Mobility Implementation Plan Scope of Work and Staff Recommendation for Multimodal Concurrency

February 17, 2021

Kevin McDonald

Mobility Implementation Plan Scope of Work

Council approved contract and budget for two phases of the work in 2021-22

Phase I

❖ Multimodal Transportation Concurrency

- Transportation system completeness – layered network, complete and connected networks, project prioritization, multimodal long-range planning
- Refresh some project descriptions as needed
- Establish performance metrics and monitoring
- Embed equity and sustainability considerations to prioritize and evaluate

Phase II topics that may emerge from Phase I

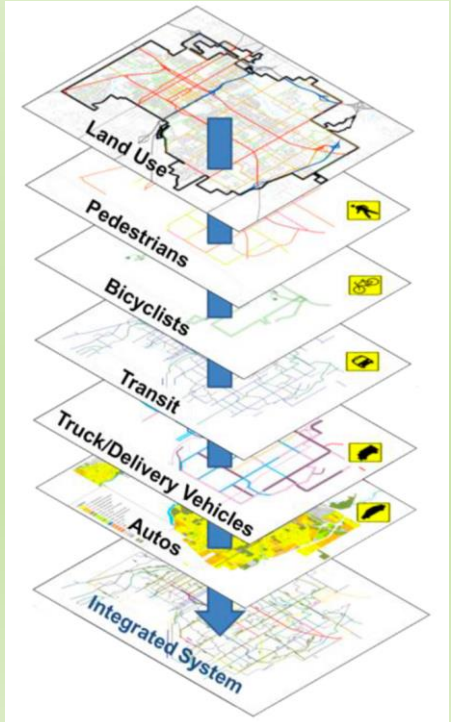
- Transportation Impact Fees – all modes
- Transportation Demand Management – refresh if needed

