Alaskan Way Viaduct REPLACEMENT PROGRAM

January 10, 2019

AACE International – Seattle Section
AWV Program Update and Program Management Lessons Learned

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U.S. Department of Transportation Federal Highway Administration | WSDOT | King County | Port of Seattle | City of Seattle

Alaskan Way Viaduct
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TODAY'S FOCUS

- The big picture
- #Realign99 closure/ Tunnel opening
- Removing the viaduct and remaining construction
- Program Management Lessons Learned

This is a safety project

The viaduct was built in the early 1950's

Columns reinforced after 2001 earthquake

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Completed projects

South-end replacement	Start	End
Electrical line relocation	2008	2009
Holgate to King (stage 1)	2009	2009
Holgate to King (stage 2)	2010	2012
Holgate to King (Stage 3)	2012	2014

SR 99 tunnel	Start	End
SR 99 tunnel main contract	2011	2018
North Access Project	2014	2017
South Access – SR 99 Connections	2018	2019
South Access – Surface Street Connections	2019	2020
South Access (S. Dearborn Street off-ramp)	2016	2017
South Access (drilled shafts)	2014	2014

Miscellaneous projects	Start	End
Trager Building demolition	2007	2007
Viaduct column stabilization near Yesler Way	2007	2008
WOSCA Building demolition	2009	2009
Pier 48 warehouse demolition	2010	2010
Automated viaduct closure gates	2010	2011
Western Building structural work	2011	2017
SR 99 south-end fiber replacement	2011	2011
Alaskan Way widening	2012	2012
Cedarstrand Building demolition	2012	2012
SR 99 Demolition, Decommissioning and Surface Street	2018	2020
New Alaskan Way[2]	2019	2023

Mitigation projects	Start	End
SR 519 Phase 2	2008	2010
Spokane Street Viaduct Fourth Ave. off-ramp[3]	2008	2010
I-5 active traffic management	2009	2010
I-5 active traffic management sign bridges	2009	2009
I-5 travel time signs	2009	2009
City street intelligent transportation systems	2009	2010
SR 99 intelligent transportation systems	2010	2011
Enhanced transit/demand management[4]	2010	2014
Parking mitigation for central waterfront	2011	2019

[1] *Per City of Seattle's Waterfront Seattle schedule*

[2] *Per Seattle Tunnel Partners' most recent schedule*

[3] *Partially funded by the state*

[4] *Per 2014 legislation, additional mitigation funding is being provided by WSDOT from funds outside the AWV Program*

✓ = completed project ☐ = in progress

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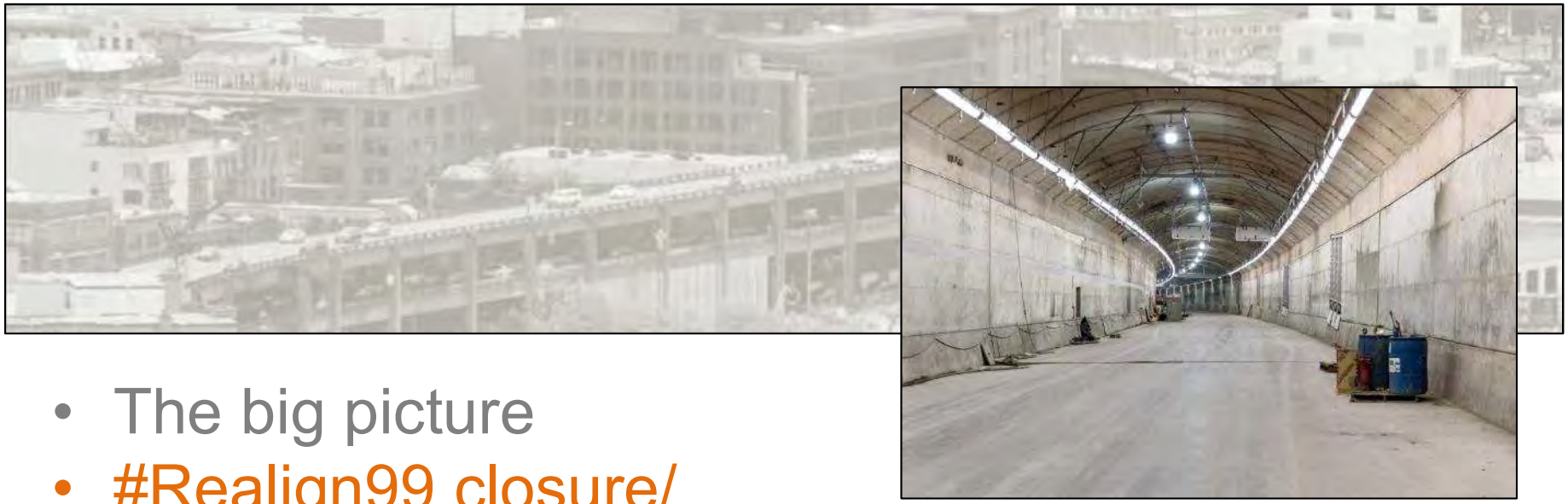
TODAY'S FOCUS



