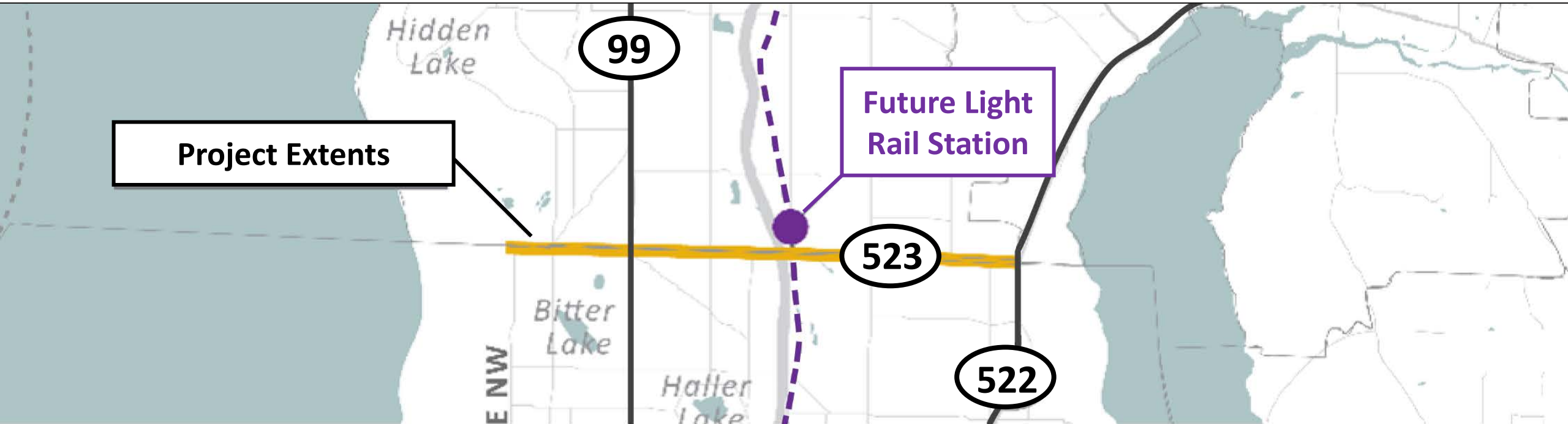




145th Street Multimodal Corridor Study Open House – September 30, 2015 Presentation will begin at 6:30pm



145th Street



- Connection to Aurora, I-5, and Lake City Way/Bothell Way
- Connection for Shoreline and Seattle neighborhoods, businesses, parks and services
- Future light rail station at 145th and I-5

What's the problem?



Traffic congestion



Pedestrian barriers, no place for bikes

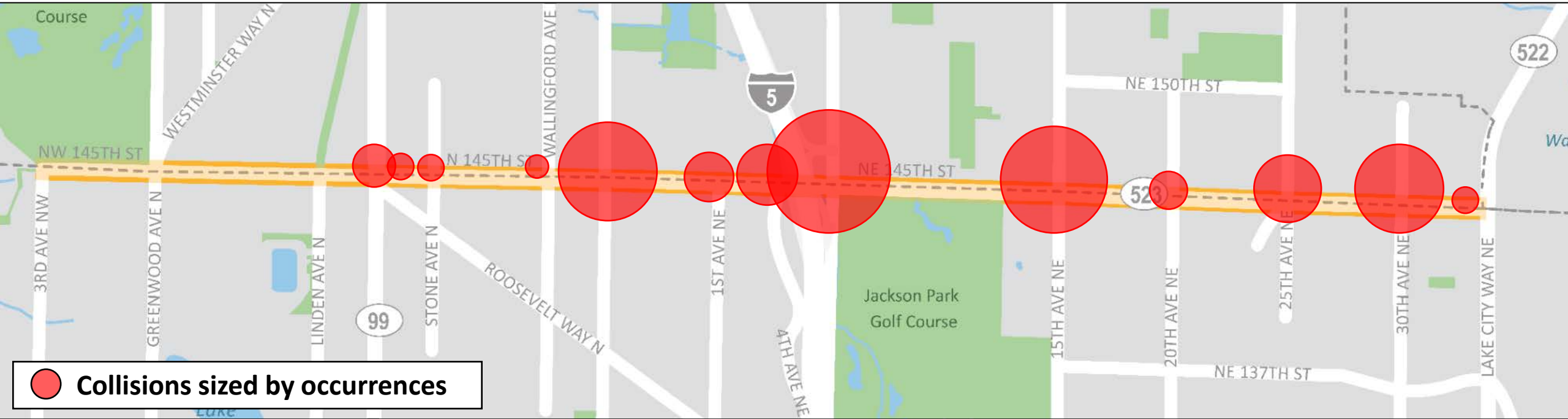


Limited transit service, minimal amenities



Safety concerns, including lack of left turns

What's the problem?

