

Appendix B: Materials

Comment Workbooks

Display Boards

Open house guide and comment form

Please provide your completed comment form to staff. Comments may also be mailed to the address provided below or emailed to eastlink@soundtransit.org

For more information:

- www.soundtransit.org/eastlink, or contact:
- Sound Transit Community Outreach Staff at (206) 398-5470 or eastlink@soundtransit.org
- City of Bellevue at eastlink@bellevuewa.gov
- For information in alternative formats, call 1-800-201-4900/TTY Relay: 711 or email accessibility@soundtransit.org

place postage here

East Link Light Rail
Sound Transit – Union Station
401 South Jackson Street
Seattle, WA 98104

If you would like to receive project updates, please provide the following:

Name: _____

Address: _____

City, State, Zip: _____

Email: _____

April 26, 2012

Thank you for attending tonight's open house! The purpose of tonight's meeting is to provide an overview of potential cost-savings ideas for East Link light rail in Bellevue. A wide range of ideas intended to reduce the overall project costs are being explored. We would like your feedback on the ideas being considered. Please visit the stations around the room to learn more and share your feedback with the project team. Your input will be used to help evaluate these ideas.

112th Avenue SE
2a. At-grade, closing SE 4th Street while extending SE 8th Street into Surrey Downs to provide new neighborhood access

Winters House
1a. Shift Bellevue Way west, At-grade light rail in front of Winters House
1b. Relocate Winters House, At-grade alignment

NE 16th Street & Light Rail Configuration
5a. Build a two-way road only on north-side of light rail alignment

Downtown Tunnel and Station
3a. Eliminate mezzanine, station entrance in the outer travel lanes of 110th Avenue NE
3b. Construct a stacked tunnel configuration with entrances in the outer travel lanes of 110th Avenue NE
3c. Relocate station to NE 6th Street
3d. Relocate station to the City Hall Plaza
4a. Retained-cut from Main Street to NE 2nd Street

East Link Light Rail Project to be built
Station (black circle)
Route (orange line)

Please visit the open house stations to view plans of the cost-savings ideas and hear more from project staff. Once you are familiar with the ideas under consideration, please share your thoughts and concerns directly on the plans or in the space provided below.

Winters House

Idea 1a: Shift Bellevue Way west, At-grade alignment in front of Winters House

Idea 1b: Relocate Winters House, At-grade alignment

112th Alignment at Surrey Downs Park

Idea 2a: At-grade, closing SE 4th Street while extending SE 8th Street into Surrey Downs to provide new neighborhood access

Downtown Station Design

Idea 3a: Eliminate mezzanine, station entrance in the outer travel lanes of 110th Avenue NE

Idea 3b: Construct a stacked tunnel configuration with entrances in the outer travel lanes of 110th Avenue NE

Idea 3c: Relocate station to NE 6th Street

Idea 3d: Relocate station to the City Hall Plaza

Downtown Tunnel Design

Idea 4a: Retained-cut from Main Street to NE 2nd Street

NE 16th Street Road and Light Rail

Idea 5a: Build a two-way road only on north-side of light rail alignment



Open House #2

East Link Light Rail

Cost-Savings Ideas



June 5, 2012

Welcome

June 5, 2012

Thank you for attending tonight's open house. The purpose of tonight's meeting is to share the cost-savings report, provide an update on design progress, and gather public input on the cost-savings ideas for East Link light rail in Bellevue. Since the April 26 open house, the project team has conducted further engineering and analysis to evaluate the cost-savings ideas for technical feasibility, potential for cost reduction, potential environmental impact, and other considerations.

We hope the information and analysis displayed tonight will help you provide input on the cost-savings ideas. Please visit the stations around the room to learn more and share your feedback with the project team.

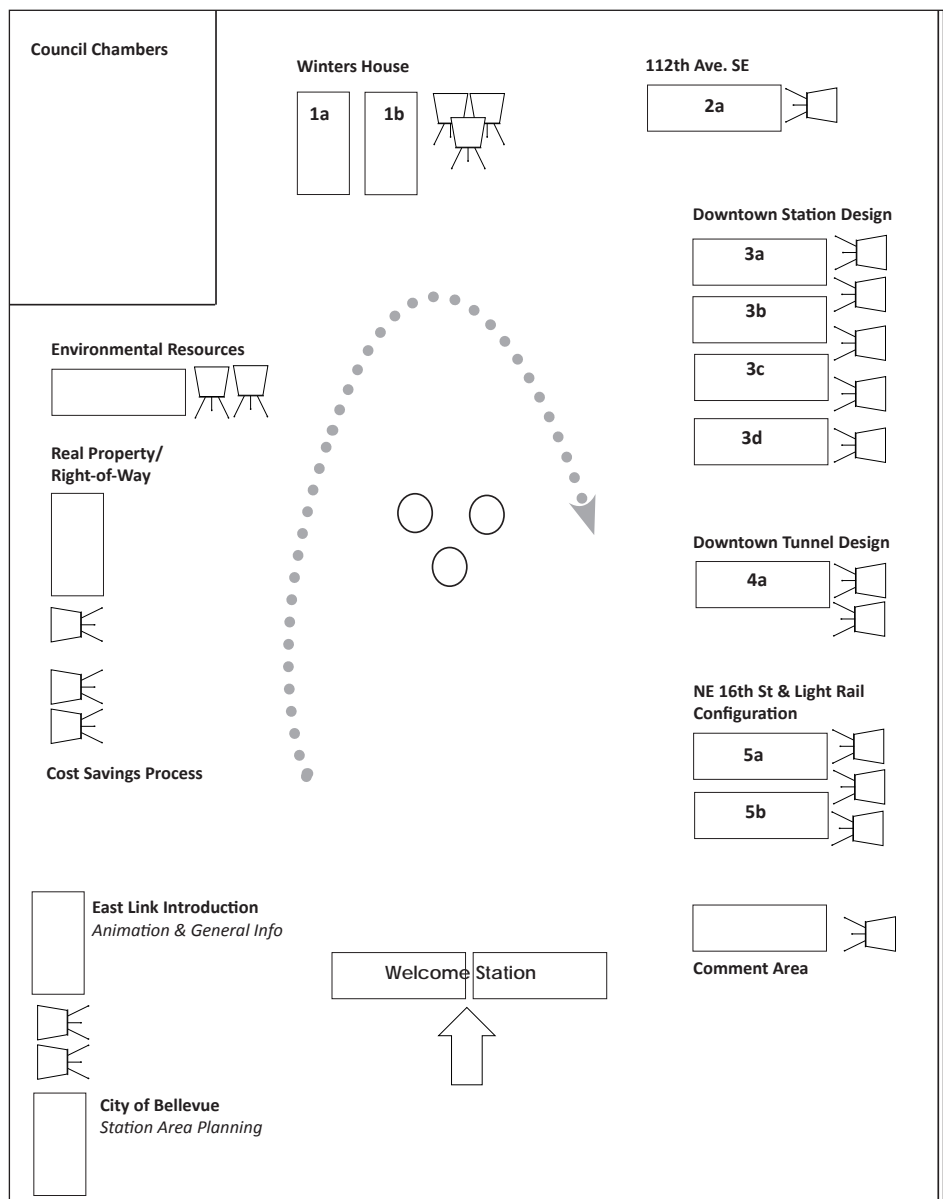
Please share your thoughts and concerns directly on the plans or on the comment form insert.

Please provide your completed comment form to staff.

Comments may also be mailed to the address provided below or emailed to eastlink@soundtransit.org

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What is the Cost-Savings Decision Making Process?

Memorandum of Understanding (MOU)

November 2011

The MOU identifies Sound Transit and the City of Bellevue's commitment to work together to manage the project's scope, schedule and budget.

Collaborative Design Process

Early 2012

The City and Sound Transit are working together to meet the MOU goal of reducing the City's financial contribution for a downtown light rail tunnel by up to \$60 million.

Cost-Savings Study

Early 2012

Sound Transit and the City of Bellevue developed ideas to reduce East Link costs within the City of Bellevue and convened a peer review panel to identify the most promising ideas.

Key Decision Milestones



Ongoing Community Outreach and Stakeholder Briefings

How will public comments influence the decision making process?

Cost-savings ideas that impact the adopted project require approval by both Sound Transit and the City of Bellevue. Sound Transit and the City of Bellevue will weigh public feedback from open houses, stakeholder briefings and public comment as they refine the cost-savings concepts. All comments will be compiled and shared with the Sound Transit Board and Bellevue City Council. Please provide your comments by June 10 for consideration by Bellevue City Council and the Sound Transit Board. Comments received by June 10 will be incorporated into a public comment summary that will be distributed to elected officials on June 11. We will continually update the public comment summary with comments received after June 10.

Next Steps

In June, cost-savings ideas will be identified for incorporation into value engineering and further development. The project team will continue environmental review and engineering on cost-savings ideas. As the project moves forward, there will be ongoing community engagement.

Questions?

For more information:

- www.soundtransit.org/eastlink, or contact: Sound Transit Community Outreach Staff at (206) 398-5470 or eastlink@soundtransit.org
- City of Bellevue at eastlink@bellevuewa.gov
- For information in alternative formats, call 1-800-201-4900/TTY Relay: 711 or email accessibility@soundtransit.org

To view the full cost-savings report,
please visit
www.soundtransit.org/eastlink

Comment Form

Please visit the open house stations to view simulations and plans of the cost-savings ideas and hear more from project staff. Please share what you like and what you would like to change about each cost-savings idea. To ensure public comments are considered by the Sound Transit Board and Bellevue City Council, please submit comments by June 10. Thank you!

Winters House

Idea 1a: Shift Bellevue Way west, At-grade alignment in front of Winters House

Idea 1b: Relocate Winters House, At-grade alignment

112th Alignment at Surrey Downs Park

Idea 2a: Flyover to allow extension of SE 8th Street into Surrey Downs to provide new neighborhood access and continue at-grade, closing SE 4th Street

Idea 2b: Raise 112th Avenue SE roadway over at-grade light rail and continue light rail at-grade, with changes to neighborhood access at SE 4th Street (Not included in Cost-Savings Report)

Downtown Station Design

Idea 3a: Eliminate mezzanine, station entrance in the outer travel lanes of 110th Avenue NE

Idea 3b: Construct a stacked tunnel configuration with entrances in the outer travel lanes of 110th Avenue NE

Idea 3c: Relocate station alongside side of NE 6th Street. The tunnel portal is located on the south side of NE 6th Street

Idea 3d: Relocate station across City Hall garage and adjacent site. The tunnel portal is located in the City Hall parking garage.

After further analysis, the following ideas do not provide a cost savings. Please let us know if there are additional factors that should be considered.

Downtown Tunnel Design

Idea 4a: Retained-cut from Main Street to NE 2nd Street

NE 16th Street Road and Light Rail

Idea 5a: Build a two-way road only on north-side of light rail alignment

Idea 5b: Build median light rail alignment with roadway on both sides

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East Link Light Rail
Sound Transit – Union Station
401 South Jackson Street
Seattle, WA 98104

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What is the Cost-Savings Decision Making Process?

Memorandum of Understanding (MOU)

November 2011

The MOU identifies Sound Transit and the City of Bellevue's commitment to work together to manage the project's scope, schedule and budget.

Collaborative Design Process

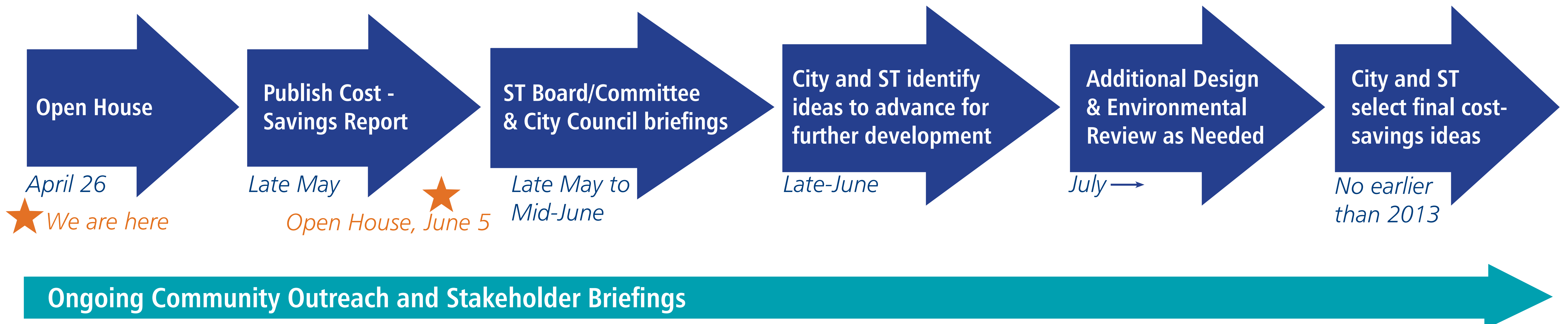
Early 2012

The City and Sound Transit are working together to meet the MOU goal of reducing the City's financial contribution for a downtown light rail tunnel by up to \$60 million.

