Mobility Implementation Plan

Executive Summary
DRAFT

Bellevue Transportation Commission

City of Bellevue, WA
December 2021

Exceutive Summary

The Mobility Implementation Plan (MIP) is a significant step forward as Bellevue continues to implement a multimodal approach to mobility. The MIP builds upon a decade of work through which the Transportation Commission has recommended policies and implementation strategies for multimodal transportation options that support the planned growth and the transportation expectations of the community. The MIP serves as a guide to identify, prioritize and implement transportation projects that will create a complete multimodal system that responds to the ever-changing mobility needs

Goals for the Mobility Implementation Plan include improving Safety, addressing Equity, accommodating Growth, and providing for Access/Mobility. These goals, combined with analytic data and travel forecasts, are fundamental to informing transportation investment decisions.

This Plan provides tools and information that Bellevue can use to:

- clearly identify where the transportation system meets mobility expectations,
- transparently identify projects and investments to address gaps in performance, ,
- consider the transportation demand generated by growth,
- better respond to equity considerations in transportation access/mobility, and
- ultimately implement a sustainable, equitable, and multimodal transportation system.

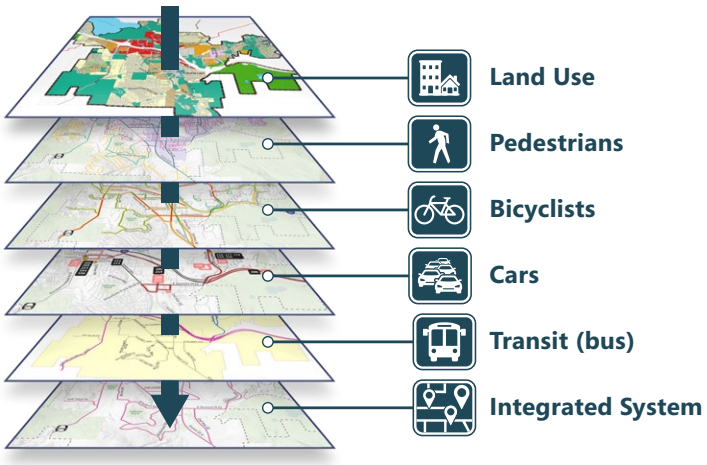
Specifically, the MIP establishes:

- **Layered Network**: The Mobility Implementation Plan is based on a concept called the "layered network". A layered network considers the land use context and each mode in the multimodal transportation system to be the "layers" that describe the mobility plans, opportunities and challenges. Mobility options for all people are intended to be compatible with the land use that the transportation system supports. The layered network acknowledges that the existing and planned land use informs

expectations for transportation system performance. For example, people expect to be able to walk on sidewalks along all arterials in Bellevue, and they understand that the facilities and the experience will vary depending on where they are walking - the land use context. The layered network acknowledges that there are competing priorities between modes and constraints to providing the planned projects for all modes on all streets.

- **Performance Metrics**: These are the measurements that describe the intended design and function of the transportation system, which varies by mode—pedestrian, bicycle, transit, and vehicle. The metrics are largely derived from the Transportation Commission's 2017 report on *MMLOS Metrics, Standards, and Guidelines* (MMLOS is Multimodal Level-of-Service).
  - » **Pedestrian**
    - › Width of sidewalk plus the adjacent landscape strip along arterials
    - › Spacing between designated intersection and mid-block pedestrian crossings of arterials
  - » **Bicycle**
    - › Level of Traffic Stress (LTS) along the bicycle network corridors. LTS describes the bicycle rider experience related to the speed and volume of traffic on the adjacent street, and the type of bicycle facility
    - › LTS at intersections on the bicycle network, intended to maintain the bicycle rider comfort level through an intersection
  - » **Transit**
    - › Bus stop amenities and pedestrian access
    - › Transit travel time ratio: travel time on a bus relative to travel time in a car on corridors between activity centers
  - » **Vehicle**
    - › Volume-to-capacity ratio (v/c) at system intersections
    - › Corridor travel speed along Primary Vehicle Corridors

