



I-5 Lid Feasibility Study

Preliminary Structural Feasibility

I-5 Lid Feasibility Study Committee

Small Group Discussion Guide

August 22, 2019

2-5 PM

Seattle City Hall, Boards and Commissions Room L280



Seattle
Office of Planning &
Community Development

Small group work session

- Your facilitator is here to help guide the conversation and pull in subject matter resources.
- Take a minute to review the discussion questions below. They are meant to be a guide – make them your own!
- Each group will work with one of the four sub-areas shared in the presentation.
- Each group will have about an hour for discussion and 5 minutes to share with the larger group, followed by time for large group discussion.
- Save 5 minutes at the end of your work session to identify what you would like to share with the larger group and select someone from your group to report out.

Part 1 (55 minutes)

- Identify and discuss preliminary structural feasibility and technical considerations within your sub-area.
- Using the maps, flipcharts and sticky notes, write down ideas, draw and have fun!

Discussion questions

- What are your reactions to the considerations the team has shared?
- What else should be considered? Is anything missing?
- What opportunities within your sub-area are most exciting to you?
- What tradeoffs might be necessary to make them happen?
- Do you have ideas or questions that you would like the consultant team to consider as they advance the feasibility study?

Part 2 (5 minutes)

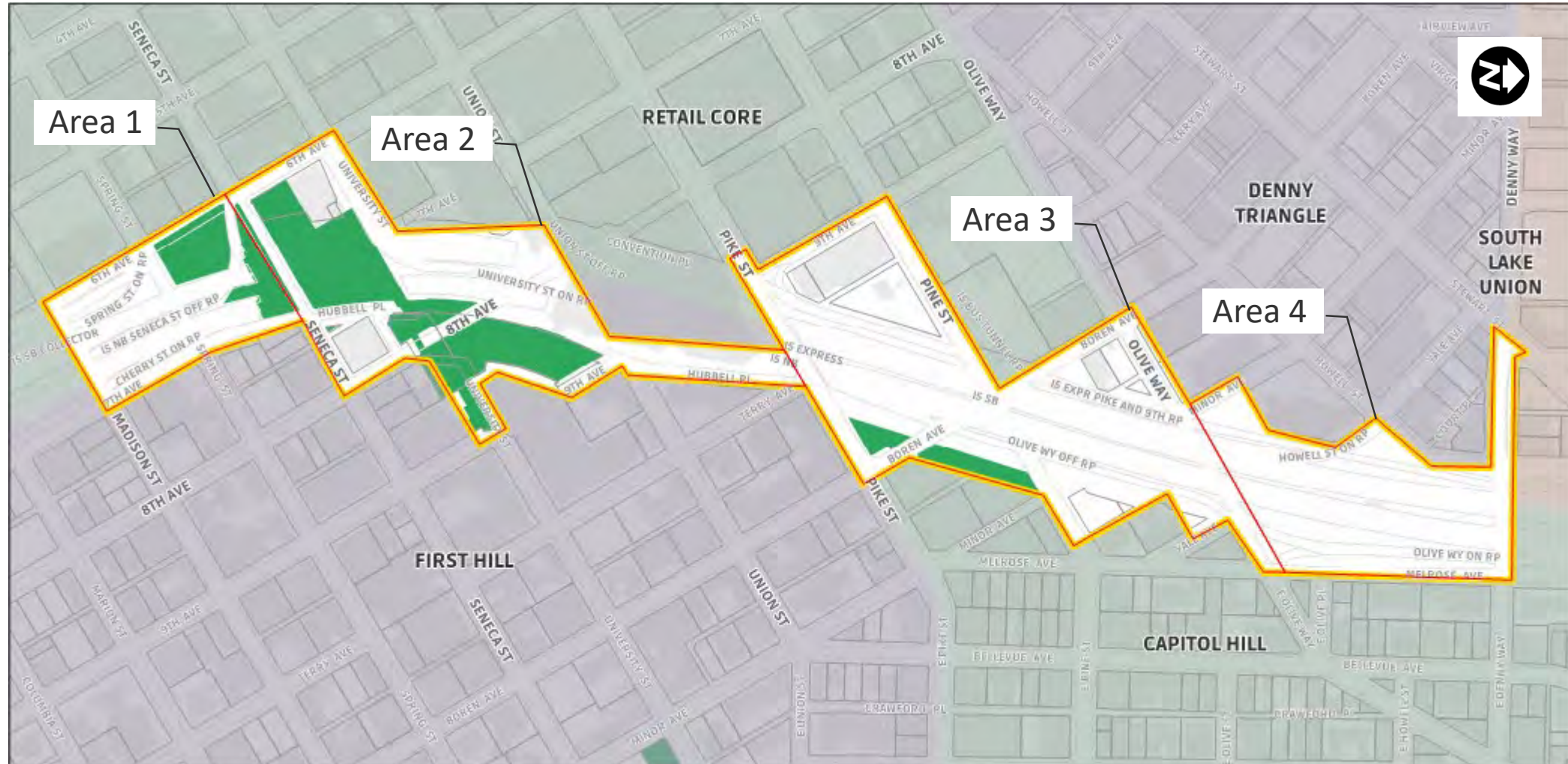
- Select a speaker and highlights to share during your 5-minute report out.

Supporting materials

- Site and sub-area maps
- Copies of considerations slides from the presentation
- Discussion questions
- Flipcharts, sticky notes, markers

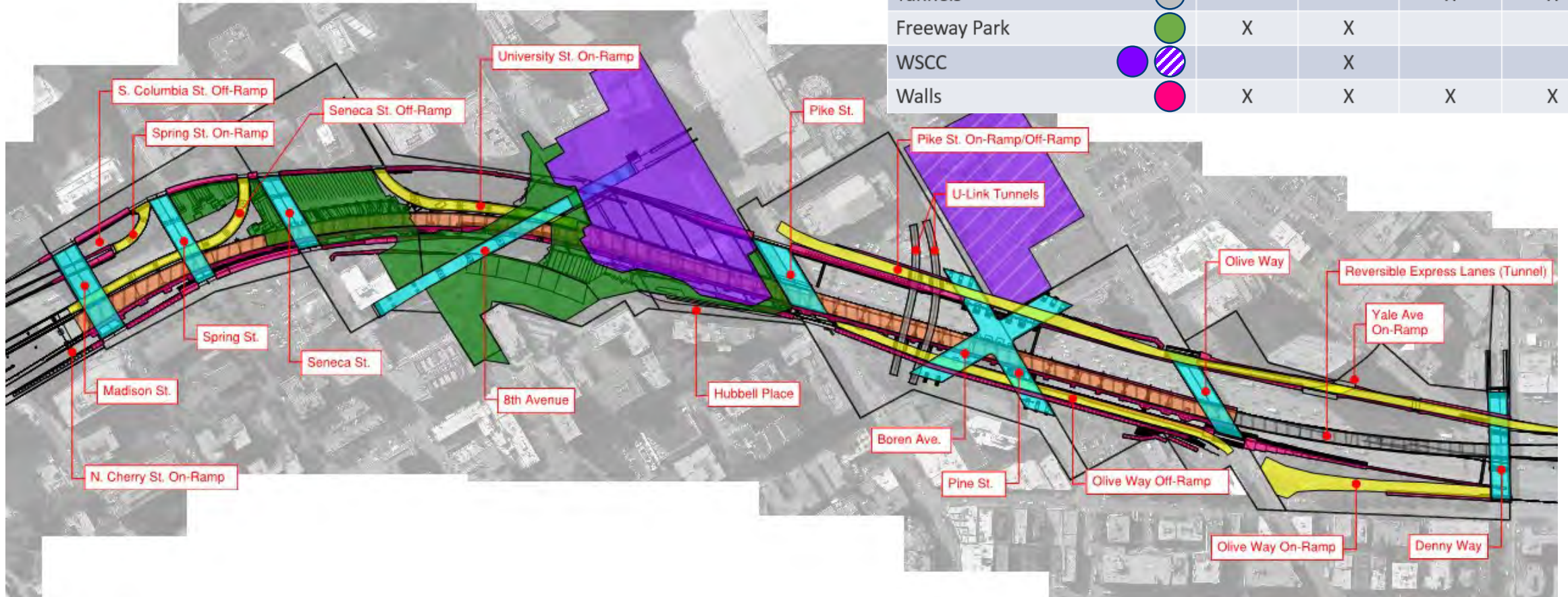
Site Overview

Structural Assessment Boundary (SAB) & Sub-areas

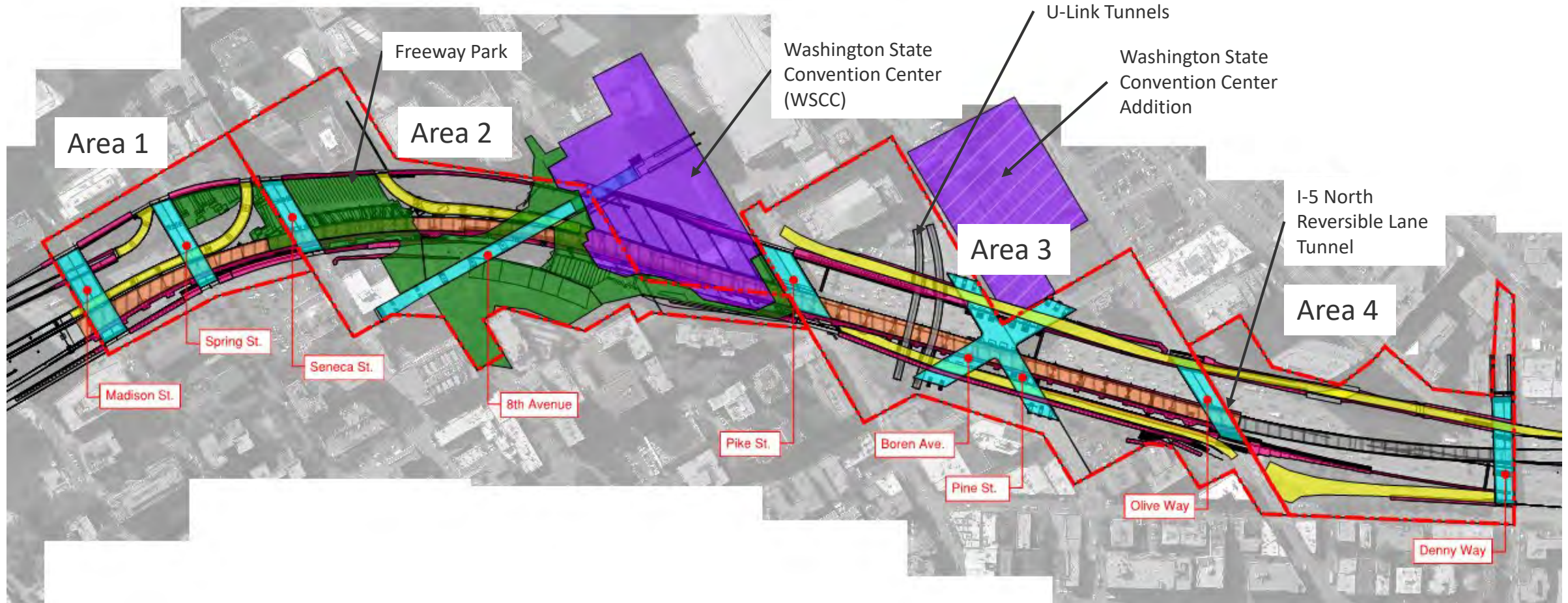


Site Overview - General

Component		Area 1	Area 2	Area 3	Area 4
NB I-5 (Elevated Structure)	Orange Circle	X	X	X	X
Overpasses	Cyan Circle	X	X	X	X
Reversible Express Lanes	Blue and White Striped Circle	X	X	X	X
On/Off Ramps	Yellow Circle	X	X	X	X
Tunnels	Grey Circle			X	X
Freeway Park	Green Circle	X	X		
WSCC	Purple Circle / Purple and White Striped Circle		X		
Walls	Pink Circle	X	X	X	X



Lid Sub-area Development



Lid Sub-area Development - Structural

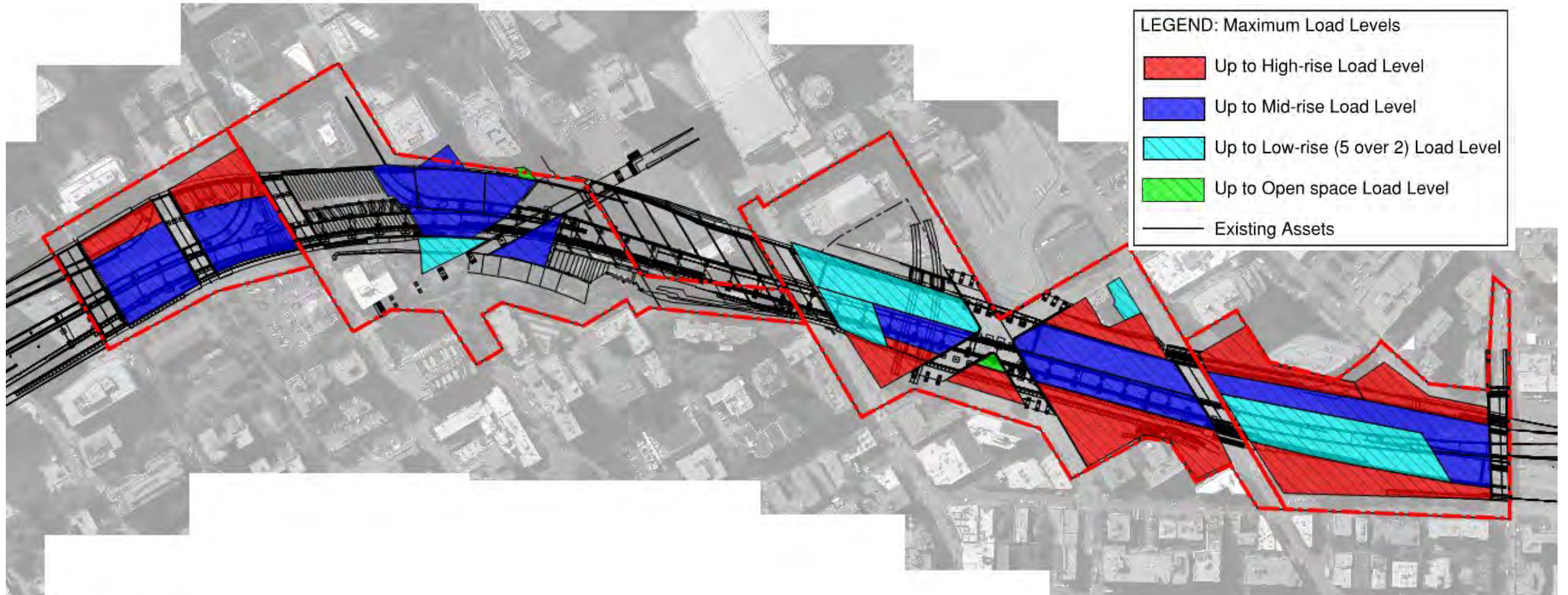
Total new potential lid area...



