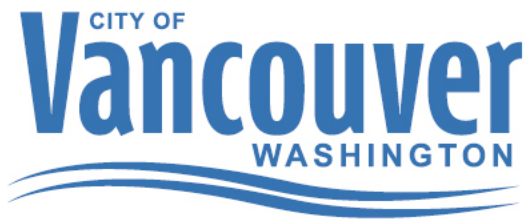




Transportation System Plan Update

Transportation and Mobility Commission
September 6, 2022



Rebecca Kennedy, Deputy Director, Community Development Department
Thomas Brennan, Consultant Project Manager, Nelson\Nygaard Consulting

Agenda

- Project Objectives
- Modal Networks
- Prioritization Framework
- Next Steps



Presentation Purpose

Update on Transportation System Plan and feedback requested

Modal Networks

- Review modal networks approach and initial findings; TMC questions and direction on approach

Prioritization

- Review draft project prioritization methodology; TMC questions and direction on approach

Prior TMC Review

Jan 5, 2021

- Intro to TSP Update

Mar 2, 2021

- Existing conditions
- Community outreach

Jun 1, 2021

- Equity analysis

Jul 6, 2021

- Collision dashboard
- Public outreach

Sep 7, 2021

- TSP refresher
- Community transportation values

Jan 4, 2022

- Enhanced transit, equity analysis update
- Opportunities (travel patterns)
- Values outreach results

Mar 1, 2022

- Draft goals framework

July 5, 2022

- Draft Big Ideas and associated Projects, Programs and Policies (PPP)

