

S Lander St Bridge Project



Seattle Design Commission
Jessica Murphy, SDOT
January 5, 2017



Seattle
Department of
Transportation



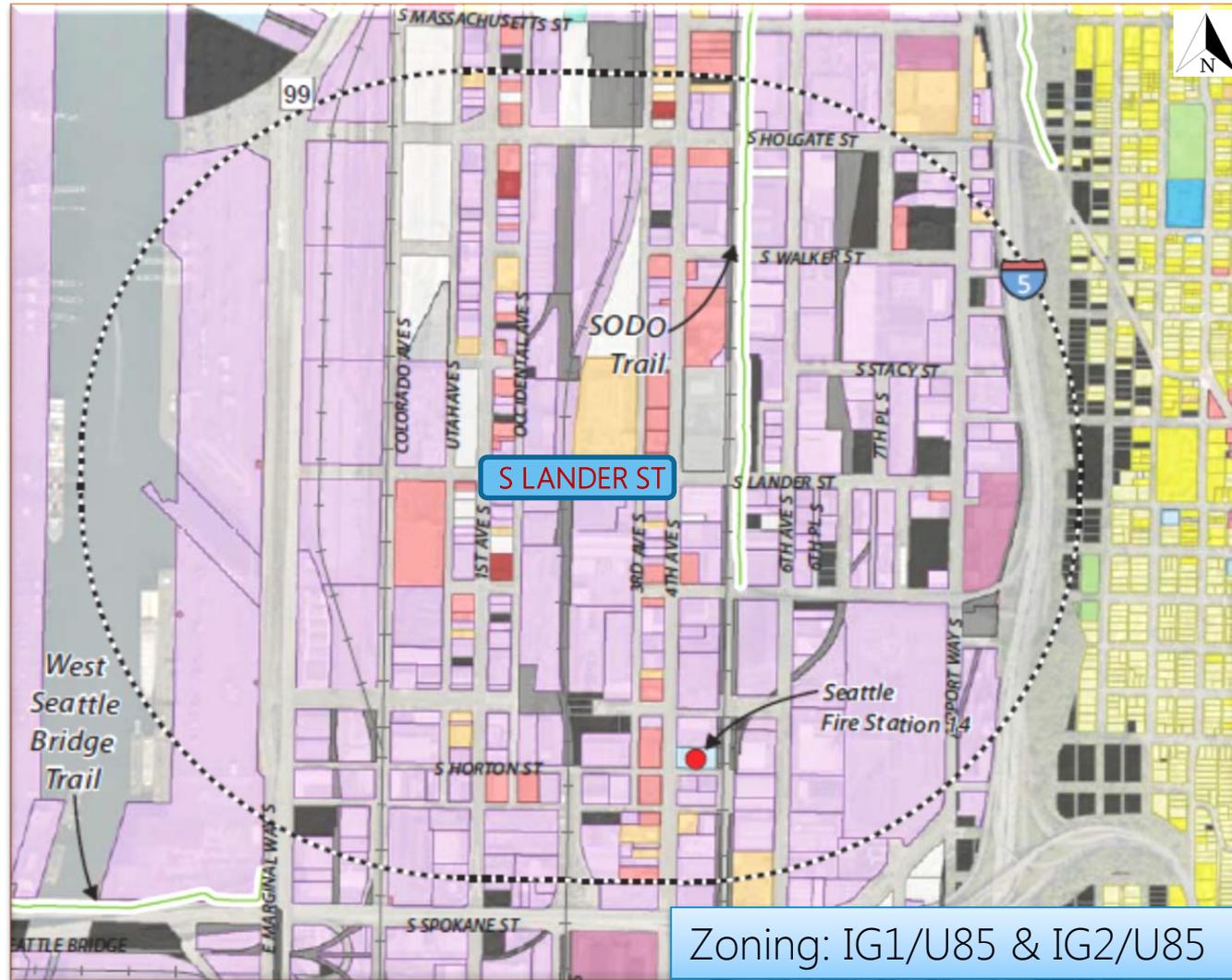
Presentation overview

- Welcome and introductions
- Background
 - Timeline & funding
 - Project goals
- Public involvement
 - Roadway configuration
 - Urban design opportunities
 - Theme development
 - Before and after
 - Lighting
- Next steps



Neighborhood Land Use

- Project Footprint
- Study Area
- Railway
- Community Resources**
- Fire Station
- Multi-use Trail
- Residential - Single Family
- Residential - Multi-Family
- Residential - Other
- Commercial - Retail
- Commercial - Service
- Office
- Industrial
- Institutional
- School
- Recreation
- Open Space
- Parking
- Right-of-way
- Utilities
- Vacant
- Unknown



Why Lander, why now?

- 20 years of need identified by
 - WSDOT
 - Port of Seattle
 - Duwamish Manufacturing Industrial Council
 - Local and regional stakeholders
- New funding opportunities
 - Federal FAST Act
 - Move Seattle Levy
 - WSDOT



S Lander Street by the numbers

Daily use:



100+
Trains



13,000+
Vehicles



1,400
Pedestrians



100
Bicycles



75,000
Jobs supported
(100,000 by 2040)

Daily closures: **100+**

Average traffic delay per closure: **2 minutes, 40 seconds**

Average closure time per day: **4 hours, 50 minutes**

Crossing violations per day: **485**

Collisions over the past five years: **85**

Fatalities over the past five years: **3**

At the crossing



8 seconds after a train is out of frame:

9 pedestrians are already in the crossing

Notice the gates are still down and the lights are still flashing

Is another train coming?

2016-01-27 5:12:56 PM

Project Goals

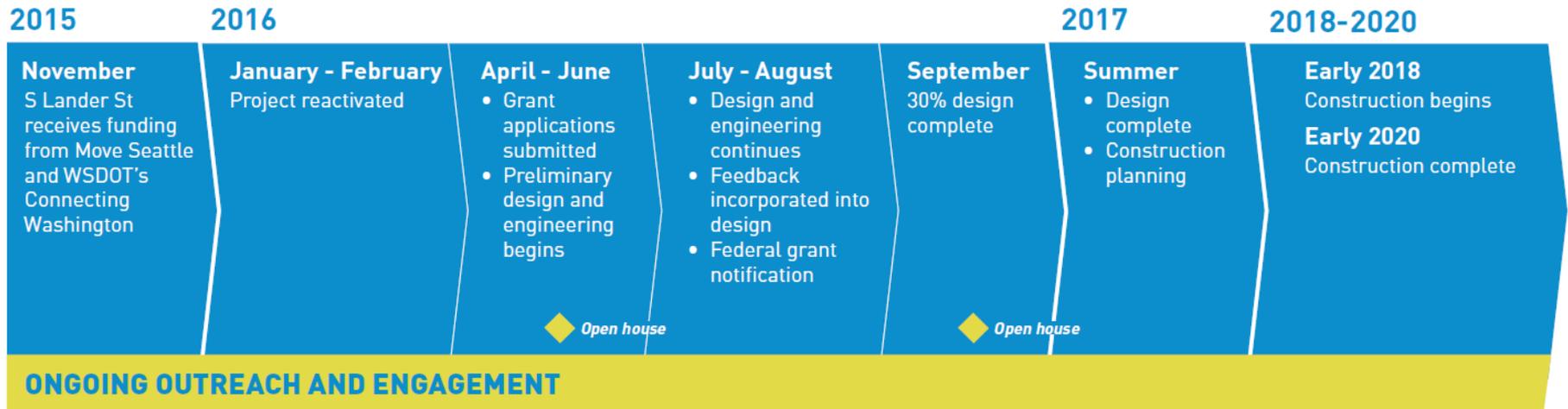
- Eliminate the at-grade crossing
- Fit the bridge in the right-of-way
- Avoid property takes
- Prioritize modal uses
- Reflect changes transportation system since 2007
- Build to budget - \$140M



Our mission:

- Safest and effective solution
- Efficient use of funding

Timeline & communications



Outreach methods

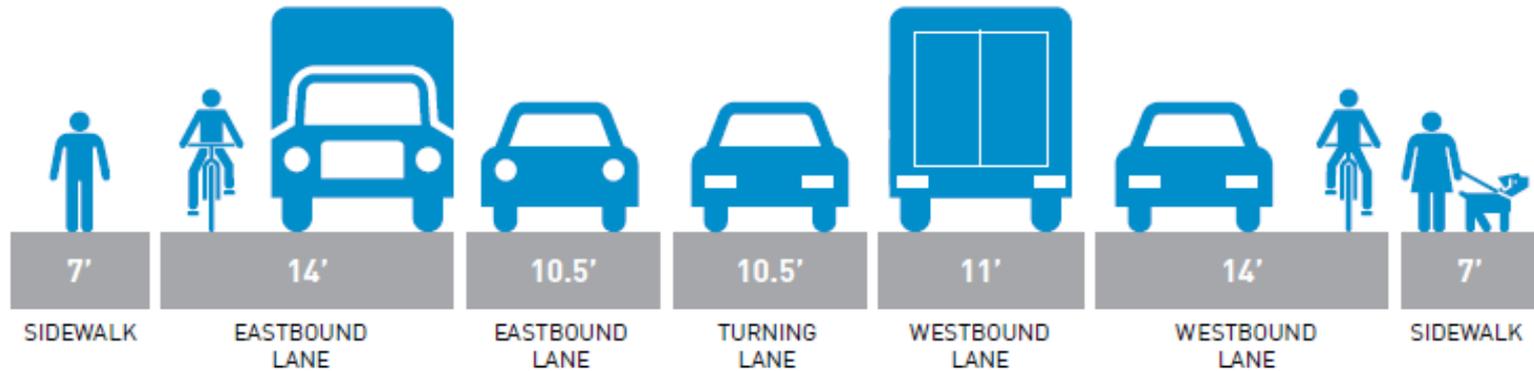
- Calls
- Door-to-door flyering
- Open houses (in person/on-line)
- Briefings
- Mailers
- Emails updates
- Social media

Frequency

- 16 briefing audiences
- 2 open houses
- 57,000 mailers
- 200 email subscribers
- Mailers
- Emails updates

Current roadway

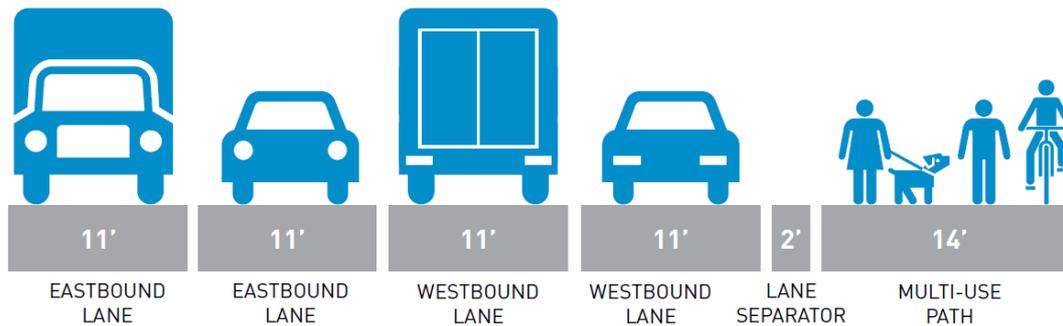
Current road conditions



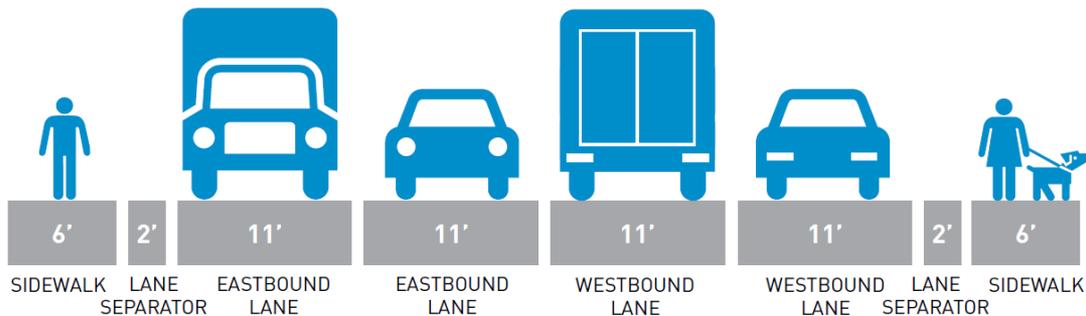
Bridge cross-sections

Preliminary options presented

Design option 1: Multi-use path on north side



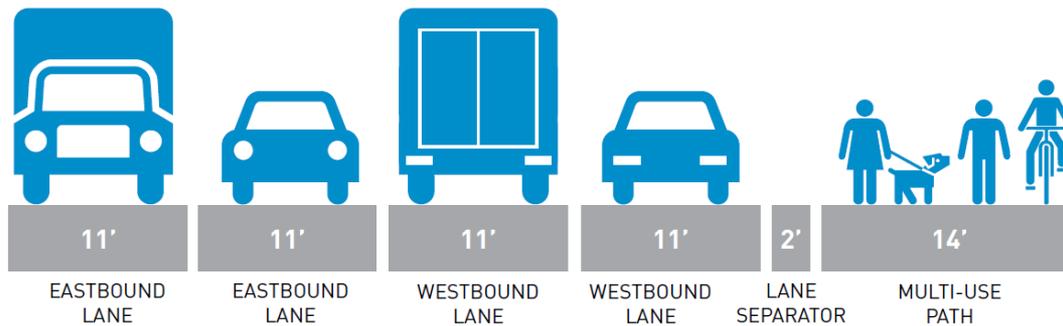
Design option 2: Sidewalks on both sides