Area	Potential New Lid Area	
	(sq. ft.)	(acres)
1	133,640	3.1
2	85,550	2.0
3	293,000	6.7
4	257,640	5.9
Total	769,830	17.7

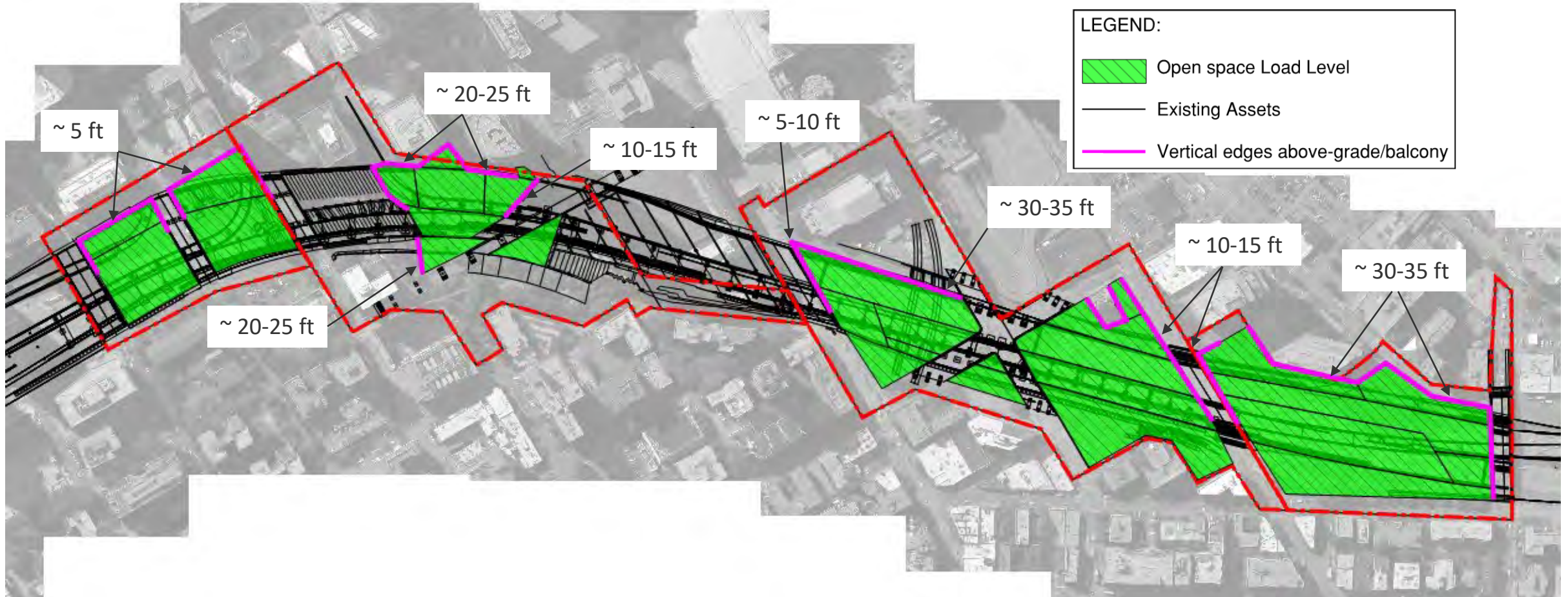
Lid Sub-area Development - Structural

Maximum load levels based on conventional girder framing and anticipated span arrangements...



Lid Sub-area Development - Structural

Maximum load levels do not preclude lid areas from being considered for open space use...

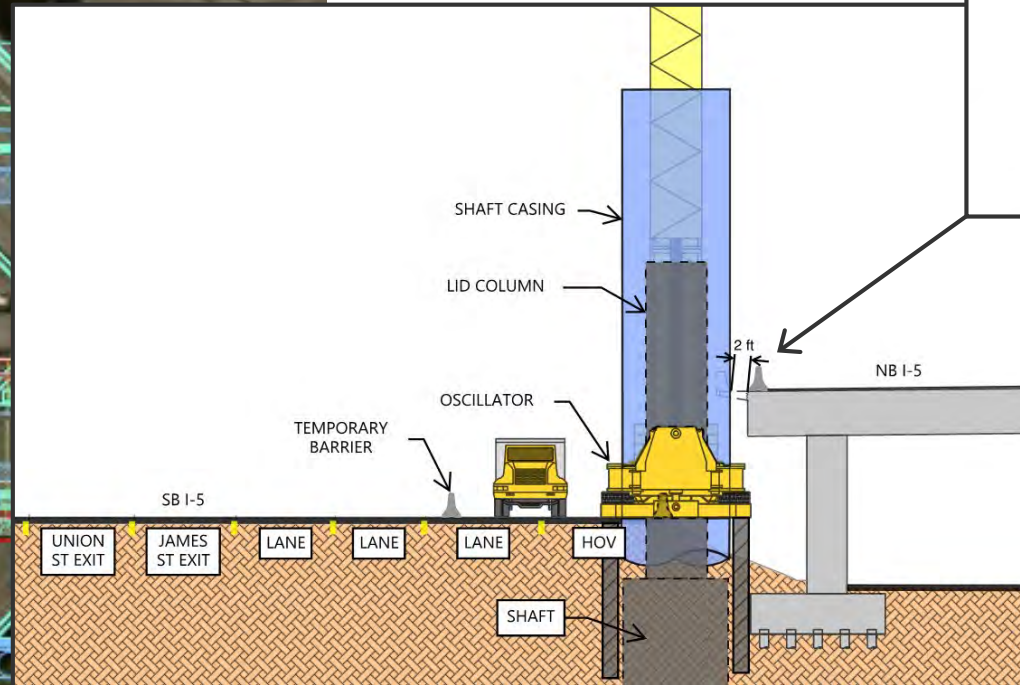
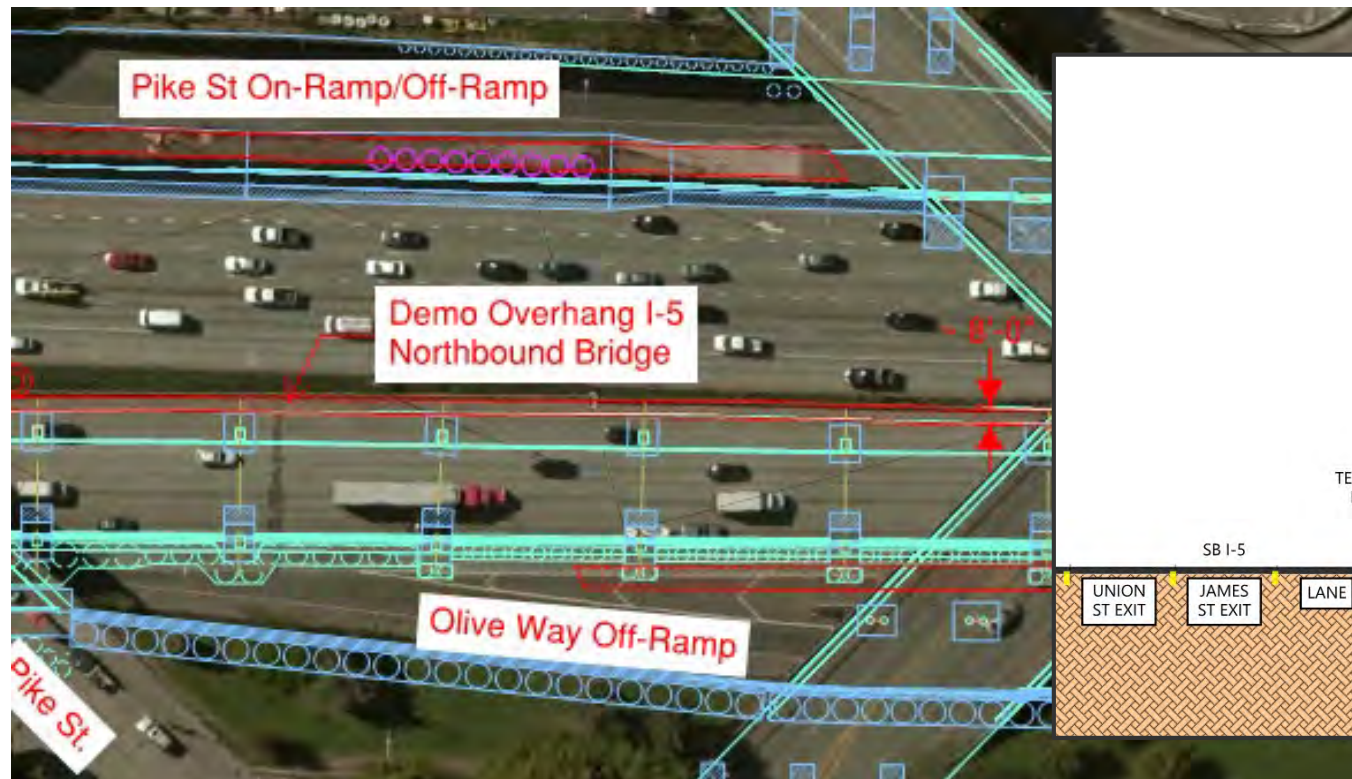
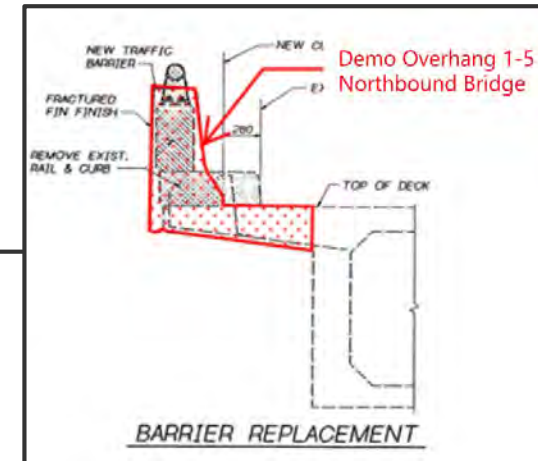


Considerations

Consideration	Area 1	Area 2	Area 3	Area 4
Demolition/Replacement Elevated of I-5 Overhangs	X	X	X	
Demolition/Replacement of Overpasses	X		X	X
On/Off Ramp Modification	X		X	X
On/Off Ramp Removal	X		X	X
Wall Removal/Modifications	X	X	X	X
Freeway Park/WSCC Modifications	X	X		
I-5 Channelization Reconfiguration			X	X
Utilities	X	X	X	X

Consideration - Replace Elevated I-5 Overhangs

- **Mainline I-5:** May need to close the shoulder and some lanes along mainline I-5, and demolish and replace existing overhangs, in order to construct the intermediate pier.
 - Long stretches of I-5 (Largest impact on Southbound)
 - Will impact sign bridges and illumination too

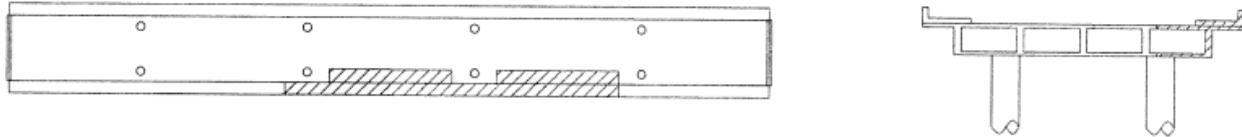


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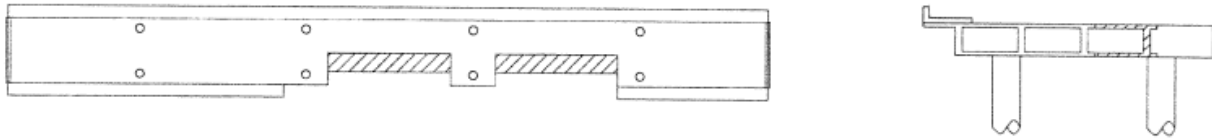
Concepts and materials shown are draft ideas for discussion purposes only.

