

NE 145th Street Multimodal Corridor Study

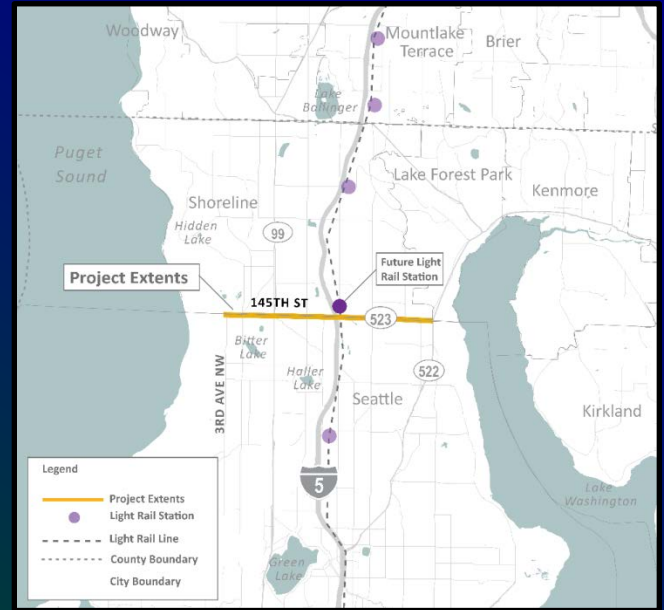
Shoreline City Council Update

August 17, 2015



Why are we doing this study?

- NE 145th Street is a key regional connection to I-5, Lake City Way (SR522), and Aurora (SR99) and cities to the north and east.
- Light rail station is coming--the need for safe and reliable travel in the corridor is critical.
- NE 145th Street is a principal arterial that connects Shoreline and Seattle neighborhoods, businesses, parks and services.



What's the problem?

- Deteriorating traffic congestion
- Deficient pedestrian and bike environment
- Few bus routes due to congestion and poor pedestrian facilities.
- Light rail station coming but people can't get there easily
- Collision records show unsafe conditions for cars, bikes, and pedestrians



What's the problem?



Bad and deteriorating traffic congestion and deficient pedestrian and bike environment



Non-ADA accessible pathways and many pedestrian barriers



Lack of transit and bus stop facilities due to congestion and poor pedestrian facilities



Poor sight distance and lack of left-turn management contribute to safety concerns

What's the problem?



Station with 6,000 weekday boardings

500 stall parking garage

Light rail station coming to 145th Street, but people can't get there easily



One of 300 poles centered in sidewalks on 145th Street



Pedestrians walking along 1st Ave NE – a roadway without pedestrian or bike facilities within a block of the 145th station



Pedestrians walking along 145th Street

What are the goals?

Create a corridor where you can walk, bike,
bus, and drive safely,
and . . .

Develop transportation improvements that:

- Support the local economy
- Protect the environment
- Support a vibrant community
- Supports future light rail

What are the project goals?

1. Develop a preferred design concept that will improve the safety, mobility and accessibility for all users along and across the corridor.
2. Arrive at a preferred design concept that will emphasize the movement of people through all modes by enhancing the attractiveness of transit, walking and cycling along the corridor.
3. Develop a preferred design concept that optimizes efficient movement of people and goods.

What are the project goals?

4. Arrive at a preferred design concept that can support both local and regional economic development objectives by stimulating interest in reinvestment or redevelopment of property along the corridor and near the 145th Street light rail station.
5. Arrive at a preferred design concept that supports City of Shoreline and City of Seattle plans and policies.
6. When identifying the preferred design concept, consider the impacts to adjacent property and business owners resulting from right-of-way acquisition and the construction of improvements including access to property and impacts to existing buildings and improvements.



What are the project goals?

7. Arrive at a preferred design concept that allows utilities to access, operate, maintain and upgrade facilities in a way that meets the system and/or service requirements for the street and the areas this corridor serves.
8. Arrive at a preferred design concept that provides environmental benefit and mitigation for impacts to critical areas.
9. Improve aesthetics in a manner that improves the comfort of the user and considers enhancements to views.

What are the project goals?

10. Involve adjacent residents, property and business owners, the public and affected jurisdictions in the decision making process to allow for consideration of all needs along the corridor.
11. Arrive at a preferred design concept that allows different characteristics and features along the corridor and has the flexibility to incorporate site specific constraints, such as environmentally critical areas.