Bridge cross-sections

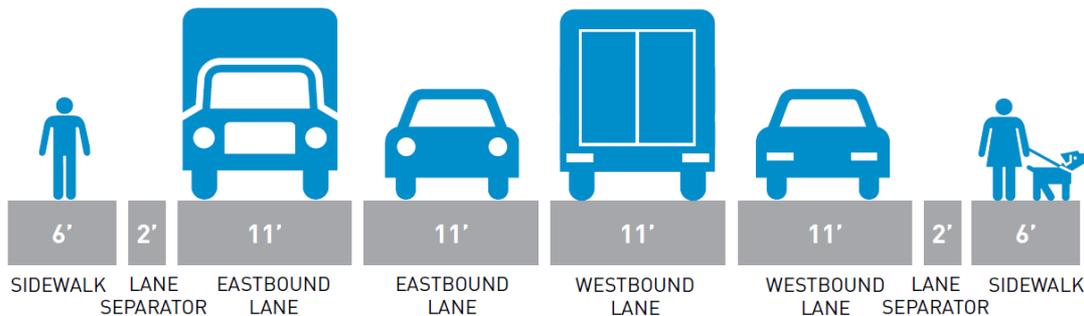
What we heard

Design option 1: Multi-use path on north side



54% preferred this option

Design option 2: Sidewalks on both sides



41% preferred this option

Site constraints – lots of driveways!

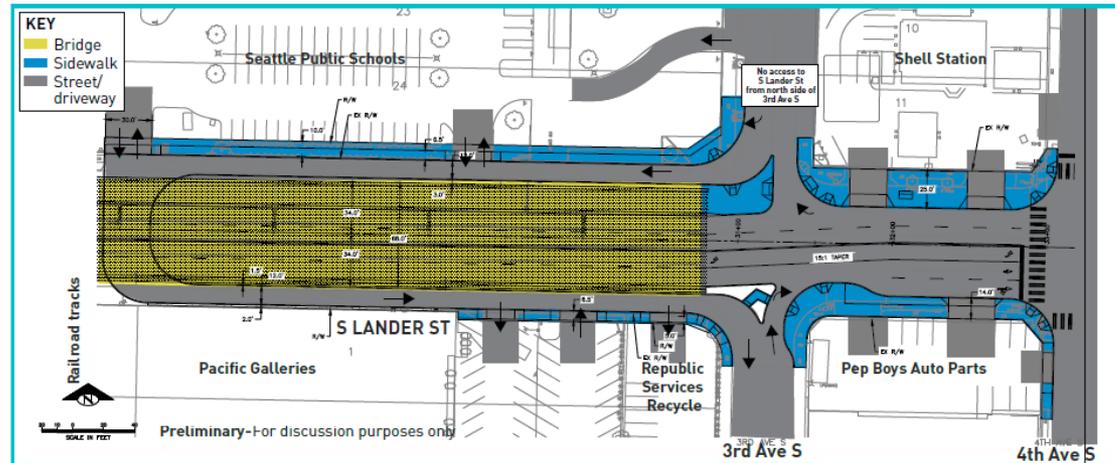
★ Driveways



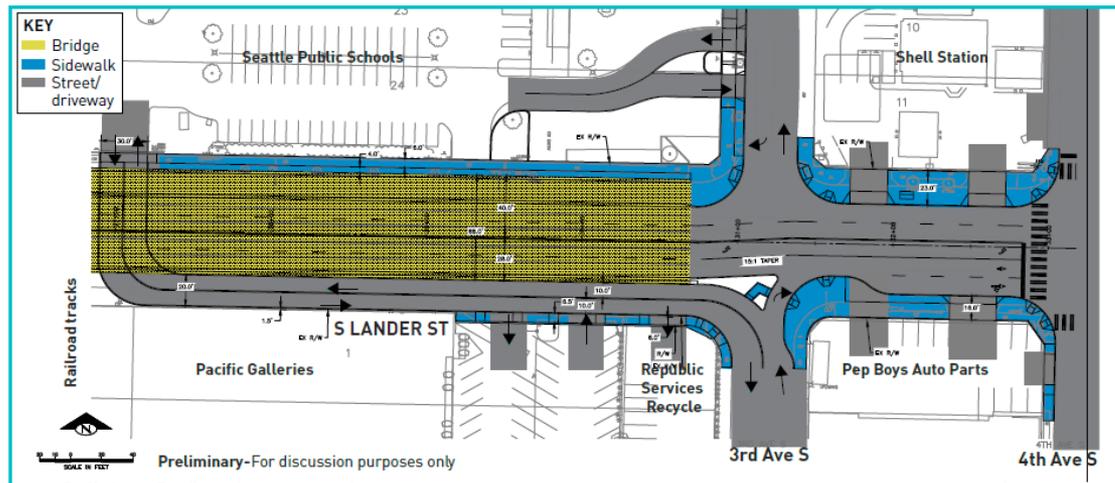
Roadway design – EAST of tracks

Preliminary options presented

Option 1



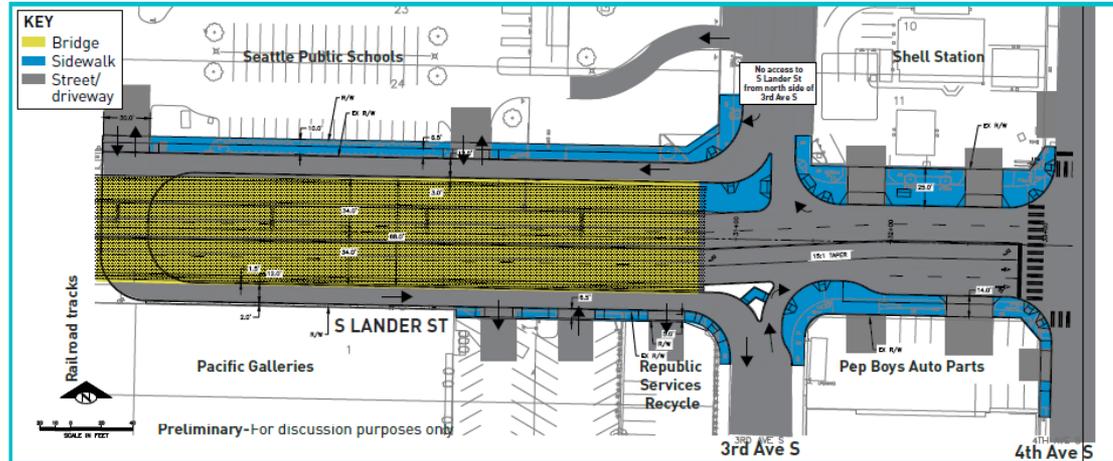
Option 2



Roadway design – EAST of tracks

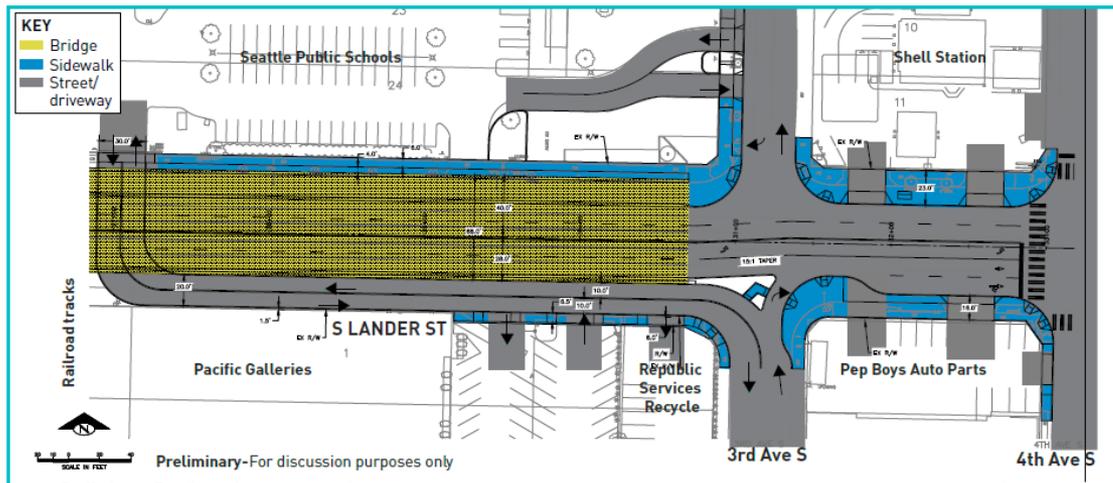
What we heard

Option 1



25% preferred this option

Option 2



57% preferred this option

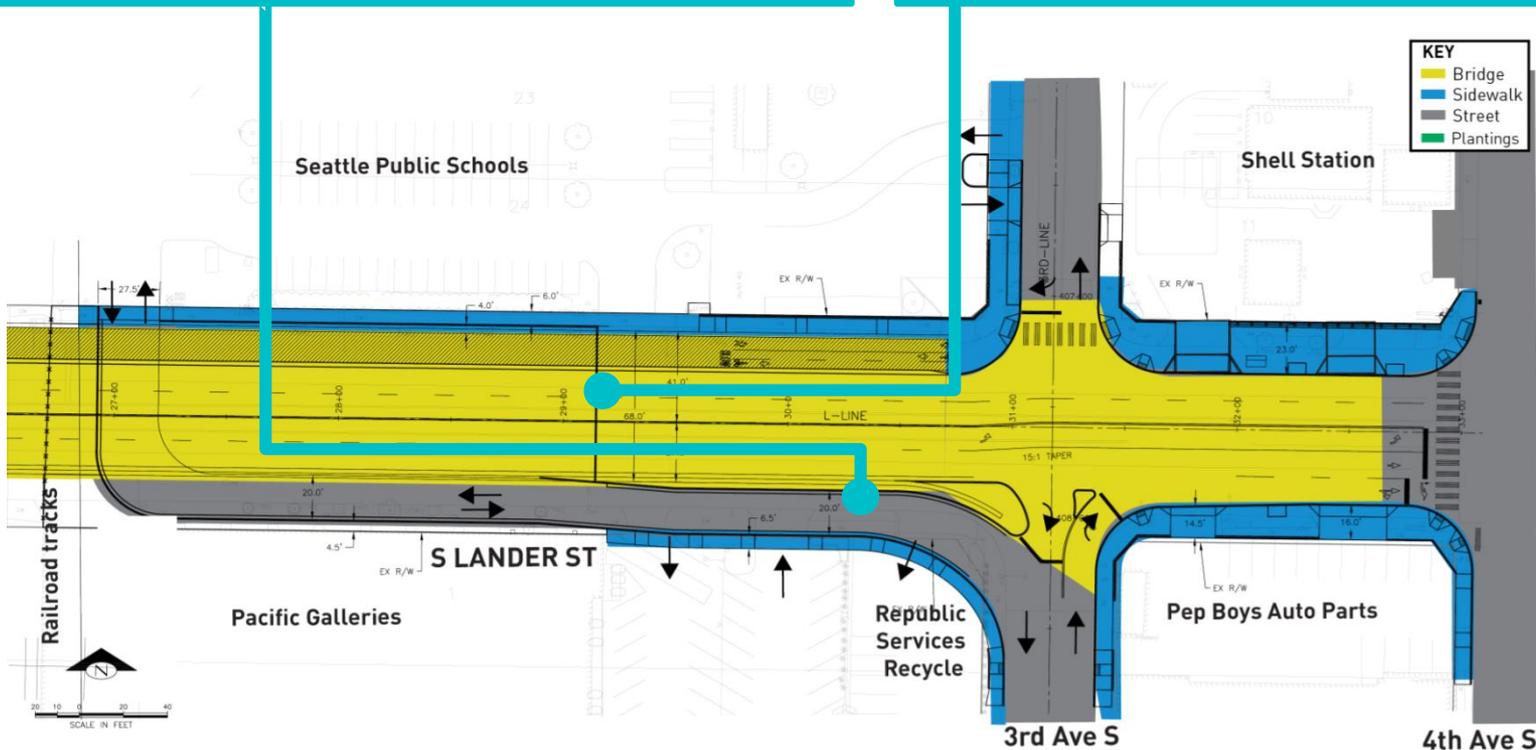
Proposed design – EAST of tracks

3rd Ave S:

- Two-way access drive on south side of bridge
- Based on feedback from nearby properties and stakeholders

Parking:

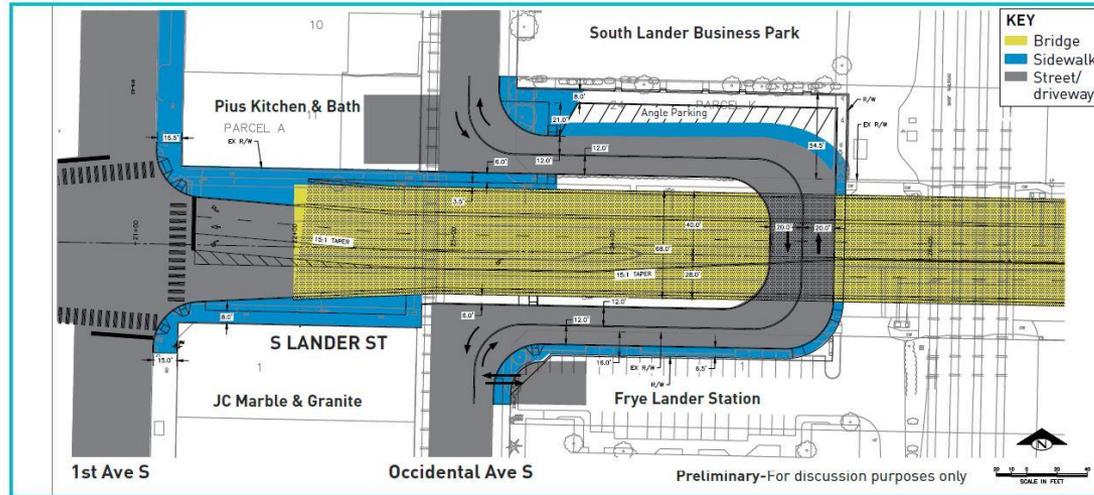
- New parking spaces under the bridge
- Concerns remain about utilization and management



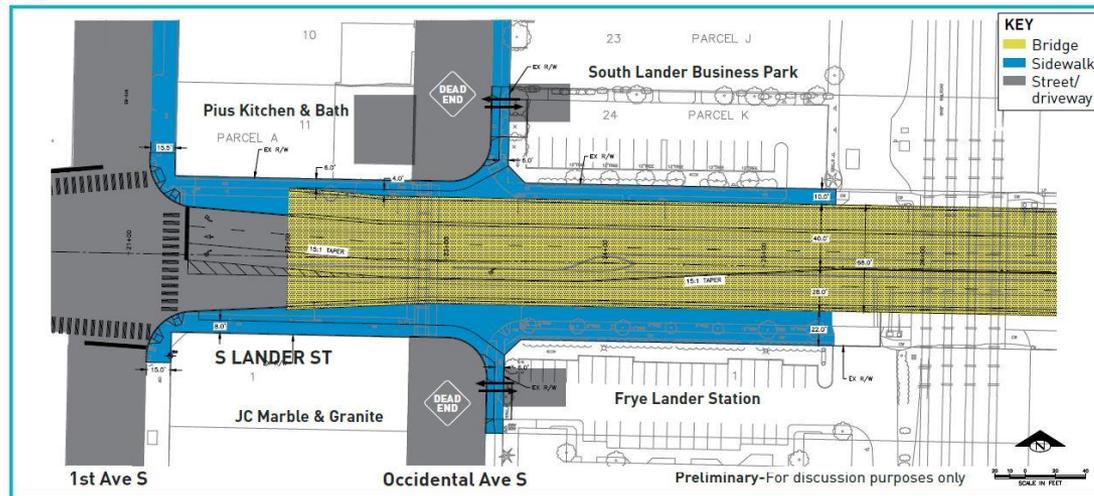
Roadway design – WEST of tracks

Preliminary options presented

Option 1



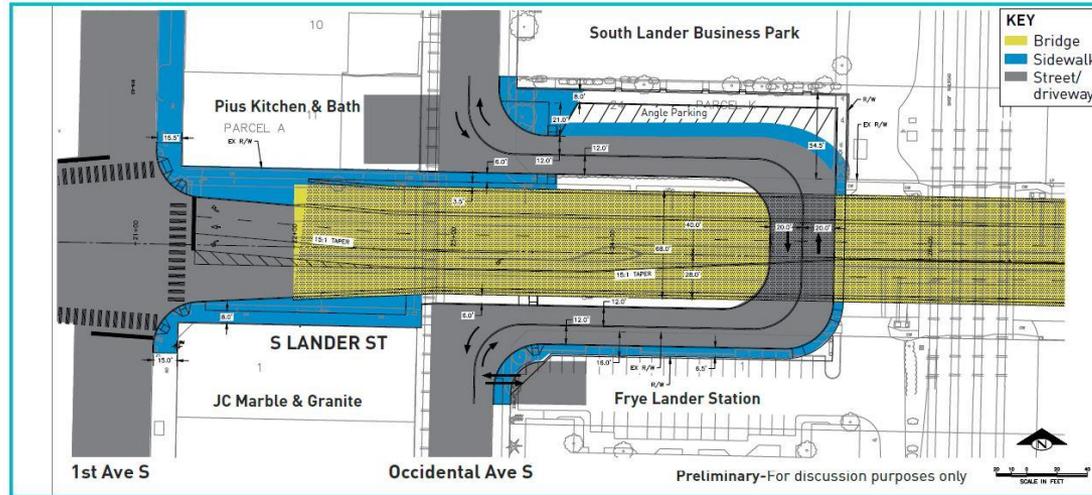
Option 2



Roadway design – WEST of tracks

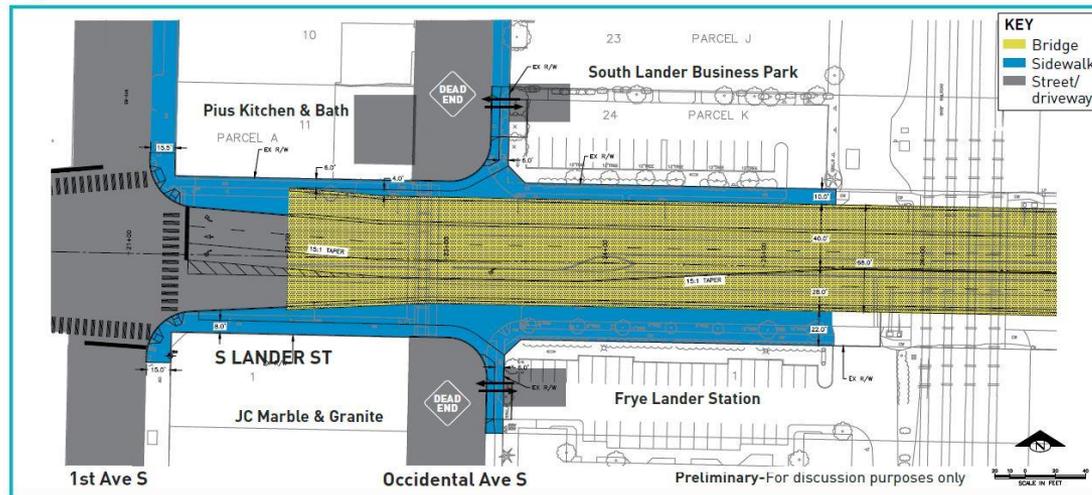
What we heard

Option 1



53% preferred this option

Option 2

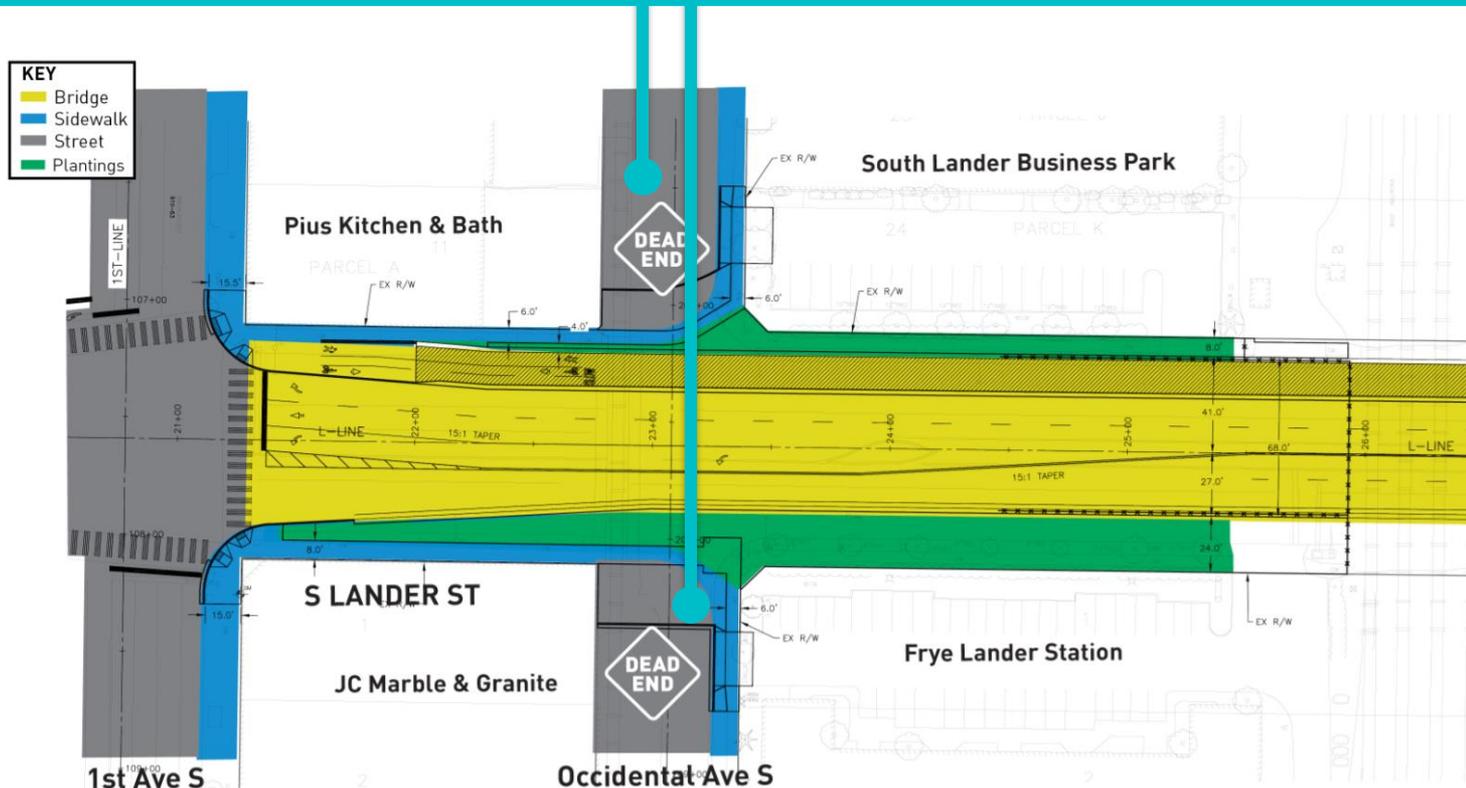


41% preferred this option

Proposed design – WEST of tracks

Occidental Ave S:

- Proposed dead-ends
- Based on community feedback, stakeholder input, recent traffic analysis (limited use of north/south through traffic), and space management



Urban design

Preliminary options

Urban design elements include:
Railings, handrails, retaining walls, fences,
columns, vertical accents, landscaping



Urban design

What we heard

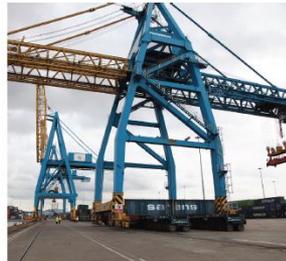
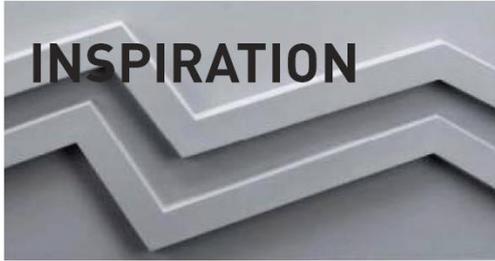
Feedback from the June open house indicated preferences for:

- Architectural elements reflecting neighborhood's character
- Artistic features
- Wall details with texture and patterns
- Landscaping and plantings



