

# Alaskan Way Viaduct & Seawall Replacement Program



**Seattle City Council**  
**January 10, 2011**

# **Seattle Tunnel Partners: Selection, Proposal and Contract**

## Seattle Tunnel Partners

### Joint venture partners

- Dragados USA
- Tutor Perini Corporation

### Main subcontractors

- Design: HNTB Corporation\* and Intecsa-Inarsa
- Construction: Frank Coluccio Construction\* and Mowat Construction\*

\* *Local companies*

# Seattle Tunnel Partners

## Previous experience

- Dragados and Intecsa-Inarsa:
  - 49.5-foot diameter Madrid M-30 South Bypass Tunnel.
  - 39.4-foot diameter Barcelona Line 9 Metro Extension.
  - 30.8-foot diameter Madrid Metro Line 11 Extension.
- Tutor Perini
  - 8.5-mile long Bay Area Rapid Transit extension to San Francisco International Airport.
  - 8.8-mile long JFK AirTran light rail transit system.
  - 10-mile long Alameda corridor trench.

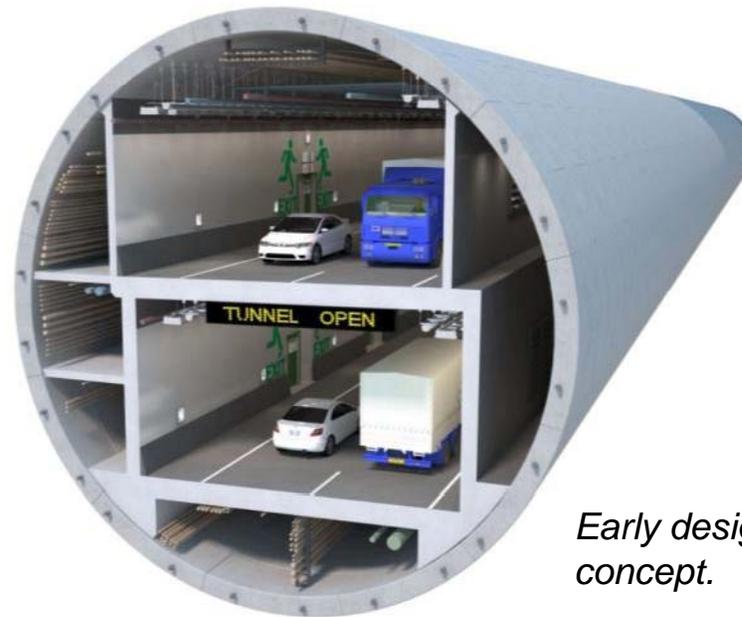
# Seattle Tunnel Partners

## Previous experience

- HNTB:
  - I-90 Mount Baker Ridge Tunnel.
  - Tacoma Narrows Bridge design-build project.
  - Sound Transit University Link tunnel project.
- Frank Coluccio Construction:
  - King County Brightwater successfully completed tunnel section.
  - Alaskan Way Viaduct electrical line relocation project.

## Proposal Features – Roadway

RFP Requirement	Proposal	Benefit
30-foot roadway width and 15-foot vertical clearance.	32-foot-wide roadway and six additional inches of vertical clearance.	Wider 8-foot safety shoulder along roadway.



*Early design concept.*

## Proposal Features – Schedule

RFP Requirement	Proposal	Benefit
Substantial completion by Nov. 1, 2016.	Open tunnel by December 2015.	Allows remaining viaduct to be demolished sooner.