Background

- Met with WSDOT Secretary Peterson and Assistant Secretary Scarton last August on a tour of the corridor.
- Consultant selection/contract approval.
- On-going City Council briefings
- Future funding
 - \$4.6M PSRC funding for design for Aurora to I-5
 - \$25M State funding for entire corridor

Stakeholder Outreach

- First open house on May 20
- Ongoing coordination with Citizen's Advisory Task Force (CATF)
- Ongoing coordination with Interjurisdictional Technical Team (ITT)

SDOT, WSDOT, King County Metro, SoundTransit, PSRC, and neighboring cities along the SR-522 corridor

- Additional outreach with key stakeholders

(Seashore letter in support of High Capacity Transit on 145th)



Project Partners



City of Seattle

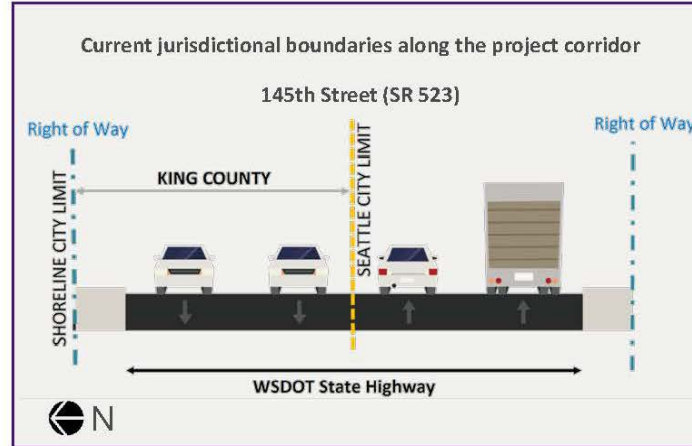


King County

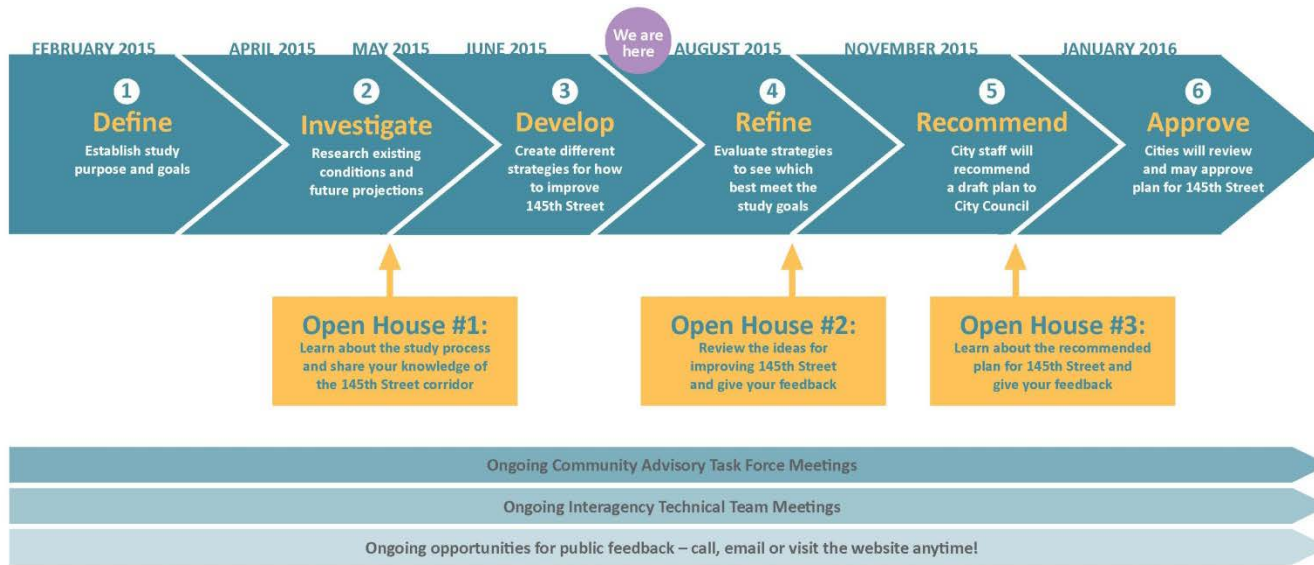
Puget Sound Regional Council
PSRC



City of Bothell



Project Process

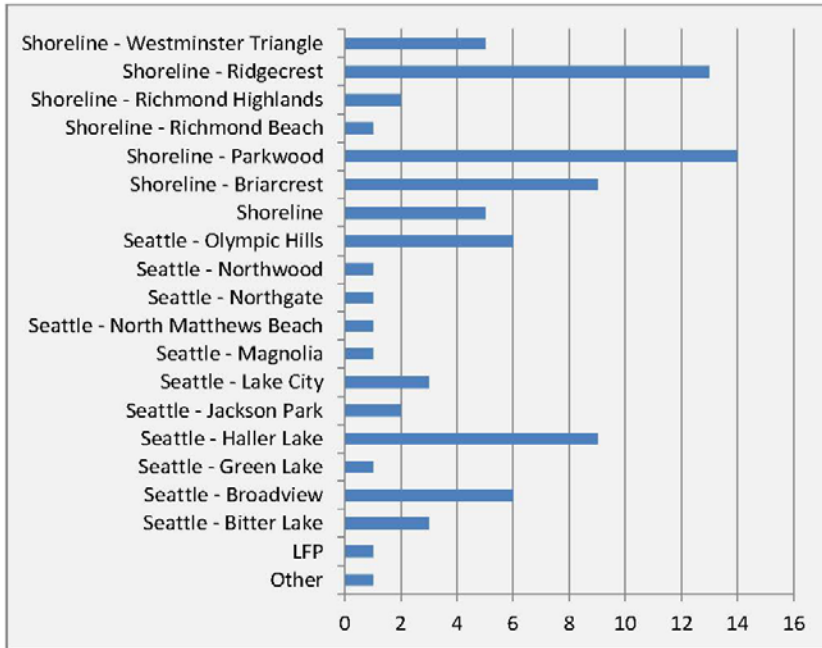


Where we are:

- Evaluate solutions that address all modes of travel —pedestrians, bicycles, transit, and vehicles.
- “Book-end” a range of alternatives.
- Confirm with stakeholders that we are “on track”.

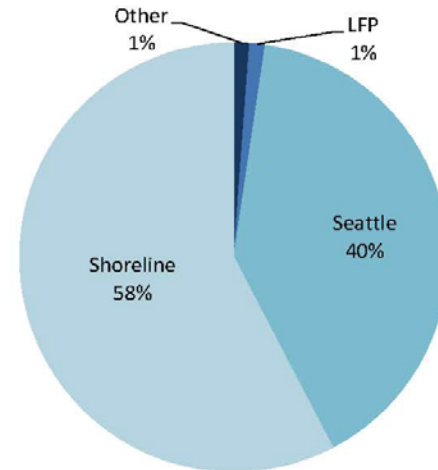
First Open House
May 20, 2015 . . .

QUESTION: *Where do you live (city and neighborhood)?*

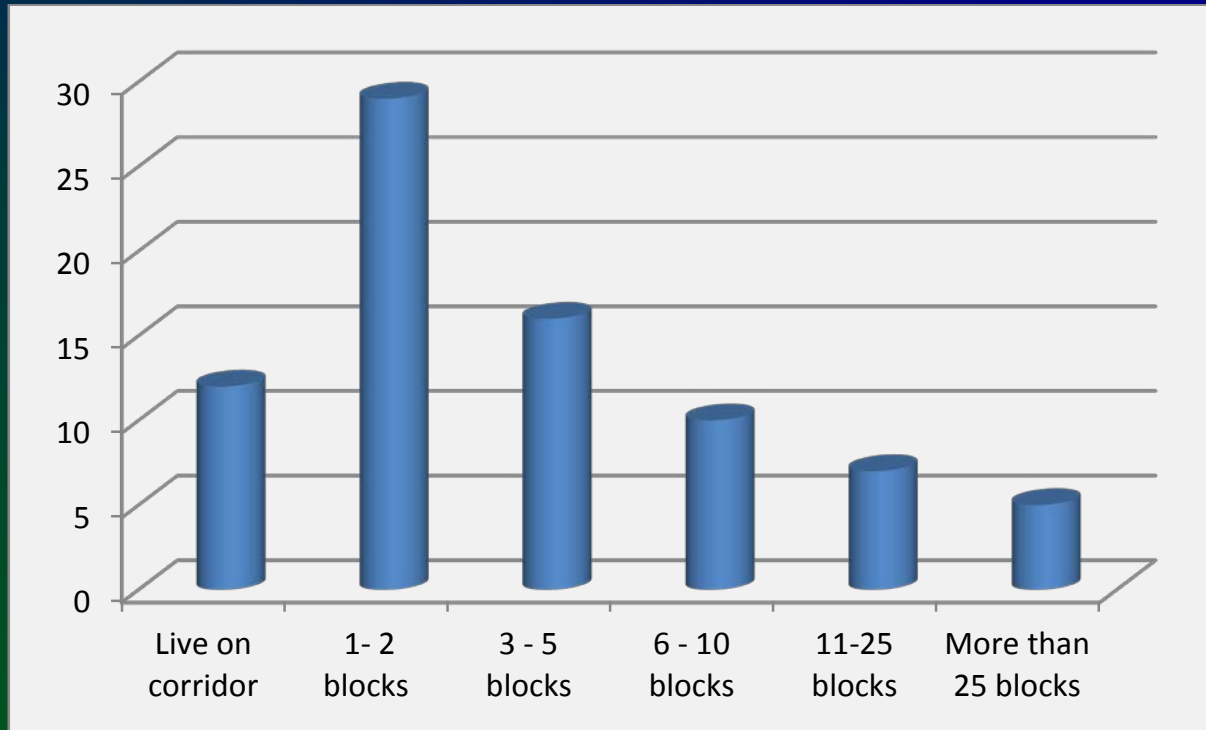


85 people responded

Where do you live?



