Downtown Mobility Study

City of Bellevue

FINAL REPORT

September 2023

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Executive Summary

The Downtown Transportation Plan (2013) expresses the vision for walking to be the easiest way to get around in Downtown Bellevue. Vision Zero puts an emphasis on safety, especially for vulnerable users. While great strides have been made to achieve this goal, it is clear that some challenges remain for people walking, as well as for those using other modes of transportation.

This Downtown Mobility Study report documents the qualitative and quantitative assessments of mobility challenges people experience walking, rolling, and riding transit, and identifies project concepts that will help people get around in Downtown Bellevue without a car. Quantitative data metrics adopted in the Mobility Implementation Plan for the vehicle mode identify that no specific infrastructure interventions are needed.

A new mobility service by Visit Bellevue, branded as BellHop, is intended to provide an on-demand shuttle within and proximate to Downtown. BellHop launched in August 2023.

To gain a better understanding of some of the challenges faced by people moving about in Downtown Bellevue, as well as some of the opportunities to address those challenges, the city convened a group of stakeholders in a series of virtual meetings in the winter of 2022/2023. Representatives of the Bellevue Downtown Association, King County Metro, and Sound Transit participated.

This report marries the Downtown Transportation Plan (2013) and the Mobility Implementation Plan (2022) to prepare a suite of project concepts to equitably and sustainably improve mobility and safety. Interventions identified for implementation by the public sector and the private sector are intended to:

- Complete and connect the pedestrian system of sidewalks and designated arterial crossings at mid-block locations, with enhancements at signalized intersections
- Build out the planned network of bicycle facilities to achieve the intended level-of-traffic-stress, established in the Mobility Implementation Plan (MIP) in coordination with the Bike Bellevue initiative
- Provide transit passenger amenities described in the MIP at stops on the frequent transit network
- Implement Smart Mobility approaches to support pedestrian safety and to extract efficiencies in the vehicle network at signalized intersections
- Refresh and expand wayfinding for pedestrians and bicycle riders
- Incorporate Transportation Demand Management strategies to increase the percentage of non-single-occupant vehicle (SOV) commute trips

Implementing these interventions may be solely the responsibility of the city, may involve collaboration with transit service partners, may be implemented as a condition of approval of private development projects, or may be any combination of these resources. This report documents an inventory of project concepts without prioritization. Specific project concept design, implementation prioritization, and resource allocation will be developed and determined where and when opportunities arise.


108th Ave NE
ONE BELLEVUE

chapter
01

Introduction

For many people, navigating through urban neighborhoods in Downtown Bellevue is challenged by the availability, type, and quality of mobility options.

City leadership has expressed interest in exploring more options and higher-quality facilities to help people move safely through Downtown without a car. The Mobility Implementation Plan (MIP) establishes Performance Metrics and Performance Targets that rely primarily on infrastructure interventions to address mobility challenges across the city, and the Downtown Transportation Plan identifies types and locations of projects specific to Downtown. While there is a place for specific infrastructure interventions, there may be other approaches that rely on information, Smart Mobility technology, demand management strategies, or mobility services. This report documents the challenges to mobility in Downtown and the opportunities to build on the findings from this and prior studies to identify project concepts for implementation.


110th A

chapter
02

An Interagency Approach

Bellevue Transportation Department staff convened a series of meetings with Downtown "agency partners" who represented Sound Transit, King County Metro, and the Bellevue Downtown Association.

Through these meetings conducted virtually in late 2022 and early 2023, city staff, in collaboration with a consultant team from Fehr & Peers, described the intent of the project, documented existing conditions, identified mobility needs and challenges, safety concerns, and demonstrated project concepts that could address challenges and improve mobility. Agency partners expressed support for a suite of project concepts that could be implemented in partnership with the city and private sector developers to improve Downtown mobility.

Agency Partners in the Downtown Mobility Study

- **Andrew Singelakis**, Director
- **Paula Stevens**, Assistant Director
- **Chris Long**, Assistant Director
- **Kevin McDonald**, Principal Transportation Planner

- **Alex Krieg**, Director - Access, Integration & Station Area Planning
- **Kevin Shively**, Senior Transportation Planner

- **Aaron Gooze**, Principal
- **Taylor Whitaker**, Senior Planner
- **Chris Breiland**, Principal

- **Patrick Bannon**, President
- **Matt Jack**, Policy Director

- **Carol Cooper**, Managing Director, Market Innovation
- **Jason Campos**, Transportation Planner

- **Tim Payne**, Principal

Stakeholder Interviews

Research for this study included outreach to employers, property owners/managers, and affiliated Downtown "stakeholders" to identify specific mobility needs and challenges and to obtain anecdotal context to supplement the Performance Metrics and data analysis. Consultants and staff conducted interviews with six stakeholders between February 1, 2023 to February 9, 2023. These interviews helped to clarify the mobility challenges people experience that are not necessarily captured in the MIP analysis, some of the project concept opportunities that may help to address those mobility challenges, and the factors to consider when prioritizing project implementation.

Interviewees and Their Affiliation:

- **Jodie Alberts**, Vice-President, Government Affairs, Bellevue Chamber of Commerce
- **Blayne Amson**, Americans with Disabilities Act, Title VI Administrator, City of Bellevue
- **Vicky Clarke**, Policy Director, Cascade Bicycle Club
- **Nova Guthrie**, General Manager, ZenRock Fitness, Old Bellevue
- **Scott Kuznicki**, Discovery Institute, ACES Northwest
- **Brad Jones**, Executive Director, Visit Bellevue
- **Chris Randels**, Founder and Chair of Complete Streets Bellevue

THE INTERVIEW QUESTIONS

- What are the mobility challenges in Downtown Bellevue?
- What are potential solutions or opportunities?
- Are there geographic areas within Downtown or modes of travel that the city should prioritize?
- What are the important factors that the city should consider when prioritizing projects?

Interview summaries are in **Appendix E.**

Figure 1. Word Cloud Summary of Key Challenges and Opportunities

The word cloud in **Figure 1** displays key challenges and project concepts conveyed by stakeholders.

Mobility Challenges

Stakeholders expressed these common themes that are mobility challenges in Downtown:

- Balancing placemaking for people with efficient operations for vehicles
- Improving the pedestrian experience along sidewalks and at intersections
- Completing the planned network of facilities for bicycle access and safety
- Addressing the needs of those who experience mobility challenges

Project Concepts

Stakeholders identified project concepts that could be explored to address the mobility challenges:

- Enhance/increase/refresh wayfinding for pedestrians and bicyclists, and also provide information to help drivers locate available off-street parking
- Improve the arterial crossing experience for pedestrians at intersections and mid-block locations
- Support on-demand mobility services and deliveries

Factors to Consider and Prioritize

Stakeholders recognized the need to prioritize project concepts:

- **SAFETY**. Especially for the vulnerable users – those outside of a vehicle
- **ACCESS.** Especially for people who have a mobility challenge
- **CONVENIENCE.** For everyone in getting around


NE 6th St
106th Ave NE
NO TURN ON RED
ROAD WORK AHEAD

chapter

03

Planning Context

Bellevue has adopted several transportation planning documents to describe and implement the vision and policies in the Comprehensive Plan.

These include plans that are focused on specific modes of travel—the Pedestrian and Bicycle Transportation Plan and the Transit Master Plan—as well as transportation plans that focus on a specific geography such as the Downtown Transportation Plan (DTP). The Mobility Implementation Plan (MIP) ties all of these together. The city also periodically adopts a Transportation Facilities Plan and a Capital Investment Program Plan that describe and provide funding for specific infrastructure projects and programs.

Mobility Implementation Plan

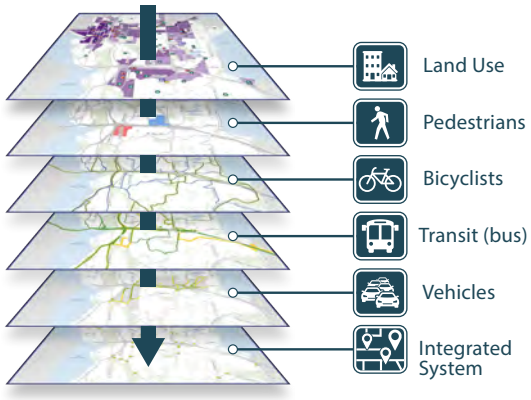
In April 2022 the city adopted the Mobility Implementation Plan (MIP). The MIP is based on a "layered network" (as shown in **Figure 2**) that considers the land use context and each mode in the multimodal transportation system to describe Bellevue's interconnected multimodal transportation system. Four goals of the Mobility Implementation Plan are:

- Support Growth
- Consider Equity
- Improve Safety
- Provide Access and Mobility

Downtown Bellevue is described in the Mobility Implementation Plan as a Type 1 Performance Management Area (PMA). In a Type 1 PMA, a high-density, mixed use land use environment is supported by a multimodal approach to mobility with an emphasis on ensuring a safe, complete and connected network for people walking and rolling, and comfortable and safe access to transit services.

Performance Targets are established in the MIP to describe the intended operation or design of a facility, in other words, the intended user experience. Performance Targets for each mode are related to the Performance Management Area in which the facility is located so that the target aligned with the context. For instance, the Performance Targets for people traveling on foot in Downtown reflect the vibrant urban context and are different from other, less dense parts of the city. Similarly, the Downtown Performance Targets for the vehicle mode are consistent with the urban context.

Figure 2. Layered Network




NOW
HIRING

chapter

04

Mobility Challenges in Downtown Bellevue

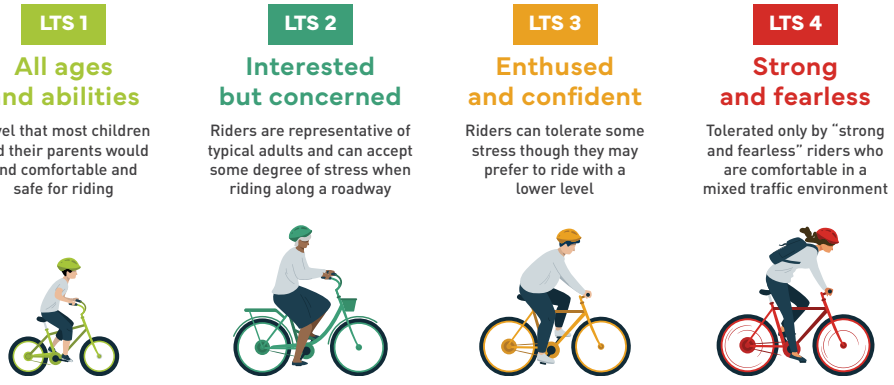
For the purpose of this study, a Downtown mobility challenge is described as the performance of the transportation network that does not meet the Performance Target for that mode of travel.

For instance, a gap in the sidewalk network would not meet the Performance Target for system completeness, nor would a bicycle facility that does not provide the intended comfort level, or level-of-traffic stress (LTS). The concept of LTS is illustrated in **Figure 3**.

This study focused on identifying and addressing these mobility challenges for people traveling within Downtown. The study used both quantitative and qualitative methods and data to describe the challenges. The quantitative approach was based on the Performance Targets from the MIP and recalls prior work on the Downtown Transportation Plan and the Transit Master Plan. The qualitative evaluation was based on stakeholder interviews and the experience of city staff and agency partners in response to community concerns expressed about moving around Downtown. The aggregate of quantitative and qualitative data, conversations with agency partners, and the stakeholder interviews inform project concepts to address the challenges.

Figure 3. Bellevue Bicycle Level of Traffic (LTS) Categories

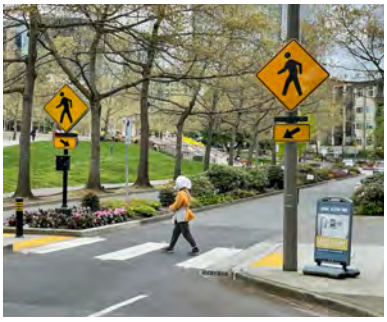
The Performance Metric used to describe the user experience on the bicycle network is the level of traffic stress (LTS). LTS experienced by a bicyclist is a function of the average daily traffic volume and the speed limit, together with the type of bicycle facility.



Performance Targets and Network Facility Gaps

This report frames the challenges and opportunities for Downtown area mobility by analyzing and addressing travel trends, safety data, and mobility options. Using the metrics identified in the MIP, the Downtown Transportation Plan, and data analysis (collision data trends and travel trends), the following sections highlight the Performance Target gaps for Downtown pedestrians, bicycle riders, transit users, and vehicle drivers, and describe project concepts to achieve the Performance Targets.

PEDESTRIAN NETWORK FACILITIES



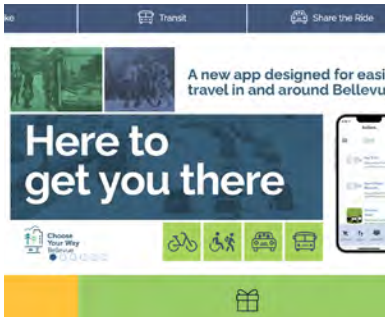
BICYCLE NETWORK FACILITIES

FREQUENT TRANSIT NETWORK STOP FACILITIES

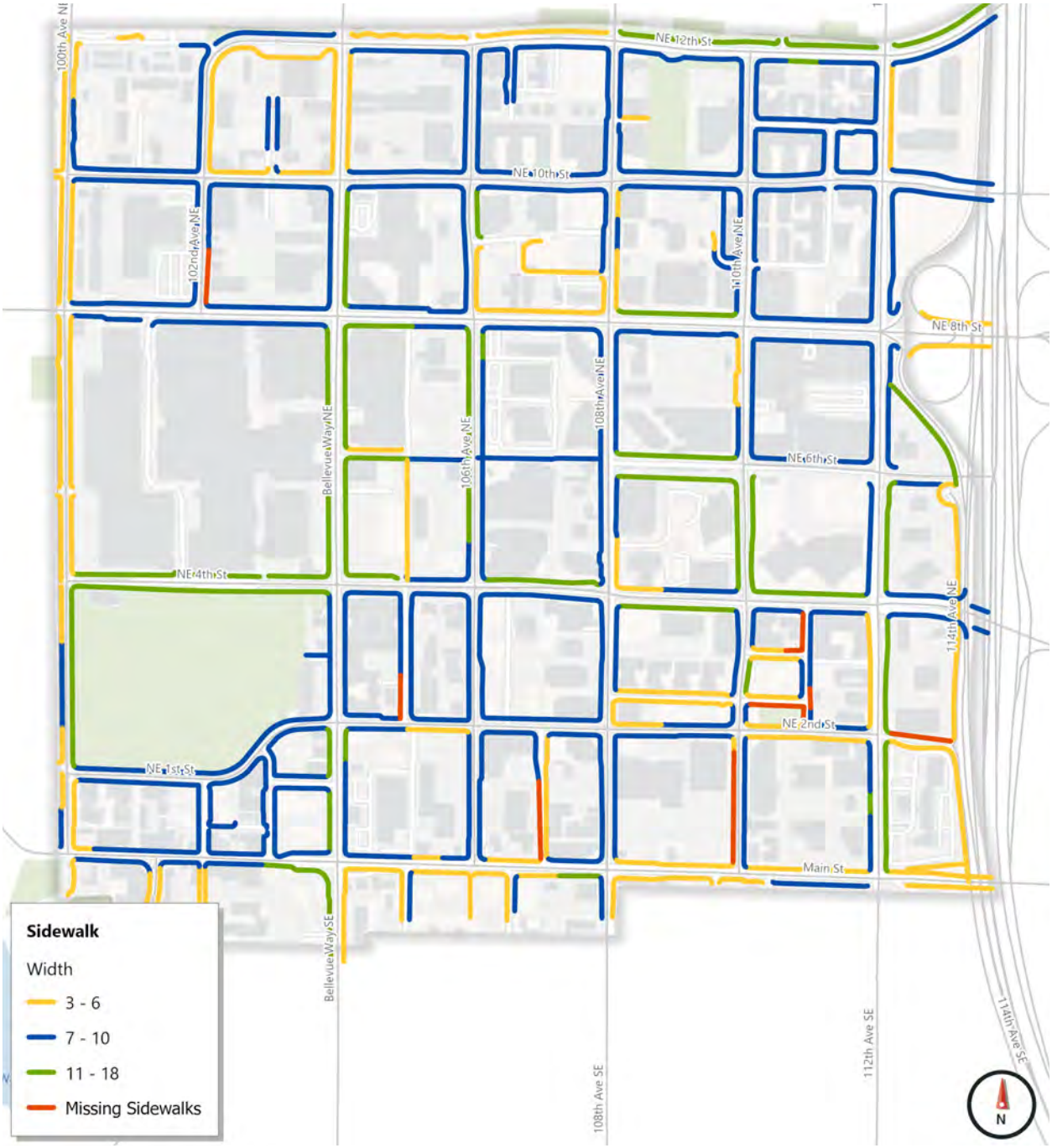
VEHICLE NETWORK FACILITIES

WAYFINDING

TRANSPORTATION DEMAND MANAGEMENT



Pedestrian Network Facilities



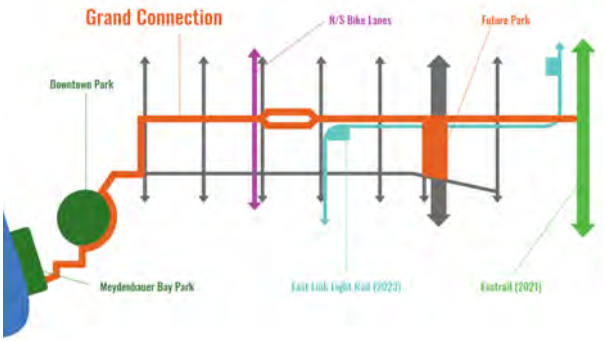
Bellevue's design and development standards ensure that a comfortable and safe pedestrian environment is built through both private-sector and public-sector projects. A nearly complete sidewalk network exists in Downtown, with only a few gaps along the arterials. Along several superblocks the spacing between designated pedestrian crossings—at an intersection or midblock location—does not meet the Performance Target. The width of some sidewalk segments does not match the Downtown Land Use Code specifications, but this situation will be addressed as redevelopment occurs.

