

Lake Forest Park

SAFE HIGHWAYS

Accessible. Efficient. Complete.

Join the discussion!

Open House 3

SR 104 & SR 522

AGENDA

6:00 Start of Open House

6:15 Formal Presentation

7:00 Visit Stations

8:00 Adjourn

About the Project

Background

THE CHALLENGE

The City of Lake Forest Park is a suburban community that over 13,000 residents call home. True to its name, Lake Forest Park is defined by its proximity to Lake Washington and its forested, park-like ambiance. Lake Forest Park is also defined by two major highway corridors that traverse the community: Bothell Way (SR 522) and Ballinger Way (SR 104). While these corridors connect residents to jobs, services, and other regional opportunities, they also divide the community by their sheer size, traffic volumes, and outdated designs, which offer little in the way of accommodations for those not traveling by car.

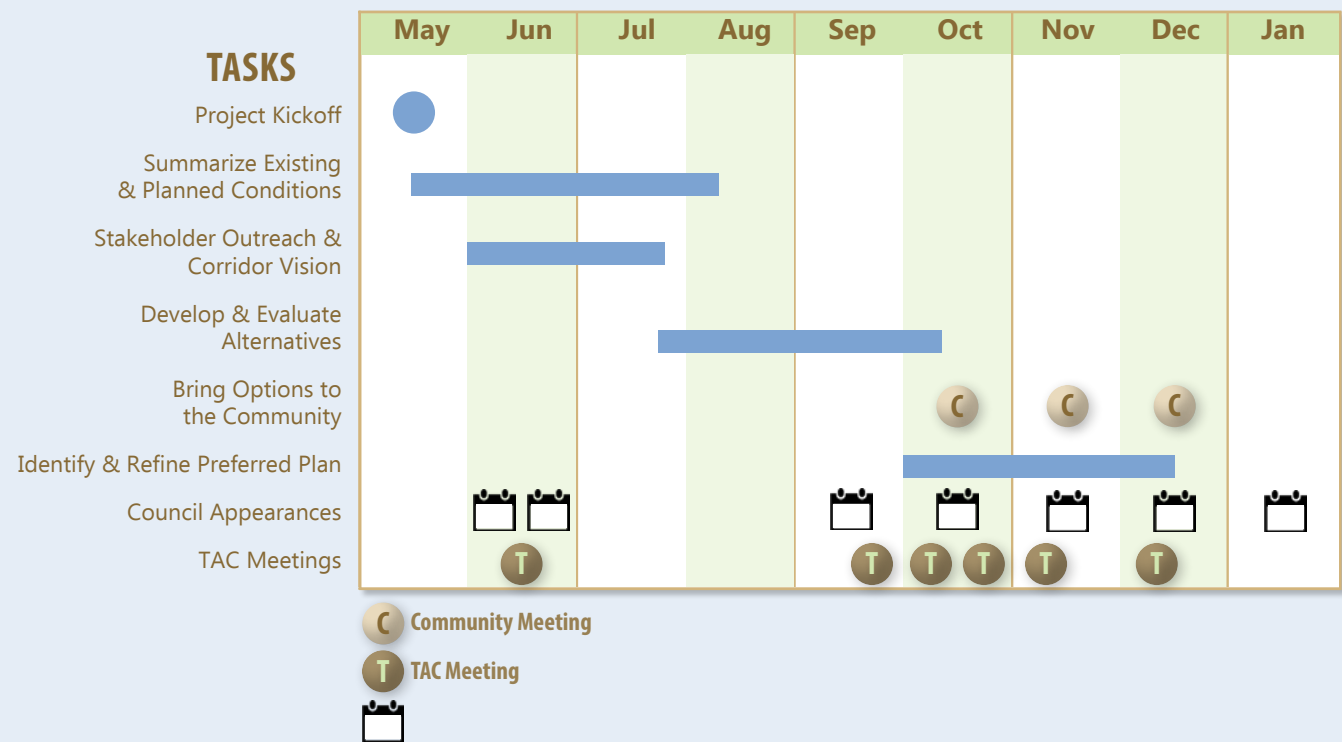
THE PLAN

In 2016, the Lake Forest Park City Council adopted a Strategic Plan that identified the need to proactively plan the SR 522 and SR 104 corridors to improve safety and community mobility. **In November 2016, Lake Forest Park and regional voters passed Sound Transit 3, a \$54 billion package to expand transit in the Puget Sound region through 2041. Sound Transit 3 includes funding to improve SR 522 to accommodate planned bus rapid transit (BRT) service by 2024.**

Safe Highways

The Safe Highways Study is a product of the City's 2016 Strategic Plan. The Study is documenting preferred cross-sections and treatments along the SR 522 and SR 104 corridors. It is the City's intention that this Study's recommendations will

- be informative to Sound Transit in the planning of the SR 522 corridor;
- aid in the identification of non-BRT improvements requiring regional investment; and
- provide a starting point for regional investment along SR 104.



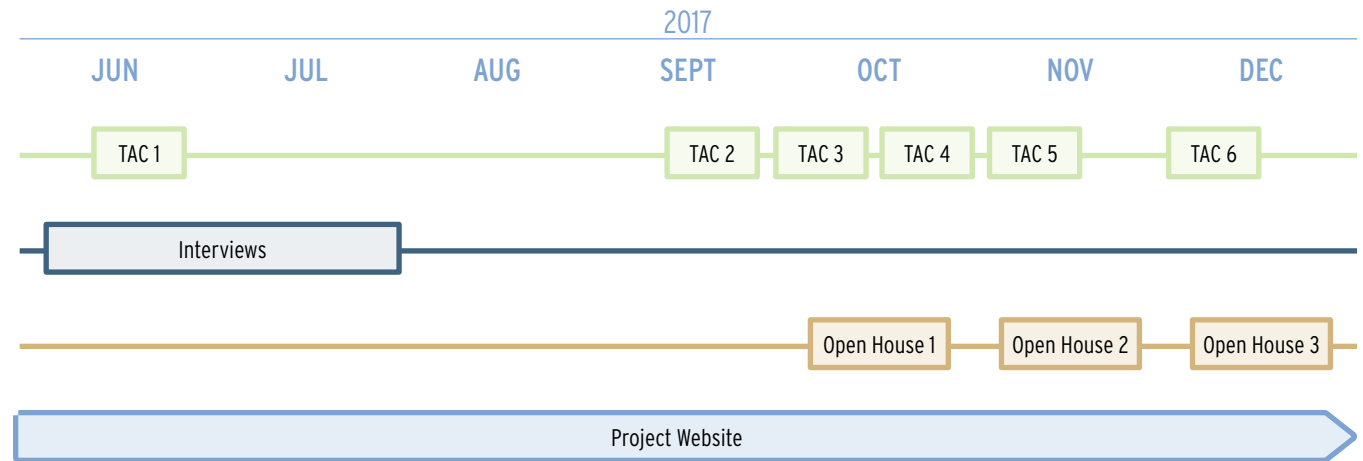
Outreach Process

Project Website

Goal: Provide up-to-date information about the project, relevant documents, and ways to get involved.



www.lfpsafehighways.com



Technical Advisory Committee (TAC)

Goal: Bring together specialists from neighboring jurisdictions and relevant agencies to guide the plans for SR 104 and 522. Members represent the following organizations:

- City of Shoreline
- City of Kenmore
- City of Mountlake Terrace
- City of Seattle
- WSDOT
- Sound Transit
- King County Metro
- Merlone Geier (Owner of Town Center)

Interviews

Goal: Talk with community stakeholders (as well as the Technical Advisory Committee members) to learn more about the needs and opportunities along SR 104 and 522. Stakeholders represent the following organizations:

- Lake Forest Park Elementary
- Third Place Commons
- Third Place Books
- Residents (3)
- NW Kidney Center
- Lake Forest Park
- Stewardship Foundation
- Sheridan Beach Club
- Presbyterian Church
- Peruvian Consulate
- Windermere Realty
- Acacia Cemetery

Public Open Houses

Goal: Hear community feedback on cross-sections, intersection treatments, and non-motorized options for SR 104 and 522.



Guiding Principles



FOR THE PROJECT

- Engage the community and respect neighborhoods
- Recognize each corridor's role in regional mobility and local mobility access
- Coordinate with state, regional entities, and neighboring cities to identify mutually beneficial solutions
- Create equitable corridors that provide safe and inviting travel for all people, regardless of mode, age, or ability

FOR SR 104

- Address safety for all modes
- Maintain the corridor's unique identity and natural landscape
- Take a phased approach that provides benefits over time
- Consider draw on city's financial resources in selecting design solutions; as well as positioning improvements well for regional, state and federal investment
- Protect natural environment and encourage low impact design approaches
- Plan corridor to discourage neighborhood cut-through traffic
- Minimize impacts on neighboring properties (e.g. right-of-way, access, noise, visibility)