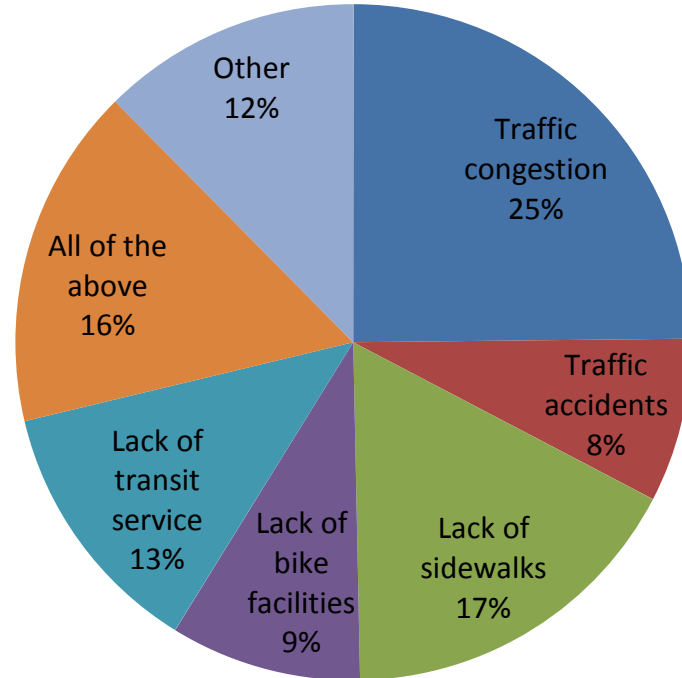
Approximately how many blocks from 145th Street do you live?



What are the biggest problems on 145th?

81 people listed 153 choices

Traffic congestion	38
Lack of sidewalks	26
All of the above	25
Traffic accidents	12
Lack of transit service	19
Other	19
Lack of bike facilities	14



What we heard at open house:

- Provide a safe pedestrian environment and improve ADA accessibility.
- Provide bicycle facilities along corridor and off-corridor.
- Improve transit service.
- Do not reduce number of vehicle lanes.
- Need improvements at intersections.
- Consider impacts to property owners along corridor.
- Property acquisition should not be on Shoreline side only.
- Shoreline residents should not bear project costs alone.

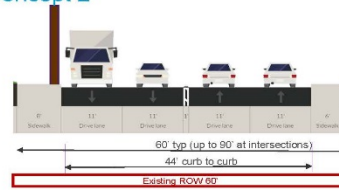
Comparison of study concepts

Typical Sections – Mid-block

Aurora to SR522

Length = 2.45 miles

Study Concept 2



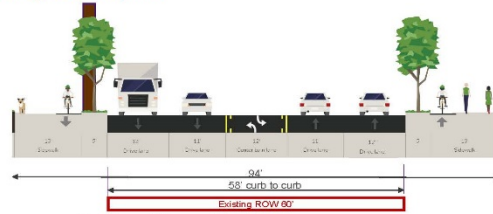
- 4 traffic lanes, limited left turns, U-turns
- No bus lanes
- Minimal ADA accessible sidewalks
- Off-corridor bike facilities, "greenway"
- Utility poles on both sides of roadway. Sidewalk will vary based on presence of utility pole.

Preliminary Property Impact Summary

DRAFT Aurora Ave to I-5	
ROW Impacts (#)	38,400
Full Acquisitions	23 (24%)
Parcel Impacts	63 (68%)
Total Number of Parcels	96

DRAFT I-5 to Lake City Way	
ROW Impacts (#)	65,300
Full Acquisitions	17 (14%)
Parcel Impacts	82 (69%)
Total Number of Parcels	120

Study Concept 3



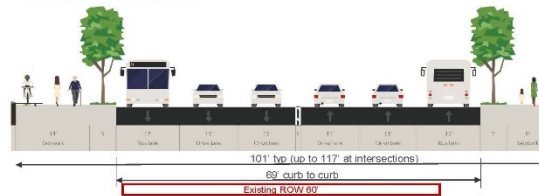
- 4 traffic lanes with two-way left turn lane
- No bus lanes
- 5' amenity zones/planter
- 13' sidewalks includes 5' striped directional bike lane each side
- Utility poles in amenity zone

Preliminary Property Impact Summary

DRAFT Aurora Ave to I-5	
ROW Impacts (#)	124,200
Full Acquisitions	40 (42%)
Parcel Impacts	86 (100%)
Total Number of Parcels	96

