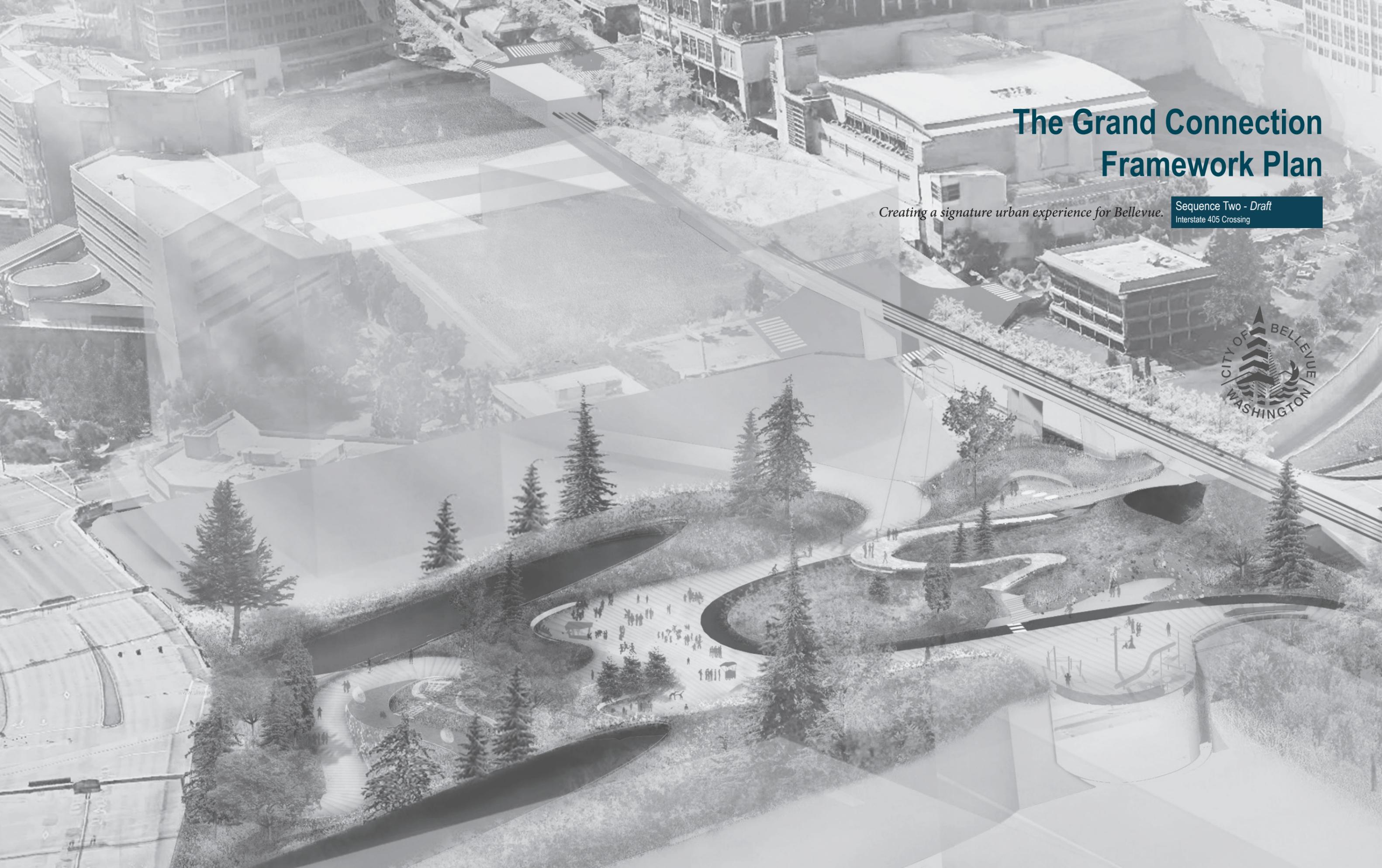


The Grand Connection Framework Plan

Creating a signature urban experience for Bellevue.

Sequence Two - Draft
Interstate 405 Crossing





Contact

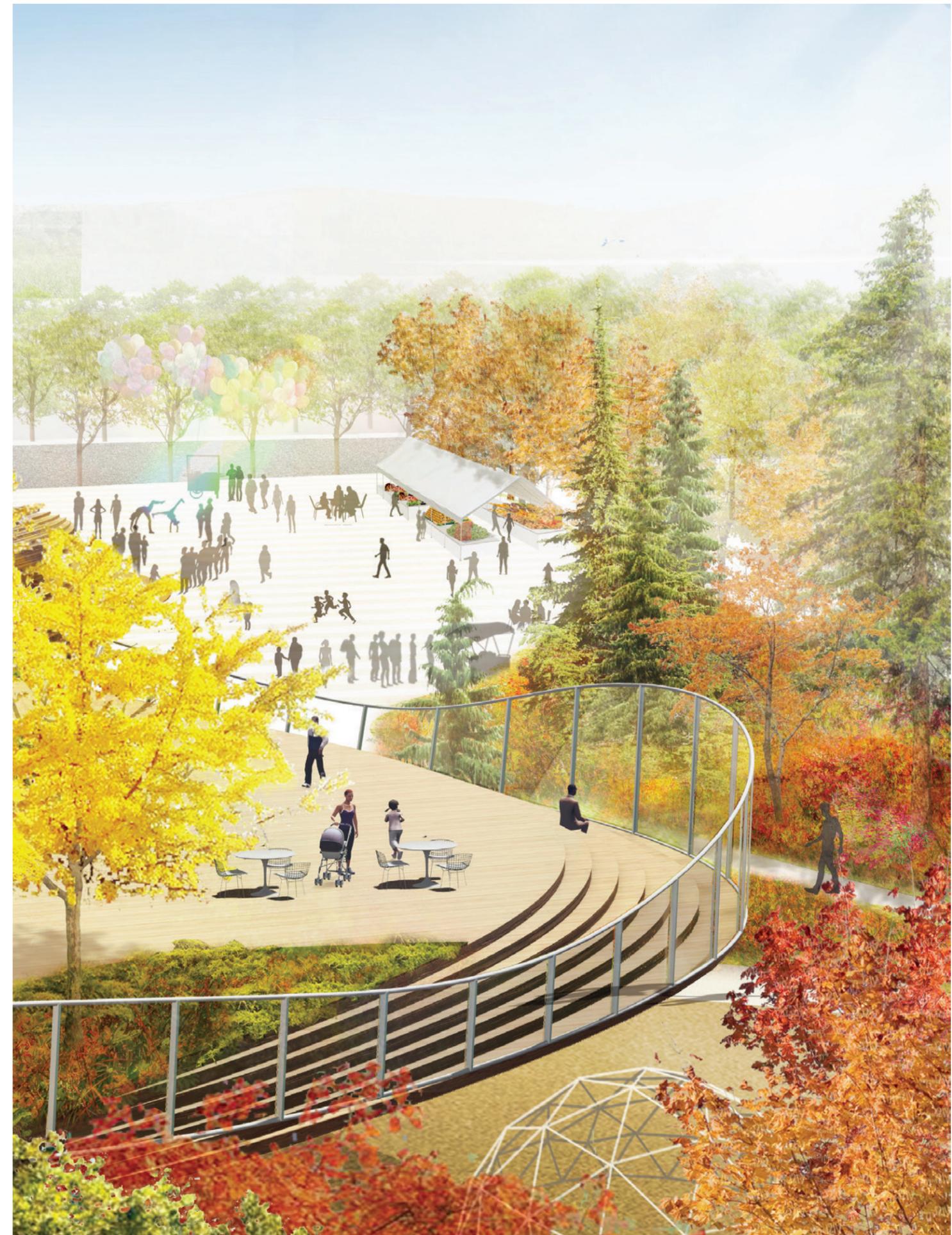
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Alternative One Interstate 405 Crossing - Image by Balmori ►





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Acknowledgments

Bellevue City Council

Established as a Council priority in 2012, the Bellevue City Council has provided their enthusiastic support and generous funding to advance the vision of the Grand Connection. Council's support and direction has allowed the project to pursue new concepts and ideas that have established a transformational vision and pursuit of new opportunities.

Current City Council Members

John Chelminiak - *Mayor*
Lynne Robinson - *Deputy Mayor*
Conrad Lee
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Jennifer Robertson
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Kevin Wallace

Consultant Team

The ideas set forth through the Grand Connection Visioning process were a result of a collaboration with the City of Bellevue and a world-class consultant team of designers, engineers, artists, and transportation experts. The City wishes to thank this team of consultants for their energy, creativity, and passion for transforming public spaces, connectivity, and the urban environment. Their ideas and concepts will leave a lasting and transformational legacy on the project and the City of Bellevue.

City of Bellevue Steering Committee

Dave Berg - *Director of Transportation*
Mike Brennan - *Director of Development Services*
Mac Cummins - *Director of Planning and Community Development*
Patrick Foran - *Director of Parks & Community Services*
Carol Helland - *Code & Policy Director*
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HERRERA

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Executive Summary

Introduction

The *Grand Connection Framework Plan: Interstate 405 Crossing* provides three design alternatives for the portion of the Grand Connection that crosses Interstate 405 between Downtown and the Wilburton Commercial Area. In an effort to reconnect Bellevue's urban fabric, the crossing will become a signature and defining feature in Bellevue's landscape, while also serving as a catalyst for a new urban neighborhood within the Wilburton Commercial Area.

This sequence of work seeks to develop a high-level understanding of the varied scales and complexities for crossing Interstate 405, while creating new and unique opportunities for placemaking, public space, signature design, and interface between the two neighborhoods. As cities across the country have demonstrated, the healing of infrastructure divides has proven to be a unique opportunity to reclaim land for public space, while activating areas that have not achieved full potential.

Cities such as Seattle, Philadelphia, New York, Dallas, and Edina, Minnesota have, or are, pursuing full or partial lids over their interstates, creating opportunities for public space while mitigating the negative impacts of the interstate below. Other cities such as Chicago, Denver, Portland, and Atlanta crafted signature crossings and bridges that efficiently and pleasantly navigate complex infrastructure to unite neighborhoods. In all cases, these crossing unlocked new development potential for additional housing, public space, employment, and a more contiguous urban fabric.

The crossing of Interstate 405 represents more than only improved mobility and access for pedestrians,

cyclists, and alternative transportation modes. It represents an opportunity to transform the area east of the interstate, the Wilburton Commercial Area, as a new area of opportunity, and Bellevue's next urban neighborhood. Combined with light rail and the Eastside Rail Corridor, a successful and memorable crossing over the interstate will thread Downtown and the Wilburton Commercial Area together, while providing access to unparalleled local and regional transportation access. As the terminus of the Grand Connection, the Interstate 405 crossing can transform the Wilburton Commercial Area from a pass through, to a regional destination. Its interface to the Eastside Rail Corridor, and proximity to multiple light rail stations will provide connectivity options to the greater Eastside, and the region, without the dependence on a personal automobile.

The ideas set forth, as part of this second volume of work, seek to build upon the unique opportunities and vision of the Grand Connection. It is the first step in realizing a signature crossing for Bellevue, serving as a transformational and defining feature within Bellevue's urban landscape. It also builds upon the first volume of the framework plan, adopted by Council in December 2017.

Principles and Vision

The Interstate 405 crossing will be the most significant new public investment as part of the Grand Connection. It will represent an opportunity to reconnect the urban fabric west and east of Interstate 405. The crossing will create a new, dedicated route, for pedestrians, cyclists, and alternative transportation options to cross the interstate, and create new

opportunities for public space, sustainability, and a signature piece of infrastructure that would be unique to the city of Bellevue.

The visioning of the Interstate 405 crossing was guided by a series of objectives, including:

- Create a signature piece of infrastructure that is visually dynamic and iconic;
- Pursue opportunities to create public space on or adjacent to the crossing;
- Create a safe and comfortable crossing for pedestrians and cyclists;
- Mitigate the impacts, including sights and sounds of Interstate 405;
- Interface with the future Eastside Rail Corridor;
- Integration with future development opportunities east and west of Interstate 405;
- Provide connectivity and access to the future vision of the Wilburton Commercial Area; and
- Serve as a catalyst to encourage the development of the future vision of the Wilburton Commercial Area.