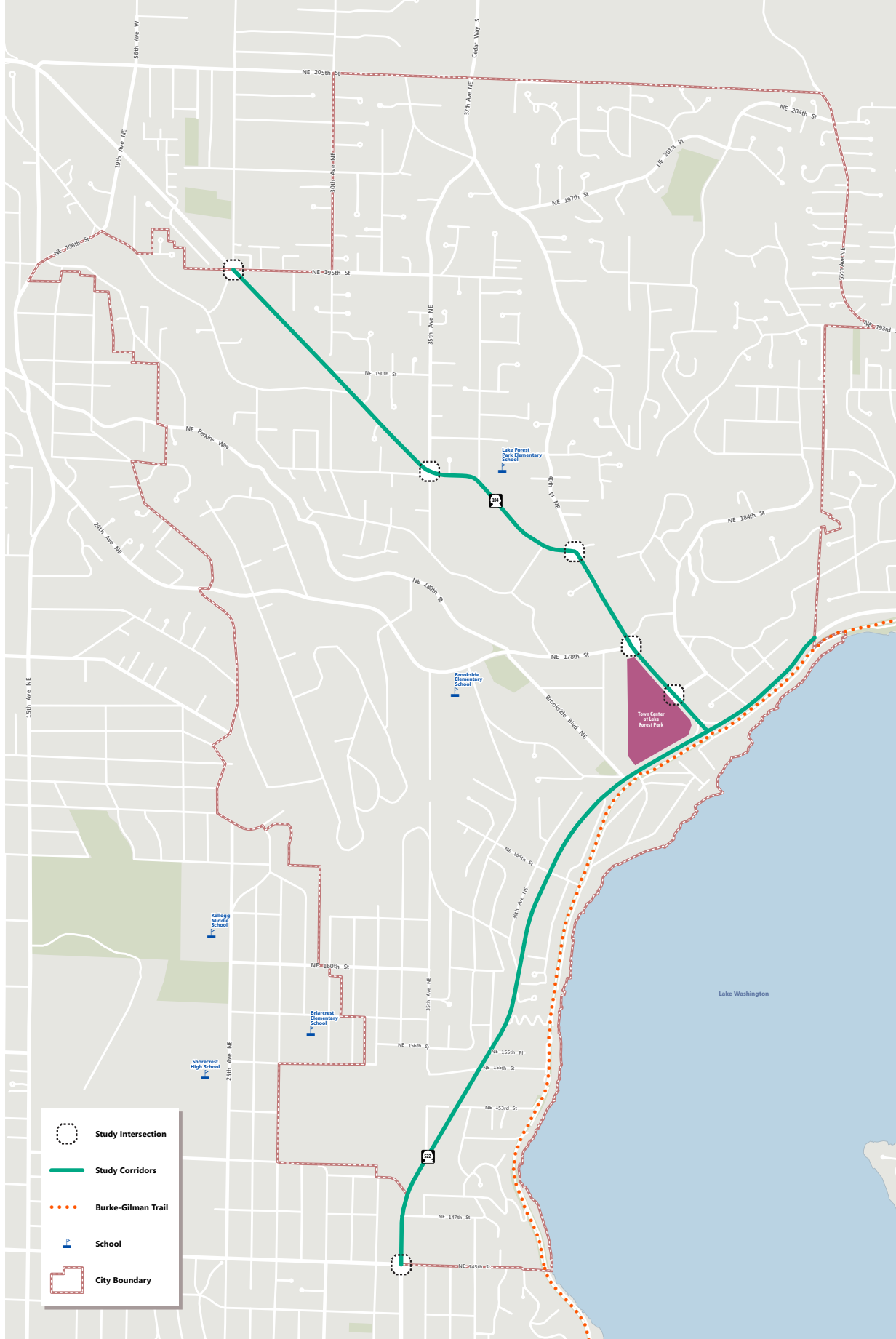


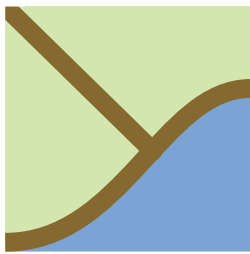
FOR SR 522

- Address safety for all modes
- Complete BAT lanes and sidewalks to support both regional BRT and local access
- Minimize impacts on neighboring properties (e.g. right-of-way, access, noise, visibility)
- Improve non-motorized access to transit and crossing opportunities to enhance local access
- Create a corridor identity/character and enhance the natural environment
- Be a leader in identifying innovative solutions, particularly at the Bothell Way/145th Street intersection



Study Area Map





Lake Forest Park **SAFE HIGHWAYS**

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Considerations for Developing the Cross-Section Concepts

- **Regional transit mobility:** Completion of the business access transit (BAT) lanes through Lake Forest Park
- **Local access:** Provision of a basic sidewalk facility on both sides of the street corridor-wide
- **Safety:** Maintain & enhance access control throughout the corridor
- **Character:** Consider inclusion of planted medians wherever possible
- **Neighborhood impacts:** Minimize width of roadway to lessen right-of-way impacts
- **Vehicle mobility:** Consider existing and future traffic demands to maintain reasonable travel times along the corridor










SR 104

Future Transit Service

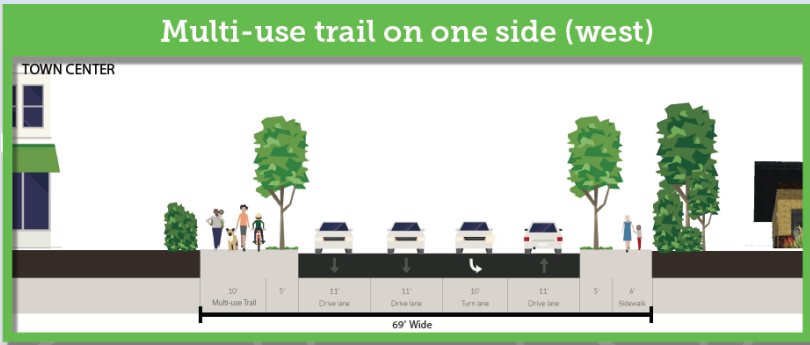










Non-motorized Access to Transit Improvements






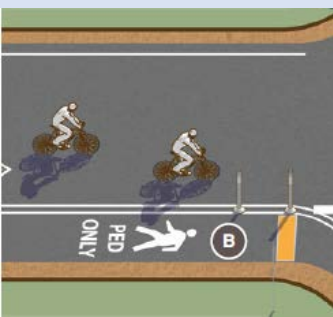





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|  | Transit Stop |  | Community Preferred Non-motorized Improvement |
|  | Existing Trail Access Points |  | Other Potential Non-motorized Improvement |
|  | City Boundary |  | New Project Suggested From November Open House |
|  | School |  | SR 522 Multimodal Improvements |
|  | Burke-Gilman Trail | | |

Potential Non-Motorized Access to Transit Projects

Map ID	Project Title	Description	Visual Depiction
1a.	Multi-Use Path on SR 104	<p>Add a physically separated multi-use path on SR 104 from SR 522 to NE 178th Street to provide an all ages/all abilities facility for bicyclists, pedestrians, skaters, wheelchair users, and joggers that is separate from road traffic.</p> <p>It would serve as a key connection between the Burke-Gilman Trail and Interurban Trail, as well as from Lake Forest Park neighborhoods to transit stops on SR 522 and the Town Center.</p>	<div><div><div>Multi-use trail on one side (west)</div><div></div></div><div>An example of how a multi-use path could look on SR 104</div></div>
2.	Town Center Pedestrian Connections	Provide a designated pedestrian path into the Town Center from the NE 170th Street bus stop in front of Starbucks. The exact route is to be determined, but it should follow desired pedestrian routes. This project would require coordination with the Central Subarea Plan process.	<div><div></div><div>Examples of pedestrian path in parking lot and wayfinding</div><div></div><div>Existing conditions at bus stop</div></div>
3a.	SR 104 / SR 522 At-grade Crossing Improvements	As a near term project, modify current SR 522 / SR 104 crosswalk to improve the pedestrian and bicycle crossing experience between transit stops and the Burke-Gilman Trail. Initial thoughts include enhanced crosswalk striping, signal phasing, and widening the curb ramp/pedestrian pathway on the island to accommodate pedestrians and bicyclists. Explore opportunities to shorten the crossing distance by potentially narrowing the travel lanes / bus only lanes to 10 - 11 feet.	<div></div> <div>Source: Google Maps 2017</div>
3b.	Pedestrian/ Bicycle Bridge	As a long term project when funding is available, build a pedestrian and bicycle bridge over SR 522 that connects the Town Center to the Burke-Gilman Trail and bus stop on the east side of SR 522. This project at a larger scale will also provide better connections to the neighborhoods and the Interurban Trail. This project would require coordination with the Central Subarea Plan process.	<div></div> <div>Example of overpass in Shoreline Source: Otak</div>
4.	SR 522 / NE 170th Street Crossing	Improve the existing crossing of SR 522 at NE 170th Street. This bus stop is one of the most frequently used stops in the City. Improvements can include enhanced crosswalk striping, improved sidewalk/curb on the gas station corner, and improved signal phasing. Potentially consider a protected eastbound left turn from Starbucks to northbound SR 522 to reduce conflicts between crossing pedestrians and turning vehicles.	<div></div> <div>Source: Google Maps, 2017</div>
5.	Brookside Elementary Safe Routes to School	Add a sidewalk on 37th Avenue NE from just south of NE 178th Street, where the existing sidewalk ends, to NE 165th Street. Given this project's proximity to Brookside Elementary, it is preferable to include a landscaped buffer to provide additional pedestrian safety. This project will provide a grade separated, contiguous route between the bus stops on SR 522 at NE 165th Street, Brookside Elementary, and Pfingst Animal Acres Park, making it easier and safer for people of all ages to walk to public transit. (This is Project #1 in the Safe Streets report.)	<div><div></div><div>Existing conditions on 37th Avenue NE</div><div></div><div>Sidewalk with landscaping buffer Source: threepullpa.com</div></div>