Cost-Savings Study

Early 2012

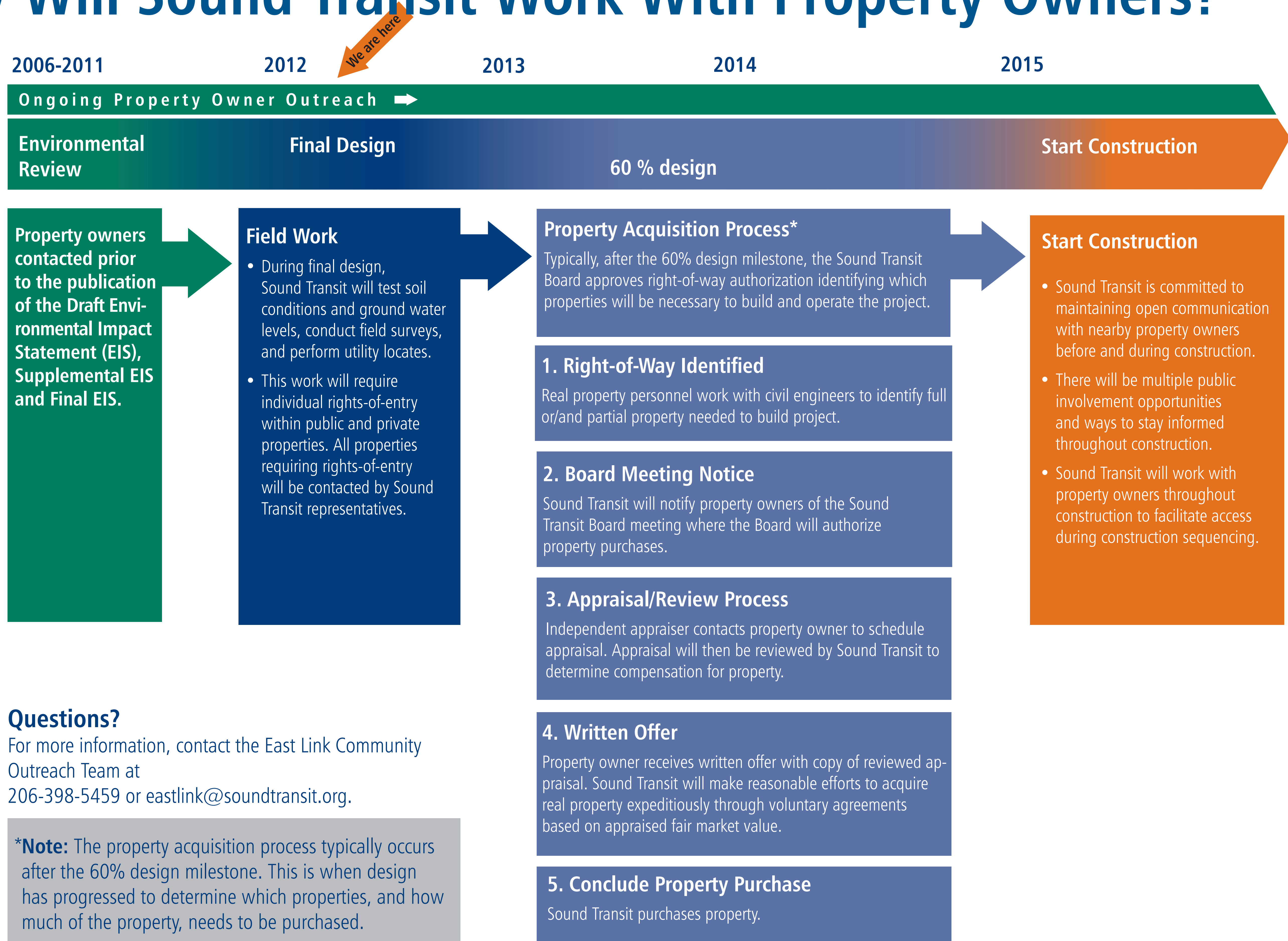
Sound Transit and the City of Bellevue developed ideas to reduce East Link costs within the City of Bellevue and convened a peer review panel to identify the most promising ideas.



What's Next?

Sound Transit and the City of Bellevue will weigh public feedback from open houses, stakeholder briefings and public comment as they refine the cost-savings concepts. All comments will be compiled and shared with the Sound Transit Board and Bellevue City Council. In June, cost-savings ideas will be identified for incorporation into value engineering and further development. As the project moves forward, there will be ongoing community engagement.

How Will Sound Transit Work With Property Owners?

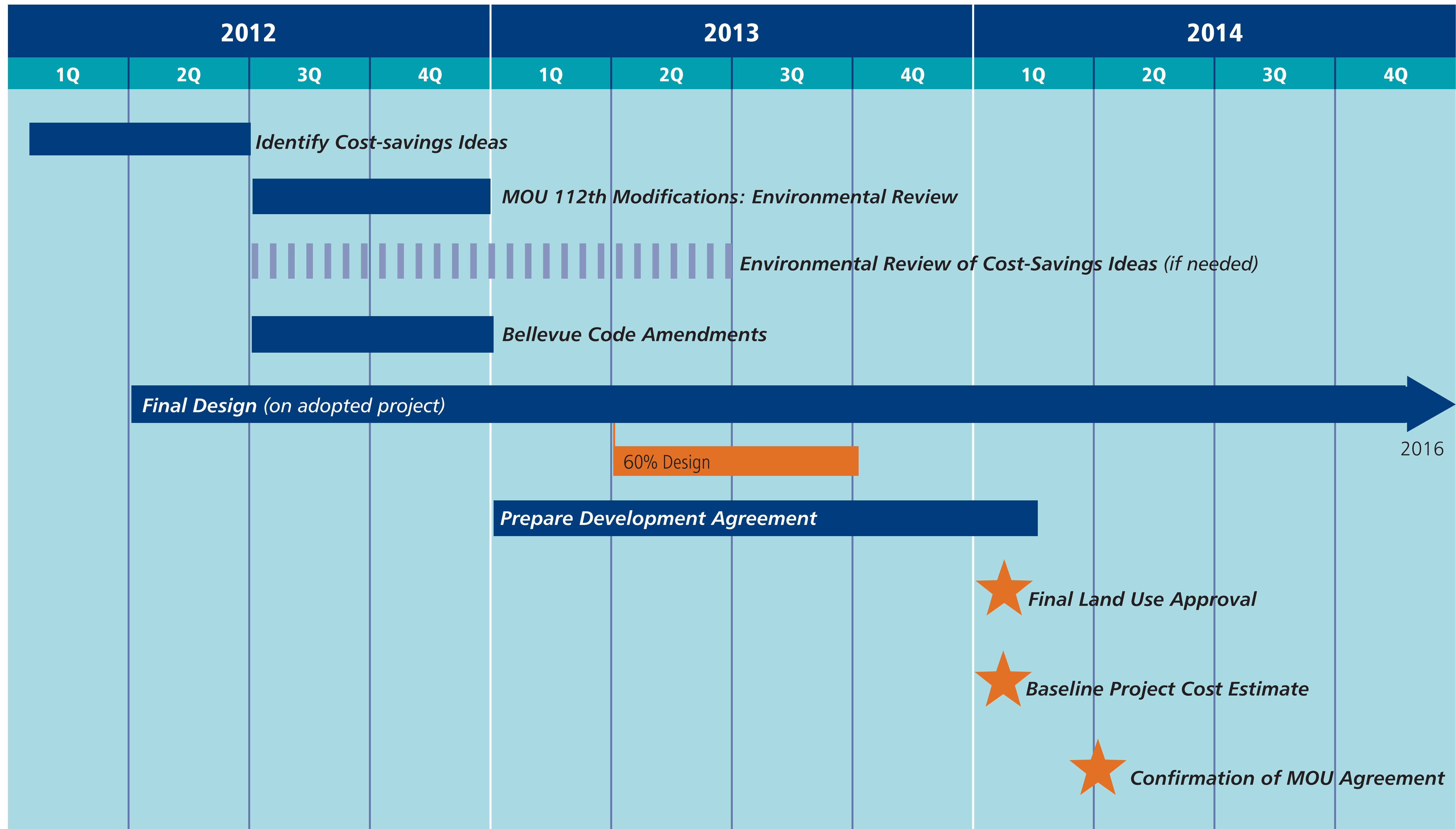


Questions?

For more information, contact the East Link Community Outreach Team at 206-398-5459 or eastlink@soundtransit.org.

***Note:** The property acquisition process typically occurs after the 60% design milestone. This is when design has progressed to determine which properties, and how much of the property, needs to be purchased.

Sound Transit/Bellevue MOU Schedule



Potential early work
 Scheduled work

Cost-Savings Ideas Evaluation Criteria

- Potential for cost-savings
- Light rail operations: speed, reliability
- Light rail access & ridership
- Traffic mobility
- Potential noise impacts & mitigation (during operations)
- Visual appearance
- Other potential environmental elements: property acquisition, parks, wetlands, historic resources, vibration
- Potential for schedule risk

Next Steps

Cost-savings ideas presented will undergo an initial evaluation that considers engineering, operations, cost, and a review of possible environmental impacts and mitigation. The evaluation of cost-savings ideas will be presented to the Sound Transit Board and City Council in late-May, with an Open House on June 5.

A formal environmental review, if needed, will be conducted after Sound Transit and the City of Bellevue have identified cost-savings ideas for further development in June, 2012.

A final decision on the cost-savings ideas that affect the current project description (per the MOU) will be made no earlier than 2013, after any needed environmental review is complete.



Ideas with Potential Changes to Current Project Description (per MOU)

Winters House

- \$\$ 1a. Shift Bellevue Way west, At-grade light rail in front of Winters House
- \$\$ 1b. Relocate Winters House, At-grade alignment

112th Avenue SE

- \$\$ 2a. At-grade, closing SE 4th Street while extending SE 8th Street into Surrey Downs to provide new neighborhood access

Downtown Station Design

- \$\$ 3a. Eliminate mezzanine, station entrance in the outer travel lanes of 110th Avenue NE
- \$\$ 3b. Construct a stacked tunnel configuration with entrances in the outer travel lanes of 110th Avenue NE
- \$\$\$ 3c. Relocate station to NE 6th Street
- \$\$\$ 3d. Relocate station to the City Hall Plaza

Downtown Tunnel Design

- \$\$ 4a. Retained-cut from Main Street to NE 2nd Street

NE 16th Street & Light Rail Configuration

- \$ 5a. Build a two-way road only on north-side of light rail alignment

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Ideas for Further Engineering Review

- \$\$ 1. Downtown Tunnel Design Optimization: depth structural load-bearing walls, ventilation equipment, slurry wall
- \$ 2. Downtown Station Design Optimization: platform width and mezzanine height
- \$ 3. Downtown Tunnel Construction Staging Area: consider alternatives to the identified staging site on 110th Avenue NE
- \$\$\$ 4. Elevated Guideway Design: foundations, superstructure, construction methods, and retained fill along SR 520 rather than structure
- \$ 5. 120th Station Design Optimization
- \$ 6. Reduce Stormwater Vaults: Utilize low-impact development designs such as drywells, bioswales, rain gardens
- \$\$ 7. Expedite Tunnel Construction Through Additional Road Closures: Traffic closures and/or limited access along 110th Avenue NE

Ideas Previously Reviewed and Not Selected

South Bellevue Alignment

- 1a) Utilize Bellevue Way HOV ramps to exit from I-90
- 1b) At-grade in the center of Bellevue Way and 112th Avenue SE

112th Avenue SE Design Modifications

- 2a) Gated crossings at SE 6th Street

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Winters House

\$\$ 1a) Shift Bellevue Way West, At-grade light rail in front of Winters House

Why is this alternative being studied?

- Reduces construction cost
- Reduces construction risk by replacing a retained cut/lidded trench with at-grade
- Improves light rail operations due to fewer vertical changes in the alignment
- Increases separation between light rail and the Winters House
- Maintains access to the Blueberry Farm Stand

What other considerations need to be evaluated with this alternative?

- Purchase of properties on Bellevue Way near the Winters House
- Potential noise effects and mitigation from shifting light rail and Bellevue Way closer to residential homes
- Changes to access and effects at the Winters House
- Change in wetlands and Mercer Slough Nature Park impacts and mitigation
- Change in visual appearance

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Winters House

\$\$ 1b) Relocate Winters House, At-grade alignment

Why is this alternative being studied?

- Reduces construction cost
- Reduces construction risk by replacing a retained cut/lidded trench with at-grade
- Improves light rail operations due to fewer vertical changes in the alignment
- Maintains access to Blueberry Farm Stand

What other considerations need to be evaluated with this alternative?