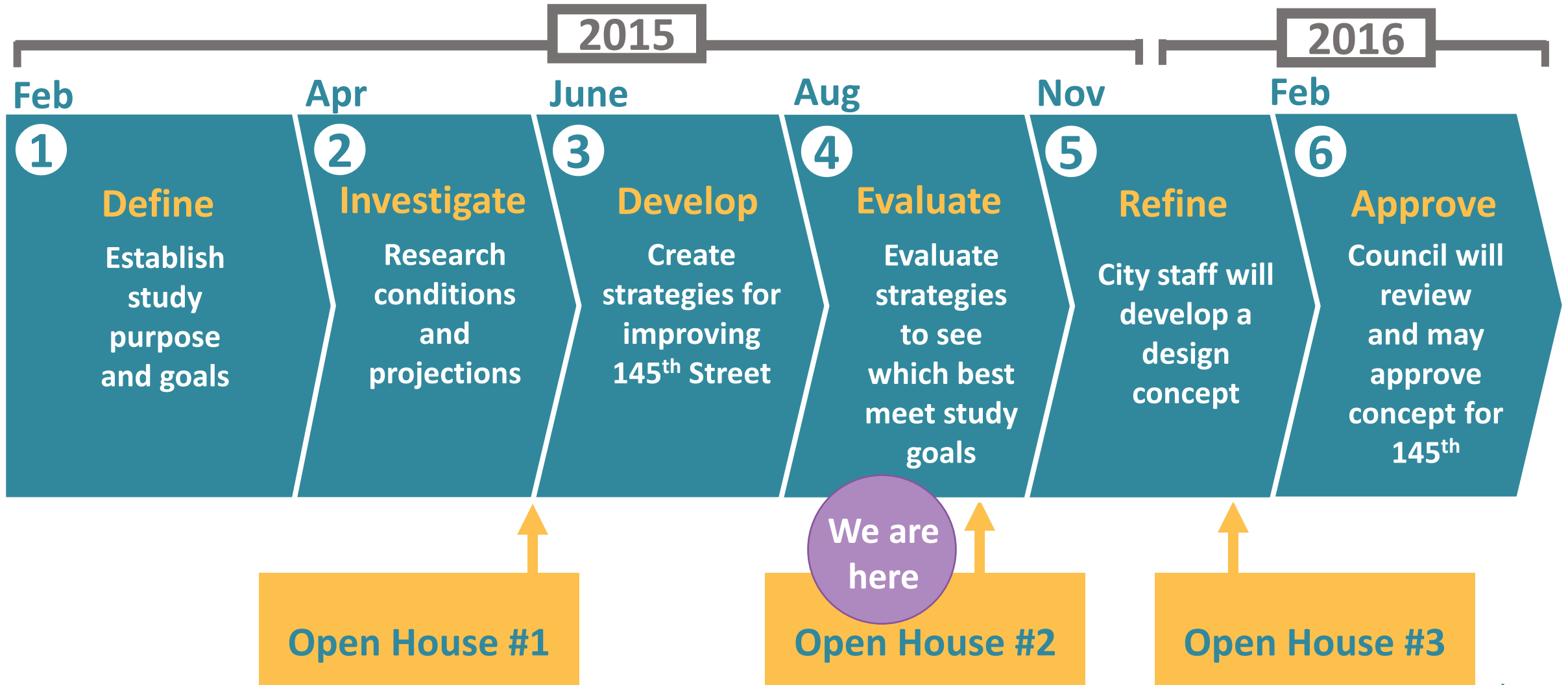


Collision history: 2010-2014

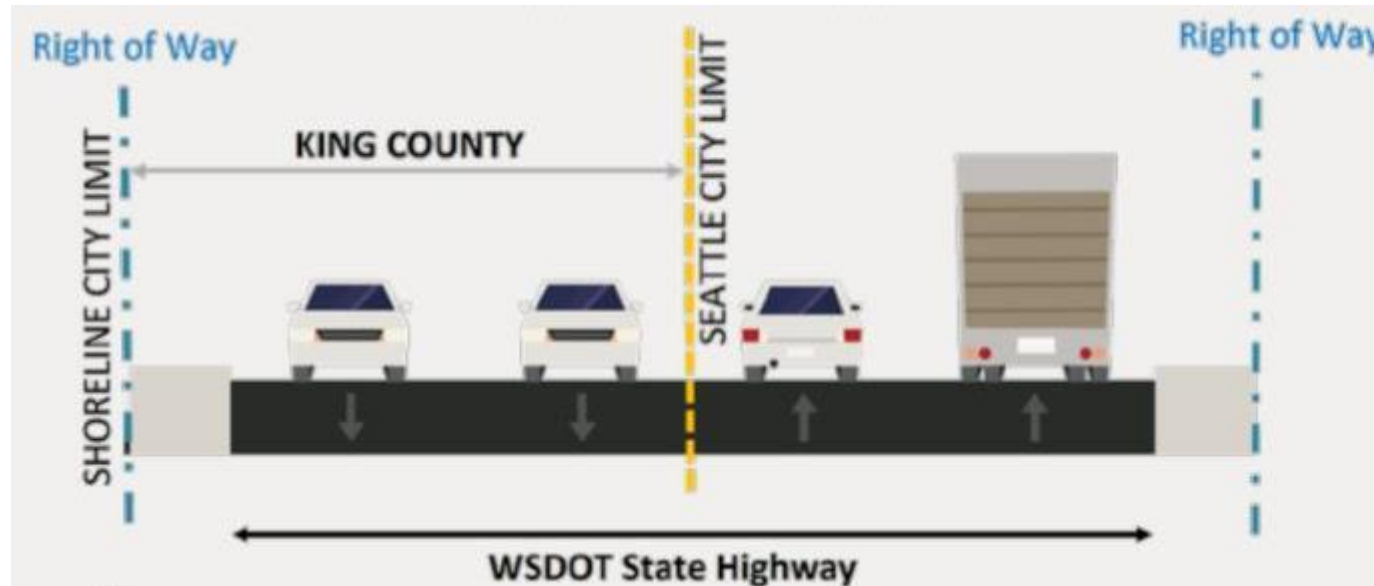
Project goals

- Ensure that everyone can walk, bike, bus, access light rail and drive safely and reliably along and across the corridor
- Develop transportation improvements that:
 - Support the local economy
 - Protect the environment
 - Support a vibrant community