DRAFT I-5 to Lake City Way	
ROW Impacts (#)	221,500
Full Acquisitions	55 (46%)
Parcel Impacts	120 (100%)
Total Number of Parcels	120

Study Concept 4



- 4 traffic lanes, limited left turns, U-turns
- Bus lanes / right turn lanes
- 8' sidewalks with 5' amenity zones/planter on one side
- Shared path on one side
- Utility undergrounding

Preliminary Property Impact Summary

DRAFT Aurora Ave to I-5	
ROW Impacts (#)	145,000
Full Acquisitions	65 (69%)
Parcel Impacts	96 (100%)
Total Number of Parcels	96

DRAFT I-5 to Lake City Way	
ROW Impacts (#)	258,200
Full Acquisitions	70 (58%)
Parcel Impacts	120 (100%)
Total Number of Parcels	120

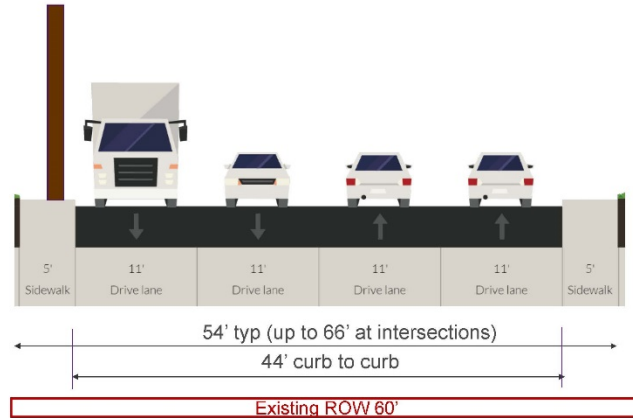


Study concepts . . .



Study Concept 1 – No Action/Existing Conditions

Greenwood to SR522

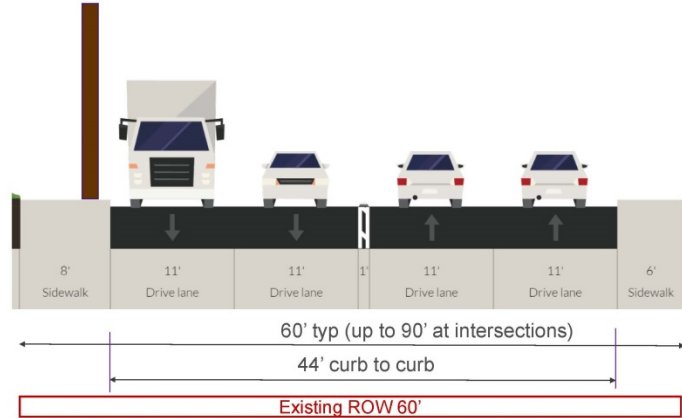


- 4 traffic lanes
- No bus lanes
- Non-accessible sidewalks
- No bike facilities
- Utility poles exist on both sides of roadway

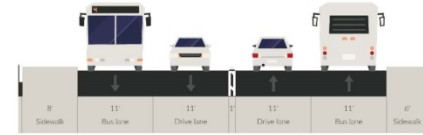
Study Concept 2

Aurora to SR522

Length = 2.45 miles



- 4 traffic lanes, limited left turns, U-turns
- No bus lanes
- Minimal ADA accessible sidewalks
- Off-corridor bike facilities, “greenway”
- Utility poles on both sides of roadway. Sidewalk will vary based on presence of utility pole.