Project Objectives & Schedule



Outcomes



**Project
Development
Process**

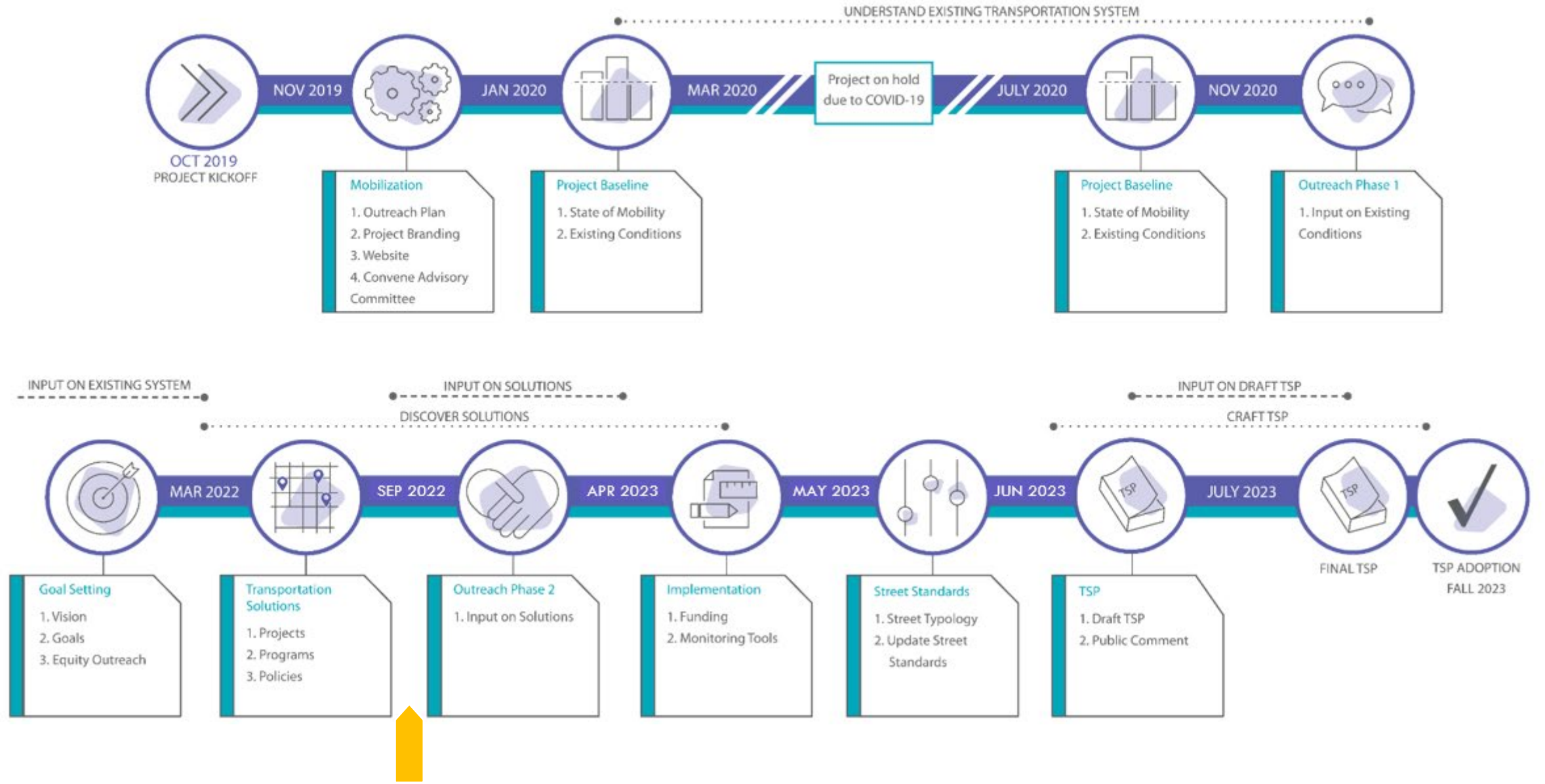


**Comprehensive
Plan Integration**

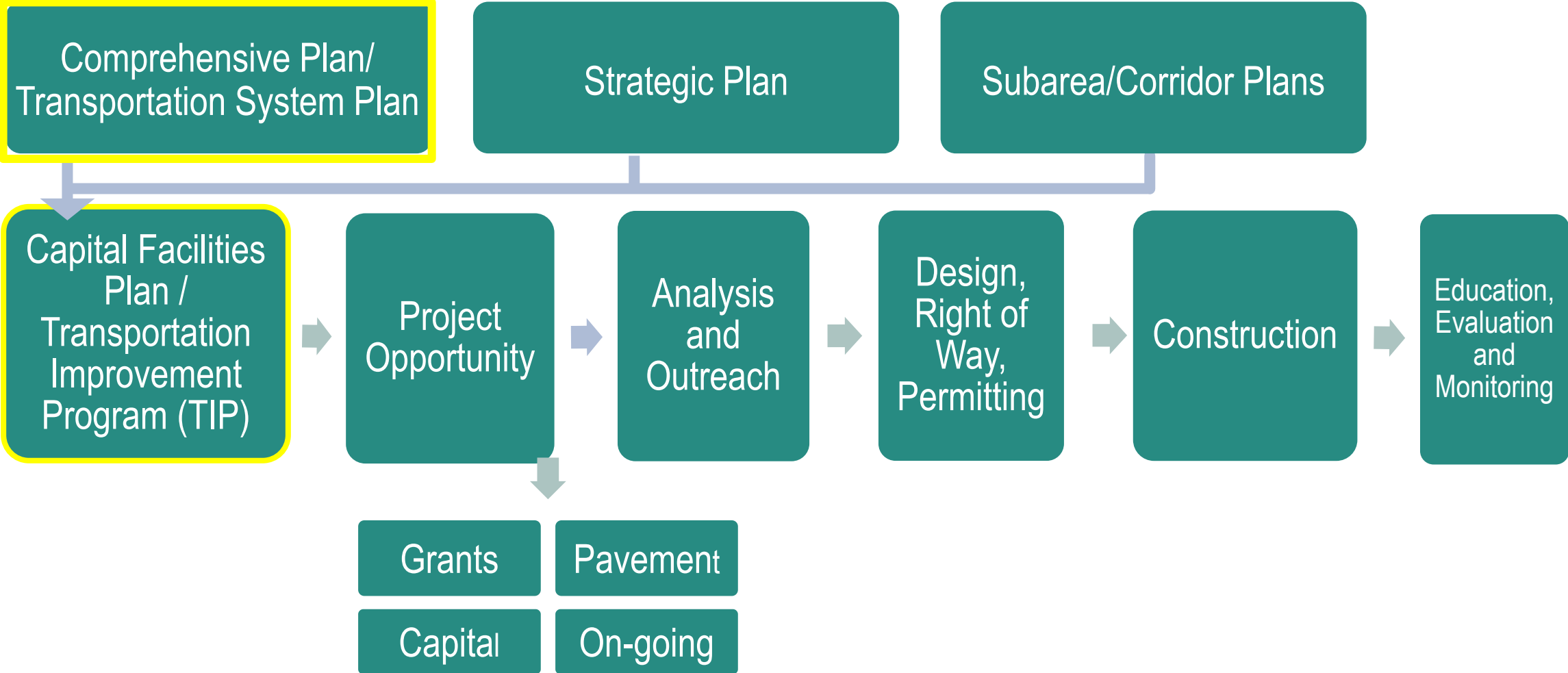
TSP Outcomes:

- Maintain quality of life in a time of growth
- Diversify transportation options
- Prioritize safety
- Respond to community priorities
- Build support for multimodal streets