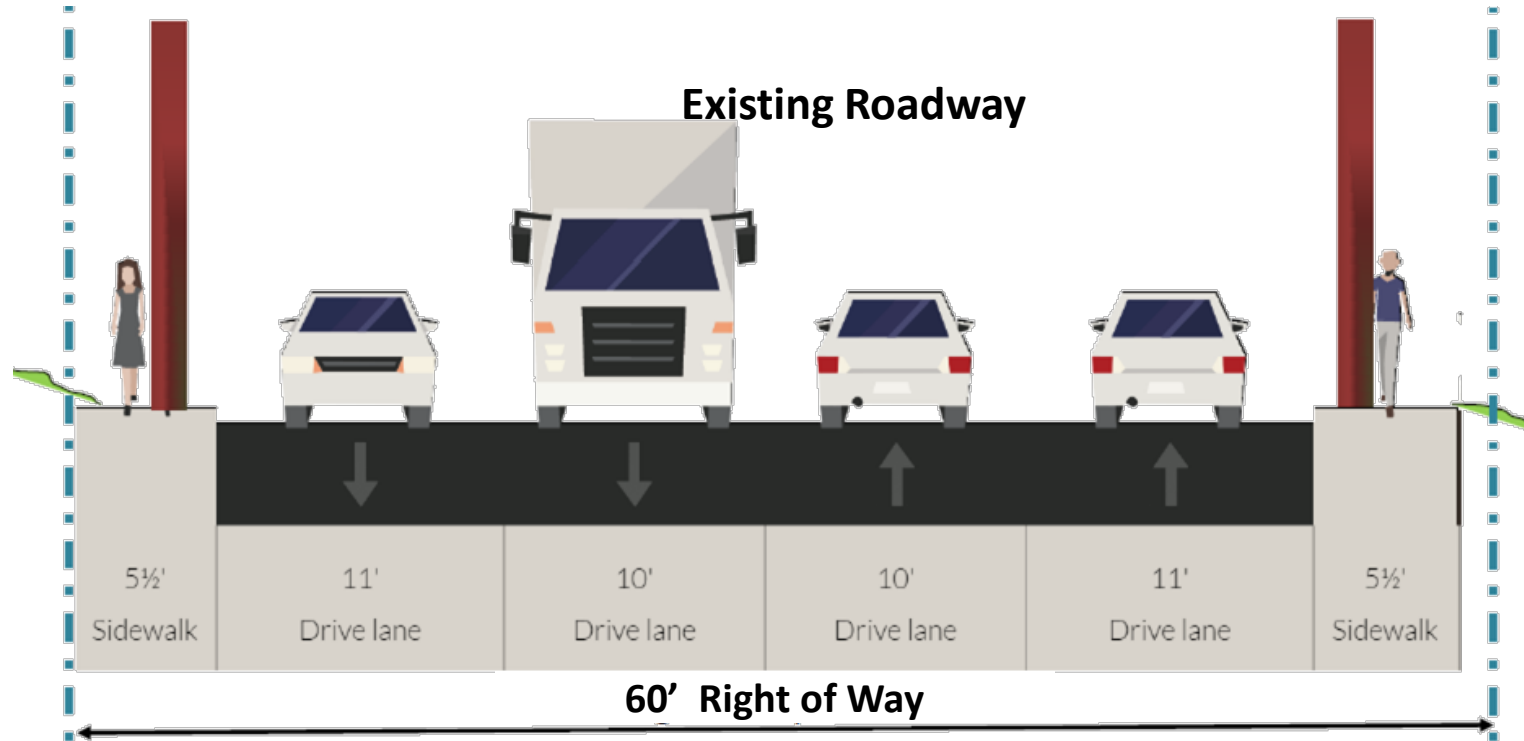
Schedule and process



Project partners



Challenge of limited right of way



Improvement concepts could include widening for:

	Turn lane 12'		Bike lane 5'		Bus Stop 10'
	Bus lane 13'		Sidewalks 8'		Planter 5'

