Northgate Pedestrian and Bicycle Bridge

Design Meeting 2

North Seattle College

October 21, 2014

SDOT
Seattle Department of Transportation

Design Meeting Goals

- **Objective:** Opportunity for NSC to assess, evaluate and provide feedback to the design team on the west approach options.
- **Goal:** Identify the preferred west approach option.

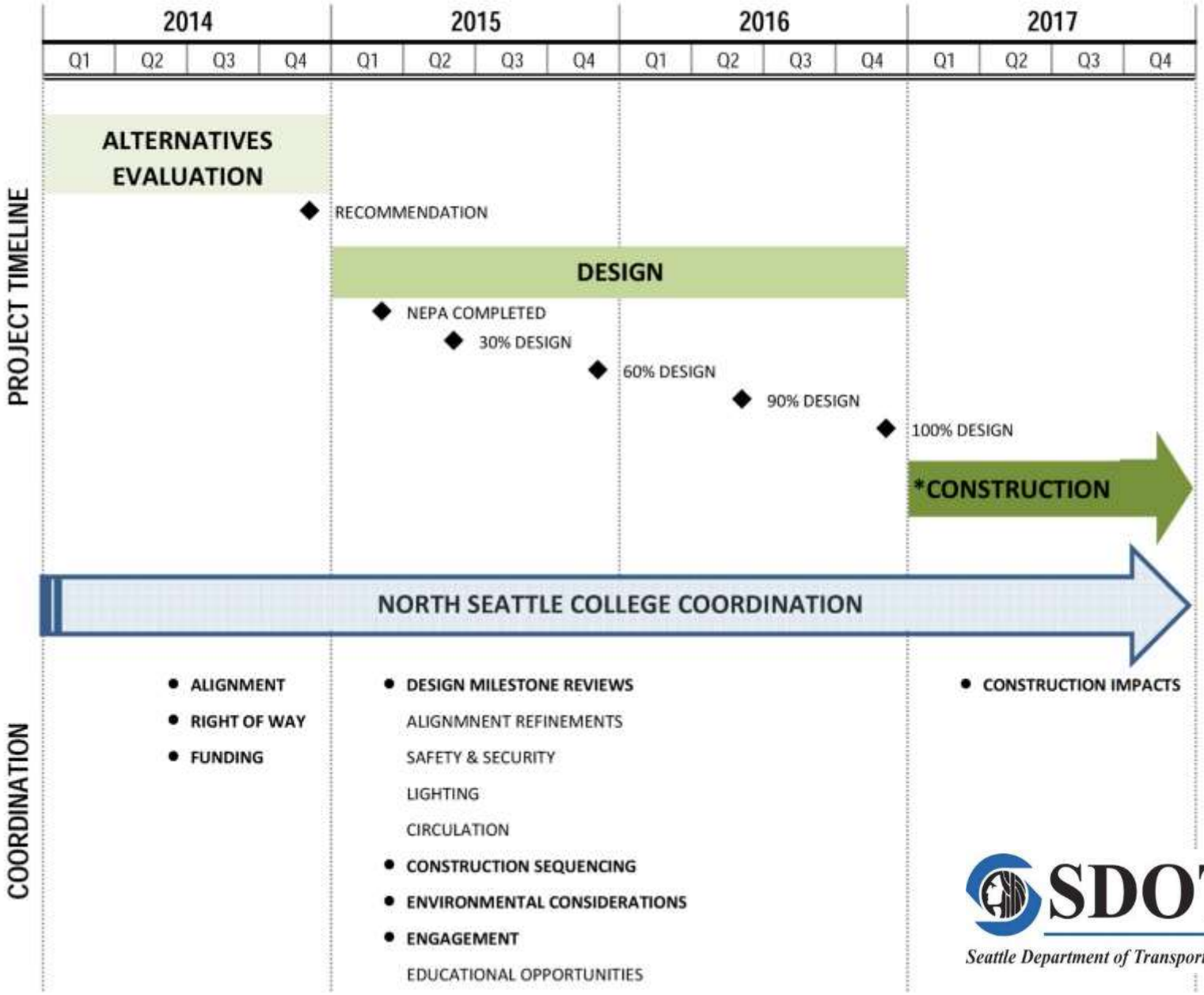
Design Meeting 2

Today's Agenda

- Introductions **SDOT**
- Level II Screening Summary **LMN**
- Level III West Approach Options **SWIFT**
- Opportunities for NSC Community Engagement **SDOT**
- Conclusions and next steps…