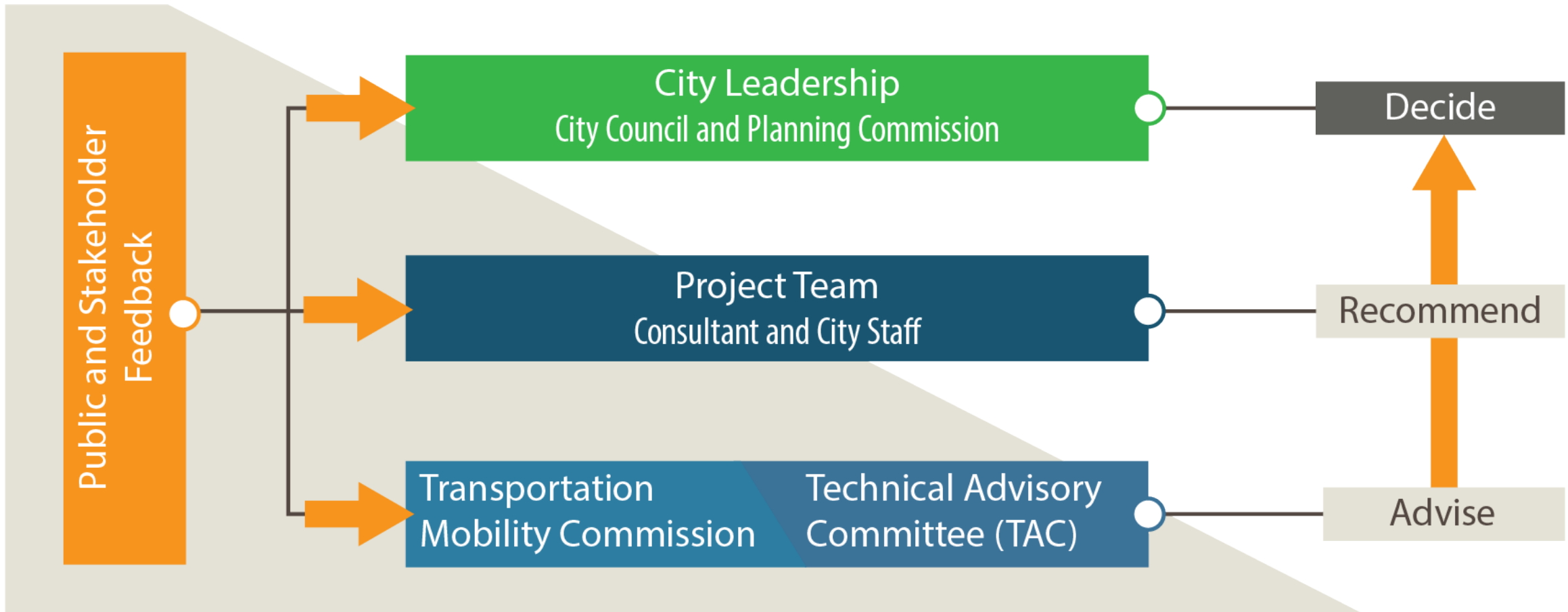




Project Development Process

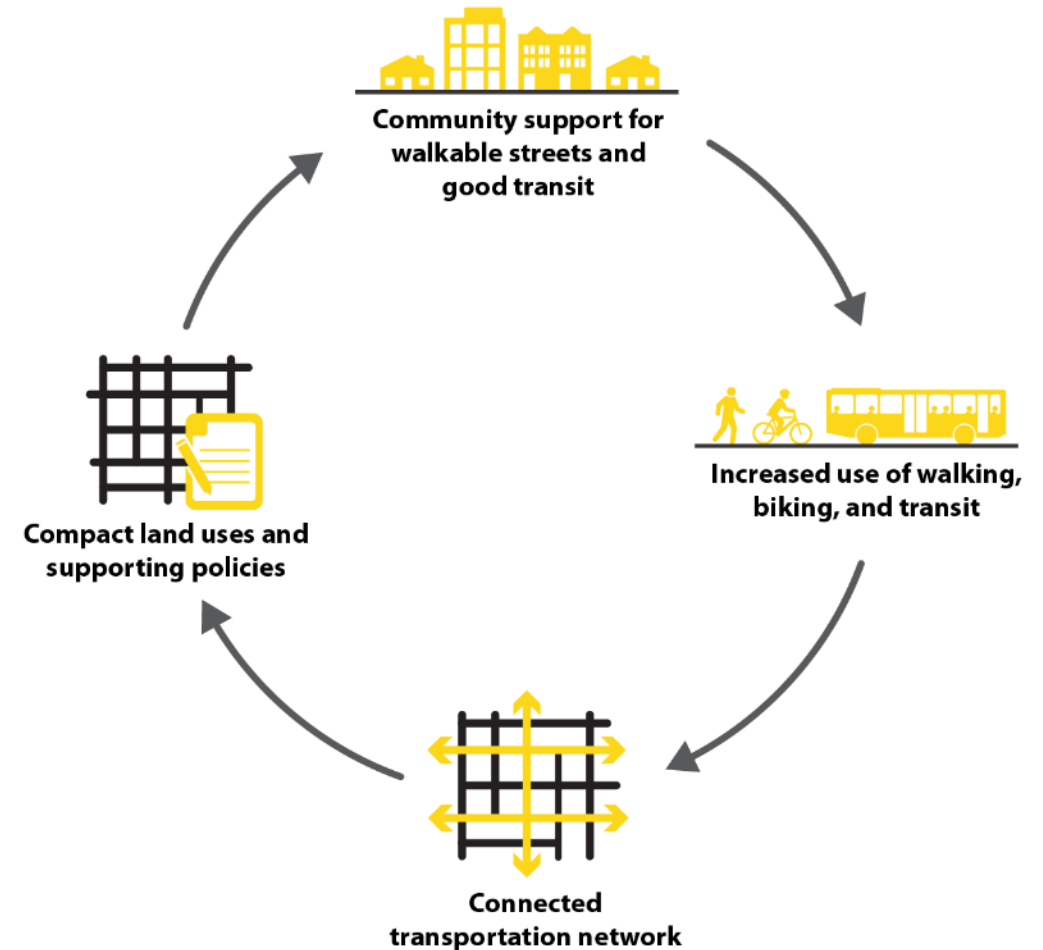


Project Groups



Comprehensive Plan Integration

- Land use and transportation must be integrated to achieve climate, equity, and safety goals
- Comprehensive Plan update process kicking off October/November 2022
- TSP timeline extended to align key aspects of Comprehensive Plan:
 - Goals, policies, programs, projects, and other implementation
 - Primary areas to focus growth (nodes)
 - Necessary land use changes to support overall vision
 - Modal networks
 - Street typology



Modal Networks



**Low-Stress Active
Transportation
Networks**



**Enhanced Transit
Network**



**Street Network and
Complete
Corridors**

Modal Networks and the TSP

- The TSP provides facility selection policies, design standards, and targets
- Designated networks define the long-term vision and lead to capital projects
- Prioritization (next section) identifies highest priority locations and determines phasing

Modal Networks

- Walking and Rolling
- Mobility (Bicycle and Small Mobility)
- Transit
- Freight (TBD)
- Complete Corridors

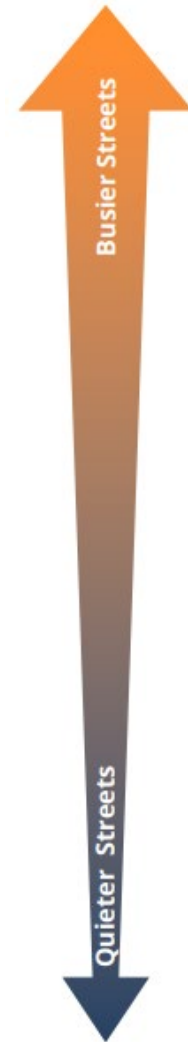
Low-Stress Walking & Rolling

- Objective: Ensure safe walking access to parks, schools, multimodal hubs, and other community services and destinations.
- Designated pedestrian corridors and centers help us define:
 - Where to develop facilities
 - How to select and design facilities

Low-Stress Walking – Along the Street

- **Today:** Wider sidewalks are required in downtown (12') and subarea plan areas; 5-6' sidewalks everywhere else
- **TSP Policy Framework**
 - **Facility selection:** Choose a more robust facility as traffic speed and volumes increase
 - **Design:** Require wider sidewalks in places with more pedestrian destinations and future growth areas; Expand frontage improvement requirements

Transportation System Plan Update — 15



WALKING FACILITIES



Low-Stress Walking – Crossing the Street

- **Today:** City Pedestrian Crossing Improvement Policy last updated in 2010
 - Location and design of crossing improvements is based partly on existing pedestrian volumes
 - Design toolbox needs update to include more recent design treatments
- **TSP Policy Framework:**
 - **Location:** Locate enhanced crossings where there are destinations; adopt desired crossing spacing maximums for corridors
 - **Facility selection and design:** Design crossings based on traffic speed and volumes, roadway width, and school zones

Walking & Rolling Network Development

- Pedestrian Centers (in development) are areas with:
 - A high density of both population and employment
 - A mix of existing and planned land uses that enable short trips between places where people live, work, play, shop, attend school, or access transit
 - The presence of essential office/retail/commercial/social destinations that people should be able to access by walking and rolling
 - Comprehensive Plan Center or Corridor designation (previously adopted and in update)

Walking & Rolling Network Development

- Pedestrian Corridors are streets with:
 - Existing C-TRAN service
 - Planned or potential future enhanced transit service
 - Concentrations of destinations
 - Existing or future Neighborhood Greenway designation
 - Comprehensive Plan Corridor designation