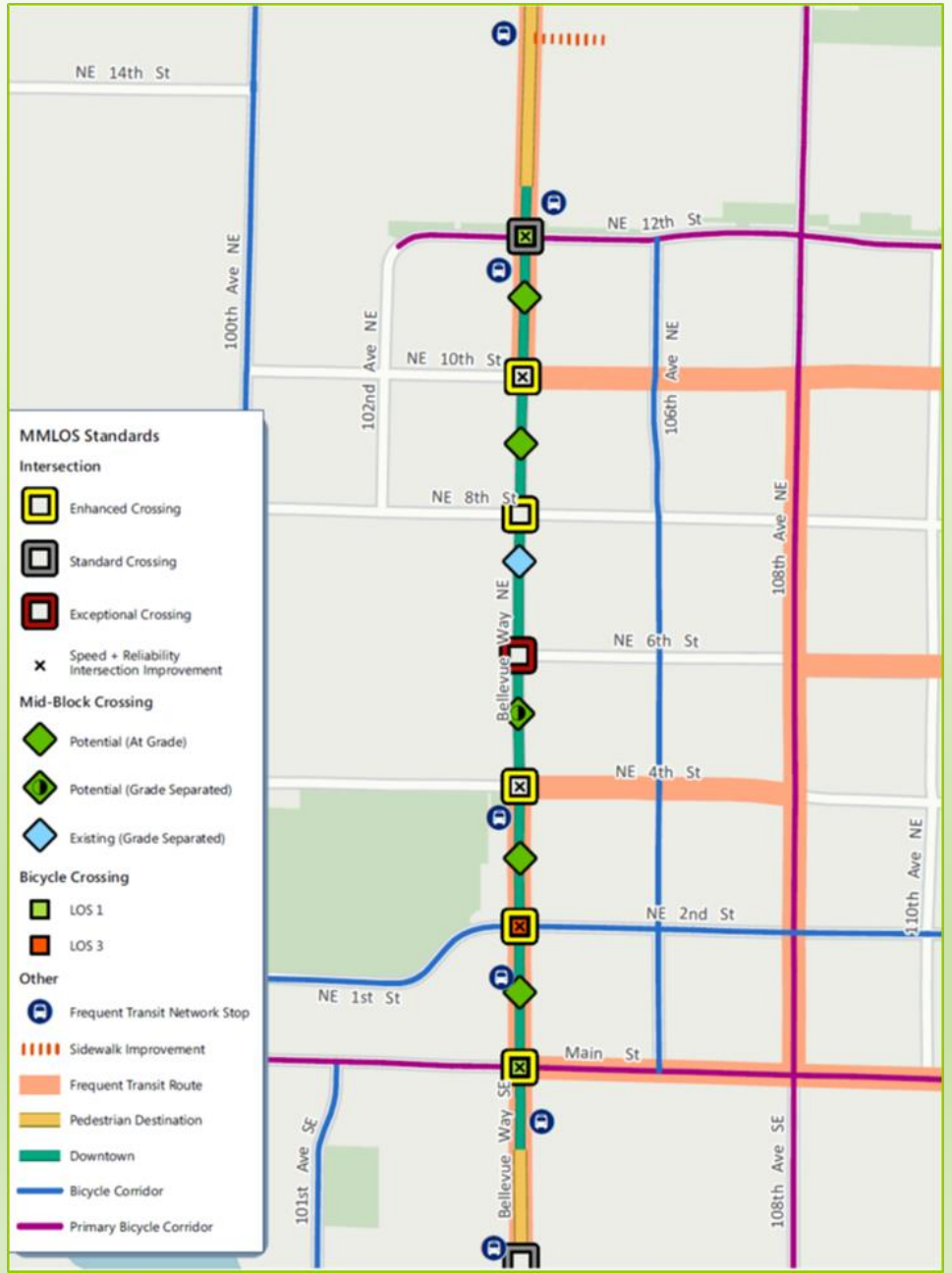
Mobility Implementation Plan

The "Layered Network"

- Transportation system planning and projects based on the mode of travel
- Overlap occurs
- Prioritization issues emerge

Transportation Commission's Multimodal Level-of-Service report recommends a "layered network" approach to help reconcile competing priorities using the land use layer.



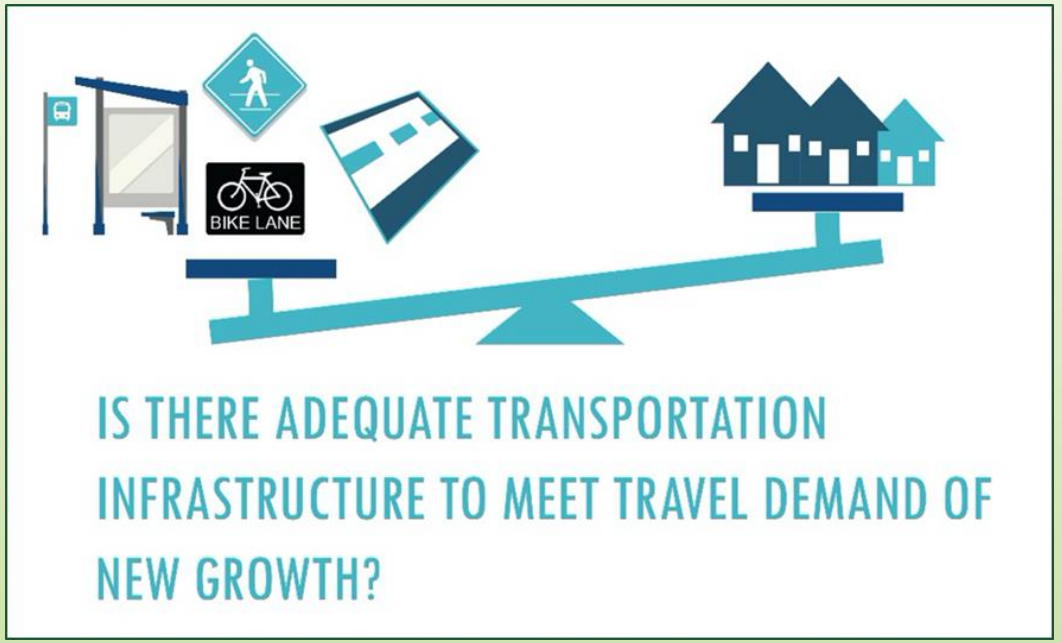


Mobility Implementation Plan

Multimodal Concurrency

- A multimodal approach to ensure the travel demand from land use is supported with an adequate supply of transportation capacity – all modes

- Q1-Q2 2021 discussion of multimodal concurrency policy with the Transportation Commission
  - January 14, February 11
  - Next March 11



Mobility Implementation Plan

Multimodal Approach to Long-Range Transportation Planning

- Long-range planning creates the inventory of transportation capacity projects for all modes:
  - Subarea plans
  - Corridor plans
- Informed by the Transportation Commission's report on MMLOS Metrics, Standards and Guidelines
- Project inventory and prioritization used for updates to the Transportation Facilities Plan and funding in the Capital Investment Program

Mobility Implementation Plan

Define, Document and Display Performance Outcomes

Performance metrics are critical to understanding the performance of the transportation network and project prioritization – effectiveness of projects, utilization of the system.