NORTHGATE PEDESTRIAN AND BICYCLE BRIDGE

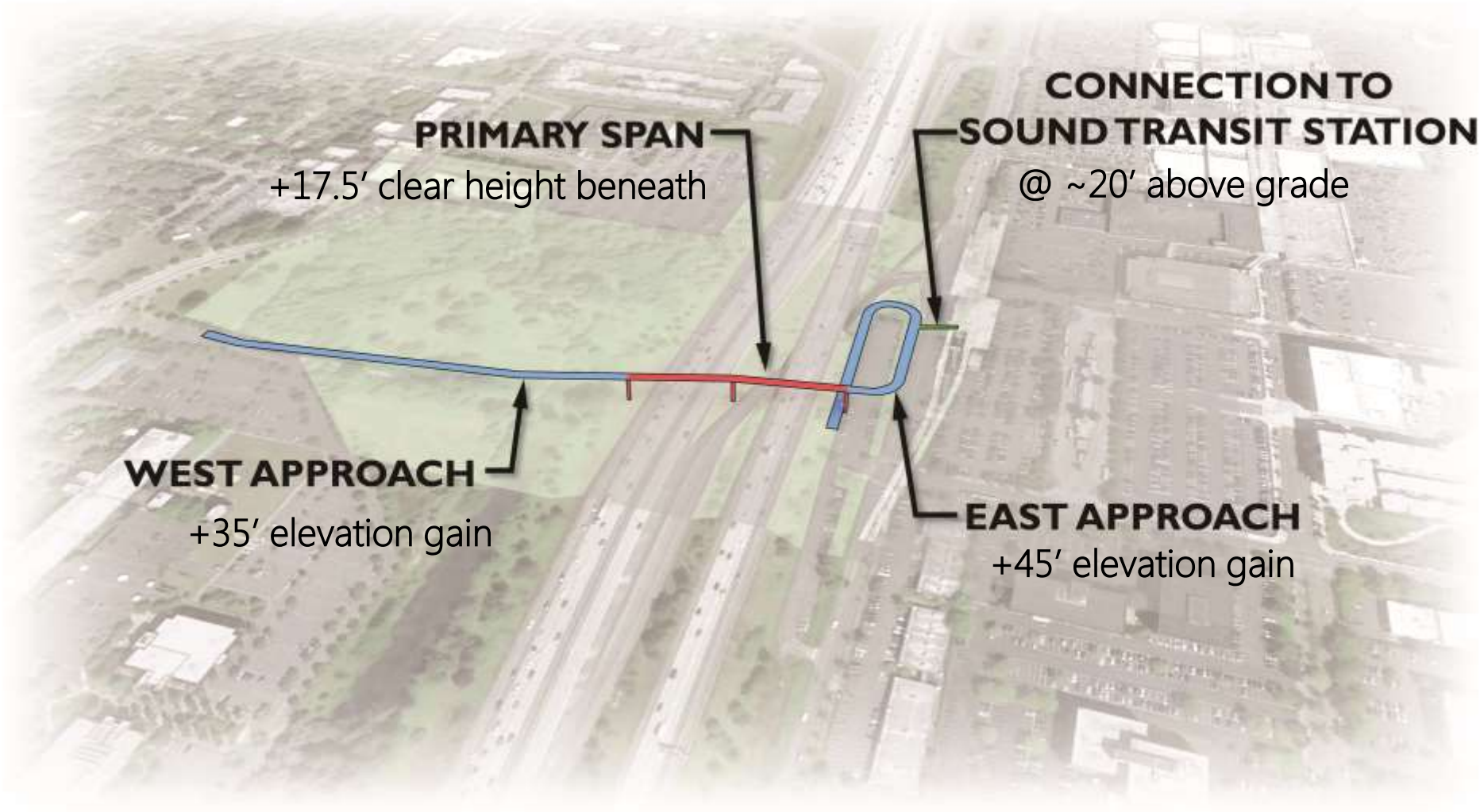
10/21/2014



SDOT

Seattle Department of Transportation

Bridge Components

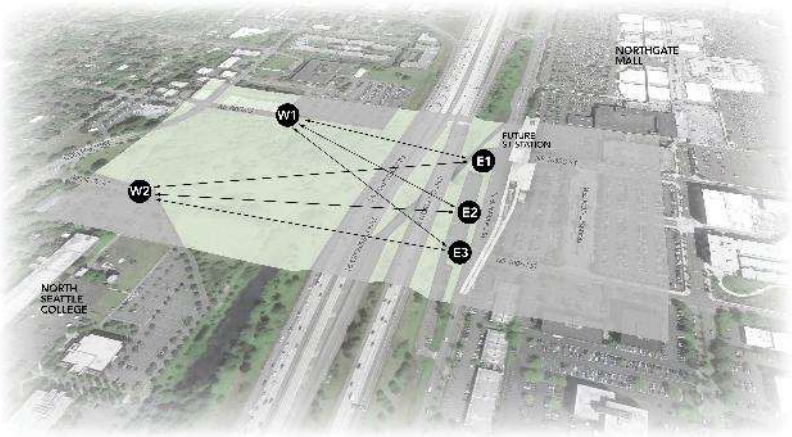


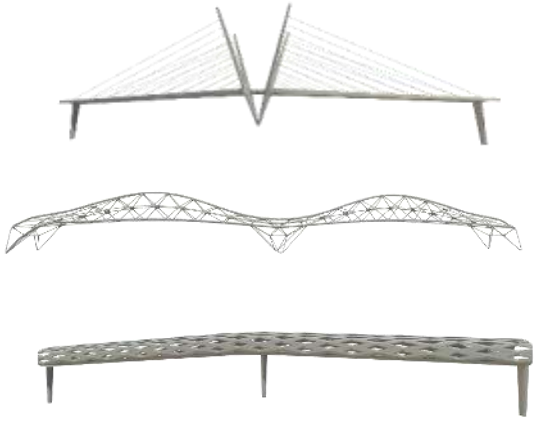
Design Update

Level II Screening Criteria:

- Connectivity/Geometry
- Safety
- Visual Impact/Presence
- Environmental Impact
- Constructability
- Cost

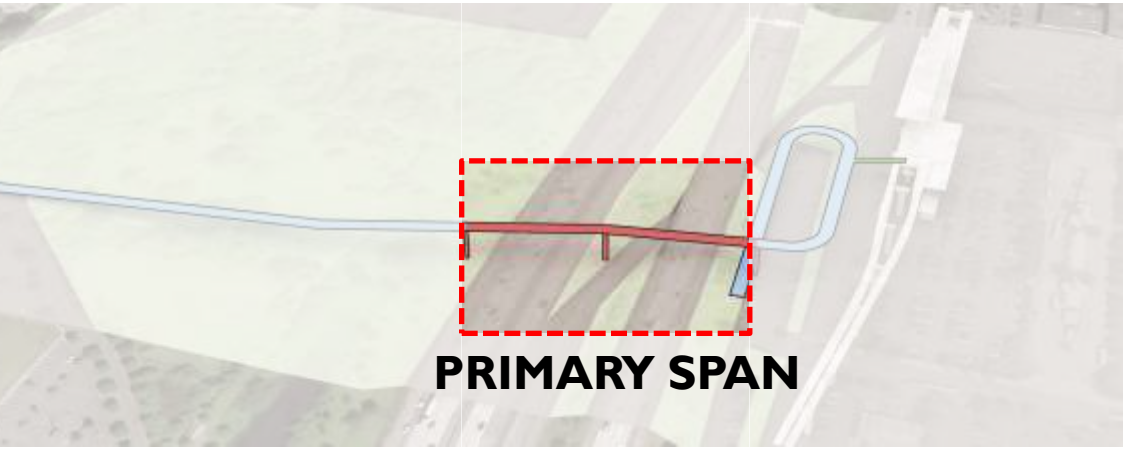
Design Alternatives for Screening:

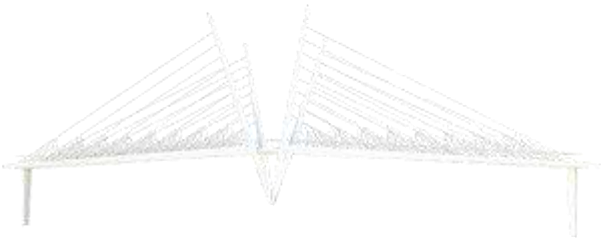




APPROACH NODES + **SPAN DESIGN**

Bridge Components: **Primary Span**





CABLE STAY

TIED ARCH

TUBE / TRUSS

Primary Span Types: **Tied Arch**

Preliminary Design Concept: **Tied Arch**

Preliminary Design Concept: **Tied Arch**

VIEW FROM NORTHEAST

Primary Span Types: **Tube / Truss**

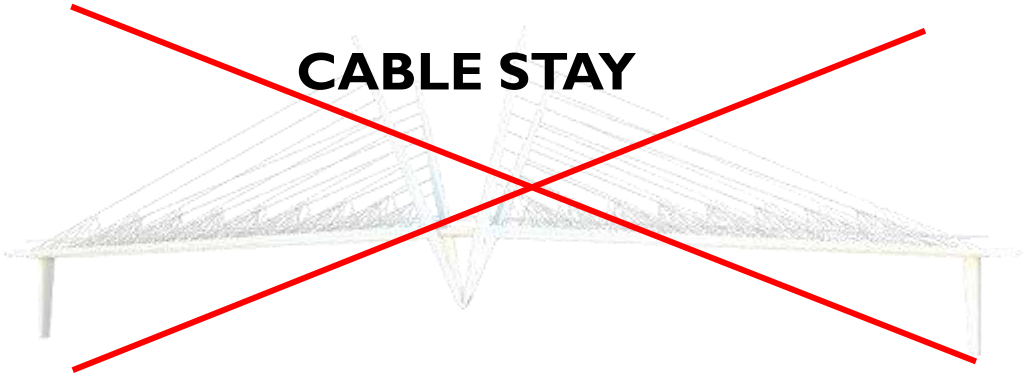
Preliminary Design Concept: **Tube / Truss**