PEDESTRIAN FACILITIES TOOLBOX

Curb Extensions



High-Visibility Crosswalks



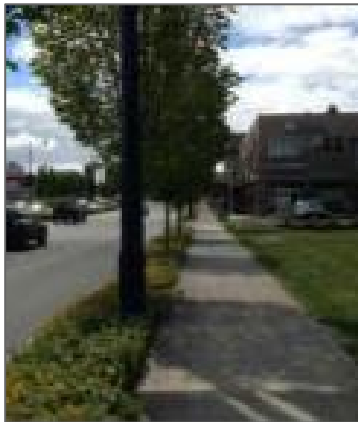
Mid-Block Crossing



Enhanced Pedestrian Signals



Sidewalks



Bus Stop Enhancements



Grade-Separated Crossing



Pedestrian Refuge Island



ADA Curb Ramp



**BIKE
IMPROVEMENTS
TOOLBOX**

Shared Lane Marking



Bike Lane



Buffered Bike Lane



Cycle Track at Grade



**Buffered Bike Lane
with Sidewalk**

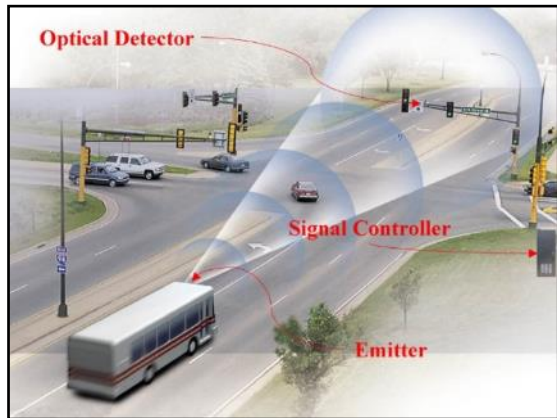


Multi-Use Trail

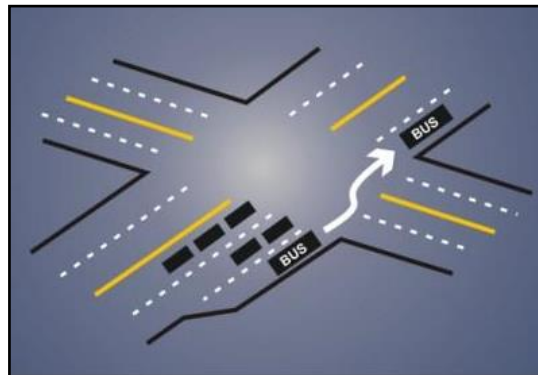


TRANSIT IMPROVEMENTS TOOLBOX

Transit Signal Priority



Queue Jump



BAT Lanes



Off-Board Fare Collection



Bus Stop Amenities



Lighting



**STORMWATER
IMPROVEMENTS
TOOLBOX**

Permeable Pavers



Swales



Rain Garden



Porous Concrete



Silva Cells



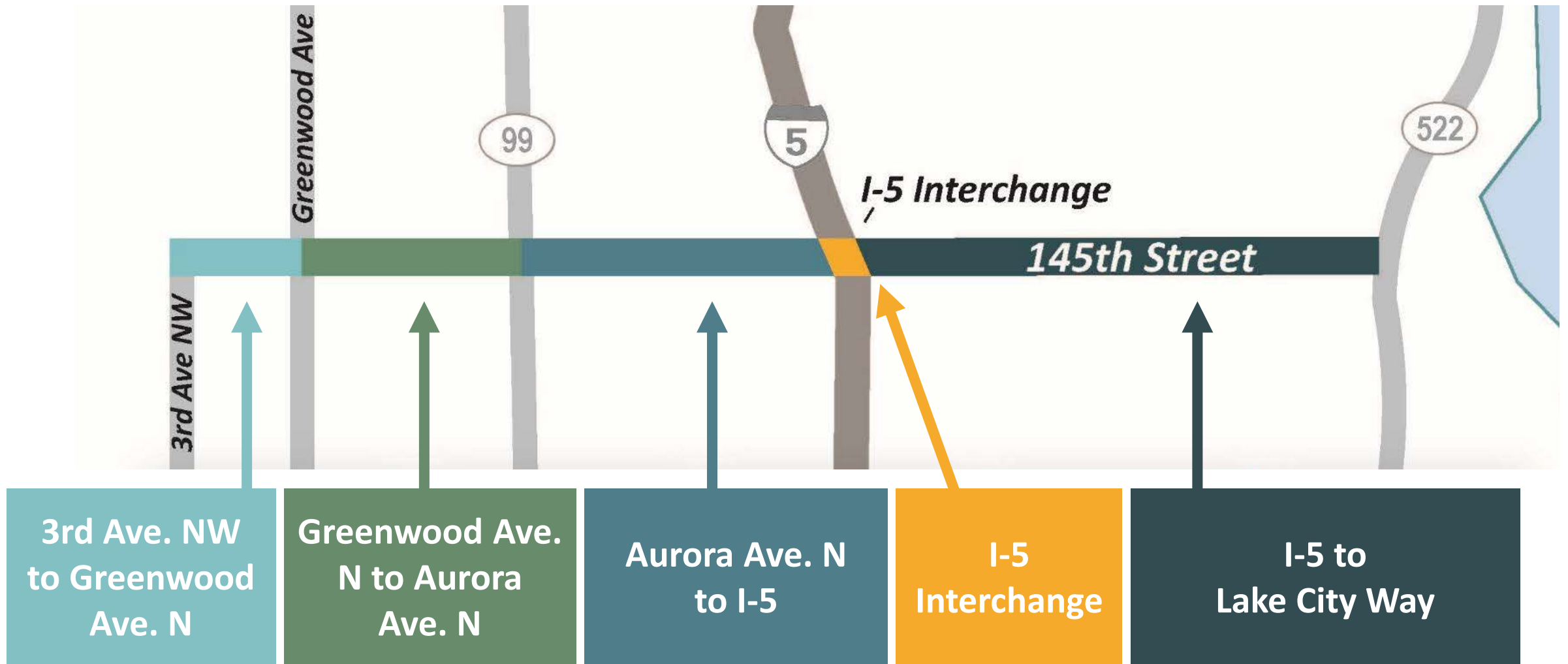
Why other modes of travel are important

- Allows people to choose how they want to travel
- Makes travel possible for those who can't drive, or who can't afford to
- Improves a community's livability
- Encourages healthier behavior
- Can reduce greenhouse gas emissions

Even if you travel by car, providing the opportunity for others to walk, bike or ride the bus benefits you by taking cars off the road.