Grand Connection

The Grand Connection is a signature downtown Bellevue place-making initiative. At over 1.5 miles in length, the Grand Connection spans between the waterfront of Lake Washington at Meydenbauer Bay Park, and the regional Eastrail in the Wilburton commercial area. The corridor functions as a series of cohesive, connected and memorable spaces and pedestrian-focused experiences.

For years, the Grand Connection – formerly branded as the Pedestrian Corridor – has transformed building design and the pedestrian experience in Downtown. Next, the Grand Connection will influence the land use pattern in the Wilburton commercial area by improving connections to Downtown and creating a landmark bridge over I-405 with an iconic experience for pedestrians and bicyclists. Land use code guidelines and standards are intended to improve livability, access and placemaking as private-sector development projects are built along the Grand Connection.

City projects such as new bike racks installed along the Grand Connection will include a signature "Grand Connection Gold" color to reflect the identify of the route. Exceptional intersections along the Grand Connection are raised to sidewalk level to improve the pedestrian experience and to calm the speed of traffic.



Project Concepts for Pedestrian Mobility

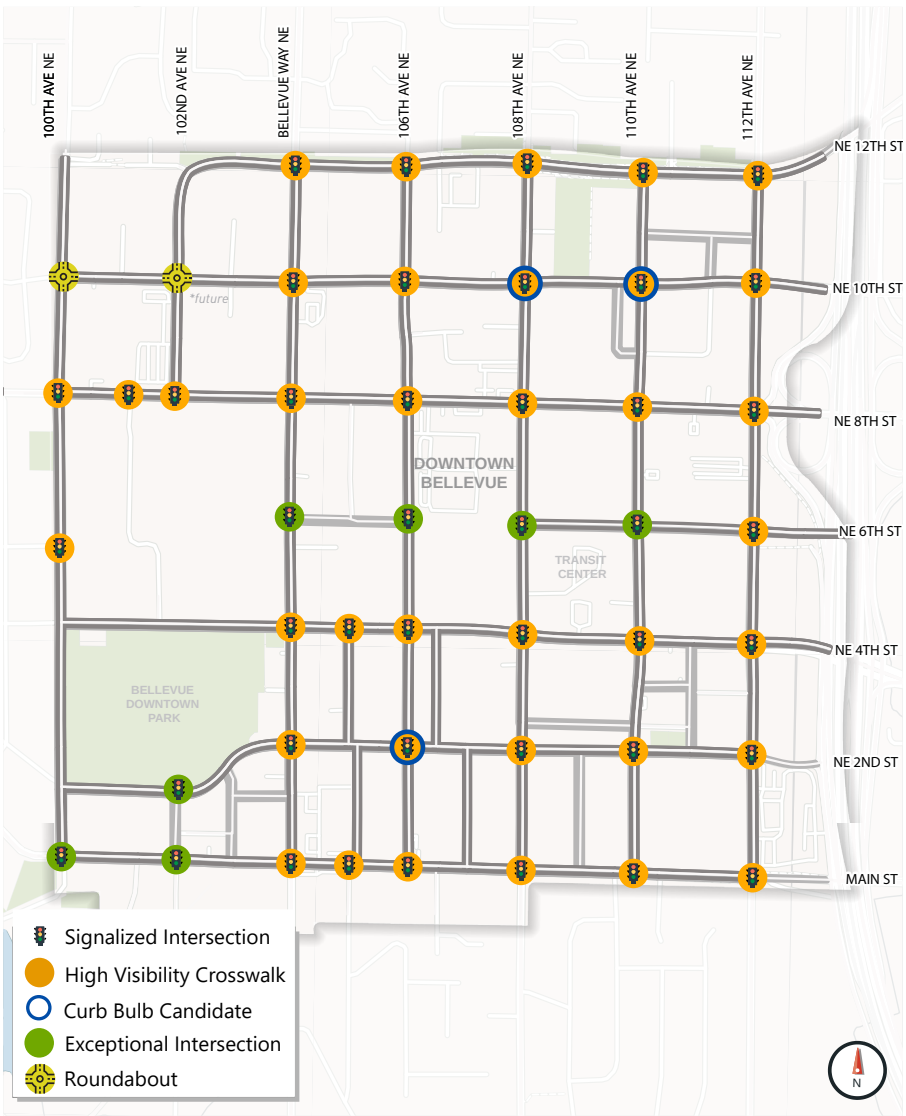
Arterial Crossings

Improved design for intersection crossings would address several challenges identified in the data analysis and through stakeholder interviews.

- High-visibility crosswalks raise the awareness of all users on the roadway to improve safety
- Raised intersections (defined in the Downtown Transportation Plan as "exceptional" intersections) further prioritize pedestrian safety by reducing vehicle speed and improving the crossing environment
- Curb extensions reduce the crossing distance for pedestrians

Figure 4 shows the signalized intersections in Downtown where high-visibility crosswalk markings are appropriate, where raised intersections are planned and where a curb extension may be possible. Special design considerations are needed to accommodate crossing at roundabouts.

Figure 4. Intersection Crossing Locations in Downtown Bellevue



Project Concepts for Pedestrian Mobility

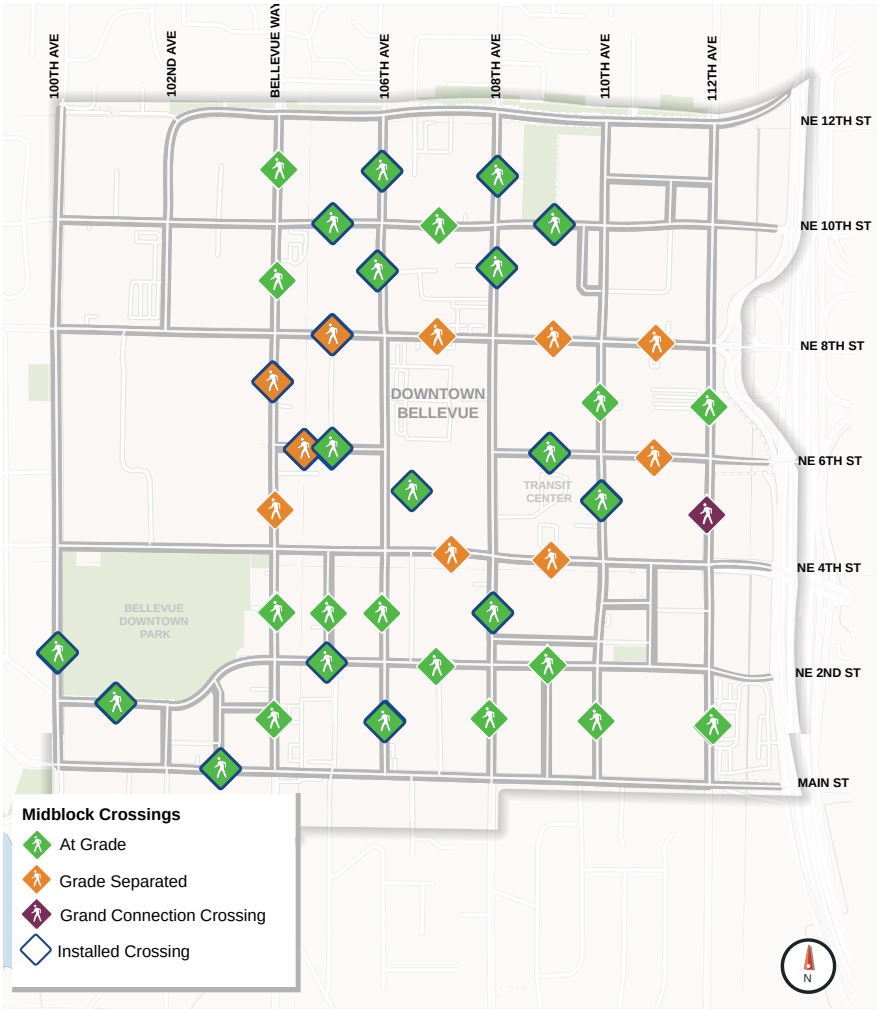
Midblock Crossings

A well-located and designed midblock crossing may reduce the travel distance for a pedestrian and create a safer crossing environment.

- At-grade crossing may be fully signalized, or it may be controlled with a rectangular rapid-flashing beacon (RRFB) as appropriate considering the street design and the speed and volume of traffic
- Landscaped median is both a safety enhancement and an urban design amenity; special pavement treatment within the crossing will enhance the sense of place for a pedestrian within a street
- Grade-separated crossing may be implemented by a private sector developer as permitted by the Land Use Code

Figure 5 shows existing and planned midblock crossing locations in Downtown.

Figure 5. Existing and Planned Midblock Crossing Locations In Downtown Bellevue



Project Concepts for Pedestrian Mobility

Traffic Operations

Project concepts to improve pedestrian mobility and safety may be operational in nature versus infrastructure. These types of interventions could include employing a leading pedestrian interval (LPI), extending walk time or restricting vehicle right-turn on red. Many of these project concepts would require an evaluation of the operations at specific candidate intersections.

These types of interventions are also identified in more detail in the Smart Mobility Plan (2018) through the Traffic Management and Data Management initiatives.

CONSIDERATIONS FOR TRAFFIC OPERATIONS

- Leading Pedestrian Intervals (LPI) provides a few seconds for a pedestrian to enter the crosswalk before auto movement in the same direction is allowed, and is shown to improve pedestrian visibility and thus, safety
- Stakeholders expressed that the time allocated a person to walk across a wide intersection is too short, with the result being a stressful crossing for some, and a barrier to travel for others

Bicycle Network Facilities

Bellevue is working to complete the Downtown bicycle network to meet the intended level-of-traffic stress (LTS) along each network corridor as defined in the MIP. The MIP identifies locations where the LTS target is met, where a bicycle facility exists but does not meet the LTS target, or where there is a bicycle facility gap. There are notable gaps in the bicycle network within Downtown, while a more complete system provides connections to and from Downtown.

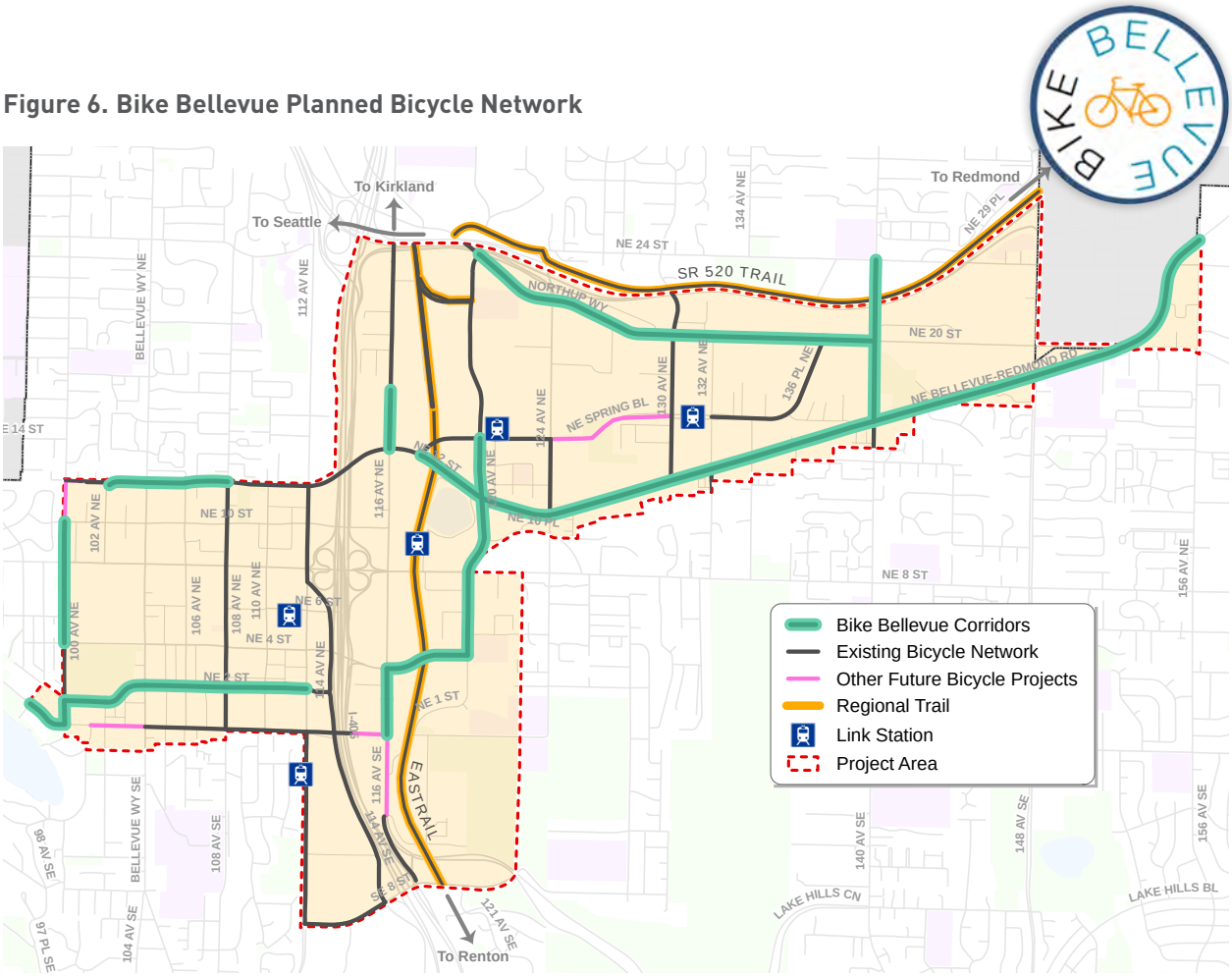
Project Concepts for Bicycle Mobility

Bike Bellevue

Safe mobility for people walking, rolling, and bicycling is the city's highest priority mobility challenge. The City Council recently initiated Bike Bellevue (corridors shown in **Figure 6**) with the intent of improving the bicycle network within Downtown, Wilburton/East Main, and BelRed to meet the LTS Performance Target. Project concepts implemented through Bike Bellevue will make it safer and more equitable, sustainable and accessible for people to ride a bicycle Downtown. Bike Bellevue aligns with the City Council's commitment to a Safe System approach to Vision Zero and eliminating traffic deaths and serious injury collisions by 2030.

Facilities on other (non-Bike Bellevue) segments of the Downtown bicycle network will be implemented with city capital programs and private sector developments to incrementally complete the system.

Figure 6. Bike Bellevue Planned Bicycle Network



Project Concepts for Bicycle Mobility

Bike Parking

Short-term bike parking is an important component of the bicycle network. The presence of bike parking at building entrances, transit stops, and other high-demand locations will facilitate bike use. Many types of bike racks are in use within Downtown Bellevue, some installed by the city, and some installed by others. The current standard city design is a U-shaped bike rack with "Bellevue" spanning the center bracket, and the color may be "gold" along the Grand Connection, or black elsewhere. Short-term bicycle parking needs are continuously evaluated, and bike parking is added through city programs and private development.

Long-term and secure bicycle parking may be provided within buildings for use primarily by building tenants. Secure bike parking is available at future Link stations. Locations of publicly available secure bike parking could be signed for greater awareness.