While ambitious in its pursuits, the Interstate 405 crossing also seeks to create a pragmatic, yet iconic vision. The principles and objectives of the visioning are intended to produce achievable results that will make this segment of the Grand Connection a reality.

Plan Highlights

The *Grand Connection Framework Plan: Interstate 405 Crossing* contains three alternatives that range in scale, and complexity, to achieve the objectives set forth in the visioning process. Each alternative addresses:

- **Signature Form:** Create a visually dynamic, and readily identifiable structure in the Bellevue landscape.
- **Unique Experience:** Create an experience that is unique to Bellevue for pedestrians and cyclists, while integrating elements of the larger Grand Connection vision to create a unified experience.
- **Public Space:** Identify opportunities to create public space over or adjacent to Interstate 405 to serve as an asset to the future vision of the Wilburton Commercial Area, as well as Downtown Bellevue.
- **Safety:** Create an environment that is safe for pedestrians and cyclists, as well as those that may use any supporting public space.
- **Cohesion and Integration:** Create design alternatives that navigate the complexities of future infrastructure development, private property development, and existing infrastructure that integrates the crossing as part of Bellevue's urban fabric.

Presentation of Alternatives

Each alternative is presented to provide the following information:

- Overview of the design
- Evolution of the design
- The Interstate 405 crossing design
- Relationship to Downtown Bellevue
- Relationship to the Wilburton Commercial Area
- Relevant Precedents and Case Studies

The document concludes with a comparative summary of the three alternatives, and identification of next steps.

Chapters

The *Grand Connection Framework Plan: Interstate 405 Crossing* consists of the following chapters:

1. Introduction
2. Alternative One - Sculptural Bridge
3. Alternative Two - Linear Bridge
4. Alternative Three - Lid Park
5. Alternative Comparison
6. Next Steps

1 - Introduction

Chapter One discusses the relationship of the Interstate 405 crossing to the entirety of the Grand Connection. It also provides context relating to the surrounding urban environment, and other infrastructure improvements in the immediate area.

2 - Alternative One - Sculptural Bridge

Chapter Two discusses the design concept for Alternative One, the Sculptural Bridge. The chapter covers the evolution of the design, the route of the crossing, attributes such as public space, screening from the interstate, and other amenities; and its interface with Downtown, the Wilburton Commercial Area, and the Eastside Rail Corridor.

3 - Alternative Two - Linear Bridge

Chapter Three discusses the design concept for

Alternative Two, the Linear Bridge. The chapter covers the evolution of the design, the route of the crossing, attributes such as public space, screening from the interstate, and other amenities; and its interface with Downtown, the Wilburton Commercial Area, and the Eastside Rail Corridor.

4 - Alternative Three - Lid Park

Chapter Four discusses the design concept for Alternative Three, the Lid Park. The chapter covers the evolution of the design, the route of the crossing, attributes such as public space, screening from the interstate, and other amenities; and its interface with Downtown, the Wilburton Commercial Area, and the Eastside Rail Corridor.

5 - Alternative Comparison

Chapter Five includes a comparative summary of the three alternatives, as well as results from the Wilburton Commercial Area Draft Environmental Impact Statement.

6 - Next Steps

Chapter Six discusses the next steps following the selection of a preferred alternative.

Next Steps

The *Grand Connection Framework Plan: Interstate 405 Crossing* provides a comprehensive view of the strengths, weaknesses, and opportunities of each Interstate 405 crossing alternative. Each alternative is presented with the necessary information to assist in the selection of a preferred alternative and to continue

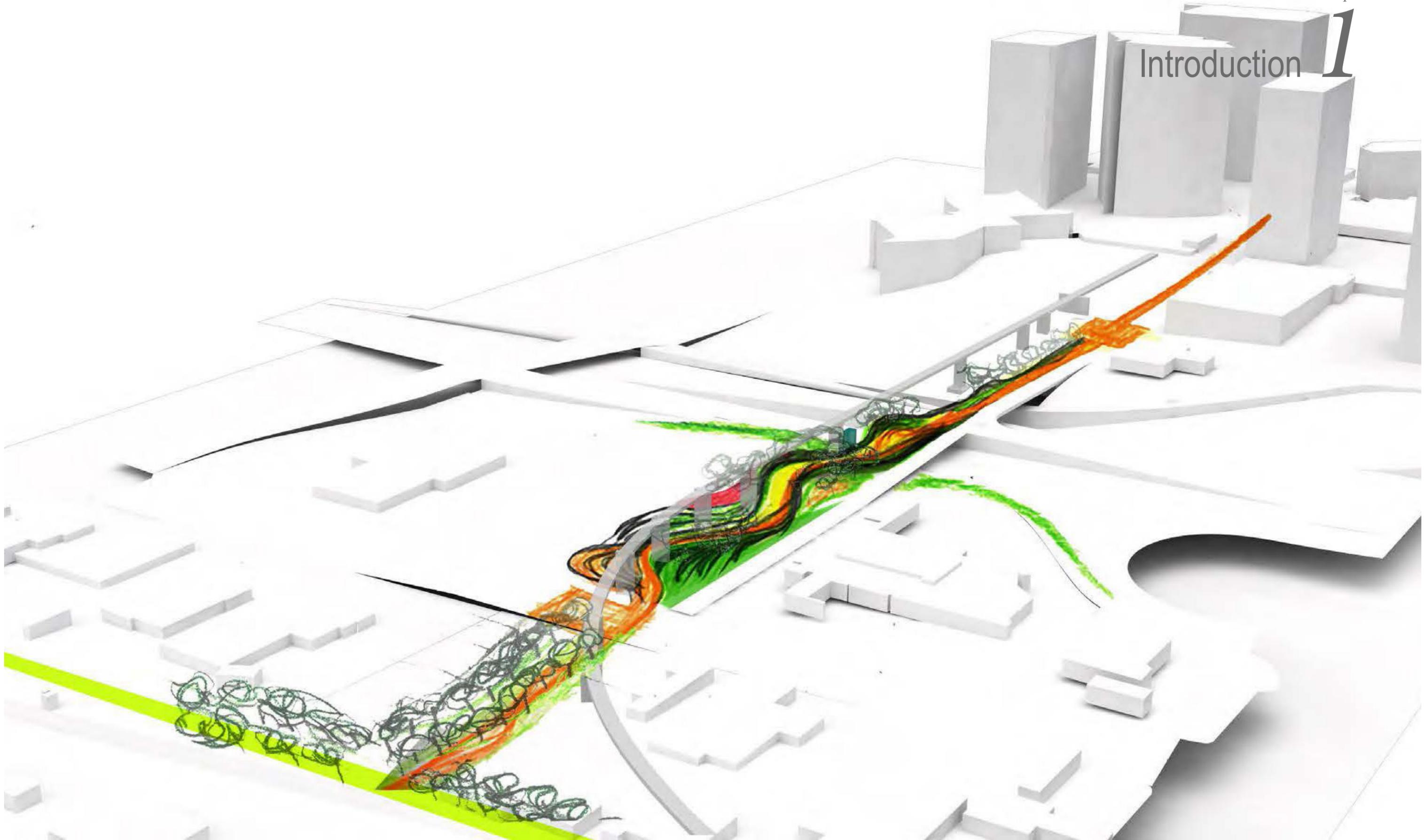
advancing the vision for the crossing. Next steps are outlined as part of this framework plan.

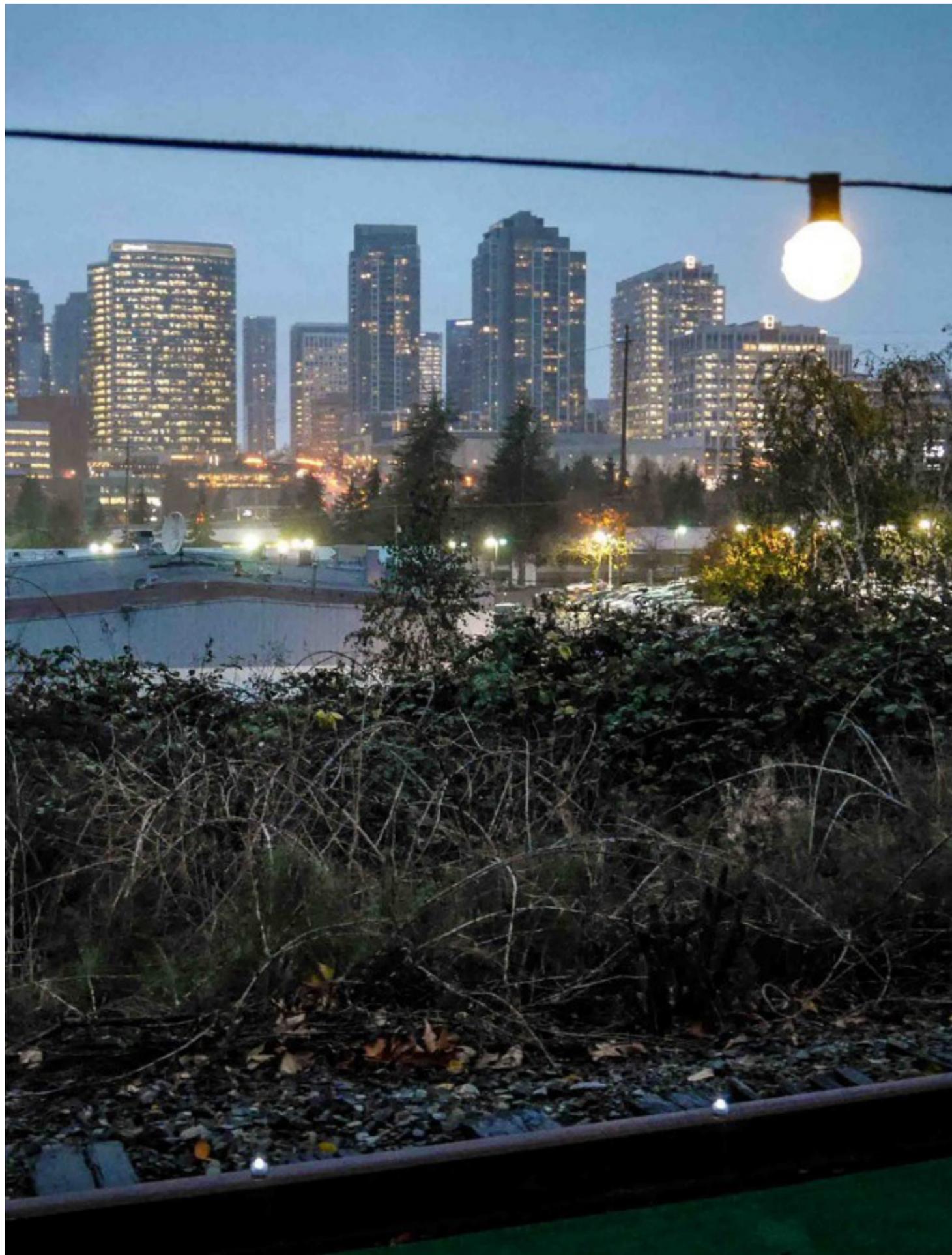
Following this report the City will need to take the following steps towards implementation:

- Select a preferred Interstate 405 crossing alternative.
- Initiate design refinement of the preferred alternative to develop a grant ready proposal.
- Continue engagement with key stakeholders and the public to further develop a shared vision.
- Evaluate opportunities for funding of the Interstate 405 crossing.
- Initiate processes for required easements or land acquisitions as applicable.
- Incorporate elements of the Interstate 405 crossing and Wilburton Commercial Area segment of the Grand Connection as part of Comprehensive Plan, Land Use Code, and Design Guideline updates.