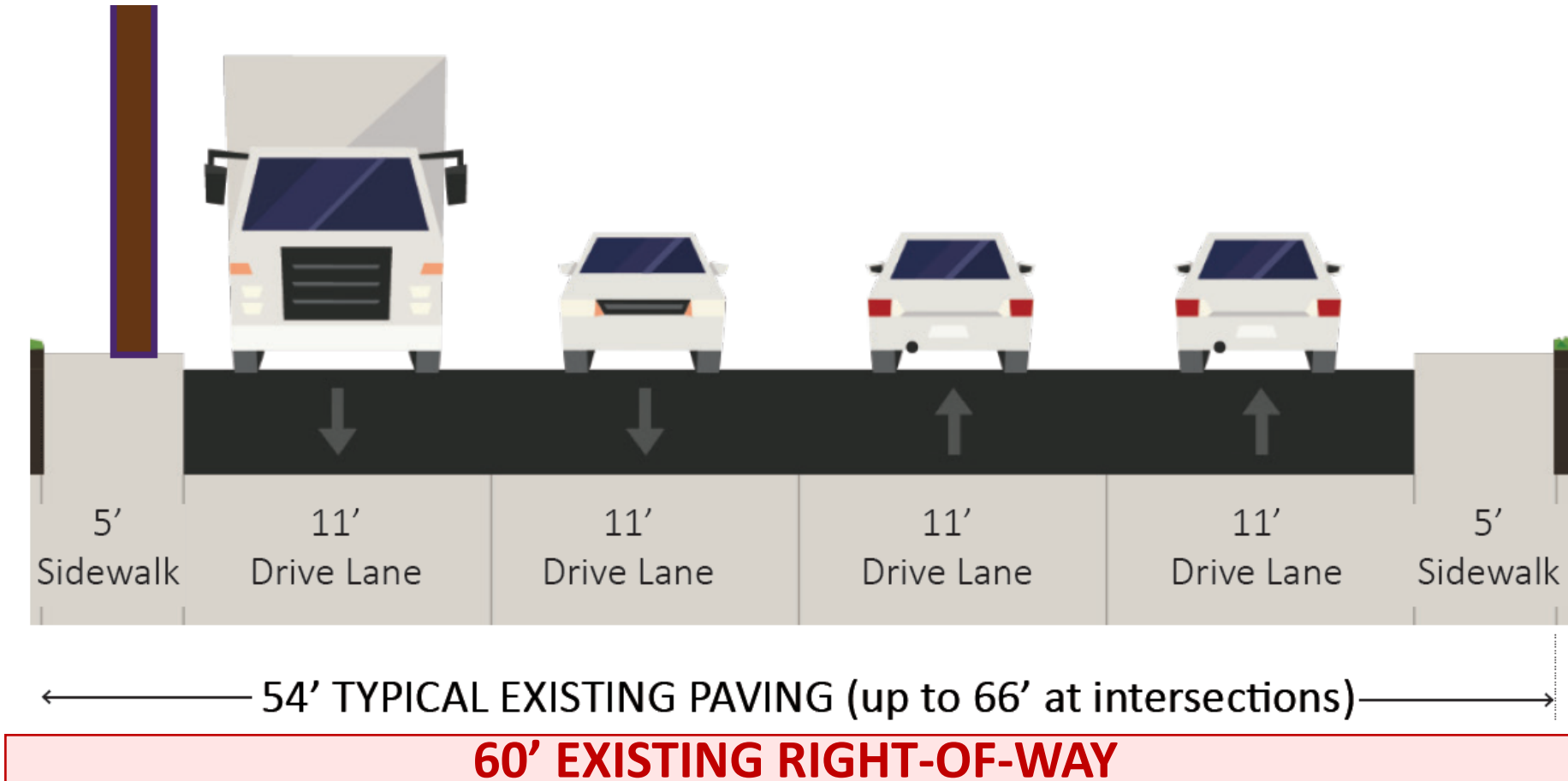


Five corridor contexts



CONCEPT 1: NO ACTION

Aurora to Lake City Way



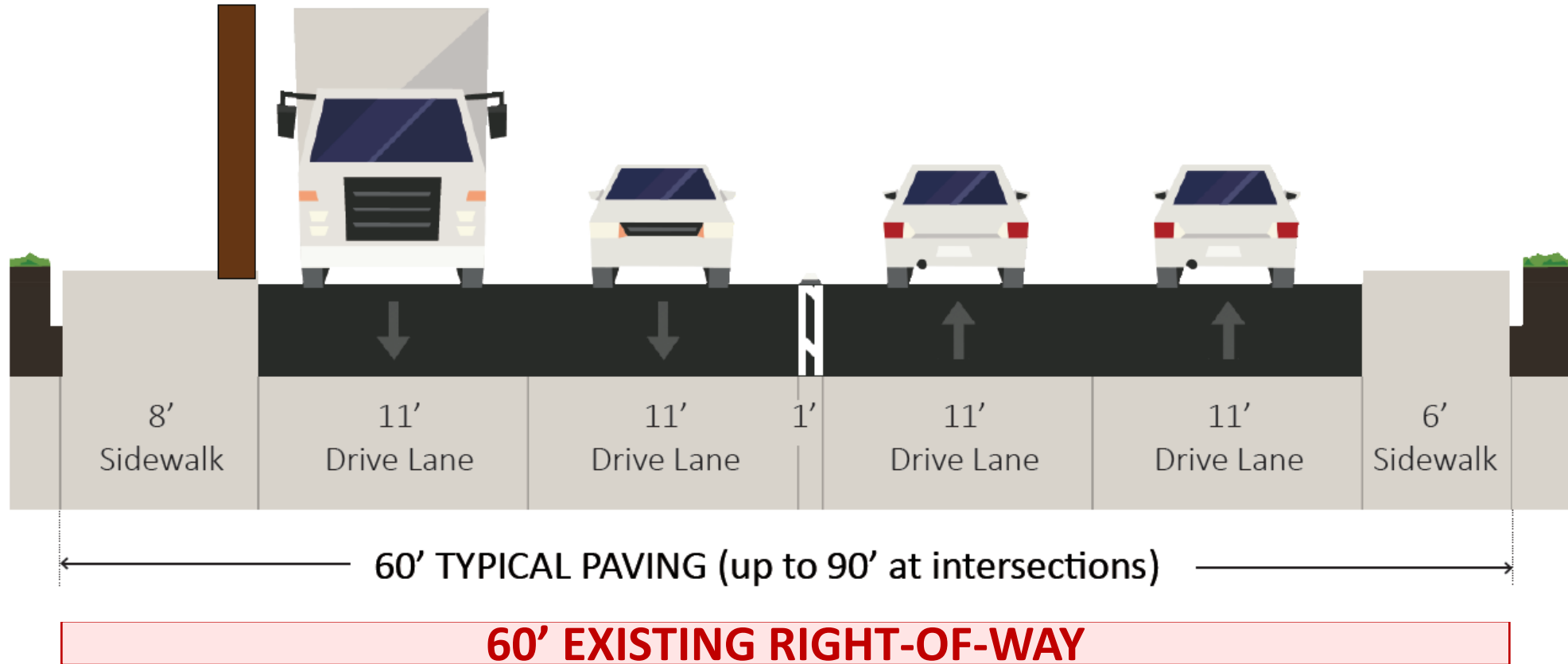
TYPICAL SECTION LOOKING EAST

CONCEPT 1: LOOKING WEST



CONCEPT 2

Aurora to Lake City Way



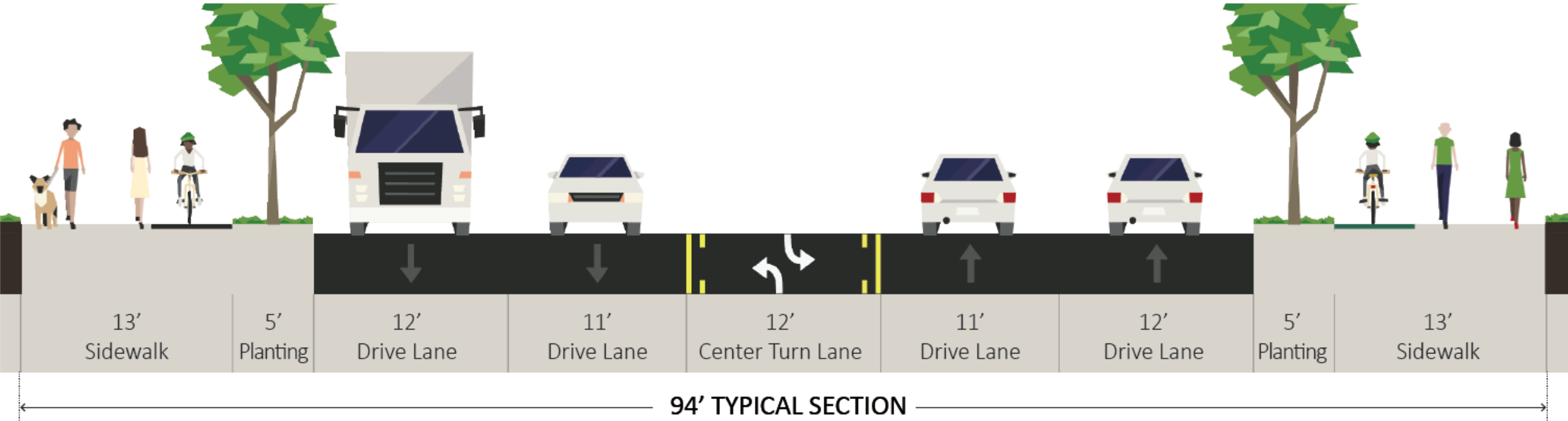
TYPICAL SECTION LOOKING EAST

CONCEPT 2: LOOKING WEST



CONCEPT 3

Aurora to Lake City Way



60' EXISTING RIGHT-OF-WAY