Preliminary Design Concept: **Tube / Truss**

VIEW FROM NORTHEAST

Span Type Screening

CABLE STAY

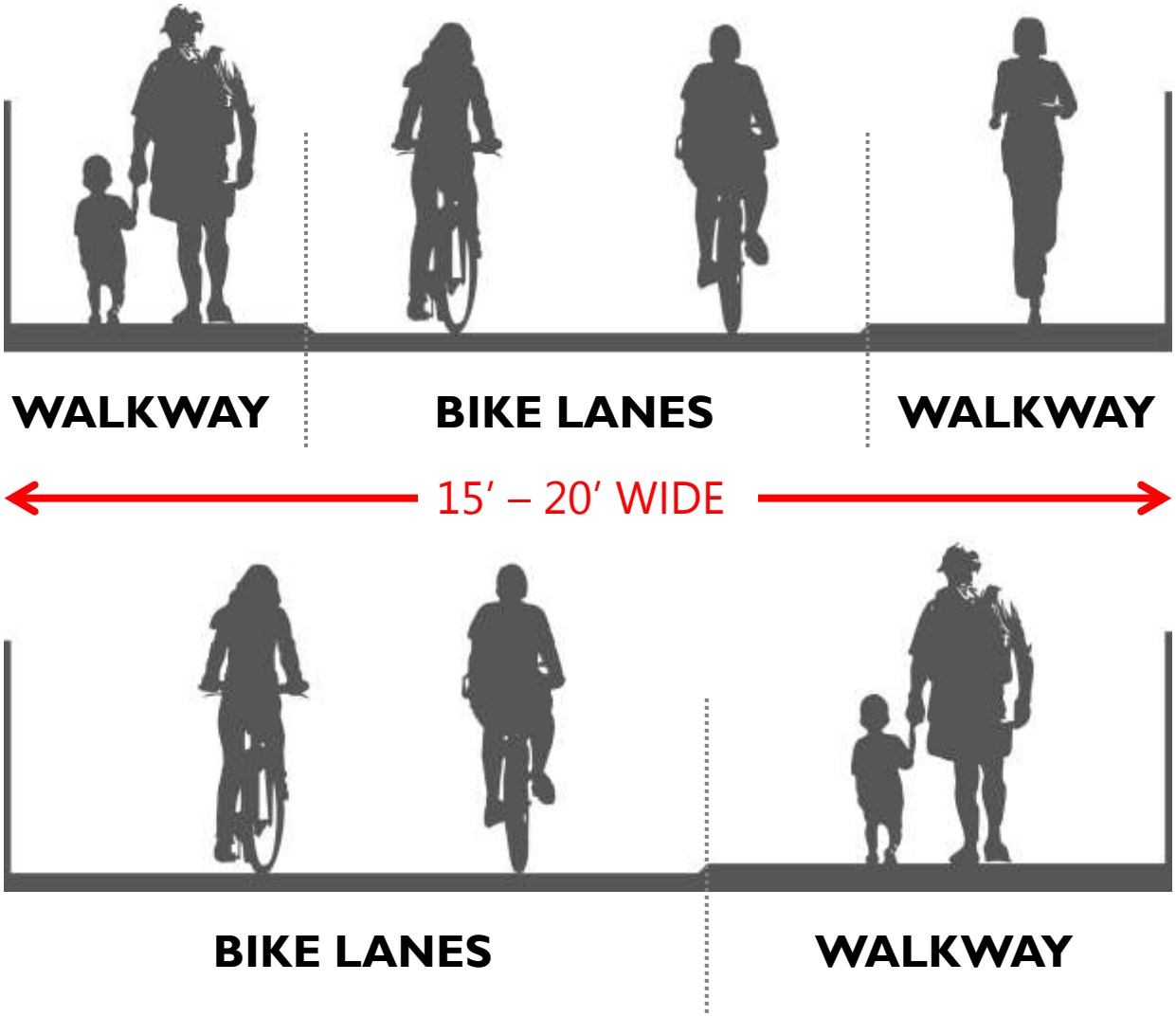


TIED ARCH

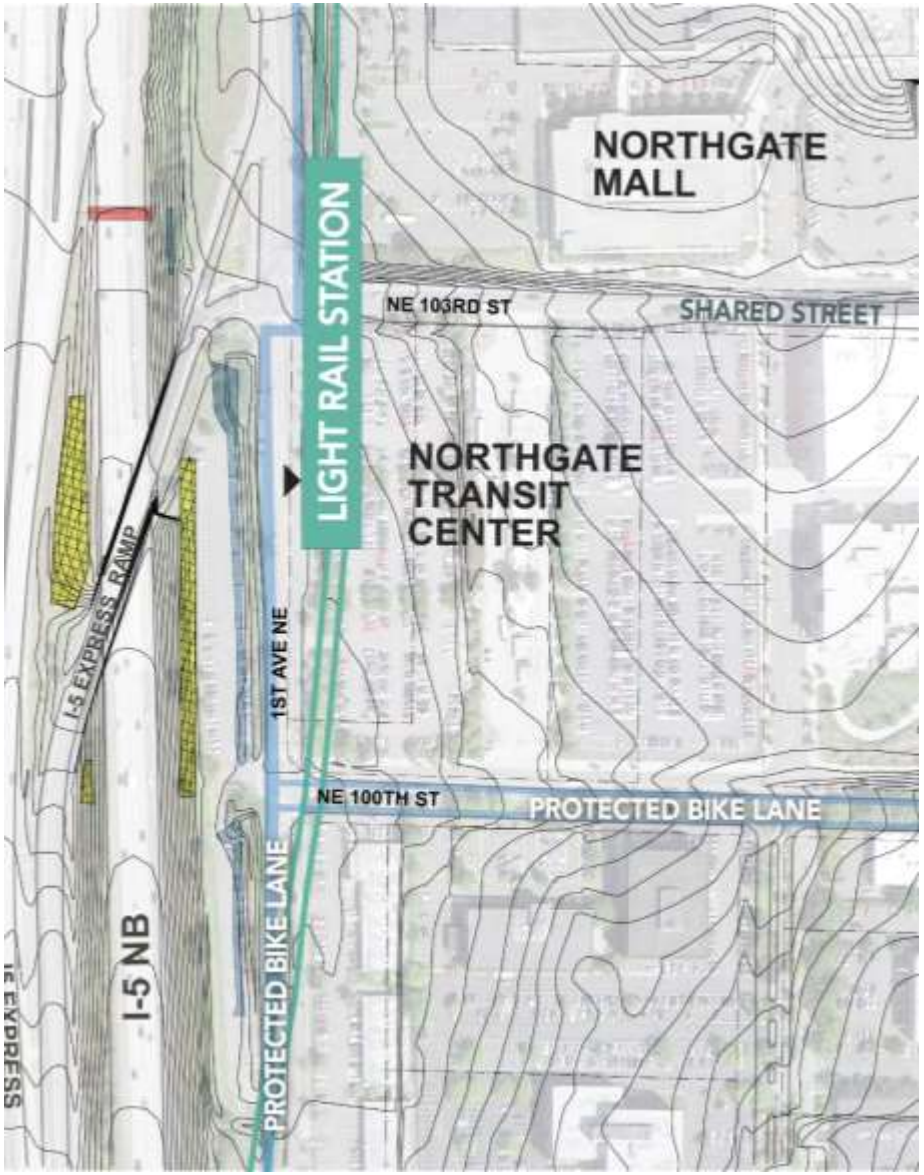
TUBE / TRUSS

Screen Criteria	Arch	Tube	Cable-stayed
Geometrics	▲	▲	▲
Safety	▲	▲▲	▲
Visual Presence/Impact	▲	▲	▼
Environment Impact	■	▲	▲
Constructability	▲	▲▲	▼
Cost	■	■	■

