

# Alternative 5 Comparison



# Alternative Comparison

## Overview

Each of the three crossing alternatives are distinctly different and work to evaluate different routes, scales, and impacts to Downtown and the Wilburton Commercial Area. While each alternative represents only a high level vision, and would undergo many revisions through design refinement, they offer an opportunity to explore innovative ideas as well as develop a pragmatic understanding of the different ways the two neighborhoods could be reconnected.

This chapter provides summary information of each crossing alternative as highlighted in the individual chapters (page 84). This information includes:

- Travel distance of the crossing route between Downtown and the Wilburton Commercial Area landing.
- The amount of usable public space created (park or plaza).
- The average width of the crossing over Interstate 405.
- The amount of area of Interstate 405 that is covered by the crossing.
- The amount of stormwater facility created in support of sustainable goals and the daylighting of Sturtevant Creek.
- Low and high cost estimates for each crossing alternative, including the anticipated cost for any land that needed to be acquired.

These elements are intended to consider the design elements and features of each crossing and how they compare to one another.

It also offers a high level ranking of each alternative based on criteria that was developed through the Wilburton Commercial Area Draft Environmental Impact Statement (DEIS). While the DEIS did not fully address the three alternatives or intend to serve as a means for a final decision on a preferred alternative, it did provide a high level comparison of the three crossings (page 85). These variables included:

- Planning- level cost (but not including long term implications to city or privately owned property needed to fulfill the vision).
- Constructibility challenges related to East Link light rail and conflicts with other Interstate 405 projects.
- The timing of when the crossing could be built and its relationship to other projects including; East Link light rail, Eastside Rail Corridor, and private development considerations.
- The quality of the user experience in relationship to mitigating sights and sounds of the interstate, as well as a memorable design.
- Travel distance and overall accessibility for users of all ages and abilities.
- Impacts to the City-owned property in relationship to improvements for facilities for the Grand Connection.

### *Travel Distance*

**Alternative 1:** The Sculptural Bridge provides the shortest overall travel distance from 112th Avenue NE to 116th Avenue NE, despite its meandering and curvilinear form. This is accomplished by maintaining the travel route along NE 6th Street, rather than traveling through or around surrounding private properties.

**Alternative 2:** The Linear Bridge travel distance is approximately 200 feet longer than the Sculptural Bridge as it requires users to travel around existing private property and to the midpoint between NE 6th and NE 4th Street.

**Alternative 3:** The Lid Park creates the longest travel distance as it focuses on creating a public space destination, in addition to crossing the interstate. These travel routes could be modified in design refinement, but would likely remain up to 200 or 300 feet longer than the Sculptural Bridge.

### *Public Open Space*

**Alternative 1:** The Sculptural Bridge option focuses on creating public open space in the Wilburton Commercial Area. Provided that the adjacent private property were to be acquired, it would provide the second largest amount of open space of the three alternatives. Without the acquisition of the private property the open space would be approximately half of the Lid Park.

**Alternative 2:** The Linear Bridge creates the least amount of public open space of the three alternatives, as it focuses on direct connectivity and a route that is embraced by urban development. Similar to the Sculptural Bridge, it would require the acquisition of private property in order to realize the full 100,000 square feet of open space.

**Alternative 3:** The Lid Park creates the largest amount of open space, at just under 200,000 square feet. This space would primarily be over the interstate and not directly within the Wilburton Commercial Area. Acquisition of private property would not be necessary in order to create the public open space.

### *Sustainable Systems*

**Alternative 1:** The Sculptural Bridge option provides the largest amount of stormwater facility, at over 80,000 square feet, as part of the proposed park and plaza space within the Wilburton Commercial Area. Similar to the other three options, Sturtevant Creek would also be daylighted.

**Alternative 2:** The Linear Bridge creates a slightly smaller stormwater facility, approximately 67,000 square feet, as part of a more modest park and plaza configuration.

**Alternative 3:** The Lid Park creates the smallest stormwater facility, despite creating the most amount of impervious surface. A 30,000 square foot stormwater facility would be created on the city owned Lincoln Center property, partially under the elevated Grand Connection crossing to the Eastside Rail Corridor and the East Link aerial guide-way.