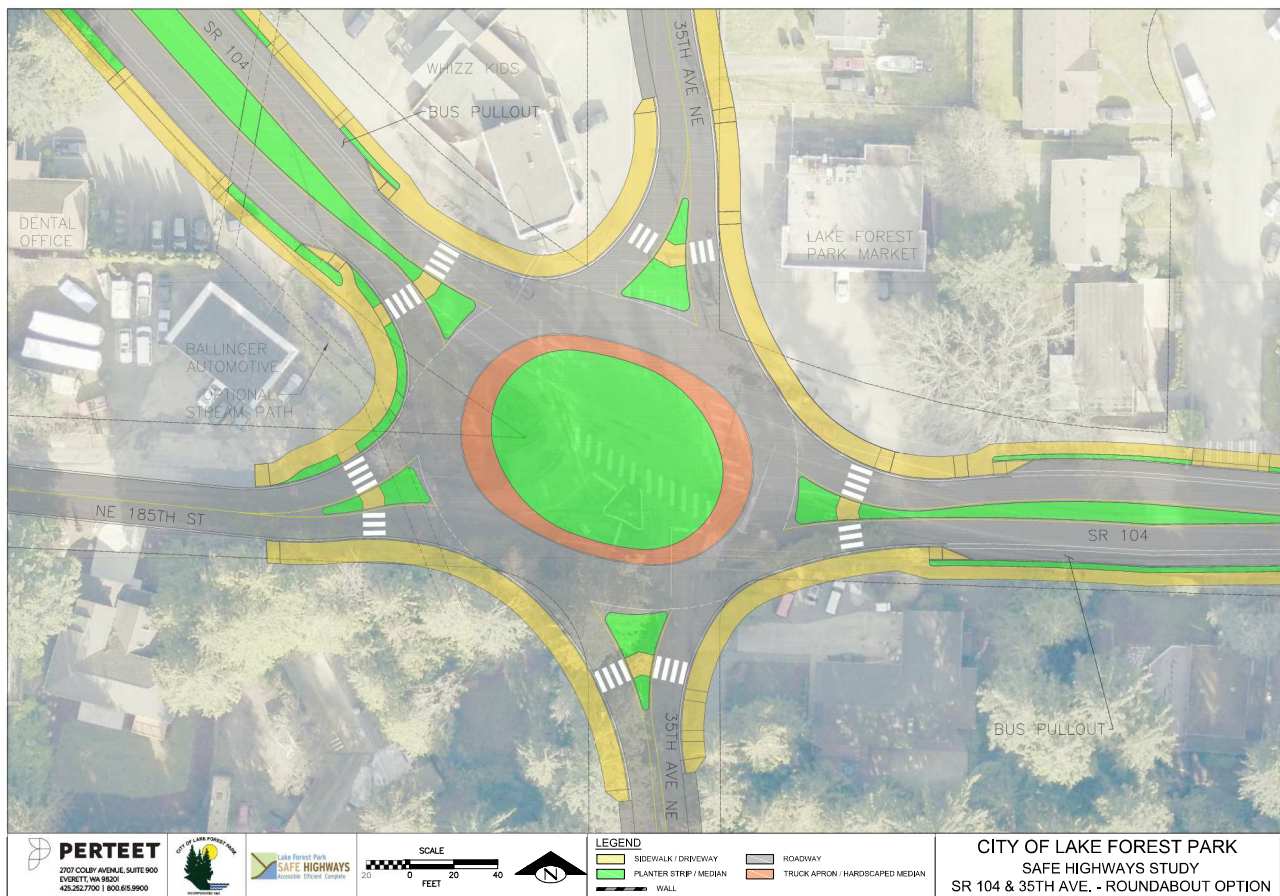
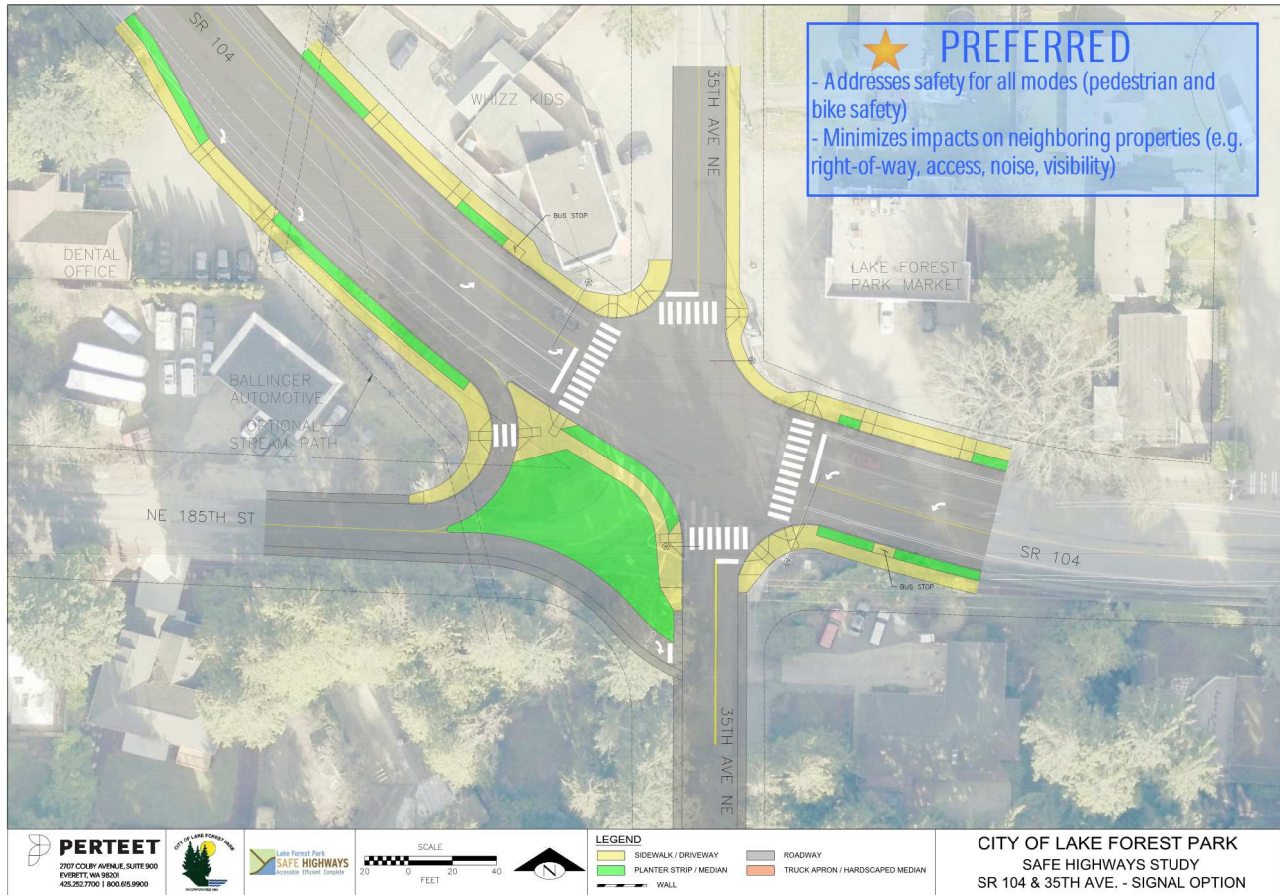
Potential Non-Motorized Access to Transit Projects

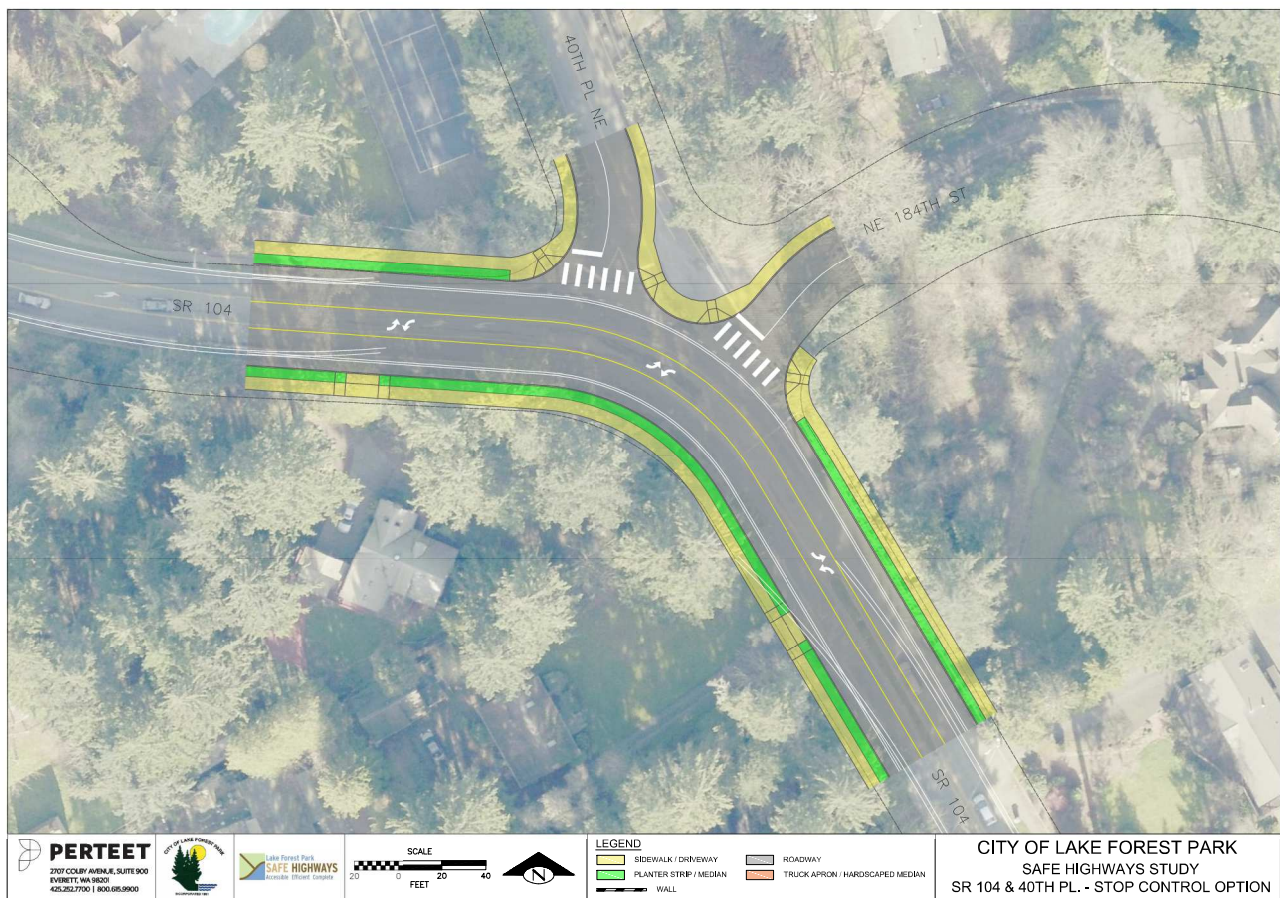
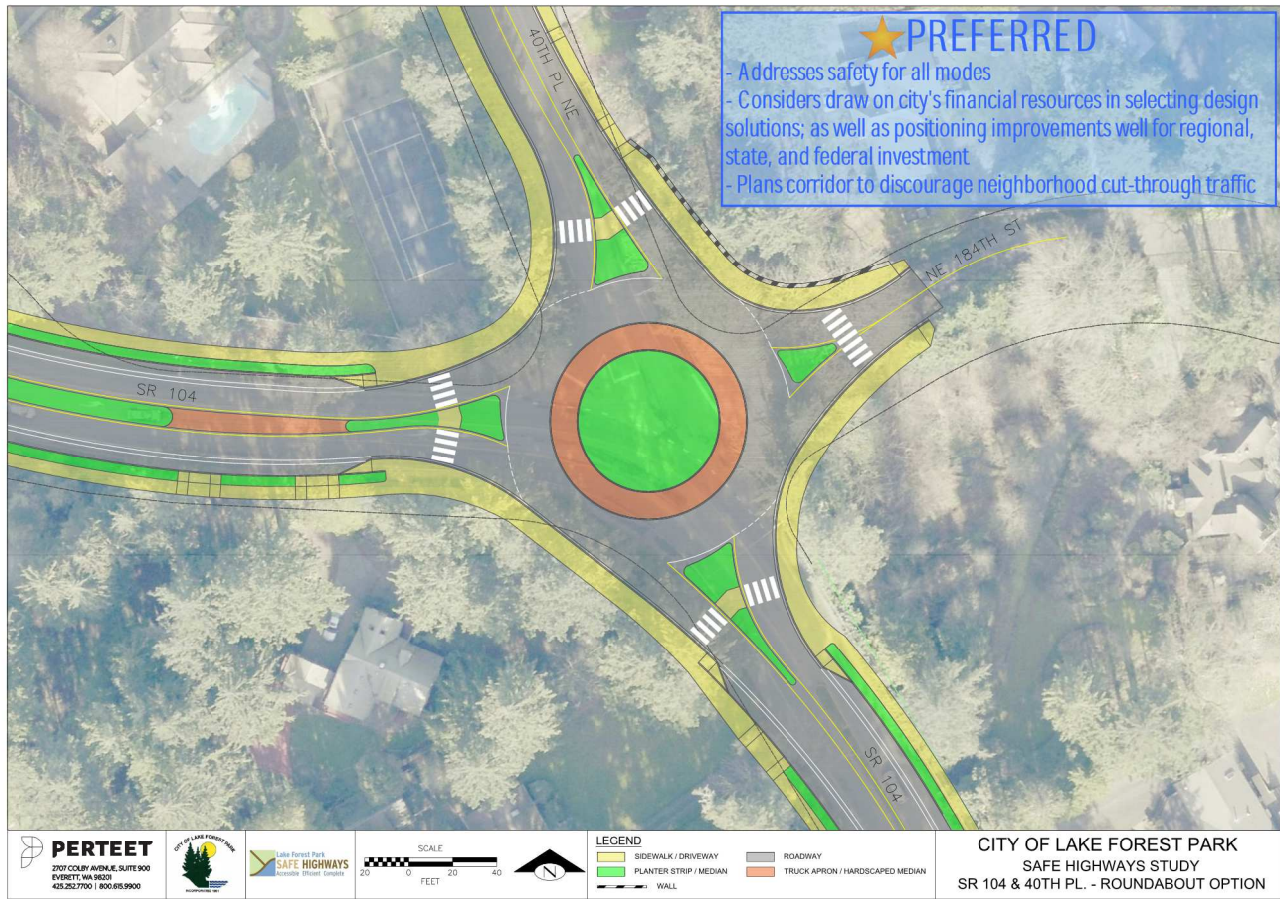
Map ID	Project Title	Description	Visual Depiction	
6.	37th Avenue NE Traffic Calming	<p>Incorporate traffic calming measures on 37th Avenue NE between NE 178th Street and NE 156th Street, as well around the corner onto NE 156th Street. Specific treatments have not been selected, but can include traffic circles, chicanes, a raised intersection at NE 165th Street, speed humps, or other proven traffic calming measures after further engineering evaluation.</p> <p>37th Avenue NE is designated as a bike route between the Interurban Trail and Burke-Gilman Trail, and traffic calming would help make this route more accommodating to cyclists of all ages and abilities and people walking to bus stops. This project could also remove parking on one side of the street to help minimize conflicts and provide space for traffic calming improvements. (This is Project #6 in the Safe Streets report.)</p>		
			Existing conditions on 37 th Avenue NE during morning /evening Commutes	Example of a traffic circle Source: Re:Streets
7.	Briarcrest Safe Routes to School Sidewalks	<p>Provide the following improvements to create safer routes to schools for Briarcrest Elementary, Kellogg Middle School, and Shorecrest High School. These improvements designate walking areas along routes that have historically seen conflicts between modes. Coupled with traffic calming, they make it easier and safer for people of all ages to walk or bike to public transit. (This is part of Project #4 in the Safe Streets report.)</p> <ul style="list-style-type: none">• A sidewalk in the following locations:<ul style="list-style-type: none">○ 35th Ave NE (NE 162nd St to NE 160th St)○ NE 162nd St (35th Ave NE to 37th Ave NE)○ NE 156th St/37th Ave NE (35th Ave NE to NE 157th St)• Traffic calming measures, such as chicanes, speed humps, or traffic circles on<ul style="list-style-type: none">○ 35th Ave NE○ NE 162nd St		
			Sidewalk with landscaping buffer Source: threepullpa.com	Example of a traffic circle Source: Re:Streets
8.	Briarcrest Safe Routes to School Walking Paths	<p>Provide the following improvements to create safer routes to school for Briarcrest Elementary, Kellogg Middle School, and Shorecrest High School.</p> <ul style="list-style-type: none">• A painted pedestrian walking area in the following locations:<ul style="list-style-type: none">○ NE 160th St (Potential for an upgrade as Phase 2)○ 35th Ave NE (NE 160th St to NE 156th St)○ “Walking Wednesday” Routes<ul style="list-style-type: none">▪ NE 163rd St▪ 30th Ave NE▪ NE 155th St/NE 156th St to 35th Ave NE• Traffic calming measures, such as chicanes, speed humps, or traffic circles along NE 160th St <p>This project requires collaboration with the City of Shoreline, who would be responsible for completing walkways that link to Lake Forest Park school property. The City may also consider lowering the speed limit on NE 160th Street and potentially other streets. (This is part of Project #4 in the Safe Streets report.)</p>		
			Existing conditions on Walking Wednesday route	Painted pedestrian walking area. Source: FHWA, Small Town and Rural Multimodal Networks
9.	NE 155th Street Trail Connection	<p>Formalize the existing, informal pedestrian/bicycle trail that connects 35th Avenue NE and NE 155th Street. While the existing dirt path is accessible for some people, others such as those in wheelchairs cannot easily navigate it. It would provide more direct pedestrian/bicycle connections to bus stops along SR 522.</p>		
			Existing informal trail looking west to 35 th Ave	Existing informal trail looking east to 155 th /SR 522
10.	Burke-Gilman Trail Wayfinding	<p>Add wayfinding signage along the Burke-Gilman Trail and at SR 522 BRT stops that provides information with the best route to access transit stops, Town Center, Burke-Gilman Trail, and Interurban Trail. This project will provide information so people walking and biking will know the safest and most direct route to or from transit.</p> <p>There is no signage to identify which trail access point and route is the fastest, has the fewest hills, or is safest for children. Likewise, if you arrive by transit to the Town Center, it is not clear how to best access the Burke-Gilman Trail.</p>		
			Example wayfinding signage	
11.	Improve Street Connectivity (<i>unmapped</i>)	<p>Explore opportunities to improve street connectivity between neighborhoods and the Town Center and transit stops. This can include looking at connecting existing street ends and exploring opportunities to create connectivity easements.</p>		