Transit Stop Facilities

Bellevue supports public transit as a time competitive and accessible mode compared to private vehicle travel between activity centers. Within Downtown, the vast majority of residents and employees have nearby access (less than a one to two block walk) to a transit stop. The MIP and the Transit Master Plan identified that stops on frequent transit network should have a suite of amenities and information to make transit more comfortable, accessible and safe. Also noted are some fixed objects at the Bellevue Transit Center (BTC) that may have been considered amenities now create clutter and maintenance issues at the BTC platform.

Frequent transit network connections provide excellent service to/from and within Downtown. However, many Downtown frequent transit network stops lack one or more of the transit passenger amenities that would provide for a safe, comfortable, and accessible transit experience. While not measured in the MIP or in this study, access at local transit service may also be enhanced with these transit passenger amenities. East Link stations are assumed to have all of the recommended amenities.

Transit stop components may be provided by the public sector – transit service providers in collaboration with the city – or by the private sector as a condition of development approval. The latter approach is often preferred so that bus stop components can be integrated into a new building to enhance the pedestrian environment with less clutter on the sidewalks.

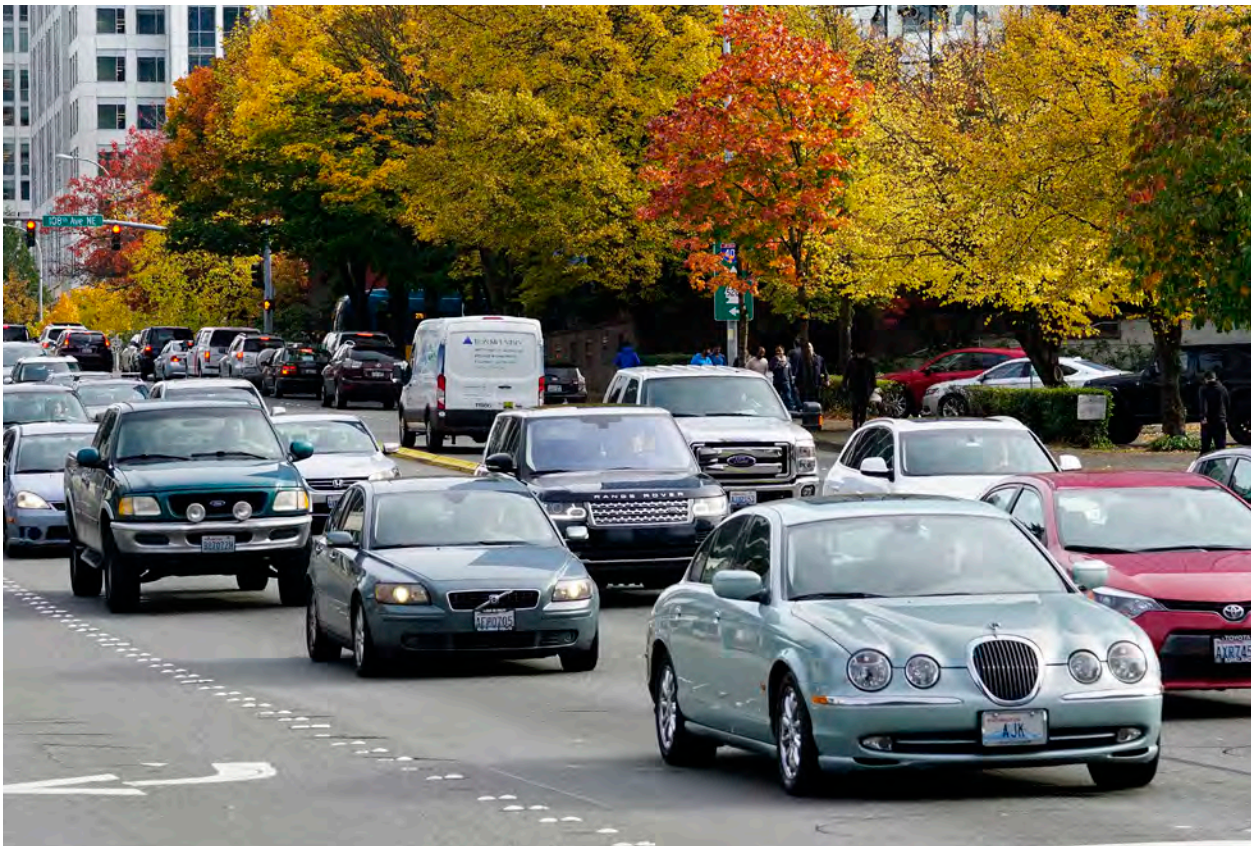
TRANSIT PASSENGER AMENITIES

Recommended transit passenger amenities* are:

- Shelter/Weather Protection
- Seating
- Paved Bus Door Passenger Zone
- Wayfinding/Passenger Information
- Garbage cans
- Bicycle Parking

*The full suite of recommended amenities may not be needed at all frequent transit network stops.

Vehicle Network Facilities



Within Downtown Bellevue is a complete and connected street network, with traffic operations controlled by an adaptive, coordinated and connected signal system. This street network allows for vehicle access to all parcels of land within Downtown, it supports transit service, and it hosts the on-street bicycle network. The performance of the vehicle network is described and assessed using the Performance Metrics and Performance Targets identified in the MIP. The MIP identified the volume-to-capacity ratio (v/c) as a Performance Metric at intersections and the travel speed for vehicles is the Performance Metric along arterial corridors. Within Downtown, defined as a Type 1 Performance Management Area in the MIP, the V/C Performance Target is 1.0, and the vehicle corridor travel speed Performance Target is 50% of the typical urban travel speed. Most of the system intersections and primary vehicle corridor segments meet the Performance Targets. As discussed in the MIP, vehicle network performance may be improved through smart mobility technology interventions rather than infrastructure investments that may degrade the performance of other modes.

Wayfinding

Stakeholder feedback and casual observations point to the need to expand and improve wayfinding in Downtown for pedestrians, bicyclists, transit riders and vehicle drivers. The scope for this work could include improved information for transit riders who are connecting to services, bicyclists wanting to find secure parking options, drivers who also may be looking for parking, and pedestrians who are visiting Downtown.

Many types of wayfinding may be deployed in Downtown to develop a comprehensive and coordinated system. A focus should consider refreshing existing wayfinding kiosks and developing a new comprehensive wayfinding program. A comprehensive wayfinding study would develop a strategy to upgrade existing facilities and to deploy new wayfinding solutions that use innovative and interactive technology tools. Implementation and ongoing maintenance of wayfinding infrastructure and messaging could include public and private-sector partners.

INNOVATIVE WAYFINDING

This wayfinding kiosk from the City of Philadelphia (shown on the right) is an example of how an innovative wayfinding solution can provide dynamic information such as the weather forecast, local destinations, real-time bus arrivals, and other valuable context to help people navigate through Downtown Bellevue.

Transportation Demand Management

Transportation Demand Management (TDM) focuses on decreasing the use of single-occupant vehicles; expanding the mobility facilities and services for people walking, bicycling, riding transit, and employing non-commute work options.

TDM supports job and population growth by increasing the efficiency of the transportation system. Additional benefits of TDM include cost effectiveness (reducing the need for the city to expand streets and for developers to build more parking spaces); improvements to public health, improvements to air, noise and water quality; reduction in greenhouse gas emissions and per capita vehicle miles traveled; and increased mobility and accessibility for historically underserved groups.

Bellevue staff have initiated an update to the 2015-2023 TDM Plan with the Transportation Commission serving as the advisory body. The updated TDM Plan will guide city staff to implement regulatory and non-regulatory measures to help achieve non-drive-alone targets set in the Comprehensive Plan.

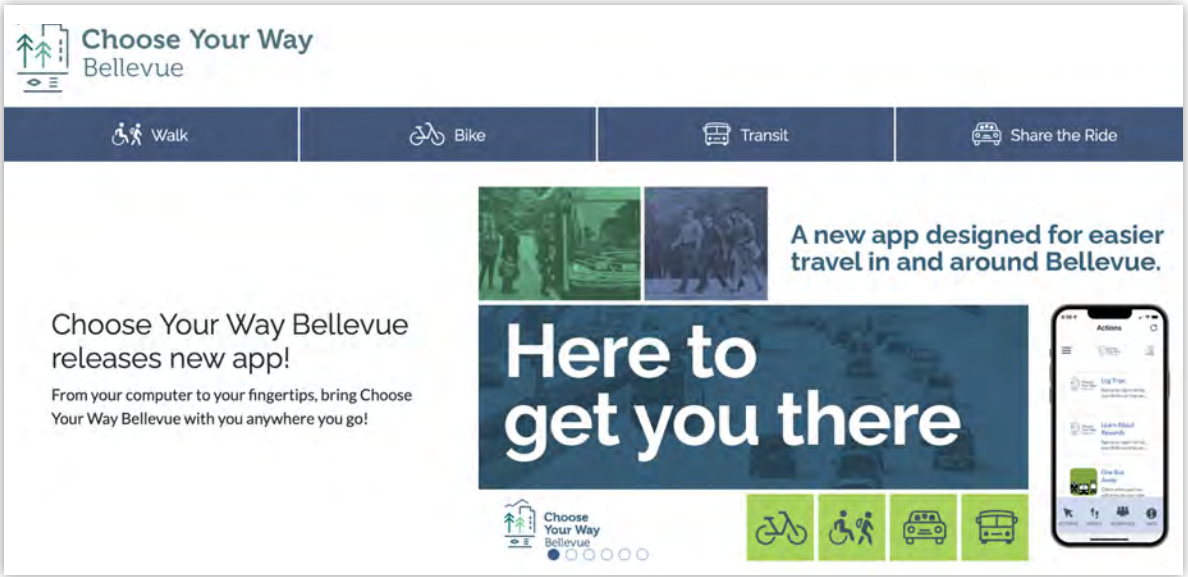
TDM Regulatory Components

Transportation Management Programs are required as a condition of development permitting for large buildings, primarily for office use; and Commute Trip Reduction (CTR) is required through state law and city code. CTR requires larger employers, generally those with 100 or more employees, to have a commute trip reduction program for their employees and to conduct measurement and reporting related to program goals. Since the start of the CTR program in 1991, the drive-alone rate at CTR companies has decreased by nearly 19 percent.

TDM Non-Regulatory Components

Non-regulatory components of Bellevue TDM include marketing and promotion to individuals through the Choose Your Way Bellevue travel options brand. Choose Your Way Bellevue Business Services assists and encourages employers and property managers to provide commute programs for employees at their worksites. The Bellevue Transportation Management Association, known as TransManage, is a service of the Bellevue Downtown Association. TransManage provides professional services for trip reduction in support of these activities.

Providing facilities and services that make it easier for a person to get around without a car is an effective non-regulatory TDM strategy.



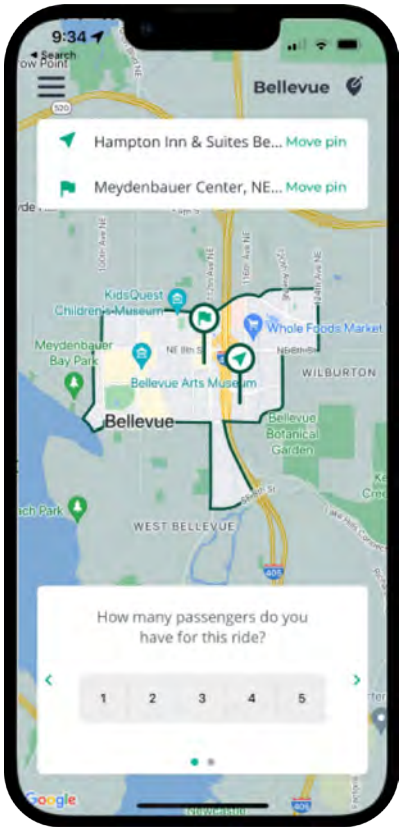
A Downtown Circulator

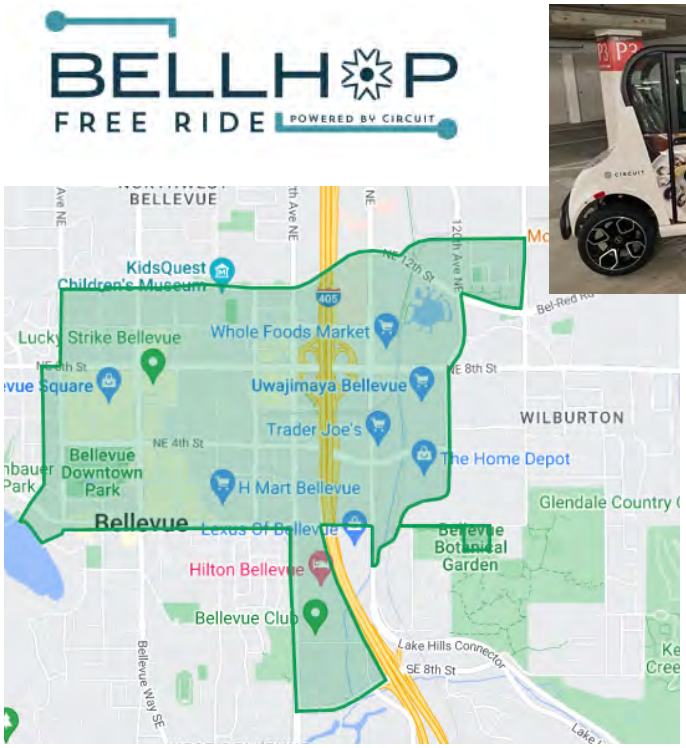
On-Demand Mobility Services

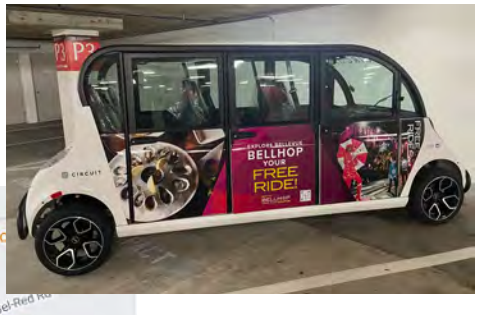
The intent of this Downtown Mobility Study is to identify challenges that people experience getting around in Downtown Bellevue and to prepare project concepts and mobility service enhancements to make it easy, comfortable and safe for people, especially by active transportation modes. The Study identifies project concepts to support active transportation and transit ridership. In terms of mobility services, agency stakeholders in this study learned that the Visit Bellevue organization will launch the BellHop service in the summer of 2023. In light of this new service, this study does not further consider or analyze a circulator. The City and agency stakeholders will learn from the experience of BellHop to inform any future consideration of a public circulator service for Downtown.

Bellevue has conducted several studies over the past two decades to understand the potential viability of a Downtown circulator, as summarized in **Appendix A**. Each of these studies similarly concluded that a circulator service would be an unsustainable public investment due to high costs for deployment, maintenance and operation coupled with projected low ridership. A conclusion of the 2013 Downtown Transportation Plan was that existing and planned public transit service was available within a short walking distance of most Downtown residents and employees, and that this public transit service provided good connections within and beyond Downtown. Agency stakeholders concur that this assessment remains true.

Figure 7. BellHop Service Area and Vehicle








PUBLIC
ACCESS

chapter
05

Implementing Project Concepts

Project concepts are intended to address the mobility challenges identified through the qualitative and quantitative data analysis and stakeholder interview process. As noted previously, the sequence of implementation is likely to be mostly opportunistic in terms of location, available resources and partnership commitments, and with respect to the context of other Downtown activities, including private sector construction.

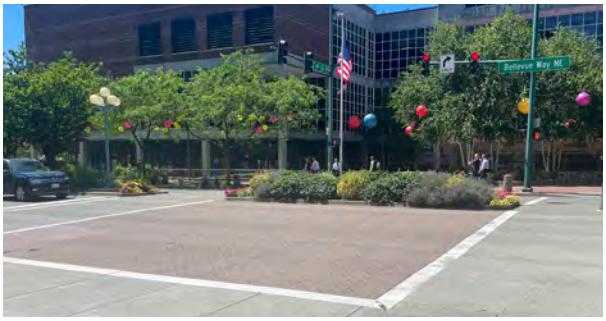
The Bellevue Capital Improvement Program Plan resources may be tapped for specific types of projects that fit the program scope, objectives and funding criteria. The relevant Capital Improvement Program Plan opportunities are listed below and the resources and responsibilities for implementation of project concepts are described on the following pages. See **Appendix F** for information on near-term implementation projects and conceptual cost estimates for project types.