Draft Future Low-Stress Walking & Rolling Network

Proposed Pedestrian Network

-  Vancouver City Limits
-  Vancouver UGA
-  Pedestrian Corridors
-  Neighborhood Greenways
-  Pedestrian Ways



Low-Stress Mobility

- Objective: Build a well-connected, high-quality bicycle and small mobility network.
- The designated low-stress network helps us define:
 - Where to develop facilities
 - How to select and design facilities

Bicycle & Small Mobility Network Today



Bike Network

- Multi-use Paths
- - - - Unpaved Multi-use Paths
- Striped Bike Lane
- Bike Lane Drop to Wide Shoulder or Shared Roadway
- Shared Roadway On lower traffic street
- Shared Roadway with Wider Outside Lane On moderate and higher traffic street
- - - - Shared Roadway/Difficult Connection Lower traffic street with sight distance limitations and higher speeds

Vancouver City Limits
 Vancouver UGA

Data Source: City of Vancouver

Portland

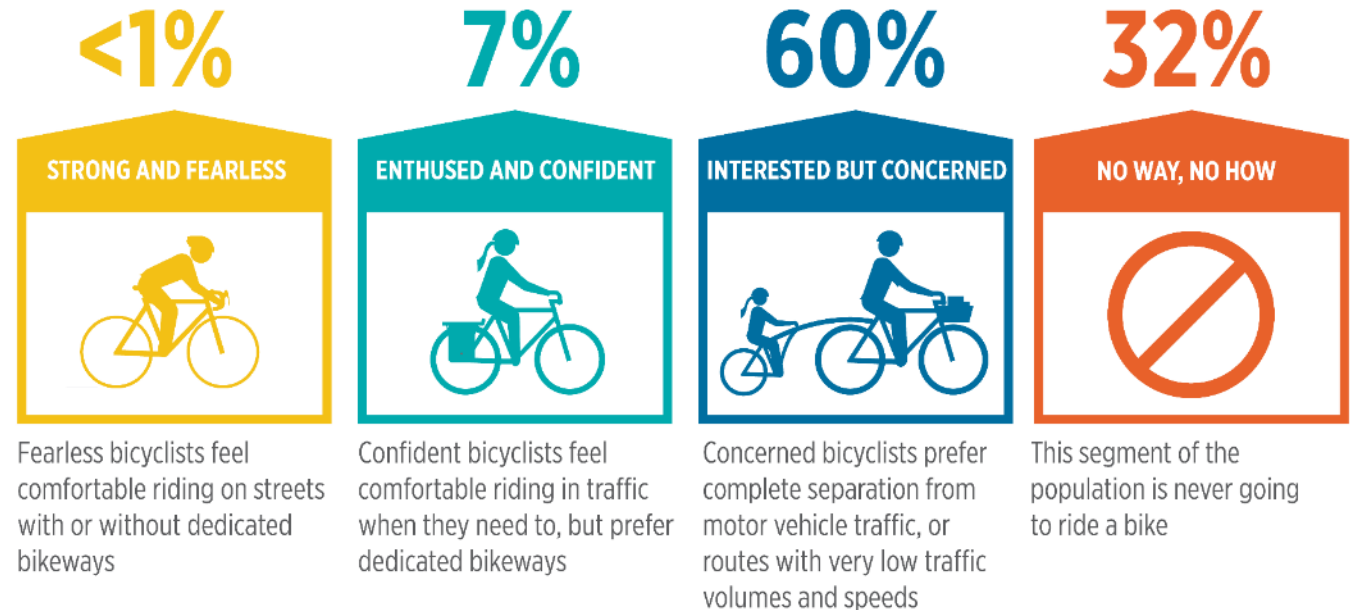


Low-Stress Bicycle & Small Mobility Network

- **TSP Policy Framework:**

- **Location:** Aim for a citywide network with a low-stress facility approximately every half mile
- **Facility selection and design:** Design facilities to be comfortable for all ages and abilities regardless of mode of travel based on the speed, volume, and width of the street

TYPES OF BICYCLISTS



This research has not yet been conducted for people who use other types of small mobility

What Does a Low-Stress Facility Look Like?



- On streets with very low traffic volumes and speeds, neighborhood greenways combine shared lane markings, traffic calming, wayfinding signs, and crossing improvements at major streets
- On streets with high volumes and/or speeds, shared-use paths or protected lanes with a vertical separation element provide a low-stress experience
- On medium-sized streets, striped or buffered lanes can be low-stress; on larger streets they are comfortable for confident or fearless riders