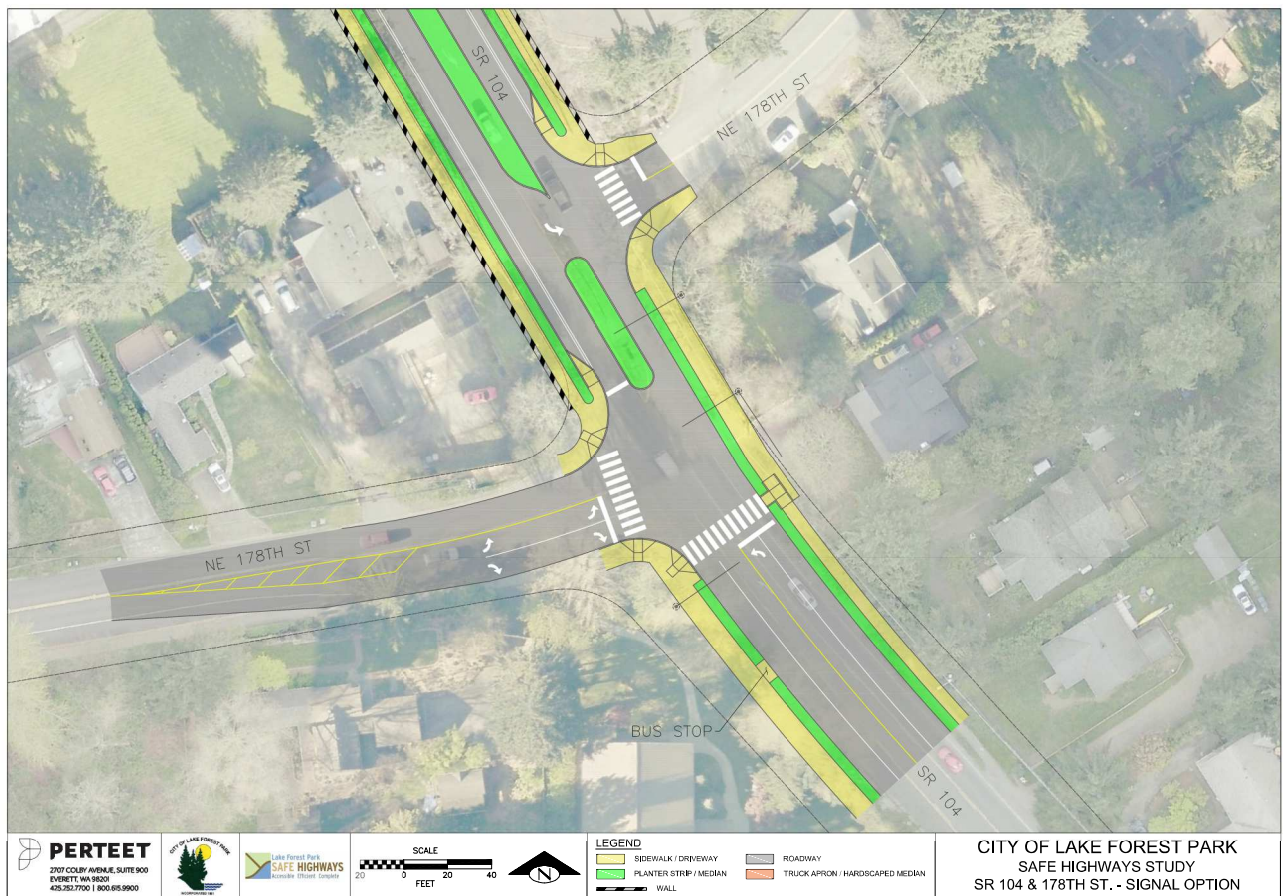
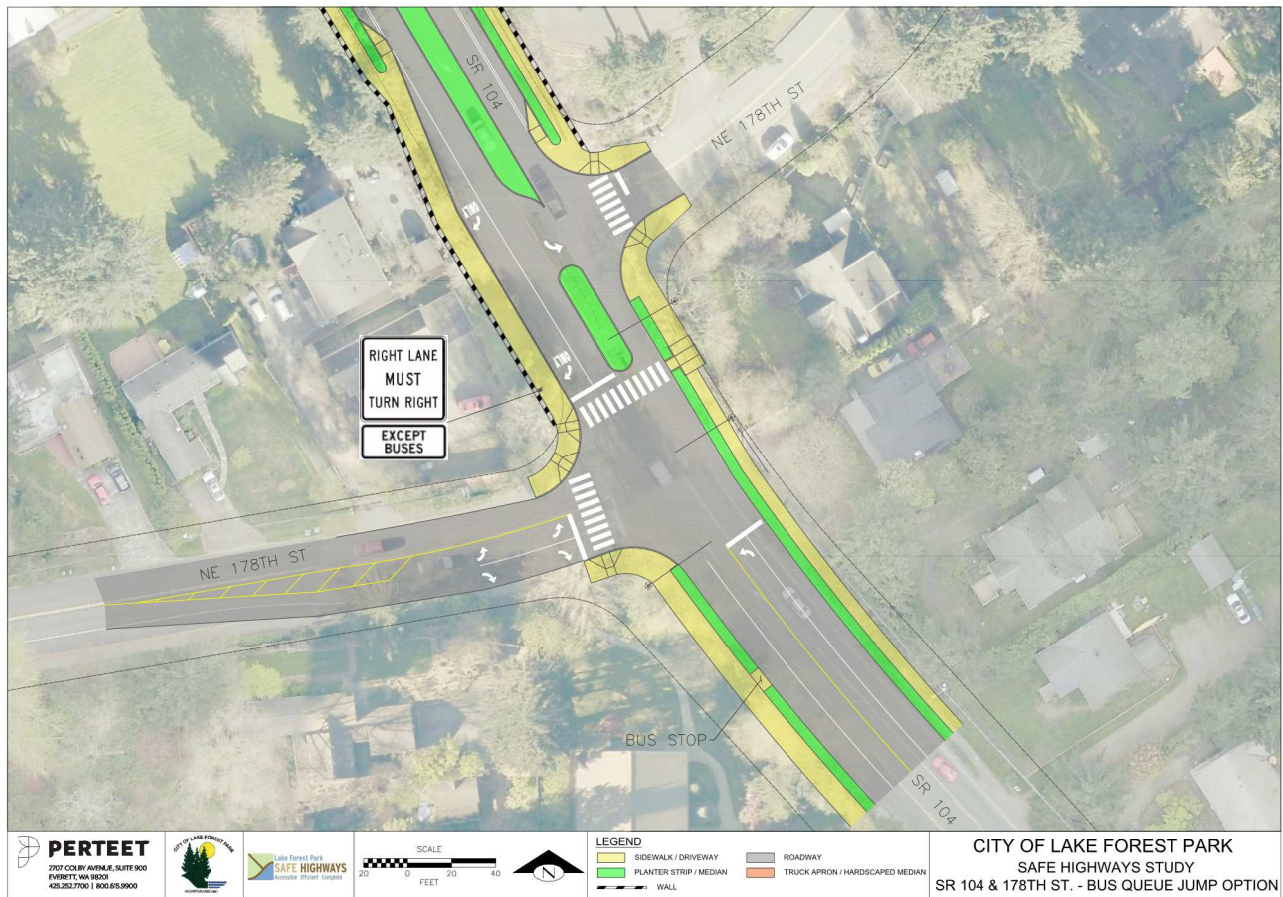
Potential Non-Motorized Access to Transit Projects