Consideration - Overpass Demolition/Replacement

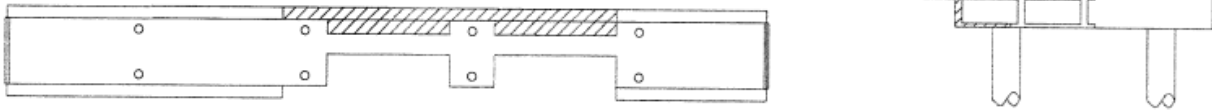
STEP 1



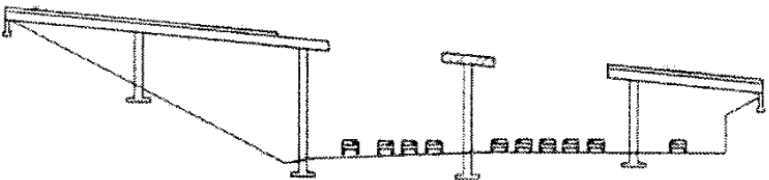
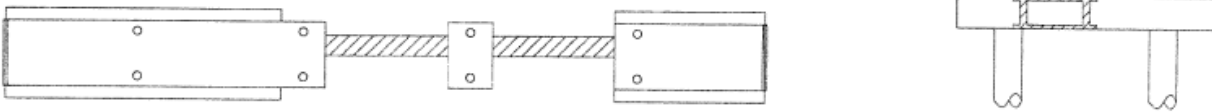
STEP 2



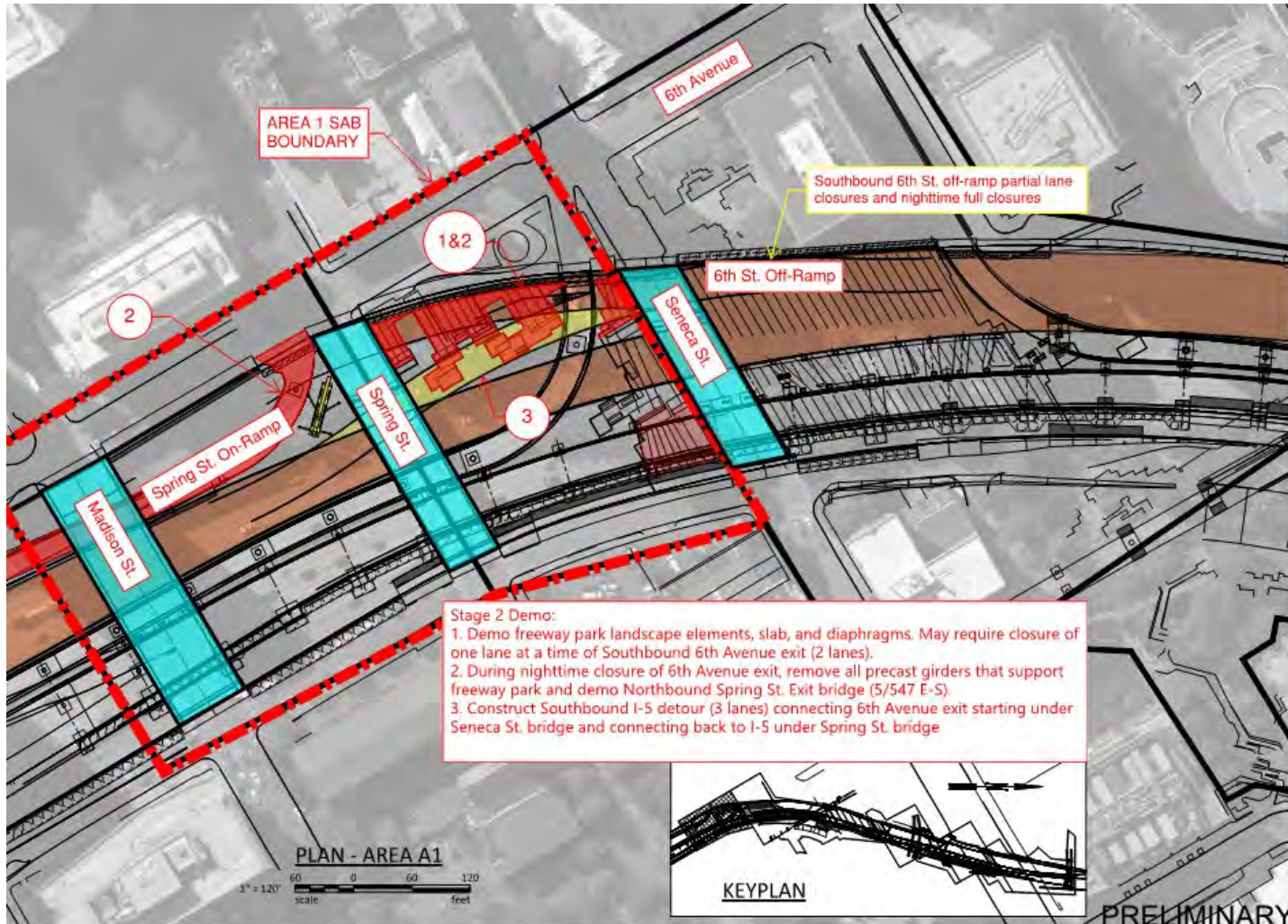
STEP 3



STEP 4



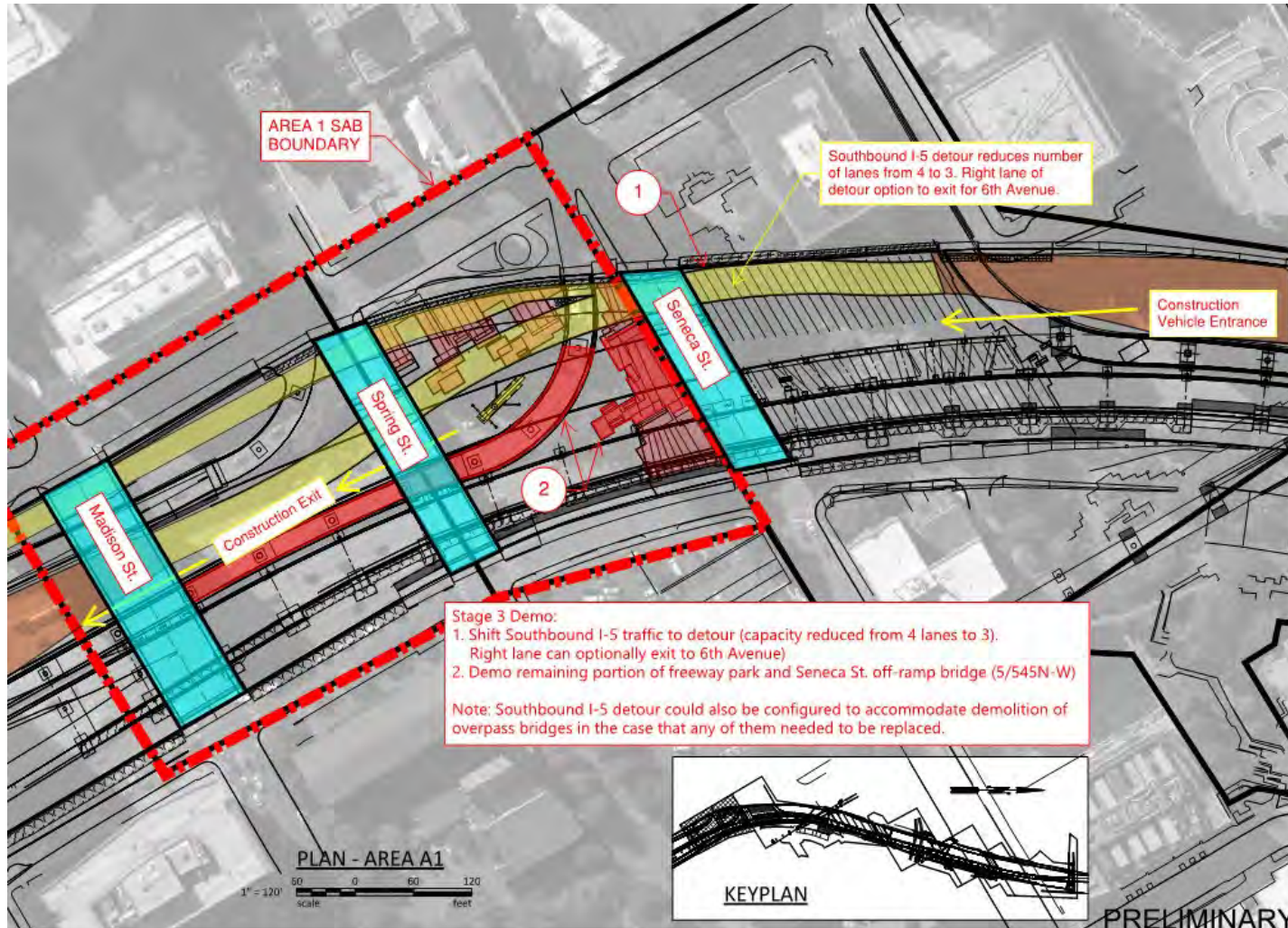
Consideration - On/Off Ramp Removal



I-5 Lid Feasibility Study

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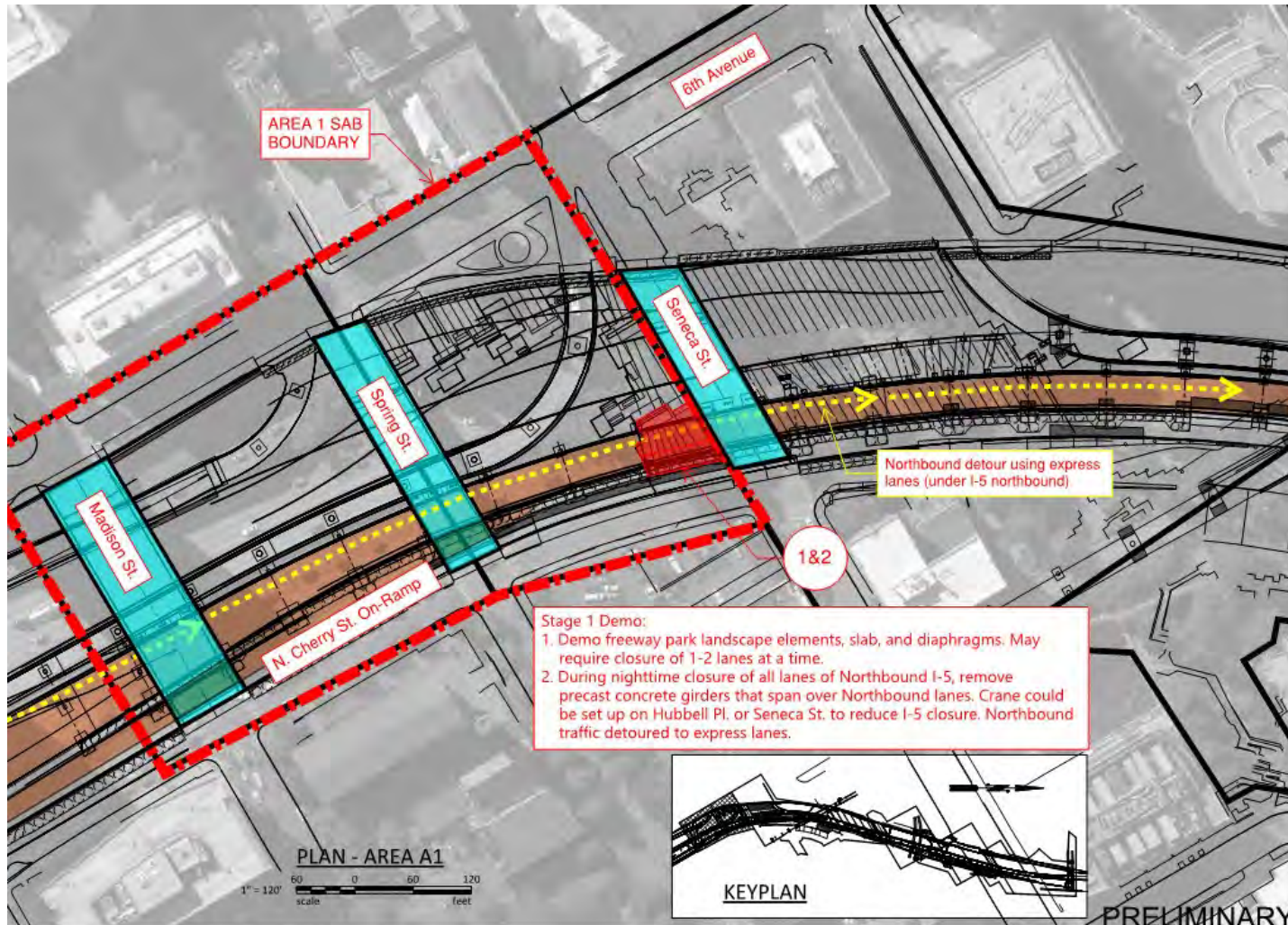
Consideration - On/Off Ramp Removal



I-5 Lid Feasibility Study

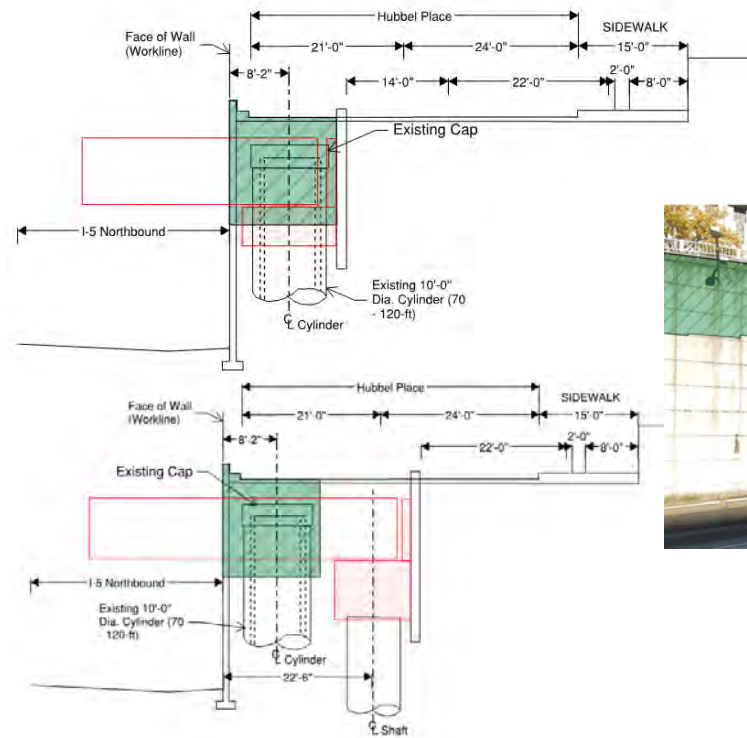
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Consideration - On/Off Ramp Removal



