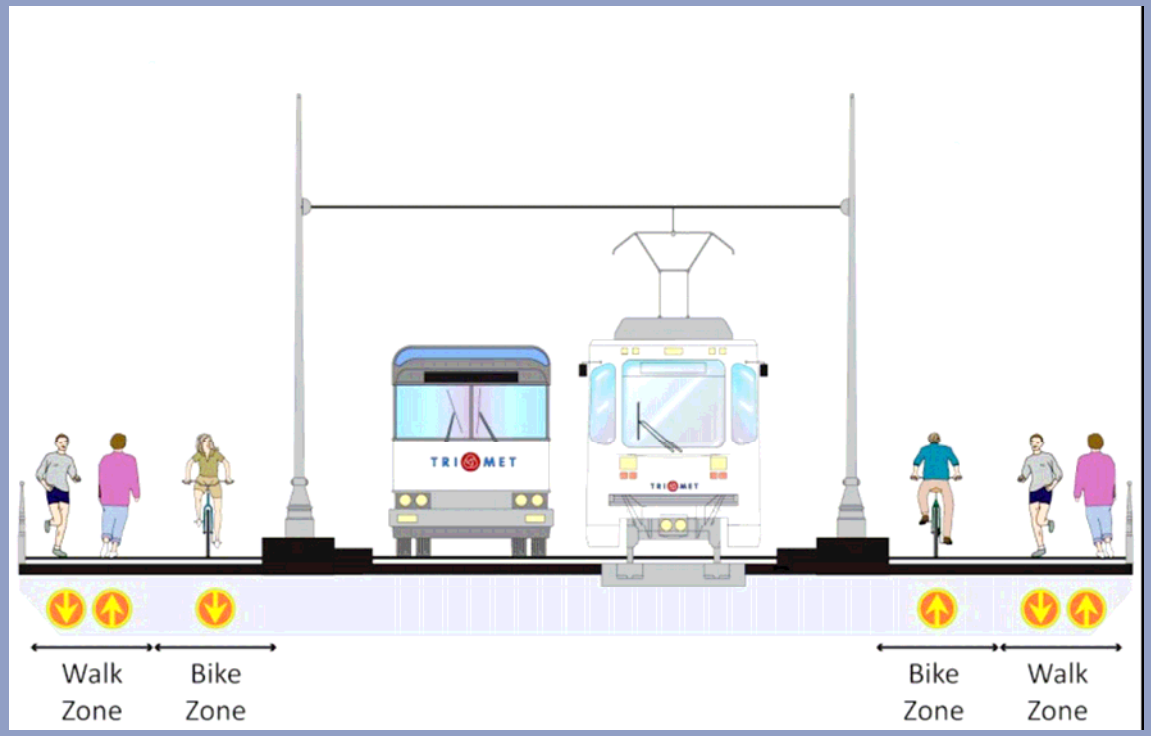
- Downhill operation not an issue
- Uphill traffic with varying climbing speeds create conflict events
- Opportunities to provide designated passing areas needed
- Opportunities exist to vary space allocation



Bicycle – Pedestrian Path Width

Path Width

- How wide can width be pushed without change in structure type
- Path width can be increased to 14’
- 14’ path width within acceptable range from city
- Provides for riding side-by-side or passing



7’ Bicycle lane

1’ Shy

6’ Pedestrian

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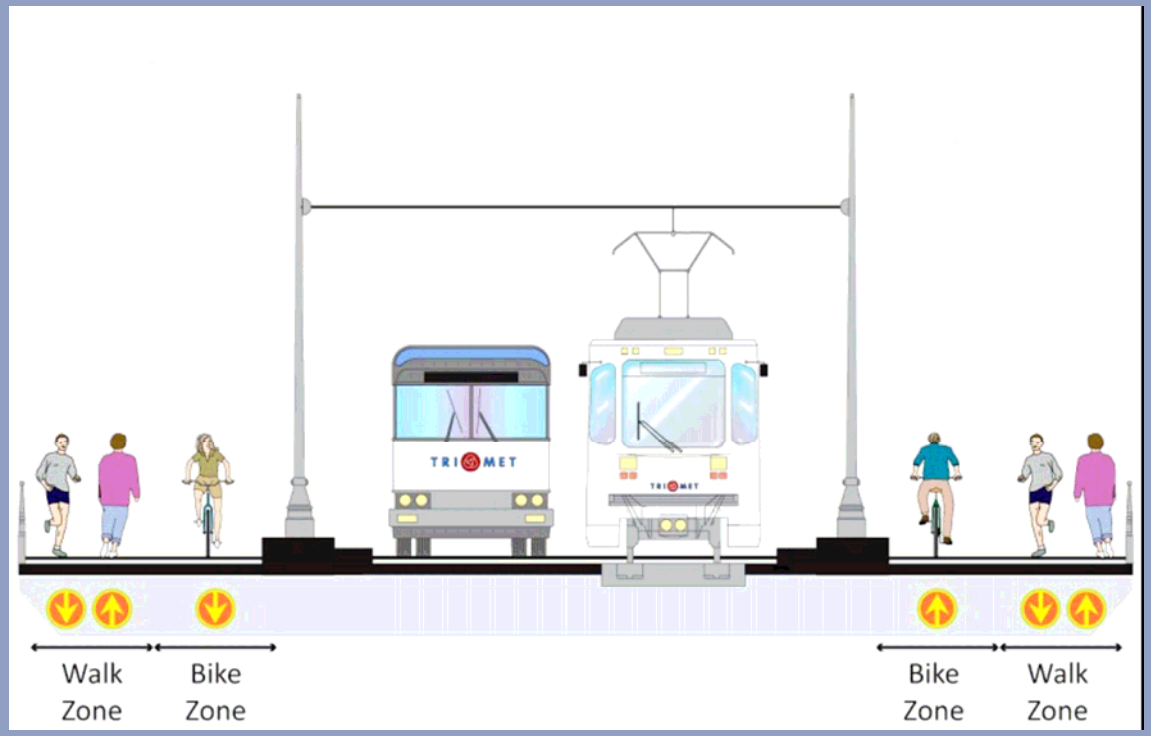

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Updated Estimate

$3.255 M

Questions?


Cable Stay - Self Anchored Suspension


Cable Stay - 4 Pier Modified

Next Steps

- **May 28, 2009: WRBAC Meeting**
- **Mid June 2009: Open House & Report to City Council**
- **June 18, 2009: CAC Presentation**
- **June 22, 2009: Steering Committee Meeting**

Thank you

For more information, visit:

trimet.org/pm