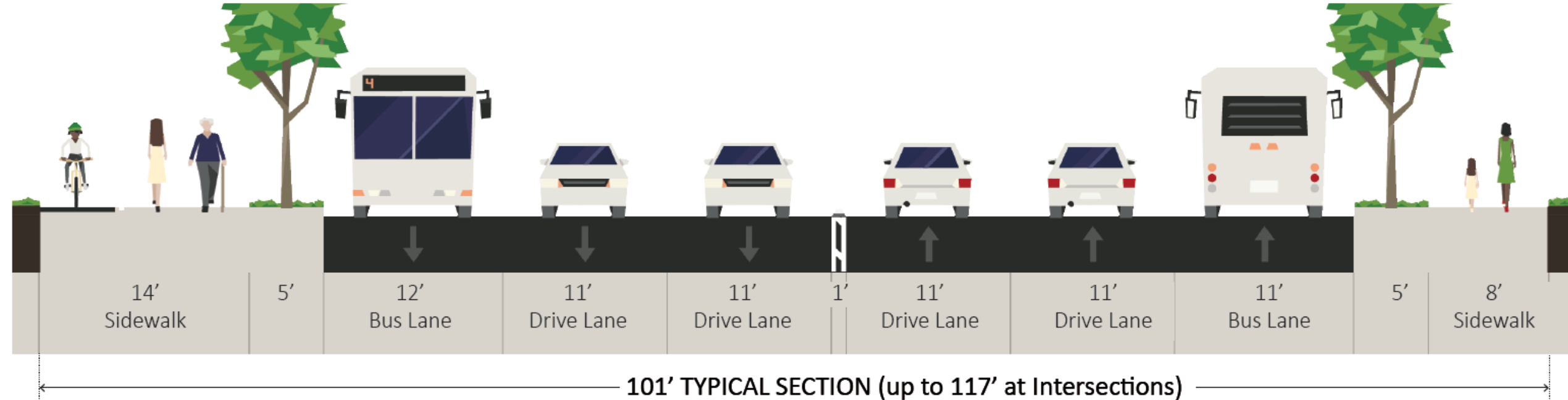
TYPICAL SECTION LOOKING EAST

CONCEPT 3: LOOKING WEST



CONCEPT 3

Aurora to Lake City Way



60' EXISTING RIGHT-OF-WAY

TYPICAL SECTION LOOKING EAST

CONCEPT 4: LOOKING WEST



Evaluation results

From I-5 to Lake City Way

9/26/2015



BENEFITS MEASURES

1 IMPROVED PEDESTRIAN SAFETY AND ACCESS

How well does the study concept improve safety, mobility, accessibility for Pedestrians?