Introduction





Background

Relationship to the Overall Grand Connection Vision

The Interstate 405 segment is one pearl on the string of the Grand Connection. It represents the largest physical improvement along the route, but is dependent on the larger placemaking and connectivity goals of the Grand Connection. It will act as a catalyst for the Wilburton Commercial Area, while reconnecting the physical landscape and urban fabric of Bellevue that was divided by the construction of Interstate 405.

In December of 2017 City Council adopted the *Grand Connection Framework Plan*, establishing the foundation for the route between Meydenbauer Bay Park and the Civic Center District. The plan focused on a number of changes including the identity of the route, cohesive design strategies, art and culture, and placemaking improvements. The Interstate 405 segment seeks to build upon this foundation of improved connectivity and mobility, and placemaking by reconnecting the western and eastern sides of Interstate 405. The crossing will catalyze the Wilburton Commercial Area while completing a missing link in a network of existing and proposed non-motorized trails such as the Eastside Rail Corridor Mountain to Sounds Greenway, and Lake to Lake Trail.

A key goal of the Interstate 405 crossing is to establish a safe and comfortable connection across the interstate for pedestrians, cyclists, and alternative forms of transportation. Additionally, the visioning process seeks to create opportunities for public space as part of the crossing, or adjacent to the crossing, and to create a signature and iconic experience that is identifiable with Bellevue. Along with establishing a connection across the interstate, the crossing will create continuity in

non-motorized routes and connections by interfacing with the regional Eastside Rail Corridor. This interface will create a seamless north-south and east-west connection for non-motorized movement between Downtown, the Wilburton Commercial Area, Spring District, and BelRed.

Relationship to the Wilburton Commercial Area

Historically referred to as “Auto Row,” the Wilburton Commercial Area core straddles the 116th Avenue NE corridor between SE 5th Street and NE 12th Street. Land uses are commercial in nature, and the intensity of use is low. The opportunity for this area as a more urban neighborhood is envisioned by the community and created through local and regional investments in a number of planned transportation infrastructure improvements. By 2023 the Wilburton East Link light rail station will provide service at the northern end of the study area. Additionally the East Main, Bellevue Downtown, and Spring District/120th stations will ensure that the entire study area will be within a transit walkshed. As a complement to the enhanced transit service, the Eastside Rail Corridor will provide a non-motorized north-south spine through the entire study area and connecting to regional destinations and facilities such as the I-90 Trail/Mountains to Sound Greenway and the SR 520 Trail. The Grand Connection is anticipated to interface with the Eastside Rail Corridor and provide an east-west connection to Downtown, further expanding the network of local and regional trails.

Combined with the planned transportation improvements, the Wilburton Commercial Area is positioned between two high growth urban areas in Bellevue - Downtown and BelRed. This advantageous context, in addition to exceptional mobility access, create the opportunity for the Wilburton Commercial Area to become a new urban neighborhood. To explore opportunities and to capitalize on this unique context, the City launched a land use, urban design, transportation, and environmental analysis of the study area. This process created a new vision based upon the analysis of zoning, urban design, transportation, and open space. The analysis was completed in April of 2018, with the vision anticipated to be delivered to City Council in the summer of 2018. The Interstate 405 crossing alternatives were assessed through the Wilburton Commercial Area Draft Environmental Impact Statement (DEIS) process to assist in selecting a preferred alternative.

The City owns the centrally located parcel known as Lincoln Center. It is located between Interstate 405 and 116th Avenue NE and was the previous home of Impact Hub Bellevue, an entrepreneur and startup facility. Sound Transit will control the northern portion of the site with the East Link aerial guide-way passing through this segment. This property is expected to be the most likely landing location of the Grand Connection, connecting pedestrians and cyclists to 116th Avenue NE.

Context

Downtown

West of Interstate 405 is Downtown and the Civic Center District. Anchoring the intersection of NE 6th Street and 112th Avenue NE is the Meydenbauer Center and the future Bellevue Downtown East Link

light rail station. South of the light rail station is Bellevue City Hall. On the east side of 112th Avenue NE, and west of Interstate 405 are commercial office properties. Following the change in zoning as part of the city's Downtown Livability Initiative, it is reasonable to assume that these properties will redevelop to a greater intensity in the future. Other assets nearby include the Bravern, a high-end retail, office, and residential development, City Center Plaza, and the Bellevue Transit Center.

Two parcels exist within the Civic Center District that are under city ownership. Between the light rail station and Bellevue City Hall, and directly north of the Meydenbauer Center are city owned parcels that are currently being studied as part of a city initiative to determine their future uses and roles. All three alternatives of the Grand Connection do not impact any of the aforementioned properties but do, and will, create a number of opportunities for future development to support the investment of the Interstate 405 crossing segment.

Interstate 405

Interstate 405 represents a large divide between Downtown Bellevue and the Wilburton Commercial Area. It is an eight lane interstate with two HOV lanes at the center. The HOV lanes, which provide direct access to NE 6th Street in Downtown Bellevue, have access ramps between NE 6th Street and NE 4th Street. This area has been identified as the most likely route of the crossing into the Wilburton Commercial Area. In addition to the center HOV ramps and lanes, there are on and off ramps providing NE 4th Street access to and from Interstate 405.

There is currently consideration for extending NE 6th Street to the east into the Wilburton Commercial Area.

This extension would likely include only two lanes and the extension would connect to either 116th Avenue NE or 120th Avenue NE.

Wilburton Commercial Area - Lincoln Center Site

The area bound by NE 8th and NE 4th Streets, and Interstate 405 and 120th Avenue NE, has long been referred to as a "special opportunity area." At the nexus of the light rail line, Eastside Rail Corridor, and the Grand Connection, this central location is at the heart of the Wilburton Commercial Area. West of 116th Avenue NE in the "special opportunity area" is the City-owned Lincoln Center parcel.

The 4.3 acre site will be reduced in capacity by the East Link light rail aerial guide-way, once complete in 2023. The aerial guide-way as well as any potential extension of NE 6th Street would occupy the northern portion of the site, and reduce its footprint to approximately 2.4 acres. A privately-owned property directly adjacent to the Lincoln Center property that is approximately 1.3 acres. This parcel is currently being used as a parking lot for the nearby auto retailers.

The Lincoln Center site has been identified as the most likely landing location for all of the crossing alternatives, and the primary means to connect to 116th Avenue NE within the Wilburton Commercial Area. Each alternative considers different opportunities for the Lincoln Center property which include public space, storm water treatment, and future development opportunities.

Eastside Rail Corridor

The Eastside Rail Corridor is a King County led initiative to transform a former rail line into a regional recreational trail. The trail connects Woodinville to

the north and Renton to the south, with the Bellevue segment passing directly through the center of the Wilburton Commercial Area. The eastern terminus of the Grand Connection is expected to connect with the Eastside Rail Corridor, improving local and regional non-motorized mobility.

In 2018 King County began removing rails and developing an interim trail. Full trail build out is expected by 2023. The Wilburton Commercial Area Citizen Advisory Committee has defined the Eastside Rail Corridor as one of the most important elements to the future vision of the study area. They have also identified the intersection of the Grand Connection and the Eastside Rail Corridor to be essential to the pedestrian, cyclist, and placemaking experience of the Wilburton Commercial Area.

East Link Light Rail

Just south of NE 6th Street will be the aerial guide-way for the East Link light rail. The guide-way emerges from the Downtown tunnel and Bellevue Downtown station and remains south of the NE 6th Street crossing into the Wilburton Commercial Area. As the guide-way moves east it turns north onto the Eastside Rail Corridor with a station on the north side of NE 8th Street. It remains an aerial guide-way for this entire segment. East Link is expected to begin revenue operations in 2023 and will provide enhanced high capacity regional transit connections in and around the Wilburton Commercial Area. The Interstate 405 crossing will navigate the aerial guide-way as part of a complex network of infrastructure between NE 6th Street and NE 4th Street.

Interface with the Wilburton Commercial Area

There are substantial changes in grade between the beginning point of the Interstate 405 crossing, and its interface with the Eastside Rail Corridor. The intersection of NE 6th Street and the Interstate 405 access ramp is approximately 134 feet in elevation. This area is considered the access or midpoint of the Interstate 405 crossing alternatives. The ridge elevation of the Eastside Rail Corridor in the Wilburton Commercial Area is 140 feet. The landing area of the crossing is at an elevation of 90 feet on the city-owned Lincoln Center site. The area of the Wilburton Commercial Area between Interstate 405 and the Eastside Rail Corridor, as a whole, is at an elevation between 90 feet and 110 feet.

This change in elevation shaped the design and interface of all three alternatives with the Wilburton Commercial Area and the Eastside Rail Corridor. With a new planning vision underway for the Wilburton Commercial Area there is a need to interface the Grand Connection with the new urban neighborhood at the street level and 116th Avenue NE. With the Eastside Rail Corridor expected to be a significant route for pedestrians and cyclists, there is also a strong need to ensure continuity and ease of transitioning from one route to another and to provide efficient access to Downtown Bellevue. To address

the topography changes, all three alternatives include an elevated route that would extend from the 116th Avenue NE landing of each crossing. This elevated route provides a level and accessible transition from the Grand Connection and the Eastside Rail Corridor.

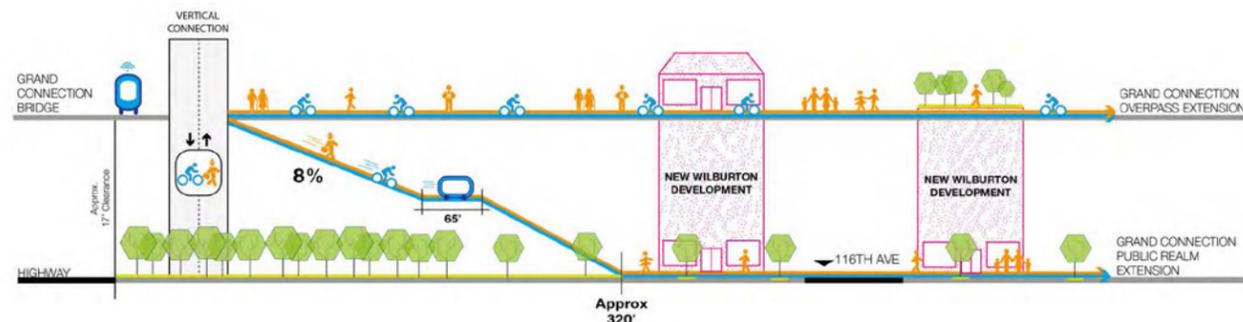
With property on the east side of 116th Avenue currently underdeveloped for the emerging Wilburton Commercial Area vision, the approach was to create a crossing that would successfully integrate into the second or third level of future development. The consultant team has worked closely with stakeholders to create a route that would establish a dynamic and unique intersection between the Grand Connection and the Eastside Rail Corridor. This would allow for increased activation on the second or third level of future development, as well as facing the Eastside Rail Corridor and Grand Connection, while maintaining access directly to 116th Avenue NE and the street level of the Wilburton Commercial Area.