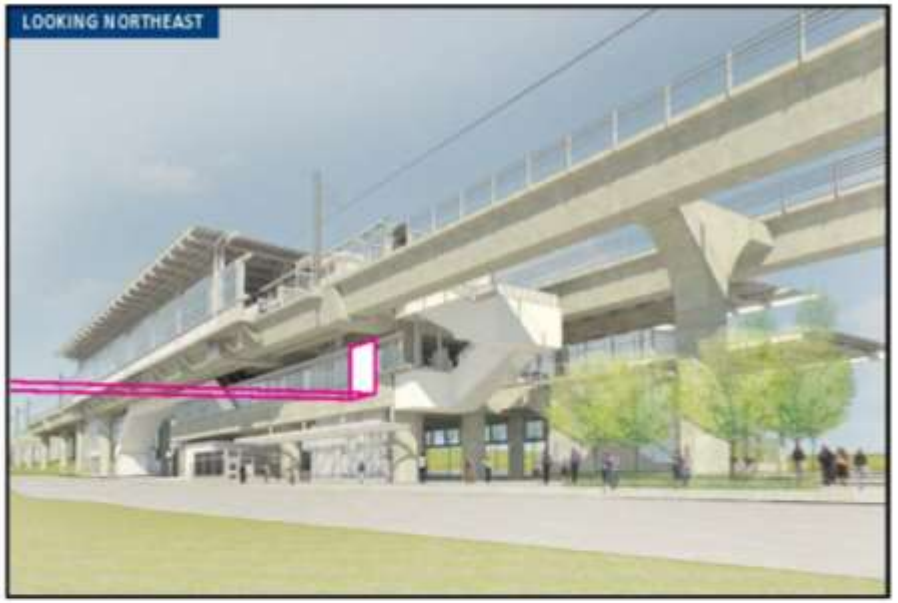
Bridge Components: **Pathway Elements**



Existing Conditions: **East Approach**

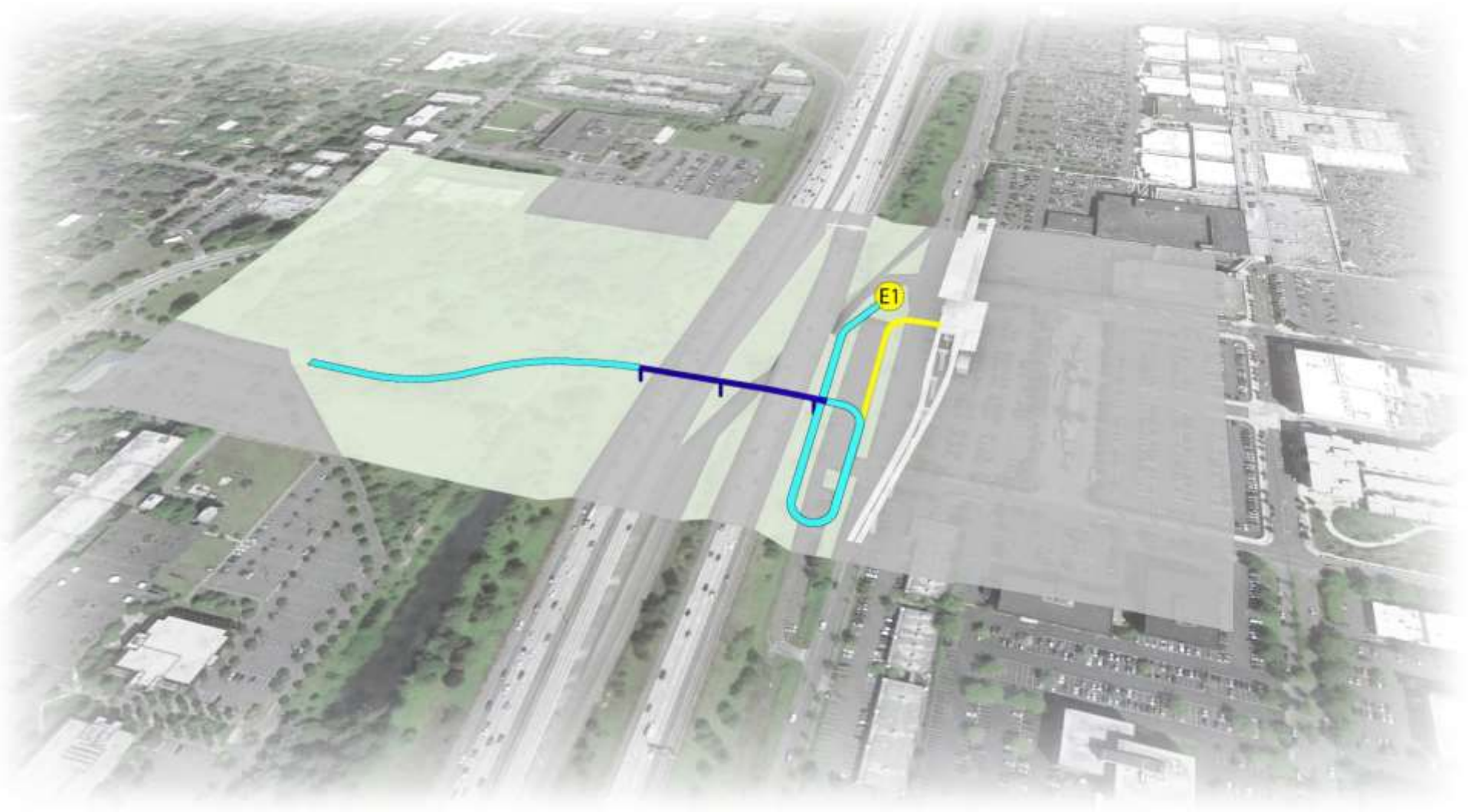


Sound Transit Coordination

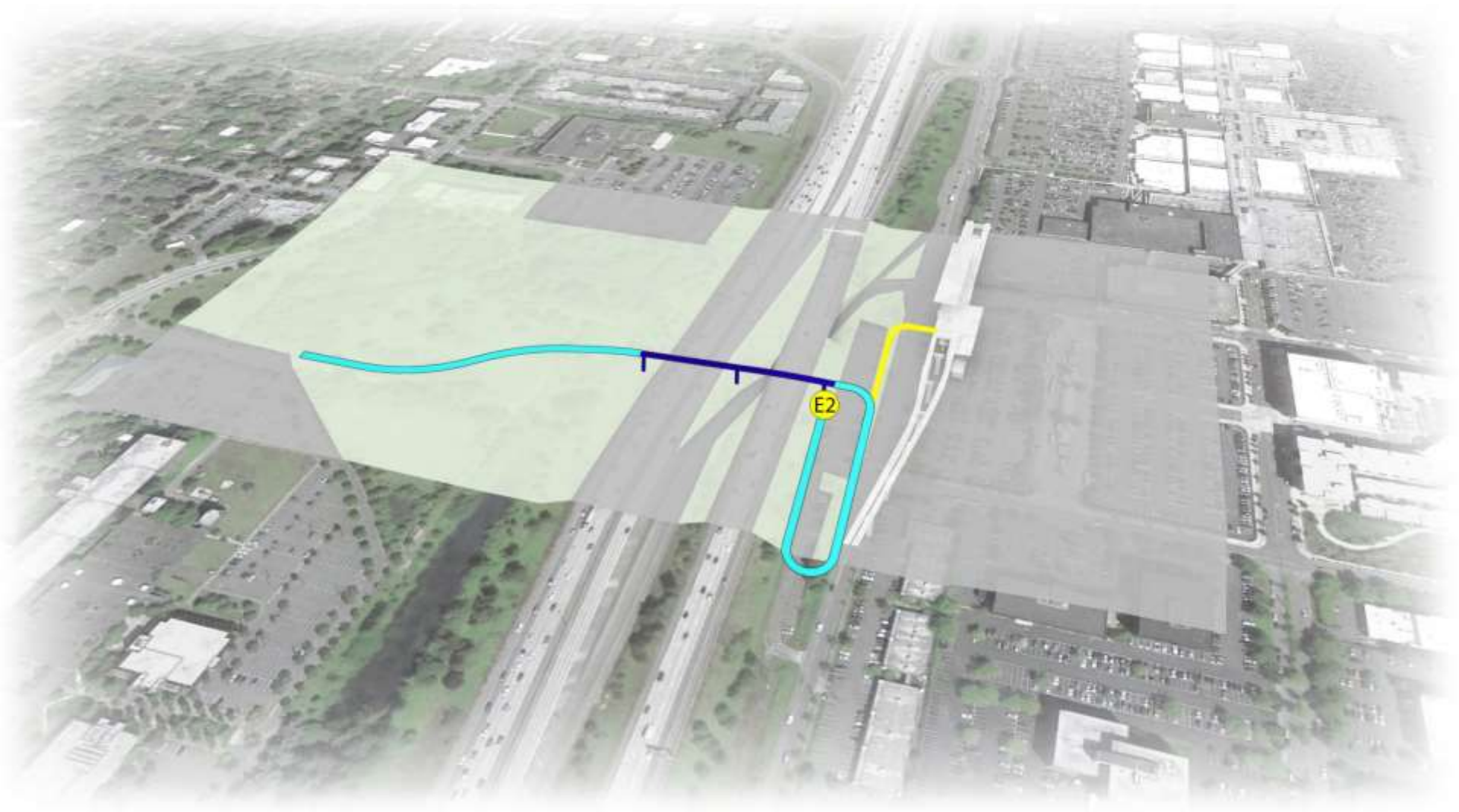


East Approach

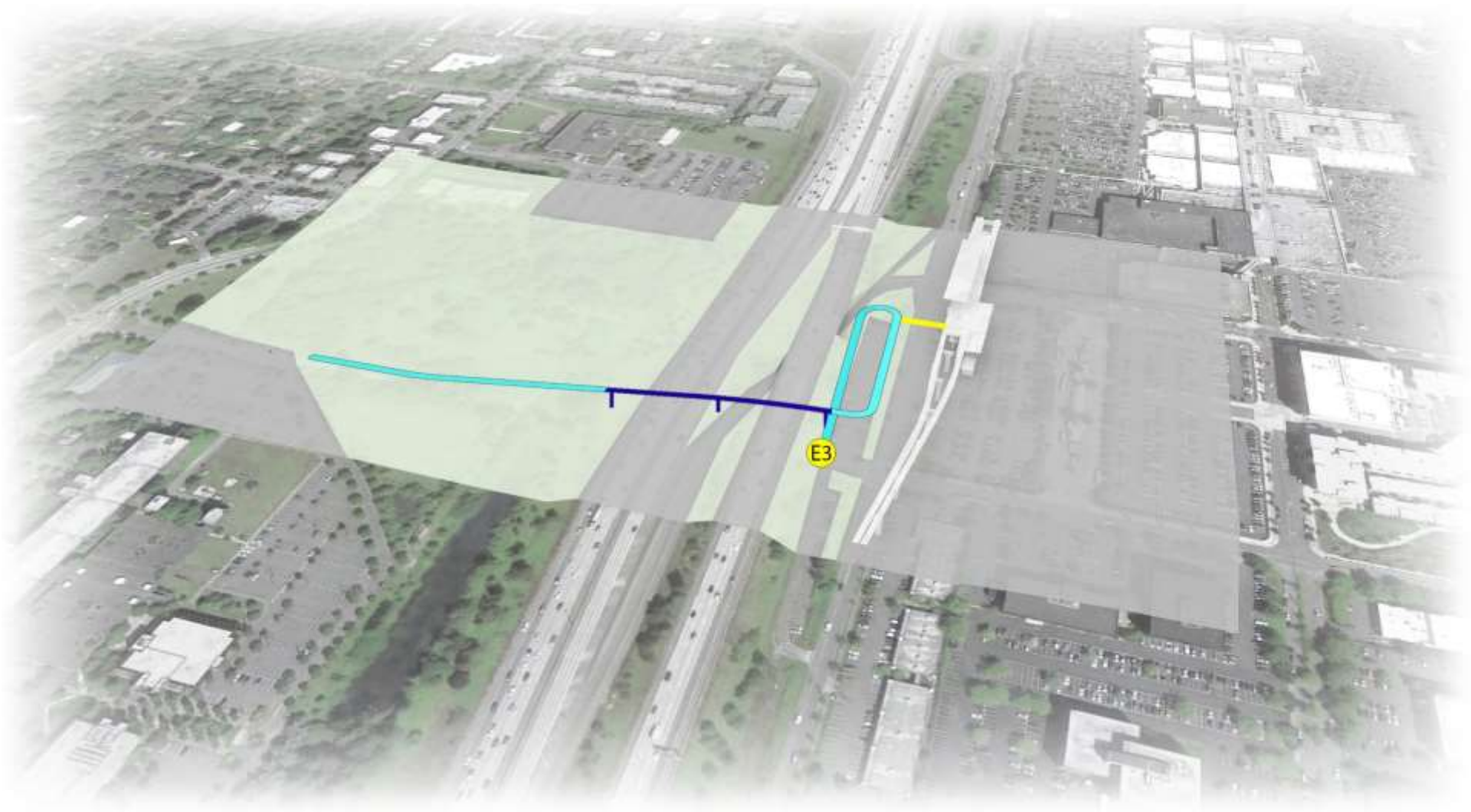