- Selecting a relocation site for the Winters House and changes to effects on the house
- Change in wetlands and Mercer Slough Nature Park impacts and mitigation
- Potential noise effects and mitigation from moving light rail from retained cut to at-grade
- Change in visual appearance

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

112th Avenue SE

\$\$ 2a) At-grade, closing SE 4th Street while extending SE 8th Street into Surrey Downs to provide new neighborhood access

Why is this alternative being studied?

- Reduces construction cost
- Reduces construction risk by replacing a retained-cut with at-grade
- Improves light rail operations due to fewer vertical changes in the alignment
- Avoids the need for a bridge at SE 4th Street

What other considerations need to be evaluated with this alternative?

- Changes some partial property acquisitions on 112th Avenue SE to full purchases
- Changes local access from 112th Avenue SE to the Surrey Downs neighborhood from SE 4th Street to SE 8th Street and evaluation of potential for cut through traffic
- Changes to access and effects at Surrey Downs Park
- Potential noise effects and mitigation from moving light rail from retained-cut to at-grade
- Change in visual appearance

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Downtown Station Design

\$\$ 3a) Eliminate mezzanine, station entrance in the outer travel lane of 110th Ave. NE

Why is this alternative being studied?

- Reduces construction cost
- Improves station access by reducing the depth of the station
- Reduces construction risk due to a shallower tunnel and station
- May shorten construction duration
- Successfully used in the Downtown Seattle Transit Tunnel at the International District

What other considerations need to be evaluated with this alternative?

- Analysis of changes in pedestrian and traffic circulation and congestion
- Analysis of vibration effects from a shallower tunnel

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Downtown Station Design

\$\$ 3b) Construct a stacked tunnel configuration with entrances in the outer travel lane of 110th Ave. NE

Why is this alternative being studied?

- Reduces construction cost
- Reduces construction risk due to a narrower tunnel
- May reduce utility relocations due to a narrower tunnel
- May shorten construction duration
- Successfully used in Vancouver, BC

What other considerations need to be evaluated with this alternative?

- Analysis of changes in pedestrian and traffic circulation and congestion
- Analysis of vibration effects from a shallower tunnel

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Downtown Station Design

\$\$\$ 3c) Relocate Station to NE 6th

Why is this alternative being studied?

- Reduces construction cost
- Reduces construction risk due to replacement of subway station with an elevated station
- Reduces construction risk due to a shallower tunnel
- May shorten construction duration
- Greater visibility of the station

What other considerations need to be evaluated with this alternative?

- Changes in station access due to elimination of entrance south of NE 4th Street
- Effects on City Hall, Meydenbauer Center, and other properties on NE 6th Street
- Effects of future development of the vacant parcel by City Hall
- Analysis of vibration effects from a shallower tunnel
- Analysis of potential noise effects and mitigation
- Change in visual appearance

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Downtown Station Design

\$\$\$ 3d) Relocate Station to City Hall Plaza

Why is this alternative being studied?

- Reduces construction cost
- Reduces construction risk due to replacement of subway station with a partially elevated station
- Reduces construction risk due to a shallower tunnel
- May shorten construction duration
- Greater visibility of the station

What other considerations need to be evaluated with this alternative?

- Changes in station access due to elimination of entrance south of NE 4th St
- Effects on City Hall, including parking and public safety facilities
- Effects of future development of the vacant parcel by City Hall
- Analysis of vibration effects from a shallower tunnel
- Analysis of potential noise effects and mitigation
- Change in visual appearance

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Downtown Tunnel Design

\$\$ 4a) Retained-Cut Main St to NE 2nd

Why is this alternative being studied?

- May reduce construction cost by reducing length of cut & cover of tunnel
- May reduce tunnel ventilation requirements

What other considerations need to be evaluated with this alternative?

- Requires additional property acquisition
- Analysis of changes in pedestrian and traffic circulation and congestion
- May increase utility relocations
- Analysis of potential noise effects and mitigation
- Change in visual appearance

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

NE 16th Street & Light Rail Configuration

\$ 5a) Build a two-way road only on north-side of light rail alignment

Why is this alternative being studied?

- Reduces construction cost
- Total road/light rail width gets narrower
Reduces amount of road construction

What other considerations need to be evaluated with this alternative?

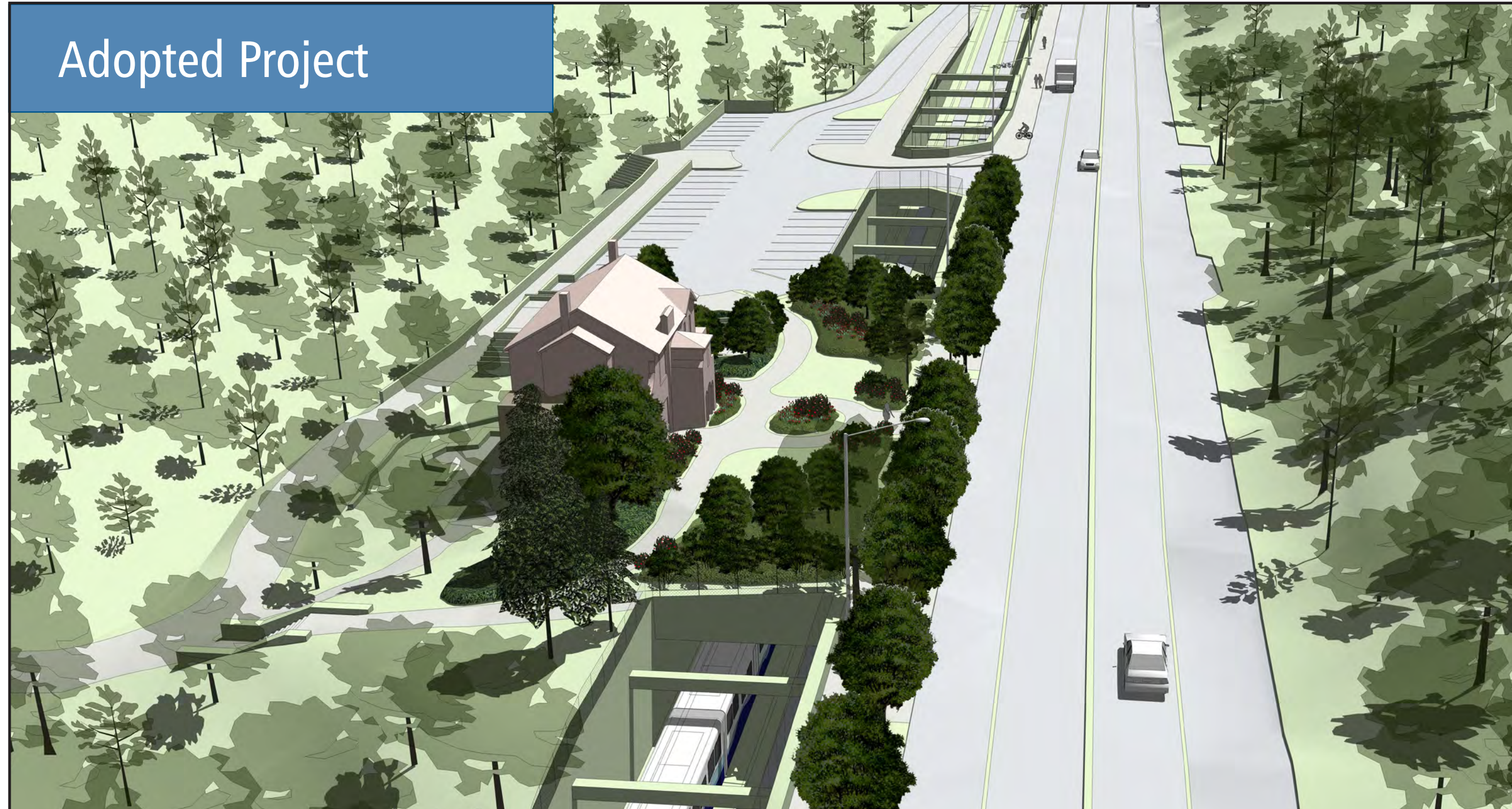
- Introduces gates until full comprehensive plan for NE 16th Street built
- Changes to traffic and pedestrian access to properties along NE 16th Street
- Analysis of potential noise effects and mitigation

Potential Cost-Savings	
\$	\$0-\$5 million
\$\$	\$5-\$15 million
\$\$\$	\$15+ million

Winters House

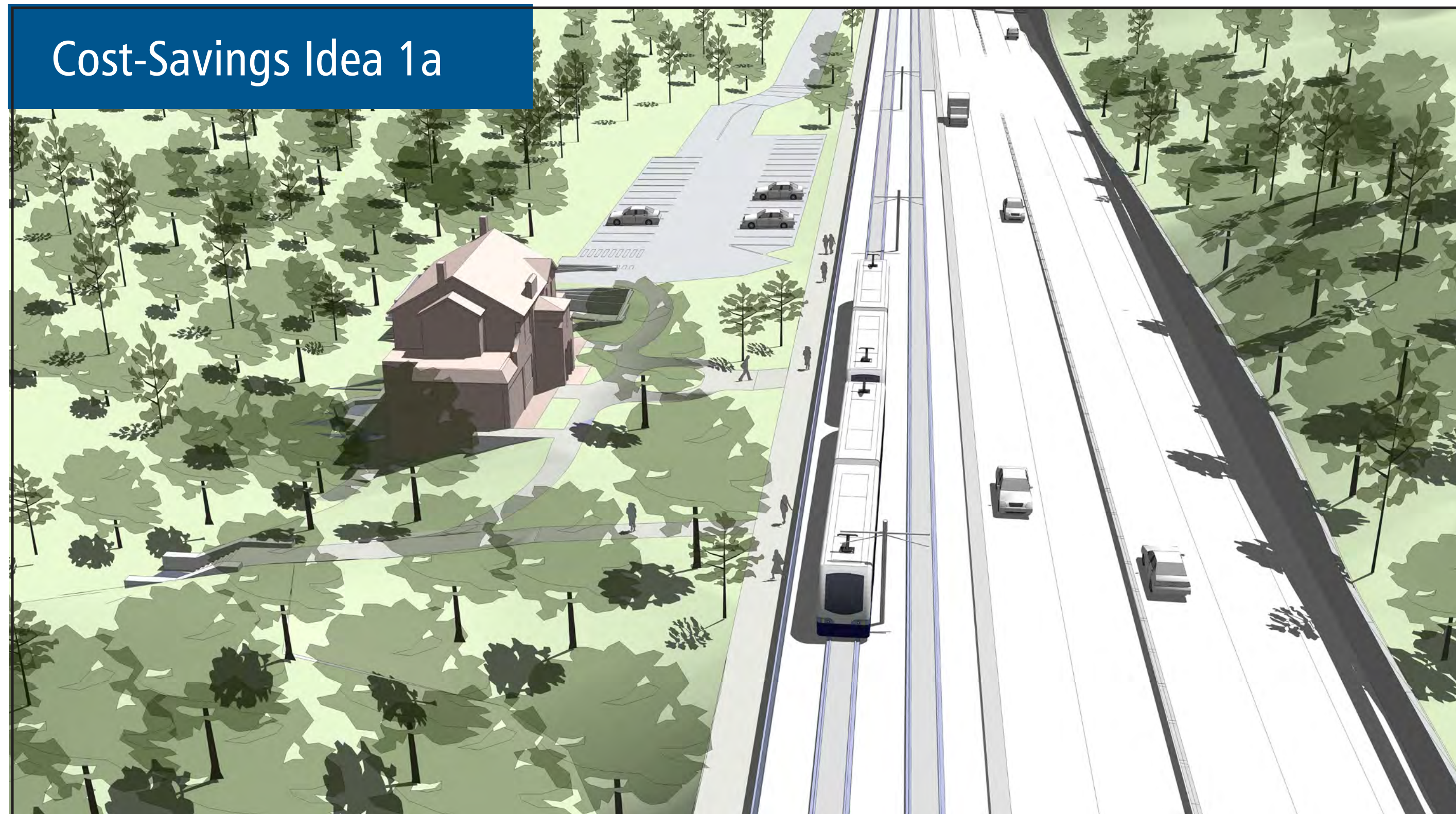
Cost-Savings Potential: \$6-10 million

1a) Shift Bellevue Way West, At-grade light rail in front of Winters House



Adopted Project

The adopted project includes an elevated structure from I-90 to the South Bellevue Park-and-Ride. The elevated alignment continues north and transitions to a lidded trench in front of the Winters House.



Cost-Savings Idea 1a

Cost-Savings Idea 1a replaces the trench in front of the Winters House with at-grade light rail along the east side of Bellevue Way. Bellevue Way is shifted to the west and realigned to provide additional separation between light rail and the Winters House. The elevated guideway is extended further north to provide a driveway at the Blueberry Farm stand that will also serve the Winters House.