Common Sustainable Features

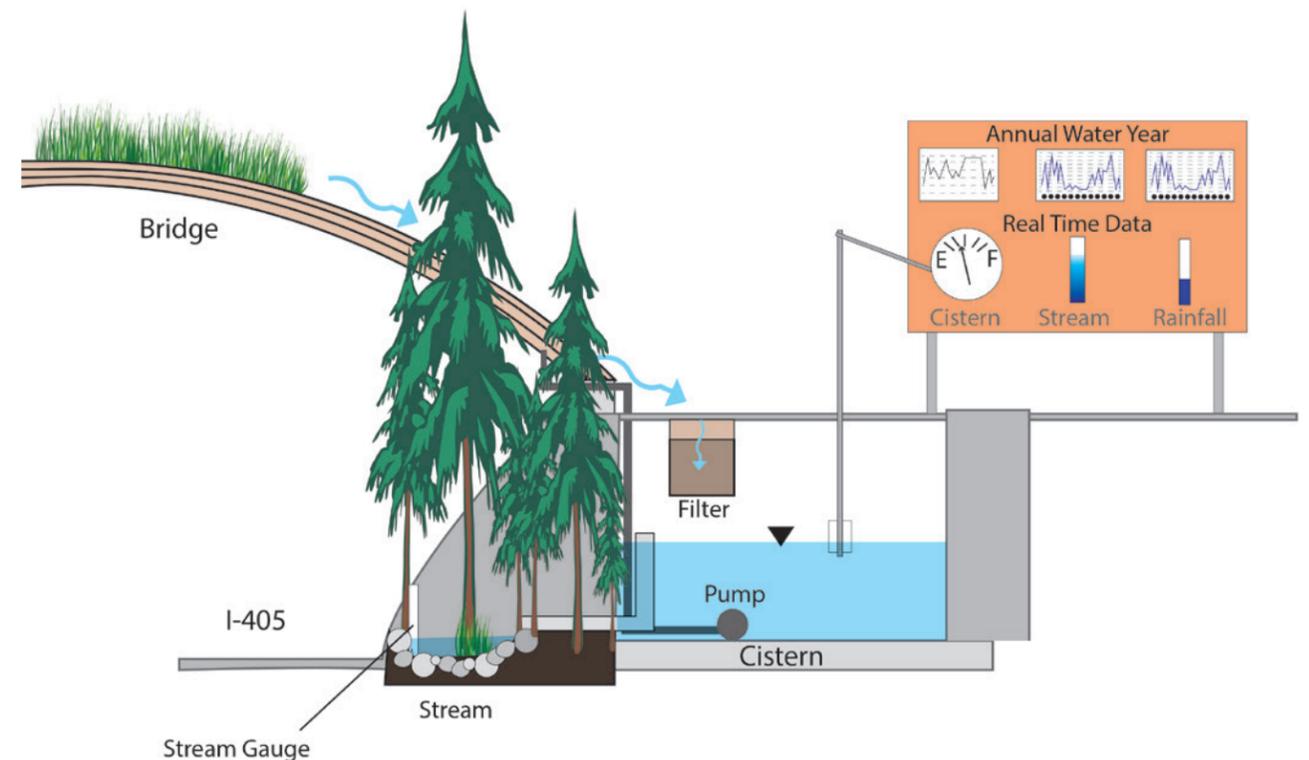
As established in sequence one of the *Grand Connection Framework Plan*, substantial opportunities exist to improve the performance and quality of the natural environment and overall sustainability. The prospect of connecting across Interstate 405 and into the Wilburton Commercial Area provides a unique opportunity to improve the quality of natural assets such as Sturtevant Creek, within the Wilburton Commercial Area, and mitigate impacts from Interstate 405. While each of the alternatives offer different opportunities to improve sustainability, such as the Sculptural Bridge's materiality and the Lid Park's ability to intercept significant quantities of stormwater runoff, each alternative pursues similar strategies to capturing rain water and improving the natural assets within the Wilburton Commercial Area.

Directly east of Interstate 405, within the Wilburton Commercial Area, is Sturtevant Creek. Currently much of the creek flows in a pipe from Lake Bellevue to the north. The portion of the creek impacted by East Link light rail will be daylighted as part of construction and improvements. To continue this opportunity and create a new urban amenity for the future Wilburton Commercial Area vision, each of the Interstate 405 crossing alternatives seek to daylight the portion of the creek on the City-owned Lincoln Center site, and to improve its overall environmental performance.

Each crossing would capture stormwater on its surface and send the runoff into a stormwater facility incorporated as part of improvements to the Lincoln Center site as a standalone stormwater facility or incorporated as part of a larger park. The stormwater facility would feed into a daylighted Sturtevant Creek and improve the overall ecological performance of the



▲ Diagram Illustrating the Interface of the Grand Connection with the Wilburton Commercial Area and the Eastside Rail Corridor To Address Changes in Topography - Image by Balmori Associates

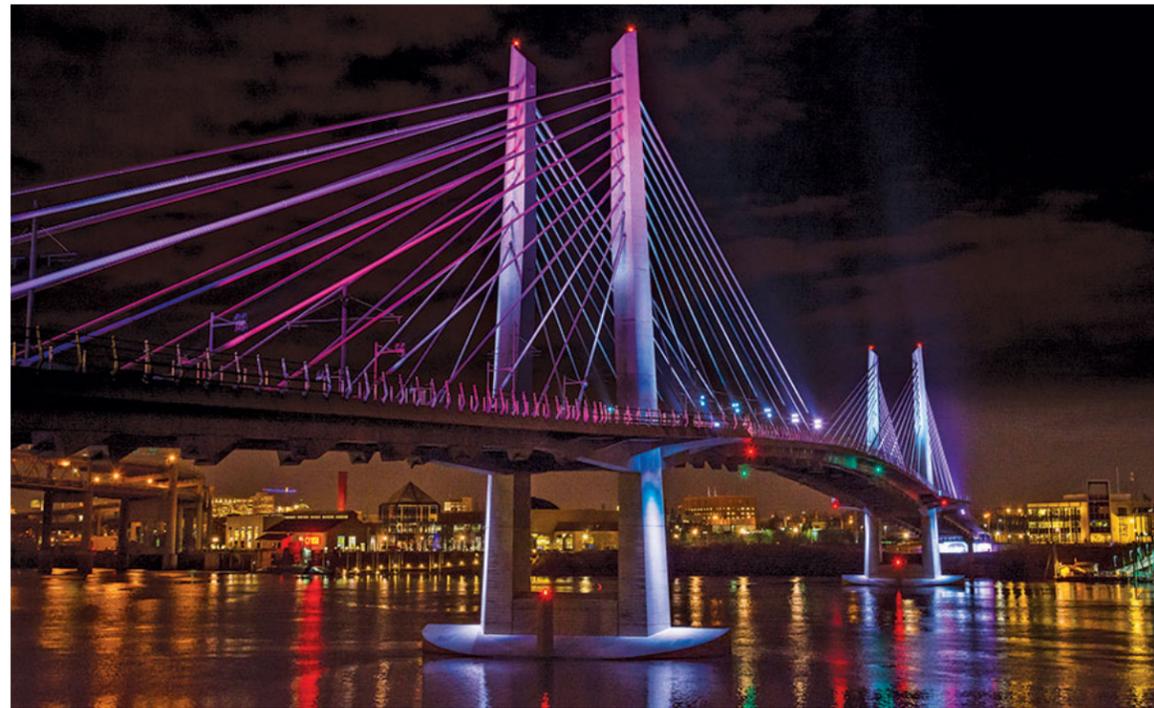


▲ Cistern Performance Diagram - Image by Herrera

area. The crossing and stormwater facility would offer source and flow control of stormwater, and provide water quality treatment prior to filtering into Sturtevant Creek.

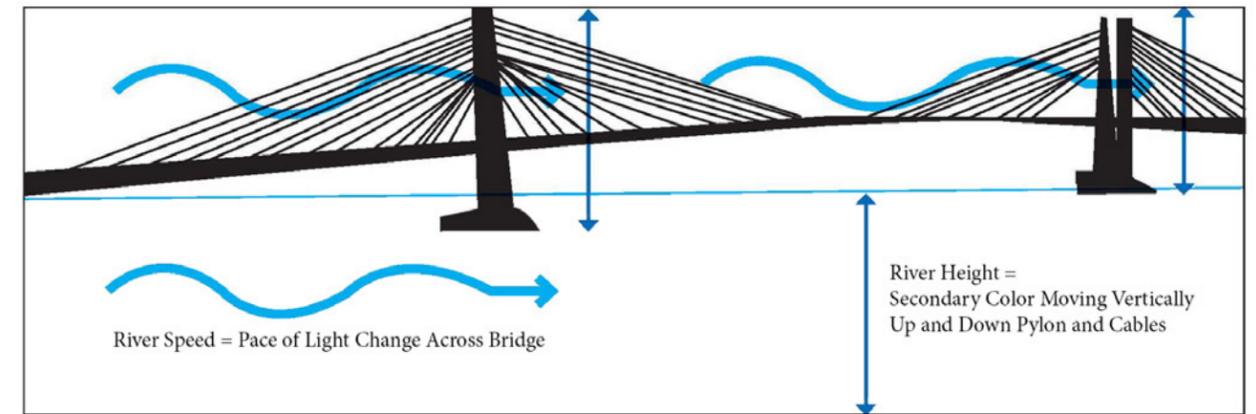
The stormwater facility presents a unique opportunity for interactive educational opportunities and artistic installations that could speak to the environmental performance of the crossing and creek through an interactive cistern. A large interactive water cistern can provide a way for people to learn about and connect with the dynamic hydrological processes that occur in the local climate. Statistics regarding real-time cistern storage, stream gauge elevation data, and rainfall data can be displayed to provide an interactive, continual learning platform that connects the processes of rain events with water quantities and stream behavior.

This performance could also be translated into artistic expression, consistent with the Grand Connection's overall vision of enhancing opportunities for art and culture. An example is Tilikum Crossing in Portland, Oregon. The crossing employs an illumination display that corresponds to the conditions of the Willamette River below. The color of the crossing's illumination is determined by the temperature of the water; the warmer the water temperature, the warmer the color of the illumination. The pace of the illumination horizontally across the bridge corresponds to the speed of the river below. A secondary color moves vertically up and down the pylons and cables of the crossing and corresponds to the river height. In its entirety, the color, intensity, and movement of the illumination reflects the speed, height, and color conditions of the river, exhibiting long term and daily changes.



▲ Tilikum Crossing - Portland, Oregon - Image by Kiewit

Tilikum Crossing Illumination Display



Yellow → Green → Purple

Base color is determined by water temperature. The warmer the color, the warmer the water temperature of the river. Large changes will occur over the course of the seasons, and smaller fluctuations will occur constantly throughout the day.

Sculptural Bridge

Alternative One



Design Evolution



▲ Early Diagram of Alternative One Interstate 405 Crossing - Image by Balmori Associates



▲ Early Rendering of Crossing and Landing of Alternative One Interstate 405 Crossing (Looking West from the Wilburton Commercial Area) - Image by Balmori Associates



▲ Sketch of Revised Alternative One Interstate 405 Crossing (Looking West from the Wilburton Commercial Area) - Image by Balmori Associates



▲ Revised Rendering of Alternative One Interstate 405 Crossing Form (Close-Up View Looking East from Downtown) - Image by Balmori Associates

Alternative One - Sculptural Bridge

Overview

The Sculptural Bridge seeks to create a dynamic and innovative crossing that explores new opportunities in materiality as well as a signature form. Capitalizing on existing infrastructure, the Sculptural Bridge creates an iconic crossing over Interstate 405 while creating public space within the Wilburton Commercial Area. The crossing employs the innovative use of cross laminated timber (CLT) as its primary material, creating an iconic form, opportunities for public and viewing spaces, and a buffer and protection from the sights and sounds of the interstate below. The crossing lands on the Lincoln Center Site, and the balance of the site is proposed to be used as a combined park and plaza while enhancing the existing Sturtevant Creek as an urban amenity. This assists in meeting the needs for public space within a future vision of the Wilburton Commercial Area.

The layering of material creates sight and sound barriers to Interstate 405 below. Combined with the form, the materiality moves users across Interstate 405 fluidly while providing a unique experience. Portions of the crossing are punctuated by vegetation to mitigate the urban environment that surrounds the crossing, creating an experience of being surrounded by vegetation. Moments of public space are suspended over green open space below, as the crossing enters the Wilburton Commercial Area and provides a viewing platform to Mount Rainier and the Downtown Bellevue skyline. Users can continue to move east and descend the grand staircase as it sprawls into an open plaza and park, serving a dual function of reaching the heart of the Wilburton Commercial Area while also creating a social gathering space. The crossing also continues east over 116th Avenue NE, integrating with

By the Numbers: *Alternative One*



Travel Distance
1,250 Feet

From Intersection of 112th Avenue NE and NE 6th Street to 116th Avenue NE landing.



up to **159,000 square feet** of public space

Includes the acquisition of 57,000 square feet of privately owned property. All public space would be located in the Wilburton Commercial Area.



up to **81,000 square feet** of new stormwater facilities



approximately **10,075 square feet** of space over Interstate 405



65 feet - maximum crossing width



Low estimate: **\$52.8 million** High estimate: **\$73.1 million**

future developments, allowing cyclists and pedestrians to continue to the Eastside Rail Corridor with no interruption, while also accessing the re-imagined Wilburton Commercial Area urban neighborhood.