	Study Concept 1 No Action	Study Concept 2 4 Lanes, Bikes Off-Corridor	Study Concept 3 5 Lanes with Two-Way LTL	Study Concept 4 6 Lanes with BAT Lanes
I-5 to Lake City Way (SR 522)				
<p>1 IMPROVED PEDESTRIAN SAFETY AND ACCESS</p> <p>How well does the study concept improve safety, mobility, accessibility for Pedestrians?</p>	○ Several barriers for pedestrian travel remain	● Removes curbs, sidewalk barriers, boardwalk sidewalk; 10' sidewalk, down street City Standard. No Bx for parallel between pedestrian and vehicles. Sidewalk on both sides of road. Minimal intersection delay.	● New sidewalks, remove parallel barriers. 15' sidewalk, meet City Standard. 25' Bx for parallel between pedestrian and vehicles for parallel barriers. 5' 0" lane crossing distance at signalized intersections.	● New sidewalks, remove pedestrian barriers. 15' sidewalk, meet City Standard. 25' separation with vehicle lanes via buffer and curbs for pedestrians. 7' lane crossing distance at signalized intersections.
<p>2 IMPROVED TRANSIT SPEED, RELIABILITY, AND QUALITY</p> <p>How well does the study concept improve Transit performance in the corridor?</p>	○ Lack of transit zone and transit service. No Bx for parallel between pedestrian and vehicles. Most bus stops are not wheelchair accessible.	● Minimal transit zone enhancements. 15' sidewalk, meet City Standard. Bx for parallel between pedestrian and vehicles.	● Wide sidewalks provide comfortable, wide shoulders for transit users. 25% reduction in parallel travel time relative to Concept 1.	● Transit zone with enhanced 10' wide sidewalks provide wheelchair accessibility. 15' sidewalk, meet City Standard. BAT lanes provide for bus stops. Transit benefits are provided regardless of competition in parallel purposes lanes.
<p>3 IMPROVED BIKE SAFETY AND MOBILITY</p> <p>How well does the study concept improve safety, mobility, accessibility for bike riders?</p>	○ No bike facilities through the corridor.	● Off-corridor bike facilities through urban network provide pathways to lower speed streets. No on-corridor bike facilities. Moveable streetlights to be set up in several blocks from the 145th intersection.	● On-corridor bike facilities provide comfortable, wide shoulders for transit users. 25% reduction in parallel travel time relative to Concept 1. 15' sidewalk, meet City Standard. 25' separation with vehicle lanes via buffer and curbs for pedestrians. 7' lane crossing distance at signalized intersections.	● Multiple trail along the corridor. Shared public use of roadway could prevent bike/pedestrian collisions. Blue pathway to be way.
<p>4 IMPROVED VEHICLE SAFETY AND MOBILITY</p> <p>How well does the study concept improve safety and mobility for vehicles and freight?</p>	○ No safety improvements. No safety improvements. Does not meet LOS standards.	● Signal timing and intersection capacity are improved. Meets LOS standards. Storm management controls provide improved safety for flooding events.	● Signal timing and capacity improvements. Meets LOS standards. Storm management controls provide improved safety for flooding events.	● Signal timing and capacity improvements. Meets LOS standards. BAT lanes increase roadway capacity. Storm management controls provide improved safety for flooding events.
<p>5 CONSISTENCY WITH REGIONAL PLANS</p> <p>How well does the study concept integrate with other capital projects including the proposed light rail station and future improvements to the Interstate 5 interchange?</p>	○ No integration, the corridor is not consistent with plans for the light station as well as the City of Shoreline Capital Program.	● Improves non-articulated access to station. Consistent with SR 520 Blue Multi-Modal Plan. Consistent with transit network for Lake City Way.	● Integration with SR 520 Station. Improved non-articulated access to station. Consistent with SR 520 Blue Multi-Modal Plan. Consistent with transit network for Lake City Way.	● Integration with SR 520 Station. Highest level of non-articulated access to station. Consistent with SR 520 Blue Multi-Modal Plan. Consistent with transit network for Lake City Way.
<p>6 OPPORTUNITIES FOR ENVIRONMENTAL ENHANCEMENT</p> <p>How well does the study concept enhance the environment and mitigate impacts to critical areas? How well does the study concept provide for opportunities to upgrade stormwater quality?</p>	○ No impacts to existing critical areas. Does not improve or enhance.	● Potential to mitigate impacts to critical areas.	● Potential to mitigate impacts to critical areas.	● Potential to mitigate impacts to critical areas. Stormwater management improvements. Potential to enhance critical areas. Stormwater management.
<p>7 SUPPORTS ECONOMIC DEVELOPMENT</p> <p>How well does the study concept encourage and support private investment in the corridor through improvements such as transit, upgraded utilities and enhanced aesthetics?</p>	○ No improvements.	● Improves transit capacity. Improves access to transit.	● Improves roadway, transit users of sidewalk and bus loading. Provides neighborhood character. Improves multi-modal capacity and non-articulated mobility. Improves access to transit.	● Highest quality transit stop design improvements including utility relocation. Higher potential for transit-oriented development, a potential for high capacity transit to occur. Highest potential for aesthetics.
<p>8 FUNDING FEASIBILITY</p> <p>How well will the study concept support the ability to compete for grant funding or secure direct funding? How well do the transportation elements align with grant funding criteria, such as multimodal improvements, transit, and livability?</p>	○ N/A	● Lowest cost alternative. Provides moderate ability improvements for pedestrians. Does not provide significant transit benefits.	● Higher cost than Concept 2, lower than Concept 4. Does not provide significant transit benefits.	● Highest cost of alternatives. Improves local and regional mobility. Improves safety of all users. Provides more opportunity for funding partnerships.
TRADE OFFS				
<p>8 PROPERTY IMPACTS</p> <p>How well does the study concept minimize impacts to property and business owners by limiting right-of-way acquisition, avoiding existing structures and improvements or maintaining access?</p>	○ No property impacts.	● Impacts up to 5% of parcels along the corridor.	● Impacts up to 10% of parcels along the corridor.	● Impacts up to 10% of parcels along the corridor. Highest rate of right-of-way acquisition.
<p>9 CAPITAL COST</p> <p>What is the relative capital cost?</p>	○ Lowest project costs. On average, \$14M per mile of project.	● Lowest cost of all alternatives.	● Higher cost than Concept 2, lower than Concept 4.	● Highest cost of all alternatives.