East Approach



East Approach



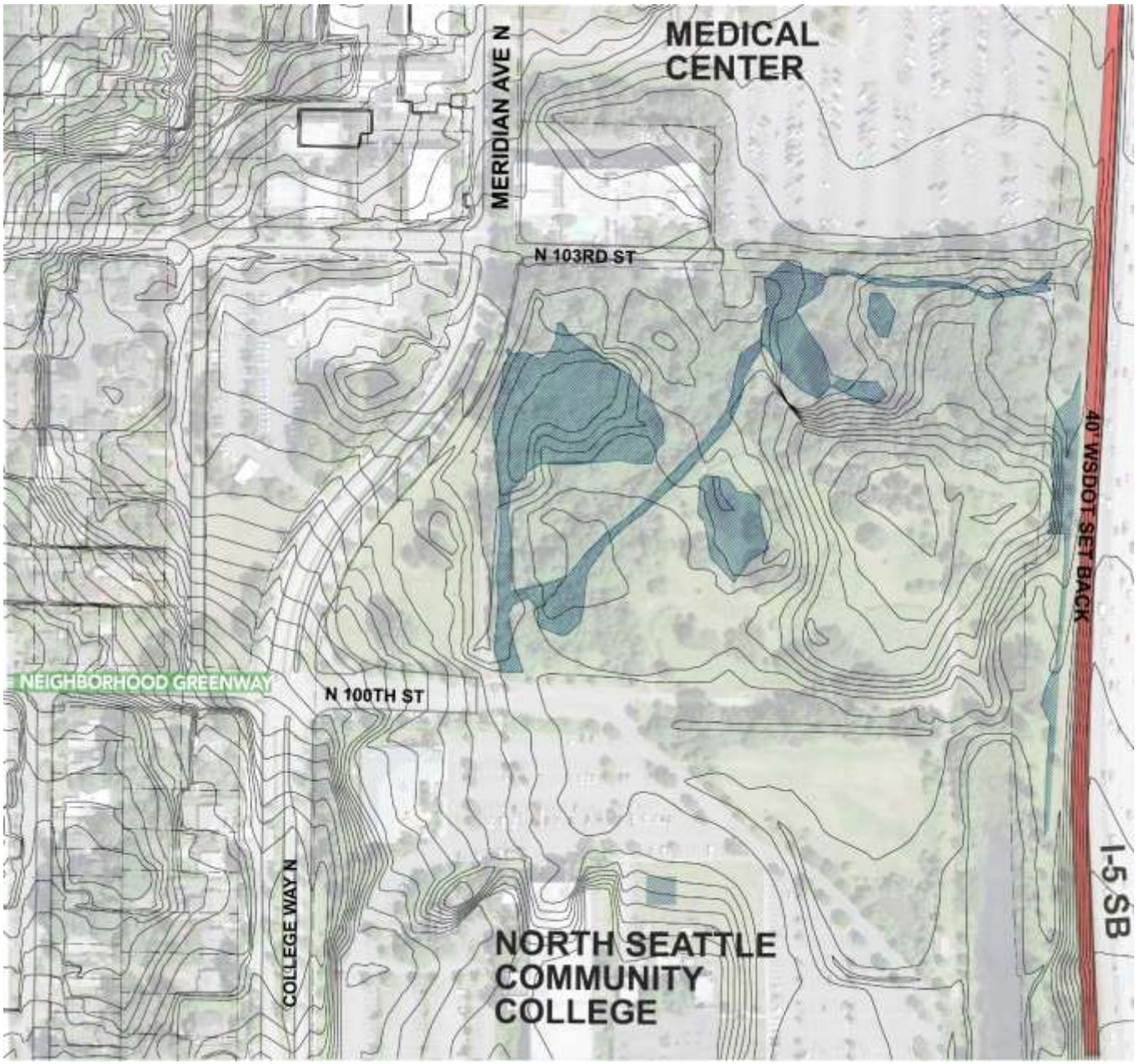
East Approach



East Approach Summary

Screen Criteria	E1 NE 103rd St	E2 Mid Pkg Lot	E3 NE 100th St
Connectivity	■	▼▼	▲▲
Visual Presence/Impact	▼	▼▼	▲▲
Environment Impact	▼	■	■
Safety	■	▼▼	▲
Constructability	▼	■	■
Cost	▼▼	■	■