R-182	Downtown Transportation Plan Implementation (program sunsets in FY 2025)
R-199	Neighborhood Safety & Connectivity (Levy)
W/B-85	Growth Corridor High Comfort Bicycle Network Implementation (Bike Bellevue)
W/B-56	Pedestrian and Bicycle Access Improvements
CD-44	Grand Connection Implementation
CD-22	Enhanced Right-of-Way and Urban Boulevards
CD-37	Downtown Community Development implementation

Project Concepts for Pedestrian Mobility

Intersection Treatments

Goal: To improve pedestrian visibility and safety at signalized intersections.	
Lead	Bellevue Transportation
Project Concepts	• High-visibility crosswalks • Exceptional (raised or other treatment) intersections at designated locations along the Grand Connection • Curb extensions – limited implementation potential, generally on streets with on-street parking or other non-movement curb use, per the Curb Management Plan



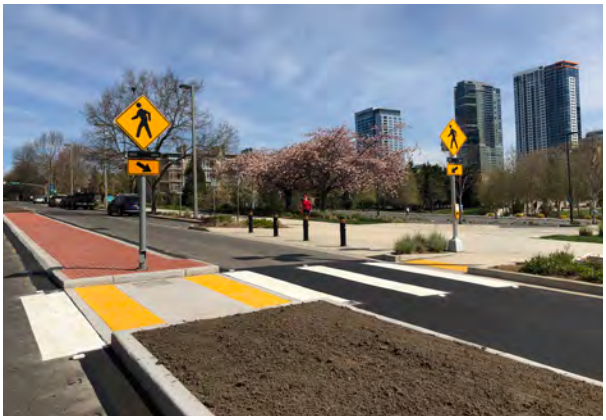
Operational Treatments

Goal: To create a more comfortable and safe pedestrian environment at signalized intersections.	
Lead	Bellevue Transportation
Project Concepts	• Implement Leading Pedestrian Interval • Extend walk time

Project Concepts for Pedestrian Mobility

Midblock Crossings

Goal: To reduce the travel distance for pedestrians and create safer arterial crossings at midblock locations.	
Lead	Bellevue Transportation
Project Concepts	• At-grade crossings with full signalization • At grade crossings with rectangular rapid flashing beacons (RRFB) • Median at each type of midblock crossing



RESOURCES AND PARTNERSHIPS FOR PEDESTRIAN MOBILITY

The opportunity for partnerships and the dedication of resources will be determined on a case-by-case basis, and are generally inclusive of the following:

- **R-199.** Neighborhood Safety & Connectivity (Levy)
- **R-182.** Downtown Transportation Plan Implementation Program (renew after FY 2025)
- **W/B-56.** Pedestrian and Bicycle Access Improvements
- **CD-44.** Grand Connection Implementation
- Private-sector development projects

Project Concepts for Multimodal Mobility

Wayfinding

Goal: To expand and improve wayfinding in Downtown for transit riders connecting to services, bicyclists finding secure parking options, and pedestrians visiting activity centers and the Grand Connection. Refresh wayfinding kiosks and develop a new comprehensive wayfinding program to upgrade and deploy a new programmatic approach to Downtown wayfinding.

Lead	Community Development Department, supported by Transportation, in collaboration with transit agencies, the Bellevue Downtown Association, and Visit Bellevue

RESOURCES AND PARTNERSHIPS FOR WAYFINDING

The opportunity for partnerships and the dedication of resources will be determined on a case-by-case basis, and are generally inclusive of the following:

- **R-182.** Downtown Transportation Plan Implementation Program (renew after FY 2025)
- **W/B-56.** Pedestrian and Bicycle Access Improvements
- **CD-37.** Downtown Community Development implementation
- **CD-44.** Grand Connection Implementation
- Transit agency partners
- Bellevue Downtown Association
- Visit Bellevue

Project Concepts for the Bicycle Network and Bicycle Parking

Bicycle Network Corridors and Intersections

Goal: To meet the Level-of Traffic-Stress (LTS) Performance Targets for corridors and to provide bicycle signalization and lane striping as appropriate at intersections on the Downtown bicycle network.

Lead	Bellevue Transportation

RESOURCES AND PARTNERSHIPS FOR BICYCLE NETWORK CORRIDORS AND INTERSECTIONS

The opportunity for partnerships and the dedication of resources will be determined on a case-by-case basis, and are generally inclusive of the following:

- **W/B-85.** Growth Corridor High Comfort Bicycle Network Implementation (Bike Bellevue)
- **R-199.** Neighborhood Safety & Connectivity (Levy)
- **R-182.** Downtown Transportation Plan Implementation Program (renew after FY 2025)
- **W/B-56.** Pedestrian and Bicycle Access Improvements
- Private-sector development projects

Project Concepts for the Bicycle Network and Bicycle Parking

Bicycle Parking

Goal: To continue and expand the program to provide accessible short-term bicycle parking (bike racks). Provide wayfinding to direct riders to publicly accessible secure bike parking in buildings and regional transit facilities.

Lead	Bellevue Transportation

RESOURCES AND PARTNERSHIPS FOR BICYCLE PARKING

The opportunity for partnerships and the dedication of resources will be determined on a case-by-case basis, and are generally inclusive of the following:

- **W/B-56.** Pedestrian and Bicycle Access Improvements
- Private-sector development projects
- Transit agency partners

Project Concepts for Frequent Transit Network Stops

Frequent Transit Network Stops

Goal: To provide a more comfortable, safe and accessible environment for transit riders. Components to achieve this goal at frequent transit network stops may vary by site and are defined in the Mobility Implementation Plan to include shelters/weather protection, seating, paved door passenger zones, wayfinding information, and bicycle parking.

To refresh/upgrade Bellevue Transit Center to enhance passenger amenities and information, minimize general clutter, and improve overall aesthetics.

Lead	Bellevue Transportation and transit agency partners

RESOURCES AND PARTNERSHIPS FOR FREQUENT TRANSIT NETWORK STOPS

The opportunity for partnerships and the dedication of resources will be determined on a case-by-case basis, and are generally inclusive of the following:

- **R-182.** Downtown Transportation Plan Implementation Program (renew after FY 2025)
- **W/B-56.** Pedestrian and Bicycle Access Improvements
- Private-sector development projects
- Transit agency partners (Bellevue Transit Center, Transit Stop Amenities)

Project Concepts for Vehicle Network Performance

Analysis of vehicle network performance in Downtown Bellevue in accordance with the Performance Metrics and Performance Targets adopted in the MIP demonstrated that vehicle network performance at signalized (system) intersections and along primary vehicle corridors generally meets the Performance Target. Therefore, no project concepts for infrastructure are developed as part of this study.

Traffic operations are constantly monitored and adjusted utilizing the citywide fiber optic communications network and cameras. Guided by the Smart Mobility Plan, Bellevue's Intelligent Transportation System improves transportation safety and mobility through the integration of technology, applications, and platforms in the City Hall Traffic Management Center.

The MIP provides for monitoring of performance and the preparation of project concepts to address Performance Target gaps. A prioritized list of project concepts will be developed to inform each update of the Transportation Facilities Plan (next planned for late 2024).

CITY OF BELLEVUE SMART MOBILITY PLAN 2018

ELEMENTS OF THE SMART MOBILITY PLAN

Although this plan focuses on emerging ACES technologies, Bellevue will continue to advance and maintain traditional ITS technologies crucial for everyday transportation data, traffic management, and traveler information needs. In the time period leading up to mature ACES adoption, traditional transportation technologies will continue to play a key role in moving people and goods safely and efficiently.

Bellevue's Smart Mobility Plan is divided into six initiatives to highlight the projects that the city will implement in the next 5 years. The projects, shown in Table 1, are high priorities for Bellevue in maintaining and advancing a transportation system that meets the city's Smart Mobility vision and goals. The city's approach to the six identified initiatives are as follows:

Autonomous and Connected Vehicles

Develop partnership to implement AV and CV demonstration projects leading to larger-scale deployments.

Electric Vehicles

Accelerate policies and infrastructure to achieve continued growth in sustainable and clean transportation in Bellevue.

Shared Mobility

Encourage shared mobility services in Bellevue to provide more equitable, accessible and cost-effective travel alternatives to single occupancy vehicles.

Real-Time Traveler Information

Leverage public and private sector resources to enhance the delivery of accurate, timely, and relevant traffic data to the public.

Data Management

Take advantage of the exponential growth in transportation data to support Bellevue's ability to capture, manage, and analyze data to improve safety and mobility in Bellevue.

Traffic Management

Expand the city's existing traffic management capabilities to enable proactive and data-driven solutions that will optimize transportation efficiency and safety in Bellevue.

appendix

A

Circulator Service Assessment

Circulator Service Assessment

Transit circulator routes can be defined as specialized fixed transit routes, often served with distinctive vehicles that facilitate movement throughout a downtown or business district. Circulators typically connect multiple destinations that are commonly visited by employees, visitors, residents, or tourists that serve a similar interest. The best environments for establishment of circulator routes are ones that operate as directly as possible, serve a variety of destinations, provide frequent service, and offer last mile connections.

A recent TCRP report provides one of the most comprehensive studies of existing urban circulators, documenting the motivations for and outcomes of such services. It surveyed 42 transit agencies and provided case studies of seven circulators in Baltimore, Hartford, Los Angeles, Louisville, Philadelphia, Washington D.C., and Austin. Key findings help define challenges and opportunities for establishing successful circulator services in other cities.

- **Funding and fares.** Due to the target audience (e.g. employees who do not typically rely on transit or tourists who are new to the area), free fares help attract a broader ridership. It eliminates the barrier of figuring out how to pay. Further, due to the absence of fare revenue, other stable funding sources are necessary. Voluntary contributions have not succeeded in sustaining circulators in the past.
- **Branding.** A distinctive, strong brand will increase the visibility of the service, which likely targets a population that otherwise does not consider transit a viable alternative.
- **Service characteristics.** The findings emphasize frequency and simplicity over coverage. The simpler the route, the better. And, it is ok to reduce coverage (e.g. by limiting stops or deviations) to increase frequency.
- **Partnerships.** The most successful circulators have collaborative relationships with local elected officials, business representatives, and other community stakeholders, which provide important feedback on critical destinations for the route and mitigate duplicative services provided by private partners. Further, a collaborative relationship with the local transit agency supports success.
- **Access and target market.** Key to the success of circulators is the walkability of the area served—and the willingness of the local population to walk. In Dublin, wintertime may pose a barrier to people's desire or ability to access the service, however given the frequency of the service, it may provide an opportunity to foster economic development despite the winter chill.

Downtown circulators can serve as an important connection tool for districts and neighborhoods looking to increase mobility between popular destinations in a relatively close area to each other. Unfortunately, circulators can suffer from low ridership or poor performance if the service is duplicative, inefficient, or not commonly known as a mobility option.

Common Reasons Circulators Fail

- **It's faster to walk**. In a smaller area, even if the wait for the circulator is only 5-10 minutes, most people can walk to their destination in that time.
- **It's too expensive to do it "right."** In order to attract riders, the circulator must be "ultra-frequent," such as every 5 minutes. This requires multiple buses and drivers and costs can quickly escalate.

- **It runs empty.** The "ultra-frequent" service needed to attract riders will carry only a few riders on each trip, only in the heavier direction (like toward key destinations in the morning for example) and only during the busiest hours. In the lighter direction, and in the lighter hours, it could run almost completely empty.
- **It looks empty.** People view an empty (but frequent) bus as a failure and continued investment in the surface is limited

In addition to research at a national level, previous studies at the local level within Downtown Bellevue also provide context on how a circulator may operate and some of the key challenges for successful implementation. The previous studies are shown in the table below.

Prior Circulator Studies

Plan	Year	Background	Key Findings
Transit Circulator Plan and Market Assessment and Service Design Study	2000	Described the characteristics of a transit circulator system that would address expected increases in traffic congestion in downtown Bellevue. And documented the results of a market assessment and service design for a potential circulator shuttle.	Circulator system should incorporate low fare or fare free service, operate at 10-minute or less headways, and operate two-way service Ridership was estimated 250 –500 boardings per weekday
CAC Circulator Study	2002	An analysis of the feasibility of implementing a circulator system in downtown Bellevue.	The cost per trip for a circulator system would be $4 - $20, which is too high to justify City investment in a circulator system Annual ridership was estimated at 396,000
2004 Art Shuttle	2004	A summary of shuttle service that was provided in downtown Bellevue for the 2004 Bellevue Art Fair weekend.	The cost per boarding varied by route and ranged from $3.60 to $6.70 Daily ridership varied by route and ranged from 120 to 1,200
Perteet Study	2007	An analysis of existing and proposed transit service, a market assessment of travel demand, and an analysis of six circulator options.	The cost per boarding varied by route and typically exceeded $5 per trip Annual ridership for the circulator options ranged from 156,000 to 202,800
King County Direct Partnership Agreement	2008	Provided for potential service enhancements via a circulator and other monetary contributions.	The circulator potentially funded was not implemented

appendix

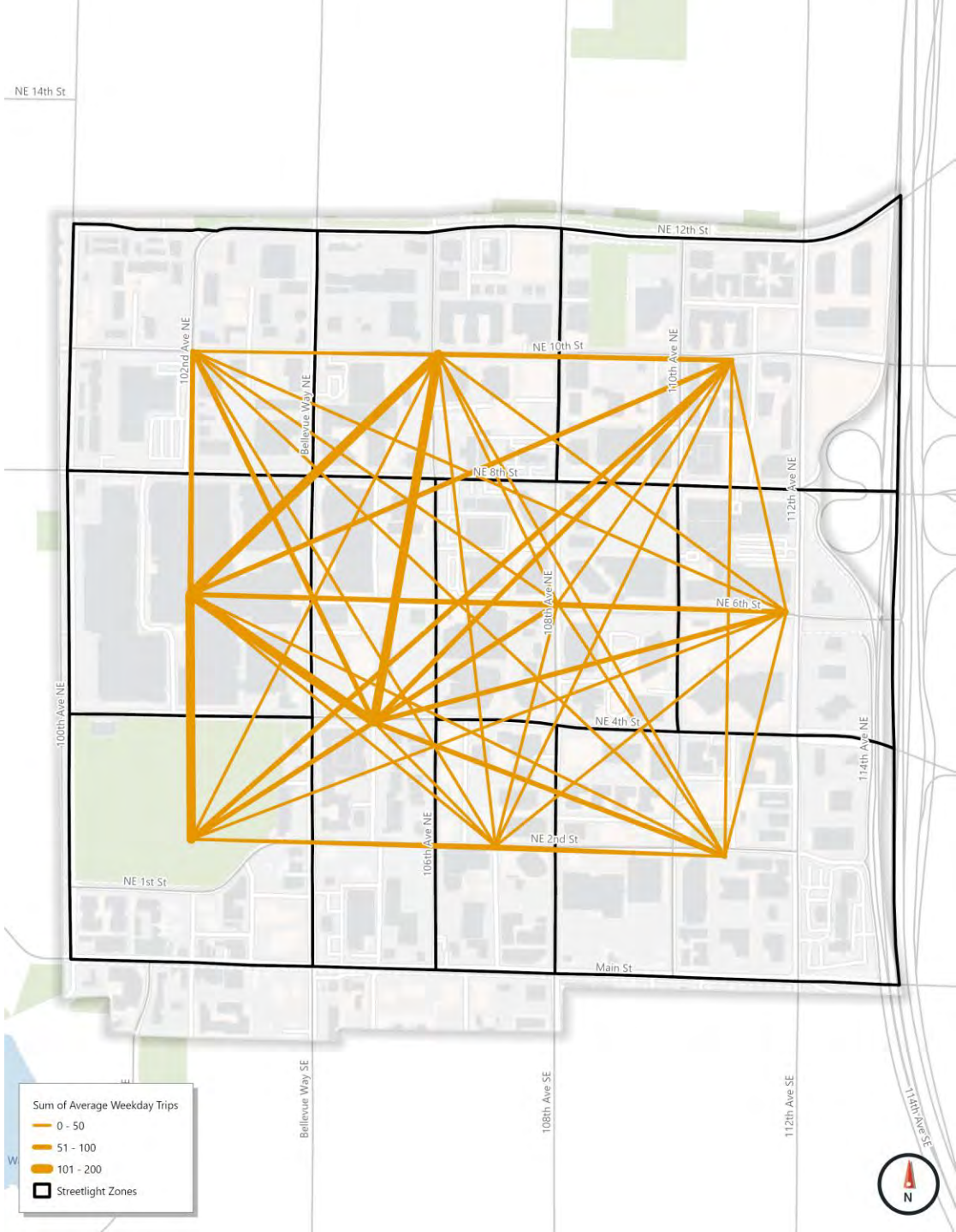
B

Where are People Traveling within Downtown Bellevue?