Cost-Savings Idea 1a

Why Consider this Alternative?

- Reduces construction cost
- Reduces construction risk by replacing a retained cut/lidded trench with an at-grade alignment
- Improves light rail operations due to fewer vertical changes in the alignment
- Provides additional separation between light rail and the Winters House
- Maintains access to the Blueberry Farm Stand

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
\$22 million	\$13 million	\$6-10 million

East Link Light Rail Cost-Savings Ideas



Winters House

Cost-Savings Potential: \$4-7 million

1b) Relocate Winters House, At-grade Alignment

Adopted Project



The adopted project includes an elevated structure from I-90 to the South Bellevue Park-and-Ride. The elevated alignment continues north and transitions to a lidded trench in front of the Winters House.

Cost-Savings Idea 1b



Cost-Savings Idea 1b relocates the Winters House and constructs at-grade light rail in front of the existing Winters House location. This concept replaces the trench with an at-grade alignment along the same horizontal alignment as the adopted alignment. The elevated guideway is extended further north to provide a driveway at the Blueberry Farm stand that will also serve the Winters House.

Why Consider this Alternative?

- Reduces construction cost
- Construction risk is reduced by replacing a retained trench/lidded trench with an at-grade alignment
- Improves light rail operations due to fewer vertical changes in the alignment
- Maintains access to the Blueberry Farm

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
\$19 million	\$13 million	\$4-7 million

East Link Light Rail Cost-Savings Ideas



112th Avenue SE

Cost-Savings Potential: \$5-9 million

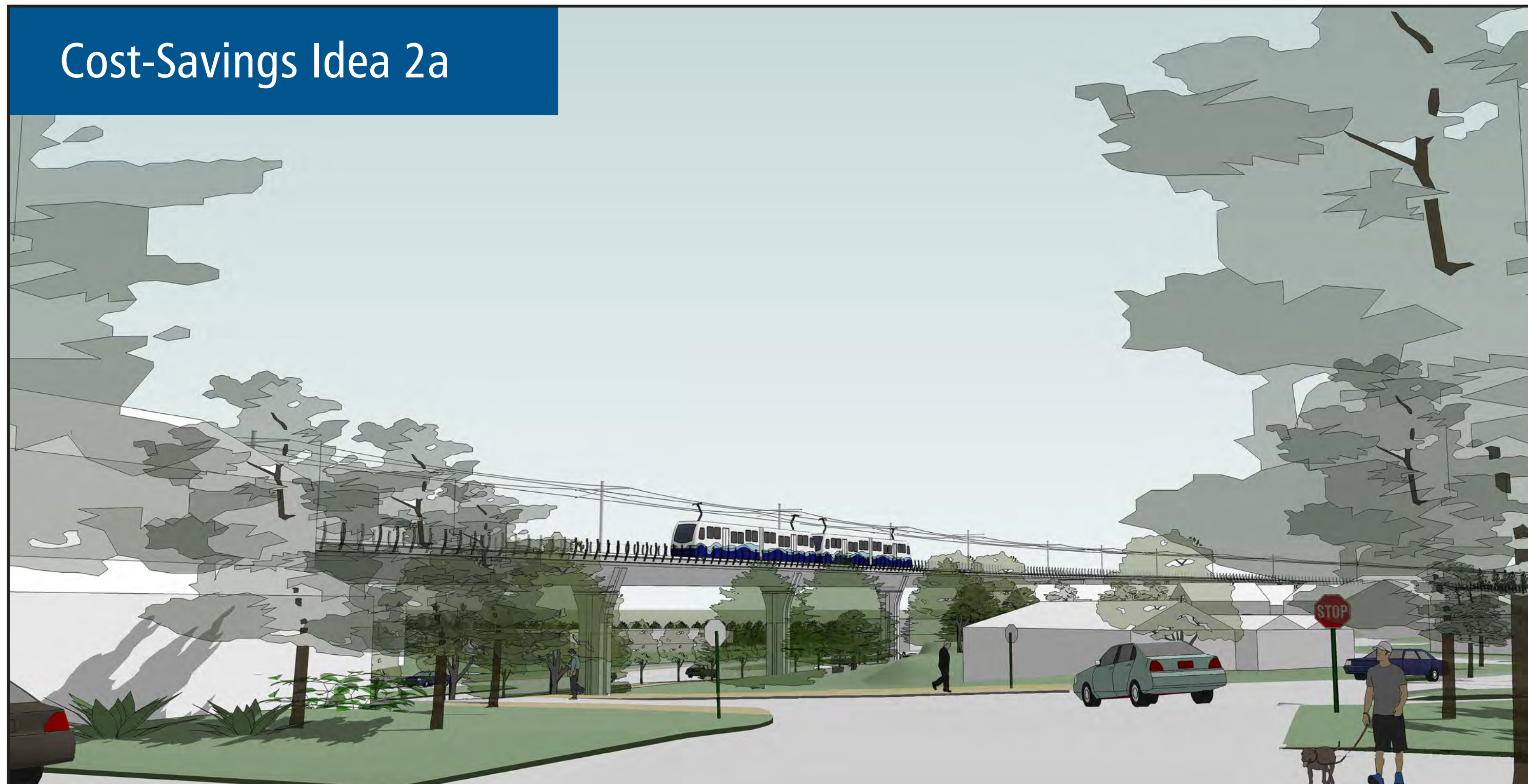
2a) 112th Ave. SE Alignment at Surrey Downs Park

MOU Recommendation



The MOU recommendation includes an elevated alignment across 112th Avenue SE. The light rail transitions to a retained cut trench after crossing 112th Avenue SE, just north of SE 8th Street. North of SE 8th Street, the alignment continues in a retained cut trench to cross below a reconstructed SE 4th Street. This concept maintains Surrey Downs neighborhood access at SE 4th Street.

Cost-Savings Idea 2a



Cost-Savings Idea 2a extends the elevated guideway slightly further north after crossing 112th Avenue. SE to accommodate a new neighborhood access road below the aerial guideway at SE 8th Street. The light rail then transitions north through a retained cut and at-grade alignment north of SE 8th Street. This new road extension replaces the Surrey Downs neighborhood access road at SE 4th Street.

Why Consider this Alternative?

- Reduces construction cost
- Construction risk is reduced by replacing a retained cut trench with an at-grade alignment
- Improves light rail operations due to fewer vertical changes in the alignment
- Avoids the need for a bridge at SE 4th St.
- Improves drainage within the trackway

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010)
\$57 million	\$50 million	\$5-9 million

East Link Light Rail Cost-Savings Ideas



112th Avenue SE

Cost-Savings Potential: \$5-9 million

2a) 112th Ave. SE Alignment at Surrey Downs Park (Continued)

MOU Recommendation



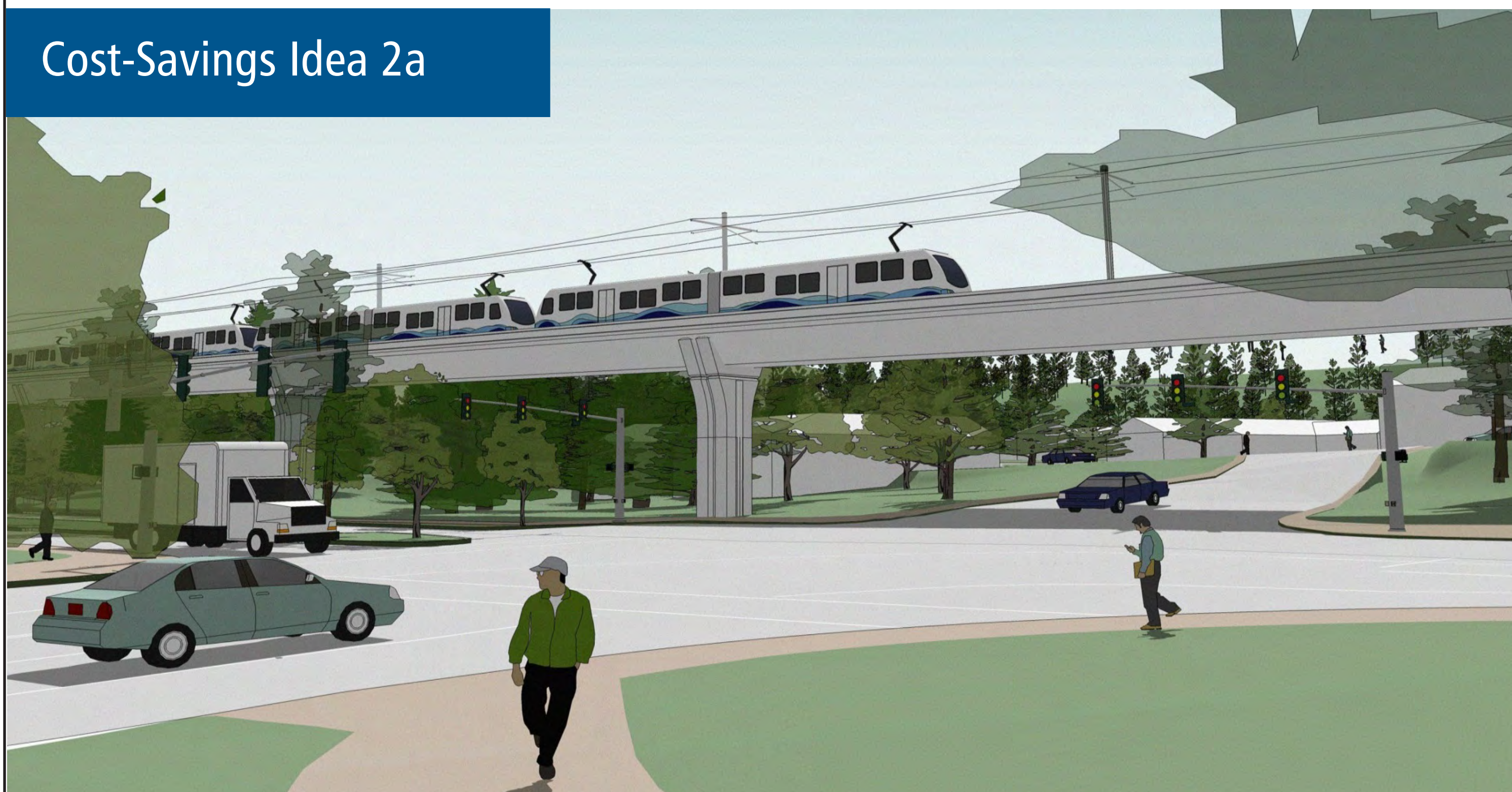
The MOU recommendation includes an elevated alignment across 112th Avenue SE. The light rail transitions to a retained cut trench after crossing 112th Avenue SE, just north of SE 8th Street. North of SE 8th Street, the alignment continues in a retained cut trench to cross below a reconstructed SE 4th Street. This concept maintains Surrey Downs neighborhood access at SE 4th Street.

Cost-Savings Idea 2a



Cost-Savings Idea 2a extends the elevated guideway slightly further north after crossing 112th Avenue SE to accommodate a new neighborhood access road below the aerial guideway at SE 8th Street. The light rail then transitions north through a retained cut and at-grade alignment north of SE 8th Street. This new road extension replaces the Surrey Downs neighborhood access road at SE 4th Street.

Cost-Savings Idea 2a



East Link Light Rail Cost-Savings Ideas



Downtown Station Design

Cost-Savings Potential: \$4-7 million

3a) Eliminate Mezzanine



The adopted project provides a cut-and-cover tunnel and station with a center platform and mezzanine. The mezzanine allows passengers to move below the street from entrances along the sides of 110th Avenue to the center platform. Tunnel portal located in the median of NE 6th Street.