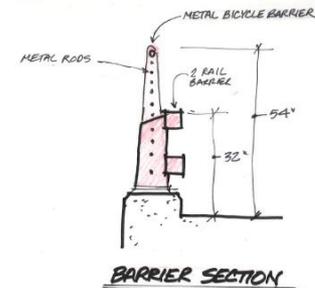
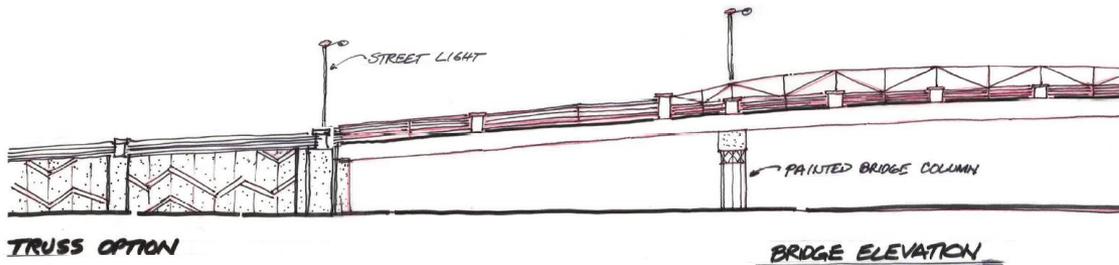
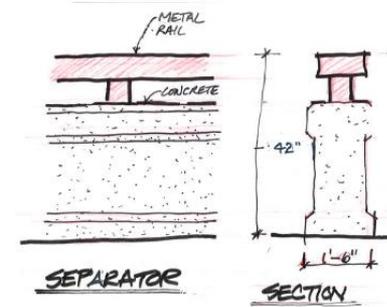
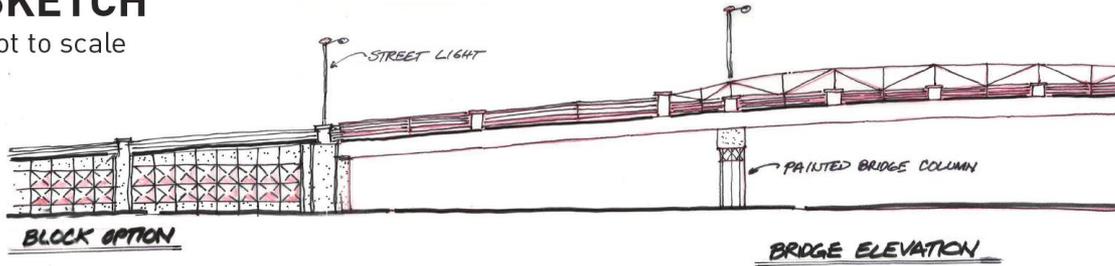
Urban design options

Industry theme



SKETCH

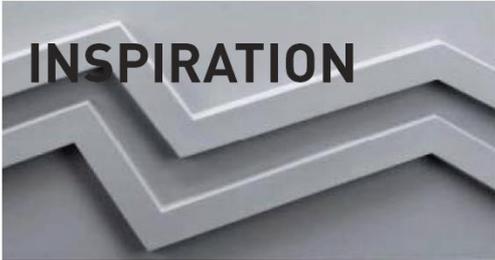
not to scale



Urban design options

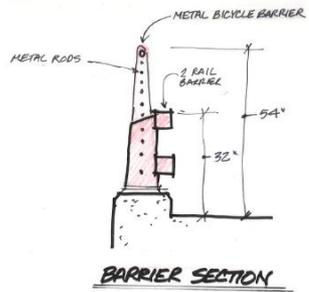
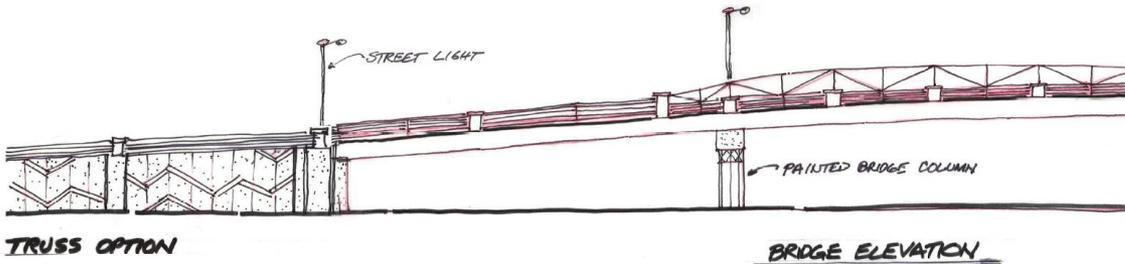
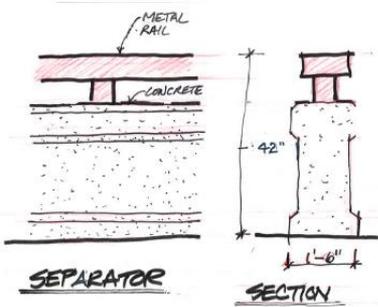
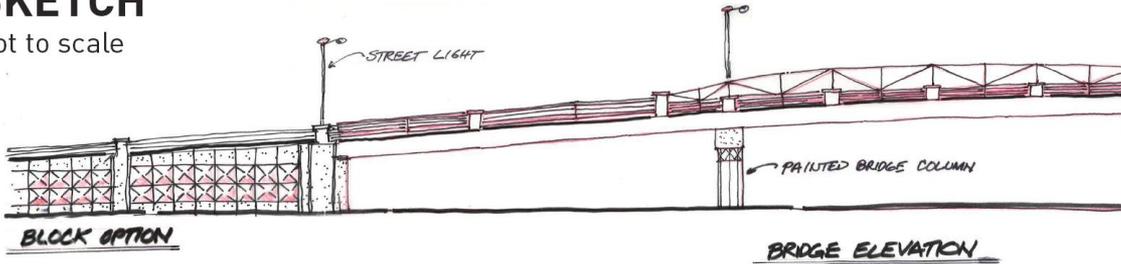
Industry theme

32% preferred this option



SKETCH

not to scale



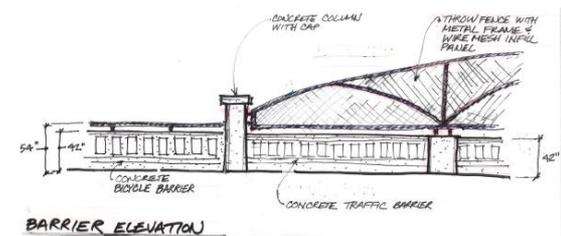
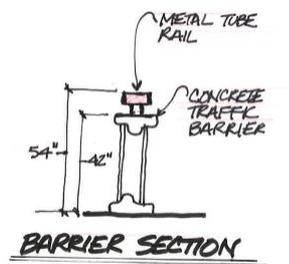
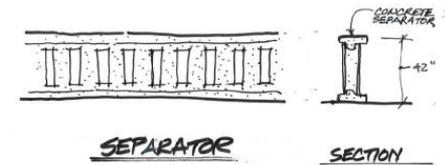
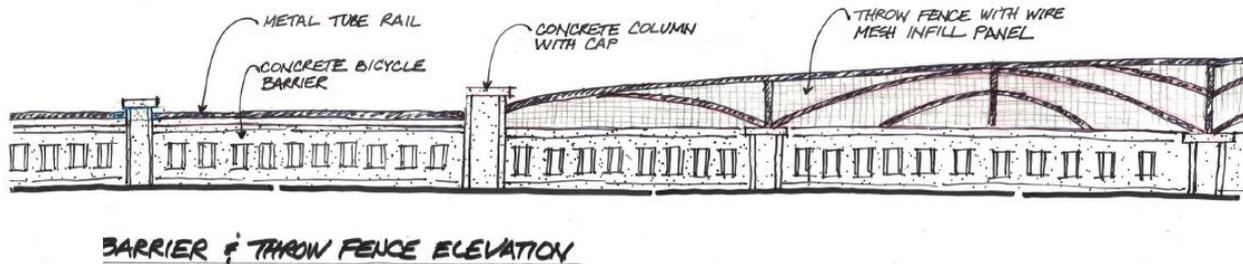
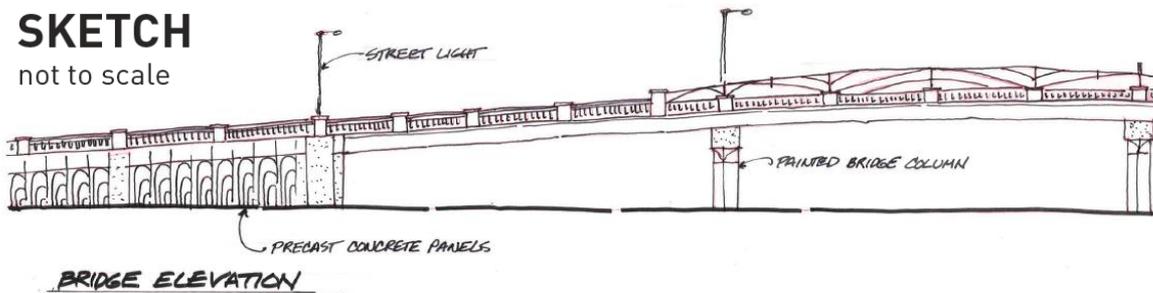
Urban design options