## Proposal Features – Tunnel Boring

**Tunnel boring machine type:** Earth Pressure Balance

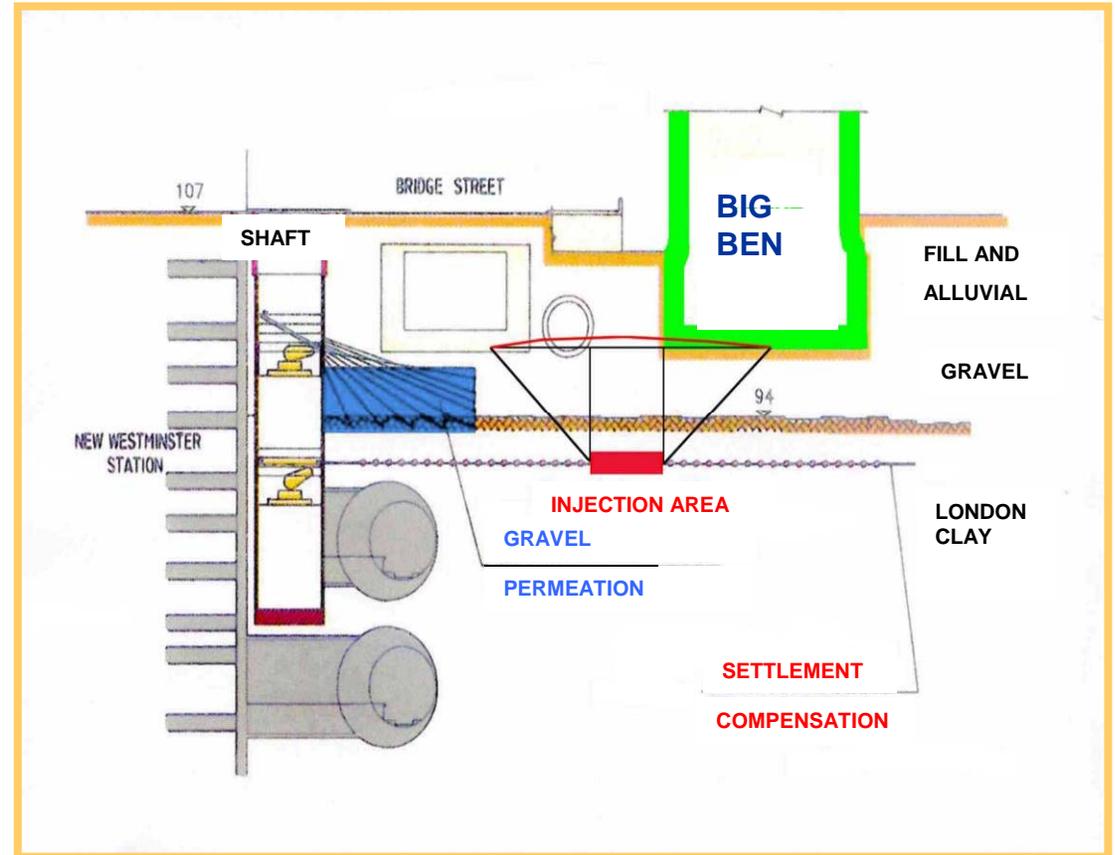
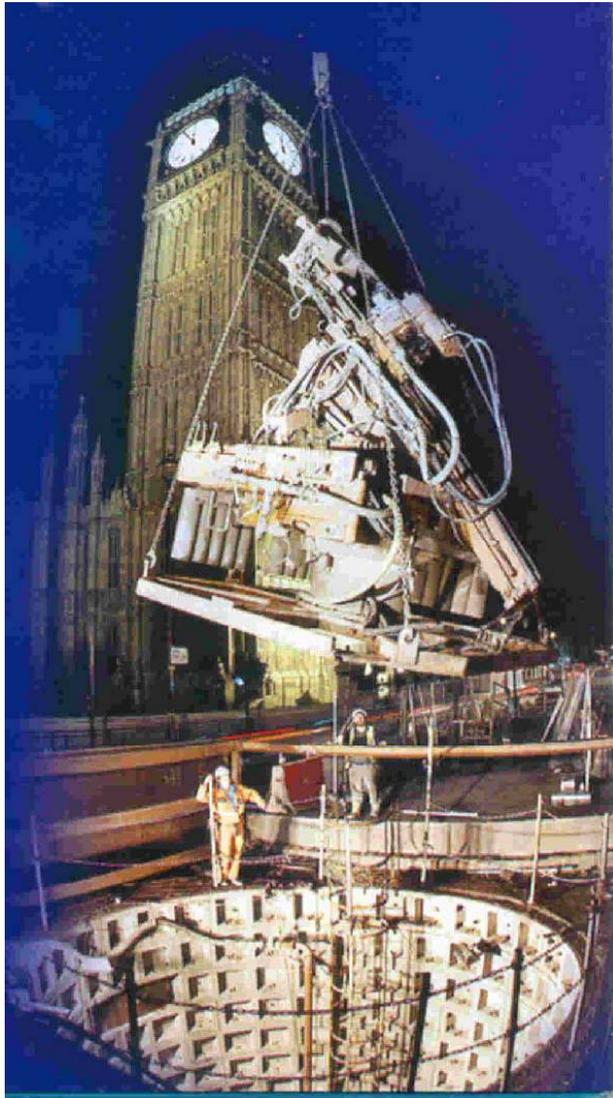
- State-of-the-art machine will include integrated monitoring systems for operations and guidance and a survey control system.
- Belt measuring system would use radar to measure accurately the spoils and volume loss at the machine's face.
  - This system would help identify any voids around the tunnel that should be filled, reducing the possibility of sink holes at the surface.
- Robust settlement mitigation plan.