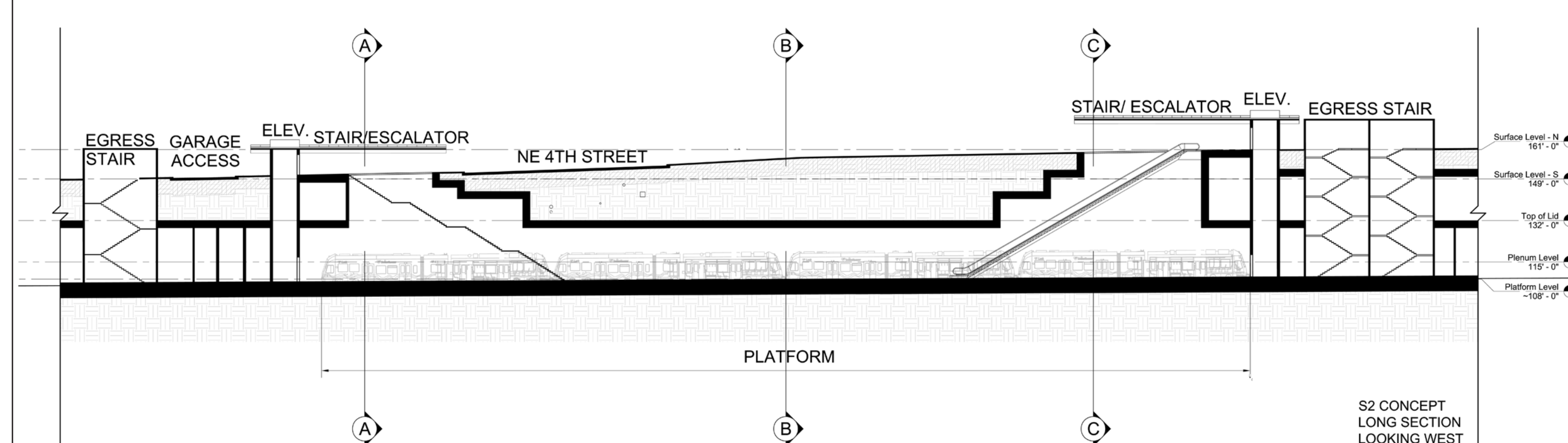
Identifies station entrance



Cost-Savings Idea 3a eliminates the mezzanine and provides access to the center station platform from 110th Avenue NE. Two station entrances located on east side of 110th Avenue NE; north and south of NE 4th Street.

Identifies station entrance

Cost-Savings Idea 3a



Why Consider this Alternative?

- Reduces construction cost and may shorten construction duration
- Improves station access by reducing the depth of the station
- Reduces construction risk due to a shallower tunnel and station
- Successfully used in the Downtown Seattle Transit Tunnel at the International District and Convention Place Stations

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
\$70 million	\$64 million	\$4-7 million

Downtown Station Design 3b) Stacked Tunnel Configuration

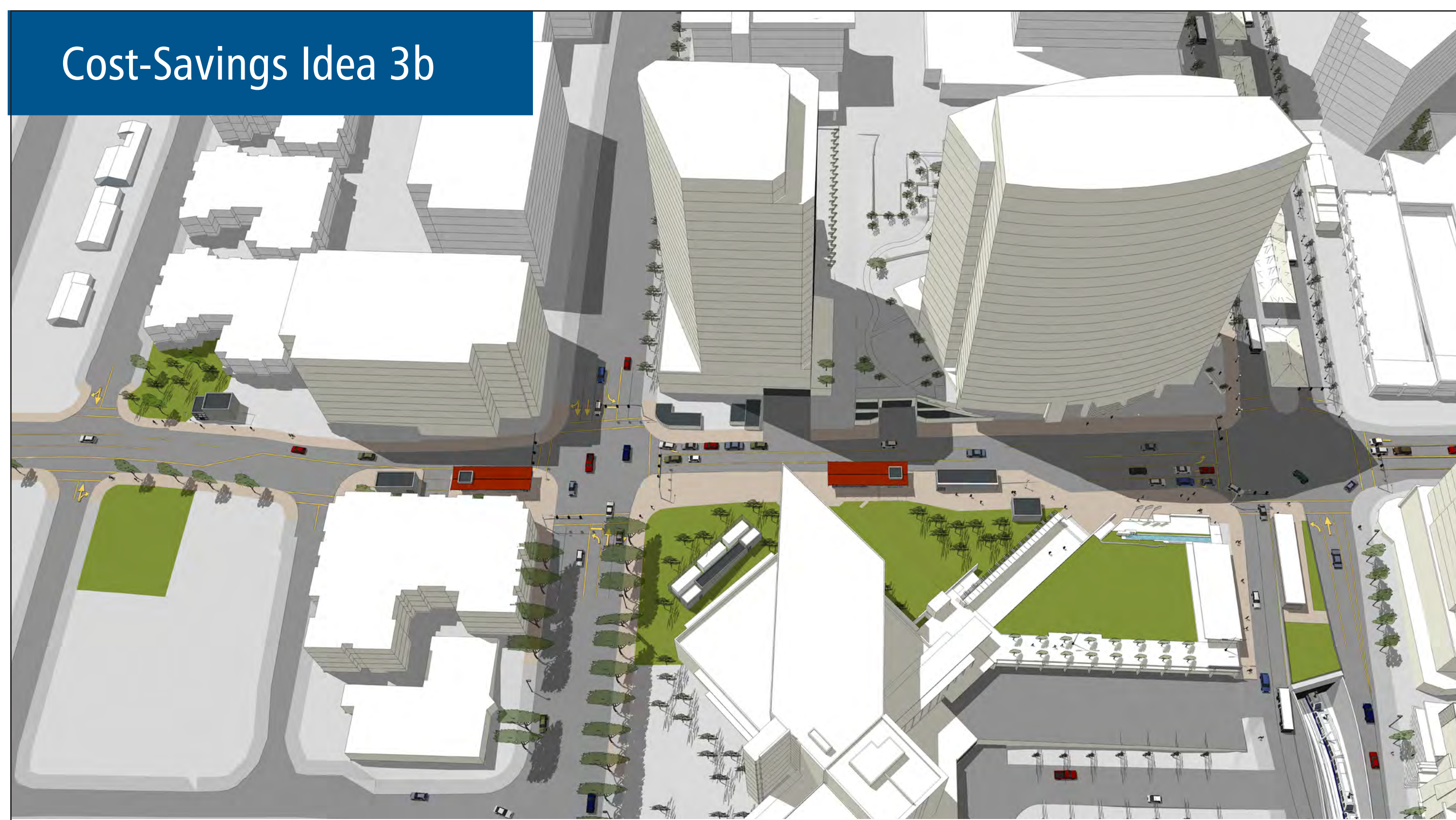
Cost-Savings Potential: \$8-13 million



Adopted Project

The adopted project provides a cut-and-cover tunnel and station with a center platform and mezzanine. The mezzanine allows passengers to move below the street from entrances along the sides of 110th Avenue to the center platform. Tunnel portal located in the median of NE 6th Street.

Identifies station entrance



Cost-Savings Idea 3b

Cost-Savings Idea 3b constructs a stacked cut-and-cover tunnel and station. This concept eliminates the mezzanine and relocates station access to the east side of 110th Avenue NE. Two station entrances located on east side of 110th Avenue NE; north and south of NE 4th Street.

Identifies station entrance



Cost-Savings Idea 3b

Why Consider this Alternative?

- Reduces construction cost; may shorten construction duration
- Reduces construction risk due to narrower tunnel
- May reduce utility relocations due to narrower tunnel
- Successfully used in Vancouver, BC

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
\$149 million	\$138 million	\$8-13 million

East Link Light Rail Cost-Savings Ideas



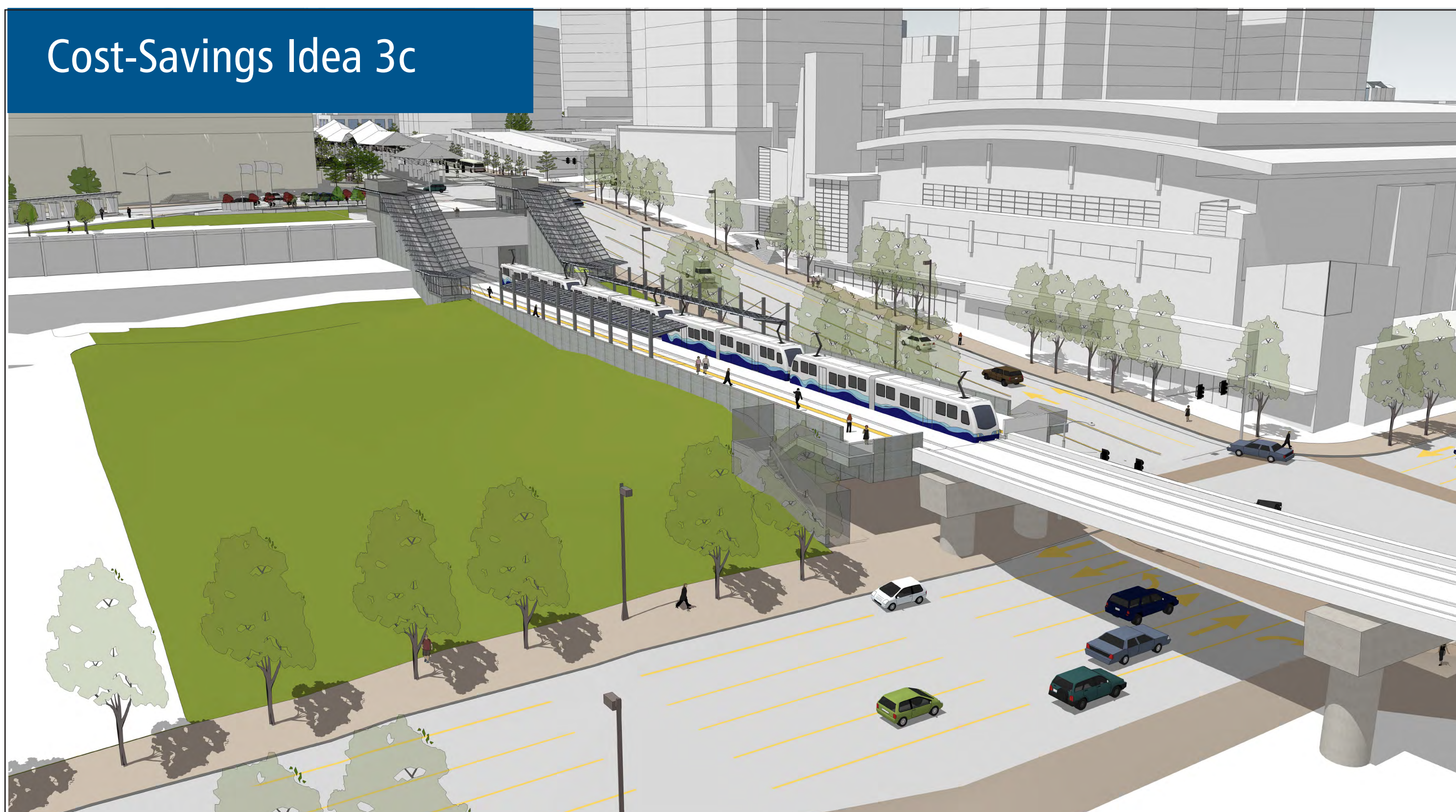
Downtown Station Design Cost-Savings Potential: \$10-18 million 3c) Relocate Station to NE 6th Street

Adopted Project



The adopted project provides a cut-and-cover tunnel and station with a center platform and mezzanine. The mezzanine allows passengers to move below the street from entrances along the sides of 110th Avenue to the center platform. Tunnel portal located in the median of NE 6th Street.

Cost-Savings Idea 3c



Cost-Savings Idea 3c relocates the station to NE 6th Street with at-grade station access on the west end of NE 6th Street. One station entrance at NE 6th Street. The tunnel portal is located on the south side of NE 6th Street.

Why Consider this Alternative?