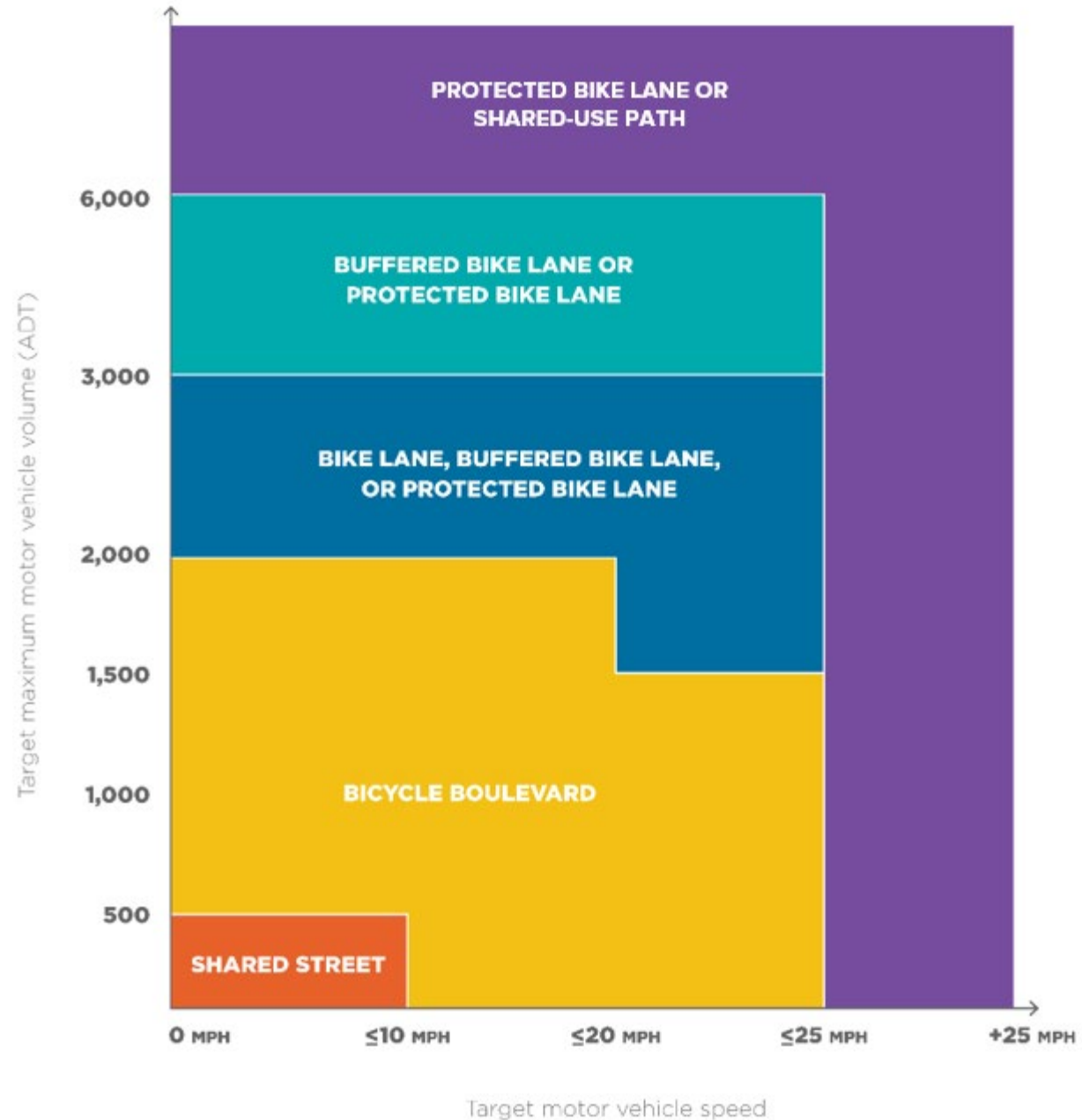
Mobility Lanes

Mobility lanes are planned and designed for both bicycles and new forms of small, electric mobility (such as scooters)



Selecting a Facility

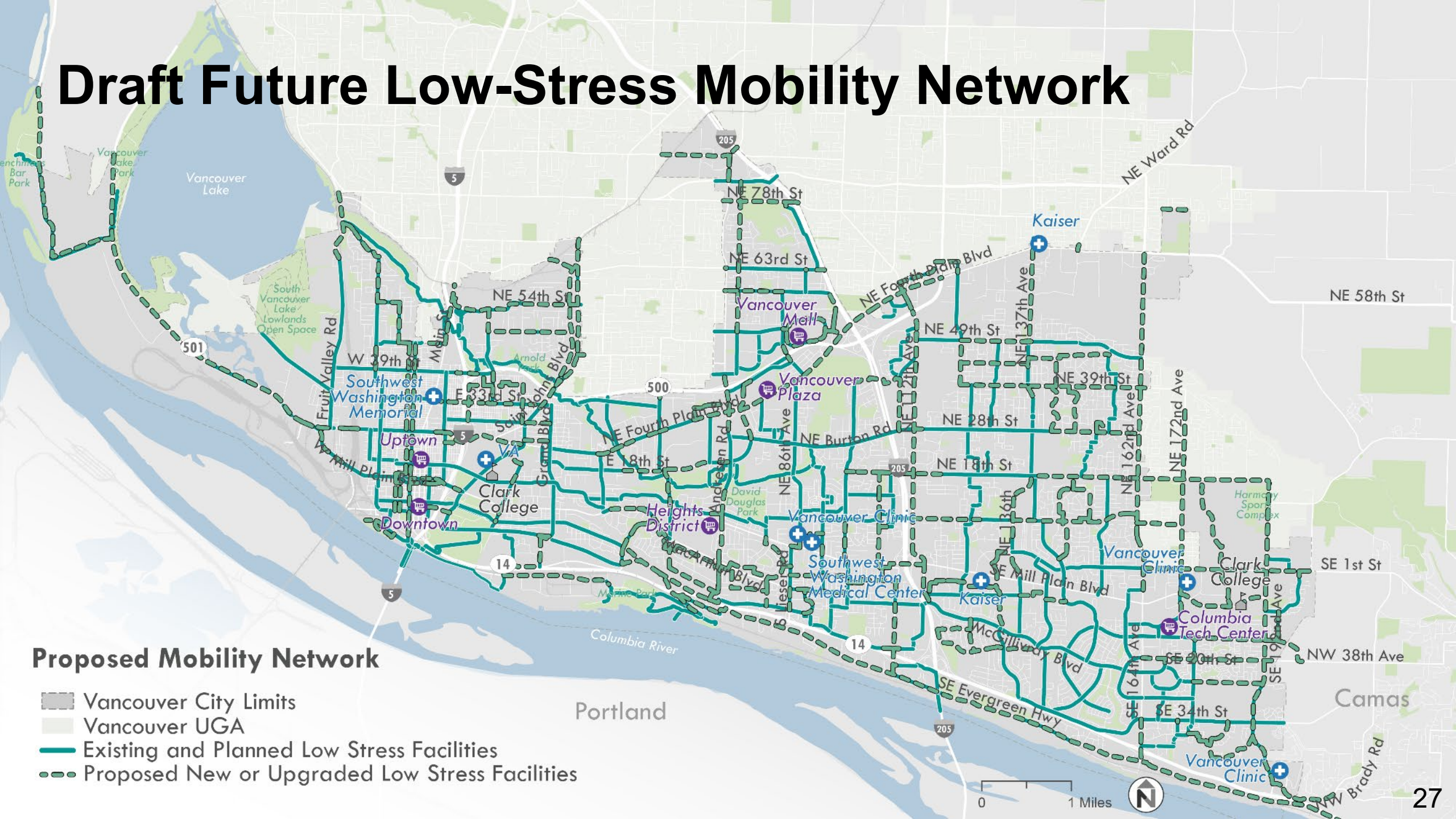
- NACTO guidance based on motor vehicle speed and volume



Low-Stress Mobility Network Development

- Determine which parts of the existing network are already low-stress
- Locate missing segments and crossings needed to create a low-stress network with approximately half-mile spacing citywide
 - Existing facilities that are high-stress
 - Places where there is no existing facility

Draft Future Low-Stress Mobility Network



Proposed Mobility Network

- Vancouver City Limits
- Vancouver UGA
- Existing and Planned Low Stress Facilities
- Proposed New or Upgraded Low Stress Facilities



Future Low-Stress Mobility Network

- 140 miles of existing low-stress facilities
- 65 miles of existing facilities that will need to be redesigned to become low-stress
- 36 miles of proposed new facilities
 - 28 miles are already low-stress neighborhood streets
 - 8 miles are major streets

Planned Projects on the Future Low-Stress Mobility Network

- Proposed new facilities on major streets
 - Fourth Plain Blvd (Project in process)
 - NE 112th Ave (Planned Complete Streets project)
- Proposed facility upgrades
 - St Johns/St James (Future Complete Streets project)
 - NE 18th St, NE 28th St, NE 192nd Ave (TIP Projects)

How will my ride improve?