Existing Conditions: **West Approach**

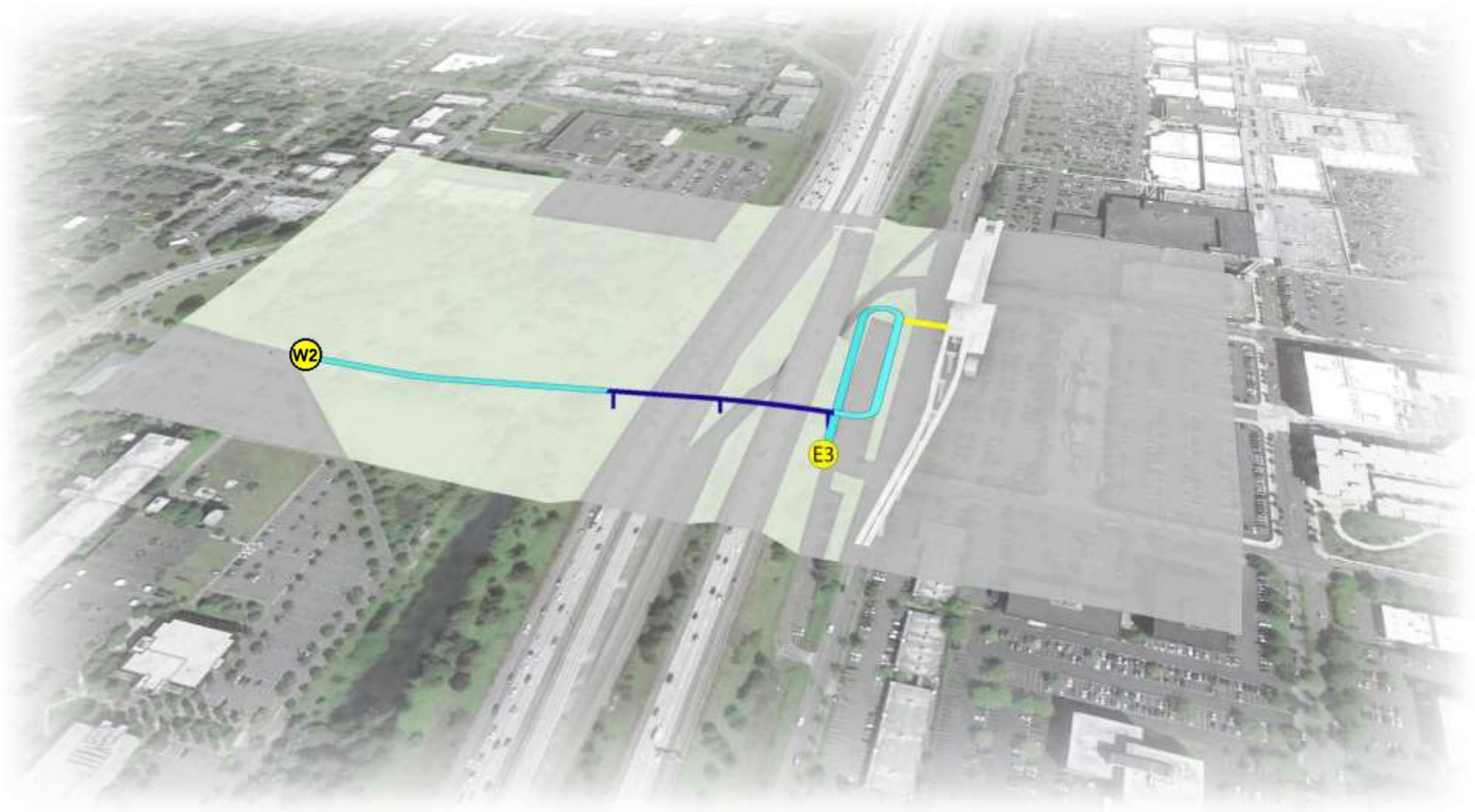


Existing Conditions: **West Approach**

West Approach Summary

Screen Criteria	W1 N 103rd St	W2 N 100th St
Connectivity	▼	▲▲
Safety	▼▼	▲▲
Visual Presence/Impact	▼▼	▲
Environment Impact	▼	▲
Constructability	▼	▲
Cost	▼	▲

Preferred Alignment



CPTED:
Crime Prevention Through Environmental Environmental Design

Natural Surveillance

- Deny private places "See and be Seen"