- Reduces construction cost; may shorten construction duration
- Reduces construction risk due to replacement of subway station with an elevated station
- Reduces construction risk due to a shallower tunnel
- Greater visibility of the station

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
\$188 million	\$173 million	\$10-18 million

East Link Light Rail Cost-Savings Ideas



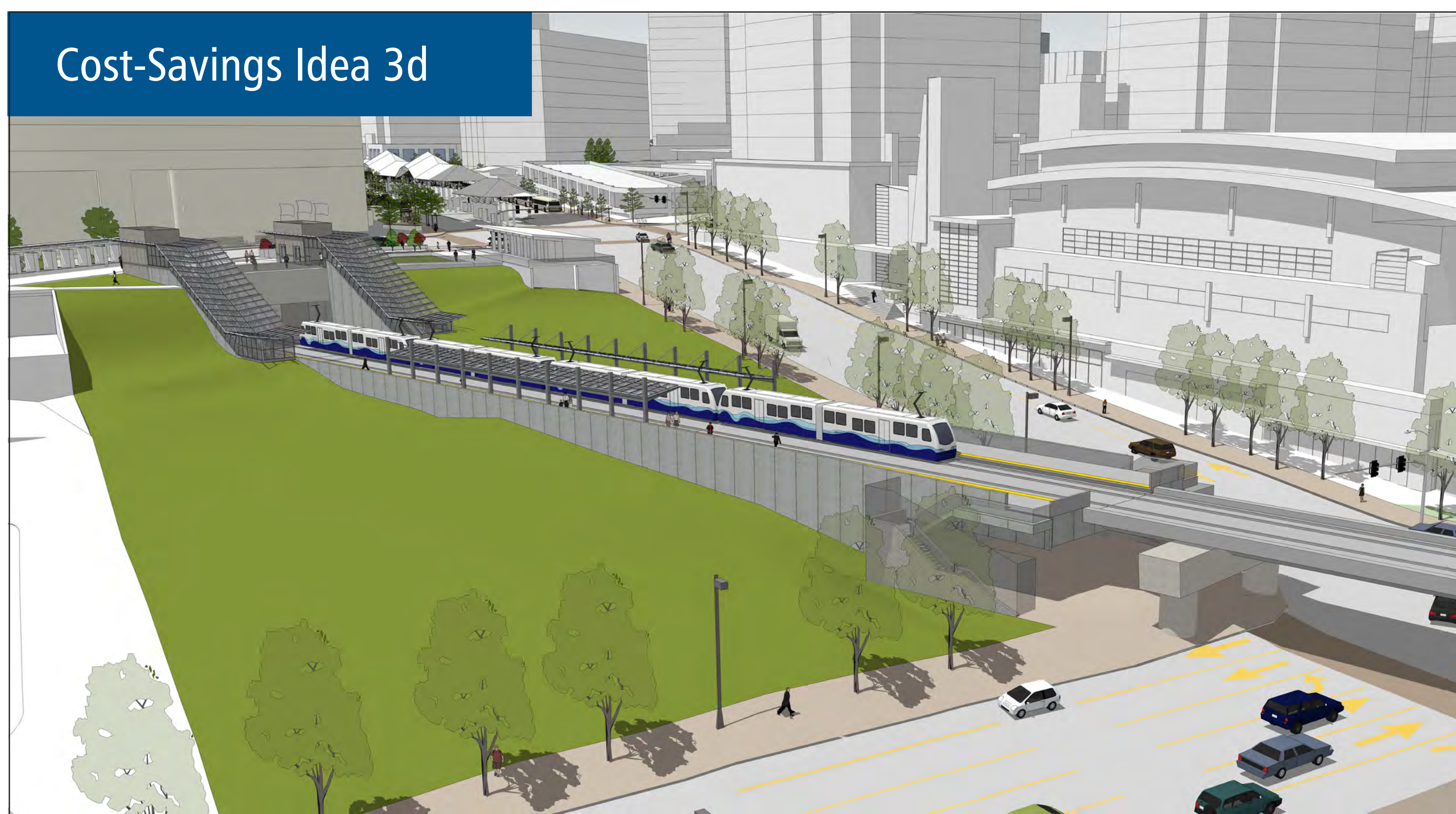
Downtown Station Design Cost-Savings Potential: \$14-23 million

3d) Relocate Station to City Hall Plaza



Adopted Project

The adopted project provides a cut-and-cover tunnel and station with a center platform and mezzanine. The mezzanine allows passengers to move below the street from entrances along the sides of 110th Avenue to the center platform. Tunnel portal located in the median of NE 6th Street.



Cost-Savings Idea 3d

Cost-Savings Idea 3d relocates the station to the City Hall Plaza in a shallower tunnel. This concept replaces existing parking and other adjacent uses. One station entrance at NE 6th Street. The tunnel portal is located in the middle of the City Hall parking garage.

Why Consider this Alternative?

- Reduces construction cost; may shorten construction duration
- Reduces construction risk due to replacement of subway station with a partially elevated station
- Reduces construction risk due to a shallower tunnel
- Greater visibility of the station

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
\$188 million	\$168 million	\$14-23 million

East Link Light Rail Cost-Savings Ideas

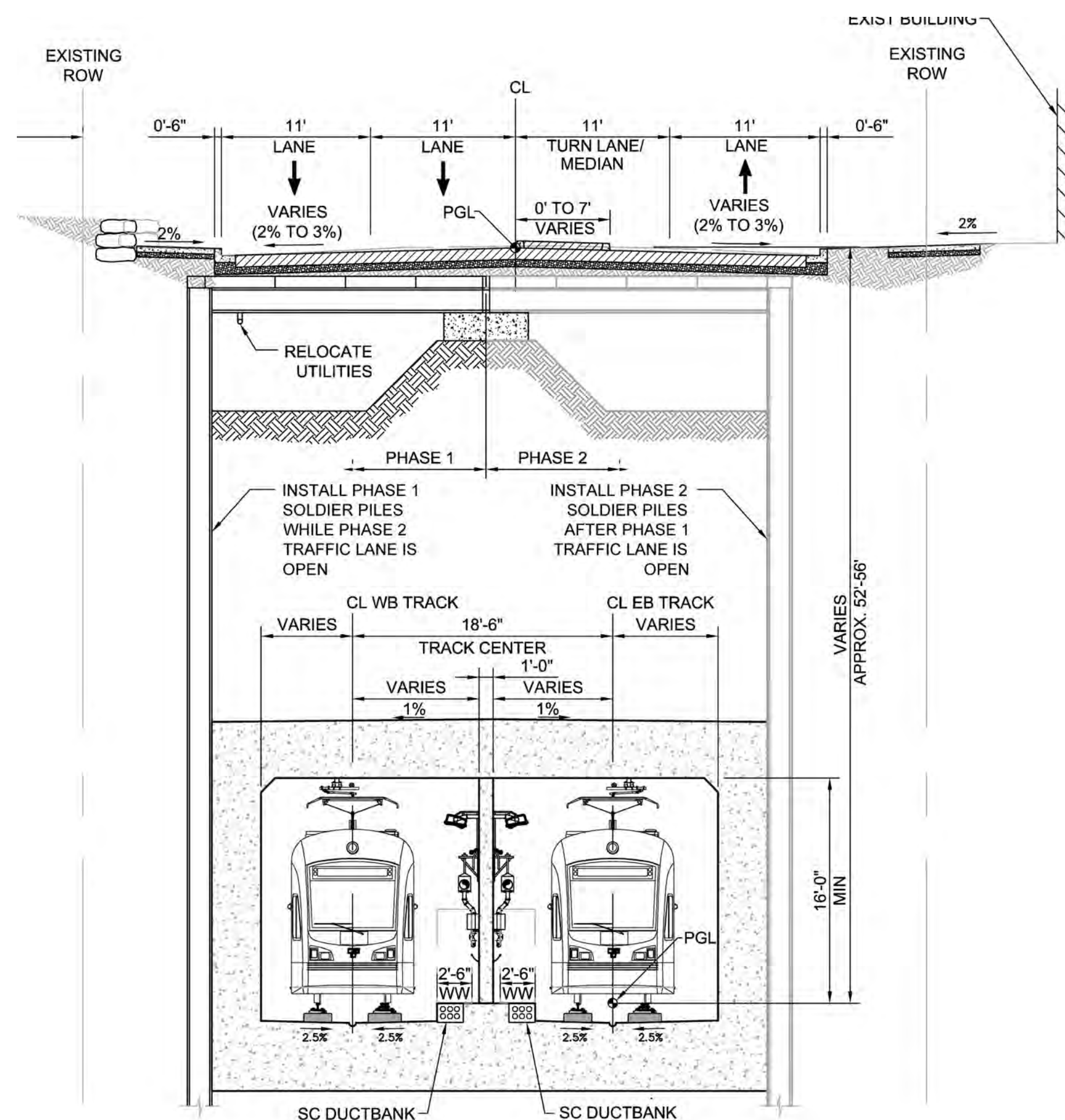


Downtown Tunnel Design

4a) Retained Cut from Main St. to NE 2nd St.

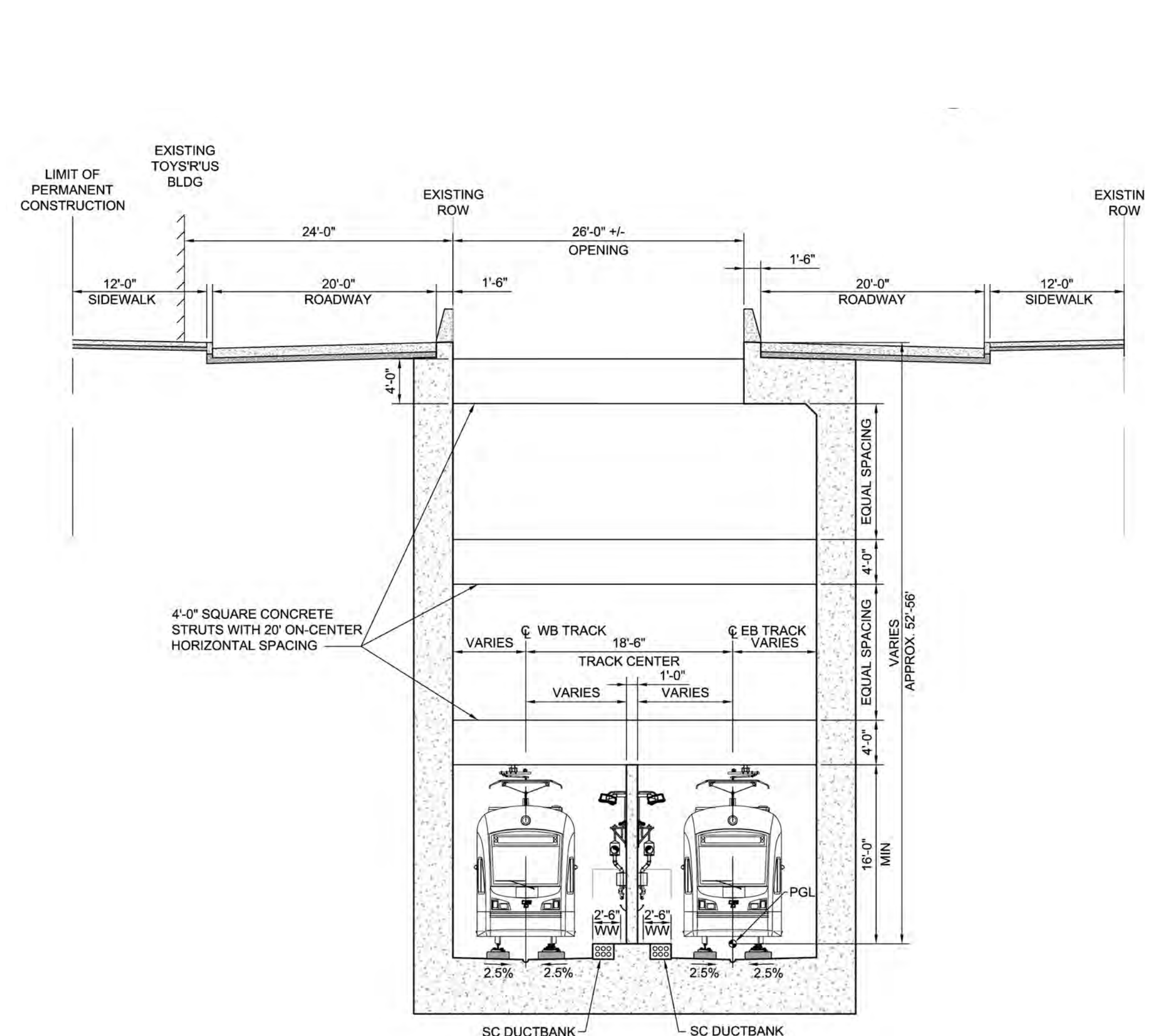
Upon further analysis,
no cost-savings

Adopted Project



The adopted project includes a cut-and-cover tunnel with a station on 110th Avenue NE between Main St. and NE 6th Street. The roadway would return to its current configuration upon completion of the project.

Cost-Savings Idea 4a



Cost-Savings Idea 4a replaces the cut-and-cover tunnel between Main Street and NE 2nd Street with a retained cut structure. The retained cut would include an opening along 110th Avenue NE. The intersections of Main Street and NE 2nd Street would be reconfigured to channel vehicular traffic. Wider travel lanes would be required to provide access for emergency vehicles.

Why Consider this Alternative?

- The original cost-savings idea envisioned a reduction in construction cost by reducing the length of the cut-and-cover tunnel and reducing tunnel ventilation requirements.
- However, after further engineering analysis and review, it was determined that this idea would in fact significantly increase costs and would also have other long-term disadvantages.