Neighborhood greenways with enhanced crossings



Before



After (example)

How will my ride improve?

Protected lanes



Before

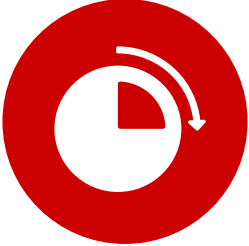


After (example)

Enhanced Transit

- Objective: Optimize transit speed, reliability and access.
- The enhanced transit network helps us define:
 - Where the City can work with C-TRAN to support transit speed and reliability
 - Where the City should focus on station access improvements like pedestrian crossings and sidewalks

Transit Roles and Responsibilities



Provide Frequent Service

- ✓ C-TRAN
- City of Vancouver



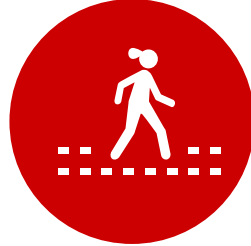
Keep Buses Moving

- C-TRAN
- ✓ City of Vancouver



Supportive Land Use

- C-TRAN
- ✓ City of Vancouver



Safe, Comfortable Access

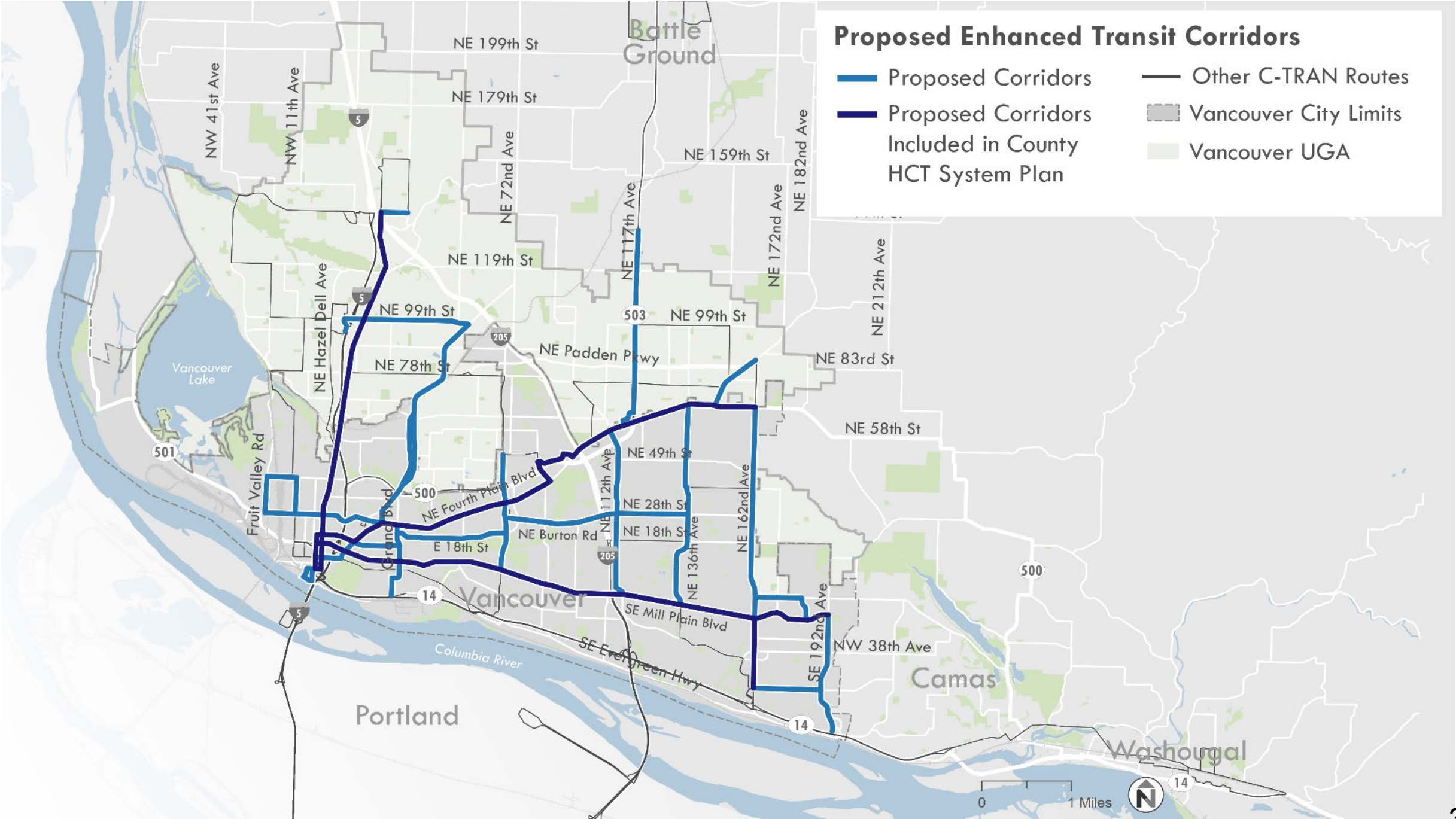
- ✓ C-TRAN
- ✓ City of Vancouver

Enhanced Transit Network Development

- Network inputs:
 - Frequent transit service
 - Equity
 - Essential trips (transit use during COVID restrictions)
 - City Equity Index
 - Regional Growth
 - Population and Employment projections
 - Local Growth Priorities
 - Centers & Corridors identified in the Vancouver Comprehensive Plan (will be updated once new centers/corridors identified through update process)
 - Congestion
 - Where buses are delayed