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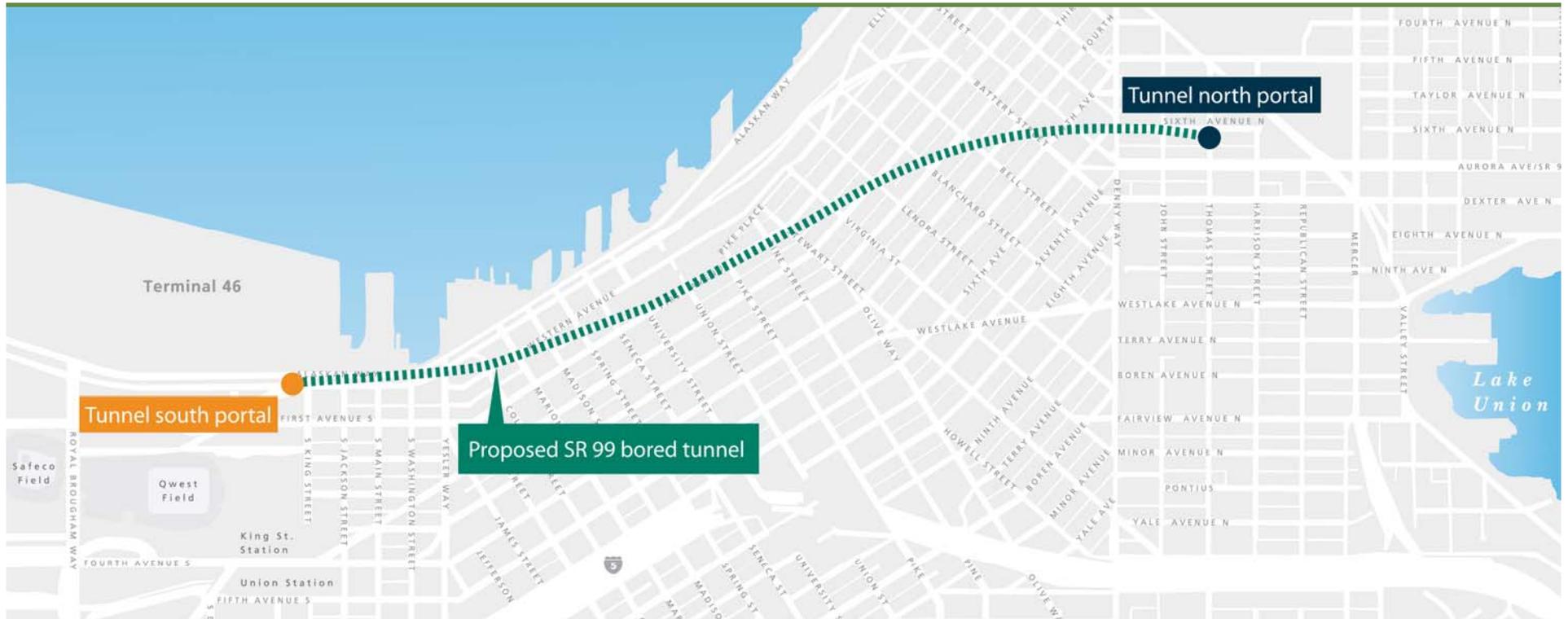


## Proposal Features – South Portal Design

### South portal design and construction

- Lengthens the tunnel bore and reduces the overall width of the cut-and-cover tunnel section.
- Significantly narrows the project footprint.
- Provides more staging area.
- Reduces construction impacts to adjacent property owners.