Cost Analysis

Adopted Project Estimate (2010 \$)

Cost-Savings Idea Estimate (2010 \$)

Range of Savings (2010 \$)

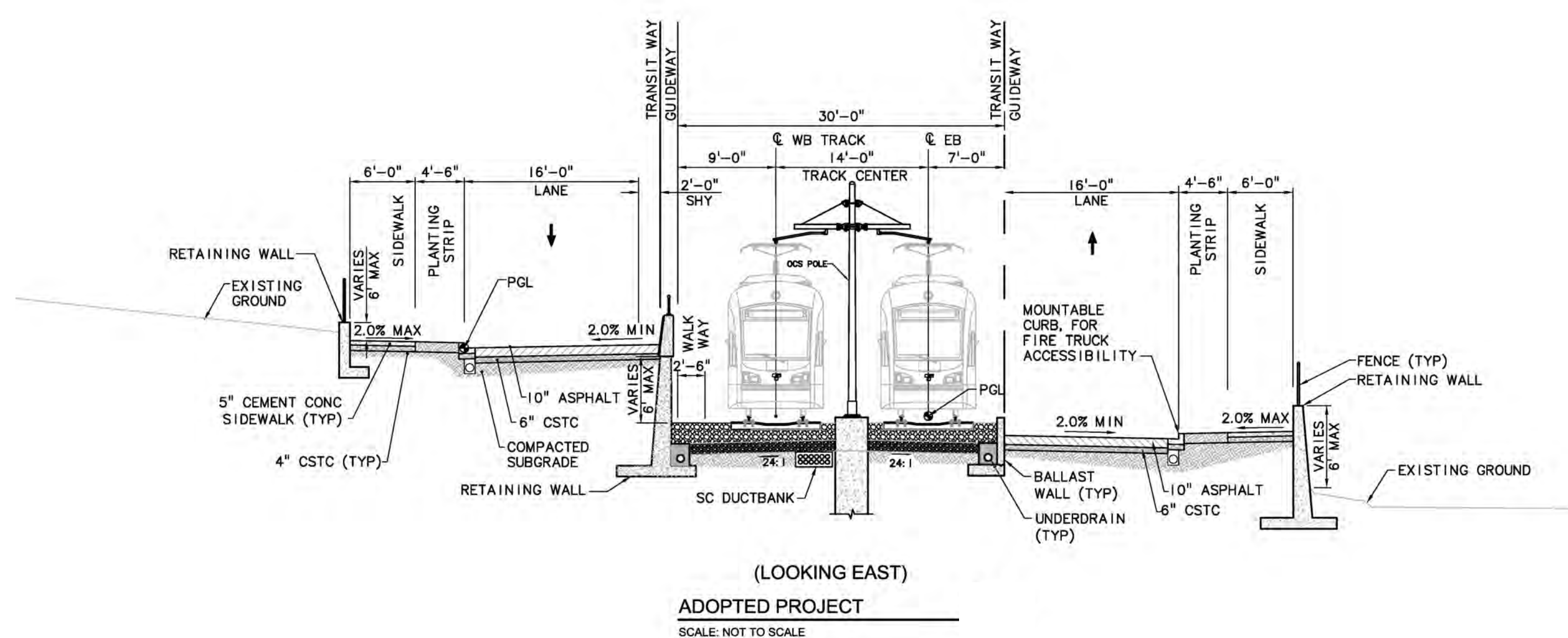
Upon further analysis, no cost-savings

NE 16th Street Road & Light Rail

5a) Build Two-Way Road on North Side of Light Rail

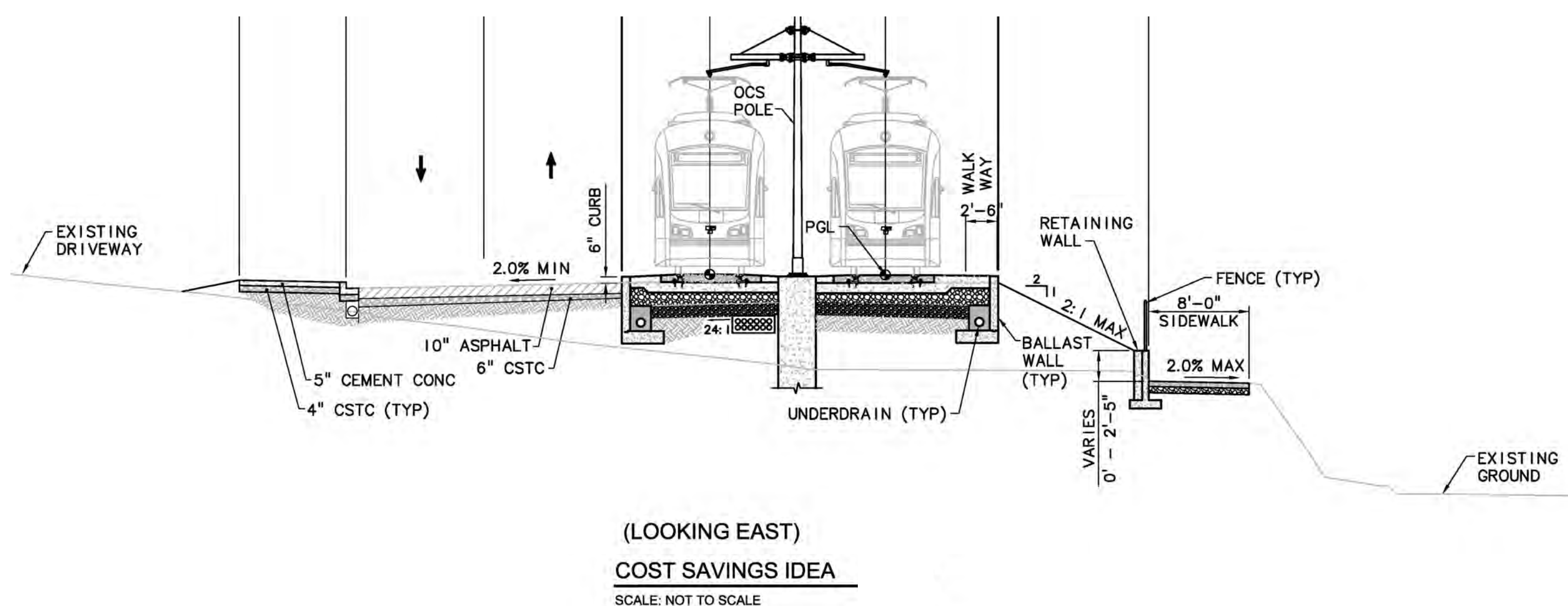
Upon further analysis,
no cost-savings

Adopted Project



The adopted project builds a split roadway cross-section on both sides of the light rail guideway. The north side of the roadway is elevated above the light rail and south side of the roadway.

Cost-Savings Idea 5a



Cost-Savings Idea 5a builds a two-way road on the north side of the light rail alignment. This concept minimizes the roadway section and uses an embedded light rail guideway to improve fire access width, eliminate throw-away walls, reduce the scope of drainage improvements and overall need for right-of-way in this area.

Why Consider this Alternative?

- Total road/light rail width gets narrower
- Reduces the amount of road construction
- Supports a phased implementation of a comprehensive plan for NE 16th St

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
Upon further analysis, no cost-savings		

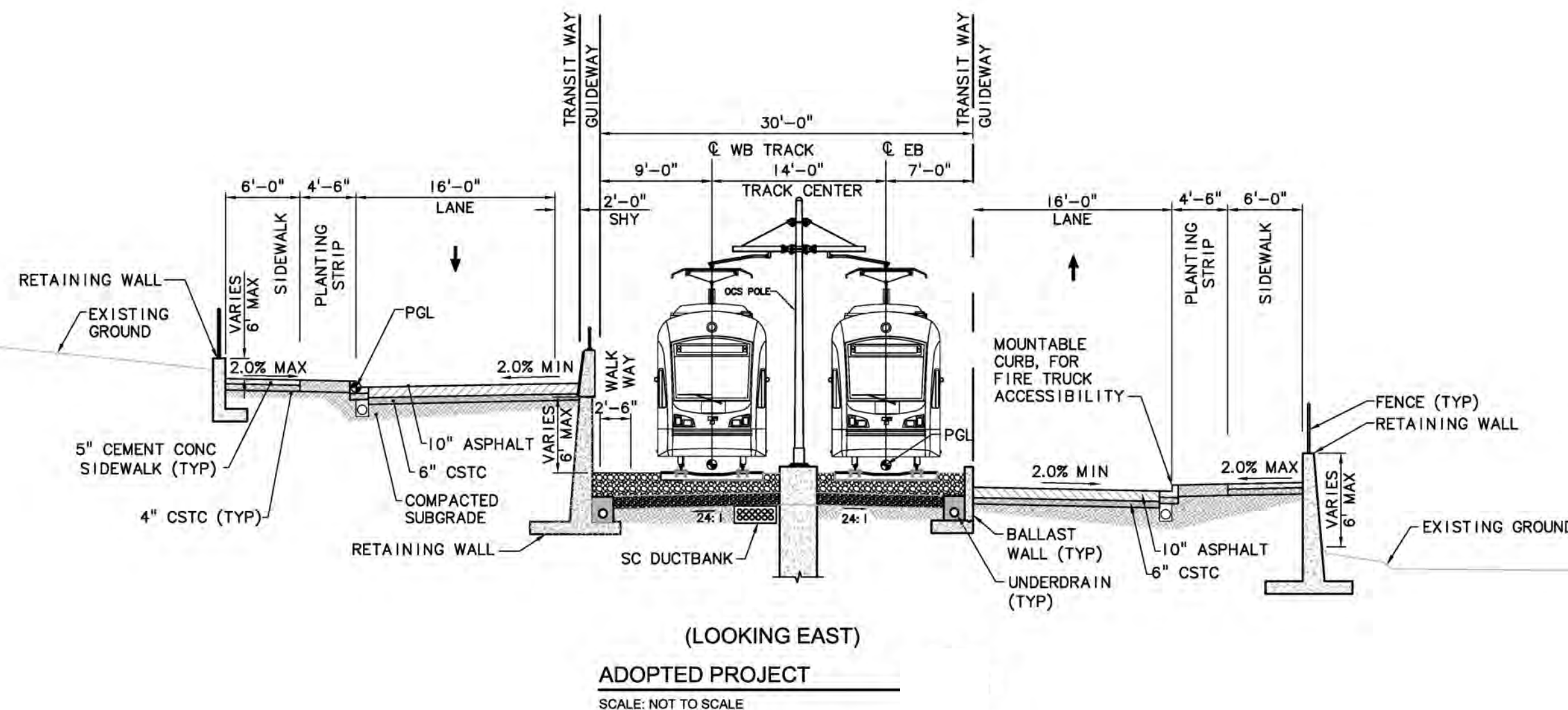
East Link Light Rail Cost-Savings Ideas



NE 16th Street Road & Light Rail 5b) Alternative Configuration of NE 16th

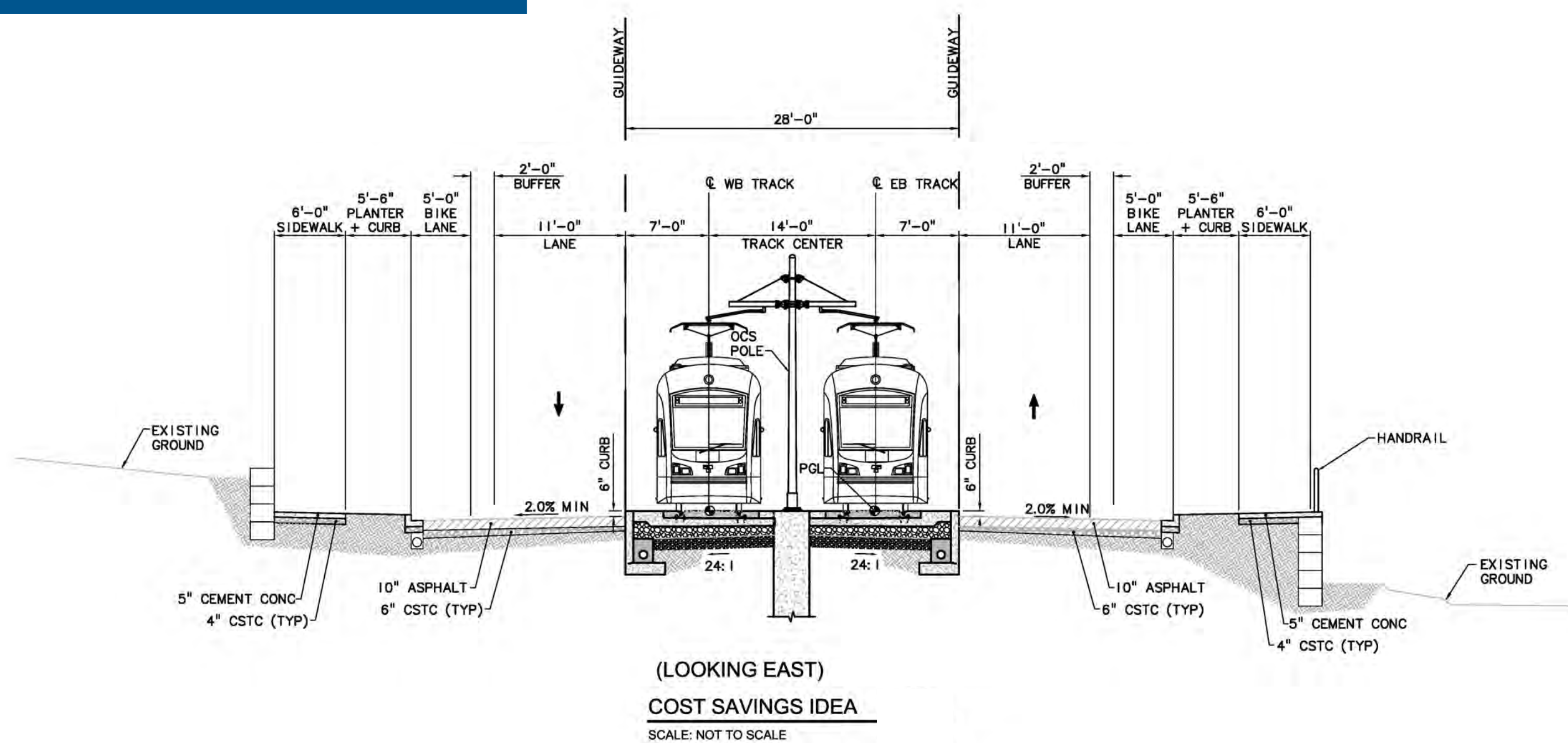
Upon further analysis,
no cost-savings

Adopted Project



The adopted project builds a split roadway cross-section on both sides of the light rail guideway. The north side of the roadway is elevated above the light rail and south side of the roadway.