Transportation Commission will advise on:

- What to measure – informed by MMLOS
- What standard/quantitative measures or guideline/qualitative measures
- Mobility, sustainability, equity measures
- How to display and share data

Mobility Implementation Plan

Public Involvement

Transportation Commission is the advisory body

- SWtudy sessions, Workshops – all Virtual

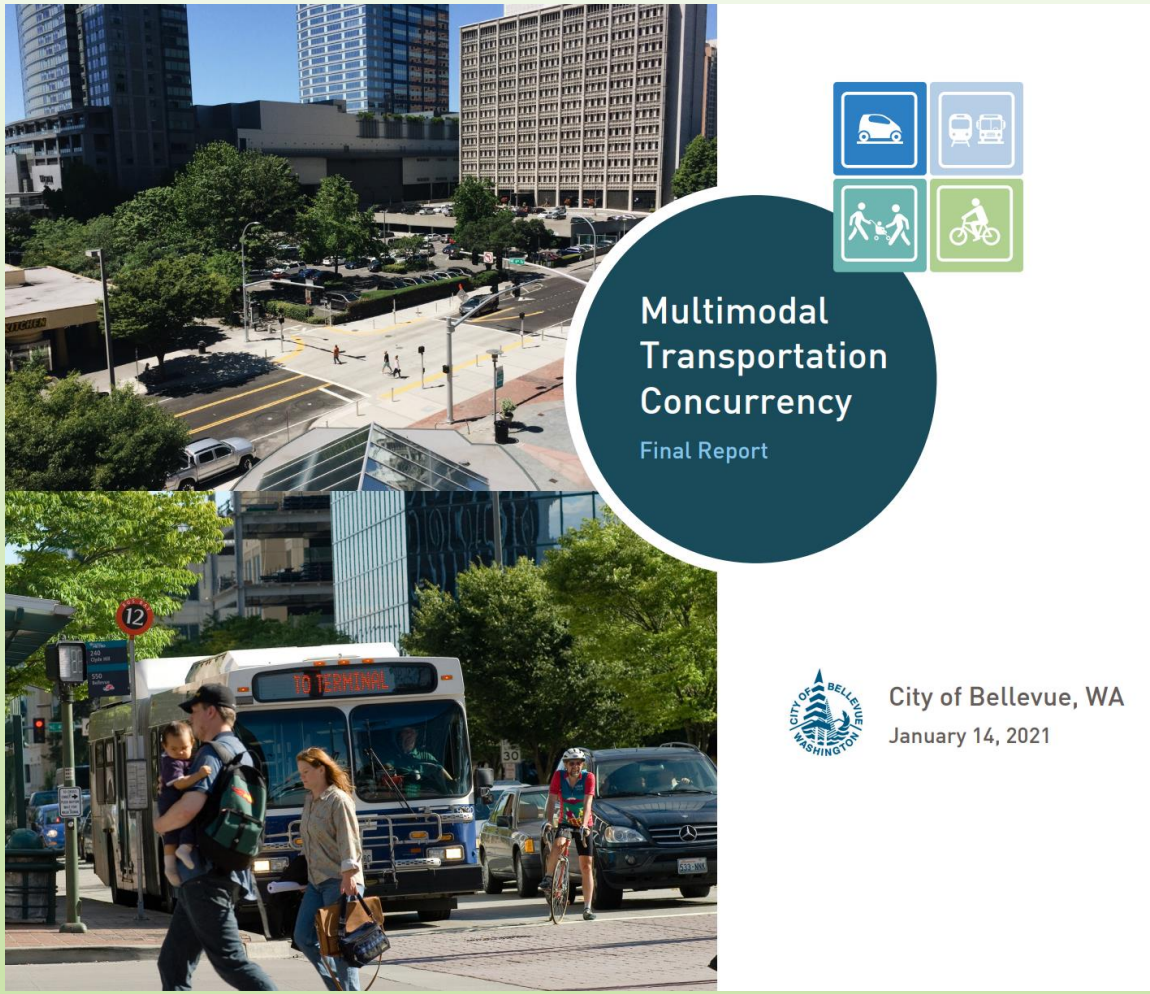
Public involvement (components TBD):

- Virtual engagement techniques
- Input and comments on preliminary Transportation Commission recommendations
- Outreach and engagement
  - Invite input from a diversity of Bellevue stakeholders
  - Seek equity in the means and methods of outreach
  - Include typically underrepresented members of the community