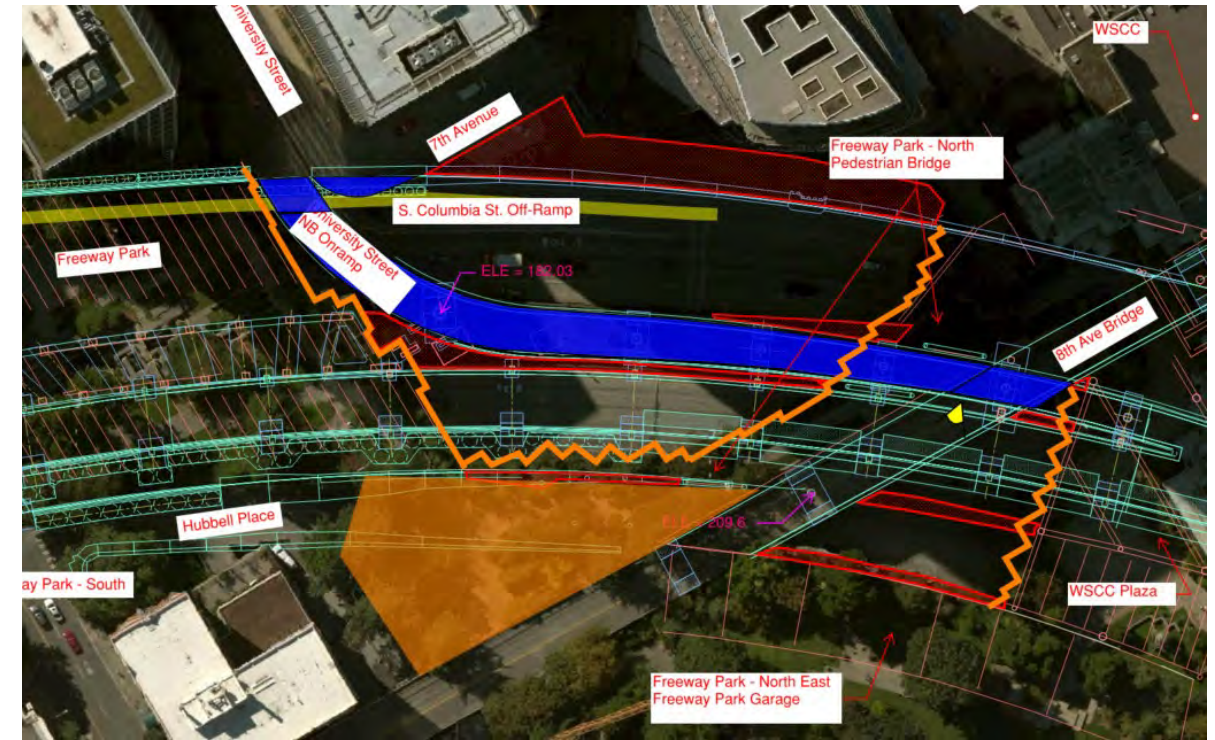
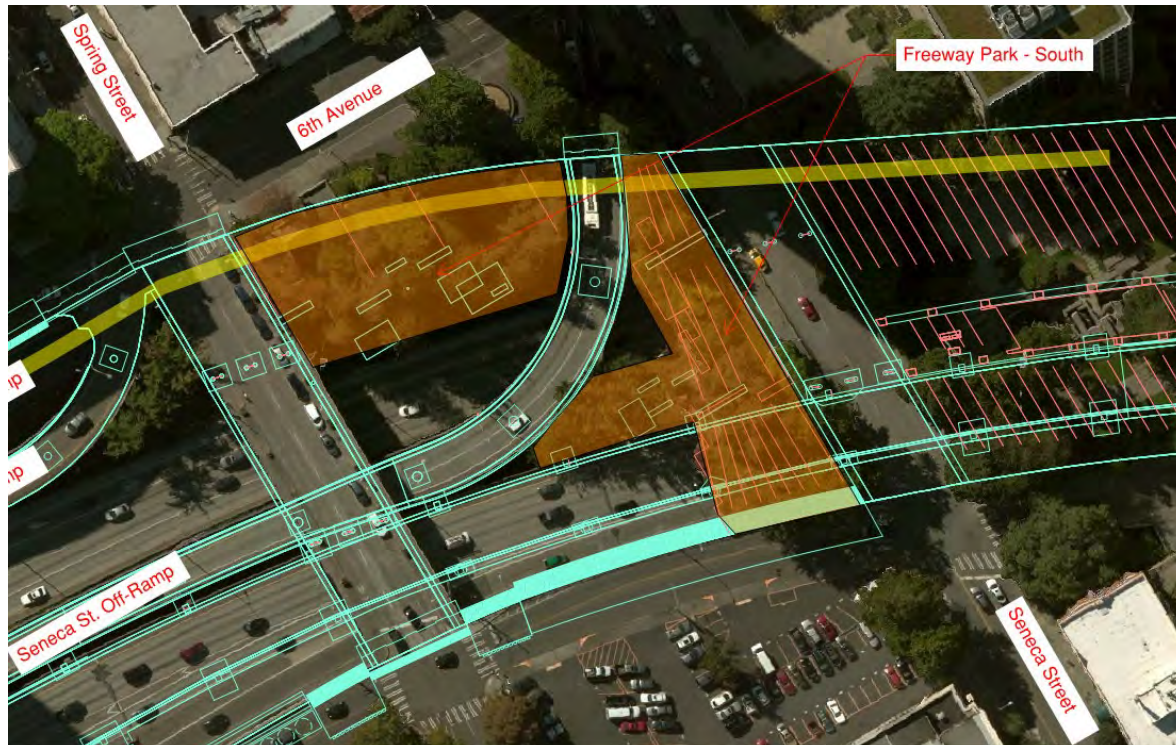
Consideration - Wall Removal/Modifications

- **Existing Walls:** the abutments may need to be supported on driven piles or drilled shafts in order to not load the existing walls. This requires the abutments to be located behind the walls (within City streets)
 - Disruption to local City streets (traffic; utilities; businesses; residential; etc.) during construction



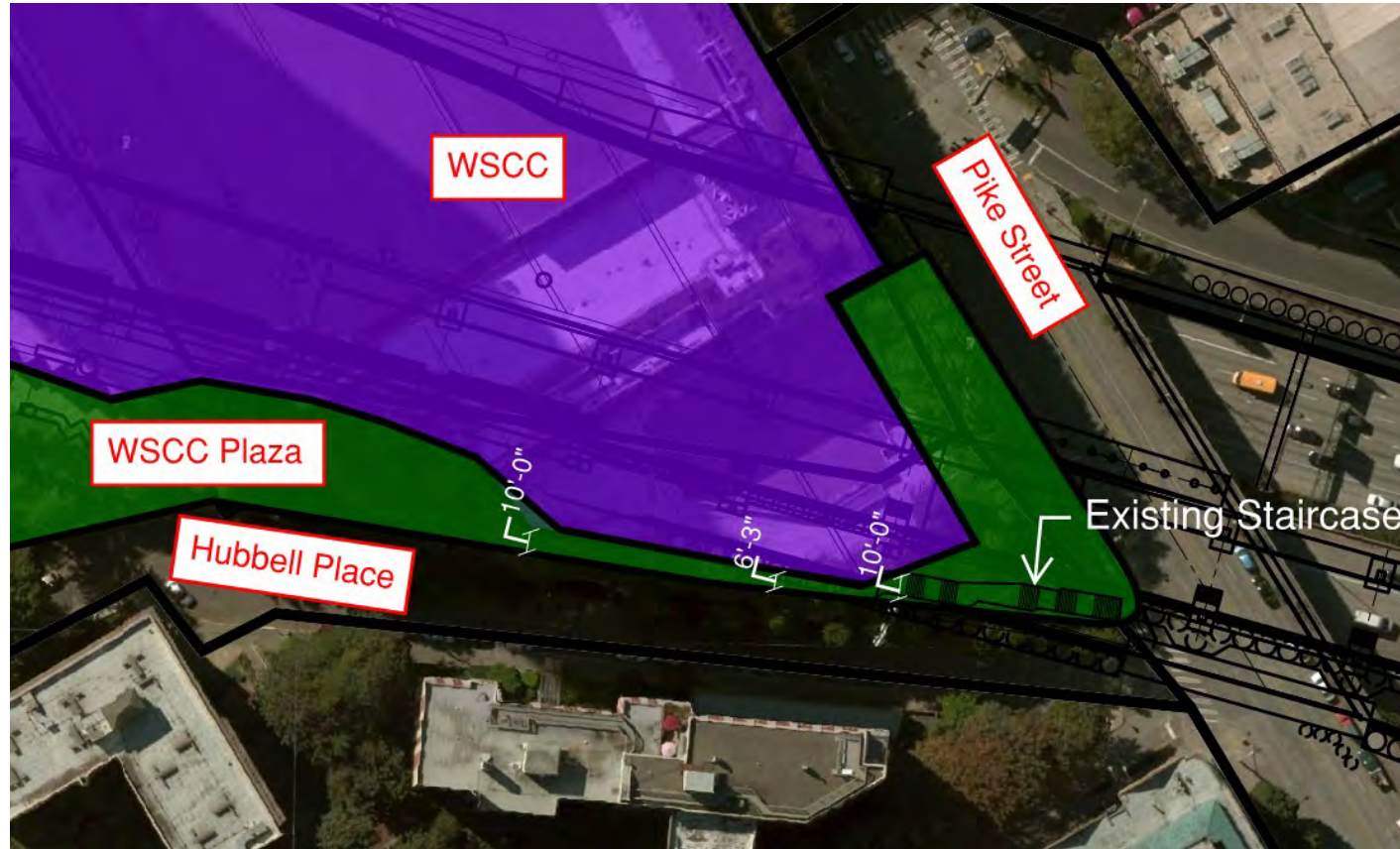
Consideration - Freeway Park/WSCC Modifications

- Would require to demolish up to Seneca Street in order to cleanly frame between Seneca and Spring.
- Would require to demolish façade to form clean edges for sub-area 2
- Would require to demolish and reconstruct a portion of Freeway Park to tie in with 8th Avenue



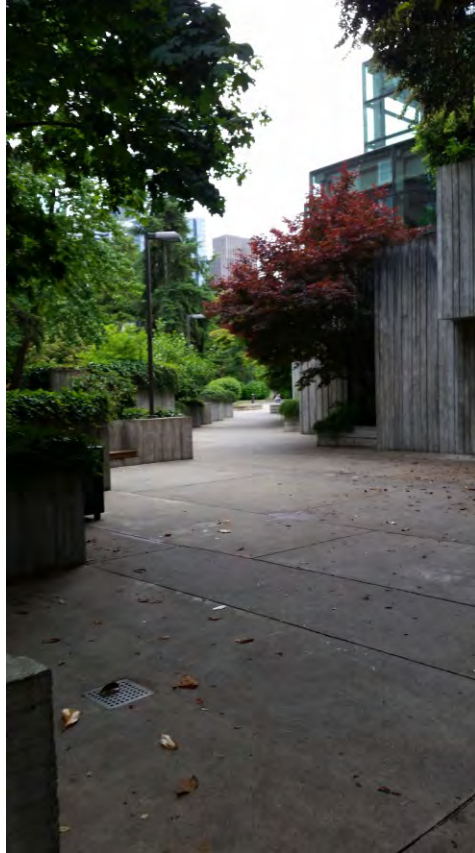
Consideration - Freeway Park/WSCC Modifications

- Existing N-S Walkway and Stair between WSCC Plaza and Pike – Varies from 6.25' to 10' wide



Consideration - Freeway Park/WSCC Modifications

- Existing N-S Pedestrian Route



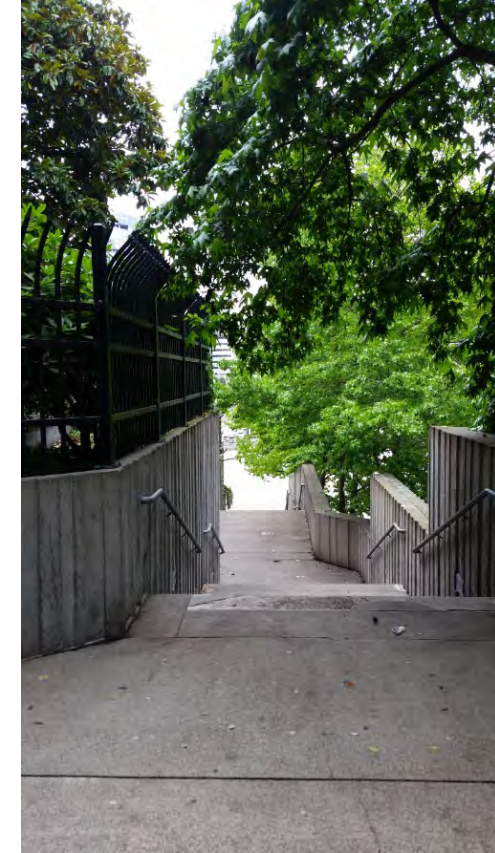
(Looking South)



(Looking South)



(Looking South)



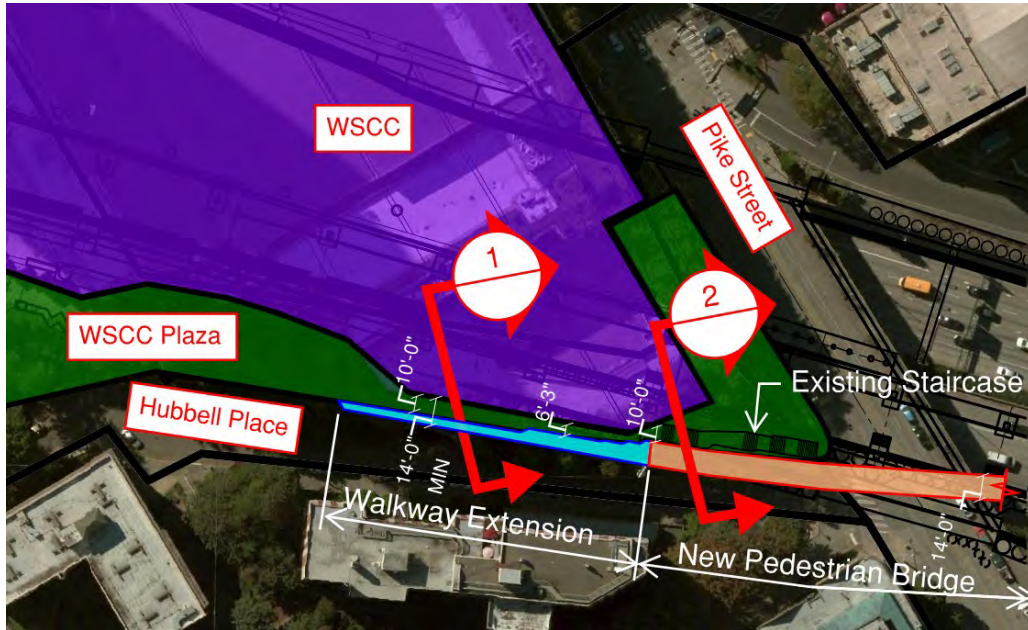
(Looking North at Pike)