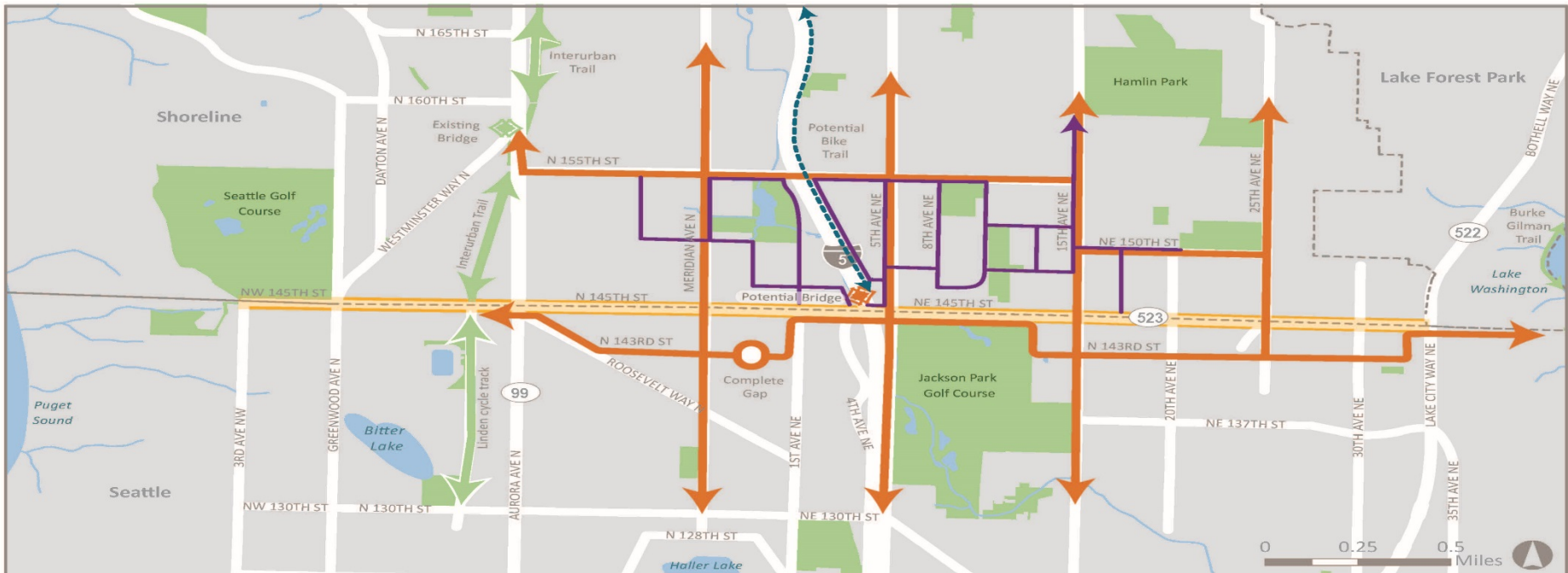




Concept 2A – with BAT lanes



Preliminary Property Impacts

DRAFT Aurora Ave to I-5	
ROW Impacts (ft ²)	38,400
Full Acquisitions	23 (24%)
Parcel Impacts	63 (66%)
Total Number of Parcels	96

DRAFT I-5 to Lake City Way	
ROW Impacts (ft ²)	65,300
Full Acquisitions	17 (14%)
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Total Number of Parcels	120



 Study Corridor
 Waterbody

 Park/Trail
 City Boundary

 Proposed Bike Network
 Sound Transit Lynnwood Link Potential Bike Trail

 N 145th St Station Subarea Potential Green Network Concept

OFF CORRIDOR BIKE NETWORK STUDY CONCEPT 2

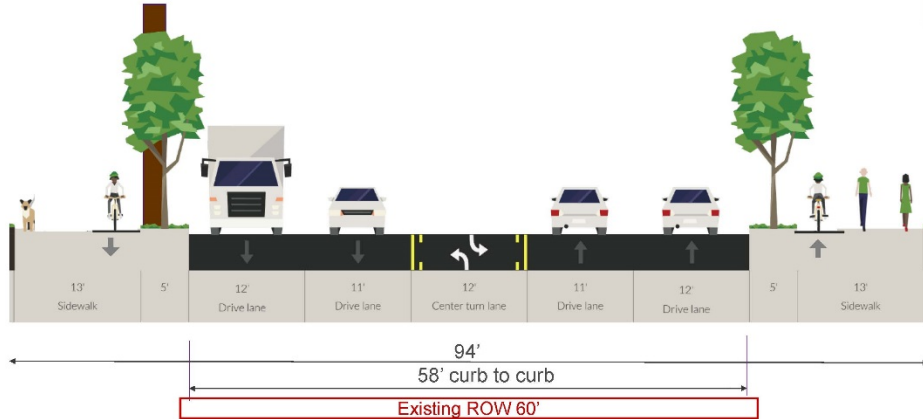
145TH STREET
Multimodal Corridor Study



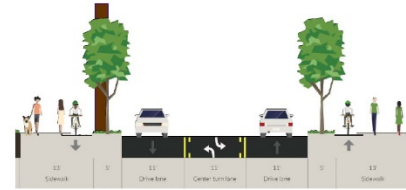

Study Concept 3

Aurora to SR522

Length = 2.45 miles



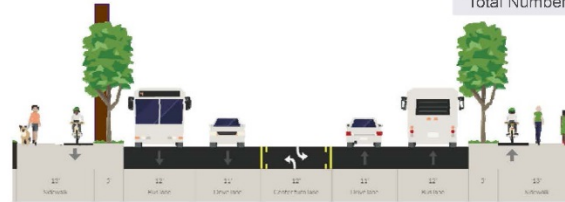
- 4 traffic lanes with two-way left turn lane
- No bus lanes
- 5' amenity zones/planter
- 13' sidewalks includes 5' striped directional bike lane each side
- Utility poles in amenity zone



Concept 3A – “Road Diet”