Deco theme



SKETCH

not to scale



Urban design options

Deco theme

68% preferred this option

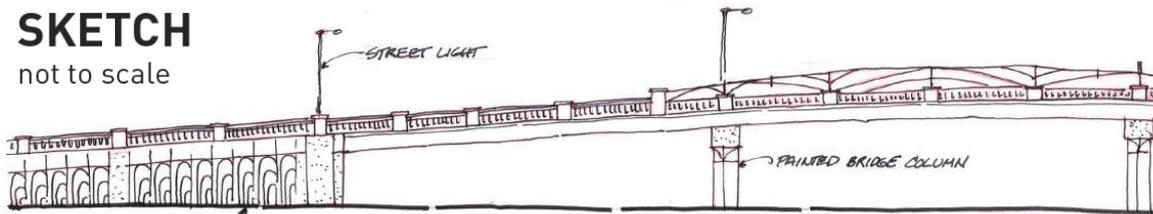


INSPIRATION

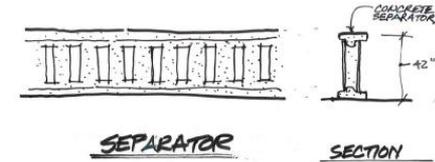


VISUALIZATION

SKETCH
not to scale

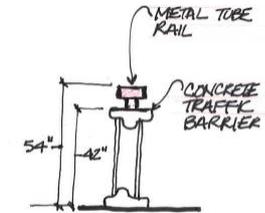


BRIDGE ELEVATION

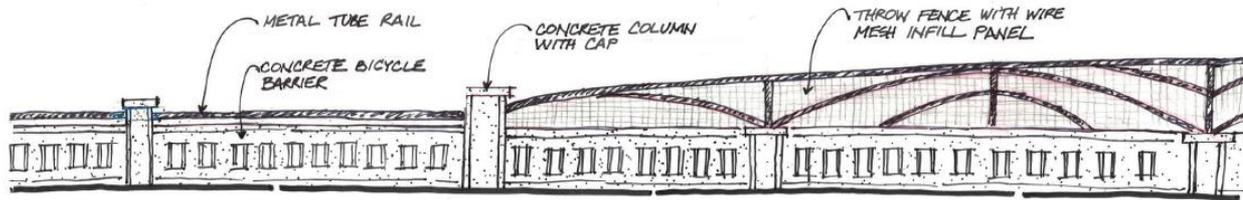


SEPARATOR

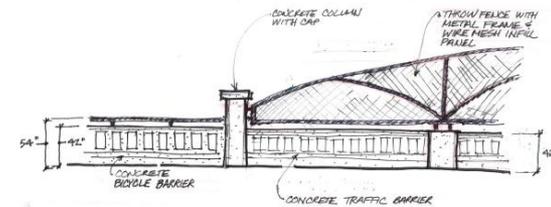
SECTION



BARRIER SECTION



BARRIER & THROW FENCE ELEVATION



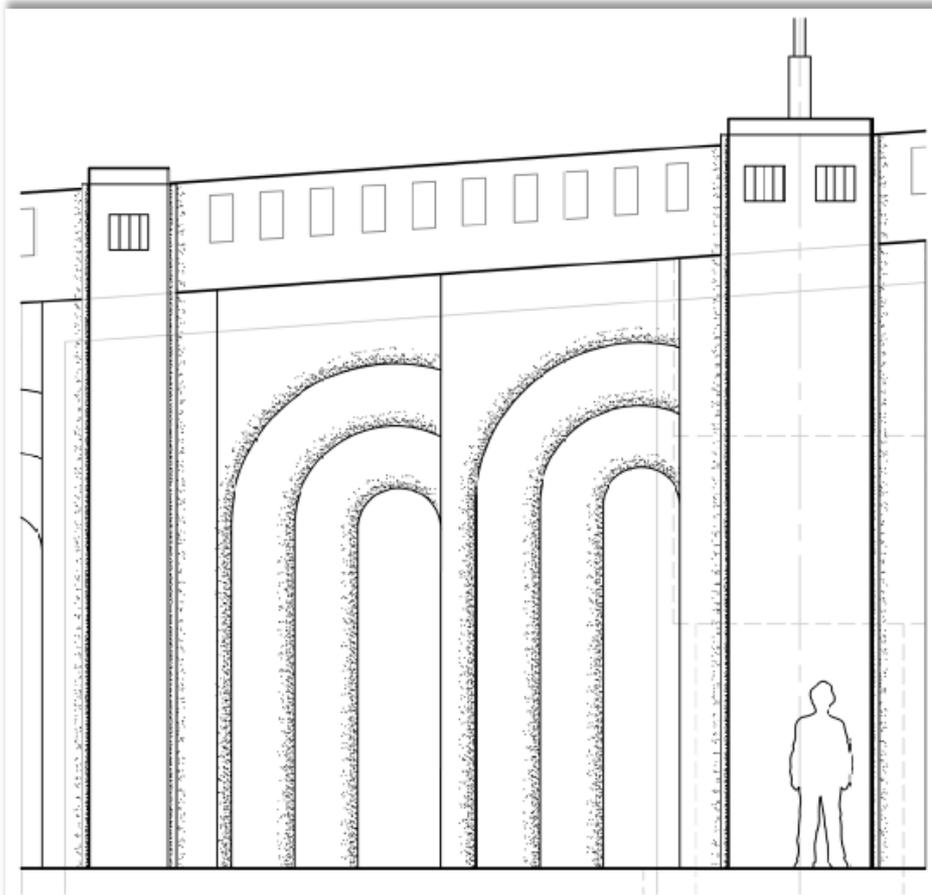
BARRIER ELEVATION

Multi-use path

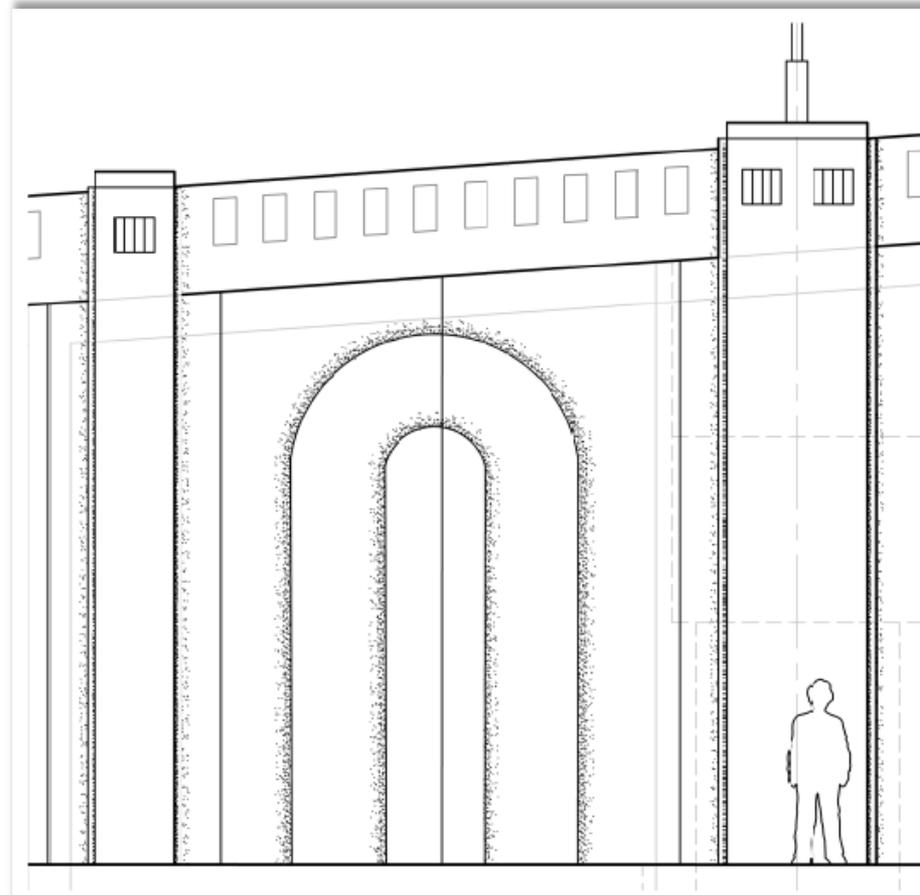
Deco theme



Deco theme wall patterns



ELEVATION — PRECAST WALL PANEL OPTION



ELEVATION — PRECAST WALL PANEL OPTION

Proposed visualizations

Bird's-eye view looking northwest



Existing site

S Lander St looking southwest



Proposed visualization S Lander St looking southwest



Map data: © 2016 Google
Image Landsat

Existing site

3rd Ave S at S Lander St looking east



Proposed visualization

3rd Ave S at S Lander St looking east

DRAFT



Existing site

Occidental Ave S at S Lander St looking south



Proposed visualization

Occidental Ave S at S Lander St looking south



Existing site

1st Ave S and S Lander St looking east



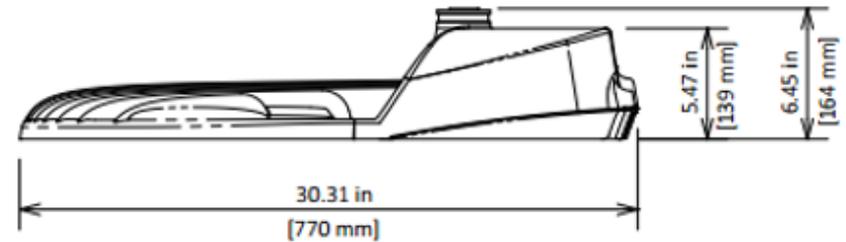
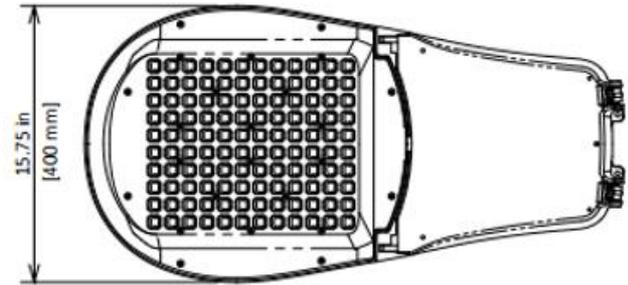
Proposed visualization

1st Ave S and S Lander St looking east



Lighting

Standard cobra-head w/ LED luminaires



Seattle City Light

MATERIAL STANDARD

Standard Number: **5750.03**

Superseding: November 3, 2014
Effective Date: March 25, 2015

Lighting plan



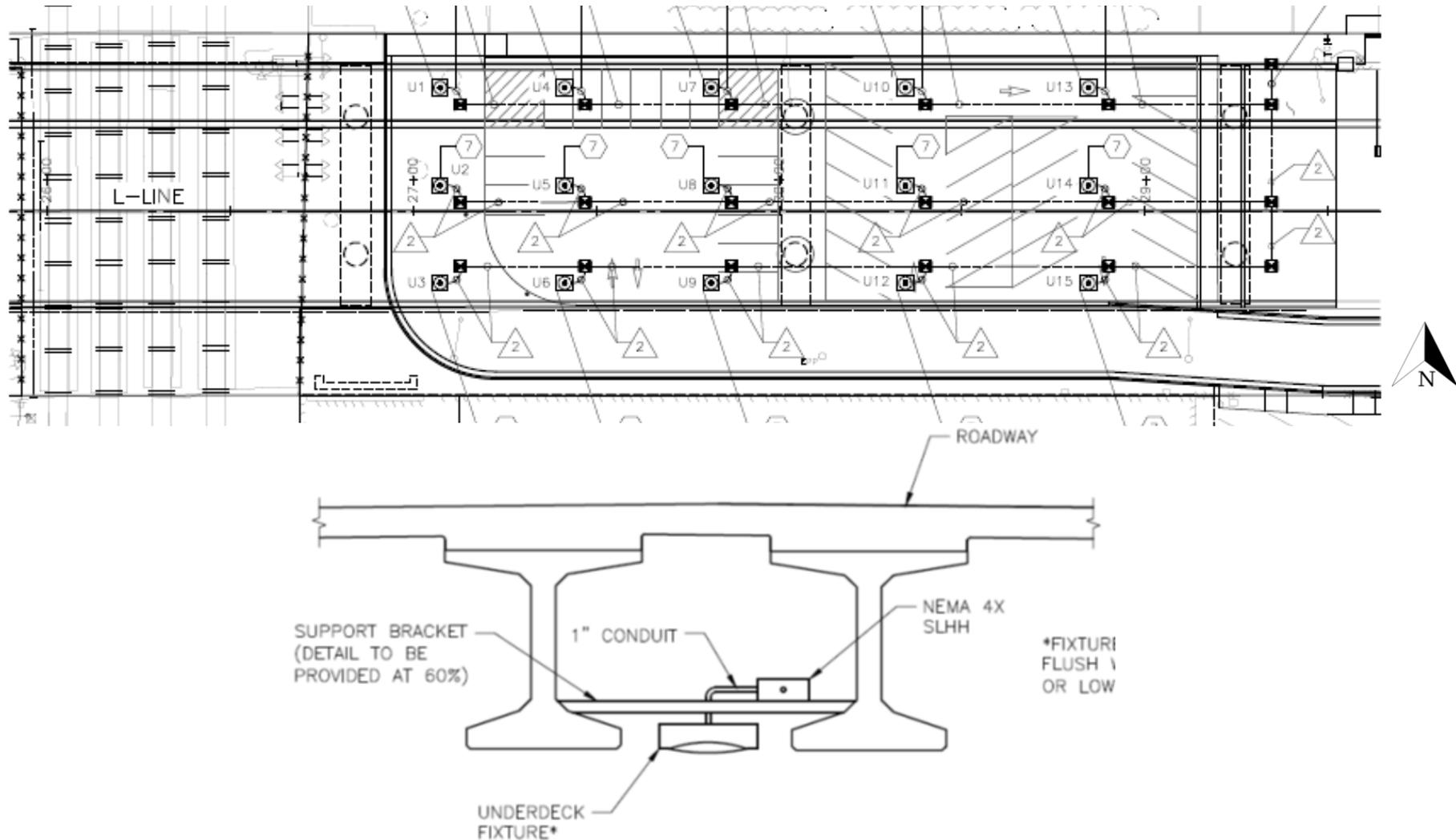
Ped lighting (pending funding)



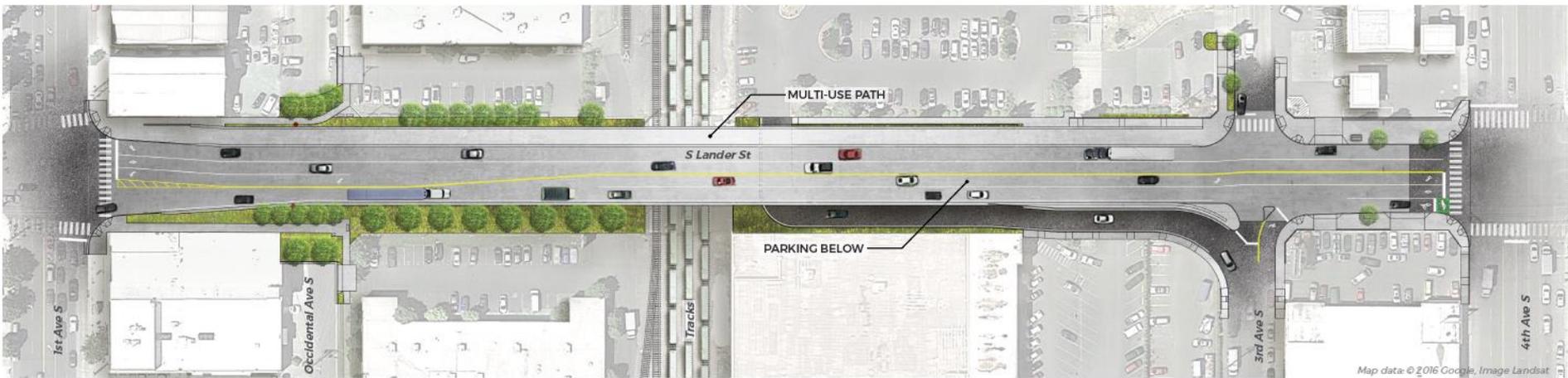
Ped lighting (pending funding)



Under-bridge lighting



Proposed corridor rendering



Ongoing design



Proposed visualization: Bird's-eye view
Looking northwest

Several design features still under development:

- Green space, landscaping and urban design opportunities
- Lighting
- Driveways
- Parking

Next steps

Winter 2017

- 60% design (including lighting)
- Continue development or urban design
- Public meetings