Design Evolution

The original concept for Alternative One sought to establish a direct connection and sight lines to the Wilburton Commercial Area, creating a promenade at the center of the existing NE 6th Street. The original concept also sought to take the greatest advantage of

the existing infrastructure of NE 6th Street. As the design evolved, public spaces emerged to provide viewing platforms to Mount Rainier while also attempting to mitigate the sights and sounds of the interstate. Recognizing the need for flexibility in the future use of NE 6th Street, revised concepts moved the promenade from the center of the street to the south side to preserve flexibility in maintaining its original composition as well as any potential future extension of the road.

To take advantage of the opportunities associated with CLT construction, the concept transitioned to a more curvilinear form, allowing for the layering of material to provide a buffer from the sights and sounds of the interstate, while also developing a unique and signature form for the crossing. The crossing was pulled further south, and weaves around the structural support for the light rail guide-way. This allowed for the crossing to better emerge from the shadow of the guide-way, while also tightly consolidating the complex arrangement of infrastructure. This revised

design allows for the viewing platform to Mount Rainier to be moved away from the aerial guide-way and to be suspended over the future open space within the Wilburton Commercial Area, rather than exposed over the interstate.

Design and Contextual Interface

The crossing re-purposes the southern portion of NE 6th Street. The optimal concept would convert the two southernmost lanes into a pedestrian, cyclist,






GINKGO ALLEY


VIEWING TERRACE


PLAYGROUND


GINKGO ALLEY


OPEN CREEK


STORMWATER FACILITY


HEMLOCK GARDEN


ELEVATED PATH


EASTSIDE RAIL CORRIDOR


GRAND PLAZA


BRIDGE PAVILION

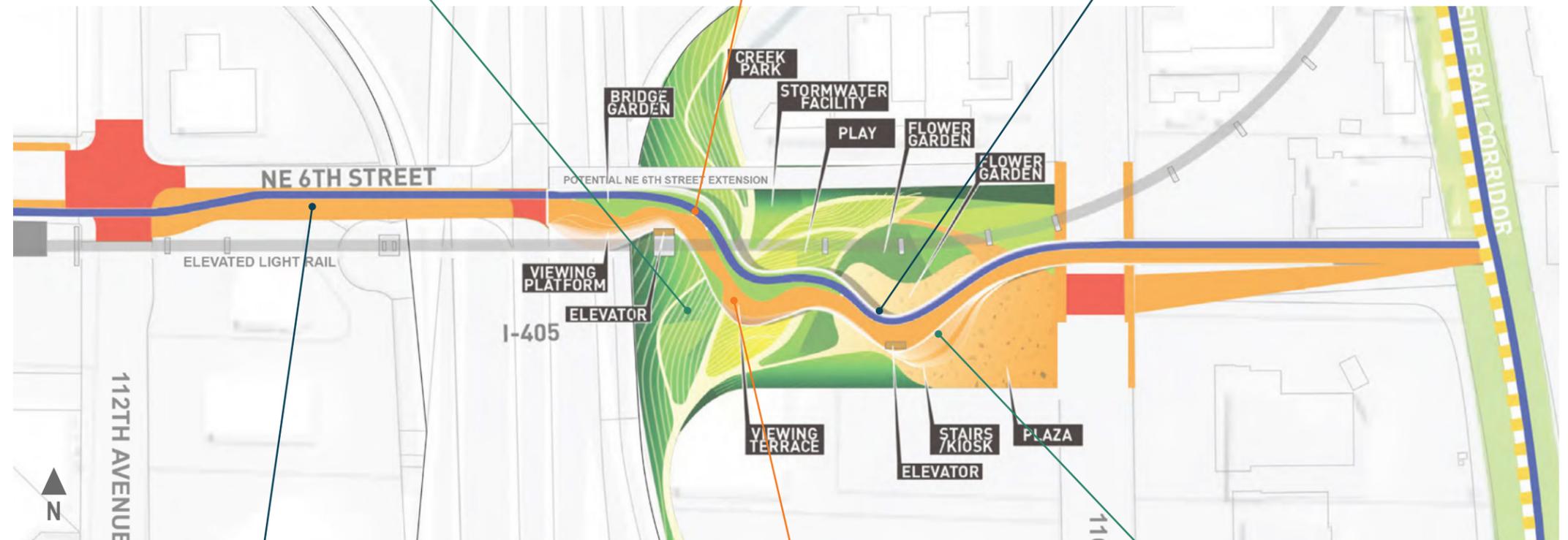
EAST LINK SOUND TRANSIT



and alternative transportation promenade. Studies by the consultant indicated that the existing conditions of NE 6th Street are designed to carry significantly higher traffic volume than its current usage. If such conversion is not feasible, the option can also preserve the existing capacity by adding to the existing infrastructure with new facilities for pedestrians and cyclists. Similar to the cohesive design strategy along the entire route, the intersection at 112th Avenue NE and NE 6th Street would be raised. An at-grade, signalized crossing of NE 6th Street and the Interstate 405 HOV access ramps would be required, and could present a conflict between travel modes. Alternative One presents no conflict or impacts on private development opportunities on the west side of Interstate 405 as it enhances the existing pedestrian facilities and right-of-way and is not dependent on access through any private development.

The concept assumes that NE 6th Street would not be extended to the Wilburton Commercial Area, and creates an opportunity to develop a public space node at the current eastern terminus of the street, over Interstate 405. The design is also flexible in that if NE 6th Street is extended, the public space could be added onto the existing infrastructure to the south, and create an elevated public space and viewing platform just to the east of Interstate 405, prior to its descent into the Wilburton Commercial Area.

The curvilinear form of the sculptural bridge creates a signature and dynamic crossing unique to Bellevue. The form responds to the complex network of existing and future infrastructure from Interstate 405 access, East Link light rail aerial guide-way, and future opportunities on the City-owned Lincoln Center parcel that the crossing will weave around and through. The Sculptural Bridge pursues several innovative and sustainable strategies, including the application



of cross laminated timber construction. CLT offers a unique opportunity to pursue innovative construction methods, sustainable practices, and encourages and supports the crossing's curvilinear form and signature aesthetic. The material, layered upon concrete piers to support the structure, allows for a dynamic and fluid form whose weaving and curves are further emphasized through the layering of the material. The layering also presents opportunities to screen from the negative impacts of the interstate through sound and visual barriers that the layered material would create. This aesthetic quality would also create opportunities to frame smaller public spaces and viewing platforms to Mount Rainier. The unique material application also becomes a thread throughout the crossing and along other portions of the route, establishing a consistent design vocabulary for the Grand Connection. Incorporating timber as a cohesive design element will assist in softening the existing hardscape of Downtown and the Wilburton Commercial Area, while incorporating the use of sustainable materials. The landing of the crossing and the grand stair present an opportunity to illuminate and activate the underside of the structure through a facility that could function as a pavilion during the day and an illuminated sculptural element, acting as a beacon to the Wilburton Commercial Area at night, accomplished by the layering of material.

The crossing is integrated into the Wilburton Commercial Area through a grand stair descent onto the City-owned Lincoln Center property, surrounded by a public plaza, public park, and stormwater feature. These improvements create needed public space within the Wilburton Commercial Area, and would also enhance the existing natural systems on the site. The grand descent creates stairs that also serve as amphitheater seating, facing out on the proposed public plaza. The new public space would be a central

civic space for the area and would total approximately 159,000 square feet. This would require the acquisition of private property in order to realize the full potential of the public space. An additional 81,000 square feet of enhanced natural systems in Sturtevant Creek and a new stormwater facility would be added to the public space. This would require enhancements of 22,000 square of area that is not on currently city-owned property to realize the full vision. The public space and natural environment enhancements would eliminate development opportunity on the Lincoln Center site, as well as the adjacent private property.

The result of the public space, stormwater feature, and daylighting and enhancements of Sturtevant Creek would remove future development potential on the city-owned parcel, as well as an adjacent privately-owned property. Not acquiring the adjacent privately-owned property would result in a public space of approximately 102,000 square feet, and would also reduce the visibility of the space from 116th Avenue NE and the Wilburton Commercial Area if future development occurred on the intersecting parcel. In addition to the improved stormwater feature, and introduction of additional green space in the Wilburton Commercial Area, the materiality of the crossing presents an opportunity to capture and store emissions from Interstate 405 below.

An elevated crossing would also continue from the primary bridge structure, interfacing with future development east of 116th Avenue NE and the Eastside Rail Corridor. The area between Interstate 405 and the Eastside Rail Corridor rests at an elevation approximately 50 feet lower than the western start of the crossing, and its interface with the Eastside Rail Corridor. Providing an elevated connection to the Eastside Rail Corridor, in addition to a landing within the Wilburton Commercial Area, will allow for safe

and efficient movement of pedestrians and cyclists between the Grand Connection and Eastside Rail Corridor without having to navigate the change in elevation. It also presents an opportunity to better integrate into future development that will face onto the Eastside Rail Corridor. Pending the selection of a preferred concept, the elevated crossing would require additional development and coordination with future development opportunities on the east side of 116th Avenue NE. A mid-block, raised intersection, crossing would connect the public space and Grand Connection landing to the east side of 116th Avenue NE at street level.



Alternative One Interstate 405 Crossing - View from Interstate 405 Looking North - Image by Balmori Associates



Alternative One Interstate 405 Crossing - Aerial Perspective - Image by Balmori Associates



Case Study: 5th Street Bridge - Atlanta, Georgia

Atlanta's 5th Street bridge was originally a four lane connection between the Georgia Institute of Technology and Midtown Atlanta. The university planned to expand across the interstate, into Midtown, and desired a better connection for pedestrians and cyclists. The existing bridge provided no network for cyclists, and only 8 foot wide sidewalks that provided no buffer from the Downtown Connector below, or the four lanes of bridge traffic.

The redesigned bridge reduced the traffic to two lanes traveling east and west, and one center turn lane. Bicycle lanes were added in each direction, and the sidewalks were widened from 8 feet to 25 feet. A generous vegetated buffer (3/4 of an acre) and sound walls further separate pedestrians from the edges of the bridge, mitigating the sights and sounds of the interstate below. The sound wall was designed as stepped planters, adding additional vegetation to the bridge and creating the feeling of a park that had been integrated into the urban fabric, rather than a bridge.

The bridge also includes urban amenities such as seating and weather protection. In addition to improving the experience for pedestrians and cyclists the bridge has become a destination. For events and other occasions, the bridge is closed to traffic for summer movie nights and tailgating before university football games. The combination of the lawn and generous sidewalks allow functions, such as those organized by the student alumni association, to spill into the pedestrian realm while not interrupting bridge functionality.

The plan for the bridge assisted in spurring the initial investment of \$380 million for a 1.4 million square foot technology campus, and the revitalization of the western edge of Midtown Atlanta. Hundreds of millions of dollars in additional investment have occurred since, including residential, a technology incubator, and the relocation of the NCR corporate headquarters to the square.

The bridge cost approximately \$10 million and was opened in 2007. Since its completion it has inspired a number of other projects including studies for lids in Downtown and Buckhead, and a new bridge competition north of 5th Street.