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Program schedule

2018

Tunnel preparation

Fall 2018:
- Switch Alaskan Way travel lanes west (complete)
- Complete tunnel systems testing
- Operations, maintenance and emergency responder staff training
- Preparatory tunnel on- and off-ramp work

Early 2019

SR 99 closure

Jan. 4:
- On- and off-ramps near stadiums close

Jan. 11:
- Full SR 99 closure begins
- Finish eight ramps to/from new tunnel
- Realign SR 99 into new tunnel
- Tunnel grand opening celebration

Tunnel opens

Feb*:
- Closure ends and SR 99 tunnel opens
- SR 99 NB off-ramp to downtown and Alaskan Way opens

Work begins

Feb*:
- Viaduct removal
- Closing and filling Battery Street Tunnel
- Rebuilding three blocks of Aurora Avenue North

*Closure is approximately three weeks long but duration will depend on progress.

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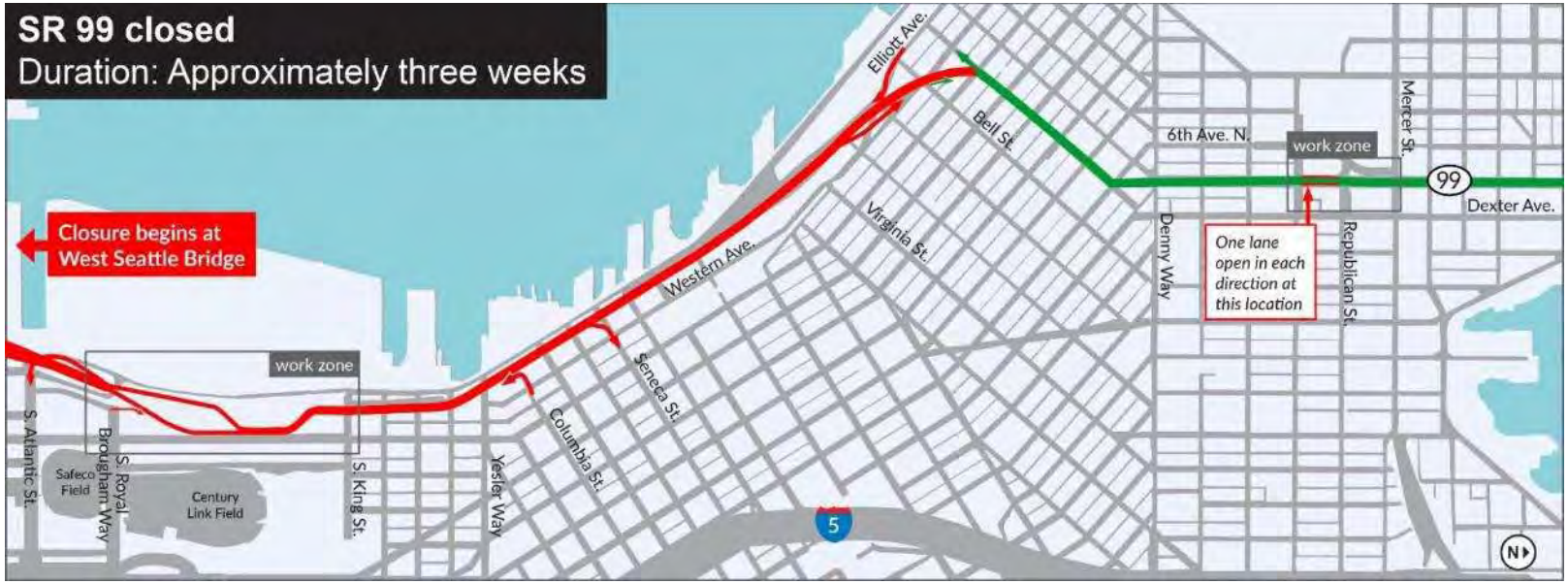
SR 99 closure and tunnel opening