Multimodal Concurrency

Staff prepared recommendation through a series of virtual workshops during the summer and fall, 2020

- Builds from policy direction and from Transportation Commission prior work on concurrency and Multimodal Level-of-Service
- Introduced to the Transportation Commission January 14, 2021
- Study Session February 11, 2021
- Next Study Session March 11, 2021



Multimodal Concurrency - Overview

Foundations

- GMA, Best Practices in Washington, Bellevue Policy and MMLOS

Transportation Concurrency Standard

- Mobility Units Supply > Mobility Units of Demand

Mobility Units of Supply

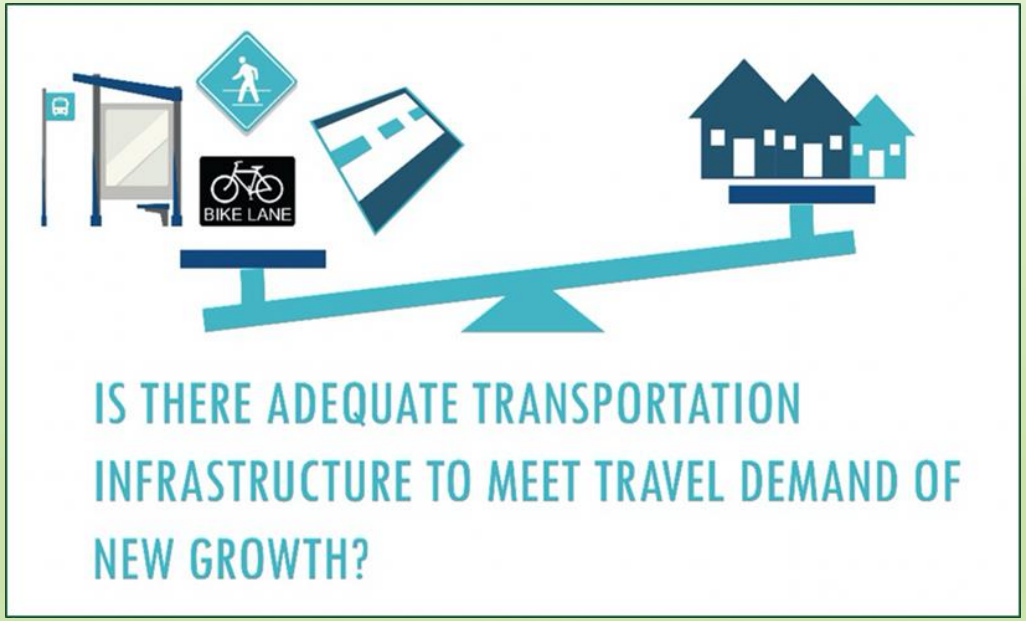
Supply is capacity projects of all modes

- Supply is **planned** in the TFP
- Supply is **created** in the CIP

Mobility Units of Demand

Demand is person trips in all modes

- Demand is **forecast** in the TFP
- Demand is **generated** by land use permit applications



Multimodal Concurrency Foundations

Washington Growth Management Act (1990)

Local jurisdictions must establish concurrency metrics to determine the capacity of the transportation system to support demand for travel from new development

Best Practices

- Olympia, Redmond, Kirkland, Kenmore use a multimodal approach
  - Related to adopted mobility plans
  - Performance monitoring
  - City in control of transportation investments
  - Straightforward to implement
- Seattle uses targets for mode share and vehicle miles travelled
  - Bellevue Staff considered and rejected
  - Related to City goals, and good as performance metrics
  - Not directly in City control