Figure 1: Layered Network



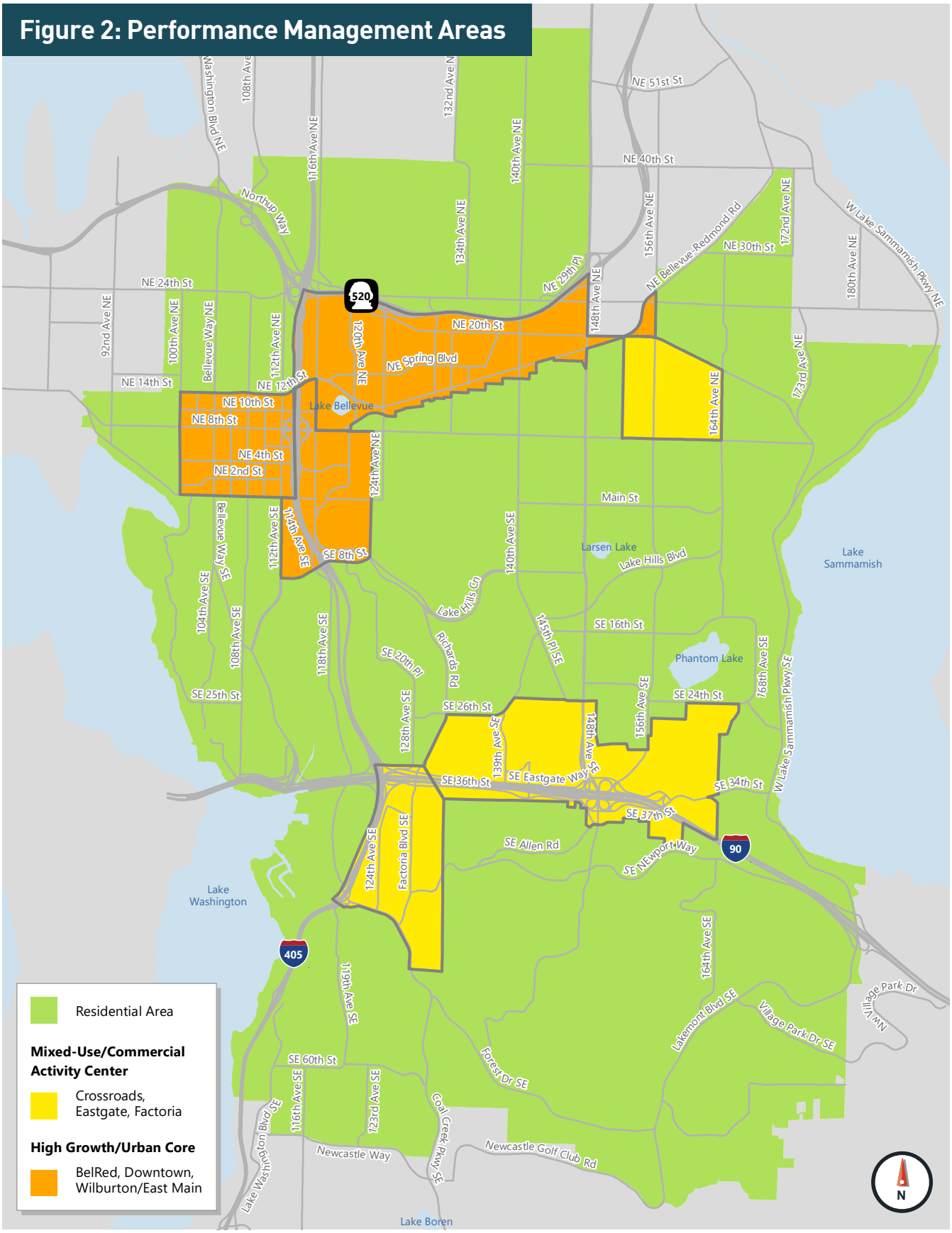
- **Performance Management Areas**: The Performance Management Areas (PMA) are contextual, based on the type and intensity of land use and the diversity of the transportation options that are readily accessible. These geographic areas are where Performance Targets for the vehicle mode are set and where progress toward improving mobility for each mode is summarized.
  - » **Type 1 PMA** is the High Growth/ Urban Core of Downtown, BelRed and Wilburton/East Main
  - » **Type 2 PMA** is the Mixed-Use/ Commercial Activity Centers of Crossroads, Eastgate and Factoria
  - » **Type 3 PMA** is the largely residential area of the rest of the city
- **Performance Targets**: Expectations for the performance and user experience of the transportation system are expressed as "targets" to be achieved over time . Targets are related to the intended facilities/infrastructure provided (for pedestrian, bicycle, transit access, and transit passenger amenities), and to the operations of the system (for transit travel time, vehicle travel speed, and vehicle intersection v/c). Targets for facilities/infrastructure focus on completing the planned system, while targets for operations relate to the capacity and performance of the system. Specific projects to address the intended Performance Targets may encounter various constraints that may lead the community to choose an alternate approach.
  - » **Pedestrian Performance Targets**
    - › Sidewalks + landscaping that meet dimensional targets on both sides of an arterial street. Sidewalk dimensions vary by land use.
    - › Pedestrian crossings that meet intersection and mid-block crossing spacing targets identified in MMLOS
  - » **Bicycle**
    - › Level of Traffic Stress (LTS) as defined by corridor type on the bicycle network map
  - » **Transit**
    - › Bus stops that include amenities and access according to bus stop type
    - › Transit travel time vs auto travel time ratio of 2.0 or less between activity centers
  - » **Vehicle**
    - › Volume-to-capacity (v/c) ratio at system intersections (varies by Performance Management Area)
    - › Travel speed on Primary Vehicle Corridors (varies by Performance Management Area)