# Project Delivery - Proposed Bored Tunnel



## South portal area

One design-bid-build contract for surface street improvements and connections to SR 99 and city street grid.

## Design-build contract / RFP

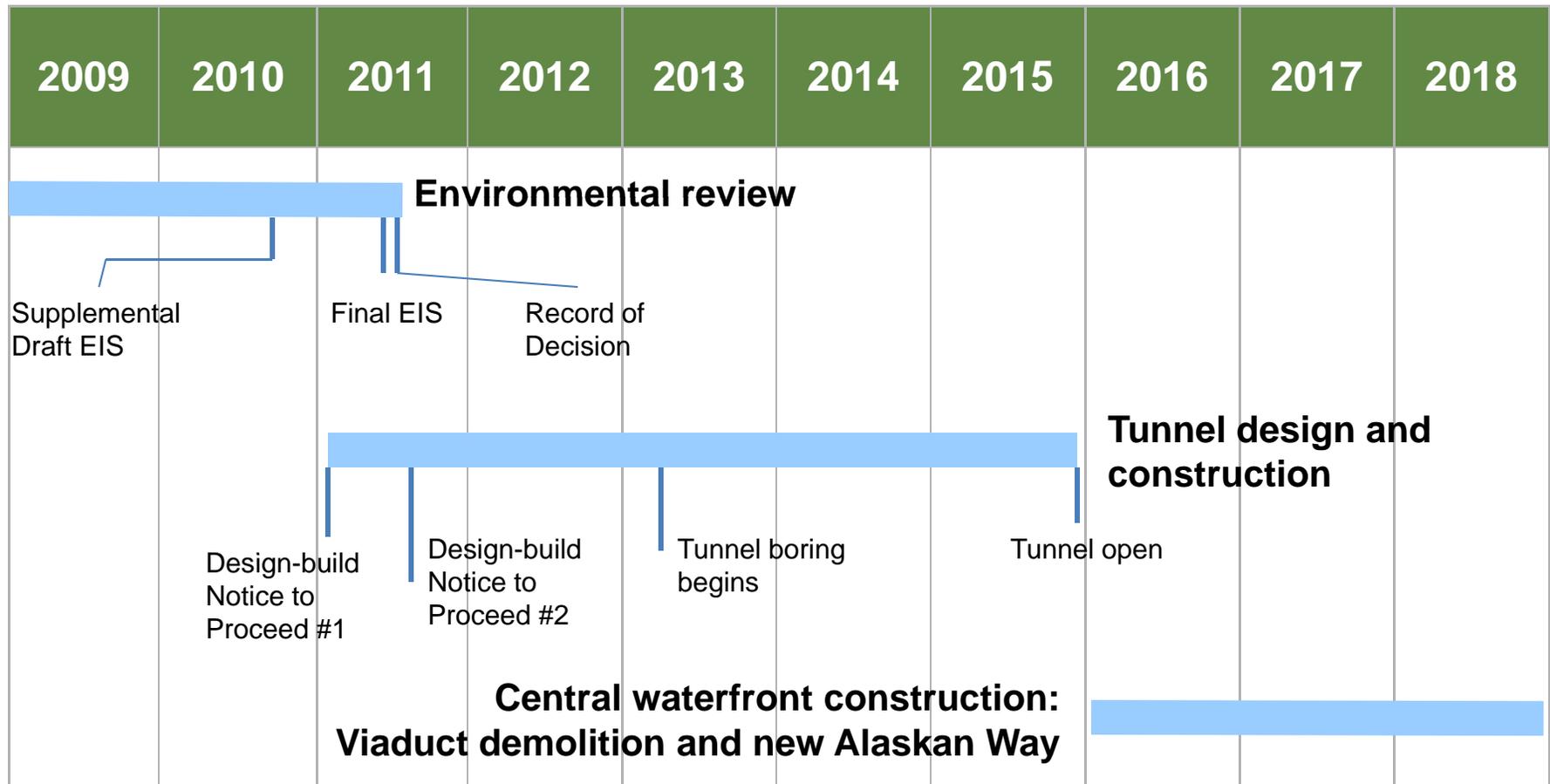
Includes boring machine, tunnel boring, tunnel roadway and systems, operations buildings, cut-and-cover sections of tunnel and settlement mitigation.