### *Planning-Level Cost*

**Alternative 1:** The Sculptural Bridge is estimated to cost between \$52.8 and \$73.1 million. This estimate includes the cost to construct the crossing as well as the park within the Wilburton Commercial Area. This cost does not reflect the price of land acquisition following zoning changes to the Wilburton Commercial Area. The cost also does not reflect missed opportunities in construction or tax revenue from the Lincoln Center and privately owned site that would no longer hold development potential.

**Alternative 2:** The Linear Bridge is the least expensive of the three alternatives, with its more direct route, less mitigation from the interstate, and its simplified design and construction method. It is estimated to cost between \$48.7 and \$66.1 million, and reflects the cost to construct the park, plaza, and stormwater feature. This cost does not reflect the price of land acquisition following zoning changes to the Wilburton Commercial Area. The cost also does not reflect missed opportunities in construction or tax revenue from the Lincoln Center and privately owned site that would no longer hold development potential.

**Alternative 3:** The Lid Park is the most expensive of the three alternatives with an estimated cost between \$116.1 and \$130.1 million. This option creates the largest surface area and public space, and does not require the acquisition of private property as part of the total cost. The cost does not reflect the construction and tax revenues that could be preserved by maintaining development potential on the City owned Lincoln Center site and the adjacent private property.

### *Constructibility*

**Alternative 1:** The Sculptural Bridge presents some of the largest challenges in constructibility. The innovative use of timber could provide challenging from a permitting and code perspective, assuming that changes in the allowable usage of timber have not occurred by the time of final design. As the structure is in the shadow of the light rail guide-way, it may also pose additional challenges and restrictions on construction due to the operation of the light rail line.

**Alternative 2:** The Linear Bridge presents the least amount of challenge, with its simplified construction method and materiality, as well as its aversion to

conflicts with the light rail line. Additionally, the crossing minimizes interactions with the Interstate 405 access ramps.

**Alternative 3:** Similar to the Sculptural Bridge, the Lid Park could be challenged by its proximity to the light rail guide-way and corresponding restrictions. The Lid Park does have the advantage of possibly being constructed in phases which could allow for a crossing element to be completed initially, or just a portion of the lid.

### *User Experience*

**Alternative 1:** The Sculptural Bridge creates a unique experience once the user has reached the midpoint over the interstate. The transition in materiality will create a unique aesthetic quality, and as a user continues along the route, will become surrounded by vegetation prior to descending into the newly created park and open space. The layering of material will assist in screening the sights and sounds of the interstate to a moderate level compared to all three alternatives. Mitigating these sights and sounds will encourage users to linger in the modest public spaces as they cross the interstate.

**Alternative 2:** The Linear Bridge focuses less on experience and more on crossing the interstate between neighborhoods. Modest vegetation will exist to screen from the sights of the interstate, but minimal sound mitigation would exist. The crossing would offer direct sight lines between Downtown and the Wilburton Commercial Area, and once across the interstate the experience will be of a much more urban nature with developments in close proximity to the crossing. The limited mitigation will likely encourage users to want to move across the bridge relatively quickly and would not encourage greater public use.

**Alternative 3:** The Lid Park offers the greatest mitigation from the sights and sounds of the interstate below. It would cover approximately 160,000 square feet between NE 4th and NE 6th, placing the interstate out of view from users, and sound mitigated to the greatest extent feasible. The access ramps will remain partially covered, with walls and berms providing a barrier between the user and the traffic on the ramps. Multiple entry points provide the feeling of a public space and park, and less of a crossing. Vegetated hills and berms create a natural environment feeling, similar to that of the Sculptural Bridge. The scale of the public space and the mitigation of sights and sound will make the lid park a destination for events and everyday use, encouraging social gathering and lingering.

#### *Consequences to City-Owned and Private Property*

**Alternative 1:** The Sculptural Bridge has the greatest impact on private and city-owned property in the Wilburton Commercial Area. The planning process for the Wilburton Commercial Area identified the need for a central civic and open space for the new neighborhood, which would be provided through the city owned parcel and the adjacent private property as part of the Interstate 405 crossing. This alternative would require the acquisition of private property and the conversion of both parcels into the use of a park and plaza space, removing ability for future development and corresponding revenue. The Sculptural Bridge option avoids interaction or conflict with any property in Downtown as it uses the NE 6th Street right-of-way or attached structure as its route.