Access Control

- Distinct points of entry/exit

Territoriality

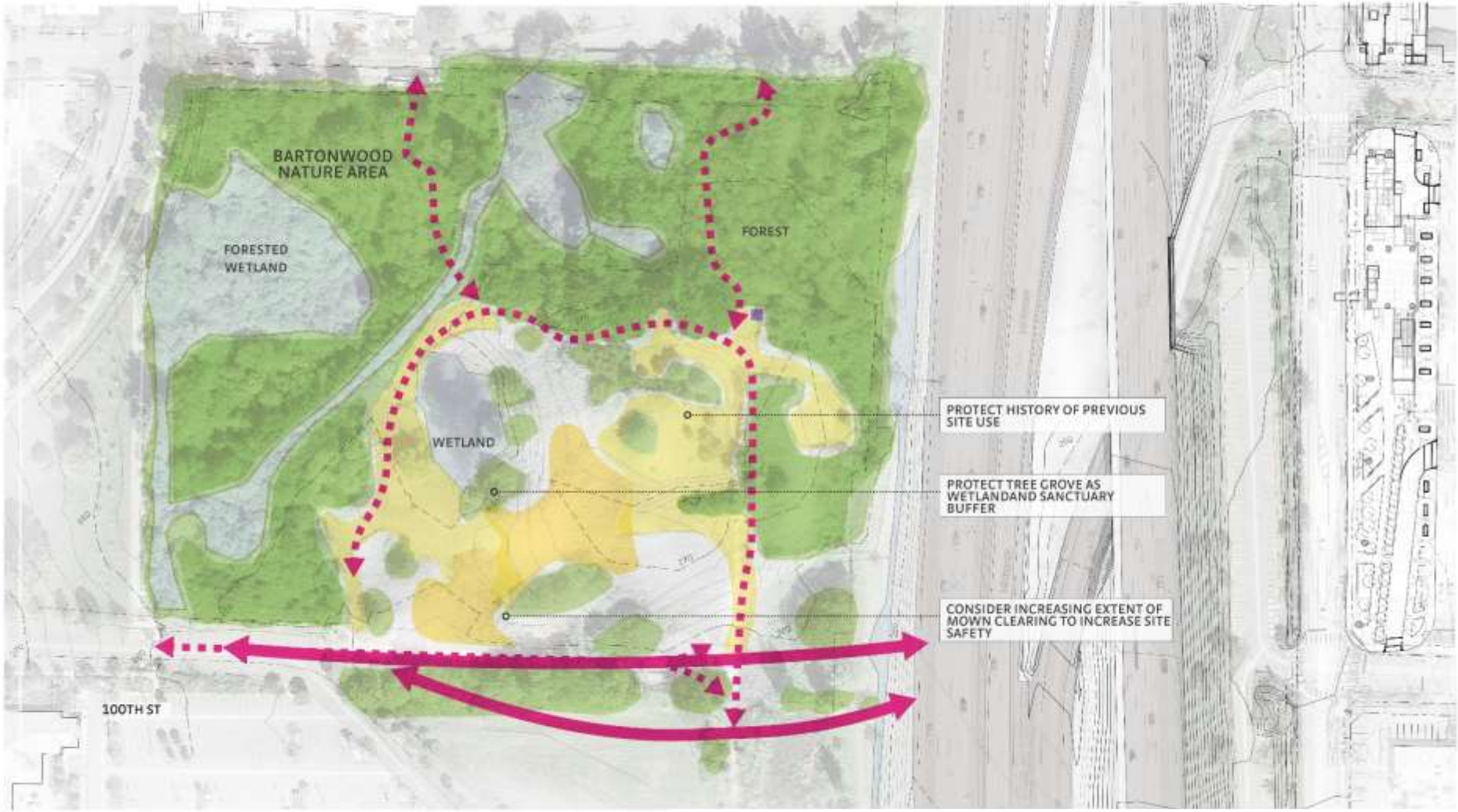
– Clearly defined public ownership of the space

Maintenance

- Easy Upkeep (Broken Window Theory)

NORTHGATE PEDESTRIAN – BICYCLE BRIDGE

SITE RECOMMENDATIONS AND OBSERVATIONS




Google earth


Google earth

Bartonwood Natural Area + Pedestrian / Bicycle Bridge

Issues / Objectives:

- Develop a safe identifiable welcoming access to the bridge.
- Provide for ADA access with slopes under 5%
- Minimize impact on the existing site character, condition and ecological function.
- Amplify positive site characteristics and ecological function.
- Reference history of site.

Observations:

- Diverse habitats - wetland to forest, blackberry and mown clearings.
- Extensive bird life.
- Sense of a natural place in the city.
- Spatial organization = two large clearings wrapped by forest with ascending topography = clarity of wayfinding.
- Limited removal of blackberry to increase generous mown paths could increase the identity and safety.

Selection criteria:

- Avoid impact on 'heart' of natural area - keep bridge access towards south
- Limit impact to site and encourage use of bridge
- Optimize design for pedestrian safety and visibility

NORTHGATE PEDESTRIAN – BICYCLE BRIDGE

SITE CONDITIONS

KEY

- EXISTING MOWN CLEARING
- SIGNIFICANT TREES AND FOREST
- WETLAND
- INTERSTATE 5
- PROPOSED CLEARING

NOTES

1. Approximate extent of forest, mown clearings and blackberry are shown along with wetlands, contours and significant trees to illustrate site characteristics.
2. The combination of landform, forest, trees and mown clearings create distinct site character and areas. The quality of the experience creates the sense of being in a natural environment separate from the city. The lack of city and freeway views coupled with bird sounds contributes to this characteristic. Discrete open clearings in the forested landscape create a memorable and distinct sense of place.
3. The structural diversity and mix of species provides a variety of habitat opportunities.
4. Site topography defines edges and clearings supporting the sense of place. The topography can provide for ease of pedestrian access.


1881 N 100th St
Exit Street View
© 2014 Google
© 2014 Google
Report a problem


N
Image Landsat
© 2014 Google
Google earth
2005
Imagery Date: 7/15/2014 47°42'03.99" N 122°19'57.21" W elev 274 ft eye alt 544 ft

NORTHGATE PEDESTRIAN – BICYCLE BRIDGE

SOUTH ALIGNMENT STUDY

KEY

- EXISTING MOWN CLEARING
- SIGNIFICANT TREES AND FOREST
- WETLAND
- INTERSTATE 5
- POTENTIAL CONNECTION
- PROPOSED CLEARING
- +/-288.0 ESTIMATED BRIDGE DECK ELEVATION
- STAIR

NOTES

1. Assume top of bridge structure is 28.5' above freeway at western edge of freeway.
2. Assume maximum of 4.8% slope for approach structure.
3. Assume location of approach access/egress approximately midpoint along approach length via stair or ramp to adjoining grade.
4. Assume existing path and clearing system to remain. Assume approach does not impact free use of existing path system
5. Assume significant trees and forest to remain.
6. Assume limited grading and clearing to allow for access, visibility and increased defensible space/ safety.
7. Clearance requirements over existing paths to be confirmed.


100 feet


Campus Pond

NORTHGATE PEDESTRIAN – BICYCLE BRIDGE

SOUTH ALTERNATIVE ALIGNMENT STUDY

KEY

- EXISTING MOWN CLEARING
- SIGNIFICANT TREES AND FOREST
- WETLAND
- INTERSTATE 5
- POTENTIAL CONNECTION
- PROPOSED CLEARING
- +/-288.0 ESTIMATED BRIDGE DECK ELEVATION
- STAIR

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100 feet


Campus Pond

Level III Screening Criteria:

- Safety
- Environmental Impact
- Cost

Opportunities for NSC community engagement

Conclusion

- Preferred west approach option
- Action Items


Campus Pond