(Walking South)

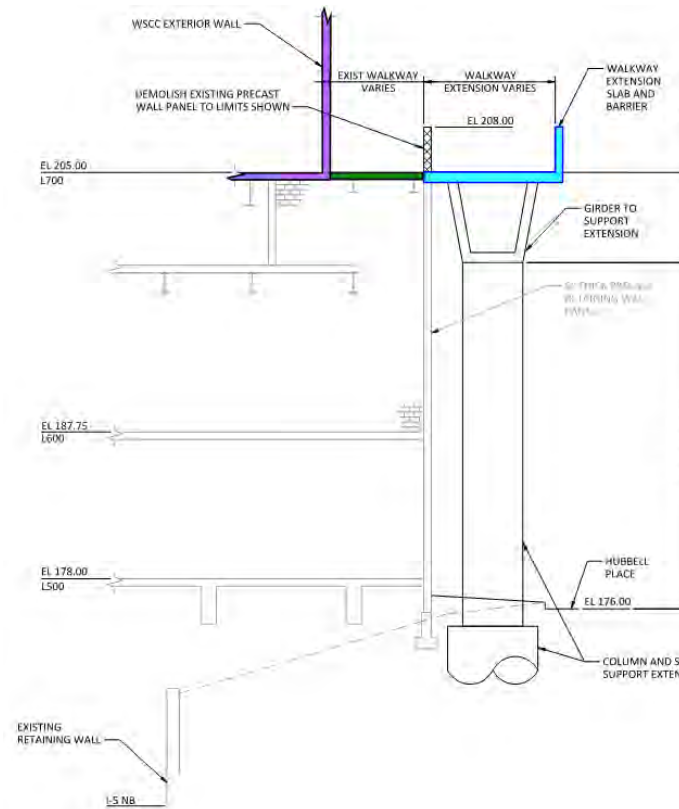
Consideration - Freeway Park/WSCC Modifications

- Walkway Extension and Pedestrian Bridge Concept to provide N-S Pedestrian Route

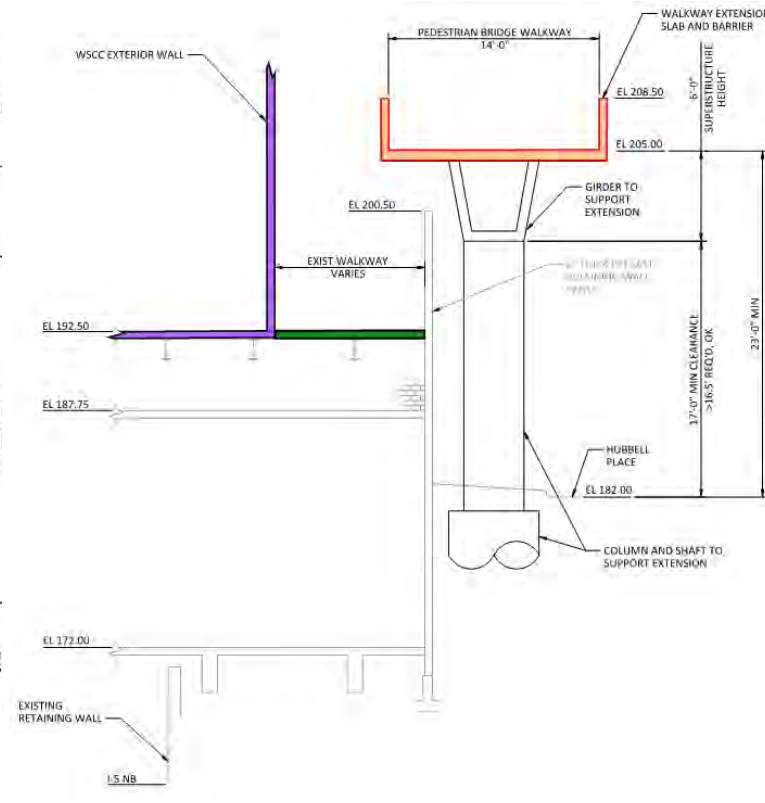


• Considerations:

- Removal of trees adjacent to retaining wall along Hubbell
- Permanent lane configuration modification of Hubbell. May require removal of on-street parking

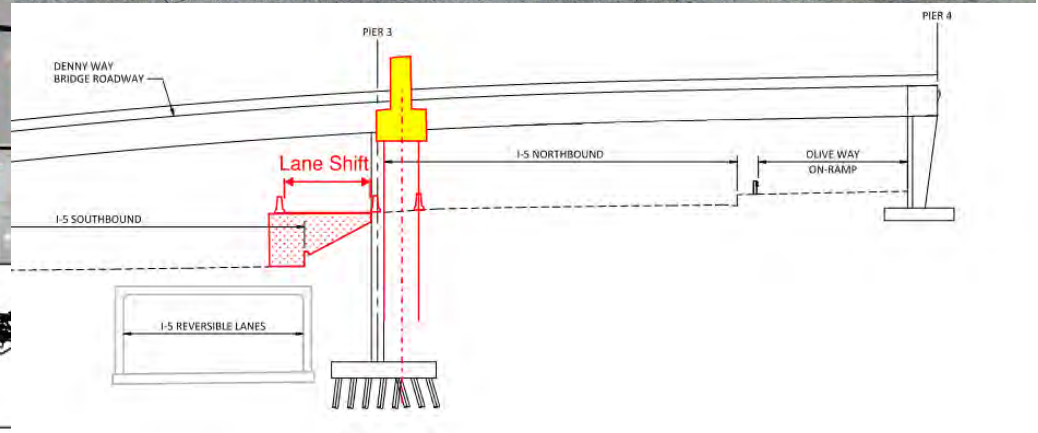
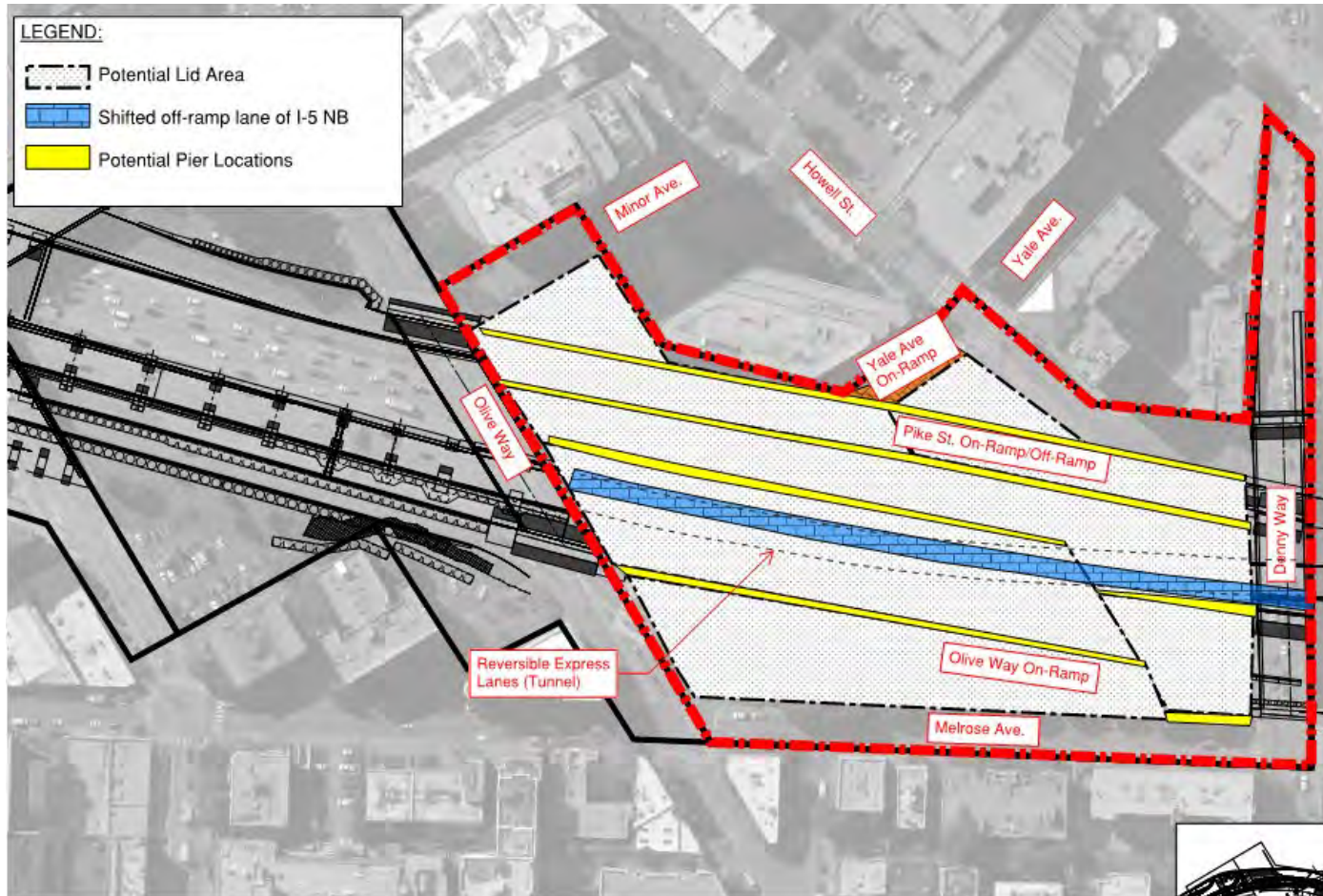


Section 1 – Walkway Extension



Section 2 – New Pedestrian Bridge

Consideration - I-5 Channelization Reconfiguration



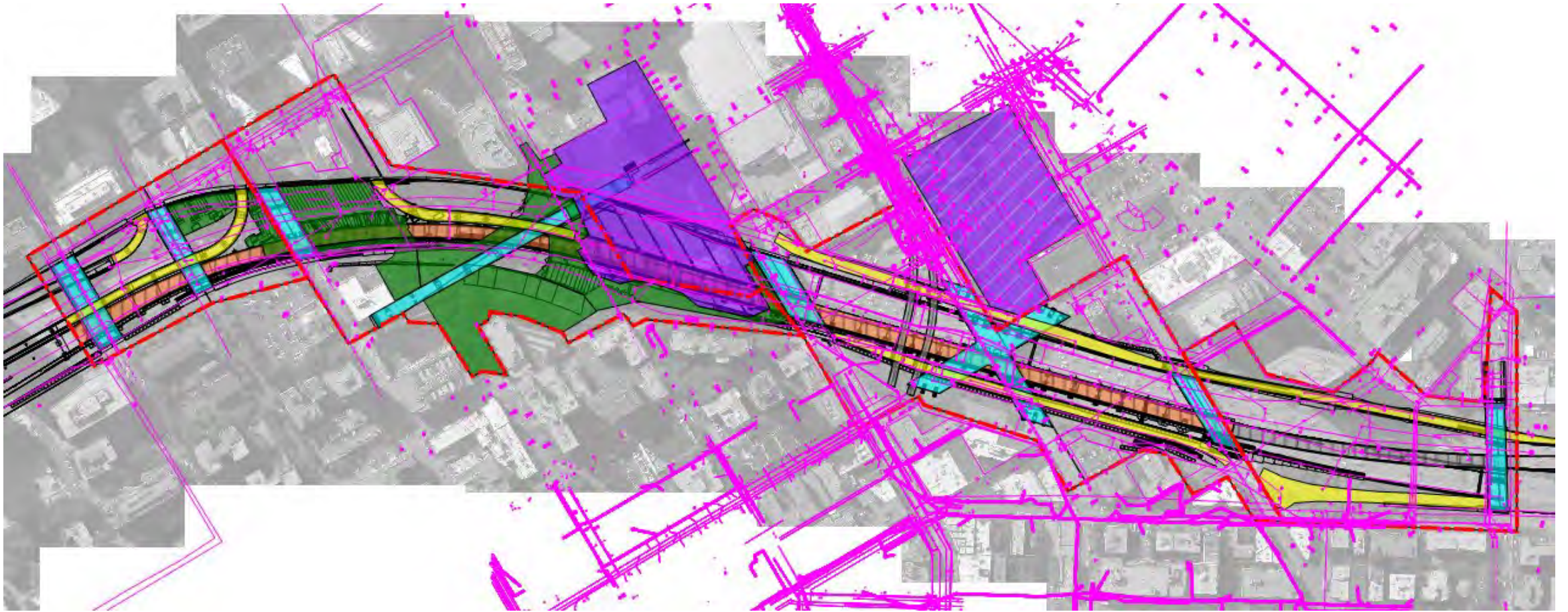
PLAN - AREA A4
1" = 120'
scale
feet



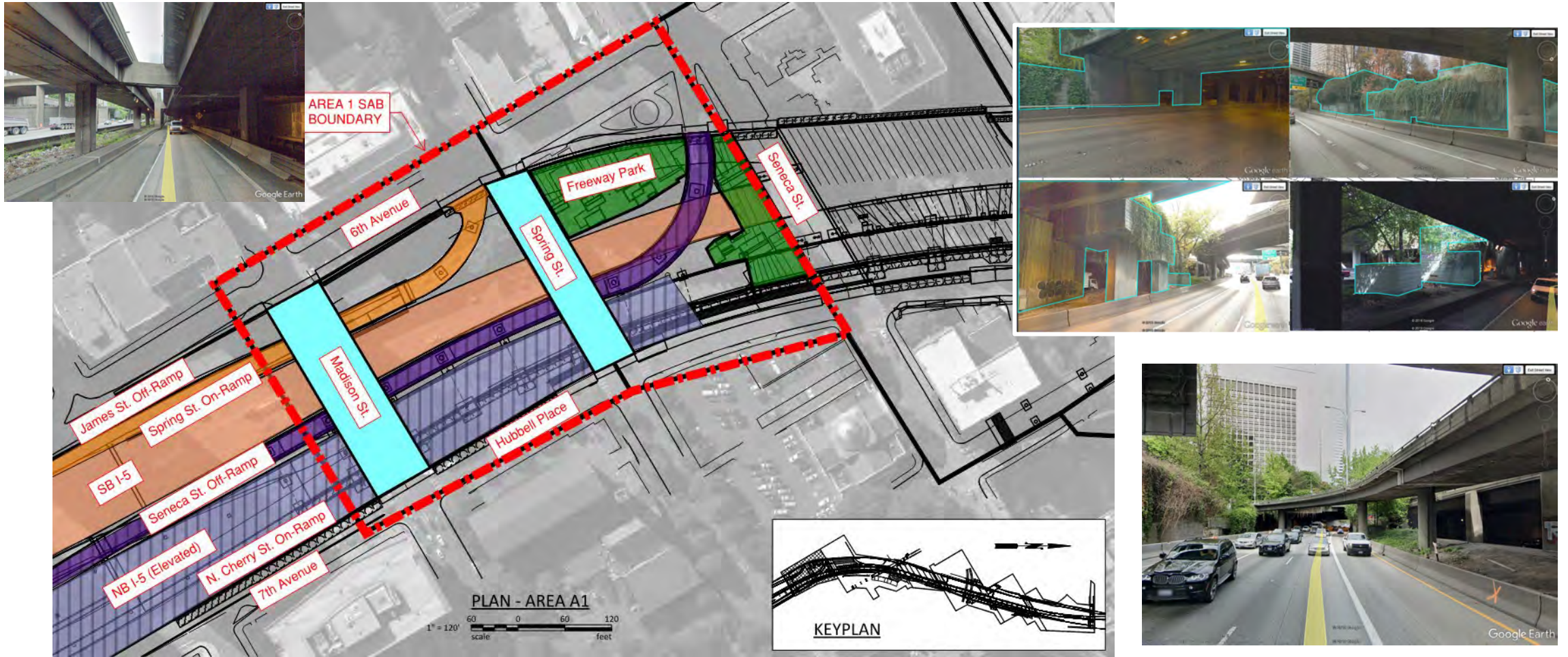
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Consideration - Utilities