5th Street Bridge Before - Atlanta, Georgia - Image by Georgia Institute of Technology



5th Street Bridge After - Atlanta, Georgia - Image by Georgia Institute of Technology



5th Street Bridge and Technology Square - Atlanta, Georgia - Image by Pond and Company



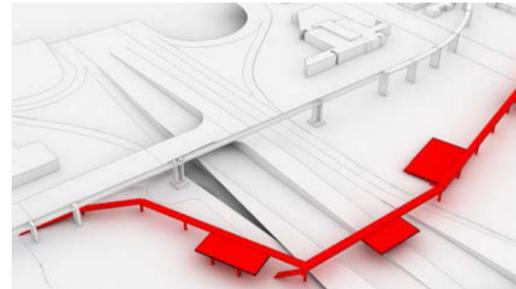
Tailgating Event on the 5th Street Bridge - Atlanta, Georgia - Image by Pond and Company

Linear Bridge 3

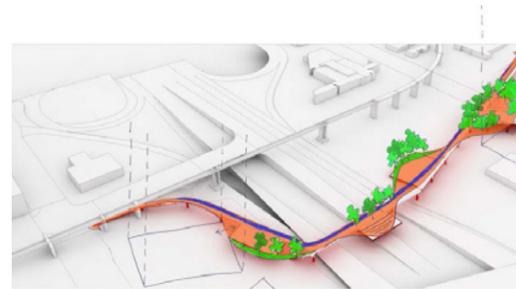
Alternative Two



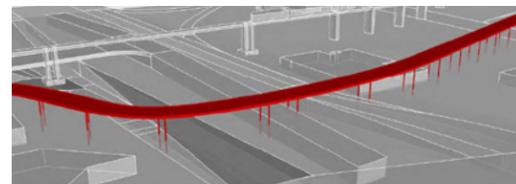
Design Evolution



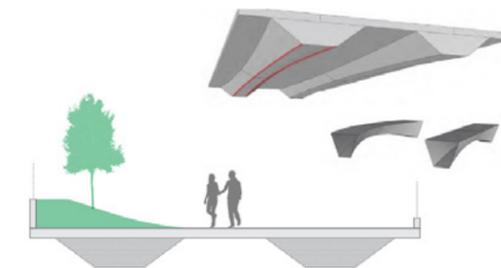
▲ Early Diagram of Alternative Two Interstate 405 Crossing - Image by Balmori Associates



▲ Early Sketch of Alternative Two Interstate 405 Crossing - Image by Balmori Associates



▲ Early Rendering of Alternative Two Interstate 405 Crossing (Looking Northeast from Downtown) - Image by Balmori Associates



▲ Section view of Alternative Two Interstate 405 Crossing - Image by Balmori Associates

Alternative Two - Linear Bridge

Overview

The Linear Bridge focuses on creating a more direct connection between Downtown and the Wilburton Commercial Area. The structure focuses on efficiency in crossing the interstate, while preserving development potential on the eastern terminus of the crossing. The Linear Bridge also reduces conflicts with the many pieces of infrastructure such as the Interstate 405 access ramps, East Link aerial guideway, and a potential NE 6th Street extension. Similar to Alternative One, the Linear Bridge lands on the City-owned Lincoln Center site and uses a portion of it to create a more modest park and plaza space than in Alternative One.

The crossing relies primarily on trees and modest vegetated berms to mitigate the sights and sounds of the interstate below. The approach to the crossing can

be made from NE 6th and NE 4th Streets, as well as a potential through block connection on the privately owned property along 112th Avenue NE. All three routes converge at a modest, elevated public space prior to crossing over Interstate 405, and anchoring the western end of the crossing. The crossing provides a generous 65 foot wide route, accommodating cyclists, pedestrians, and alternative transportation options, in an efficient and direct route. A dramatic, yet accessible, ramp descends into the Wilburton Commercial Area, and the public space on 116th Avenue NE, eliminating the need for vertical transportation options. A secondary elevated route continues east, interfacing with the Eastside Rail Corridor.

By the Numbers: *Alternative Two*



Travel Distance
1,460 Feet

From Intersection of 112th Avenue NE and NE 6th Street to 116th Avenue NE landing.



up to **100,000 square feet** of public space

Includes the acquisition of 57,000 square feet of privately owned property.



up to **67,000 square feet** of new stormwater facilities



approximately **27,150 square feet** of space over Interstate 405



65 feet - maximum crossing width



Low estimate: **\$48.7 million** High estimate: **\$66.1 million**

Design Evolution

The original concept for the Linear Bridge combines elements of the latest version, with a thin and graceful structure, while incorporating open space platforms similar to the Sculptural Bridge. The concept also pursued minimizing impacts to surrounding infrastructure as much as possible by crossing Interstate 405 centrally between NE 6th and NE 4th Streets. As the design advanced, several of the elevated platform spaces proved to be less likely given their

conflict with future developments, ultimately leaving just one that would be centered over the interstate. Concerns over the impact of the interstate on the quality of the public space ultimately led to its removal from the concept as well.

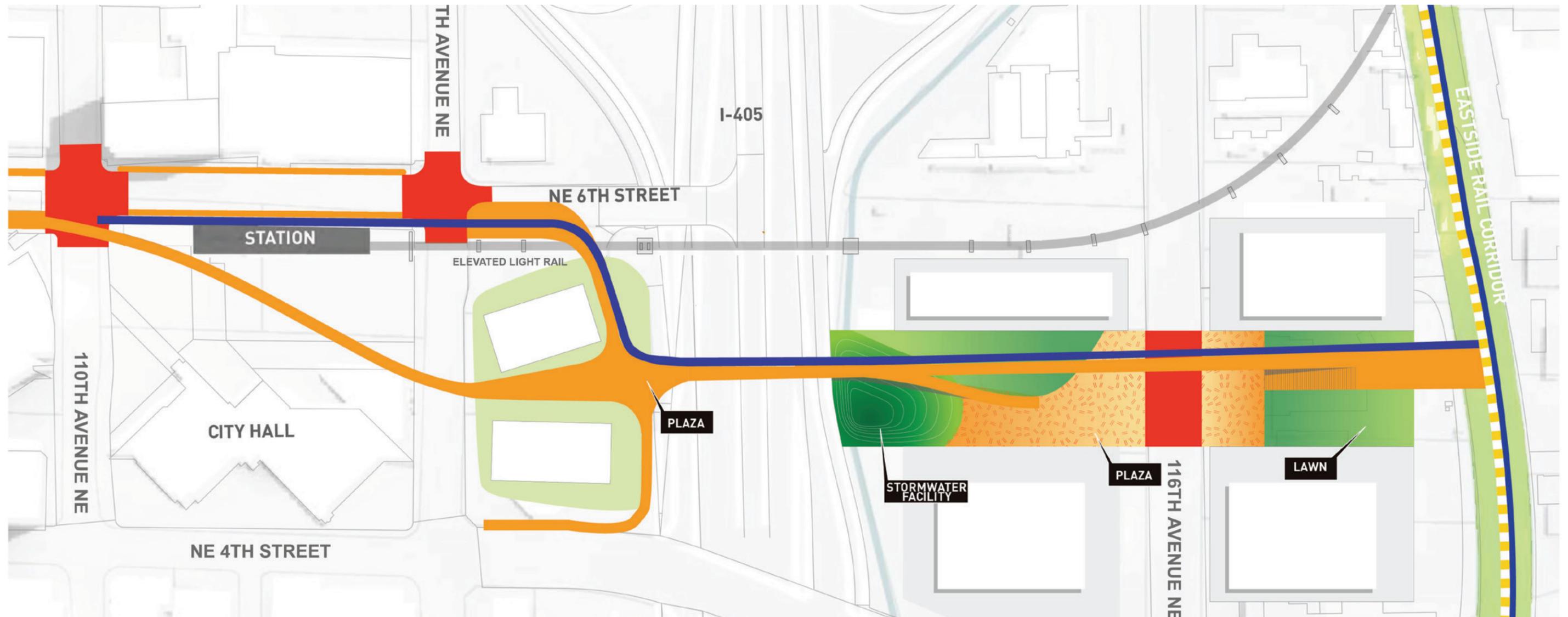
With Alternative One providing a curvilinear form and elevated public space in a more favorable location, the Linear Bridge began to focus much more on creating a direct connection between Downtown and the Wilburton Commercial Area while avoiding the more

challenging and complex infrastructure context, and conflicts with private property. Modest berms were introduced on one side of the crossing in an effort to screen from the interstate below, while also creating a modest linear green space.

Design and Contextual Interface

The Linear Bridge extends from Downtown Bellevue, creating three routes to access the crossing. The route

to the north on NE 6th Street and to the south on NE 4th Street wrap around future development and begin a slow descent up to a modest public plaza. A third route would access through the middle of the site, which could occur as a through block connection that would access any future development's potential roof terrace. This approach allows the entrances to the crossing to gracefully integrate into the existing urban fabric, and future development opportunities. The three routes converge at a modest public plaza that would serve as a gateway to the segment over






GRAND PLAZA


GINKGO ALLEY


HEMLOCK GARDEN


STORMWATER FACILITY /CREEK


ELEVATED PATH


EASTSIDE RAIL CORRIDOR


GRAND PLAZA



Interstate 405. The plaza could be integrated into future development opportunities and connect to a rooftop terrace.

The crossing over Interstate 405, a thin profiled concrete bridge, would pass between NE 4th and NE 6th Streets, avoiding conflicts with access ramps to Interstate 405, and separating itself from the East Link light rail aerial guide-way. Modest vegetated berms would exist on both sides of the crossing, including trees, to assist in screening from the sights of Interstate 405 below. The Linear Bridge does not emphasize sound mitigation as heavily as other alternatives. The berms provide additional separation from the interstate by keeping pedestrians and cyclists closer to the center of the bridge and away from the edges where impacts from sights and sounds would be more intense.

As the crossing reaches the Wilburton Commercial Area, a secondary route extends from the southern side and begins a gradual descent to street level. The accessible ramp precludes the need for vertical transportation and can be accessed by users of all ages and abilities. The ramp connects to a modest public plaza on 116th Avenue NE, and is buffered from the interstate to the west by a modest park. While not as expansive as the green space and plaza proposed in Alternative One, it provides park space needed for the future vision of the Wilburton Commercial Area. A total of up to 100,000 square feet of open space, including park and plaza would be incorporated into the Wilburton Commercial Area, as well as an additional 67,000 square feet of enhanced natural systems in the daylighting of Sturtevant Creek and creation of a stormwater facility. The plan would require the acquisition of private property in order to create the public space, as well as provide a landing for the crossing, in order to maintain its current route that







avoids conflict with existing interstate and light rail infrastructure. Without the acquisition of the property, the location of the crossing would need to significantly change, while also reducing the potential for open space and future development.

The crossing into the Wilburton Commercial Area allows for future developments to the north and south to occur in much greater proximity. It also preserves opportunity for some development to occur on both the City-owned Lincoln Center site, and the adjacent private property. This could create opportunities for integrating the crossing into second or third levels of future buildings.

An elevated crossing would also continue from the primary bridge structure, interfacing with future development east of 116th Avenue NE and the Eastside Rail Corridor. The area between Interstate 405 and the Eastside Rail Corridor rests at an elevation approximately 50 feet lower than the western start of the crossing, and its interface with the Eastside Rail Corridor. Providing an elevated connection to the Eastside Rail Corridor, in addition to a landing within the Wilburton Commercial Area, will allow for safe and efficient movement of pedestrians and cyclists between the Grand Connection and Eastside Rail Corridor without having to navigate the change in elevation. It also presents an opportunity to better integrate into future development that will face onto the Eastside Rail Corridor. Pending the selection of a preferred concept, the elevated crossing would require additional development and coordination with future development opportunities on the east side of 116th Avenue NE. A mid-block, raised intersection, crossing would connect the public space and Grand Connection landing to the east side of 116th Avenue NE at street level.

Case Study: Millennium Bridge - Denver, Colorado

Millennium Bridge is a 200 foot wide footbridge that spans 130 feet over existing rail lines. The bridge is located in Denver's LoDo district and Riverfront Park neighborhood, connecting Commons Park to the 16th Street Mall and Union Station. The bridge uses a direct route over the short span to connect the two sides of the LoDo neighborhood.