Your input is critical

From Aurora Ave. N to I-5



Less Important to Me.
I don't feel that this is worth
cost or property impacts.

More Important to Me.
I feel strongly that this is needed,
even if it impacts cost or property.



Improving Pedestrian Walkability is...

Sidewalks, landscape buffers, ADA accessibility, wheelchair ramps, crosswalks and pedestrian signals



Improving Bus Transportation is...

Frequency of bus service, travel speed through the corridor, can count on my bus to be on-time, ease of use



Improving Bike Facilities is...

Continuous bike pathways through the corridor, safe separation from vehicle traffic, proximity to the 145th Street corridor



Improving Flow of Traffic is...

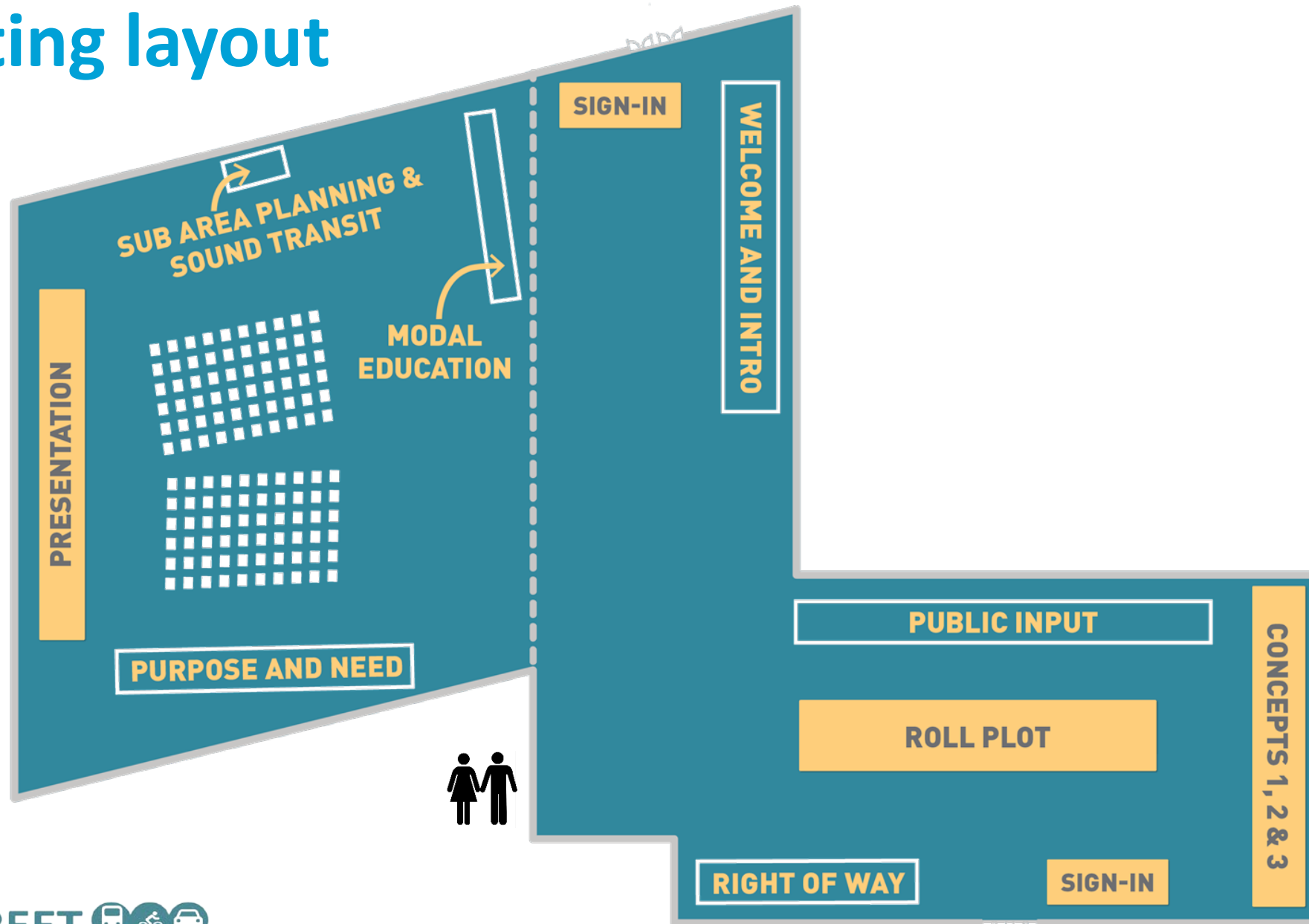
Reducing congestion through the corridor, ability to make turns safely



Improvements to Transportation Safety is...

Controlling speeds, reducing turn conflicts, mid-block pedestrian crossings, improving sight lines

Meeting layout





Thank you