## North portal area

Two design-bid-build contracts for:

- 1) Connections to SR 99 and city street grid
- 2) Surface street improvements

# Proposed Timeline



## Upcoming Outreach

**WSDOT continues to partner with the City on public outreach activities.**

- North and south portal working group.
- Pioneer Square monthly neighborhood meeting.
- Maintenance of traffic.
- Formation of tolling advisory committee.
- City boards and commissions such as Seattle Design Commission and Pioneer Square Preservation Board.

# **Environmental Review and Preparation of Final EIS**

# Bored Tunnel Alternative Environmental Review

**2010 Supplemental Draft Environmental Impact Statement (EIS):** Primary subject was the bored tunnel alternative.

- Assessment of potential effects and mitigation measures.
- Lead agencies identified bored tunnel alternative as preferred alternative.
- Public comment period (45 days): Oct. 29 – Dec. 13, 2010.
- Three public hearings were held in November.
- Final EIS to be released in summer 2011.

# What We Heard

## Comments

- 2004 and 2006 EIS reports: Approximately 850 items (letters, e-mails, comment forms and verbal comments).
- 2010 Supplemental Draft EIS: 210 items.

## 2010 Common themes

- Tolling
- Historic resources
- Transportation: Parking, access, transit, capacity
- Alternatives considered

# Final Environmental Impact Statement

- Final EIS will include:
  - Responses to 2004, 2006 and 2010 EIS comments.
  - Integrated tolling analysis for bored tunnel, cut-and-cover tunnel and elevated structure alternatives.
  - Proposed mitigation measures.
- Summer 2011:
  - Final EIS published.
  - Record of Decision issued which includes mitigation commitments and completes the environmental review process.