Downtown Travel Patterns

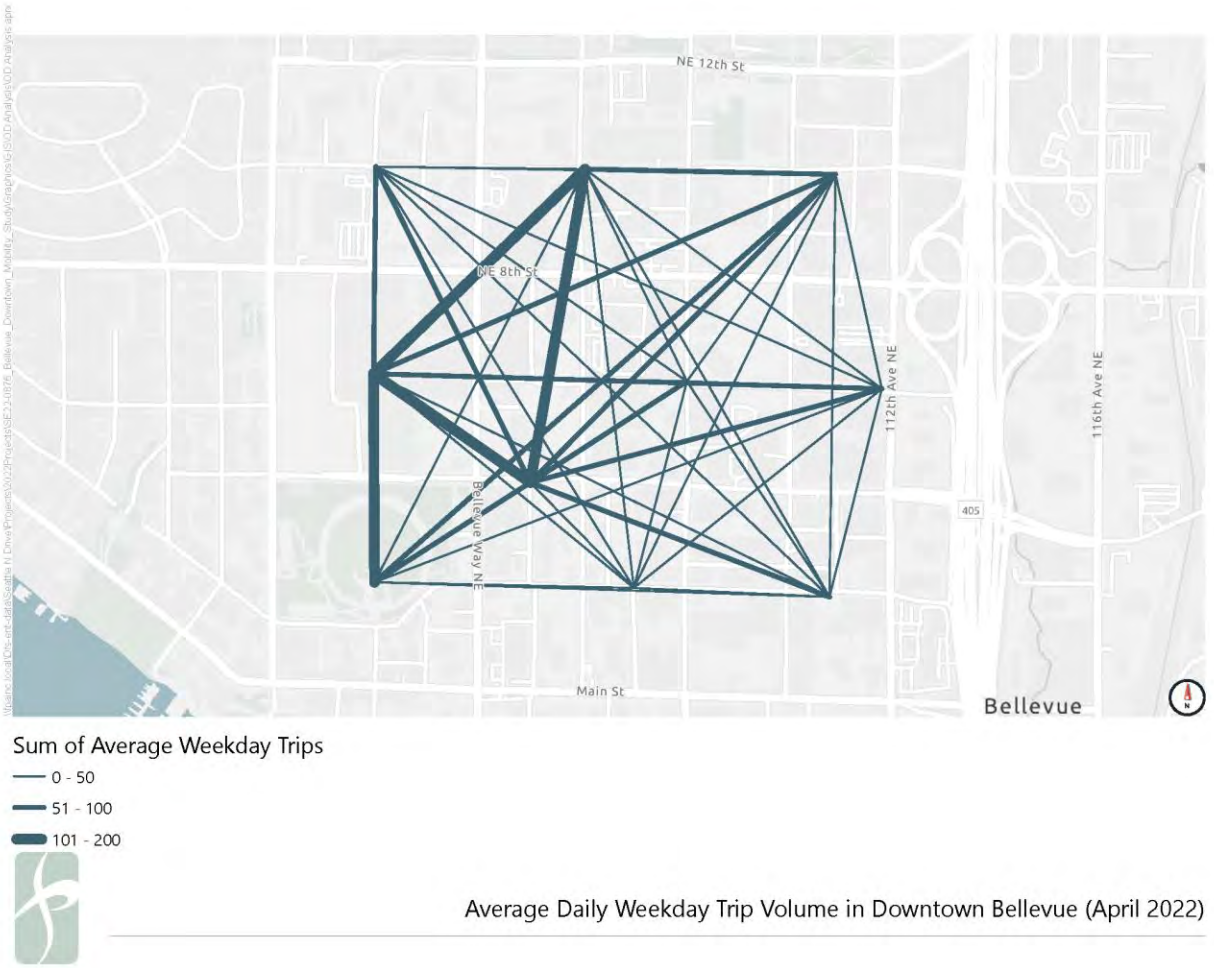
- Mobile device location-based data
- Preponderance of trips are relatively short – a block or two
- No predominant travel pattern between a single origin-destination pair

- What are the mobility challenges for people making these trips?
- What are potential improvements?



Preliminary Streetlight Review Trends

- **5,700** daily weekday internal vehicle trips in April 2022
- **43%** fewer daily weekday trips in April 2022 as compared to April 2019
- **~10%** of all trips that are into/out of Downtown Bellevue
- **93%** of all trips within Downtown Bellevue are less than a mile
- **>65%** of daily trips are non-Home Based



Average Daily Weekday Trip Volume in Downtown Bellevue (April 2022)

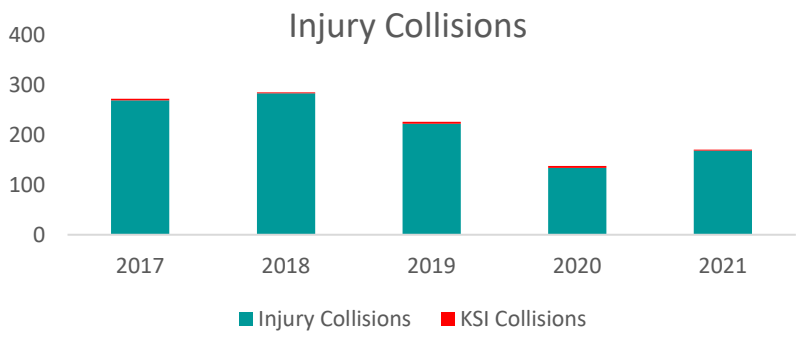
appendix

C

Collision Trends

Preliminary Collision Review Trends

- **1,095** Collisions Downtown (2017-2021)
- **15** KSI Collisions (Killed or Seriously Injured)
- **16** Bicycle and **59** Pedestrian Collisions
- Top Violations:
  - Left Turns and Right Turns
  - Straight Ahead



appendix

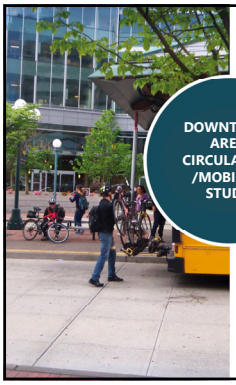
D

Stakeholder Presentations and Meeting Notes

Three stakeholder meetings were conducted with staff representing the Bellevue Downtown Association, City of Bellevue, King County Metro, and Sound Transit.

The meetings were held on January 23rd, March 7th, and April 17th in 2023.

The slides presented during the meeting and meeting notes recorded based on feedback gathered from the stakeholders are included in this appendix.



Downtown Area Circulation/Mobility Study

January 23, 2023

Aaron Gooze
Chris Breiland
Taylor Whitaker
Kevin McDonald

FEHR PEERS
Transportation

1

DOWNTOWN CIRCULATION/MOBILITY STUDY

Agenda

- Project Purpose and Scope
- Travel Patterns in Downtown
- MIP Performance Targets
- Potential Mobility Gaps
- Project Concepts and Services to Address Mobility Gaps
- Questions and Discussion
- Next Steps and Timeline

2

Project Purpose and Scope

- Identify challenges for people to travel through Downtown
- Integrate with existing policy and planning work
- Identify project concepts and potential services that can address Performance Target gaps
  - Consider the potential for a Downtown Circulator Shuttle
  - Consider the role of "exceptional" TDM strategies

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Who is Traveling Downtown?

- Two broad categories:
  - **People going to/from Downtown:** longer trips, more emphasis on car, transit, and potential for bicycle
  - **People traveling within Downtown:** shorter trips, all modes are viable; focus of this study

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Downtown Travel Patterns

- Mobile device location-based data
- Preponderance of trips are relatively short – a block or two
- No predominant travel pattern between a single origin-destination pair

- What are the mobility challenges for people making these trips?
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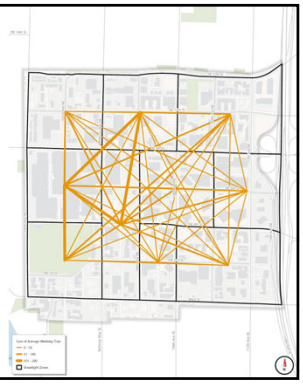

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Mobility Implementation Plan

- Defines the layered network
- Performance Metrics
- Performance Management Areas
- Performance Targets
- Project Concept Identification and Prioritization
- Citywide in Scope

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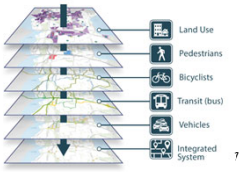
DOWNTOWN CIRCULATION/MOBILITY STUDY

Mobility Implementation Plan:
Evaluating Mobility Gaps Downtown

- Layered network: consider all modes as a system that supports the surrounding land use
- Performance Management Area 1
  - Used to identify Performance Targets
  - Considered in project concept prioritization
- No mobility services included in MIP
- Limited discussion of TDM in MIP

Figure 1: Layered Network



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DOWNTOWN CIRCULATION/MOBILITY STUDY

Performance Target Gaps

- Evaluated for Downtown
- Performance Target Summary Results:
  - Pedestrian – relatively complete sidewalk network; few gaps per MIP
  - Pedestrian – many gaps in arterial crossings as identified in Downtown Transportation Plan
  - Bicycle – notable gaps within Downtown; more complete system connecting to Downtown
  - Transit – strong transit connections to and within Downtown; some gaps in passenger amenities
  - Vehicle – most system intersections and vehicle corridor segments meet Performance Targets

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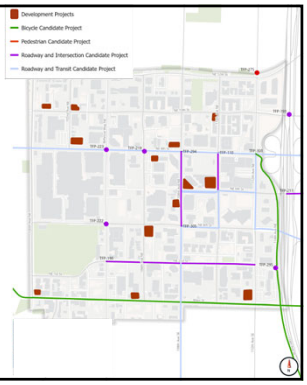
DOWNTOWN CIRCULATION/MOBILITY STUDY

Current Work to Address Performance Target Gaps

- Many pedestrian network and transit stop amenity gaps addressed through partnership with development
- Ongoing investments from transit agency partners to increase speed, reliability and service levels
- Bike Bellevue program has identified improvements to bicycle network within Downtown
- Per MIP, less prioritization to vehicle Performance Target Gaps



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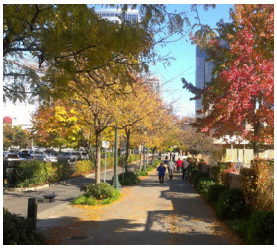
DOWNTOWN CIRCULATION/MOBILITY STUDY

Digging Deeper into Downtown Mobility

- MIP Performance Target for sidewalks is too coarse
- Does not speak to experience of Downtown pedestrian
- Downtown Transportation Plan provides details on sidewalk dimensions



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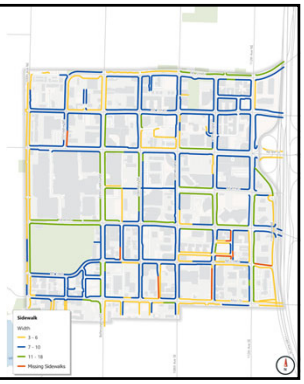
DOWNTOWN CIRCULATION/MOBILITY STUDY

Pedestrian Network: Sidewalk Width

What is the sidewalk width of the existing sidewalks Downtown?

- 10% of sidewalks are **under 6'**
- 67% of sidewalks are **between 7'-10'**
- 23% of sidewalks are **between 11'-18'**



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DOWNTOWN CIRCULATION/MOBILITY STUDY

Pedestrian Network: Sidewalk Width

What is the sidewalk width of the existing sidewalks Downtown?

- 10% of sidewalks are **under 6'**
- 67% of sidewalks are **between 7'-10'**
- 23% of sidewalks are **between 11'-18'**

- Conclusion: there are a few sidewalk widths in Bellevue that may be uncomfortable and present mobility challenges

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Putting it Together: Example Trip

- Apartments near Ashwood park to Bellevue Square
- One of the larger travel patterns observed in the data
- Compare different modal options

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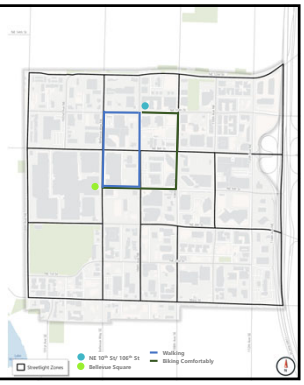
DOWNTOWN CIRCULATION/MOBILITY STUDY

Bellevue Square Zone to NE 10th St / 106th Ave NE Zone
Modal Options

Mode	Travel Time	Additional Context
Walking	7-9 minutes	Complete sidewalks Long crossing of NE 8th Street Some sidewalks don't meet DTP standards
Low-stress Biking	5-7 minutes	No facility on NE 10th Street segment High Injury Network
Driving	~10 minutes (includes parking and walking to destination)	Congestion in some garages

- Travel times are similar for all modes



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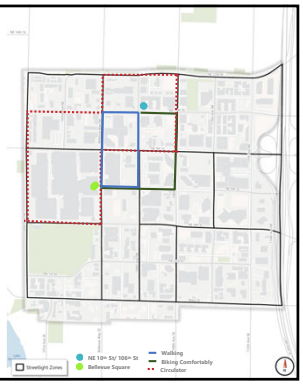
DOWNTOWN CIRCULATION/MOBILITY STUDY

Bellevue Square Zone to NE 10th St / 106th Ave NE Zone
Modal Options

Mode	Travel Time	Additional Context
Walking	7-9 minutes	Long crossing of NE 8th Street Varying conditions n/s High Injury Network
Low-stress Biking	5-7 minutes	Requires walking on sidewalk for NE 10th Street segment High Injury Network
Driving	10 minutes (includes parking and walking to destination)	
Circulator	10 minutes (includes 5 minutes of wait time)	Not shortest distance



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DOWNTOWN CIRCULATION/MOBILITY STUDY

Circulator - Best Practices

Components that make a circulator mobility service successful

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Prior Circulator Studies

Plan	Year		Key Findings
Transit Circulator Plan and Market Assessment and Service Design Study	2000		• Ridership and cost analysis • Identified funding and operational constraints
CAC Circulator Study	2002		• Cost estimates and ridership projections did not justify a circulator service • Recommended enhanced fixed-route transit service • Transportation Commission supported the findings
Perteet Study	2007		• Identified significant operating cost per passenger • Estimated relatively low ridership
King County Direct Partnership Agreement	2008		• Provided for potential service enhancements via a circulator and other monetary contributions • Was not implemented

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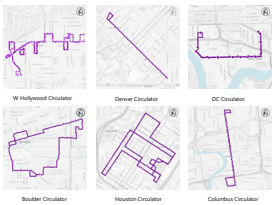
DOWNTOWN CIRCULATION/MOBILITY STUDY

Circulators – Current Understanding

- People prefer walking with similar travel time
- Peak times less work-oriented
- Integration with transit a key feature (timing/frequency of service, location)
- Work trips were a minority of ridership
- Visitor populations are still rebuilding
- Growing market for Downtown residential populations that need to reach beyond comfortable walking distance to destinations



Circulators often are implemented with challenging route alignments when there isn't a clear origin-destination to be served

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Exceptional TDM

- Role of TDM in improving Downtown mobility
- TDM focused on the "to/from" travel to Downtown
- Increases pedestrian travel, amplifying mobility needs already highlighted
- New transit options may provide different employee shuttle options

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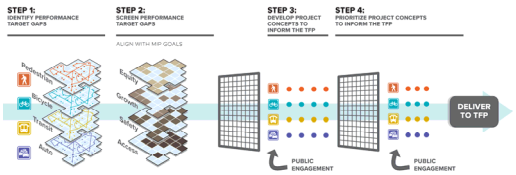
DOWNTOWN CIRCULATION/MOBILITY STUDY

Concept Development and Prioritization Process



Concept development:

- Focus on sidewalk width gaps that may not be addressed by new development
- Enhance crossings, focusing on areas with higher pedestrian demand
- Work toward implementing bike network
- Enhance bus stop amenities where not aligned with new development

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Questions and Discussion

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Study Schedule

Project Kickoff → Background Context → Performance Target Gaps → Stakeholder Engagement → Concept Development and Analysis → Agency Coordination → Report Documentation

Action Item
Finalize Performance Target gap analysis
Develop draft mobility concepts
Meeting to discuss updated concepts with stakeholders
Updated concept analysis and project prioritization
Send draft report documentation with updated project priorities for stakeholder review
Develop final report based on comments and revisions

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Additional Questions?

Comments?

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Taylor Whitaker t.whitaker@fehrandpeers.com

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Pedestrian Network

Performance Target: Are there sidewalks on both sides of the arterial?

- Transportation Commission directed MIP to focus on gaps in system
- Per MIP Performance Target, Downtown sidewalks are relatively complete

	Sidewalk on Both Sides	Sidewalks on One Side	Sidewalk Gaps
Existing	95%	5%	0%

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Pedestrian Network Arterial Crossings

Performance Target: Are there crossings at intersections and designated mid-block crossings per the Downtown Transportation Plan?