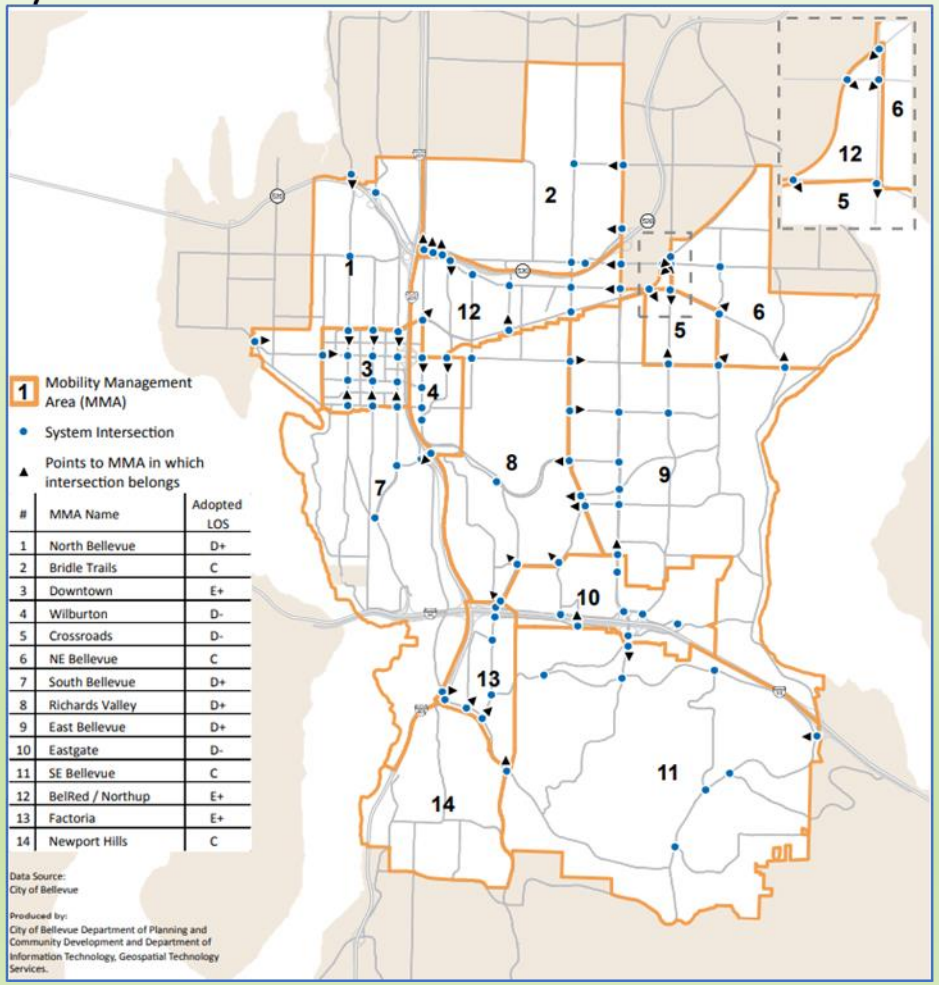
Foundations – Evolving Bellevue Policy

For 30+ years, concurrency standards for vehicles created complete arterial network that supported Bellevue growth

- 2013 Transportation Commission engaged in conversations to evolve concurrency toward a multimodal approach
- 2015 multimodal concurrency policies added to Comprehensive Plan, with direction to prepare multimodal metrics
- 2017 TC prepared MMLOS Metrics, Standards and Guidelines to describe expected multimodal performance and land use relationships
- 2021 Council approved MIP scope of work, including a request for a recommendation from the Transportation Commission on multimodal concurrency