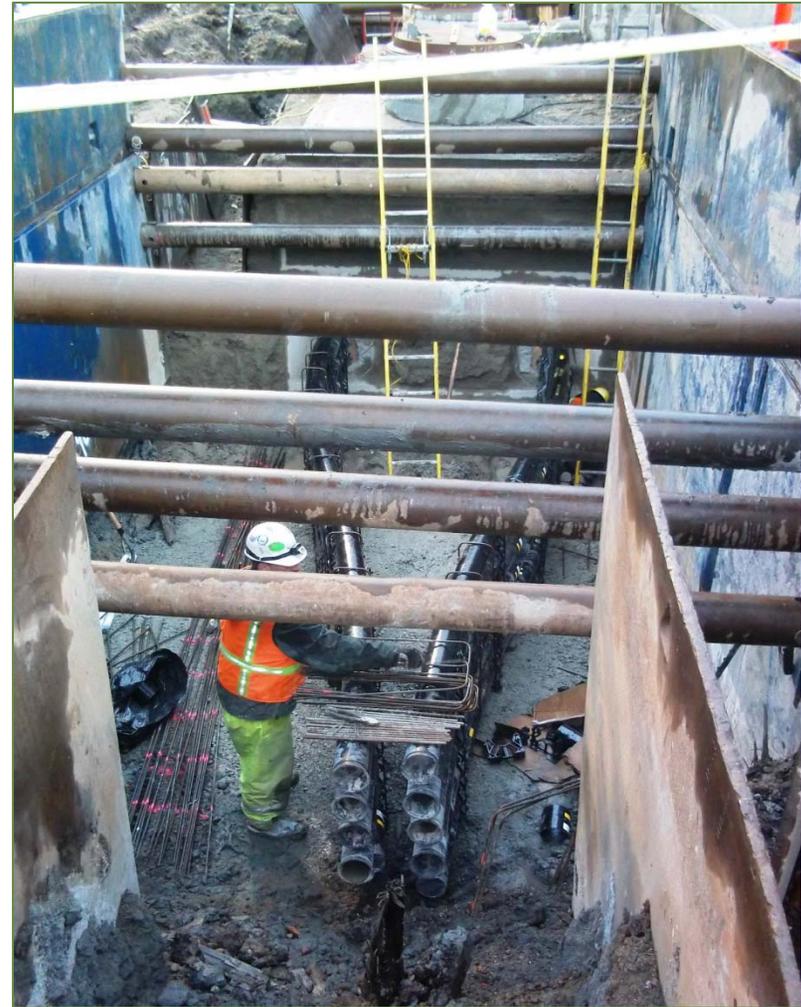
## Western Building Update

- Further structural damage could be caused by tunnel boring because of building's existing poor structural condition.
- Studied multiple strengthening and rehabilitation options, as well as demolition.
- Recommendation in early 2011.