Scheduled to begin January 11, 2019

- **Duration:** about three-weeks for SR 99 closure and up to three weeks of ramp closures
- **Closing a highway adds more drivers to other parts of the system:** 90,000 vehicles per day, including several thousand trucks, and buses have to use another route
- **Expect long backups:** On I-5 and routes into downtown Seattle, especially during peak commute times
- **Major change to transportation system:** New SR 99 tunnel will open, other construction continues



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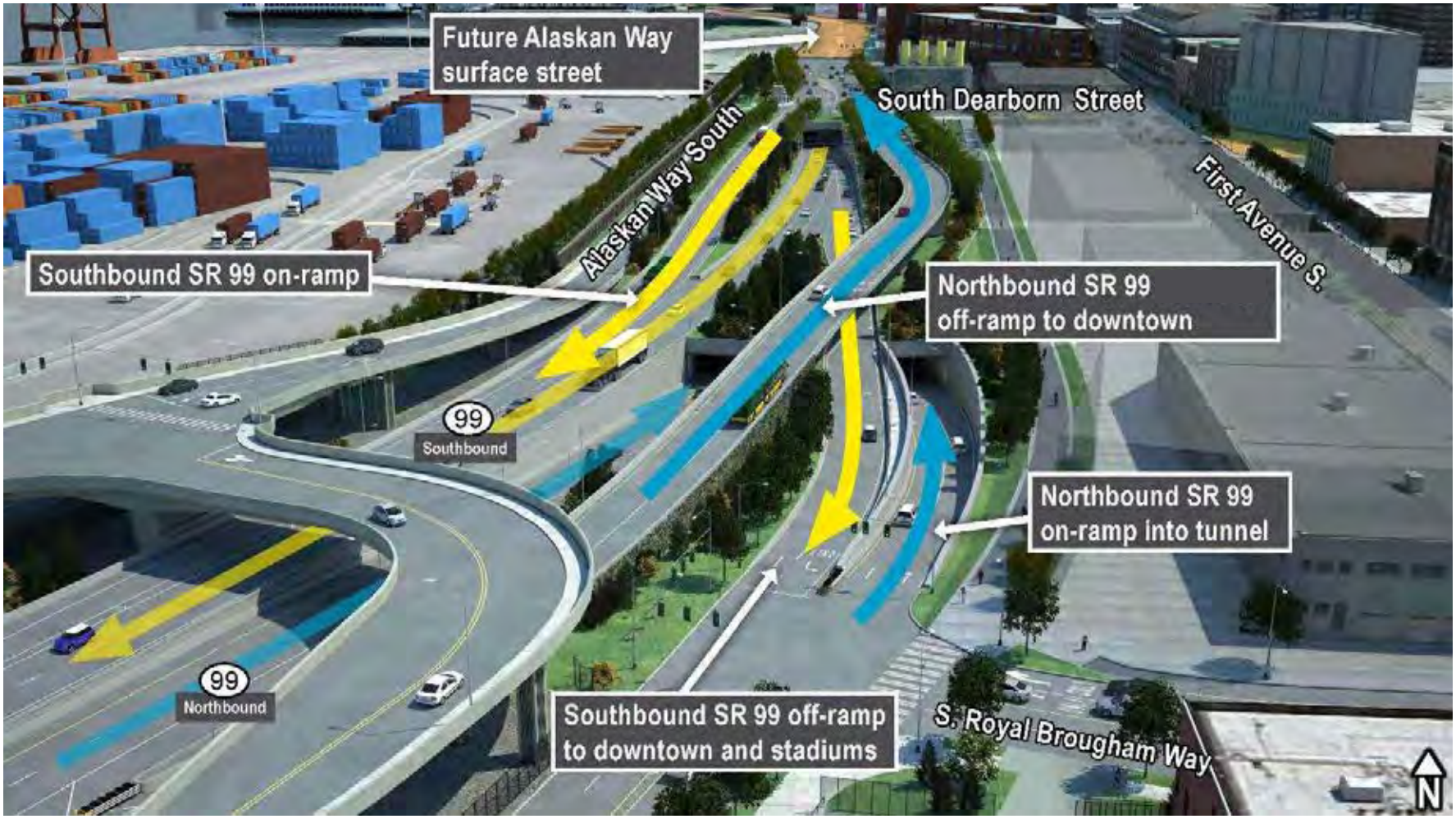
Why close SR 99 for three weeks?