A primary goal of the bridge was to reduce the amount of elevation change for users. This was accomplished through a thin deck structure, supported by suspension cables. The bridge was the first cable-stayed bridge to use post-tensioned structural construction. Stairs exist on both ends of the bridge, as well as elevators to provide access for all users. The stairs also include bike channels as an alternative to the elevators for cyclists. The wide entries to the bridge create an inviting experience, and the bridge's overall width reduces the impacts of crossing the rail lines 25 feet below.

The bridge is part of a network of three bridges that expand and create connectivity across the rail lines, the South Platte River, and Interstate 25. The network of bridges serve as a hub to connect to a number of regional trails including the Colorado Front Range Trail, South Platte River Trail, and Cherry Creek Trail.

The bridge served as a catalyst for the neighborhood and almost 1.1 million square feet of residential development at a value of over \$400 million. The area also includes office development and retail to create a thriving mixed use community.

The northern terminus of the bridge is Commons Park, creating an anchor of civic space for the neighborhood. The 19 acre park has become a primary public space in the city, with a sculpted terrain that allows for diverse programming, as well as the restoration of the riparian habitat. The land for the park was purchased from a private and owner and turned into the park through city investment



Denver Millennium Bridge - Image by Blaine Harrington III



Commons Park - Denver, Colorado - Image by Arina P Habich



Riverfront Park Neighborhood - Denver, Colorado - Image by Daniel Brenner

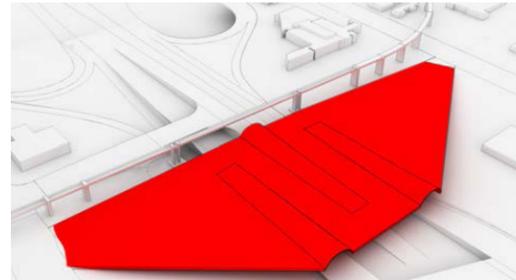
Chapter

Lid Park 4

Alternative Three



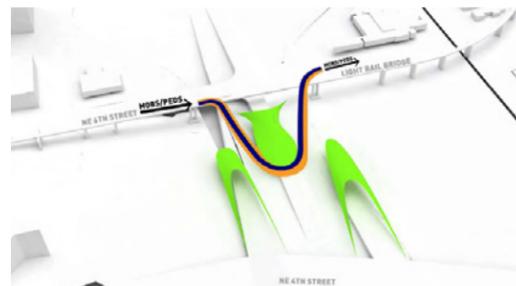
Design Evolution



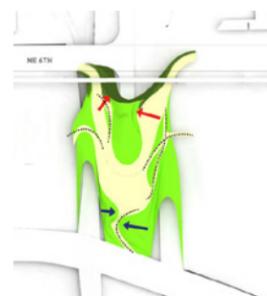
▲ Early Diagram of Alternative Three Interstate 405 Crossing - Image by Balmori Associates



▲ Early Sketch of Alternative Three Interstate 405 Crossing - Image by Balmori Associates



▲ Early Diagram of Interstate 405 Ramp Barrel Vaults - Image by Balmori Associates



▲ Early Rendering of Alternative Three Interstate 405 Crossing - Image by Balmori Associates

Alternative Three - Lid Park

Overview

The approach of the Lid Park seeks to mitigate the impacts of the interstate to the greatest extent possible, while reconnecting the urban fabric between Downtown and the Wilburton Commercial Area. The Lid Park would create new, usable land, that could serve as needed public space for the Civic Center District, as well as the Wilburton Commercial Area. The design of the Lid Park creates a folded and sculpted landscape to address the challenges of existing infrastructure, while also representative of Bellevue's topography. The unique landscape creates programmable areas for green and open space, hardscape plazas, and other features for activation and public use, as well as incorporating sustainable and green features. The Lid Park includes a descent into the Wilburton Commercial Area to a modest stormwater

facility and greenspace, preserving development and civic use opportunities on the city-owned Lincoln Center parcel and adjacent private property.

The scale of the Lid Park affords numerous access points, including from public rights-of-way such as NE 4th and NE 6th Streets, and adjacent private developments. This allows users to move through the space, and across the interstate, in several manners, creating a multitude of experiences. The Lid Park, covering most of the interstate between NE 4th and NE 6th Streets, would largely mitigate the sounds and sights of the interstate, except for the entrance and exit portals to the ramps accessing Interstate 405. The sculpted and folded terrain would provide respite from the urban environment with vegetated hills, as well as

By the Numbers: Alternative Three



Travel Distance
1,560 Feet

From Intersection of 112th Avenue NE and NE 6th Street to 116th Avenue NE landing.



up to **190,000 square feet** of public space

Includes the acquisition of 57,000 square feet of privately owned property.



up to **30,000 square feet** of new stormwater facilities



approximately **160,000 square feet** of space over Interstate 405



533 feet - maximum crossing width



Low estimate: High estimate:
\$116.1 million \$130.1 million

programmatic elements that would encourage active use of the space. The experience would incorporate movement between Downtown and the Wilburton Commercial Area, but also as a public place, encouraging users to linger, stay, and engage.

Design Evolution

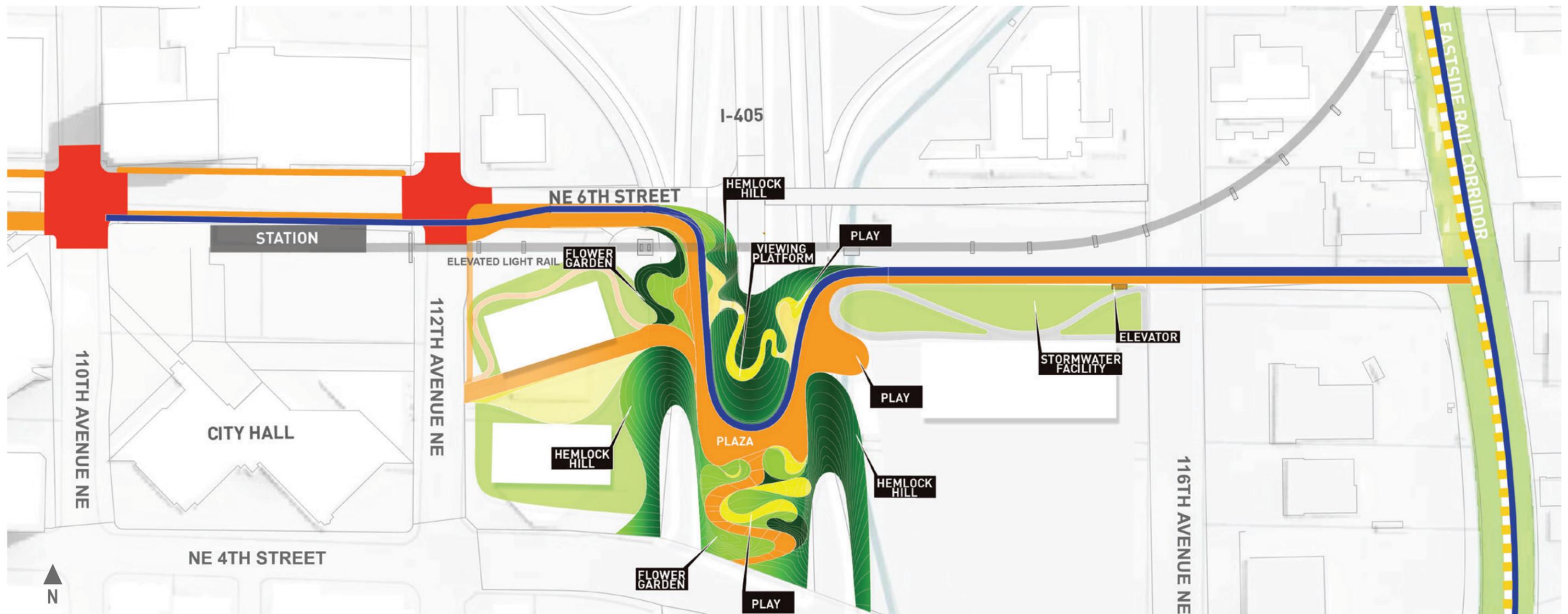
The goal of the Lid Park is to create as much public space as possible, while mitigating the negative impacts of Interstate 405. Early concepts attempted to cover all

of the interstate, including the access ramps, between NE 4th and NE 6th Streets by barrel vaulting over the access ramps. This created the initial concept for the rolling topography, but also changes in elevation that were too extreme for usable space, and limited access to the park. The extreme changes in elevation necessitated the increase of unusable landscaped areas, requiring that nearly all of the usable space was hardscaped only.

The initial concept also sought to expand beyond the limits of Interstate 405 and extend into both Downtown and the Wilburton Commercial Area, with a gradual change in elevation into an expanded open space. This concept was scaled back to be within the east-west limits of Interstate 405, preserving opportunities for future development, while creating new opportunities to integrate with future projects.

Design and Contextual Interface

The Lid Park creates a unique rolling and sculpted terrain, that successfully addresses the existing infrastructure challenges while creating a design that integrates seamlessly into the existing urban and natural landscape. It covers the interstate between NE 4th and NE 6th Streets with the exception of the existing access ramps to and from Interstate 405. The access ramps are partially covered with portals that






PLAYGROUND


HEMLOCK HILL


OBSERVATION DECK


CLIMBING WALL


ELEVATED PATH


FLOWER HILL


GRAND PLAZA


EXERCISE EQUIPMENT


STORMWATER FACILITY


EASTSIDE RAIL CORRIDOR



assist in screening the sights and sounds of moving traffic, while assisting in giving the lid its unique form and design. The partial ramp covers also create and inform much of the sculpted landscape and changing topography by creating vegetated and play hills that become defining features in the landscape.

Access to the lid can come from NE 6th Street, NE 4th Street, and also through connections to adjacent properties east and west of the interstate. The elevation of the lid has been calibrated to connect to these future developments at a second or third story level, creating opportunities for users to access through elevated public space on private property, in addition to the public rights-of-way. This allows for several points of access, and for the lid to function as a true public space and park. The entrance from NE 6th Street would also allow access to a bridge that shortens the travel distance across the lid, to the Wilburton Commercial Area. This bridge would also provide a viewing platform to Mount Rainier, as it would be elevated to one of the highest points on the lid park.

The access point from NE 4th Street would create a meandering path through vegetated berms that would provide respite from the urban environment. These berms could also be dotted with play hills for recreation purposes, and to ensure that the Lid Park is functional for users of all ages. This route would also spill out into the central plaza of the Lid Park.

The sculpted hills over the NE 4th Street and NE 6th Street ramps frame a central plaza in the heart of the lid. This space would serve as the central gathering space, and could be programmed for seasonal and special events, as well as permanent uses that make it a hub of activity between Downtown and the Wilburton Commercial Area. Moving east, the route would offer a descent into the Wilburton Commercial Area, into





Alternative Three Interstate 405 Crossing - Aerial Perspective - Image by Balmori Associates



a modest stormwater and greenspace feature. The combination of public space, and meandering paths transform the experience from simply crossing the interstate, to engaging with new public space and the Lid Park's unique design.

With nearly all of the public space concentrated over the interstate this would eliminate the need to acquire additional properties within the Wilburton Commercial Area to create open space. It would also preserve opportunities for future uses on the City-owned Lincoln Center site. As recognized by the Wilburton Commercial Area Citizen Advisory Committee, the Lincoln Center site presents a unique opportunity for civic or community uses for the future neighborhood, or could serve as a catalyst to assist in creating the neighborhood's future vision.

The Lid Park would create a total of 190,000 square feet of public space. The portion directly over the interstate would be approximately 160,000 square feet of open space, and the stormwater and greenspace feature within the Wilburton Commercial Area would be approximately 30,000. The stormwater and greenspace feature would also include the daylighting of Sturtevant Creek.