CITY OF BELLEVUE COMPREHENSIVE PLAN

Map TR-1. Mobility Management Areas and System Intersections

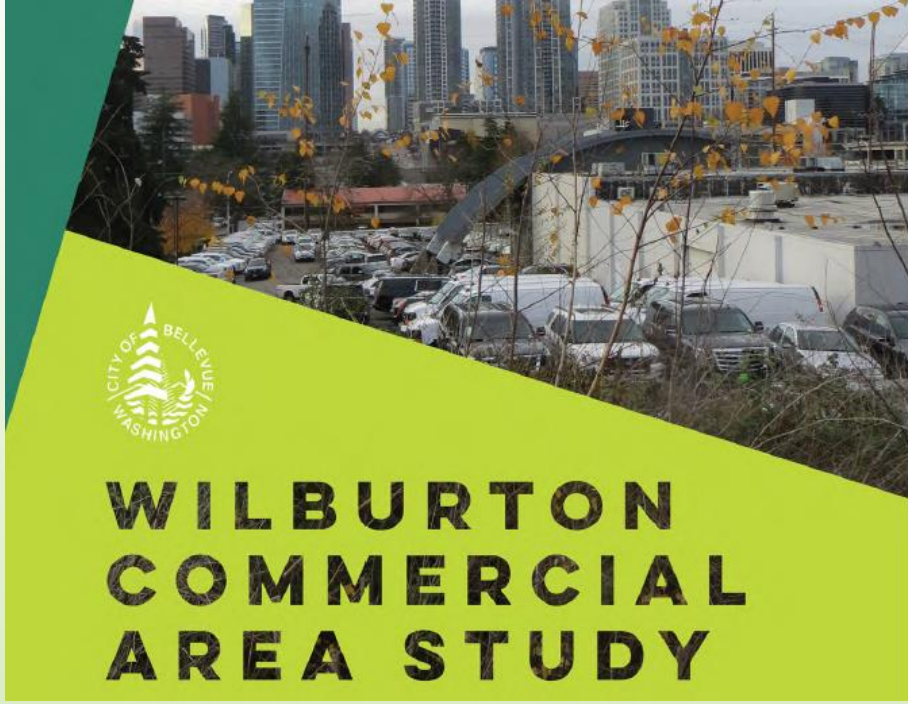


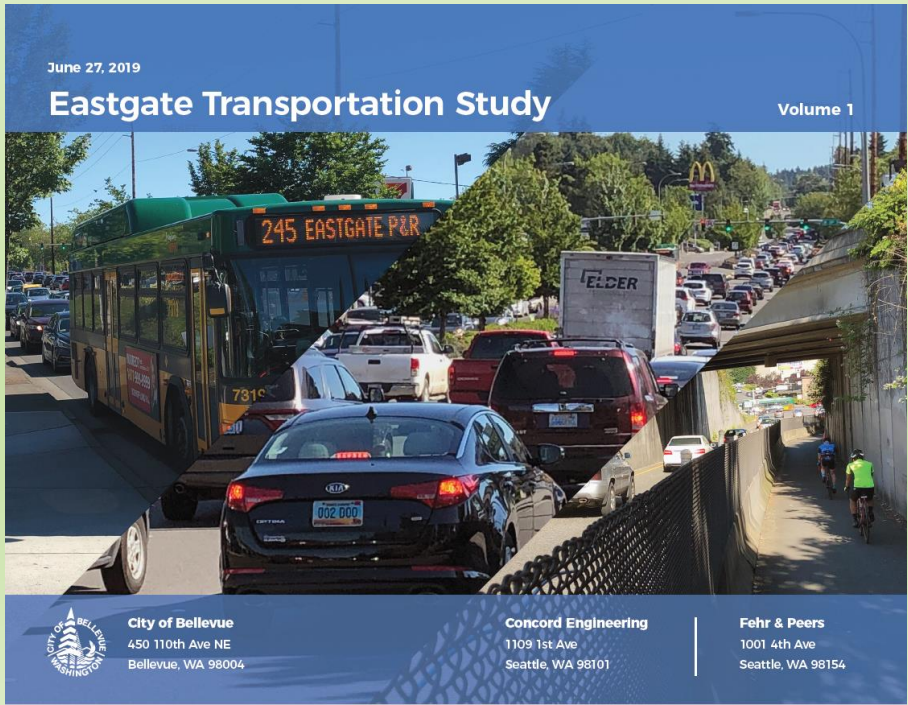
#	MMA Name	Adopted LOS
1	North Bellevue	D+
2	Bridle Trails	C
3	Downtown	E+
4	Wilburton	D-
5	Crossroads	D-
6	NE Bellevue	C
7	South Bellevue	D+
8	Richards Valley	D+
9	East Bellevue	D+
10	Eastgate	D-
11	SE Bellevue	C
12	BelRed / Northup	E+
13	Factoria	E+
14	Newport Hills	C

Mobility Units of Supply

Long-Range Planning

- Describes the 20+ Year Vision for Transportation and Land Use
- Subarea Plans. ie) BelRed, Wilburton Commercial Area, East Main, Downtown
- Corridor Plans. ie) Eastgate Transportation Study
- Modal Plans. ie) Pedestrian and Bicycle Transportation Plan
- Builds Inventory of Transportation Projects





Mobility Units of Supply

Transportation Facilities Plan (TFP)

- Projects evaluated and prioritized for a 12-year period
- Evaluation examines how well a project would achieve transportation vision

Capital Investment Program (CIP)

- Projects are funded for construction within a 7-year period
- Fully-funded projects count toward concurrency supply
- Existing supply available from recent projects may provide a “Running Start”

Supply may be Provided by Private Development

- Frontage improvements (projects identified in the TFP)
- Private shuttle ?