Proposed Enhanced Transit Corridors

- Proposed Corridors
- Proposed Corridors Included in County HCT System Plan
- Other C-TRAN Routes
- Vancouver City Limits
- Vancouver UGA



Complete Corridors

- Objective: Increase the number of transportation options available to people in all of Vancouver's neighborhoods.
- The complete corridor network helps us define:
 - Which corridors are critical connections for all modes
 - Where our long-term multimodal street design projects may be

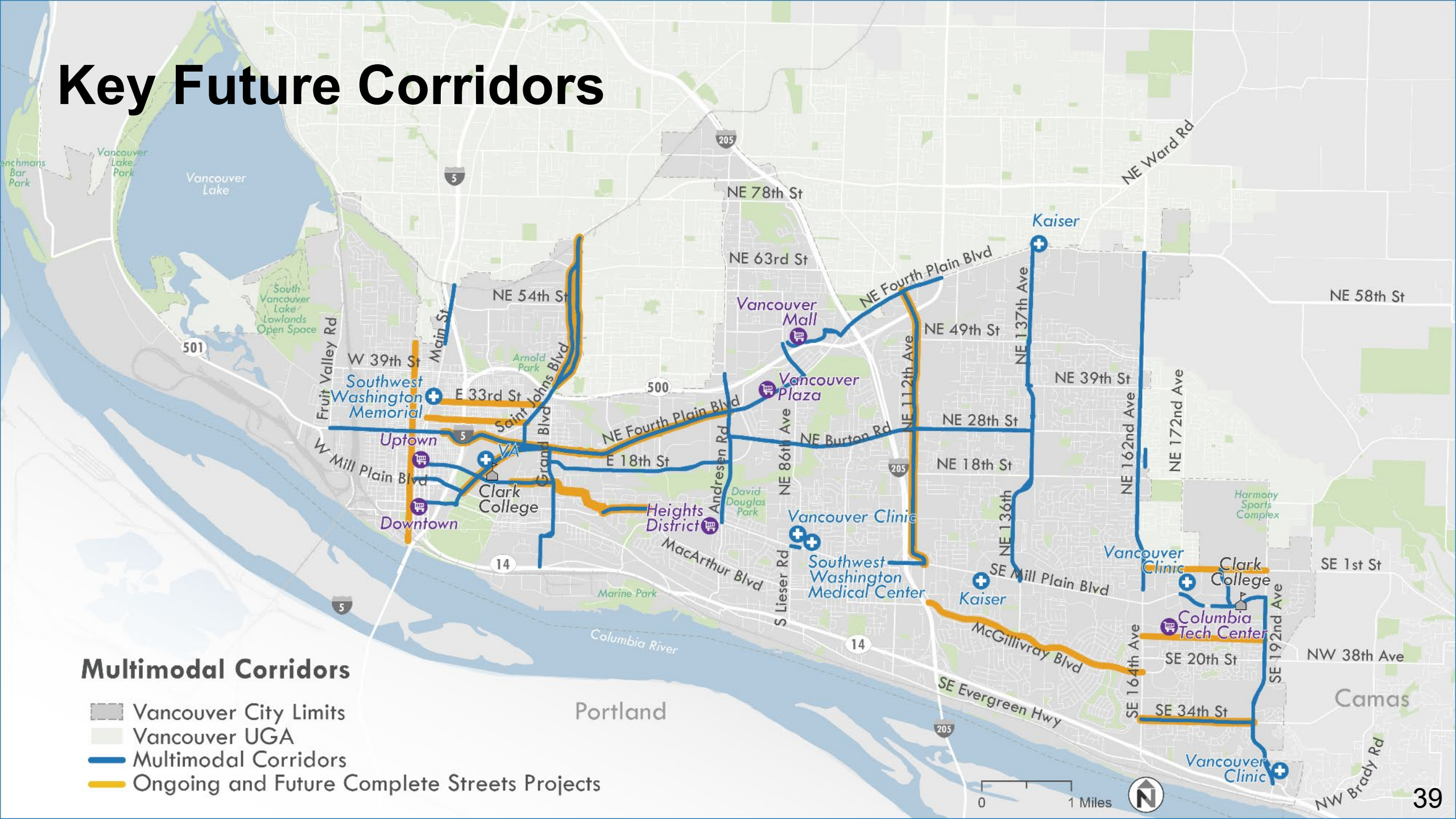
Street Network and Complete Corridors

- Complete Streets, Safety and Mobility, and TIP projects are identified for the next six years
 - Include multimodal suite of improvements
- In the next twenty years, where are Vancouver's Complete Streets and Safety and Mobility corridors?
 - Can include parallel routes for some modes, where available

Complete Corridor Network Development

- Inputs:
 - Enhanced transit network
 - Low-stress walking & rolling network
 - Low-stress mobility network
 - Twelve concurrency corridors