Spring 2017

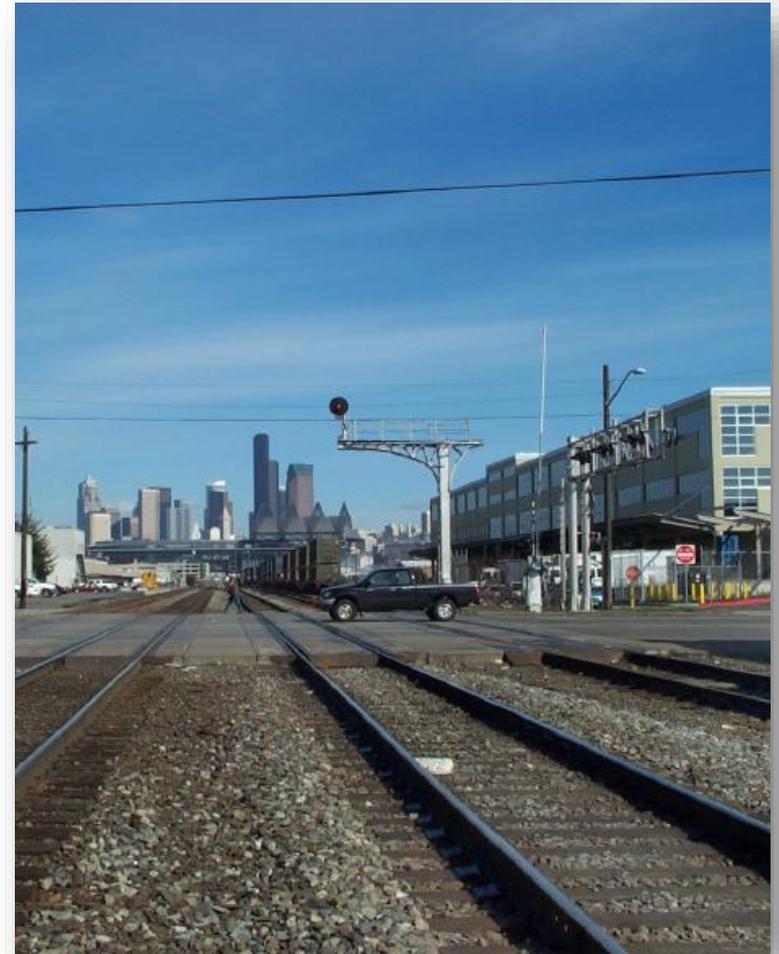
- 90% and 100% design

Summer 2017

- Solicit for construction

Winter 2017/18

- Begin construction



Stay connected

- Visit: www.seattle.gov/lander_bridge.htm
- Call Jessica Murphy: 206-684-0178
- Call Eric Strauch: 206-233-7208
- Email: lander_bridge@seattle.gov

www.seattle.gov/transportation



Seattle
Department of
Transportation

Backpocket slides

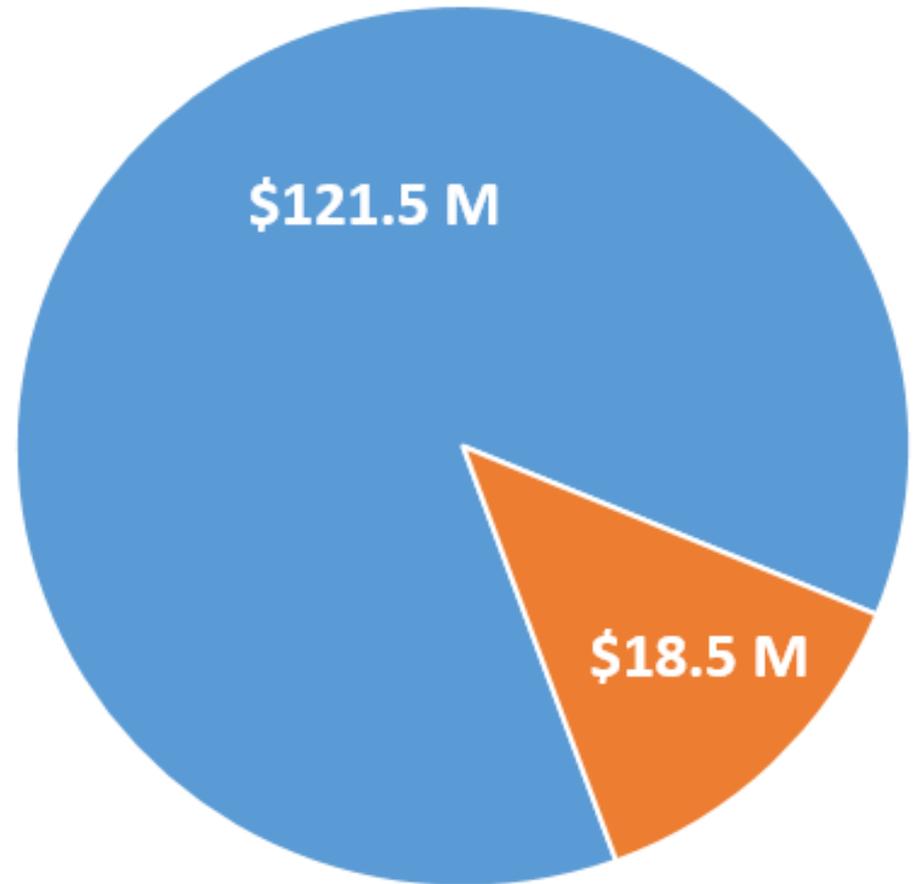
Funding

TOTAL: \$140M

■ **\$121.5M Secured Funding**

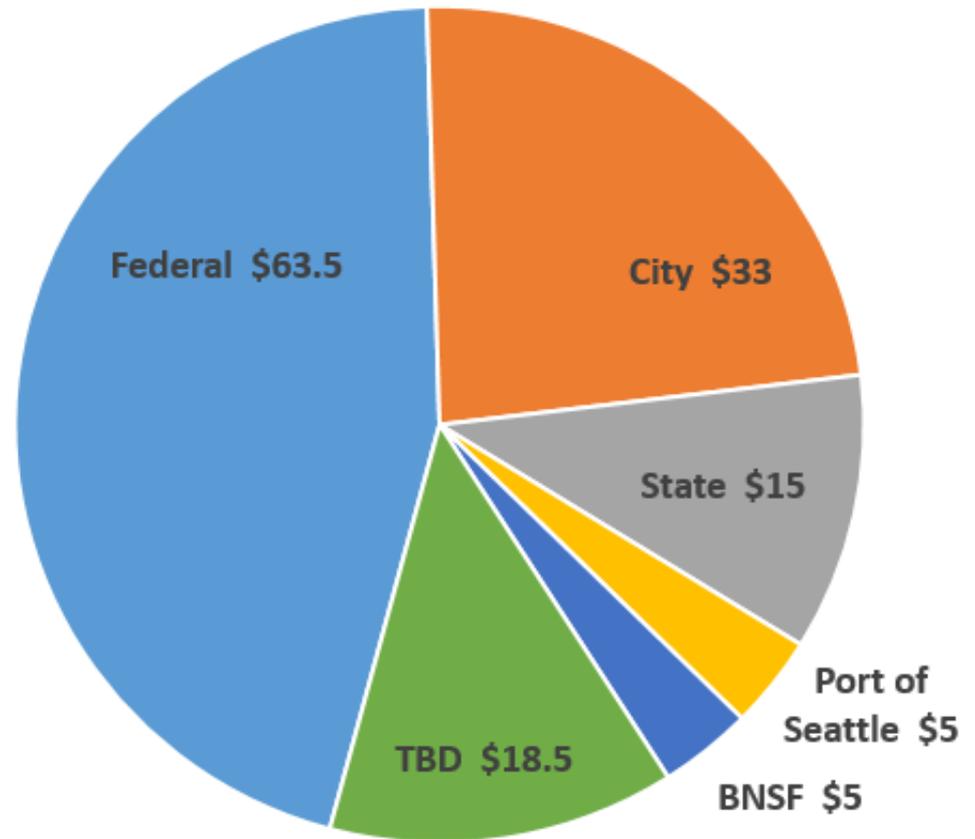
- \$ 33M City
- \$ 15M State
- \$ 63.5M Federal
- \$ 10M Private (Port, BNSF)

■ **\$18.5M Unsecured Funding**



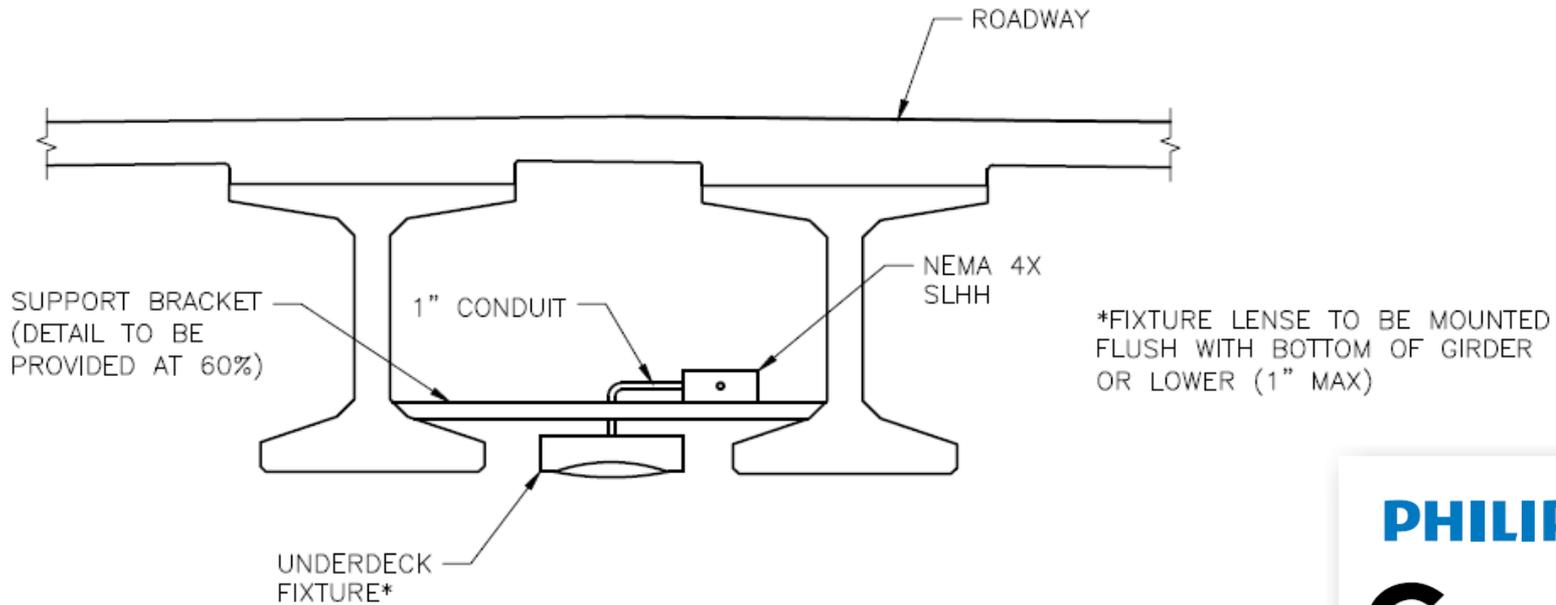
Project funding plan

- \$45M in Federal FASTLANE grant – largest award for a municipality nationwide
- Additional \$13M City contribution approved in the 2016 Budget
- Still in pursuit of other sources



TOTAL: \$140M

Under-bridge lighting attachments



UNDERDECK LIGHTING MOUNTING DETAIL

NTS

1
IL05



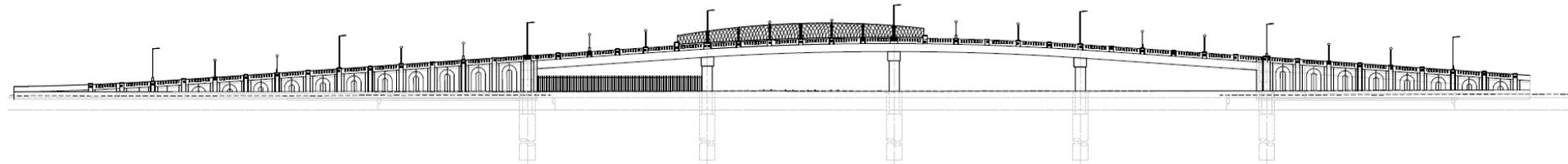
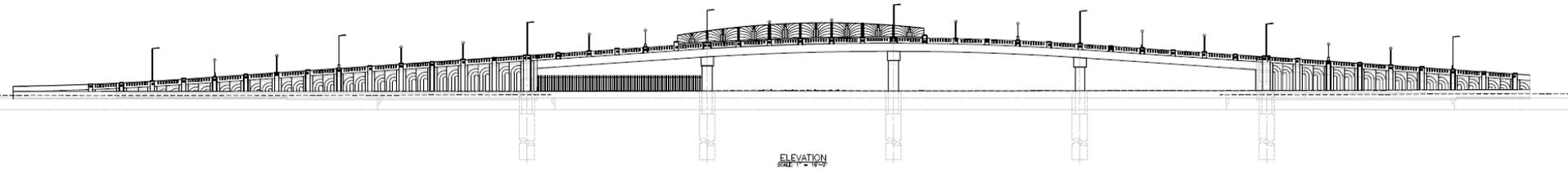
PHILIPS