Mobility Units of Demand

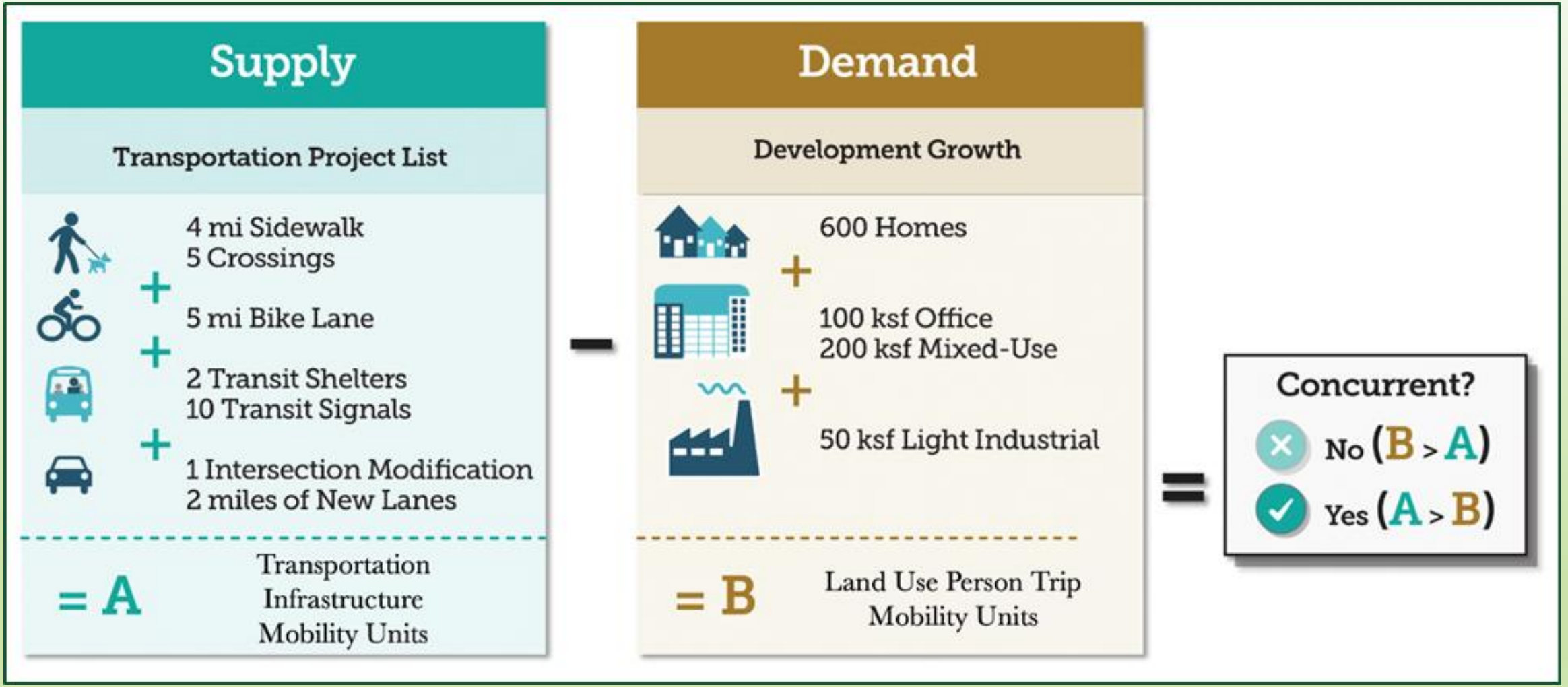
Demand is Forecast for 12-Years in each update of the TFP

- Travel demand is identified and documented in the 12-year land use forecast
  - Obtained from PSRC
  - Distributed in the city by Bellevue Community Development

Demand is Generated by Development Projects

- Travel demand is expressed as “person-trips” regardless of mode
- A person trip occurs when a person leaves a development site/building by any mode on the transportation system
- Person trips for each development project are determined in a traffic impact analysis at time of land use permitting
- Demand for vehicle trips can be further reduced through exceptional Transportation Demand Management measures