**Alternative 2:** Similar to the Sculptural Bridge, the Linear Bridge would have significant impacts on the City owned Lincoln Center parcel and the adjacent

private property. It maintains partial development opportunities on the city owned parcel as the landing of the Linear Bridge is further south than the Sculptural Bridge, but still represents a reduced development capacity compared to the Lid Park. The balance of the property would be converted to a park and open space. The adjacent private property would require acquisition and would be used in its entirety for the crossing as well as the landing and public plaza. This configuration permits some additional development immediately around the Grand Connection landing but is reduced. The Linear Bridge would also require coordination with property on the west side of the interstate. With its gateway public plaza, it would require careful coordination and timing with any future development along 112th Avenue NE.

**Alternative 3:** The Lid Park represents the least impact on private property or the city owned parcel as much of the crossing is constructed over the interstate. Development potential, and all corresponding revenues would be preserved on the city owned parcel as well as the adjacent private property, and no property acquisition would be required. The stormwater feature constructed on the city owned parcel is within the shadow of the light rail aerial guide-way, which would not permit the construction of buildings regardless. Careful coordination would be required with future developments on both the east and west sides of the interstate in order to calibrate the height of building podiums and the lid in order to establish a connected and contiguous surface between 112th Avenue NE and 116th Avenue NE. While access would still exist from public rights-of-way such as NE 6th Street, NE 4th Street and 116th Avenue NE, easements and corresponding agreements would need to be made in order to provide access from private development.

All three alternatives assume an elevated crossing over 116th Avenue NE, ultimately interfacing with the Eastside Rail Corridor. This elevated crossing would impact private property on the east side of 116th Avenue NE. Careful coordination would be required in the design phase in order to provide access between the Eastside Rail Corridor and the Grand Connection. Easements and corresponding agreements would need to be made to ensure full public access across upper levels of future development, as well as appropriate width of the easement to provide a feeling of public accessibility between to the two routes.

	Alternative One	Alternative Two	Alternative Three
<b>Travel Distance</b>  <small>From Intersection of 112th Avenue NE and NE 6th Street to 116th Avenue NE landing.</small>	1,250 Feet	1,460 Feet	1,560 Feet
<b>Parks and Open Space</b> 	159,000 Square Feet	100,000 Square Feet	190,000 Square Feet
<b>Crossing Width</b> 	65 Feet	65 Feet	533 Feet
<b>Surface Area Covering the Interstate</b> 	10,075 Square Feet	27,150 Square Feet	160,000 Square Feet
<b>Stormwater Facility</b> 	81,000 Square Feet	67,000 Square Feet	30,000 Square Feet
<b>Cost</b> 	Low estimate: <b>\$52.8 million</b> High estimate: <b>\$73.1 million</b>	<b>\$48.7 million</b> <b>\$66.1 million</b>	<b>\$116.1 million</b> <b>\$130.1 million</b>

Performance Measure	Alternative One	Alternative Two	Alternative Three
<b>I-405 Crossing Cost</b> Estimated design, engineering, and construction cost for each alternative. Not including impacts to city-owned property.			
<b>Constructibility</b> What challenges exist for each alternative? <ul style="list-style-type: none"> <li>Interface with East Link construction</li> <li>Conflicts with I-405 projects</li> </ul>			
<b>Timing</b> How is the timing affected by; <ul style="list-style-type: none"> <li>East Link Construction (2023)</li> <li>Eastside Rail Corridor (2023)</li> <li>Private Development (2021+)</li> </ul>			
<b>User Experience</b> Which alternative mitigates the sights, sounds, and other negative impacts of the interstate the best? Which afford the greatest opportunities for public benefit such as views, public space, and programming? Which offers the greatest opportunity for a signature physical design?			
<b>Travel Distance and Accessibility</b> What are the travel distances and changes in elevation a user must make to access each alternative.			
<b>What are the consequences to the City-Owned Parcel (Lincoln Center)?</b> Turn Lincoln Center into a park/plaza or not. Necessity to purchase additional property to complete park/plaza vision <ul style="list-style-type: none"> <li>Applicable to Alternatives 1 and 2</li> <li>What is the cost of a park?</li> <li>What is the cost of land acquisition for a park?</li> <li>Property tax implications of removing development potential?</li> </ul>			

**Key**

Strong    Moderate    Weak