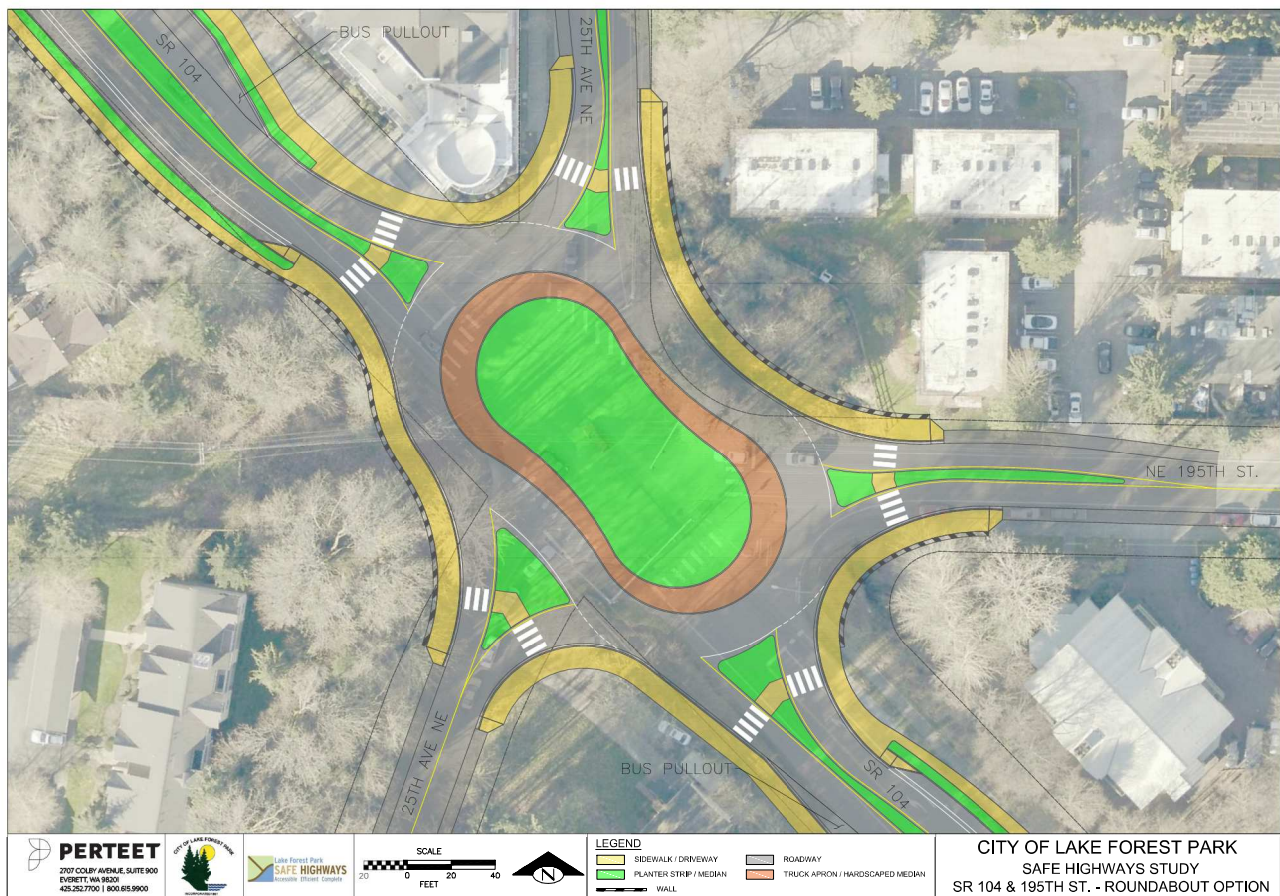
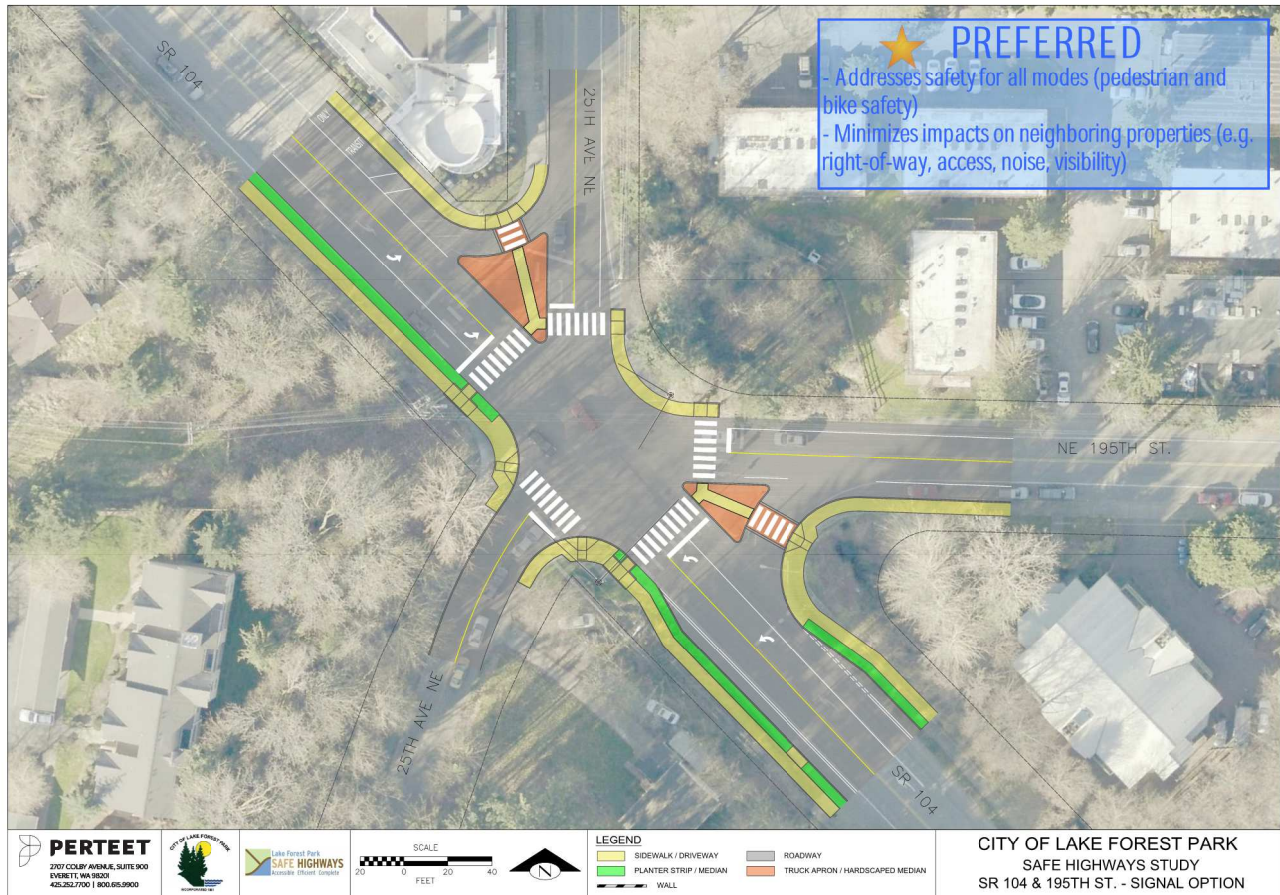
(Incorporates Public Input Received from 11/14/17 Open House)