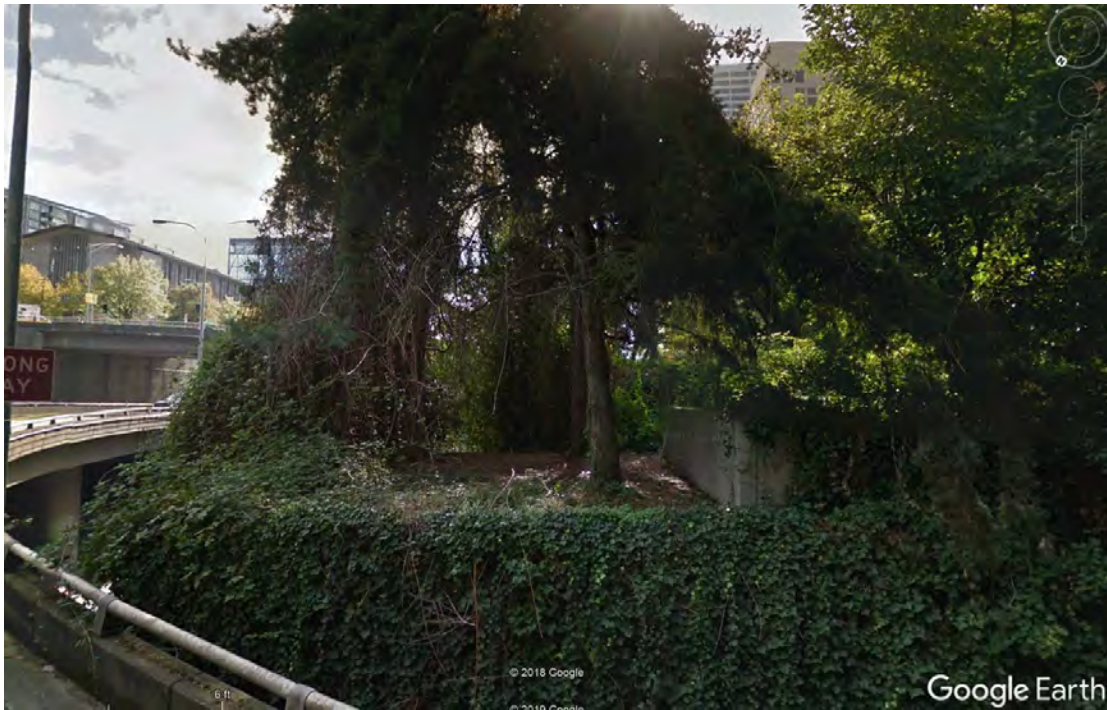
Lid Sub-area Development - Area 1



I-5 Lid Feasibility Study

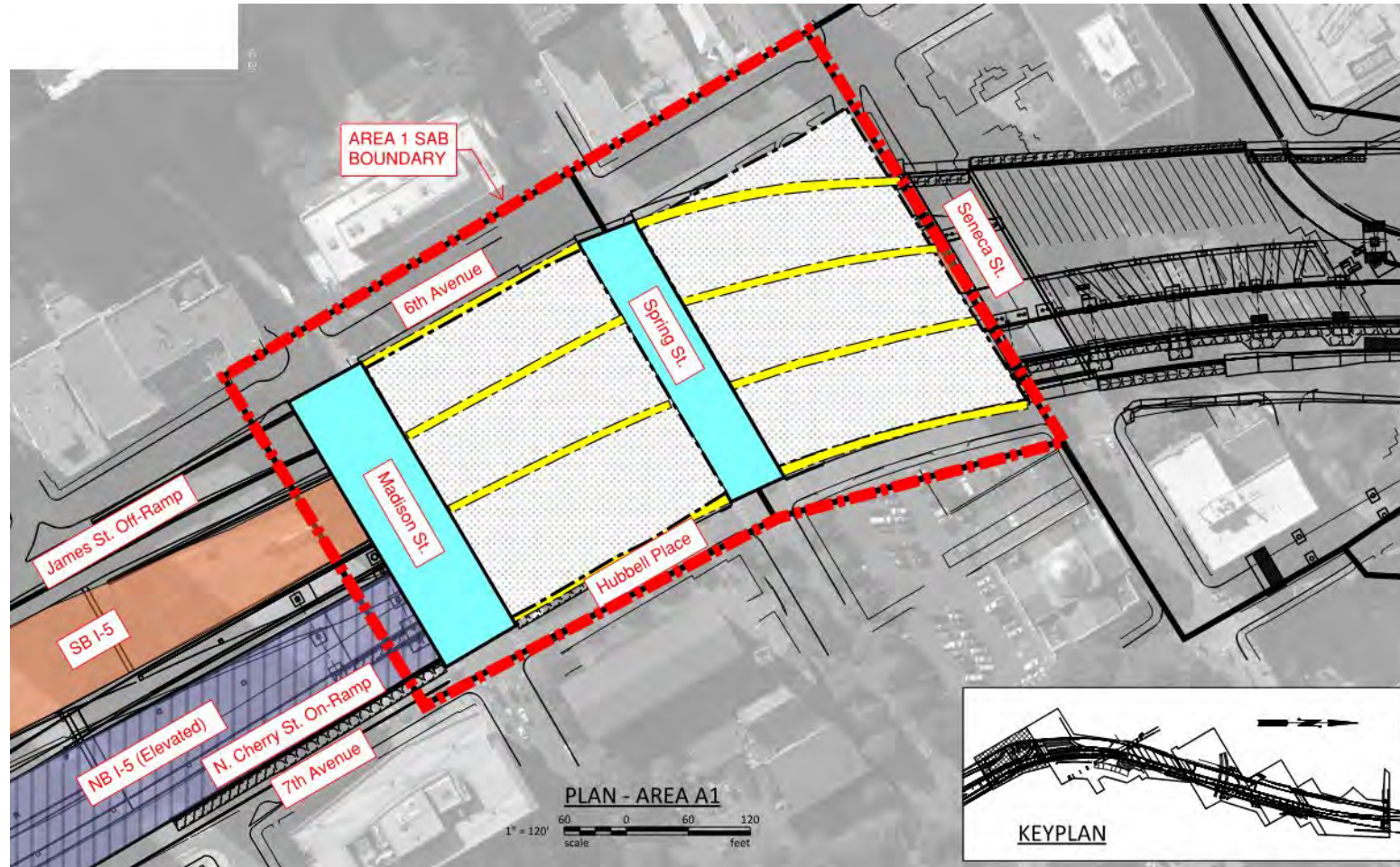
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Lid Sub-area Development - Area 1



- Freeway Park is eligible and has been nominated to be included in the National Register of Historic Places

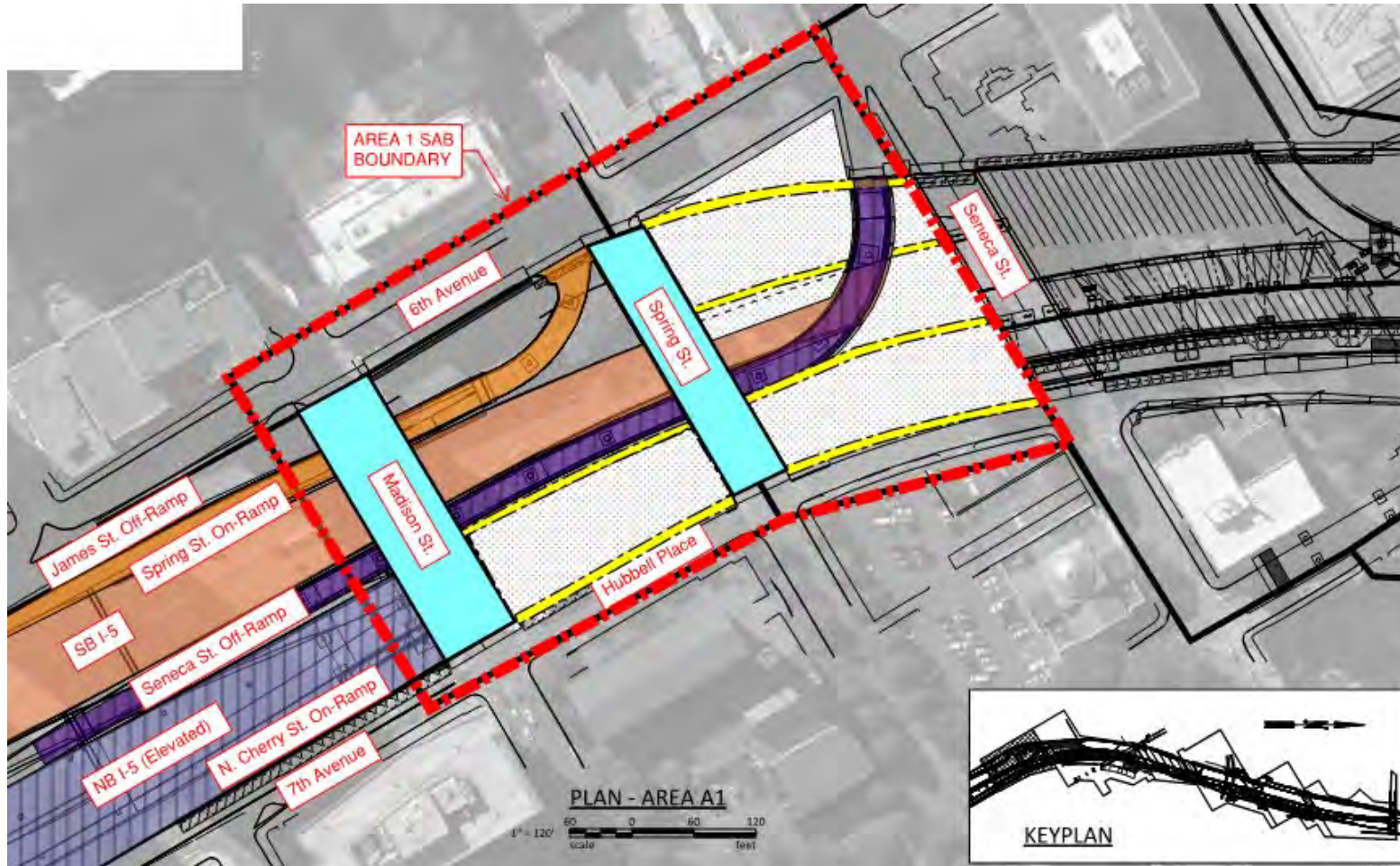
Lid Sub-area Development - Area 1



Span	Length (feet)
Over James St. Exit	80 - 90
Over SB I-5	80 - 90
Over NB I-5	90 - 120

