Connect Lynnwood: Appendix D

TRANSPORTATION BASELINE MEMO

June 2022

LYNNWOOD WASHINGTON

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Task 4: Transportation Baseline Memo

Final Draft

NELSON NYGAARD

April 2020

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1 INTRODUCTION

What is Active and Accessible Transportation?

Active transportation describes human-powered modes of travel, such as walking, bicycling, riding scooters and skateboards, and rolling in wheelchairs. Accessibility refers to designing and building barrier-free infrastructure for people of all ages and abilities to walk and roll along and across Lynnwood's streets and trails intended for this purpose. Accessible and active transportation options are important because nearly all trips, no matter the main mode, begin or end with a form of active transportation, whether a person walks to and from their car while shopping, rolls to a bus stop, or bikes to the train station as part of their commute.

What is *Connect Lynnwood*?

The *Connect Lynnwood: Active & Accessible Transportation Plan* (*Connect Lynnwood*) will guide decision-making processes to augment and improve Lynnwood's existing walking and bicycling network. *Connect Lynnwood* will identify key future projects that will improve the cohesiveness of the walking and bicycling network and safely connect residents to important destinations. The Plan will replace the 2008 *Multi-Choice Plan*, Lynnwood's prior citywide walking and bicycling plan. Development of *Connect Lynnwood* projects will improve community members' access to existing destinations such as schools, parks, transit, and shopping, and meet active transportation needs in corridors where future growth is anticipated. This Plan has been developed to assist Lynnwood officials in prioritizing investments towards creating an accessible, safe, and cohesive active transportation network that supports the health and well-being of people in Lynnwood by improving available transportation options.

Transportation Baseline Memo: Overview

This "Transportation Baseline Memo" is an assessment of existing conditions to help develop goals, set priorities, and develop recommendations that will be included in *Connect Lynnwood*. The Transportation Baseline Memo is organized as follows:

- **Context Review:** A brief review of prior and ongoing work by the City of Lynnwood that informs and guides *Connect Lynnwood*.
- **Walking and Bicycling Networks:** Analysis of the existing and planned bicycling and walking networks in the City of Lynnwood.
- **Collision Analysis:** Analysis of collisions involving people walking and bicycling in Lynnwood.
- **Demand Analysis**: Analysis that estimates the relative intensity of destinations that could generate walking or bicycling trips.
- **Summary of Key Findings:** The most important points from each section are highlighted to provide a concise, digestible overview.
- **Conclusion – Potential *Active & Accessible Transportation Plan* Goals and Priorities**: An inventory of gaps, barriers, and opportunities to inform the goals, priorities, and recommendations of *Connect Lynnwood*.
- **Appendices**: The supporting appendices include additional detail on the planning context and existing transportation networks, analysis of vehicle collisions involving people walking and bicycling, transit ridership in Lynnwood, and a summary of outreach and public feedback.

2 CONTEXT REVIEW

KEY TAKEAWAYS

Connect Lynnwood builds on prior transportation planning efforts and projects dating back to 2008. A brief summary of each planning process and key takeaways that inform *Connect Lynnwood* are described below. Additional detail on each plan is found in Appendix A.

Foundational Efforts

Multi-Choice Transportation System Plan (2008)

The City of Lynnwood developed a citywide sidewalk and bicycle plan in 2008, also known as the "*Multi-Choice Transportation System*" because it provides multiple travel choices other than a car. The plan proposed a citywide bicycle network and outlined a series of pedestrian and bicycle projects with associated costs and evaluation factors.

How does it apply to *Connect Lynnwood*?

- *The Multi-Choice Plan* proposed a **citywide network of walking and bicycling facilities** including prioritized walking connections both along streets and through green spaces. *Connect Lynnwood* will analyze and build upon these identified networks and priority connections.
- *The Multi-Choice Plan* established a **prioritization framework** to elevate implementation of the walking and bicycling networks based on key factors such as collision history, traffic volume, and proximity to schools, among others. *Connect Lynnwood* will build upon this prioritization framework by carrying forward key factors to identify projects for implementation.

Highway 99 Sub-Area Plan (2011)

In 2008, Lynnwood City Council adopted a series of economic revitalization strategies for the Highway 99 corridor, extending from 148th Street SW to 216th Street SW at the City's southern limits. *The Highway 99 Sub-Area Plan* envisions a corridor transformed from an auto-oriented commercial strip into a series of multi-use nodes at key intersections and Swift Bus Rapid Transit (BRT) stations. The City finalized and adopted the plan, zoning regulations, design guidelines, environmental impact statement (EIS), and expanded vision for the Highway 99 corridor in 2011.

Along with the *City Center Streetscape Plan*, the *Highway 99 Sub-Area Plan* development standards represent a significant upgrade in the walking and bicycling facilities designated in previous City of Lynnwood standards, establishing a strong precedent for adoption of similar elements citywide.

How does it apply to *Connect Lynnwood*?

- *The Highway 99 Sub-Area Plan* introduces high-quality walking and bicycling facilities such as 12' sidewalks with street trees and key development standards potentially applicable to other areas of the city.