GARDCO

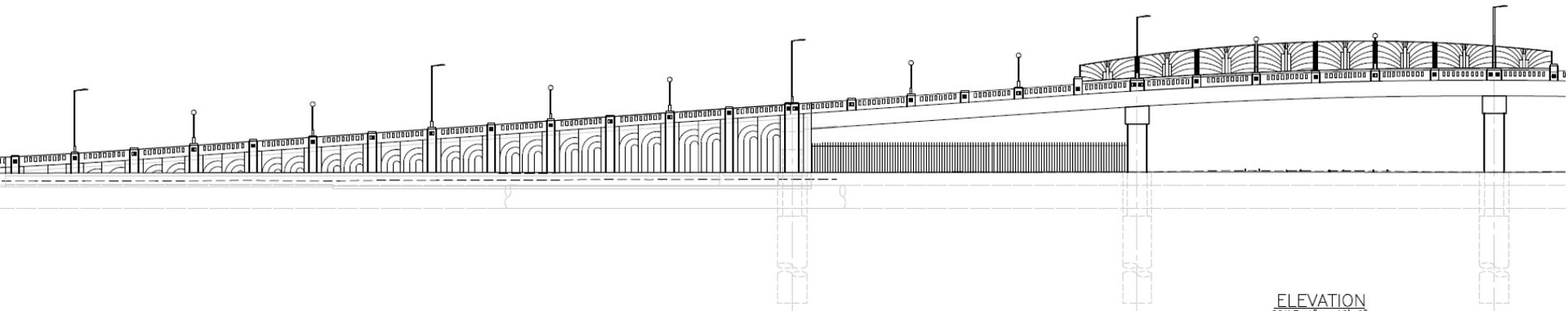
Garage & Canopy

SlenderForm

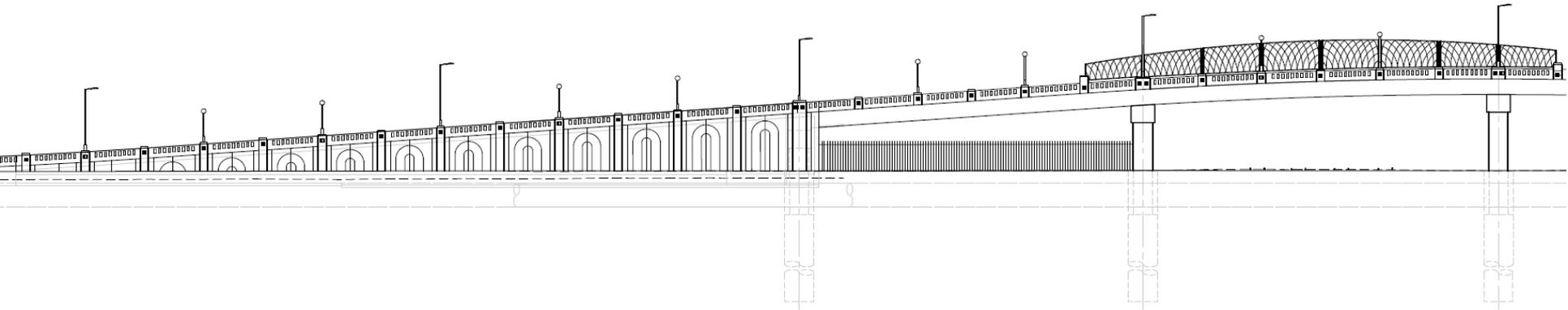
Deco theme - elevations



Deco theme - elevations



ELEVATION
SCALE: 1" = 16'-0"

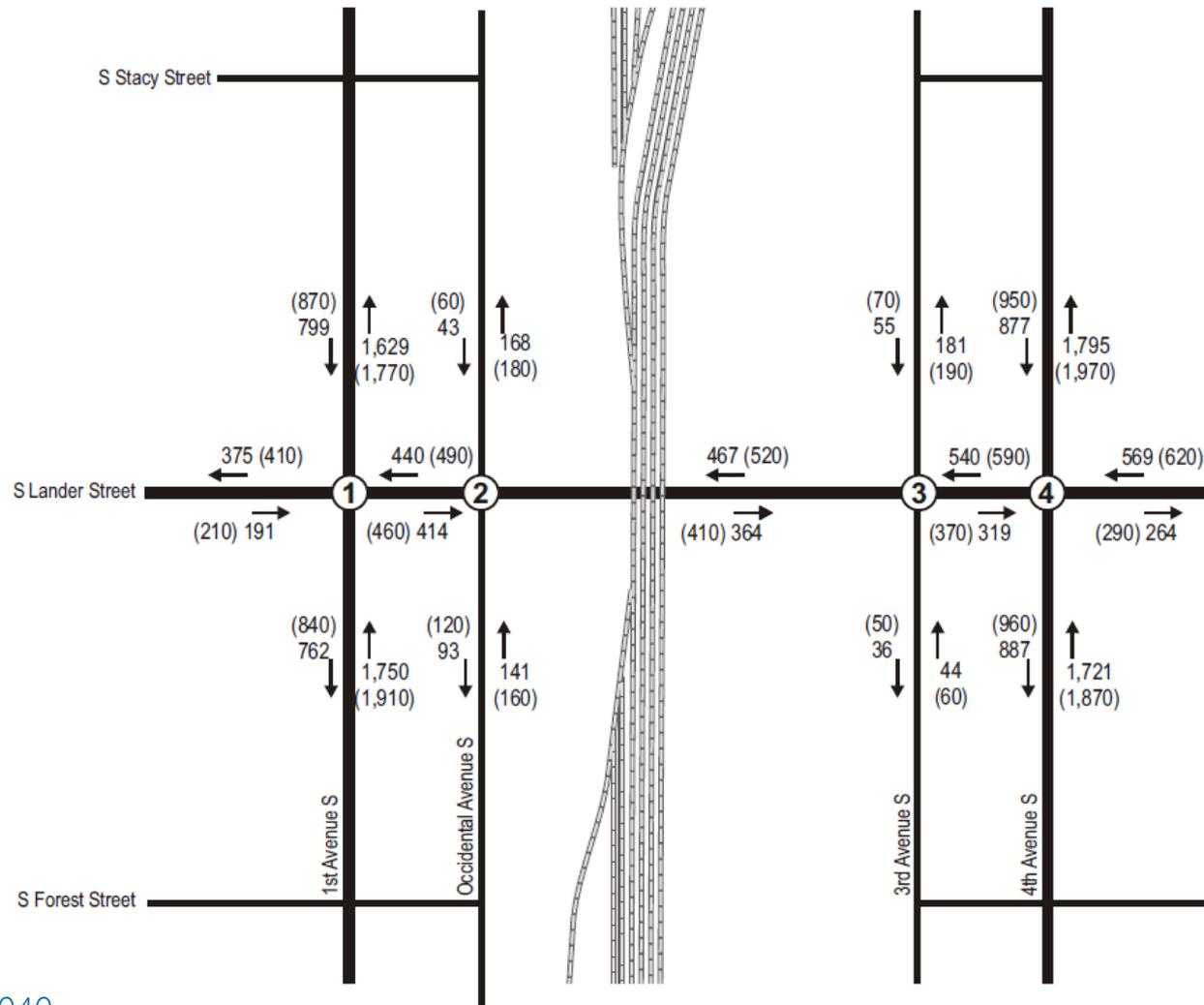


ELEVATION
SCALE: 1" = 16'-0"



[Time-lapse video](#)