- Partially implemented
- NE 4th and NE 8th have different expectations for arterial crossings in Downtown Transportation Plan

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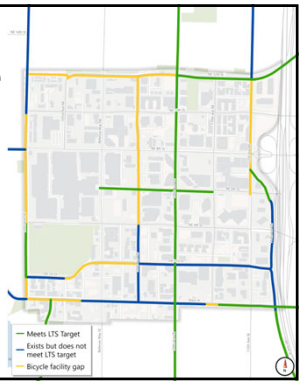
DOWNTOWN CIRCULATION/MOBILITY STUDY

Bicycle Network Existing Performance

Performance Target: Do the Bicycle Network facilities meet the MIP identified Level of Traffic Stress?

- Notable gaps in the network within Downtown
- Connections into Downtown

	Bicycle Facility Meets LTS Target	Bicycle Facility Does Not Meet LTS Target	Bicycle Facility Gaps
Existing	27%	36%	37%



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DOWNTOWN CIRCULATION/MOBILITY STUDY

Frequent Transit Network

Performance Target: Do transit stops have passenger amenities?

- Strong transit service into and within Downtown
- Amenities at some high-ridership stops

Context / Component	Local Transit Stop	Priority Transit Stop	Frequent Transit/Rapid Ride Stop
Weather Protection	Yes, Priority locations have 25+ daily boardings	Yes	Yes
Seating	Yes, near ped. destinations	Yes	Yes
Paved Bus Door Passenger Zone	Yes, Zone length 25-30 ft.	Yes, Zone length 40 ft.	Yes, Zone length 60 ft.
Wayfinding	Optional	Yes	Yes
Bicycle Parking	Optional	Yes	Yes

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Vehicle Network

Performance Metric: Is the system intersection Volume / Capacity ratio 1.0 for Downtown Signalized Intersections met?

2033 Performance Target with 2044 Land Use:

Vehicle	Type 1 PMA High Density Mixed-Use	• 1.0 V/C ratio at System Intersections • ≥0.5 Typical Urban Travel Speed for Primary Vehicle Corridors
	Type 2 PMA Medium Density Mixed-Use	• 0.90 V/C ratio at System Intersections • ≥0.75 Typical Urban Travel Speed for Primary Vehicle Corridors
	Type 3 PMA Residential	• 0.85 V/C ratio at System Intersections • ≥0.9 Typical Urban Travel Speed for Primary Vehicle Corridors

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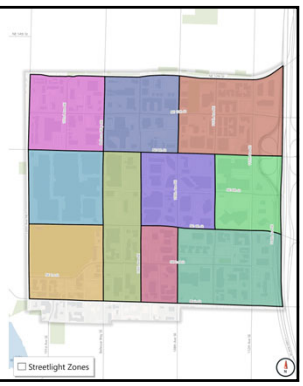
DOWNTOWN CIRCULATION/MOBILITY STUDY

Market Analysis: StreetLight Data

- Location-based services and connected vehicle data
- Processing algorithms to determine trip pairs and modes
- Summarizes vehicle trip activity for an average weekday
- Provides trip activity between zones within Downtown Bellevue
- 2019 and 2022 data



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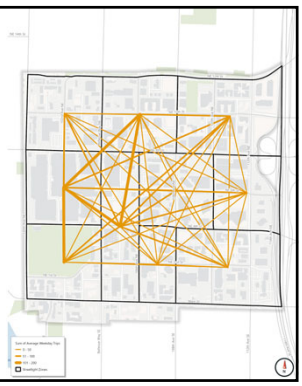
DOWNTOWN CIRCULATION/MOBILITY STUDY

Preliminary Streetlight Review Trends

- **5,700** daily weekday internal vehicle trips in April 2022
- **43%** fewer daily weekday vehicle trips in April 2022 as compared to April 2019
- **~10%** of all vehicle trips that are into/out of Downtown Bellevue
- **93%** of all vehicle trips within Downtown Bellevue are less than a mile
- **>65%** of daily trips are non-Home Based



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Downtown Mobility/Circulation Study

January 23, 2023

Attendance:

Stakeholders:

- Bellevue Downtown Association: Patrick Bannon
- City of Bellevue: Andrew Singelakis, Paula Stevens and Chris Long
- King County Metro: Carol Cooper and Jason Campos
- Sound Transit: Kevin Shively and Alex Kreig

Consultant Team at Fehr & Peers:

- Taylor Whitaker, Aaron Gooze and Chris Breiland

Questions

Downtown Travel Patterns Slide:

Alex Kreig: so no one goes to the library? or are the edge lines arbitrary?

- Alex, the lines on the map are just conveying connections to centroids of the zones, but represent travel to all locations in each zone, so for example the library is captured in the NE zone on the map

Sidewalk Width Slide:

Kevin Shively: Is this measure of width inclusive or exclusive of the "furniture zone"?

- Just the paved sidewalk

Paula Stevens: I would add that the quality of the sidewalks is a challenge in some locations. Has this been considered?

Meeting Notes

Paula: Quality of the sidewalks is important – root displacement, etc.

Patrick:

- In looking at the SL data, over what timeframe was that reviewed?
- Facilities for walking and bicycling are important. Need to consider other wheeled modes (scooters). Need policy support as well as space for travel (wheels not on narrow sidewalks) and wheeled mode parking (bikes, scooters, etc).
- Q. Any data on rideshare use and trends? A. This is bundled into the Origin/Destination pairs shown in the presentation.

- Safety is both qualitative and anecdotal information/concerns. Address the concerns on the high-injury network.
- Pedestrian wait time at intersections is often expressed as an impediment to walking, as are factors such as sidewalk width (too narrow) and vehicle speed (too fast).
- Need to improve the pedestrian experience…comfort, safety, etc.
- Wayfinding is an important component of the Downtown walking environment, especially along the Grand Connection. Need more.

Andrew:

- The scope of work for this project includes interviews with organizations such as Visit Bellevue and ACES
- What are the lessons learned from past circulator studies?
- It will be a challenge to widen sidewalks given the nature of the Downtown built environment…how can we improve the walking experience given constraints?
- Consider the Grand Connection "catalyst" project (bridge over I-405).
- Mid-block crossings are an important piece of the Downtown pedestrian environment.

Carol:

- Focus on the key investments in infrastructure that, even though they may be small interventions, can make a big difference
- Wayfinding is one of those key investments
- Safety is a concern, and sometimes there is a safety issue related – perceived or real - to bicycles and scooters on sidewalks and at transit stops.
- Partnerships:
    - Identify and "normalize" the mobility options (you can get there comfortably and safely without a car)
    - Work with employers to create and articulate the "flavor" of multimodalism. Tools may include enhanced Transportation Demand Management, information and promotions of a new way of travel within Downtown through Choose Your Way Bellevue

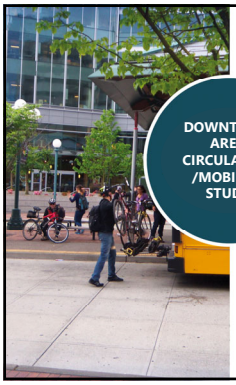
Kevin:

- Promote the Frequent Transit Network as a way to get around within Downtown (short trips), as well as to and from (longer haul). Work on connections and enhancements within Downtown.
- Wayfinding is one of those enhancements.

- Scooters and other wheeled devices create parking/clutter challenges, especially at stations
    - Scooters aren't permitted mode today but hard to imagine there aren't scooters in Bellevue given the urban environment, protected bike lanes –
    - Sound Transit and SDOT is looking into a pilot study to investigate scooter and bikeshare parking at stations
- Accommodate shared wheeled devices between the curbs rather than on the sidewalks

Alex:

- Presentation is very inra-downtown, light rail will help with shorter trips to the transit center and beyond. More people are making short trips in walk/bike modes (active modes vs motorized)
    - Where will people want to go from the transit center?
- Leverage the Curb Management Plan to help with the improving Downtown travel environment for active transportation.



Downtown Area Circulation/Mobility Study

March 7, 2023

Aaron Gooze
Chris Breiland
Taylor Whitaker
Kevin McDonald

FEHR PEERS
Transportation

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Agenda

- Focus of this Study
- Data: Performance Target Gaps
- Information: Stakeholder Interviews
- Project/Service Concepts
- Questions and Discussion
- Next Steps and Timeline

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Focus of this Study

People traveling within Downtown

- What are the mobility challenges for people making these short trips
- What are the project concepts or mobility services that can address these challenges

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Previous Meeting Recap: Key Themes

- Importance of safety – both perceived and experienced
- Small interventions to make a big difference
  Examples:
  - Pedestrian wait times at intersections
  - Partnerships to "normalize" mobility options
- Wayfinding opportunities
- Planning for shared e-scooters
- Leverage future light rail

The previous meeting informed the questions we asked of the stakeholders and additional data we leveraged to identify key concepts to focus on

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Data: Performance Target Gaps

- **Pedestrian:** Nearly complete sidewalk network; few sidewalk gaps
- **Pedestrian:** Several gaps in mid-block arterial crossing spacing
- **Bicycle:** Most network corridors do not meet level–of-traffic stress (LTS) performance
- **Bicycle:** Notable gaps in planned bicycle facilities
- **Transit:** Passenger amenities missing at transit stops
- **Vehicle:** Most system intersections (V/C) meet Performance Targets
- **Vehicle:** Most primary vehicle corridor segments (travel speed) meet Performance Targets

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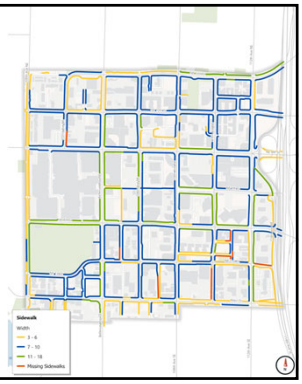
DOWNTOWN CIRCULATION/MOBILITY STUDY

Pedestrian Facilities Performance Target Gaps

Sidewalks

Nearly complete sidewalk network; few sidewalk gaps

Some sidewalk segments are not consistent with required width or landscape buffer.



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DOWNTOWN CIRCULATION/MOBILITY STUDY

Pedestrian Facilities Performance Target Gaps

Mid-Block Crossings

Several gaps in mid-block arterial crossing spacing per the Downtown Transportation Plan and the Mobility Implementation Plan

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Bicycle Facilities Performance Target Gaps

Bicycle Network Corridors

Most bicycle network corridors do not meet level–of-traffic stress (LTS) Performance Target

Notable gaps in planned bicycle network facilities

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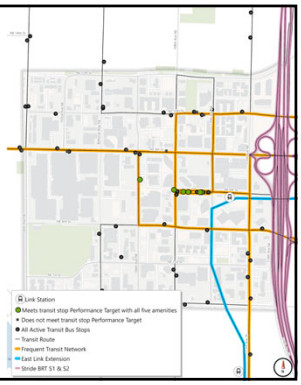
DOWNTOWN CIRCULATION/MOBILITY STUDY

Transit Stops Performance Target Gaps

Transit Stops

Full suite of Passenger amenities missing at some/most transit stops on the Frequent Transit Network

- Shelter/Weather Protection
- Seating
- Paved Bus Door Passenger Zone
- Wayfinding/Passenger Information
- Bicycle Parking



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DOWNTOWN CIRCULATION/MOBILITY STUDY

Vehicle Network Performance Target Gaps

Vehicle Network

Most system intersections meet Volume/Capacity Performance Target

Most primary vehicle corridor segments meet travel speed Performance Target

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Information: Stakeholder Interviews

- Consultants and staff conducted 6 "MS Teams" interviews
- February 1-9, 30-60 minutes each
- Provided questions in advance
  - What are the mobility challenges in Downtown Bellevue?
  - What are potential solutions or opportunities?
  - Are there geographic areas or modes that the city should prioritize?
  - What are the important factors that the city should consider when prioritizing projects?
  - Any other observations?

cascade BICYCLE CLUB

ZENROCK FITNESS

BELLEVUE WASHINGTON

Complete Streets Bellevue

Bellevue CHAMBER

ACES NORTHWEST · NETWORK

Bellevue Staff, Blayne Amson, ADA and Civil Rights Administrator

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Information: Stakeholder Interviews

Challenges

- Balance placemaking and vehicle operations
- Pedestrian experience on corridors and at intersections
- Bicycle access and safety
- Needs of the mobility challenged

Opportunities

- Enhance/Increase Wayfinding
- Improve arterial crossing experience
- Support on-demand services

Factors to prioritize

- Safety, especially for vulnerable
- Access, especially for mobility challenged
- Convenience, for everyone

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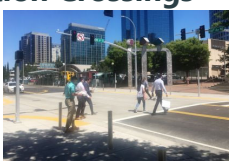
DOWNTOWN CIRCULATION/MOBILITY STUDY

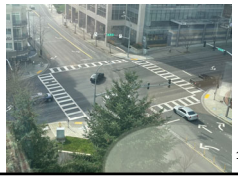
Project Concept: Intersection Crossings

Supporting data
- Higher amount of pedestrian and bicycle collisions at signalized intersections
- High demand to cross NE 4th Street and NE 8th Street (mobile device data)

What we heard
- Uncomfortable to cross at high volume intersections
- Signal cycle is too fast for some pedestrians

Project concepts
- Signal timing adjustments, walk time extensions, RTOR restrictions
- Reduced crossing length through curb bulbs
- Install high-visibility crosswalks (effective and low cost)





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DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Midblock Crossings

Supporting data
- Ped/bicycle collisions at midblock locations
- MIP-identified gaps of midblock crossings
- High demand to Bellevue Square and across several arterials (mobile device data)

What we heard
- Long spacing between signalized intersections
- Mid-block crossings enhance pedestrian access and safety

Project concepts
- Mid-block crossings at planned locations
- Rectangular Rapidly Flashing Beacons (RRFBs) or full signal
- Refuge island (maybe with ped push button in case ped gets stuck)

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Wayfinding

Supporting data
- Wayfinding signage gaps in downtown

What we heard
- Desire for pedestrian wayfinding with a focus on access to transit. Ties into enhancing bus stop amenities
- Outdated information

Project concepts
- Wayfinding signage for transit connections, bicycle parking options, activity centers, and for the Grand Connection
- Interactive wayfinding
- Refresh existing wayfinding

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Bicycle Network and Parking

Supporting data
- Bicycle parking (public racks) available but no publicly available secure lockers
- LTS performance not met on several network corridors
- Gaps in the network

What we heard
- Build out the downtown bicycle network
- Need redundancy in the bicycle network
- Lack of secure bicycle parking

Project concepts
- Provide more bike racks and secure bicycle parking
- Continue build out the downtown bicycle network to meet LTS Performance Targets
- Bike Bellevue March 27th Council Launch

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Transit

Supporting data
- Full suite of passenger amenities missing at some/most transit stops on the Frequent Transit Network

What we heard
- Desire for pedestrian wayfinding with a focus around transit hubs
- Lack of secure bicycle parking around transit stops

Project concepts
- Provide shelters/weather protection, seating, paved door passenger zone
- Wayfinding/Passenger Information
- Bicycle Parking

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: FYI Transportation Demand Management

- TDM focuses on the "to/from" travel to Downtown
- Car-less employees (and residents) need safe, comfortable and connected facilities
  - Pedestrian
  - Bicycle
  - Transit
  - Shuttle
- Planning to update the TDM Plan later in 2023. Transportation Commission is advisory body

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept FYI: On-demand Service

- VisitBellevue 2023 pilot program
- "BellHop" through RideCircuit
- App-based on-demand service
- Downtown Bellevue and Spring District
- 7 days a week, 12 hours a day
- Marketed within hotels
- Electric Vehicles
- Door-to-door and 8-minute maximum wait time
- Launches in May 2023
- Free to use

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Prioritization Framework

- **A framework that incorporates:**
  - Mobility Implementation Plan Metrics and Performance Targets
  - Stakeholder priorities
  - Additional data analysis
- At the next discussion we will review the draft project concepts and prioritization

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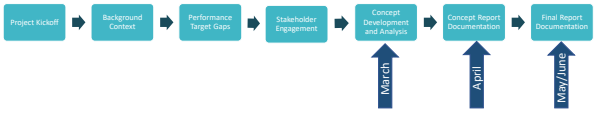
DOWNTOWN CIRCULATION/MOBILITY STUDY

Schedule and Next Steps



Action Item
Meeting to discuss updated concepts with stakeholders
Updated project concept analysis and project prioritization
Send draft report documentation with updated project priorities for stakeholder review
Develop final report based on comments and revisions

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Questions and Discussion

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Thank you!