Map ID	Project Title	Description	Visual Depiction
1b.	44th Ave NE Pedestrian/ Bicycle Route	Instead of the multi-use path on SR 104 near the Town Center as proposed in Project 1, add facilities along 44th Ave NE/Brookside Blvd behind the Town Center for people walking and biking. This could include bike lanes or “sharrows”. 	 <p>Existing conditions on 44th Ave NE, and example sidewalk with landscape buffer and bike lane. Source: Google Maps, threepullpa.com</p>
12.	Hamlin Road Sidewalks	Upgrade the walking path to a wider, full sidewalk on Hamlin Road (Brookside Blvd to 37th Ave NE). Also clear sight distance obstructions (e.g. vegetation) at the intersection of Hamlin Road & 37th Ave NE for improved visibility of people walking.	 <p>Existing conditions on Hamlin Road, and example sidewalk with landscape buffer. Source: Google Maps, washingtoncountyinsider.com</p>
13.	41st Ave NE – Burke-Gilman Trail Connection	Pave the existing, informal, dirt pedestrian/bicycle trail that connects 41st Ave NE to the Burke Gilman Trail, enabling people to walk on the Burke Gilman Trail to access the Town Center.	 <p>Existing informal trail looking down toward the Burke Gilman Trail. Source: Google Maps</p>
14.	39th Ave NE Pedestrian Improvements	Add sidewalks and lighting on 39th Ave NE from NE 165th Street and on the walking path near Veterinary clinic / gas station. This would be an alternative walking route to the Town Center instead of SR 522.	 <p>Existing conditions on 39th Ave, and example sidewalk and lighting. Source: Google Maps, avgreenteam.wordpress.com</p>
15.	165th St / SR 522 Crossing Improvements	Improve the pedestrian crossing of SR 522 at NE 165th Street. If an overpass is not possible, provide improvements at-grade. Potential improvements include high-visibility striping, signal timing revisions, and a wider painted area for people walking.	 <p>Existing conditions near NE 165th St, and potential improvements. Source: Google Maps, FHWA</p>
16.	Staircase Improvements	Provide maintenance and improved lighting at the existing staircases off SR 522 near the 39th Ave NE southbound bus stop, and off NE 165th St north of 39th Ave NE. (Note that these staircases run through private property, so this project is not fully in the City’s control.)	 <p>Existing staircase off NE 165th St. and 39th Ave near SR 522. Source: Google Maps</p>
17.	Southeast City Traffic Calming	Traffic Calming to discourage cut through traffic on NE 148th St, 37th Ave NE, and NE 153rd St. Treatments have not been selected, but can include traffic circles, speed humps, or other proven traffic calming measures after further engineering evaluation.	 <p>Existing conditions at 37th & NE 150th St, and example of a truck-mountable traffic circle. Source: Google Maps, City of Madison</p>
18.	147th Street Sidewalks	Extend the sidewalk on NE 147th Street east of SR 522 to 37th Ave NE.	 <p>Existing conditions on 147th St looking east. Source: Google Maps</p>
19.	Parking Monitoring Program (unmapped)	Implement an on-street parking monitoring program near Bus Rapid Transit stops. This can include time-limited parking or Residential Permit Zone parking to discourage “hide-and-ride” behavior.	 <p>Residential Permit Zone in Seattle. Source: Seattle Met</p>