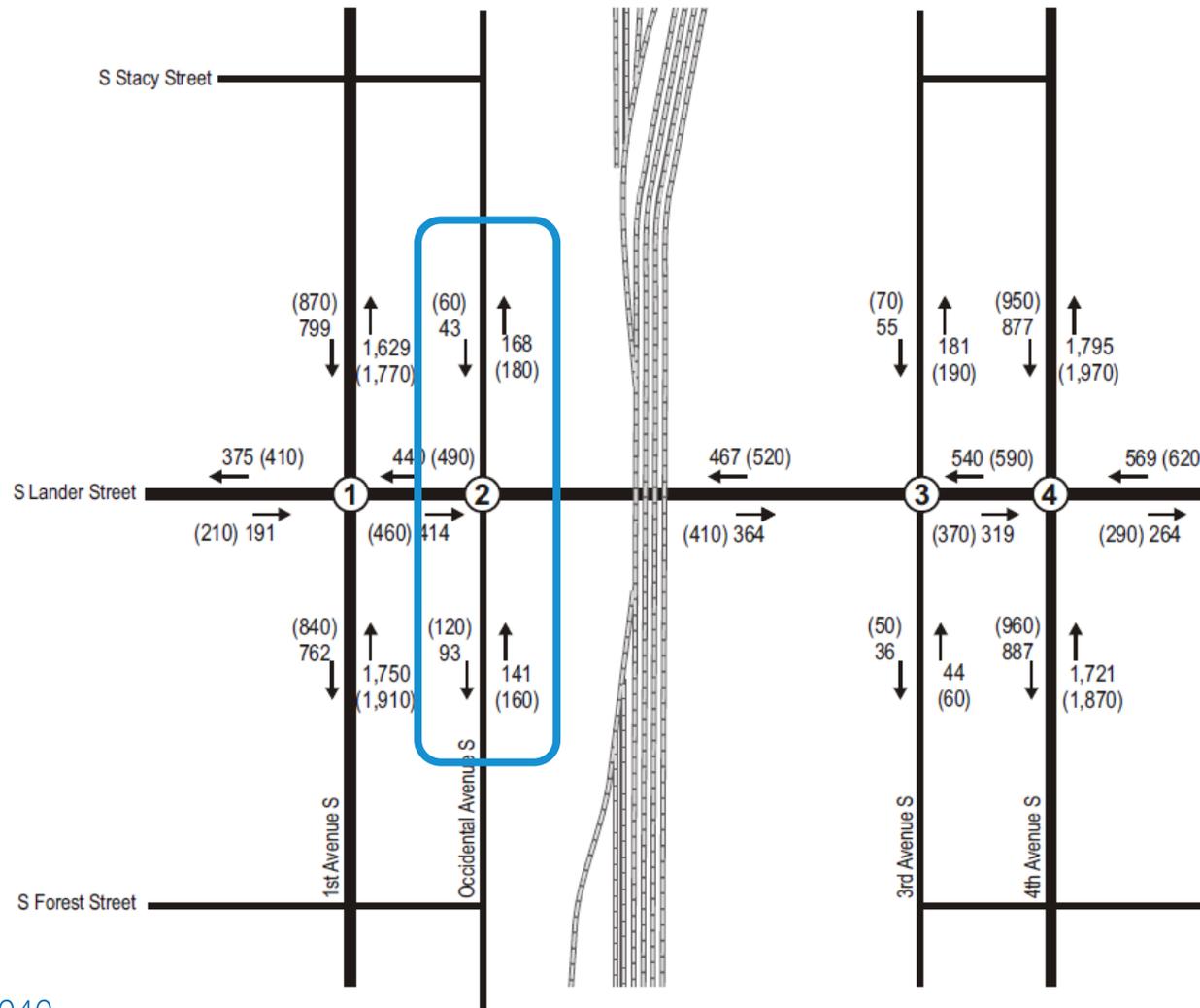
Traffic analysis



KEY:
 XX = Existing
 (XX) = Future, 2040

Volumes shown are AM Peak

Traffic analysis – Occidental Ave S

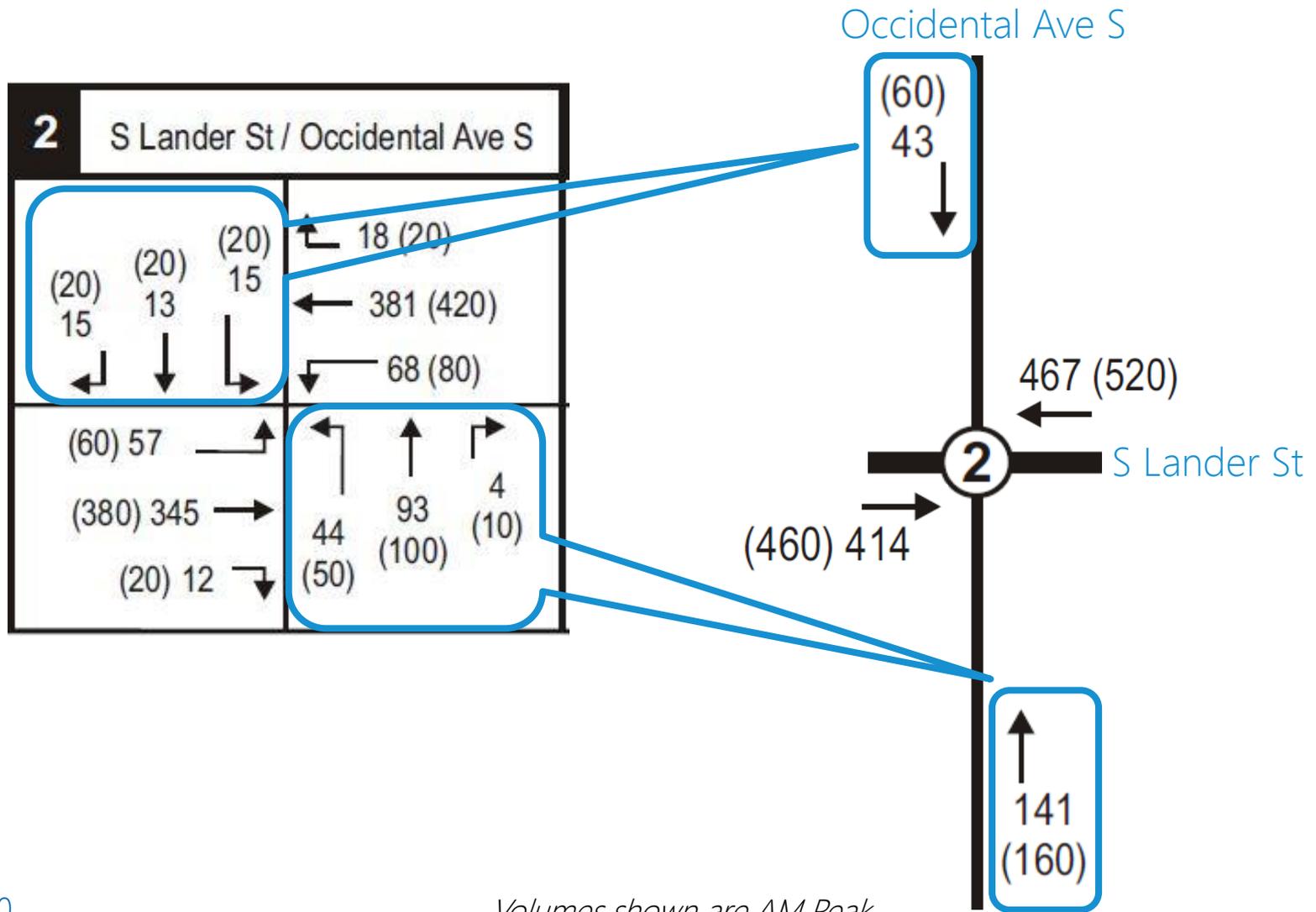


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Volumes shown are AM Peak

Traffic analysis – Occidental Ave S

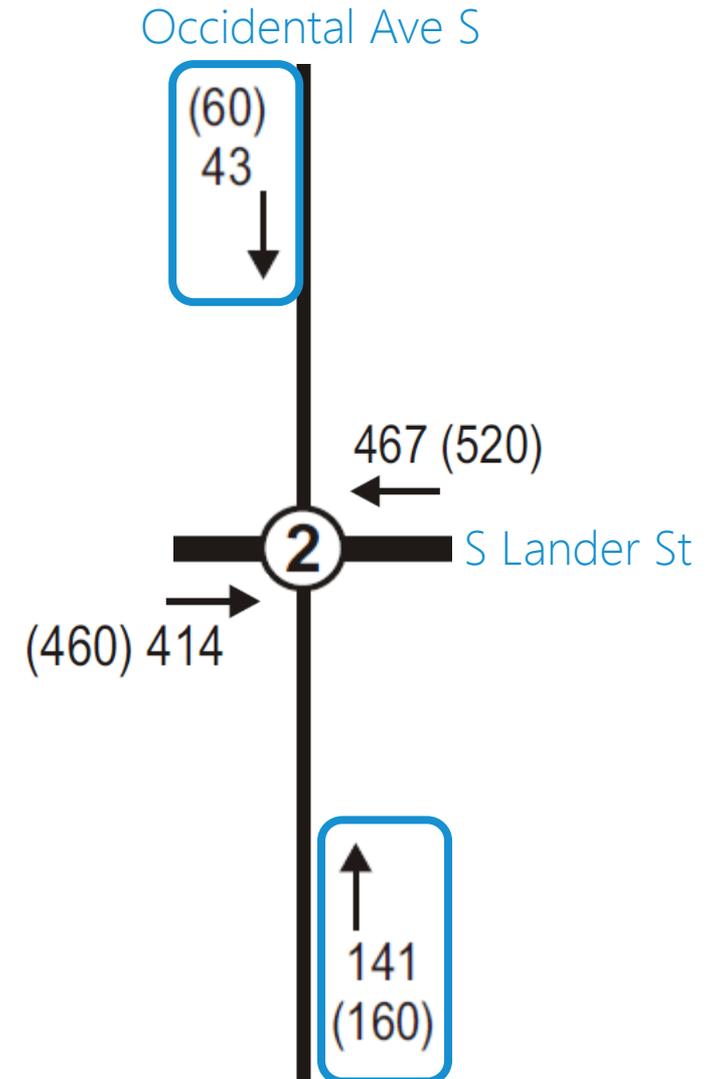
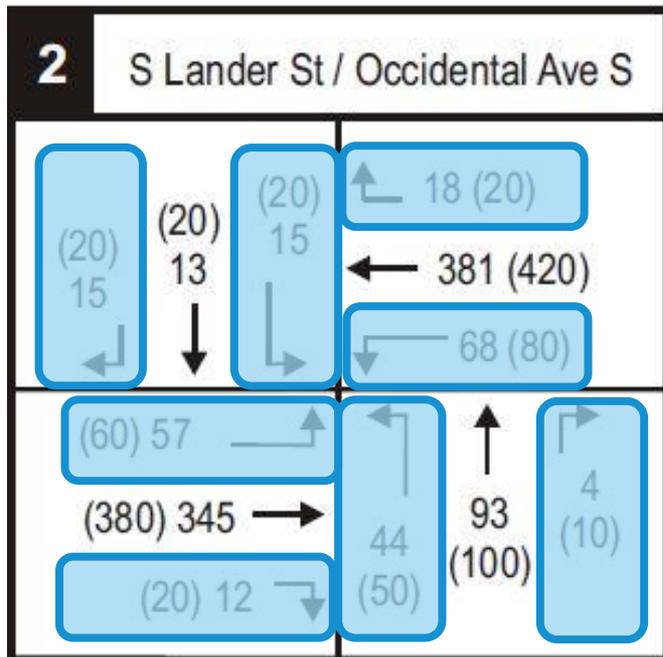
Turning movements



KEY:
 XX = Existing
 (XX) = Future, 2040

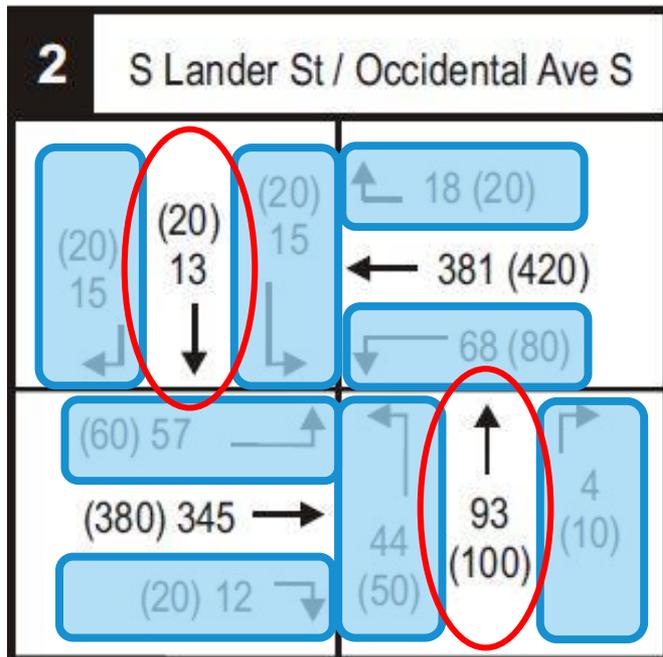
Traffic analysis – Occidental Ave S

Future movements

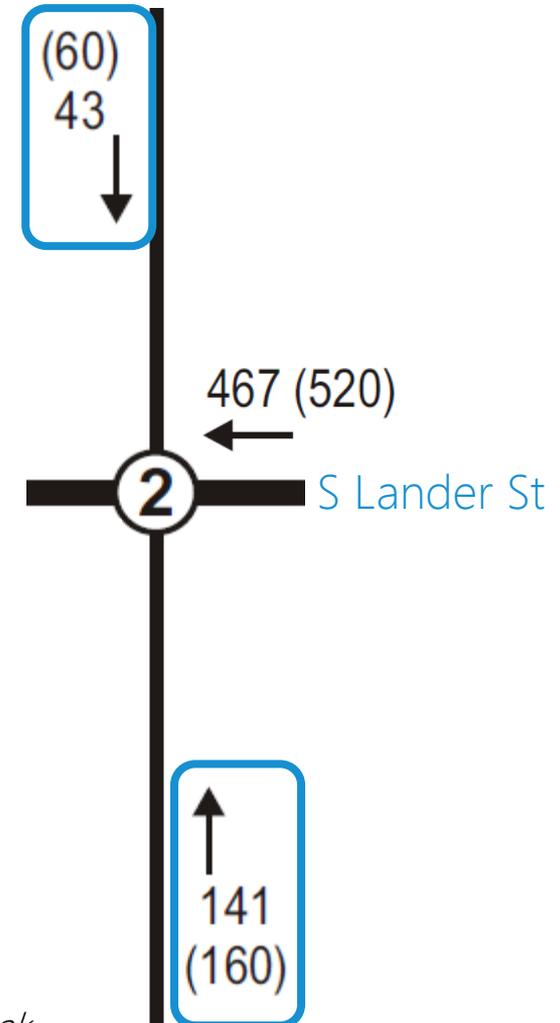


KEY:
 XX = Existing
 (XX) = Future, 2040

Traffic analysis – Occidental Ave S



Occidental Ave S



KEY:
 XX = Existing
 (XX) = Future, 2040

Volumes shown are AM Peak

Traffic analysis results – Occidental

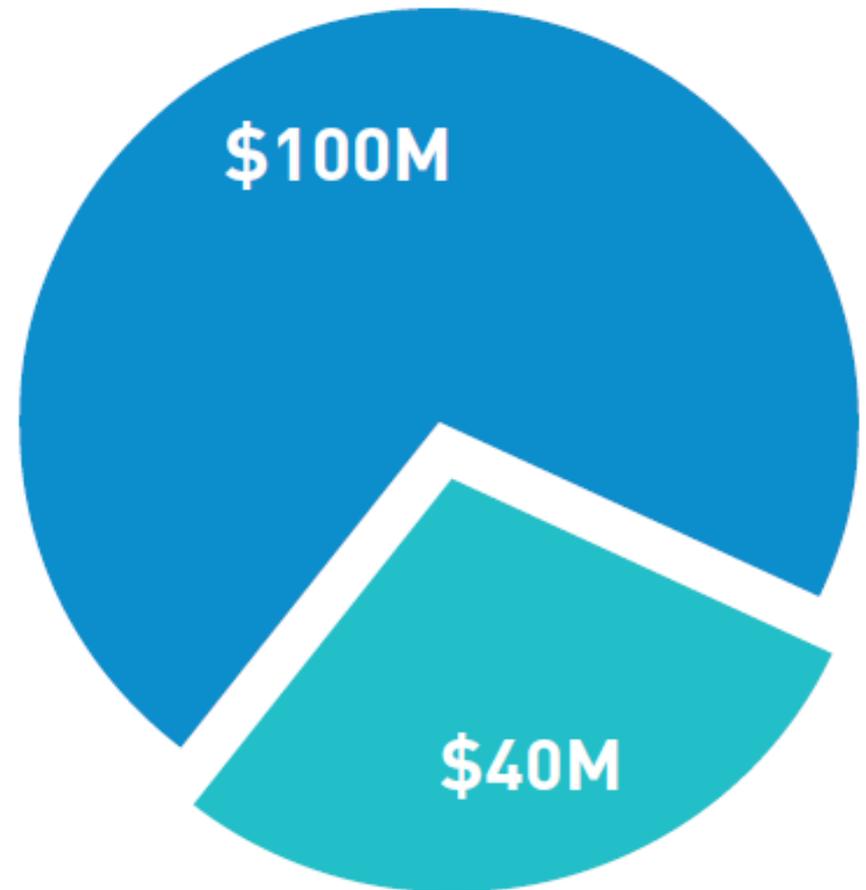
- Number of vehicles crossing S Lander St at Occidental Ave S is low
 - Midday peak:
 - Southbound: 10 (10)
 - Northbound: 10 (10)
 - PM peak:
 - Southbound: 60 (55)
 - Northbound: 5 (10)
- Data indicate high cut-through traffic at AM/PM peak periods (avoiding 1st Ave S), rather than local access

Funding

■ \$100M Secured funding

- \$45M: Federal FASTLANE Grant
- \$20M: Levy to Move Seattle
- \$10M: Puget Sound Regional Council
- \$8M: Freight Mobility Strategic Investment Board
- \$7M: WSDOT - Connecting Washington
- \$5M: BNSF
BNSF is committing at least 5% (approximately \$5 million) pursuant to 23 CRF 666.210
- \$5M: Port of Seattle

■ \$40M Unsecured funding



TOTAL: \$140M