Kevin McDonald kmcdonald@bellevuewa.gov
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Chris Breiland c.breiland@fehrandpeers.com
Taylor Whitaker t.whitaker@fehrandpeers.com

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Downtown Circulation

Stakeholder Meeting

March 7, 2023

KM Notes

Mid-block crossings – overlay Downtown Transportation plan mid-block crossing locations

Corridor travel speed – consider off-peak vehicle speed in the conversation about pedestrian safety

Emphasize bicycle network performance – especially along the Grand Connection

In the conversation about wayfinding, consider wayfinding for vehicle parking

Provide wayfinding for pedestrians and bicycles

Downtown “ambassadors” is a topic under consideration by the BDA

To address mobility challenges, consider all modes in the interest of “balance” when preparing and prioritizing project concepts

Consider equity, and know that advocates for driving will note that more people use vehicles to get around than other modes. What is balance, what are trade-offs

Provide planning level cost estimates - order of magnitude

Provide relative priorities for project concepts/modes

Enforcement – provide for enhanced compliance to support safety when of-peak traffic travels faster than during the peak when there is more congestion

Promote well-maintained transit facilities

Work with Sound Transit to identify bicycle parking plans at light rail stations and Stride stations

Consider transit speed and reliability when planning for mid-block crossings.

Next Meeting

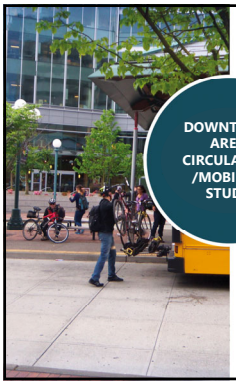
Early April (after APA)

Project concepts to address mobility challenges/performance target gaps

Priorities/sequence

Planning level/order of magnitude cost estimates

Lead agency/partnerships for implementation



Downtown Area Circulation/Mobility Study

April 17, 2023

Aaron Gooze
Chris Breiland
Taylor Whitaker
Kevin McDonald

FEHR & PEERS
Transportation

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Agenda

- Focus of this Study
- Performance Target Gaps
- Stakeholder Interview Summary
- Project Concepts
- Next Steps and Timeline

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Focus of this Study

People traveling within Downtown

- What are the mobility challenges for people making these short trips
- What are the project concepts or mobility services that can address these challenges

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Performance Target Gaps

- **Pedestrian Network**
  - Sidewalk segments
  - Midblock crossings
- **Bicycle Network**
  - Level-of-traffic stress
  - Network facilities
- **Frequent Transit Network Stop Amenities**
- **Vehicle Network**
  - System intersections (V/C)
  - Primary vehicle corridor (travel speed)

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Stakeholder Interviews Summary

- **Pedestrian Network**
  - Crossing major intersections (wait time, distance)
  - Lack of consistent midblock crossings
- **Bicycle Network and Facilities**
  - Redundancy of the network
  - Secure bicycle parking access
- **Wayfinding**
  - Navigation support for pedestrians and bicyclists
- **Frequent Transit Network Stop Amenities**
  - Shelters, wayfinding, and other needs at major transit stops
- **Vehicle Network**
  - Vehicle operations balanced with placemaking

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concepts

- **Intersections:** Improve pedestrian safety and comfort at signalized intersections
- **Midblock Crossings:** Provide better pedestrian access at midblock crossing locations
- **Wayfinding:** Provide updated wayfinding
- **Bicycle Parking:** Provide bicycle parking
- **Bicycle Network:** Build out bicycle network
- **Transit stops:** Provide recommended bus stop amenities

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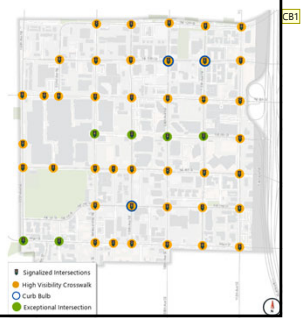
DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Intersections

- Extend walk time
- Restrict RTOR (to be determined)
- Reduce crossing length
- Install high-visibility crosswalks
- Install "exceptional intersections"





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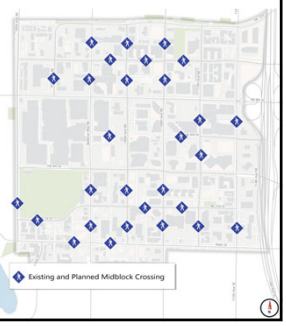
DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Midblock Crossings

- At-grade midblock crossings at planned locations
  - Full signal
  - Rectangular rapidly flashing beacons (RRFB)
- Refuge island (where feasible)





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DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Wayfinding

- Refresh existing wayfinding
- Wayfinding signage near transit hubs, major activity centers, and the Grand Connection
- Highlight key destinations, transit routes and hubs, and bike parking
- Consider interactive wayfinding elements


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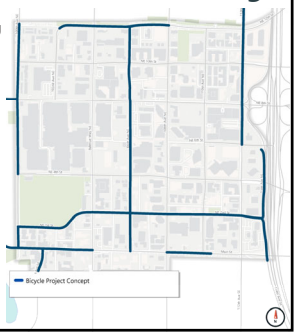
DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Bicycle Network and Parking

- Provide more bike racks and secure bicycle parking
- Continue build out the downtown bicycle network to meet LTS performance
- Bike Bellevue March 27th Council Launch
- Bike Bellevue goes to Transportation Commission May 11th and May 25th

Bike Bellevue Map:

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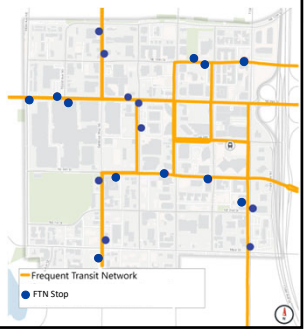
DOWNTOWN CIRCULATION/MOBILITY STUDY

Project Concept: Frequent Transit Network Stop Amenities

- Shelter
- Weather protection
- Seating
- Paved Door Passenger Zone
- Wayfinding/Passenger information
- Bicycle parking





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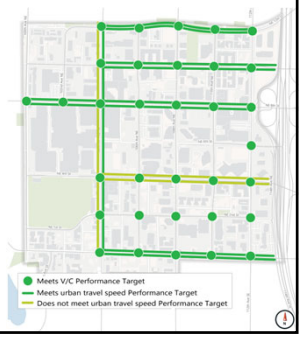
DOWNTOWN CIRCULATION/MOBILITY STUDY

Vehicle Network Performance

- No project concepts identified as part of this study
- All system intersections currently meet Volume/Capacity Performance Target
- Most primary vehicle corridor segments meet travel speed Performance Target



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DOWNTOWN CIRCULATION/MOBILITY STUDY

FYI: On-demand Service

- This study will not address a "circulator" project concept
- VisitBellevue 2023 pilot program
- "BellHop" through RideCircuit
- App-based on-demand service
- Downtown Bellevue and Spring District
- 7 days a week, 12 hours a day
- Marketed within hotels for tourists
- Electric Vehicles
- Door-to-door and 8-minute maximum wait time
- Launches late summer 2023
- Free to use

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Summary of Project Concepts: Costs

Intersections
- High-Visibility Crosswalks: 42 at $15,000 per intersection
- Curb Extensions: 3 at $150,000 per intersection
- "Exceptional" Intersections: 3 at $1,000,000-$2,000,000 per intersection

Midblock Crossings
- Midblock Traffic Signals with Median Refuge Island: 9 at $850,000 per signal
- Midblock RRFB with Median Refuge Island: 7 at $500,000 per RRFB

Bicycle Network
- Protected Bicycle Lanes: 5 miles at $400,000 per mile

Bicycle Parking
- Bike racks: $1,500 per bike rack at selected locations

Frequent Transit Network Stops
- FTN upgrades: 11 at $100,000 per bus stop

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Questions and Discussion

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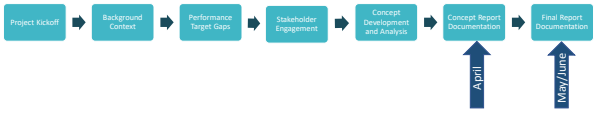
DOWNTOWN CIRCULATION/MOBILITY STUDY

Schedule and Next Steps



Action Item
May: Send draft report documentation with updated project priorities for stakeholder review
June: Develop final report based on comments and revisions

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DOWNTOWN CIRCULATION/MOBILITY STUDY

Thank you!

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Downtown Mobility/Circulation

Notes from April 17

In the draft report, be clear about responsibilities for design, finding, implementation, maintenance/repairs

Report should include lists and/or maps of project concepts…include projects that are complete, in-design/funded, planned, include photos

Include wayfinding costs, fixed and variable message/interactive

Include Community Development Department staff in wayfinding discussions for future project/program, and in review of this document

Customize wayfinding design to fit context: Downtown neighborhoods, Grand Connection, etc

Frequent Transit Network stop amenities...one size does not fit all. Match amenity components to meet the needs of each FTN stop

Explore partnerships (with transit agencies, private sector) in planning, installation and maintenance of FTN stop amenities

Pedestrian wait times at intersections should be considered as well as providing longer pedestrian crossing times.

Mention leading pedestrian interval in the list of project concepts that we are implementing and will do more of

Don’t ignore that improving the experience of pedestrians at intersections and mid-block locations may have implications for performance of other modes – vehicle, transit. Qualitatively describe potential implications

Gather information on pedestrian and bicycle counts to understand trends and inform prioritization

Consider specific project concepts/locations to serve East Link passengers for Downtown and East Main Stations

Continue to “declutter” the Bellevue Transit Center, add amenities including wayfinding

appendix

E

Interview Summaries

Interviews with community stakeholders were conducted in February of 2023 to gather feedback on key challenges, potential solutions, and priorities for mobility within Downtown Bellevue.
The stakeholders interviewed represented the following organizations:

- City of Bellevue – Americans with Disabilities Act and Civil Rights Administrator
- Bellevue Chamber of Commerce
- Old Bellevue Merchants Association – ZenRock Fitness
- Cascade Bicycle Club
- Visit Bellevue
- Complete Streets Bellevue
- Discovery Institute

Downtown Mobility

Interviewee: Blayne Amson_____Date: 02/01/23_____

Introduction of project and interview staff

Blayne Amson, Bellevue staff, Americans with Disabilities Act, Title VI Administrator

Interview Questions

- What are the Mobility challenges in Downtown Bellevue that you are hearing about from members of your organization, or that you personally experience?
    - Infrastructure is generally OK for wheelchair users
    - "Switchbacks" on the frontage of Key Center are terrible
    - "AllWalk" signal at Bellevue Transit Center intersections is good.
- What do you think are potential solutions or opportunities that the city could initiate to address the mobility challenges?
    - Sandwich boards and other obstacles on the sidewalks
    - Make sure to maintain sidewalk clearances where outdoor dining is allowed
    - Avoid brick paving – if not properly maintained
    - Provide some sort of marking/signage where a wheeled user might accidentally go down steps – clearly identify an ADA route
        - Bad examples: Compass Plaza, Microsoft City Center Plaza
- Within Downtown, are there certain geographic areas or modes of travel that the city should prioritize?
    - People walking with crutches move slowly and may not have enough time to cross wide intersections
- What are the important factors that the city should consider when prioritizing projects (safety, comfort, access, etc)
    - Going up and down the wheelchair ramps at intersections takes extra time and energy – sometimes not enough time is allocations for a wheelchair user to get completely across the street
- Are there any other observations or ideas that you would like to share?
- Maybe reach out to other organizations: Lighthouse for the Blind, etc.

Downtown Mobility

Interviewee: Jodie Alberts_____Date: 02/06/23_____

Introduction of project and interview staff

Jodie Alberts: Vice-President, Government Affairs, Bellevue Chamber of Commerce

Interview Questions

- What are the Mobility challenges in Downtown Bellevue that you are hearing about from members of your organization, or that you personally experience?
    - Balance between traffic flow and congestion and placemaking, (ie. Food trucks, curbside dining
    - Protect vehicle mobility on NE 4th St, NE 8th ST, NE 12th St, also Bellevue Way
- What do you think are potential solutions or opportunities that the city could initiate to address the mobility challenges?
    - Data-informed approach to congestion management and pedestrian access
    - Consider traffic volume at various times of day
    - Walk times at intersections is a little short
- Within Downtown, are there certain geographic areas or modes of travel that the city should prioritize?
    - Prioritize vehicle travel on NE 4th/8th/12th
- What are the important factors that the city should consider when prioritizing projects (safety, comfort, access, etc)
    - It's a delicate balance between placemaking/walkability and traffic congestion
- Are there any other observations or ideas that you would like to share?
    - Pedestrians patronize small businesses at a rate that is greater than by those people traveling in a car
    - A circulator in DC supplements transit where walk distance is too great or comfort/safety too sketchy for a walk from a transit stop.

Downtown Mobility

Interviewee: Nova Guthrie, ZenRock Fitness Old Bellevue, OBMA Board____Date:02/08/2023_____

Introduction of project and interview staff

Interview Questions

- What are the Mobility challenges in Downtown Bellevue that you are hearing about from members of your organization, or that you personally experience?
    - Customers sometimes have a hard time finding convenient parking, either on-street or in garages.
    - At lunchtimes, parking supply is in high demand
    - Street dining on Main Street is great, but it takes up a few parking spaces
    - Sidewalks are narrow in Old Bellevue and they get crowded at times
    - Ongoing construction creates access challenges
    -
- What do you think are potential solutions or opportunities that the city could initiate to address the mobility challenges?
    - Information about available parking – possibly app-based
    - Wayfinding

- Within Downtown, are there certain geographic areas or modes of travel that the city should prioritize?

- What are the important factors that the city should consider when prioritizing projects (safety, comfort, access, etc)
    - Pedestrian access

- Are there any other observations or ideas that you would like to share?
    - Generally Old Bellevue is a nice place to walk- safe and comfortable
    - People don't mind walking a few blocks from where they park if the walk is comfortable and safe

Downtown Mobility

Interviewee: Vicky Clarke_____Date: 02/07/2023_____

Introduction of project and interview staff

Interview Questions

- What are the Mobility challenges in Downtown Bellevue that you are hearing about from members of your organization, or that you personally experience?
    - Bicycle access and safety
    - Wide and busy roads present both a challenge and an opportunity (wide right-of-way could be repurposed for protected bicycle facilities
    - Proximity to I-405 influences driver behavior – drivers are in "freeway mode" while on city streets
    - To make a left turn from a bicycle lane often requires crossing multiple travel lanes to get to the left-turn lane (ie., 112th Ave NE at NE 12th Street)
    - The bicycle network is just as strong as its weakest link – missing segments along bicycle corridoes, including intersections, create a disincentive to some riders
    - Parking garage entrances are often locations for conflicting movements between cars and bikes/peds
- What do you think are potential solutions or opportunities that the city could initiate to address the mobility challenges?
    - Provide a seamless experience so that the bicycle corridor is intuitive to first-time user with respect to consistent facility types and wayfinding
    - BikeBellevue corridors are all good and should be given priority for implementation
    - Additional and well-located bicycle parking for short-term parking. Maybe provide some covered spaces...more than just a bike rack. Locate where Curb Management Plan describes opportunities to create curbside "place" – outdoor dining, etc.
    - Consider bicycle parking requirements in new construction – residential and commercial buildings
    - This about what is possible and desirable to help make Downtown Bellevue more of a place for people where cars are invited guests
- Within Downtown, are there certain geographic areas or modes of travel that the city should prioritize?
    - Consider destinations and connections in between (ie. Bellevue Transit Center to Bellevue Square, employment destinations, recreation destinations – museums, parks)
    - 108th Avenue NE protected bicycle facilities are good – a bit discontinuous
    - Need more East/West and North/South routes
    - Need better access across I-405 to Spring District, REI, regional bicycle facilities – EastRail, SR 520 Trail

- What are the important factors that the city should consider when prioritizing projects (safety, comfort, access, etc)
    - Provide for a basic network that provides for both safety and access

    - Intersections are sometimes the weakest link in an otherwise complete bicycle corridor. Maintain intended Level-of-Traffic-Stress through the intersections on a bike corridor. One way to do this is to narrow the intersection to provide a shorter crossing distance – benefits both bikes and peds.
    - Prioritize projects in locations of the high-injury network and use the data analytics to identify near-miss locations
    - Provide connections to transit and to regional trail facilities – EastRail, SR520 trail I-90 Trail/Mountains to Sound Greenway Trail

- Are there any other observations or ideas that you would like to share?

Downtown Mobility

Interviewee: Brad Jones__(Visit Bellevue)_____Date:___2/3/2023_____

Introduction of project and interview staff

Interview Questions

- What are the Mobility challenges in Downtown Bellevue that you are hearing about from members of your organization, or that you personally experience?