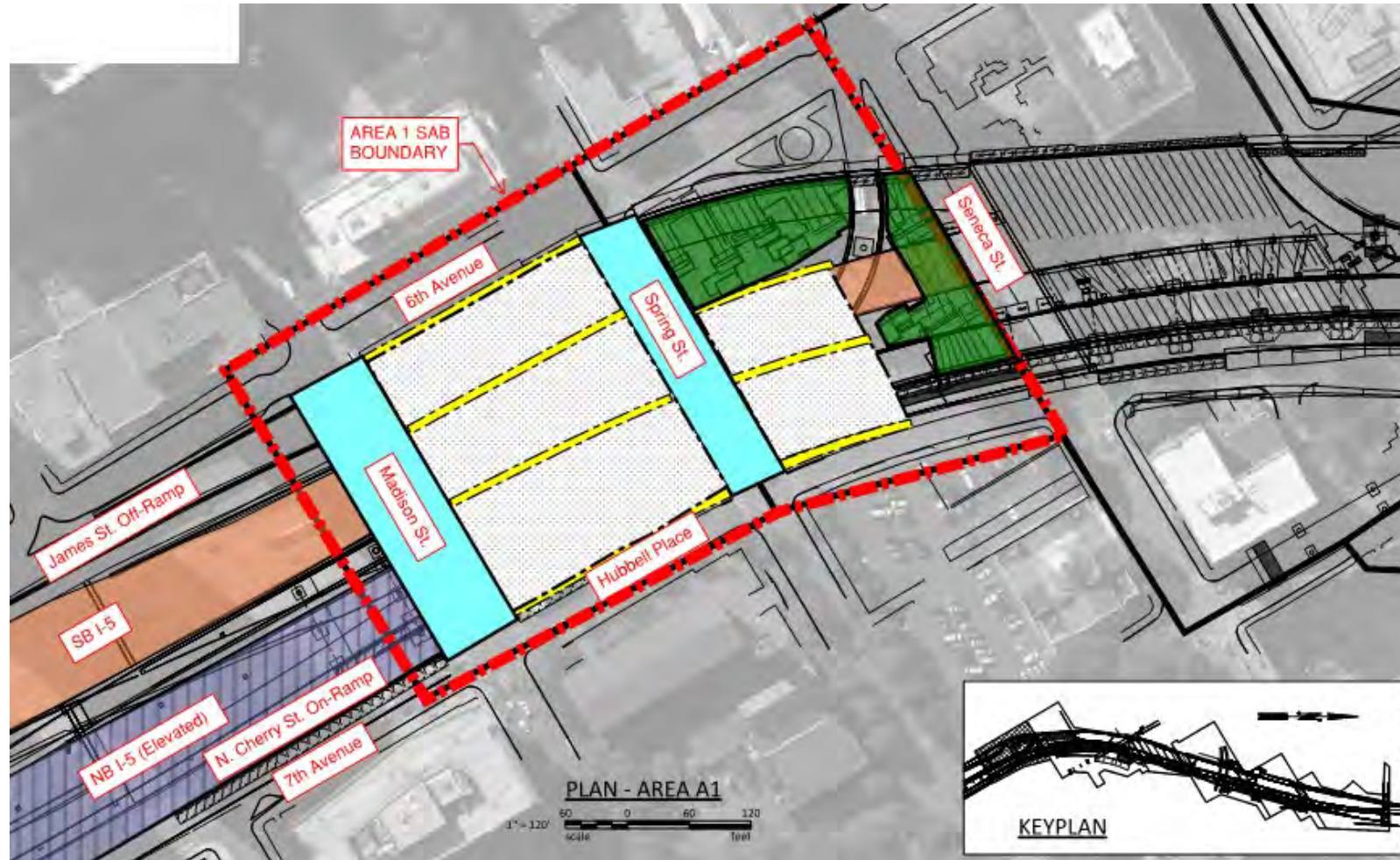
- Considerations:
 - Demolition of Freeway Park Box Gardens & South Edging
 - Demolition of Ramps
 - Modification of Existing Walls
 - Temporary I-5 Traffic Impacts
- Benefits:
 - Maximized Lid Area
 - Simplified intersections with potential road safety benefits

Lid Sub-area Development - Area 1



- Considerations:
 - Partial Demolition of Freeway Park Box Gardens & South Edging
 - Modification of Existing Walls
 - Temporary I-5 Traffic Impacts
- Benefits:
 - No changes in I-5 asset configuration (ie. maintains existing ramps)
- Drawbacks:
 - Minimal and discontinuous lid area
 - Seneca St. off-ramp splits area
 - Complex intersections with potential road safety impacts remain

Lid Sub-area Development - Area 1



Considerations:

- No Demolition of Freeway Park Box Gardens & South Edging
- Demolition of Ramps
- Modification of Existing Walls
- Temporary I-5 Traffic Impacts

Benefits:

- Does not touch Freeway Park Box Gardens & South Edging

Drawbacks:

- Does not maximize lid area
- Constrained construction methods and staging of equipment

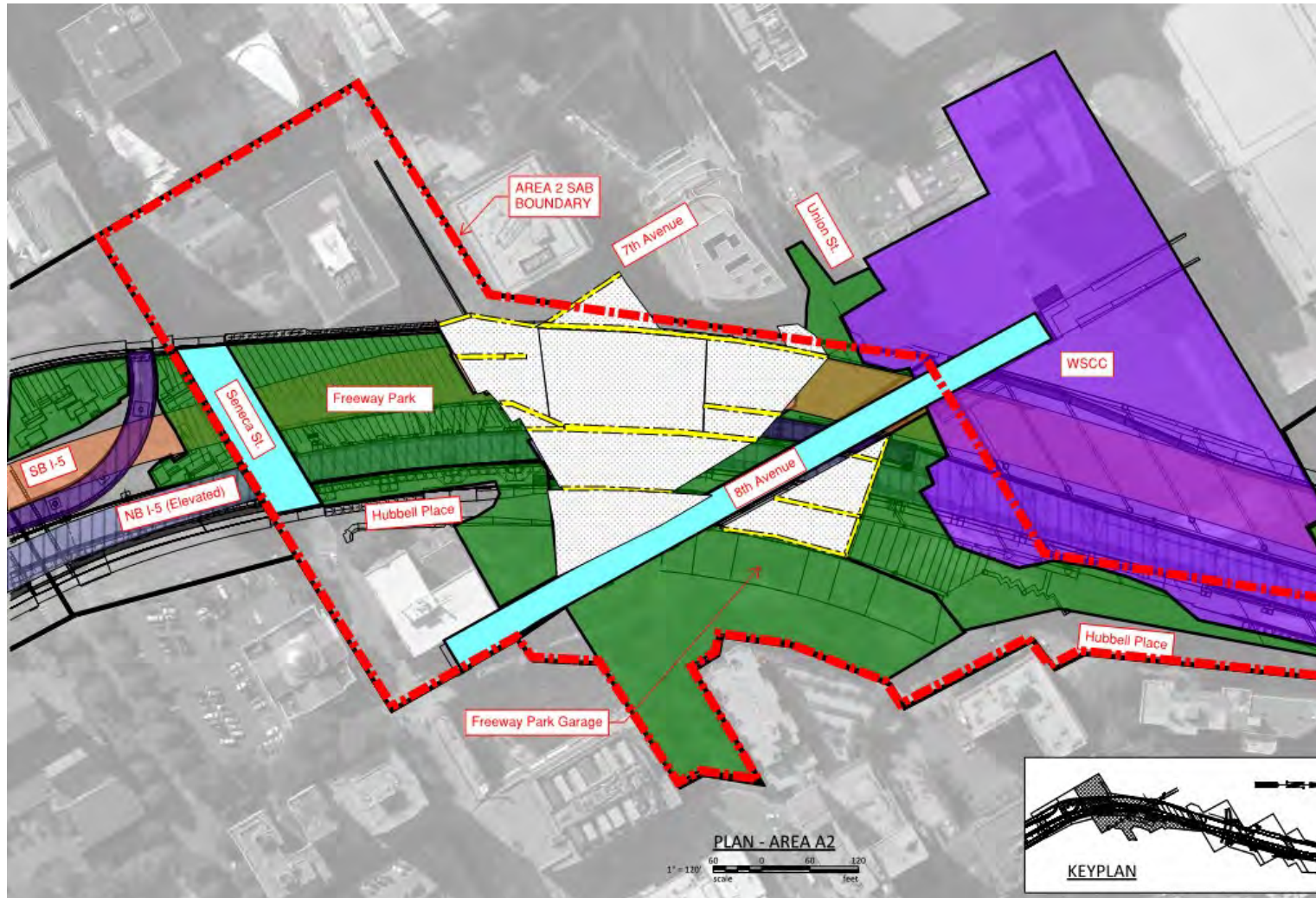
Lid Sub-area Development - Area 2



I-5 Lid Feasibility Study

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Lid Sub-area Development - Area 2



Span	Length (feet)
Over University	40 – 100
Over SB I-5	80 – 125
Over NB I-5	80 - 120
Over Hubbell	40 - 65

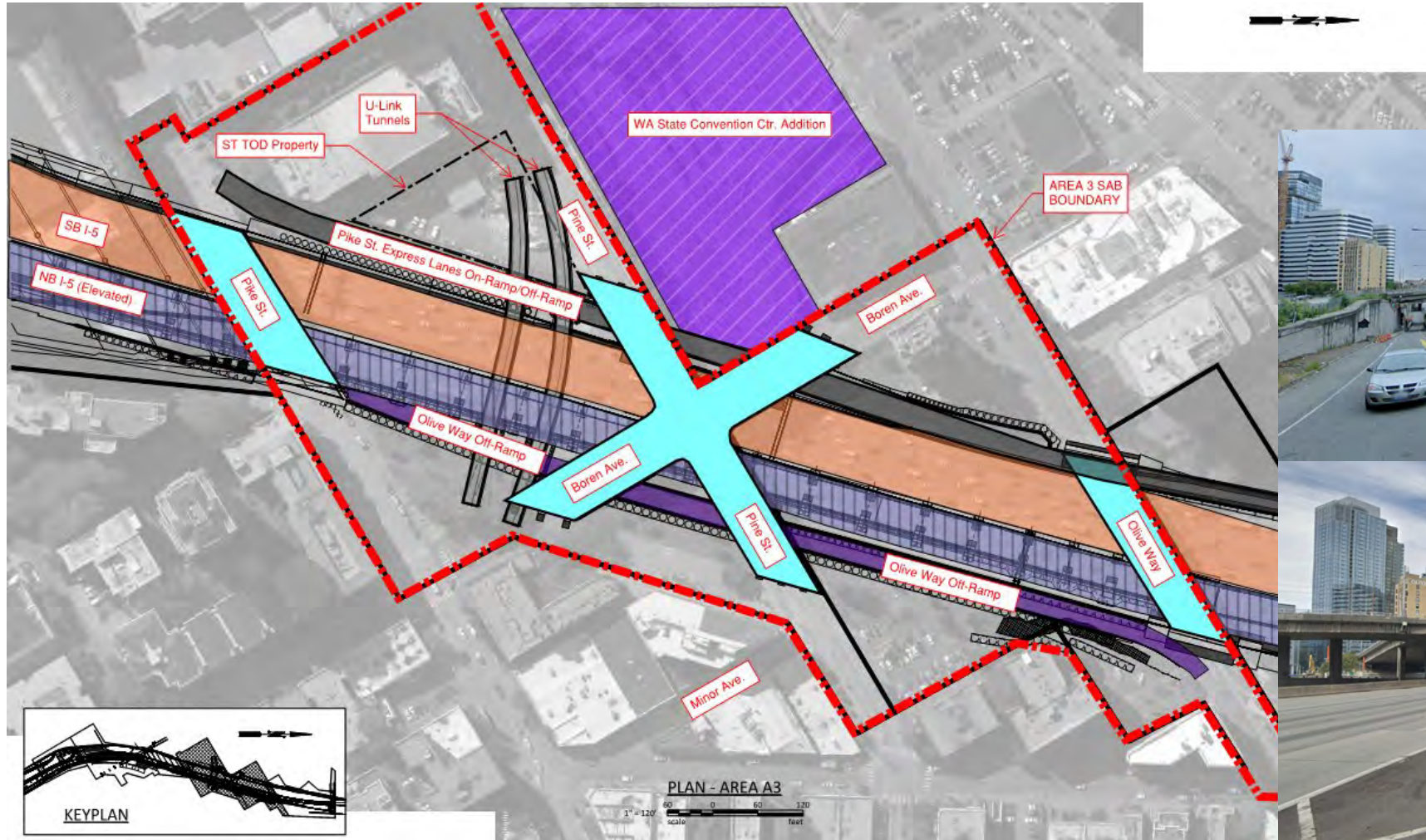
Considerations:

- Partial Demolition of Freeway Park Edges
- Modification of Existing Walls
- Temporary I-5 Traffic Impacts
- Partial Demolition/Replacement of Overhangs

Benefits:

- Noise Reduction
- Increases connections
- Increases area for active uses on Freeway Park