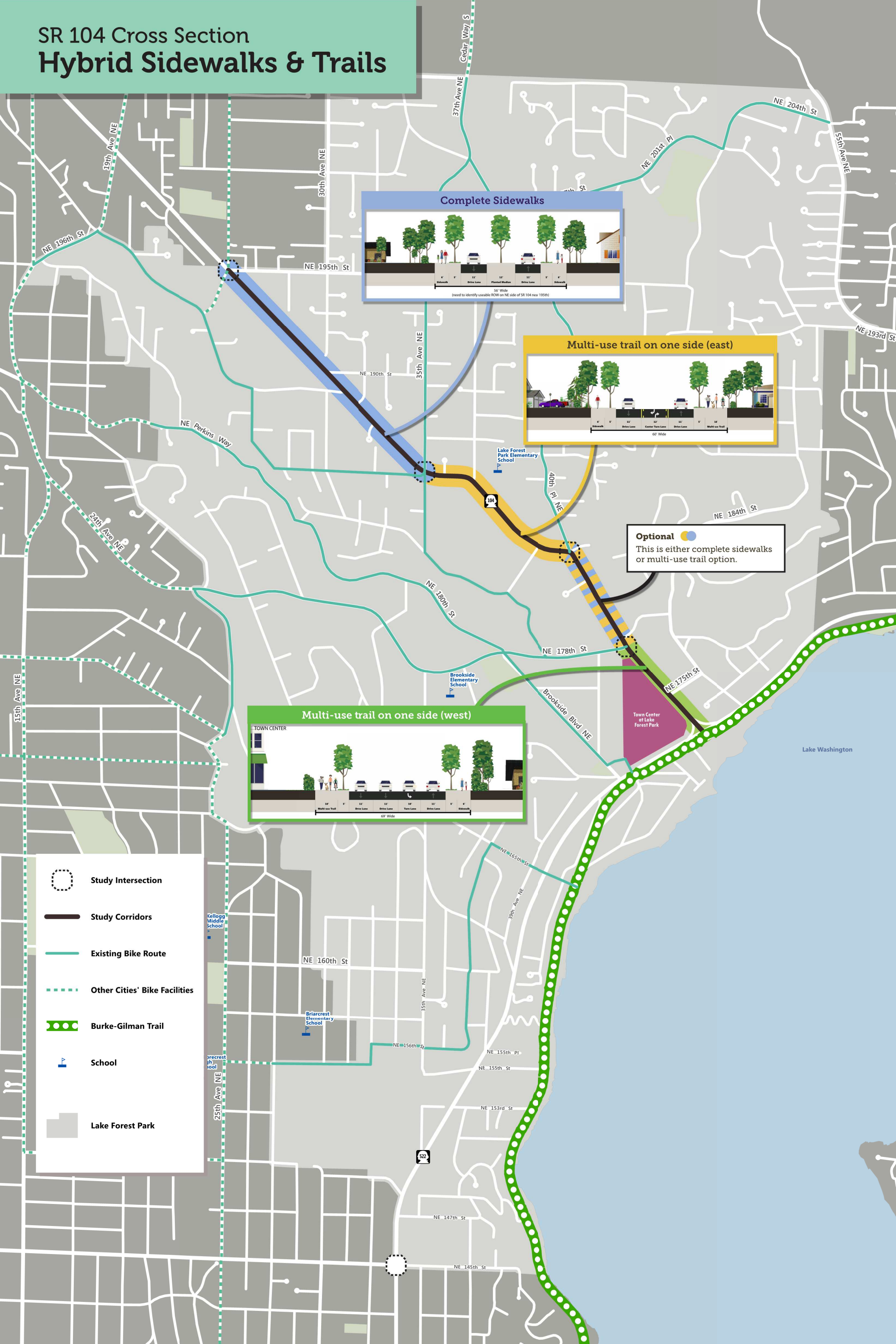




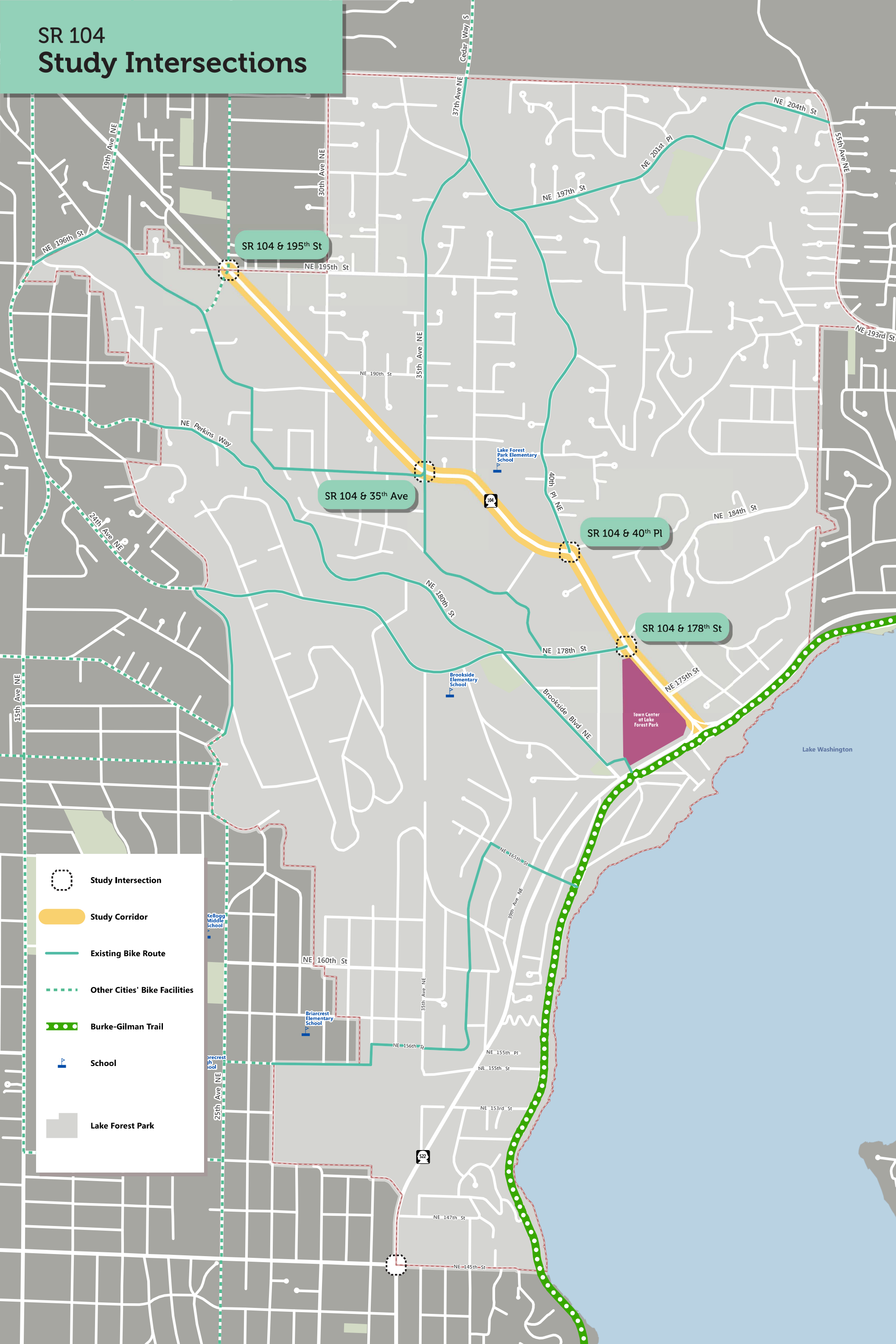


SR 104 Cross Section

Hybrid Sidewalks & Trails

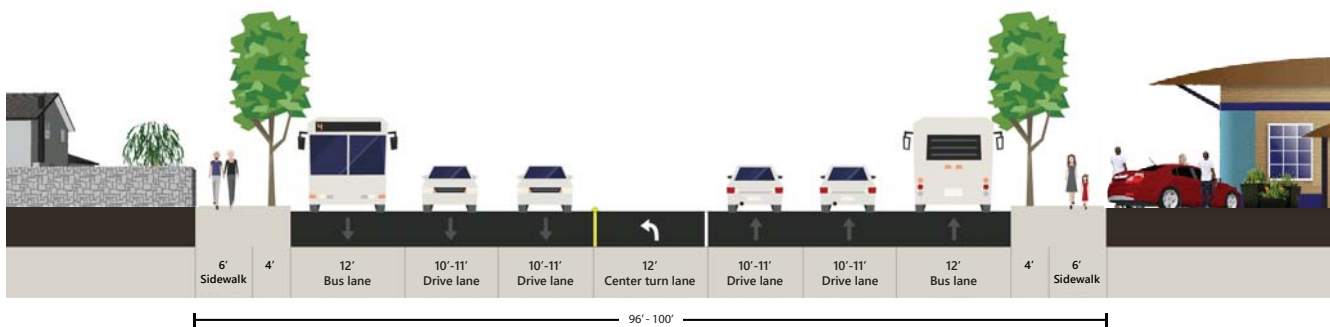


SR 104 Study Intersections

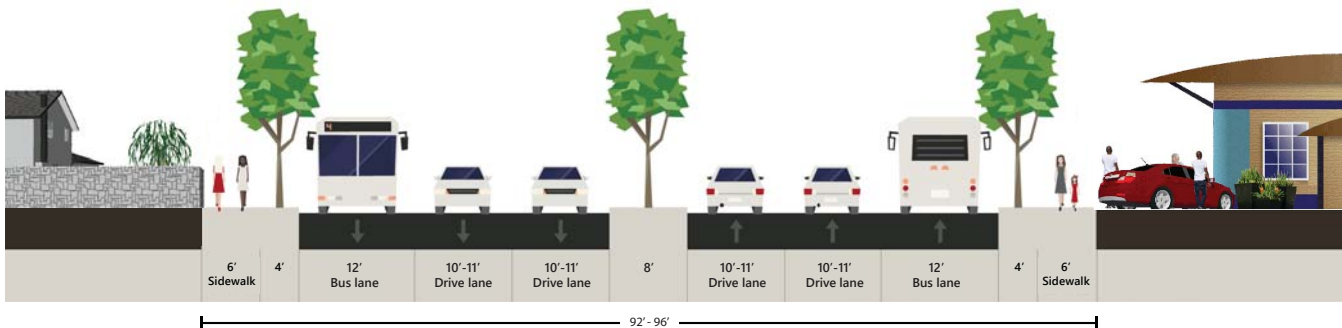


SR 522 Concepts

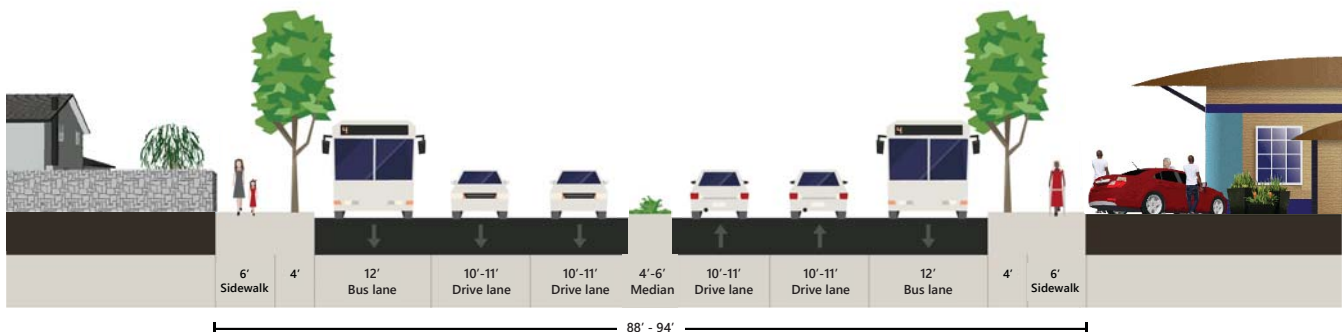
Concept 1

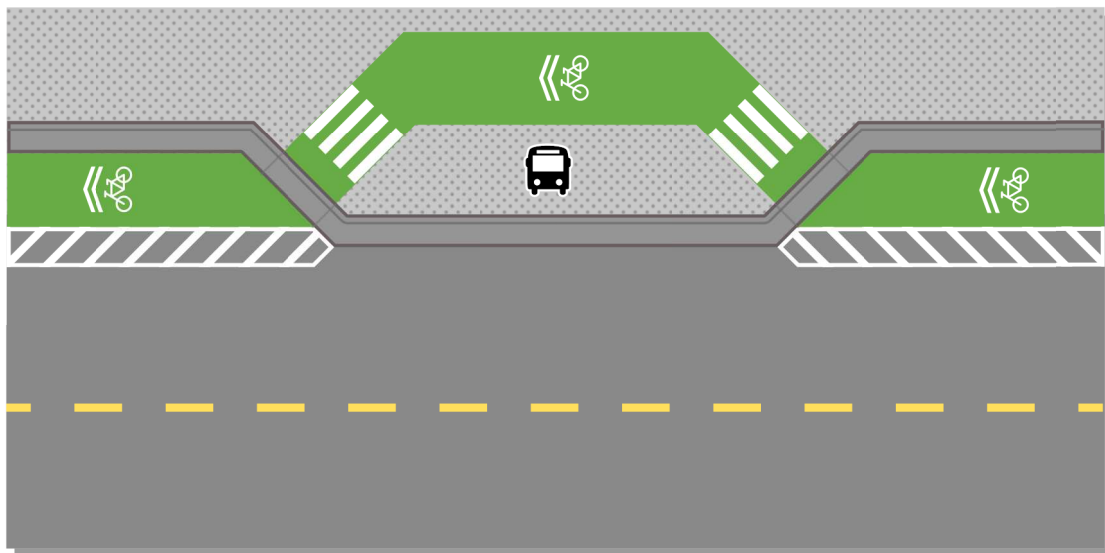
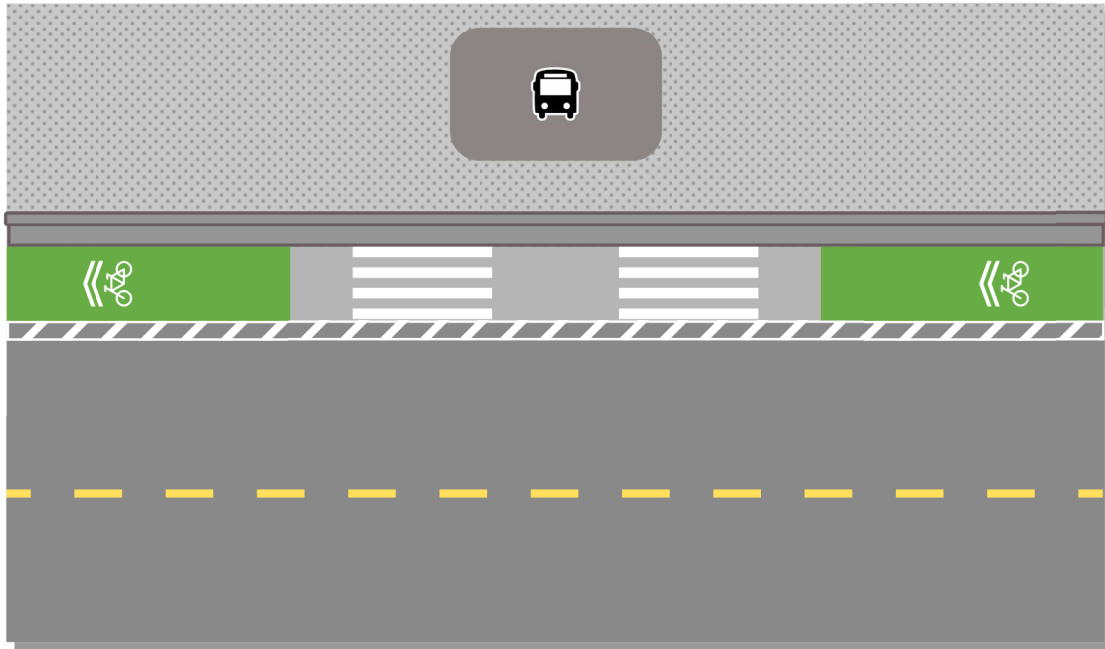