  - 1.5 million visitors expected this year
  - Pre-pandemic, saw plenty of people order a TNC for a trip less than 2 miles
  - Finding that more people staying at hotels are arriving without a rental vehicle
  - Hearing more that it is difficult to get a TNC ride without an extensive wait time or extreme cost
  - Did some focus groups in 2018/2019
    - When you don't' stay in that main hospitality district, it can be difficult to get around DT Bellevue (especially in poor weather or with the terrain)
    - Found that a lot of business travelers just stayed in their room and attended their meeting and ordered in food
    - They were willing to go out to eat or visit an activity, but because it wasn't convenient to get to
  - They geofence a lot of their locations in Bellevue
    - Number of people that stay in a hotel and go out to visit something, it is a very low percentage
    - "Less than 1%" of visitors are actually going to an attraction
  - Likely an issue of perceptions, visibility, understanding how to connect to those things

- What do you think are potential solutions or opportunities that the city could initiate to address the mobility challenges?
  - Bellevue Transit Center – improve that environment
  - Is there an "elevated" type of transportation hub (towncars, TNCs, etc.) that serves a similar purpose to a transit center
    - Helps to consolidate travelers to the airport that currently are taking a 1-person TNC to the airport
    - Acknowledge that market is not going to take the bus to the airport (and likely not Light Rail), so how to improve the efficiency/environmental of airport travel
  - Curbspace
    - Look at better management (trucks blocking mobility for example)
    - Shared parking resources (big events, weekends, etc.) and valet parking stations to leverage the parking garage resources and improve flow into/out of retail/restaurants

- Within Downtown, are there certain geographic areas or modes of travel that the city should prioritize?

On-demand Pilot

- Signing a contract May-through-September with a pilot program
- Circuit – operates electric vehicles. Low speed.
- 8 vehicles. 7 days a week for 12 hours per day
- Geofenced all of DT Bellevue and Spring District, Botanical Garden, Mercer Slough
- App-based request
- Free
- 8 minute wait time max based on contract
- Door-to-door within that zone
- "BellHop" (will be branded as free rides on the vehicles)
- Concentrating on hotels but can serve anywhere
- Marketing
    - Messaging is focused on front desks and informing them of the circulator upon check-in
    - Trying to broaden the appeal of the retail/restaurants and connections there
- Vehicle type?
    - Polaris – GEM, 5 passengers + driver
- Really thinking about how best to connect future Light Rail riders
- Hoping to prove the concept before Light Rail arrives
- Looking at longer-term partnerships with local employers, but currently is funded purely through Visit Bellevue (funded by the lodging tax)

- What are the important factors that the city should consider when prioritizing projects (safety, comfort, access, etc)
    - Access is the biggest issue, that convenience factor
    - Mobility doesn't have to be in a vehicle
    - How to develop a comprehensive **wayfinding system to best integrate public/private areas**
    - Safety is up there, but mostly taken for granted that safety is always paramount

- Are there any other observations or ideas that you would like to share?
    - But acknowledges that this isn't the "perfect solution", but is a good thing to test
    - Coordinating with City of Bellevue Economic Development group on the Circuit pilot

Downtown Mobility

Interviewee: ___Jodie Alberts (Bellevue Chamber of Commerce)___Date:___2/6/2023_____

Introduction of project and interview staff

Interview Questions

- What are the Mobility challenges in Downtown Bellevue that you are hearing about from members of your organization, or that you personally experience?
    - Avoiding traffic congestion and prioritizing placemaking
    - Where to prioritize placemaking but not where they will effect flow of traffic (Bellevue Way)
    - Mitigate impact of traffic rather than cause more congestion
        - 4th 8th 12th and Bellevue Way
        - Make it easier to walk at these locations? Important challenge
- What do you think are potential solutions or opportunities that the city could initiate to address the mobility challenges?
    - Striking balance b/w placemaking and congestion
        - Data informed approach for where is congestion and areas that can serve as different route
            - Bellevue way can be less congested and different routes for walking
            - Bike lane infrastructure in the right places
            - Where is traffic flow? Times of day?
            - How is office space changing?
        - Crossing by city hall is congested
- Within Downtown, are there certain geographic areas or modes of travel that the city should prioritize?
    - Areas to focus more on and prioritize?
        - Protect vehicle mobility for 4th/8th/12th
        - Pedestrian comfort, access, role of arterials and vehicle mobility – protecting those for auto use not vehicle
    - How should we make walking better?
        - Walking to Maindenbower – ped walk signs take a while (Signals)
        - More ped friendly for peds
    - Not high walkability
- What are the important factors that the city should consider when prioritizing projects (safety, comfort, access, etc)
    - Comfort, access, speed, mobility
    - Supporting placemaking to experience Bellevue, but not causing congestion that turns into people avoiding Belleuve
- Are there any other observations or ideas that you would like to share?
    - Circulator?
        - In DC- H Street- free at first, then started charging

Happy to bring to transportation committee

Downtown Mobility

Interviewee: Chris Randels_____Date: 02/06/23_____

Introduction of project and interview staff

Chris is a Lake Hills resident, uses KCM 271 and 245 to get Downtown. Perspective of mobility/access is informed by personal experience with transit.

Founder and Chair of Complete Streets Bellevue

Interview Questions

- What are the Mobility challenges in Downtown Bellevue that you are hearing about from members of your organization, or that you personally experience?
  - Construction blocks sidewalks and bicycle lanes. Detours out of the way and not intuitive.
  - Bicycling Downtown on 108th Ave NE protected lanes was good until construction impacts
  - Pedestrian push buttons are a challenge because if you miss the right time to push the button, you need to then wait until the cycle comes around to you again. Sometimes people will walk against the "don't walk" signal.
- What do you think are potential solutions or opportunities that the city could initiate to address the mobility challenges?
  - Redundancy, especially with the bicycle network
  - Generally need more and better bicycle facilities
  - People sometimes ride bicycles on sidewalks, assuming it is safer than being on the street, but driveways are dangerous
  - Pedestrian LPI at intersection is great…automatic walk would be better
- Within Downtown, are there certain geographic areas or modes of travel that the city should prioritize?
  - Improve redundancy generally throughout Downtown – especially N/S and E/W routes in central Downtown, not just on the edges (Main Street, NE 12th Street)
  - Think about Bellevue Way as a bicycle network corridor – parts are on the Grand Connection
  - Adjust signal timing to favor pedestrians.
  - Ped push buttons take way too long for the "walk"
  - Right-turning vehicles can be a problem at some intersections (NE 12th St/112th Ave NE)
- What are the important factors that the city should consider when prioritizing projects (safety, comfort, access, etc)
  - Bellevue has prioritized getting to/from Downtown in a vehicle, so it's hard to deemphasize vehicles within Downtown
  - Think about the environment, health and quality of life for people who live in the Downtown neighborhood – traffic, noise, pollution are a result of an emphasis on vehicle throughput
- Are there any other observations or ideas that you would like to share?
  - Curb Management acknowledges transportation uses plus placemaking
  - Downtown should be comfortable and vibrant to experience outside of a car
  - Consider the externalities of motorized modes

- Mobility is one part of the vibrancy and vitality of Downtown – consider that access is very important (you can drive everywhere but access for pedestrians and bicycles is not complete and connected)
- Consider closing Bellevue Way from time to time for special events (ie, Snowflake Lane)
- Transit riders need better and timely information related to reroutes (especially of the 271 during December)

Downtown Mobility

Interviewee: Scott Kuznicki Discovery Institute Date: 2/8/23

Introduction of project and interview staff

Interview Questions

- What are the Mobility challenges in Downtown Bellevue that you are hearing about from members of your organization, or that you personally experience?
    - With density increase, traffic has increased
    - With the light rail station on the east end, creates some issues to get people west to Bellevue Square/Old Bellevue
        - That may be one of the key connections to focus on
    - Need credible alternatives to using a vehicle
    - Lack of on-street parking means it is difficult to find parking
        - Need a parking management system to support economic activity
        - There are some apps, but isn't centralized or well-known to most visitors
        - Can create a lot of congestion with circulation for parking
    - 27,000 new parking spaces in Downtown Bellevue?
    - How to provide the access from I-405 to the growth areas without overloading current streets and allowing to convert those E-W streets through road diets
    - Northbound Bellevue Way increasingly congested
        - Especially with loading/unloading activities on-street

- What do you think are potential solutions or opportunities that the city could initiate to address the mobility challenges?
    - Strike a balance with parking availability on-street
    - More roundabouts? NE 10th St and 100th Ave NE is a great example – reduces congestion and travel time
    - Tunnels between Light Rail Stations and Bellevue Square and Main Street/Old Bellevue
        - Point-to-point on-demand immediate mobility services are necessary
        - Not for private cars but for Autonomous/electric vehicles
            - Ex. Jitney services at rail stations in Singapore
    - After getting more people to use light rail and the autonomous connections
        - Convert some lanes to bike-only/separate facilities
    - Continued focus on traffic calming on N-S corridors while maintaining major E/W streets for cars
    - Provide options for people to get between Downtown Light Rail Stations and Bellevue Square – fixed-route circulator (maybe in a tunnel), better pedestrian access – small interventions that make a big difference.
    - Better management of curbspace
    - "No turn on red" doesn't solve it because a lack of compliance/enforcement
    - Better align signal timing to mitigate/lessen the potential conflicts of right-turning vehicles and pedestrians crossing (ex. NE 10th / 108th Ave)
    - Generally slow all vehicles but make it more consistent/reliable speed (20mph)

- Curbspace management automation?
  - With connected on-demand vehicles

- Within Downtown, are there certain geographic areas or modes of travel that the city should prioritize?
  - NE 4th St and NE 8th St are not great walking environments
  - NE 10th St is ok

- What are the important factors that the city should consider when prioritizing projects (safety, comfort, access, etc)
  - Freeway system needs is critical and needs to be expanded to accommodate vehicle trips and relieve pressure on city arterials.
  - More freeway capacity can free-up some space on arterials for peds and bikes

- Are there any other observations or ideas that you would like to share?
  - WestConnects in Sydney replaced a surface arterial with a tunnel. It has "induced" local trips made by walking and bicycling because the arterial network is more comfortable
  - Bellevue could create a central "staging" area for autonomous vehicles and deliveries – maybe in Wilburton, with tunnel access
  - Provide a supply of parking directly accessible from freeway ramps rather than making people drive across Downtown to find parking. Then provide shuttle access.
  - Sound Transit – Provide light rail trail arrival information on station platforms
  - Introduce traffic calming on north/south streets, also NE 4th St, NE 8th St. NE 10th St. is OK. Consider improvements at intersections top "deconflict" this shared space.
  - Lack of curb space for deliveries creates risks when delivery vehicles block travel lanes
  - Curb "chaos" makes getting around in all modes more stressful
  - More curb use data is needed – who is using the curb, when, for what purpose
  - Bellevue Way – especially northbound – is often unnecessarily congested due to parked delivery vehicles blocking the curbside travel lane
  - It is better to have "platoons" of vehicles moving slowly (20-25 mph) along arterials than to have vehicles racing between intersections
  - Roundabouts cold be installed on arterial intersections at the edges of downtown (NE 10th st/100th Ave NE is a great example) to create traffic calming and a neighborhood feel
  - Take the conflict/frustration out of the mobility equation
  - Propose a curb space "walkshop" - in August
  - Make it easier to get across I-405 on foot or bike
  - A good roundabout location is 110th Ave NE and NE 9th Street
  - Bicycle roundabouts – ie. UC Davis
  - Reduce delay, make mobility convenient for people who live, work and play in Downtown
  - Downtown superblocks facilitate speedier travel by cars, but are adverse to pedestrians
  - Don't approach traffic calming with a heavy hand – ie. Enforcement. Instill intended good behavior with good design

- Maximize time available to pedestrians – increase convenience and safety
- Pedestrian signals should be more responsive when the button is pushed – better yet, no buttons
- Once you park your car Downtown, you should be able to walk everywhere you need to go.

appendix

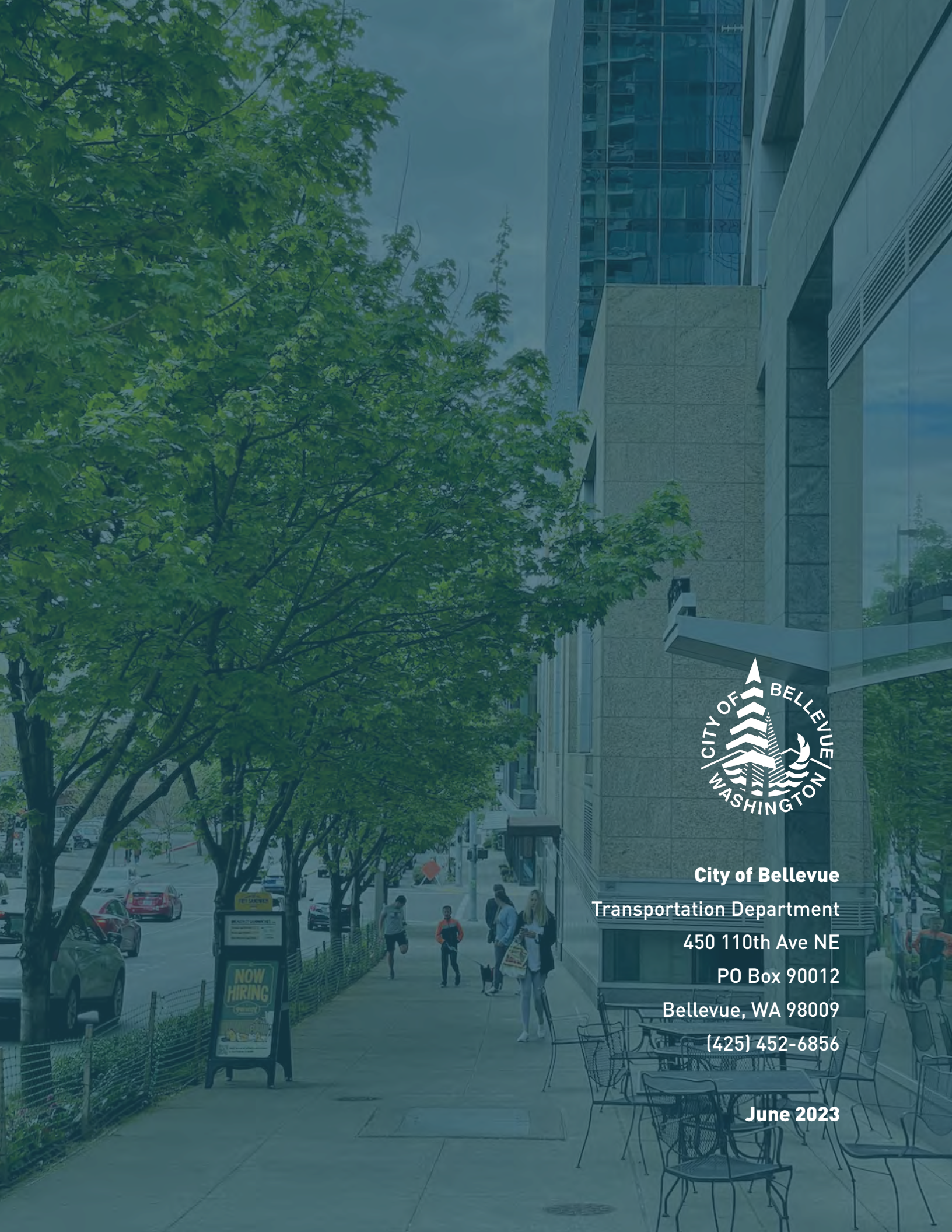
F

Project Type Conceptual Costs

Appendix F: Project Type Conceptual Costs*

ITEM	COST ESTIMATE LOW	BASELINE	HIGH
INSTALL RRFB WITH ILLUMINATION AND MEDIAN REFUGE ISLAND ON 3-LANE CORRIDOR	$ 320,000.00	$ 400,000.00	$ 480,000.00
INSTALL MIDBLOCK HAWK SIGNAL WITH MEDIAN REFUGE ISLAND ON 5-LANE CORRIDOR	$ 550,000.00	$ 680,000.00	$ 820,000.00
INSTALL CURB EXTENTIONS (AT EXISTING INTERSECTION) ON ONE CORNER	$ 120,000.00	$ 150,000.00	$ 190,000.00
FLEXIBLE DELINATOR PROTECTED BIKE LANE PER MILE (ON EXISTING PAVEMENT)	$ 272,000.00	$ 340,000.00	$ 408,000.00
REPLACE EXISTING INTERSECTION WITH RAISED TABLETOP (WITH EXISTING STORM DRAIN)	$ 760,000.00	$ 950,000.00	$ 1,140,000.00
HIGH VISIBILITY CROSSWALK MARKINGS AT EXISTING INTERSECTION	$ 8,500.00	$ 11,000.00	$ 13,000.00

**Range to be finalized and determied by City, this range is an approximation completed in 2023*



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June 2023