- Meetings with building tenants: December 2010 and January 2011.



# **S. Holgate Street to S. King Street Viaduct Replacement Project Update**

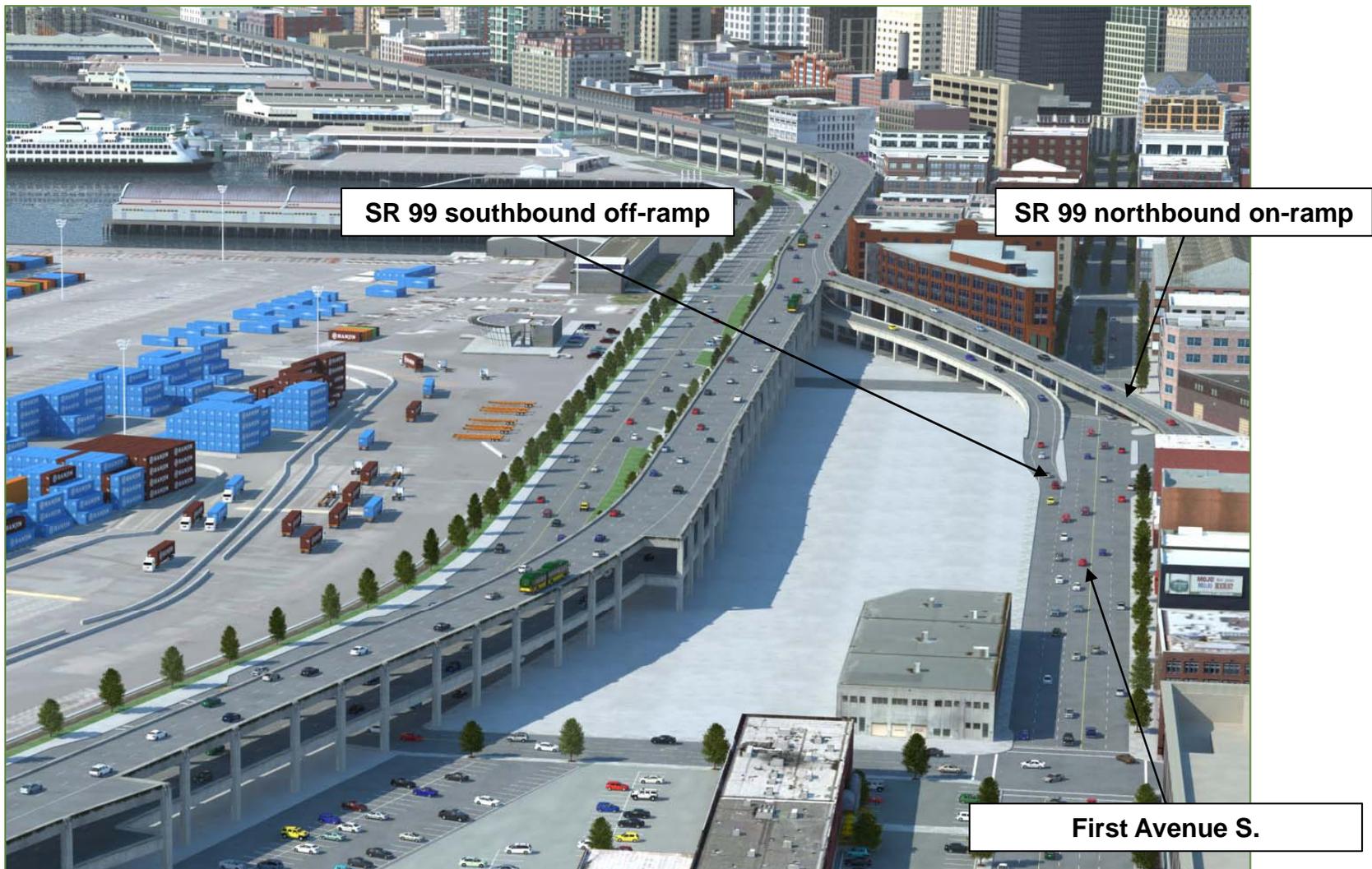
## S. Holgate Street to S. King Street Viaduct Replacement - Ongoing Utility Work