Existing conditions represent an incomplete system relative to the intended Performance Targets – these are "gaps" to be addressed through the MIP. A gap may be described as infrastructure that is missing to complete the planned network or the operation of the system meets the target. The Transportation

Commission has defined Performance Target gaps that include:

- » **Pedestrian**
  - › Arterial segment that is missing a sidewalk, particularly where a sidewalk is missing on both sides of the street
  - › Arterial segment that does not have a designated pedestrian crossing at an intersection or mid-block crossing location according to the intended spacing or specific pedestrian trip generators

Figure 2: Performance Management Areas



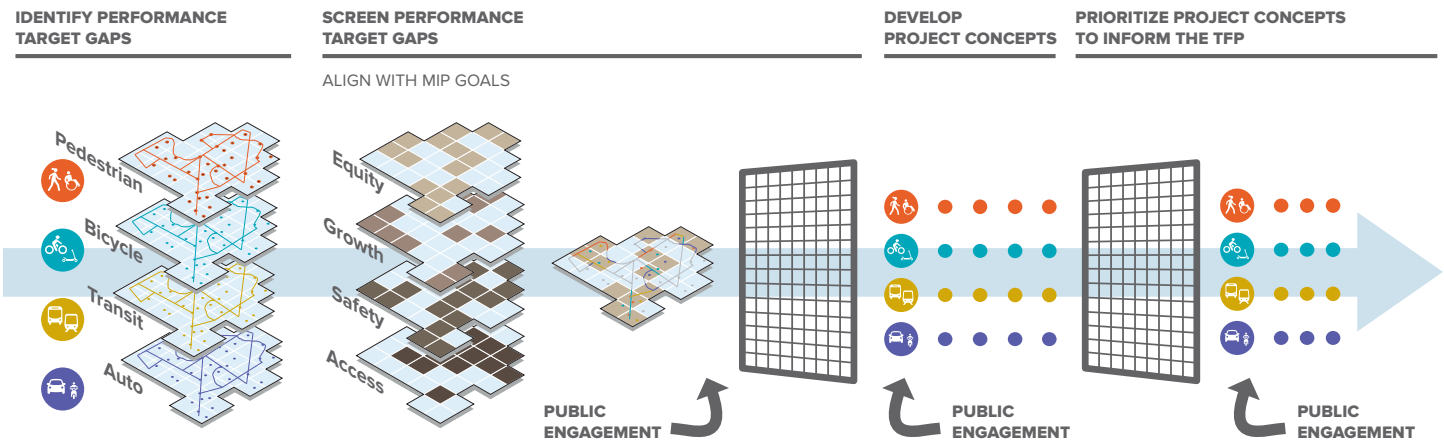
» **Bicycle**
  › Segment of the bicycle network in general, and the Bicycle Priority Network in particular, that does not meet the Level of Traffic Stress (LTS) Performance Target

» **Transit**
  › Frequent transit network route where riding a bus would take more than twice as long (2.0 times longer) than driving a car between defined activity centers
  › Bus stops that do not meet the intended suite of passenger amenities and access routes

» **Vehicle**
  › System Intersection where the volume-to-capacity (v/c) ratio does not meet the Performance Target (v/c performance Target varies by Performance Management Area)
  › Segment of a Primary Vehicle Corridor where travel speed is slower than the Performance Target (corridor travel speed target varies by speed limit and Performance Management Area)

- **Project Identification and Prioritization Framework**: The Framework provides guidance for the Transportation Commission and the community to address a gap in the Performance Target for a given mode. While there may be many Performance Target gaps, resources are limited, therefore prioritization is necessary. The process considers the Mobility Implementation Plan goals as a basis to define a decision-making approach that will advance the City's overall mobility objectives. There are four steps as shown in the graphic. Considerations for project prioritization include financial and environmental constraints, the magnitude of growth and trips generated in an area, the needs of transportation-burdened groups, input received from the community, and other City priorities.
- **Transportation Concurrency**: Bellevue's transportation concurrency program is explicitly multimodal and implements a person-trip framework to quantify both the demand for mobility and the supply of transportation projects. Policies in the Comprehensive Plan describe the broad concepts of a multimodal approach to concurrency. The multimodal approach to concurrency is intended to ensure that the "supply" of transportation equals or