Key Future Corridors





Draft Prioritization Framework



**Where should we
invest?**



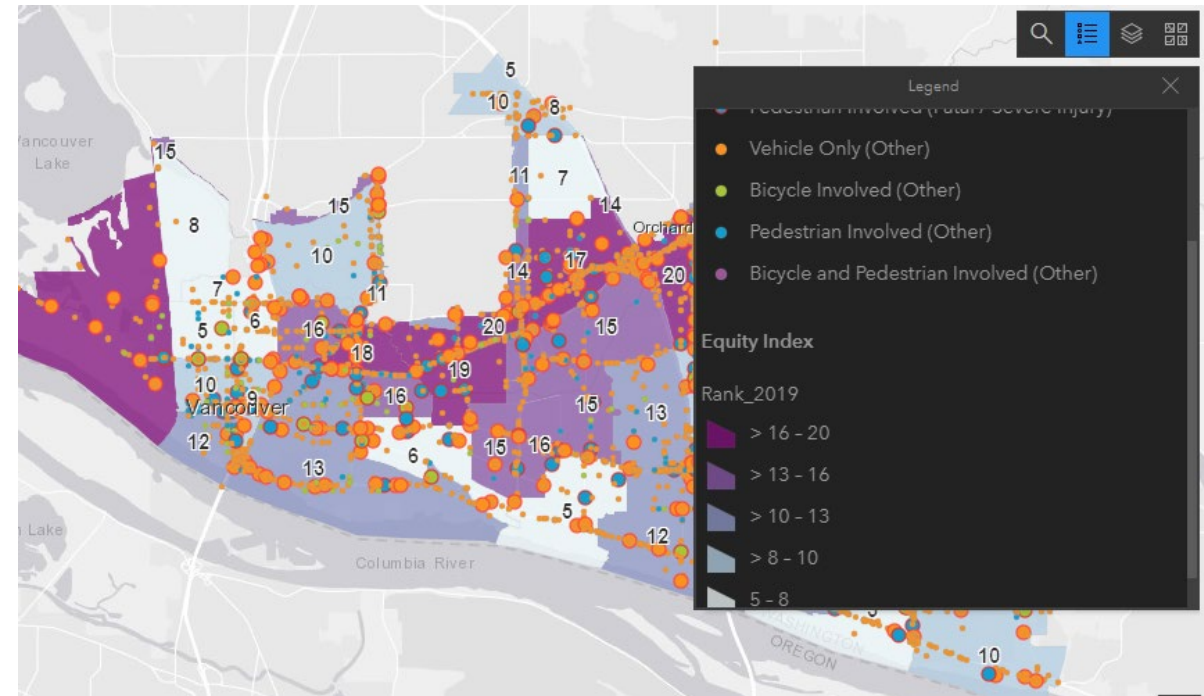
**When should we
invest?**

Prioritizing Capital Projects

- Infrastructure projects identified in the TSP will feed into:
 - Transportation element of City's 20-year Capital Facilities Plan
 - Six-year Transportation Improvement Program (TIP)
- Prioritization identifies which 20-year projects should be included in the TIP

Where should we invest?

- Project locations evaluated on:
 - Equity
 - City Equity index
 - Safety
 - Collision history
 - Transportation choice
 - Density of essential places
 - Climate
 - Future growth areas



When should we invest?

- Projects evaluated on:
 - Project cost and funding opportunities
 - Coordination opportunities
 - Interagency, pavement and sidewalk maintenance
 - Environmental and right-of-way impacts
 - Quick wins
 - Projects that fill gaps

Questions or comments?

Next Steps



**TMC
Engagement**



**Community
Engagement**

TMC Engagement

2022

October

- Review updated policy, programs, and projects, refined to reflect TMC and Council direction

December

- Public input
- Revised modal networks

2023

April

- Street typology and standards, pedestrian crossing policy

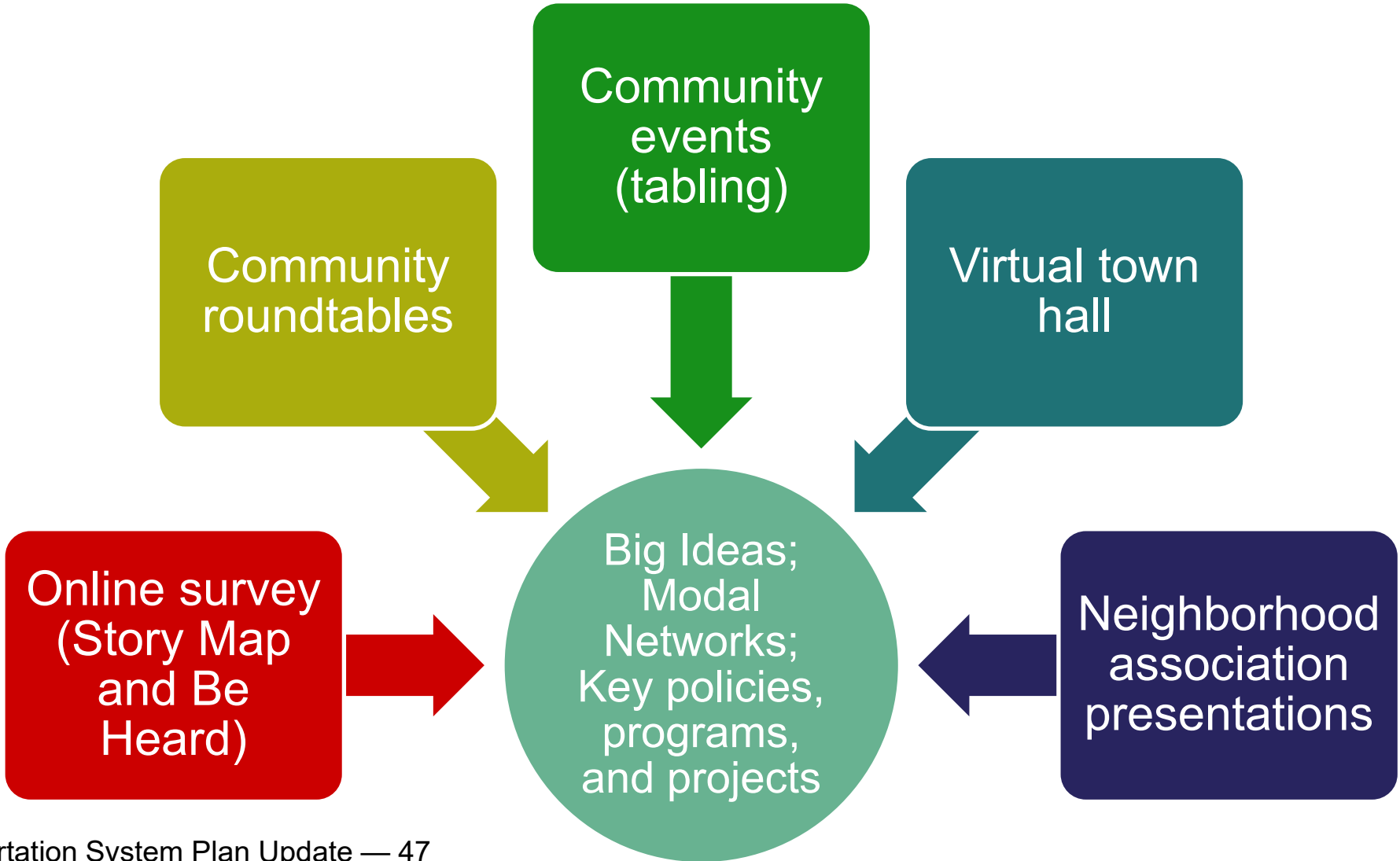
May

- Implementation, funding
- Monitoring/performance measure

July

- Draft plan

Community Engagement, Sept/Oct 2022



Thank You