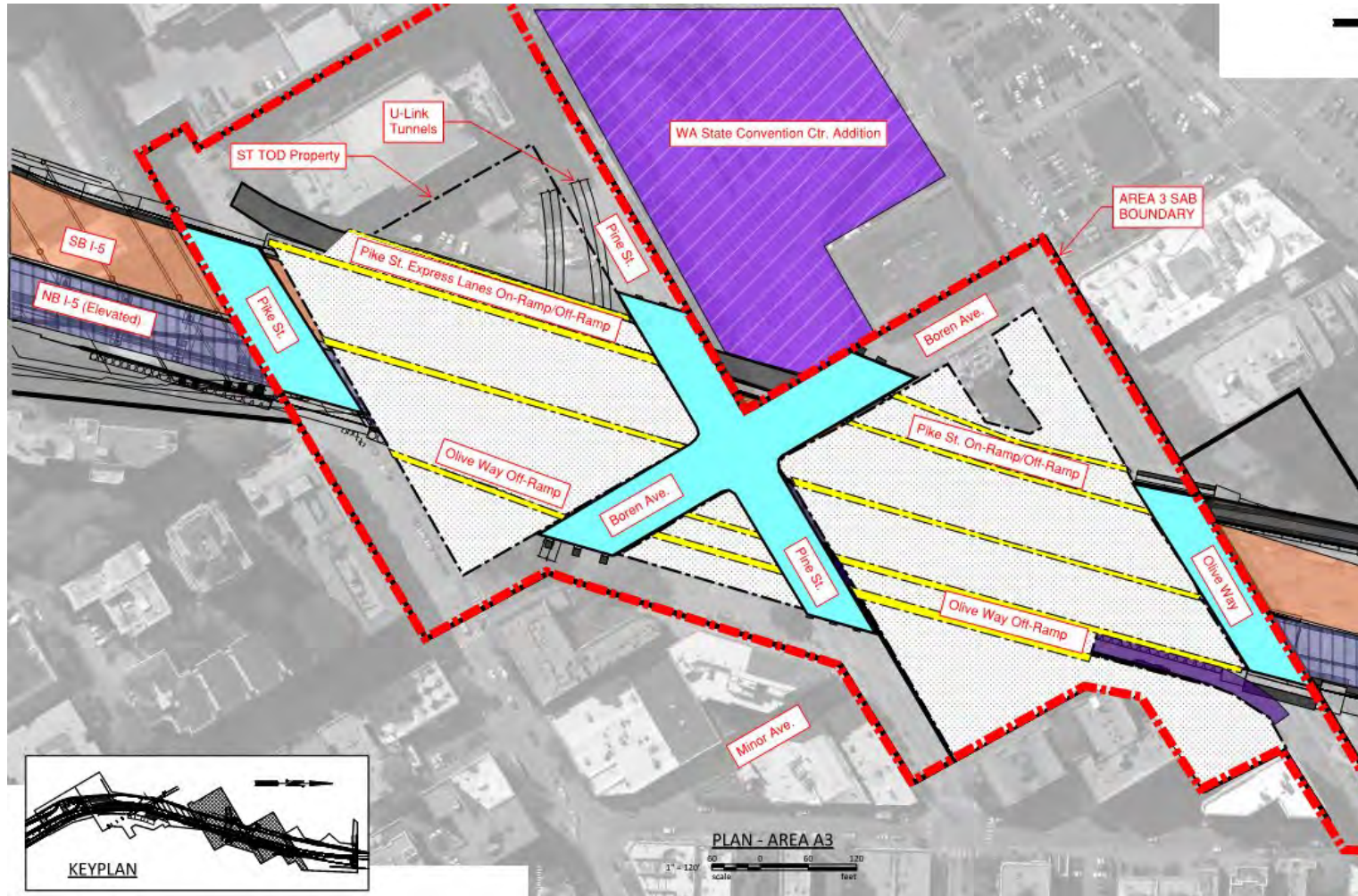
Lid Sub-area Development - Area 3



I-5 Lid Feasibility Study

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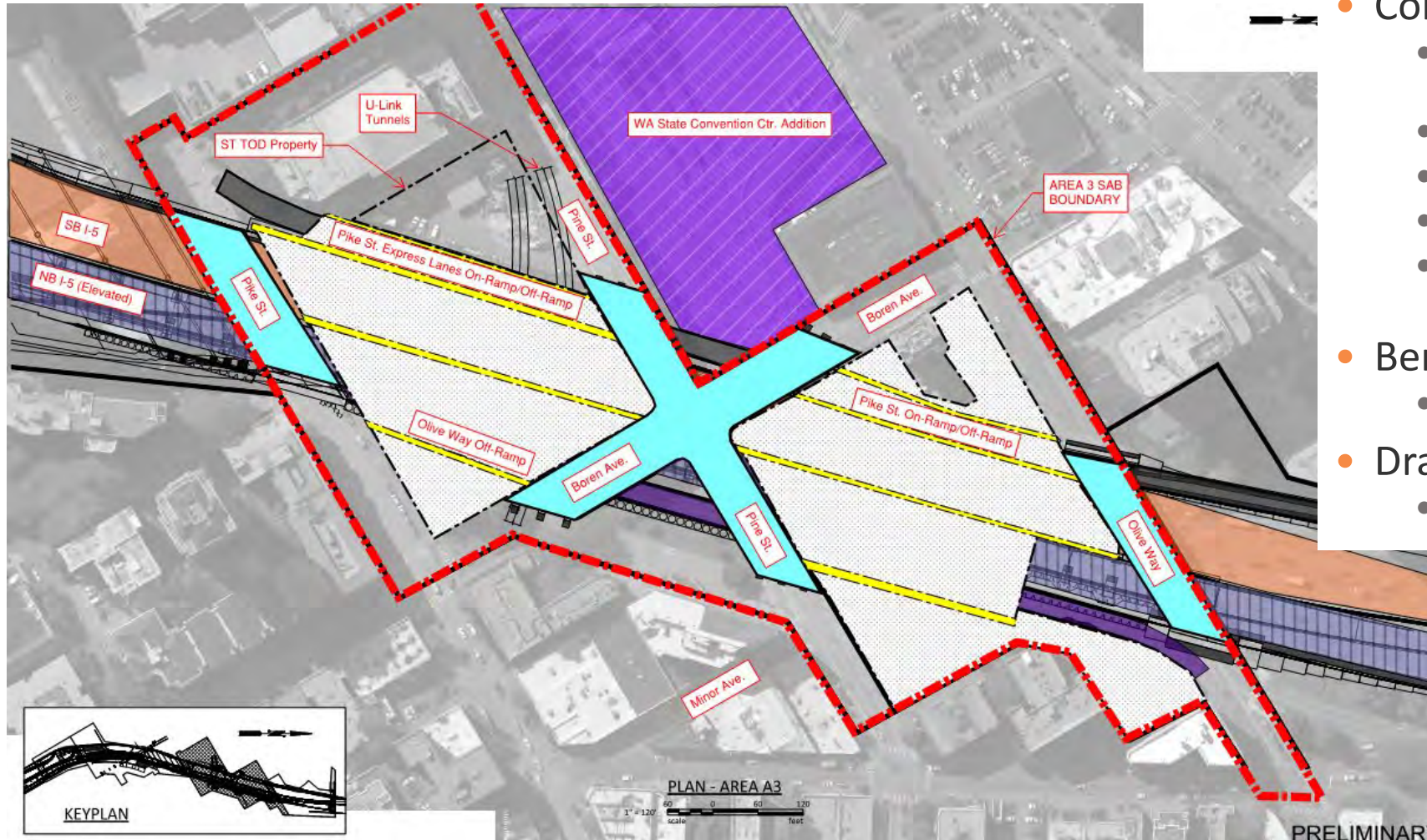
Lid Sub-area Development - Area 3



Span	Length (feet)
Pike St. Express Lanes Ramp	50 - 60
Over SB I-5	95 - 145
Over NB I-5	75 - 130
Olive Way Off-Ramp	50 - 70

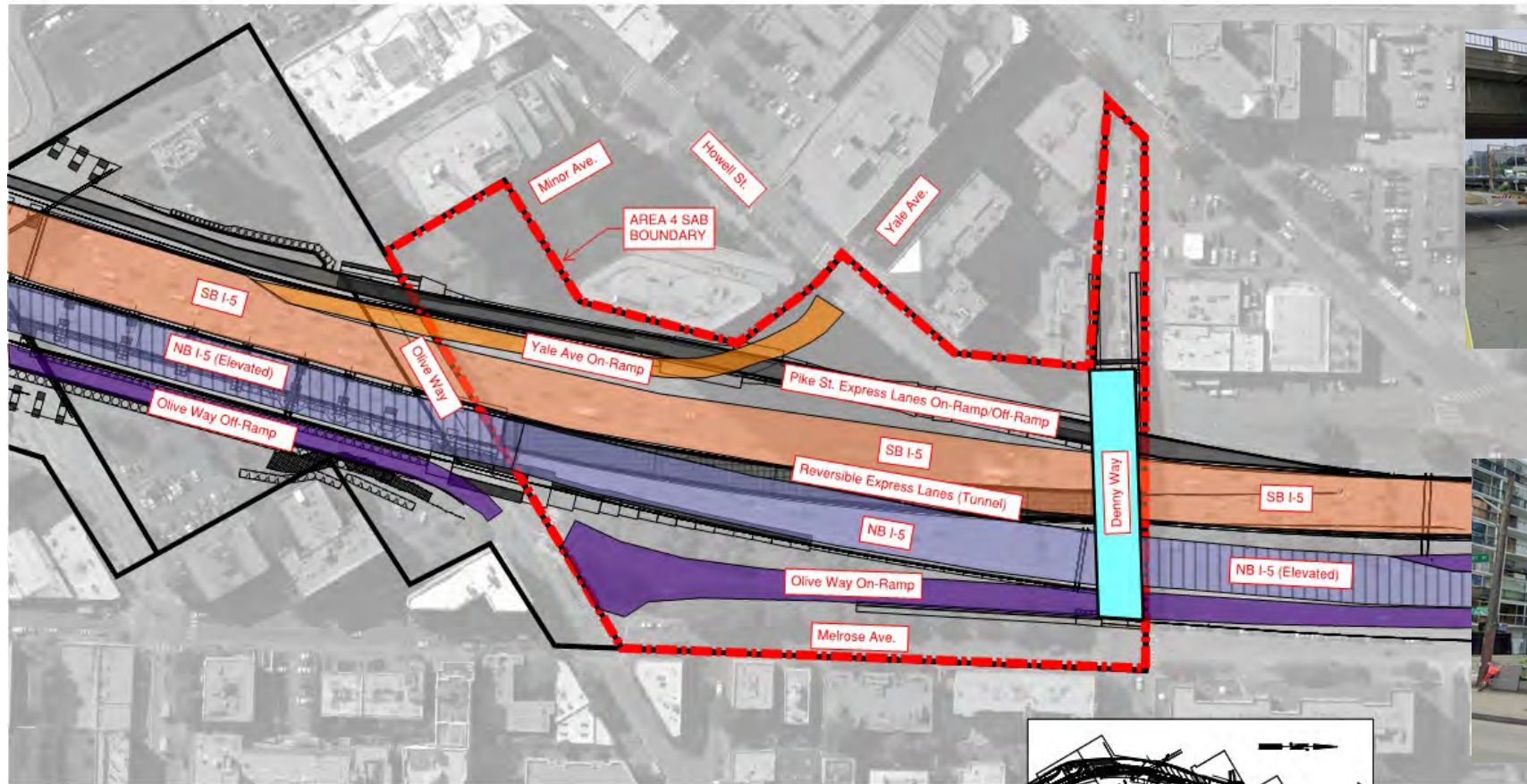
- Considerations:
 - Partial Demolition/Replacement of Overhangs
 - Modification of Existing Walls
 - Temporary I-5 Traffic Impacts
 - Modification of Ramps
 - Permanent I-5 Lane Reconfiguration
- Benefits:
 - Maintains existing ramps

Lid Sub-area Development - Area 3

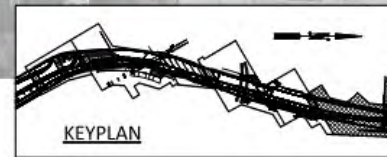


- Considerations:
 - Partial Demolition/Replacement of Overhangs
 - Modification of Existing Walls
 - Temporary I-5 Traffic Impacts
 - Temporary Ramp Impacts
 - Permanent I-5 Lane Reconfiguration
- Benefits:
 - Maintains existing ramps
- Drawbacks:
 - Minimal Lid Area

Lid Sub-area Development - Area 4



PLAN - AREA A4
1" = 120'
scale feet

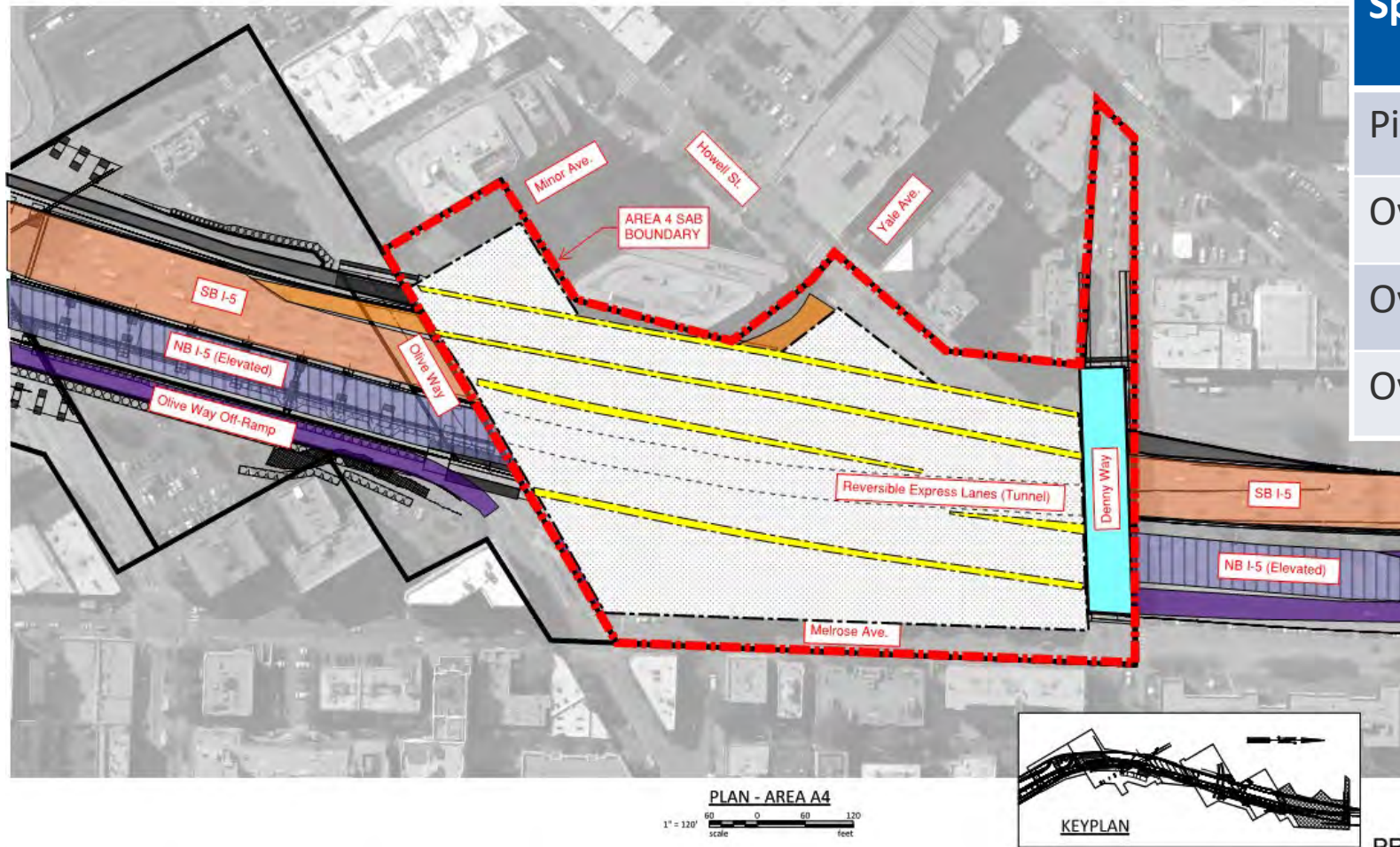


PRELIMINARY

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Lid Sub-area Development - Area 4



Span	Length (feet)
Pike St. Express Lanes Ramp	50 - 60
Over SB I-5	80 - 105
Over NB I-5	160 - 170
Over Olive Way On-Ramp	60 - 160

Considerations:

- Demolition of Ramps
- Modification Existing Walls
- Temporary I-5 Traffic Impacts
- Permanent I-5 Lane Reconfiguration
- Temporary Ramp Impacts

Lid Sub-area Development - Area 4



- Considerations:
 - Modification Existing Walls
 - Temporary I-5 Traffic Impacts
 - Permanent I-5 Lane Reconfiguration
 - Modification of Ramps
- Benefits:
 - Maintains existing ramps

Lid Sub-area Development - Area 4



- Considerations:
 - Modification Existing Walls
 - Temporary I-5 Traffic Impacts
 - Permanent I-5 Lane Reconfiguration
 - Temporary Ramp Impacts
- Benefits:
 - Maintains existing ramps
- Drawbacks:
 - Minimum Lid Area