Cost-Savings Idea 5b



The alternative configuration of NE 16th Street provides a split roadway cross-section on both sides of the guideway. The north and south roadways are vertically aligned and positioned with the light rail.

Why Consider this Alternative?

- Reduces future cost for constructing the roadway
- Accommodates future development opportunities, and the future extension of 134th Avenue NE
- Consistent with City of Bellevue plans

Cost Analysis

Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
Upon further analysis, no cost-savings		

What We've Heard

The first cost-savings open house generated robust community dialogue. Public comments demonstrated thoughtful insight and analysis of the cost-saving ideas. Participants identified key benefits and drawbacks for all of the ideas under consideration. The following key themes emerged:

- General support for seeking cost-savings measures
- Concern for noise and visual impacts
- Opposition to additional property acquisitions
- Concern for increased cut-through traffic in the Surrey Downs neighborhood
- Preference for a grade-separated alignment on 112th Ave SE
- Concern for environmental effects
- Support for access to downtown light rail stations
- General support for considering modifications to the downtown station



How will community feedback be included in the Cost-Savings process?

Sound Transit and the City of Bellevue will weigh public feedback from open houses, stakeholder briefings and public comment as they refine the cost-savings concepts. All comments will be compiled and shared with the Sound Transit Board and Bellevue City Council. In late June, cost-savings ideas will be identified for incorporation into value engineering and further development. As the project moves forward, there will be ongoing community engagement. City Council and Sound Transit deliberations on which ideas merit further consideration begins June 11. Comments received by June 10 will be included in the initial public comment summary. Comments received after June 10 will be included in subsequent updates.

Ideas for Further Engineering Review

Engineering cost-savings ideas are estimated to have a value of \$20-24 million.

- 1. Downtown Tunnel Design Optimization:** depth structural load-bearing walls, eliminate tunnel waterproofing.
Cost-Savings Potential: \$5 million
- 2. Downtown Station Design Optimization:** Reduce mezzanine platform size
Cost-Savings Potential: \$3 million
- 3. Elevated Guideway Design:** foundations, superstructure, construction methods, and geotech optimization
Cost-Savings Potential: \$16 million
- 4. Reduce Stormwater Vaults:** Utilize low-impact development designs such as drywells, bioswales, rain gardens
Cost-Savings Potential: \$2 million
- 5. Expedite Tunnel Construction Through Additional Road Closures:** Traffic closures and/or limited access along 110th Avenue NE
Cost-Savings Potential: \$13 million

Likely savings for the cost-savings ideas that may be advanced for further engineering totals \$20-24 million. This assumes that about half of the total potential savings will be realized, which is reasonable for the current level of design. Actual savings will be determined with additional engineering work that will occur during final design.

Cost-Savings Ideas That May Affect the MOU Project Description

Description	Adopted Project Estimate (2010 \$)	Cost-Savings Idea Estimate (2010 \$)	Range of Savings (2010 \$)
1. Bellevue Way Alignment at Winters House			
a. Shift Bellevue Way west to allow space for at-grade light rail in front of Winters House	\$22 million	\$13 million	\$6-10 million
b. Relocate Winters House, at-grade	\$19 million	\$13 million	\$4-7 million
2. 112th Ave. SE Alignment at Surrey Downs Park			
a. At-grade, closing SE 4th Street while extending SE 8th into Surrey Downs to provide new neighborhood access	\$57 million	\$50 million	\$5-9 million
3. Downtown Station Design			
a. Eliminate mezzanine, station entrance in outer lane of 110th	\$70 million	\$64 million	\$4-7 million
b. Construct a stacked tunnel configuration with entrances in the outer lane of 110th Avenue. (Allows tunnel to be narrower).	\$149 million	\$138 million	\$8-13 million
c. Relocate Station to NE 6th Street (Parallel)	\$188 million	\$173 million	\$10-18 million
d. Relocate station to the City Hall plaza (Diagonal)	\$188 million	\$168 million	\$14-23 million
4. Downtown Tunnel Design			
a. Retained cut from Main Street to NE 2nd Street	Upon further analysis, no savings.		
5. NE 16th Street Cross- Section			
a. Build two-way road on north side of light rail alignment	Upon further analysis, no savings.		
b. Alternative configuration of NE 16th Street	Upon further analysis, no savings.		

What is the Cost-Savings Decision Making Process?

Memorandum of Understanding (MOU)

November 2011

The MOU identifies Sound Transit and the City of Bellevue's commitment to work together to manage the project's scope, schedule and budget.

Collaborative Design Process

Early 2012

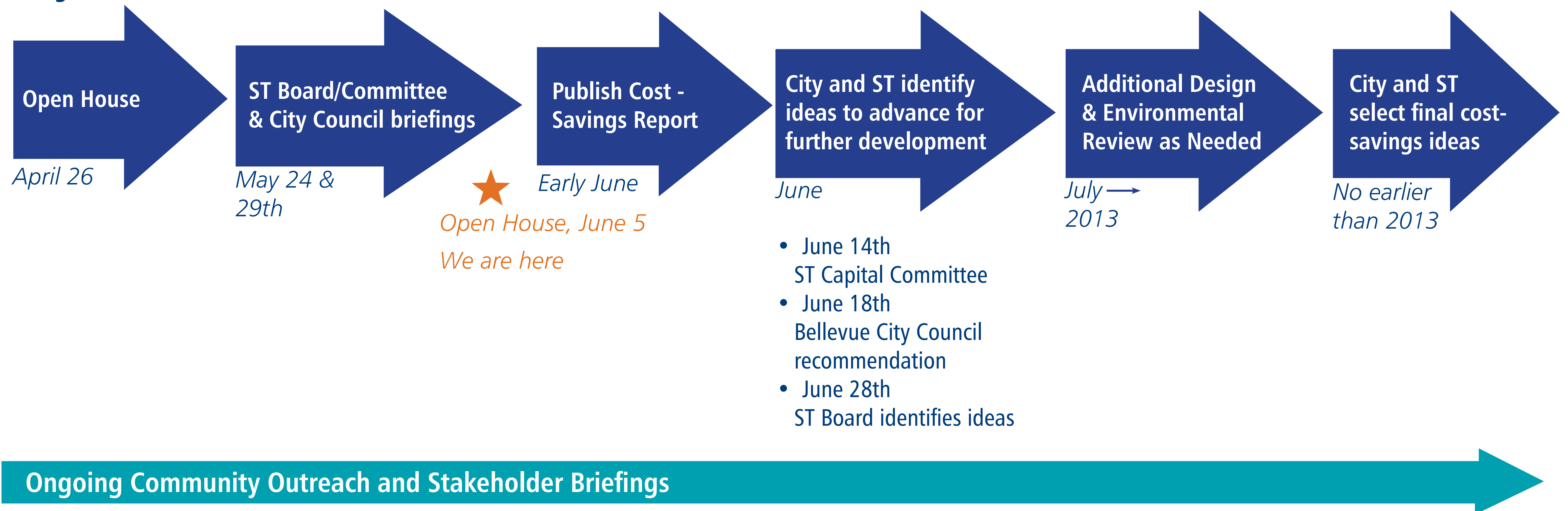
The City and Sound Transit are working together to meet the MOU goal of reducing the City's financial contribution for a downtown light rail tunnel by up to \$60 million.

Cost-Savings Study

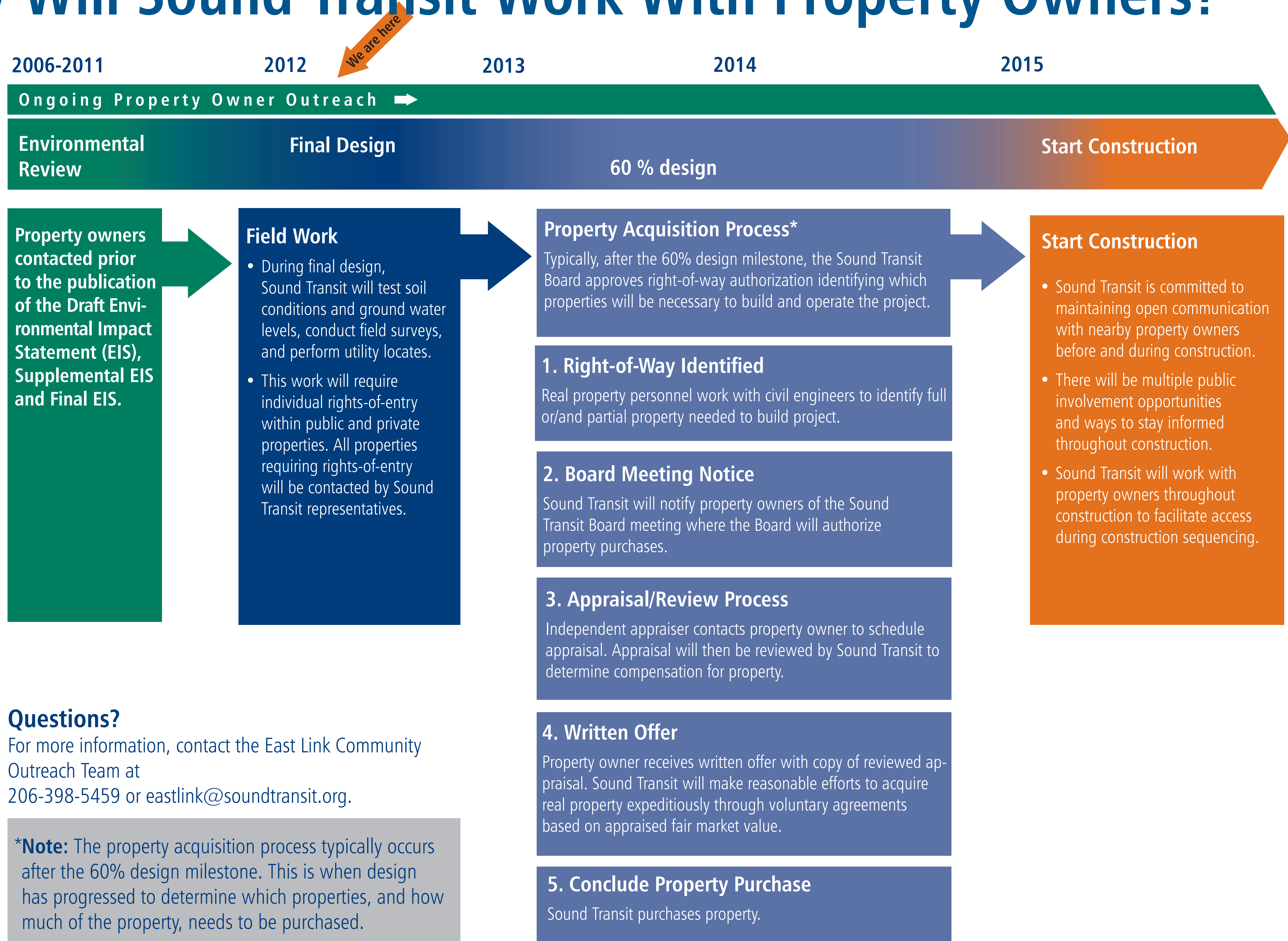
Early 2012

Sound Transit and the City of Bellevue developed ideas to reduce East Link costs within the City of Bellevue and convened a peer review panel to identify the most promising ideas.

Key Decision Milestones



How Will Sound Transit Work With Property Owners?



Questions?

For more information, contact the East Link Community Outreach Team at 206-398-5459 or eastlink@soundtransit.org.

***Note:** The property acquisition process typically occurs after the 60% design milestone. This is when design has progressed to determine which properties, and how much of the property, needs to be purchased.

Sound Transit/Bellevue MOU Schedule



Potential early work
 Scheduled work