Connecting SR 99 to the tunnel: Crews will have to work in the path of SR 99's current configuration to connect SR 99 to the new tunnel. The graphics below show the path of SR 99 today (yellow) and work zones during the closure (orange).

South SR 99 tunnel portal

North SR 99 tunnel portal

Opening the tunnel: Ramps at the south portal



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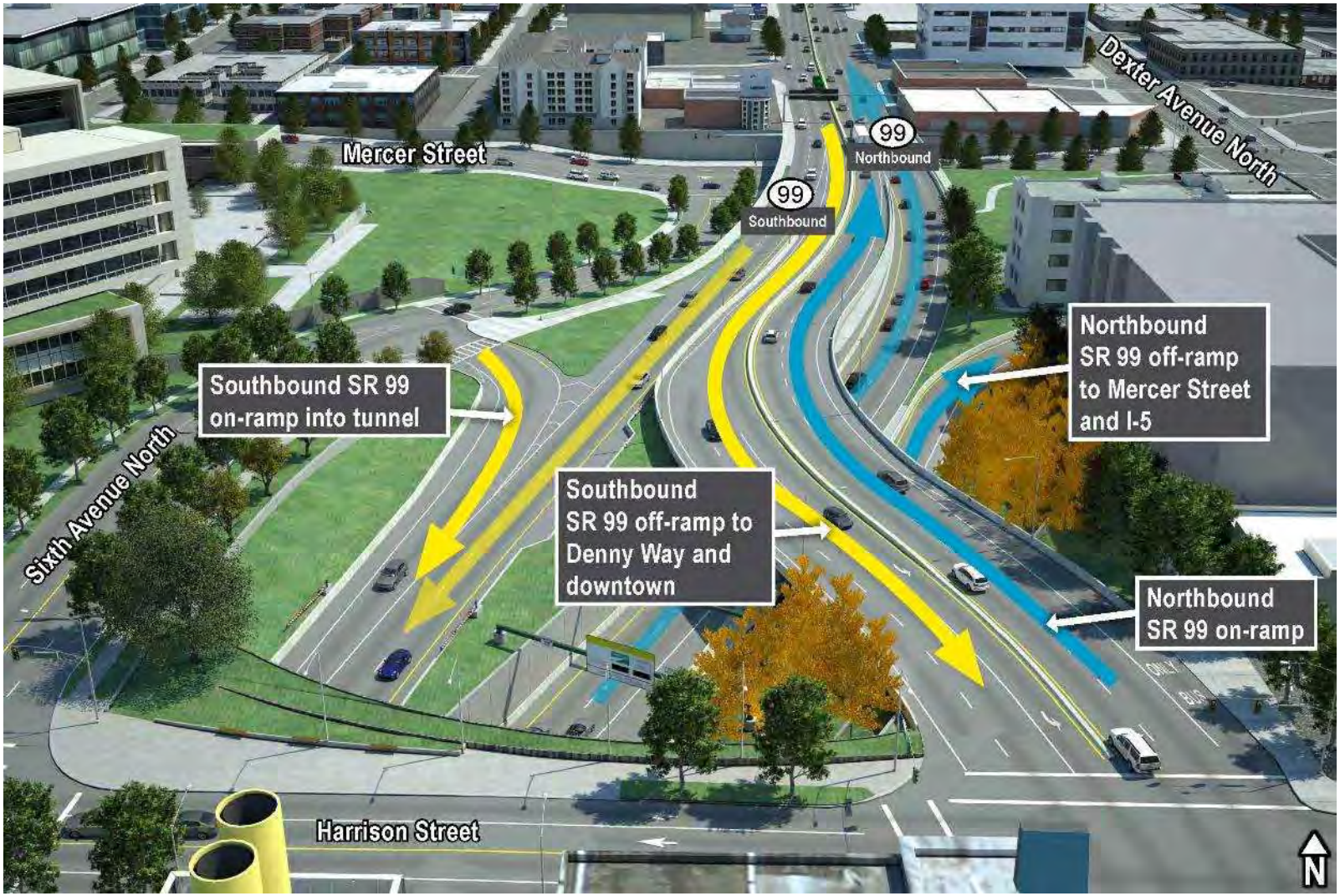
New SR 99 ramps at the north portal – Looking north