Preliminary Property Impacts

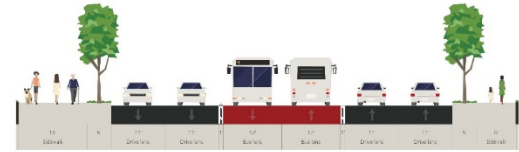
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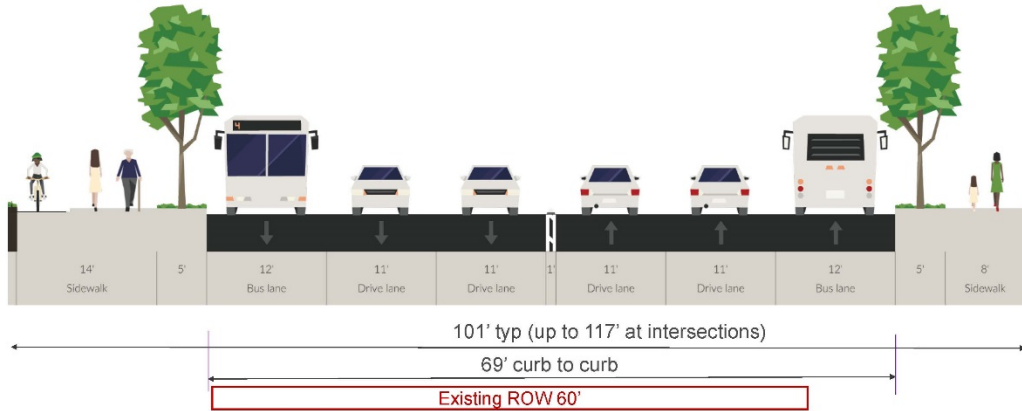
Concept 3B – with BAT lanes

Study Concept 4

Aurora to SR522
Length = 2.45 miles



Concept 4A –Center Two-lane Bus way



- 4 traffic lanes, limited left turns, U-turns
- Bus lanes / right turn lanes
- 8' sidewalks with 5' amenity zones/planter on one side
- Shared path on one side
- Utility undergrounding

Preliminary Property Impacts

DRAFT Aurora Ave to I-5	
ROW Impacts (ft ²)	145,000
Full Acquisitions	65 (68%)
Parcel Impacts	96 (100%)
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DRAFT I-5 to Lake City Way	
ROW Impacts (ft ²)	256,200
Full Acquisitions	70 (58%)
Parcel Impacts	120 (100%)
Total Number of Parcels	120

Connectivity with light rail station

- Pedestrians, bicycles, vehicles and transit



Comparison of three concepts . . .

Evaluation tools

LEGEND:



Least or worst



Most or best

1 IMPROVED PEDESTRIAN SAFETY AND ACCESS

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



- Several barriers for pedestrian travel remain



- Removes existing sidewalk barriers, keeps poles in sidewalk
- 6' sidewalk, does not meet City Standard
- No buffer provided between pedestrians and vehicles
- 5-6 lane crossing distance at signalized intersections



- New sidewalks, removes pedestrian barriers
- 13' sidewalk, meets City Standard
- 5' to 10' separation with vehicles creates safe buffer and comfort for pedestrians
- 5 - 6 lane crossing distance at signalized intersections



- New sidewalks, removes pedestrian barriers
- 13' sidewalk, meets City Standard
- 5' separation with vehicles creates comfort for pedestrians
- 7 lane crossing distance at signalized intersections

2 IMPROVED TRANSIT SPEED AND RELIABILITY

How well does the study concept improve Transit performance in the corridor?



- Lack of transit zones and transit service
- 9.5 minute estimated transit travel time thru section
- Most bus stops are not wheelchair accessible



- Minimal transit zone enhancements
- 7.7 minute estimated transit travel thru section
- Buses can get trapped in bus pull-outs



- Wide sidewalks provide comfortable environment for transit users
- 7.7 minute estimated transit travel time thru section
- In-lane bus stops



- Transit zone enhancements and comfortable environment
- 6.2 minute estimated transit travel time thru section
- BAT lanes provide in-lane bus stops
- Transit benefits are provided in general purpose lanes

3 IMPROVED BIKE SAFETY AND MOBILITY

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



- No bike facilities through the corridor



- Off-corridor bike facilities through green network provides pathways on lower speed streets
- No on-corridor bike pathways
- Shoreline side routing is indirect, up to several blocks from the 145th corridor



- Buffered directional bike lanes on corridor provides separation from vehicles
- Intersection designed to reduce bike-vehicle conflicts at intersections
- Bike lanes are one-way, both sides of roadway, requiring crossing of 1-5th to access lanes



- Multi-use trail along the corridor
- Shared path, one side of roadway
- Pedestrian conflicts
- Bike pathway is two-way

4 IMPROVED VEHICLE SAFETY AND MOBILITY

How well does the study concept improve safety and mobility for vehicles and freight?