An elevated crossing would also continue from the primary bridge structure, interfacing with future development east of 116th Avenue NE and the Eastside Rail Corridor. The area between Interstate 405 and the Eastside Rail Corridor rests at an elevation approximately 50 feet lower than the western start of the crossing, and its interface with the Eastside Rail Corridor. Providing an elevated connection to the Eastside Rail Corridor, in addition to a landing within the Wilburton Commercial Area, will allow for safe and efficient movement of pedestrians and cyclists between the Grand Connection and Eastside

Rail Corridor without having to navigate the change in elevation. It also presents an opportunity to better integrate into future development that will face onto the Eastside Rail Corridor. Pending the selection of a preferred concept, the elevated crossing would require additional development and coordination with future development opportunities on the east side of 116th Avenue NE.

Case Study: Klyde Warren Park - Dallas, Texas

Klyde Warren Park is a 5.2 acre public space over Woodall Rogers Freeway, between Downtown and the Arts District. Opened in 2012, the park reconnects three blocks of the city separated by the existing freeway. The park is designed to include a performance pavilion, a dog park, a children's play area, a 6,000 square foot restaurant, walking paths, and several other amenities to encourage the use of the park as a central gathering space for Downtown, the Arts District, and Uptown.

The newly created land is owned by the City of Dallas, including its amenities, and is managed by the Woodall Rodgers Park Foundation. As such, the park maintains operating hours. The park has an operating budget of \$3 million per year, in addition to essential corporate sponsorships and events providing additional funding. The restaurant covers approximately 20 percent of the park's operating costs. An improvement district tax also provides \$750,000 per year to maintain the park.

Funding for the park was established through a complex assembly of resources that included city bonds, state transportation funding, federal funding, and private contributions including donors, sponsorships, foundation funding, and naming rights to the park.

The park has been transformational for Dallas, acting as a catalyst for over a billion dollars of private real estate development within a quarter to half mile of the park. Over 1,000 events are hosted in the park every year, and has contributed to an increase usage of local transit by 61%. In addition to serving as a gateway to the more recently developed Arts District, the park will also connect to the city's popular Katy Trail, serving as an important public space node.

By covering a large segment of the interstate, the park plays a critical role in improving the overall environmental quality of the area. A total of 230 trees cover the park to remove 18,500 pounds of CO2 every year from the air. The new land also treats 64,000 gallons of stormwater runoff annually.

The success of Klyde Warren Park has inspired plans to expand the park further.



Klyde Warren Park - Dallas, Texas - Image by Dallas Morning News



Klyde Warren Park - Dallas, Texas - Image by Felipe Garcia III

Other Precedents:

- Capitol Crossing (Washington, DC)
- Dilworth Plaza (Philadelphia, PA)
- Freeway Park (Seattle, WA)
- Highway 100 Lid (Edina, MN)
- Rose Kennedy Greenway (Boston, MA)
- Space 134 (Glendale, CA)
- The Stitch (Atlanta, GA)



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
Travel Distance  <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
Parks and Open Space 	159,000 Square Feet	100,000 Square Feet	190,000 Square Feet
Crossing Width 	65 Feet	65 Feet	533 Feet
Surface Area Covering the Interstate 	10,075 Square Feet	27,150 Square Feet	160,000 Square Feet
Stormwater Facility 	81,000 Square Feet	67,000 Square Feet	30,000 Square Feet
Cost 	Low estimate: \$52.8 million High estimate: \$73.1 million	\$48.7 million \$66.1 million	\$116.1 million \$130.1 million

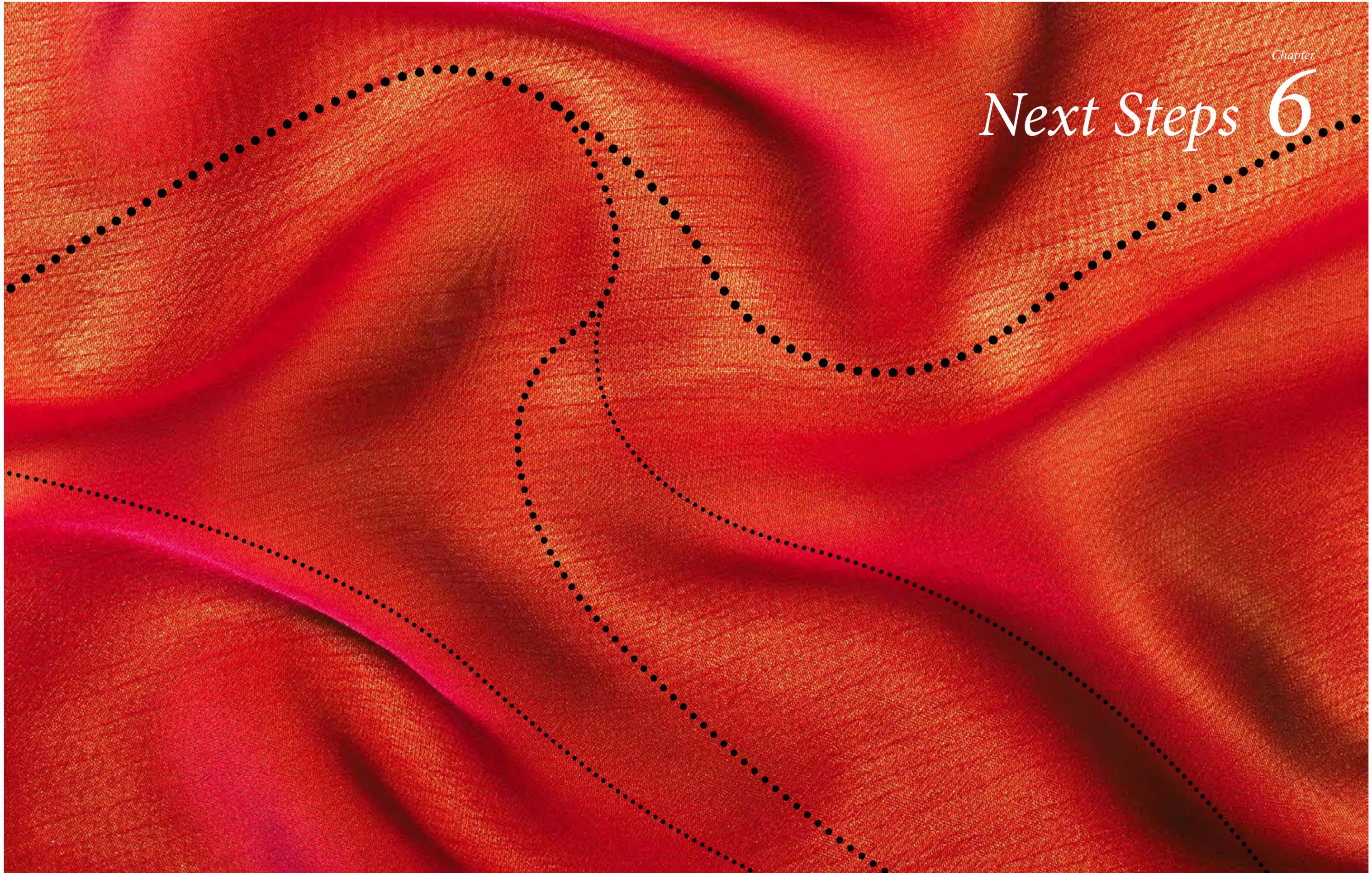
Performance Measure	Alternative One	Alternative Two	Alternative Three
I-405 Crossing Cost Estimated design, engineering, and construction cost for each alternative. Not including impacts to city-owned property.			
Constructibility What challenges exist for each alternative? <ul style="list-style-type: none"> Interface with East Link construction Conflicts with I-405 projects 			
Timing How is the timing affected by; <ul style="list-style-type: none"> East Link Construction (2023) Eastside Rail Corridor (2023) Private Development (2021+) 			
User Experience 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?			
Travel Distance and Accessibility What are the travel distances and changes in elevation a user must make to access each alternative.			
What are the consequences to the City-Owned Parcel (Lincoln Center)? 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"> Applicable to Alternatives 1 and 2 What is the cost of a park? What is the cost of land acquisition for a park? Property tax implications of removing development potential? 			

Key

Strong Moderate Weak

Chapter

Next Steps 6



Overview

The Interstate 405 crossing segment of the Grand Connection is a bold and ambitious move. One that will reconnect the urban fabric of Downtown Bellevue and the Wilburton Commercial Area. It provides a unique opportunity to create new open and public space for the city, as well as serve as a catalyst for the future vision of the Wilburton Commercial Area urban neighborhood.

The *Next Steps* chapter provides a high level framework to select and advance a vision for the crossing. Following adoption of the Sequence Two framework plan, this chapter should be revisited and updated to ensure that the strategies remain relevant as the vision evolves. The chapter should also be updated following direction provided by City Council

Near Term (1-2 Years)

1. Selection of a Preferred Alternative

Following review of this report, the Bellevue City Council should select an alternative that best satisfies the principles and goals established as part of the initial visioning, and assists in fulfilling the vision of the city and its future for the Wilburton Commercial Area and Downtown.

Important factors to consider as part of the selection should include

- Create a signature piece of infrastructure that is visually dynamic and iconic.
- Pursue opportunities to create public space on or adjacent to the crossing.
- Create a safe and comfortable crossing for pedestrians and cyclists.

- Mitigate the impacts, including sights and sounds of Interstate 405.
- Interface with the future Eastside Rail Corridor.
- Integrate with future development opportunities east and west of Interstate 405.
- Serve as a catalyst to encourage the development of the future vision of the Wilburton Commercial Area.
- Cost
- Impacts to private and public property

2. Begin Design Refinement of Preferred Alternative

The visioning process established exciting and transformational alternatives for crossing Interstate 405, but a large body of work remains to advance the vision of a preferred alternative. In their current form, the crossings are representative of a schematic vision. Upon selection of a preferred alternative the City should begin a refined design study that includes preliminary engineering and structural analysis, as well as additional refinement of the preferred design concept. This work would also include a refinement to the cost estimate as details of the crossing would be developed at a greater level of detail.

3. Continued Stakeholder and Public Engagement

The crossing will pose a significant impact to Interstate 405, and a continued dialogue should be established with the Washington State Department of Transportation (WSDOT). This should include significant concerns from WSDOT, impacts from future or planned projects, and strategies to complete construction with minimal impact to the interstate.

With each crossing bearing some impact on adjacent private property it will be essential to maintain a collaborative approach to create a successful vision, and one that integrates well with future development. These key stakeholders should remain engaged to produce a shared vision for the design, and to also understand the requirements for easements or property acquisitions.

As a significant infrastructure project, the Interstate 405 crossing segment of the Grand Connection will bring sweeping changes to Bellevue's landscape. It will be essential to maintain strong public engagement to obtain support and buy-in for the design, and to ensure that programming and public spaces meet the needs and expectations of Bellevue's residents, visitors, and employment base. This should occur through periodic open houses, and maintaining an updated web presence as the project continues to evolve.

4. Identify Funding Sources and Opportunities

The Interstate 405 crossing will represent a significant cost, but one that could be achieved through a multitude of funding sources. The City should provide opportunities within the budget for future design, refinement, and engineering, but there is also a need to begin developing a financing strategy. Such strategies could include:

- Federal funding sources
- State funding sources
- Local bonding
- Local tax revenue sources
- Grants related to connecting employment and housing, materiality, or other innovative design and construction approaches.

- Private contributions
- Revenue produced from an incentive based development system
- Public - Private Partnership

Upon selection of a preferred alternative, the city should immediately begin identifying funding opportunities as it could significantly impact the design refinement process.

5. Identify Property and Easement Needs

Upon selection of a preferred alternative the City should identify all impacts to private and publicly owned property. This should include necessary acquisition, easements and corresponding agreements (maintenance, access, utilities, etc.), and any opportunities for partnerships.

Mid-Term (3 - 5 Years)

1. Acquire Necessary Property or Easements

The City should begin budgeting for any necessary property acquisitions and easement agreements in advance. Prior to pursuing advanced engineering and final design the city should begin making any necessary agreements and purchases. This will ensure that significant changes in design will not be required as the crossing moves into the final design process.

2. Begin Advanced Engineering and Final Design

Upon securing property and easements, and beginning the assembly of funding sources, the City should enter final design and engineering stages.