Concept 2

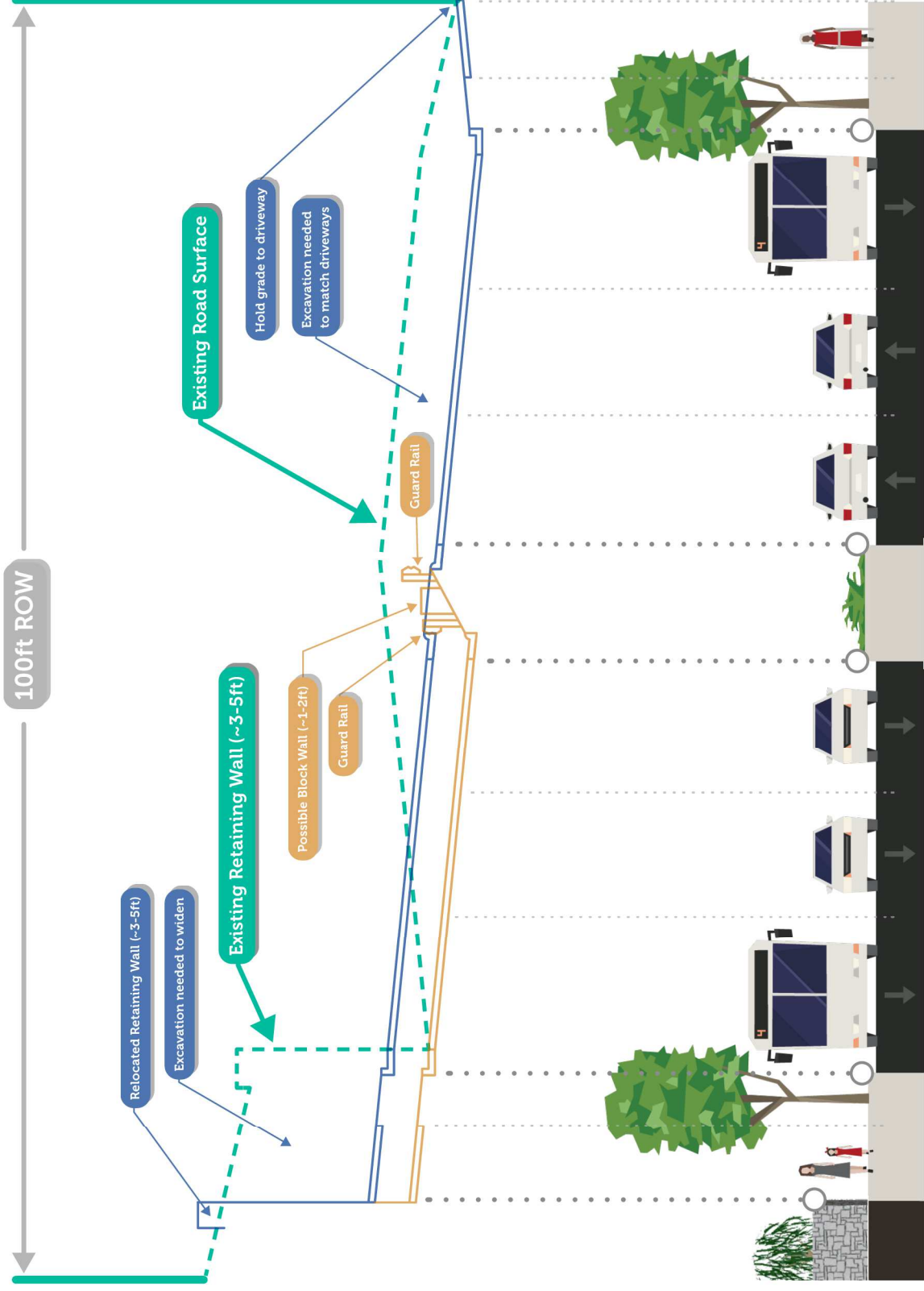


Concept 3





Cross-section Option to Maintain Lake Driveway Access

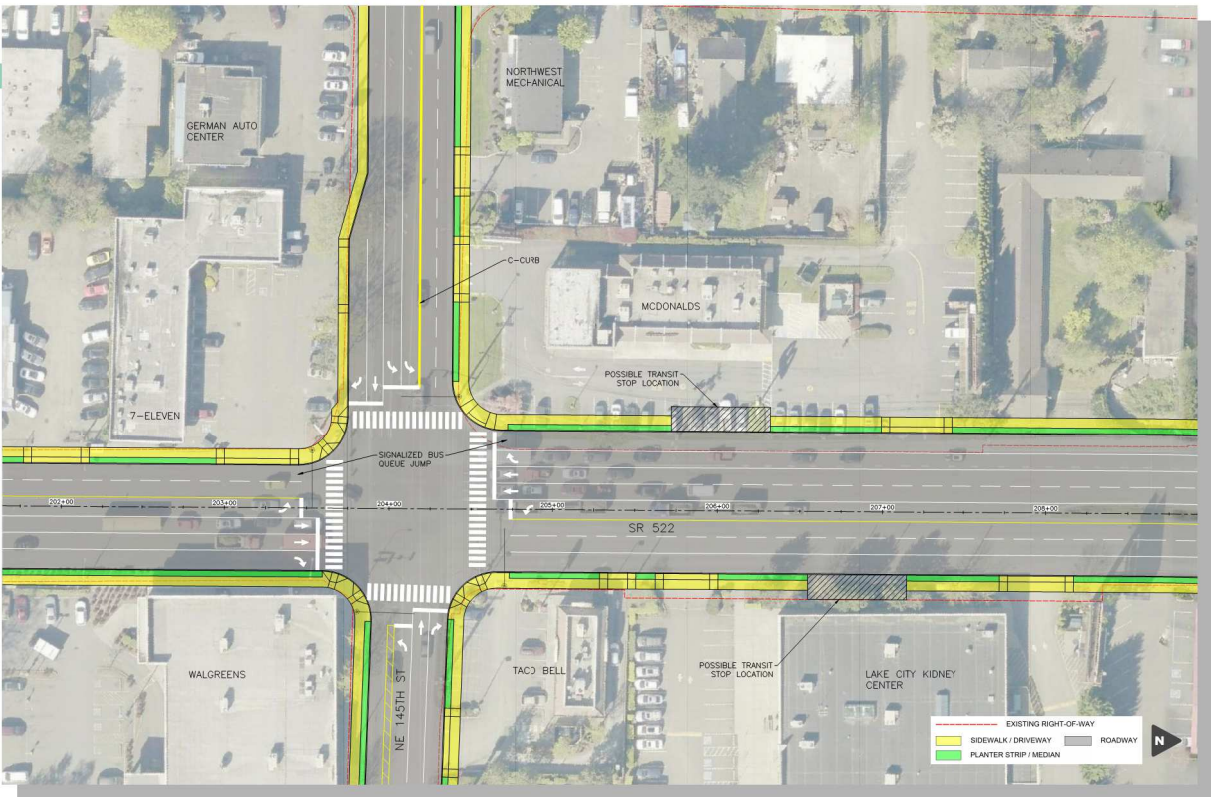




SR 104

NE 145th Intersection Options

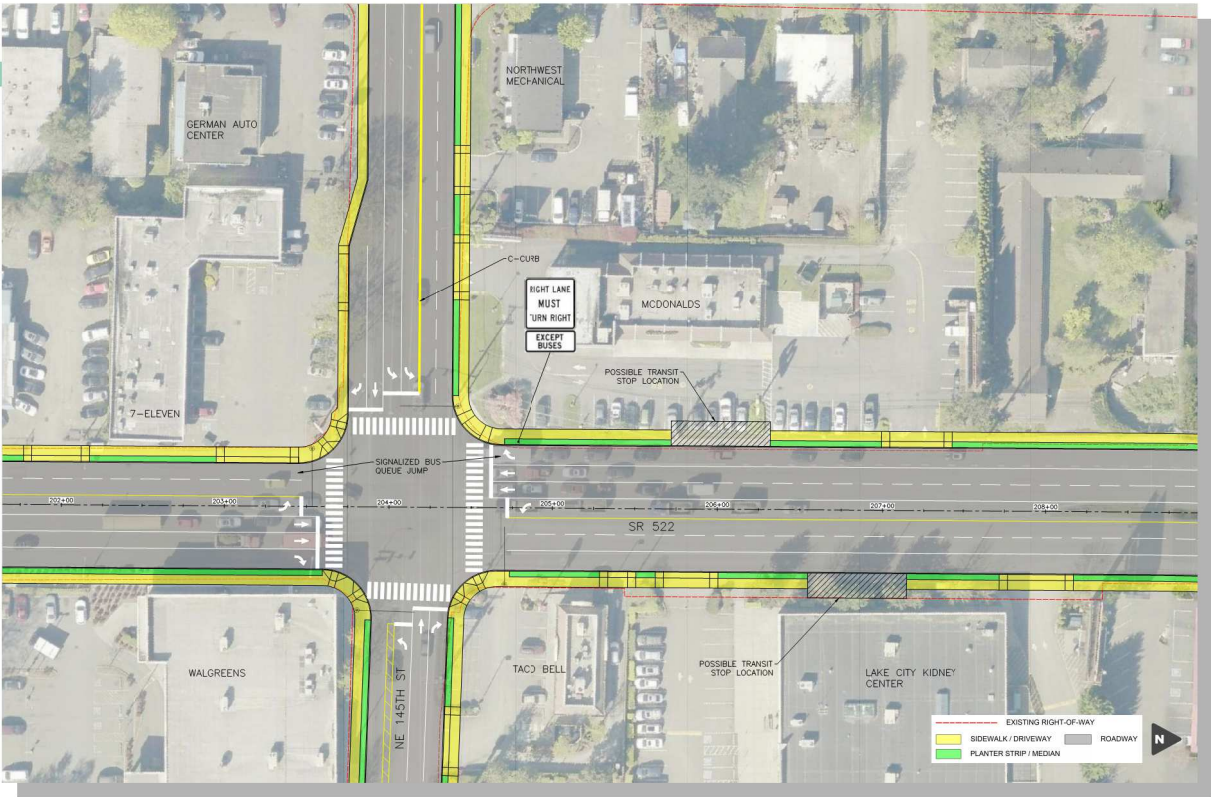
Option 1



BestModerateWorst

Vehicle Operations	<div></div>
Transit Operations	<div></div>
Pedestrian Environment	<div></div>
Cost/Right of Way	<div></div>

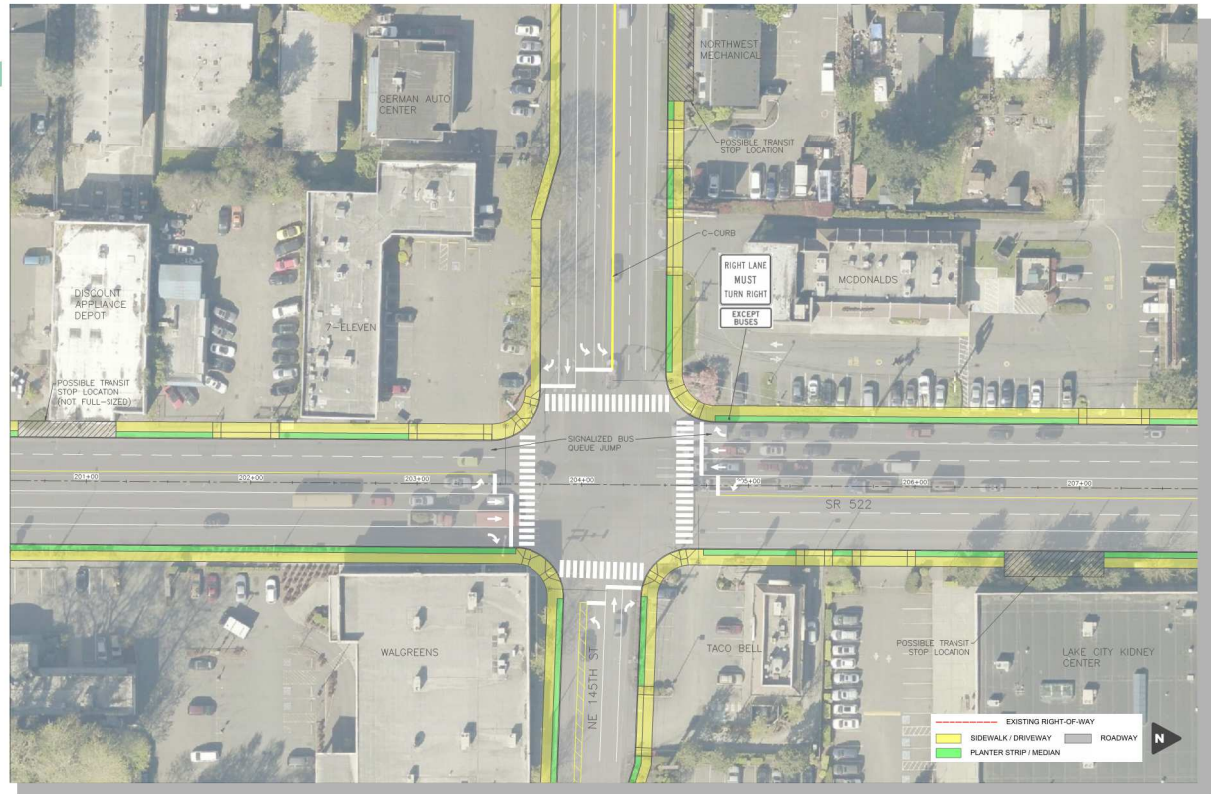
Option 2



BestModerateWorst

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Transit Operations	<div></div>
Pedestrian Environment	<div></div>
Cost/Right of Way	<div></div>

Option 3



BestModerateWorst

Vehicle Operations	<div></div>
Transit Operations	<div></div>
Pedestrian Environment	<div></div>
Cost/Right of Way	<div></div>