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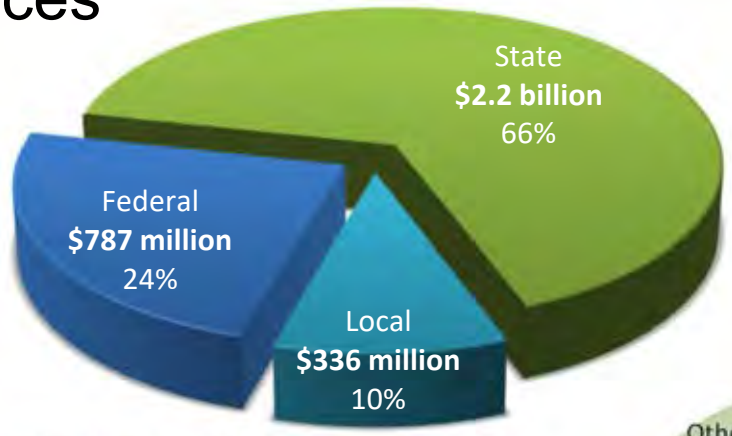
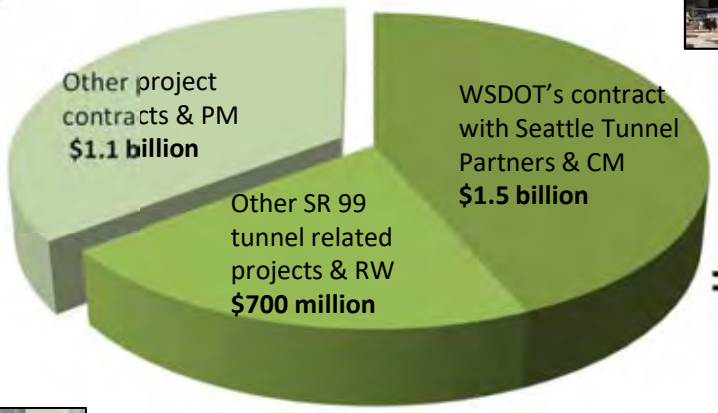
BUDGET *overview*

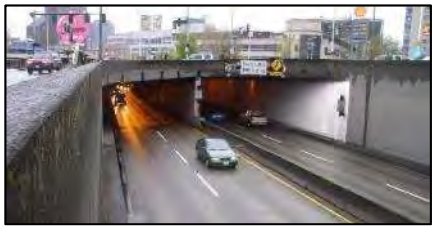
Sources



Uses



= $3.3 billion



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PM Lessons Learned

Cost Estimate and Risk Validation Process

- Cost Estimate – Decentralized vs Centralized
- Risk Development and Unification of cost and schedule through Probablistic Risk Review (CEVP®)
- Establishing Baseline

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