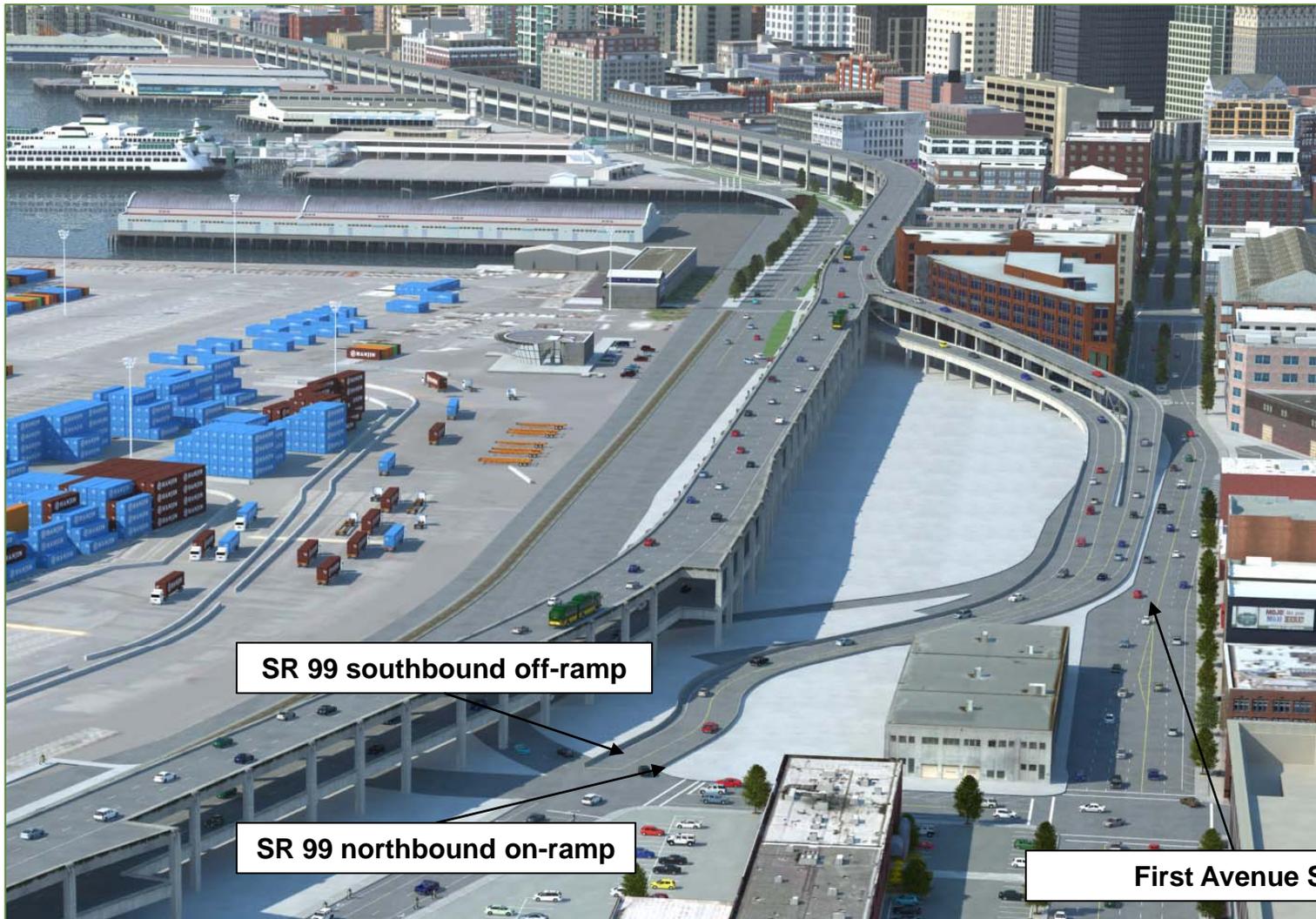
## East Frontage Road Nearly Complete



## First Avenue S. West of Qwest Field – Before Construction



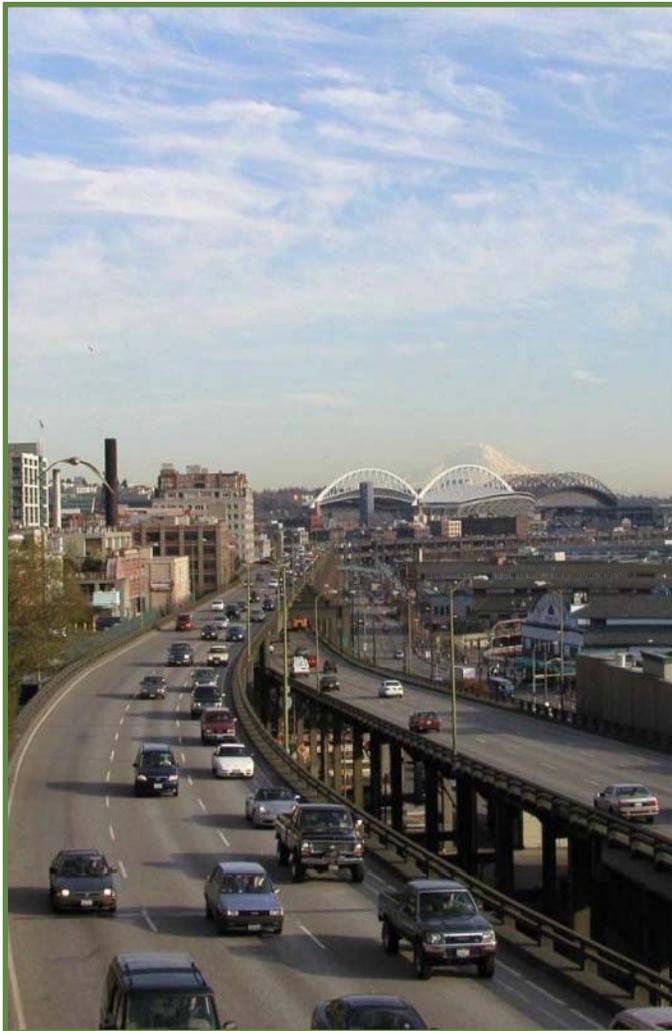
# First Avenue S. West of Qwest Field – April 1, 2011



## Outreach Summary for First Avenue S. Work

- Door to door outreach to project neighbors.
- Weekly construction updates at Maintenance of Traffic meetings.
- In regular contact with residents and businesses in Pioneer Square, SODO/Duwamish and West Seattle.
- Hold monthly meetings in Pioneer Square.
- Provide updates to neighbors with sensitive equipment.
- News release and media availabilities.

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