Figure 3: Project Identification and Prioritization Framework

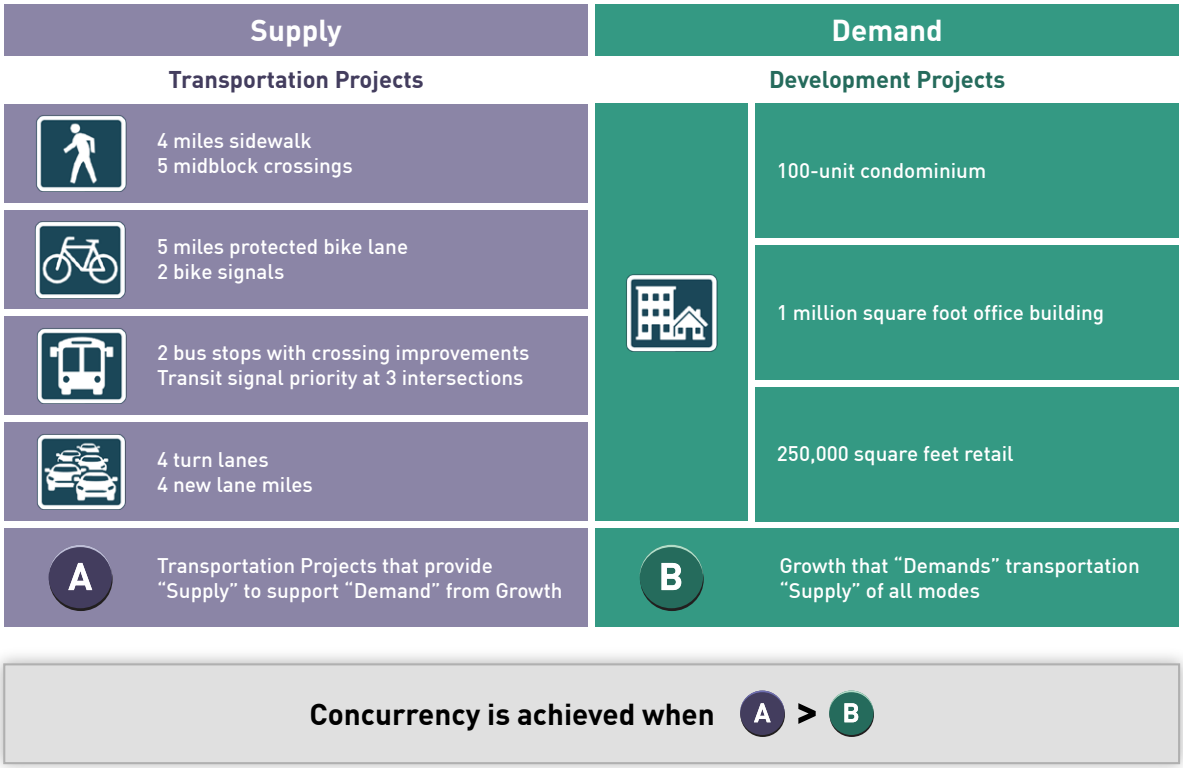


exceeds the "demand" for transportation. The "supply" is planned in the suite of transportation projects in the Transportation Facilities Plan and is created when projects are funded in the Capital Investment Program. The "demand" is expressed as the new person-trips generated by growth. Conceptually, transportation concurrency is expressed in the graphic below.

- **Performance Monitoring**: A suite of metrics that the City monitors will inform the Transportation Commission and the community how transportation investments help complete the system, how they are being utilized, and how they advance City priorities and support intended outcomes. Periodic monitoring and reporting will inform the community on progress to achieve the Performance Targets as well as the environmental metrics such as per-capita vehicle miles traveled and commute mode-share.

Conclusion

This Mobility Implementation Plan is grounded in the MMLOS Metrics, Standards and Guidelines report from the Transportation Commission in 2017. It establishes broad Goals for mobility, Performance Metrics and Performance Targets for each mode, and Performance Management Areas that reflect planned land use. The MIP describes a process to identify transportation projects that address Performance Target gaps and prioritization for funding. A multimodal approach to transportation concurrency ensures that there is adequate transportation infrastructure (supply) to meet the demand from growth. Ultimately, the MIP provides a template for achieving a complete and connected multimodal transportation system in Bellevue.



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