- No mobility improvements
- No safety improvements
- Does not meet LOS standards



- Signal timing and intersection capacity are improved
- Meets LOS standards
- Access management - curb, provides improved safety for turning conflicts



- Signal timing and capacity improvements
- Meets LOS standards
- Two-way left turn lane does not resolve mid-block turning conflicts, collisions



- Signal timing and capacity improvements
- Meets LOS standards
- BAT lanes increase roadway capacity
- Access management and turn safety for turning conflicts

5 CONSISTENCY WITH REGIONAL PLANS

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?



- Not improving the corridor is not consistent with plans for the LRT station as well as the City of Shoreline Comp Plan goals.



- Improves non-motorized access to station
- Consistent with SDOT Bike Master Plan
- Does not meet City standards for sidewalks



- Integration with ST LRT Station
- Aesthetic improvements consistent with neighborhood character
- Integration with bike master plans



- Integration with ST LRT Station
- Integration with ST and 4CM to I-5
- Highest level of landscaping/utility undergrounding consistent character
- Integration with modal plans for transit

6 IMPROVES STORMWATER MANAGEMENT

How well does the study concept enhance the environment and



- No impacts to existing critical areas



- No impacts to existing critical areas



- Potential for low impact development (LID)



- Potential for low impact development

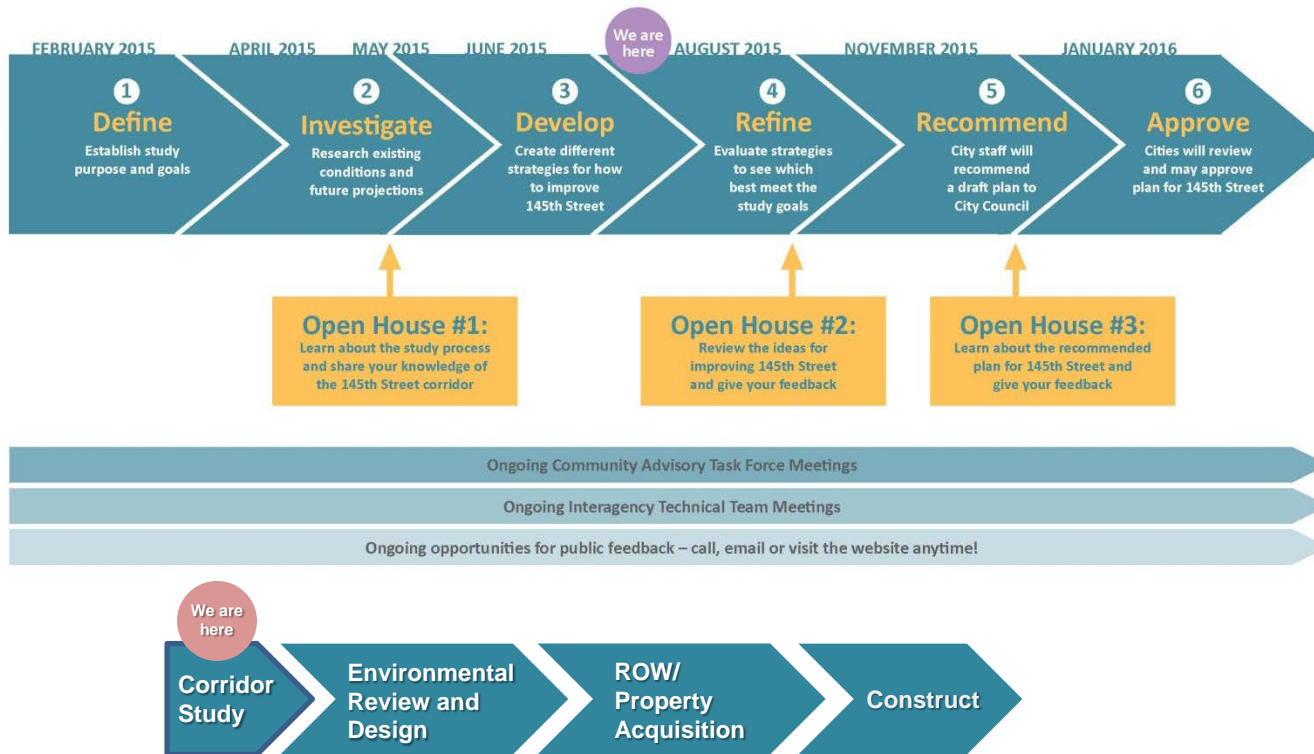
What we are doing next:

- Further analysis of three study concepts.
- Preferred concept selection
- Assess impacts and develop project cost estimate.

Overall process and next steps . . .



Project Process



Questions?