Multimodal Concurrency Equation



Concurrency Compare and Contrast

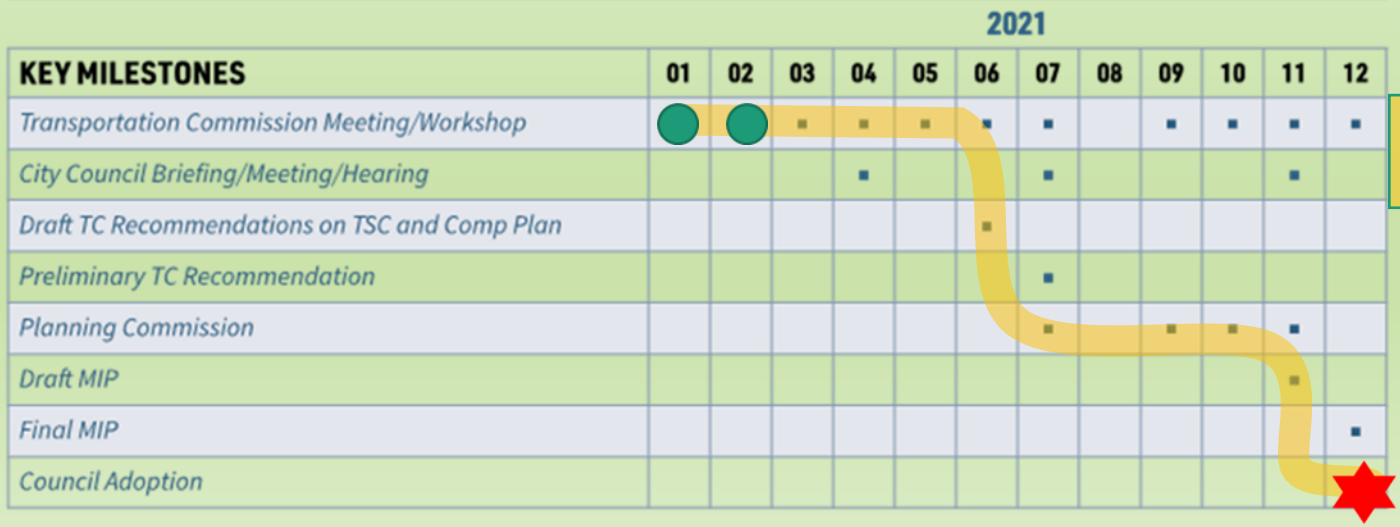
	Existing Concurrency	Multimodal Concurrency
TFP Timeframe	12-Years	12-Years
TFP Land Use	12-Year Growth Projection	12-Year Growth Projection
TFP Financial Resources	12-Year Revenue Forecast (*$388.1 million allocated for 2019-2030 TFP projects)*	12-Year Revenue Forecast (TBD for the 2022-2033 TFP update)
TFP **Supply**	Forecasted **Roadway** projects needed to maintain V/C ratio at system intersections and MMAs	Forecasted **Multimodal** projects identified to meet intended MMLOS outcomes
TFP **Demand**	Forecasted **Vehicle Trips** generated based on 12-Year Growth Forecast	Forecasted **Person Trips** generated based on 12-Year Growth Forecast
CIP Timeframe	7-Years	7-Years
CIP Financial Commitment	$ for projects that provide capacity for **vehicles**	$ for projects that provide capacity for **all modes**
CIP **Supply for Concurrency**	**Roadway** projects funded to meet V/C standard at system intersections and in MMAs	**Multimodal** projects funded, calculated as a share of the total TFP supply
CIP **Demand for Concurrency**	Demand is based on **Vehicle Trips**	Demand is created by **Person Trips**
Concurrency Metric	**Vehicle Concurrency** V/C at System Intersections in Mobility Management Areas meets Level-of-Service Standards	**Multimodal Concurrency** Mobility Units of Supply greater than the Mobility Units of Demand

Multimodal Performance Monitoring

- A performance monitoring dashboard will document multimodal concurrency compliance for defined metrics
- Basic performance metrics for all modes will be extracted from the Transportation Commission's 2017 MMLOS report
  - TC may recommend additional performance metrics
- Performance metrics of all modes
  - ❖Confirm concurrency: Supply > Demand
  - Track progress over time across multiple metrics toward system completeness
  - Inform need for new projects in long-range planning
  - Project evaluation and prioritization for updates to the TFP
  - Project funding in the CIP

MIP / Multimodal Concurrency Timeline

Multimodal Concurrency



Path to Multimodal Concurrency

Thank You!

Kevin McDonald

kmcdonald@bellevuewa.gov

425-452-4558

Mobility Implementation Plan Web Site

https://bellevuewa.gov/city-government/departments/transportation/planning/infrastructure-and-subareas/mobility

MU Supply and Demand Example Calculation

Starting Assumptions in the TFP Update:

- 12-year land use forecast = 20,000 person trips
- 12-year TFP funding = $300,000,000

Calculate cost per Mobility Unit (MU):

- 20,000 person trips/$300,000,000 = 1 Person trip (MU)/$15,000
- 1 MU Demand (person trip) “costs” $15,000 (project)
- **Example project:**
- New traffic signal costs $250,000 – funded in the CIP
- At the rate of 1 person trip per $15,000, the new $250K traffic signal provides 16.7 MU (person trips)

SUMMARY

- 20,000 MU Demand
- $300,000,000 available
- $250,000 signal cost, represents 250,000/300,000,000 = 0.08% of the total supply
- 0.08 x 20,0000= 16.7 MU