See Appendix A for key policy takeaways related to **pedestrian and street connectivity, access management/driveway consolidation, and connections to transit.**

City Center Streetscape Plan (2014, updated 2019)

The *Lynnwood City Center Streetscape Plan* identifies required streetscape elements to create a cohesive street design in the City Center. Lynnwood's City Center is the area enclosed by 194th Street SW, 48th Avenue W, and I-5, including destinations such as the Convention Center, Transit Center, Lynnwood Square (future Northline Village) commercial center, and several hotels and new developments. Streetscape standards relevant to walking and bicycling include recommended sidewalk layout, crosswalk design, bicycle lane specifications, and bicycle rack placement and design.

An update completed in 2019 adds substantial right-of-way and urban design requirements to create walkable, attractive streets and public spaces.

How does it apply to *Connect Lynnwood*?

- The *City Center Streetscape Plan* establishes standards for **higher-quality walking and bicycling facilities** in the City Center than those required by the standard plans applicable across the rest of the city. Notably, 5'-wide striped bike lanes, wide sidewalks with buffers, and 16'-wide crosswalks may be applicable elsewhere in Lynnwood.
- *Connect Lynnwood* will incorporate and build upon the bicycle facilities and routes, and the pedestrian priority areas, designated by the *City Center Streetscape Plan*.
- The *City Center Streetscape Plan* creates opportunity for **accelerated implementation of high-quality walking and bicycling facilities** as a part of redevelopment projects with private sector partners as they build out street frontages to the City Center standards. Planned new public street connections will also be built to such standards. *Connect Lynnwood* will create opportunities to build a larger citywide network that connects with the City Center.
- The 2019 *City Center Design Guidelines* will help to **make walking and biking in City Center more comfortable and inviting** through design requirements pertaining to curb cuts and access control, landscaping and street trees, pedestrian scale lighting, walking connections between parcels, bike parking accommodations, and architectural and urban design features.

Healthy Communities Action Plan (2015)

The *Healthy Communities Action Plan* identifies policies and environmental changes that would increase access to safe opportunities for physical activity, make healthy food more available and affordable, and strengthen opportunities for social connections. A key recommendation of the *Healthy Communities Action Plan* is to **"Make Lynnwood a safe, attractive, and accessible place to walk and bike,"** laying the groundwork for an update of Lynnwood's walking and bicycling networks. *The Healthy Communities Action Plan* includes many recommendations that will be implemented and advanced by *Connect Lynnwood*.

How does it apply to *Connect Lynnwood*?

- *The Healthy Communities Action Plan* assessed and prioritized projects from the 2008 *Multi-Choice Plan* to **improve connectivity to schools, transit, retail, and parks, and complete missing links** in Lynnwood's walking and bicycling networks.
- *The Healthy Communities Action Plan* incorporates **trails, storm, greenway, and recreation corridors as "multi-choice" corridors** for inclusion in Lynnwood's walking and bicycling networks.

Lynnwood Transit Center Multimodal Accessibility Plan (2016)

Lynnwood's existing Transit Center (20100 48th Avenue W) will undergo significant changes during construction of the new Sound Transit Link light rail station, scheduled to open in 2024. The *Lynnwood Transit Center Multimodal Accessibility Plan* (LMAP), developed by Washington Department of Transportation (WSDOT), aims to provide safe, balanced, and efficient multimodal access to the Lynnwood Transit Center that adequately serves future transit ridership. The LMAP presents a series of strategies based on three scenarios (existing 2016, 2035 baseline, and LMAP), and evaluates them based on performance measures consistent with WSDOT's practical solutions process.[1]

How does it apply to *Connect Lynnwood*?

- The *LMAP* establishes goals and priorities for access to the Lynnwood Transit Center that can be adapted by *Connect Lynnwood* for application citywide. Relevant goals and priorities include:
    - Provide **safe, balanced, and efficient multimodal access** to the Lynnwood Transit Center that adequately serves future transit ridership
    - Improve auto, bus, pedestrian, and bicycle access by **identifying multimodal improvement connections to the Lynnwood City Center, Transit Center, and the Interurban Regional Trail**
    - Identify barriers to safe, efficient, multimodal travel, with consideration for **people with special needs and economically disadvantaged populations**
- The *LMAP* employed a **project prioritization method utilizing data-driven performance measures** based on plan goals to elevate projects for implementation. *Connect Lynnwood* will

[1] WSDOT's practical solutions process is a two-part strategy that integrates least cost planning and practical design principles based on six transportation policy goals: economic vitality, preservation, safety, mobility, environment, and stewardship. https://www.wsdot.wa.gov/about/practical-solutions/performance-framework

prioritize projects with a similar methodology to identify projects that achieve the biggest return on investment in achieving goals. Relevant *LMAP* performance measures include:

  - Bicycle Access: **Average level of traffic stress** on key bicycle routes within a 15-minute ride (3 miles) of the station
  - Pedestrian Access: **Average intersection density and percent of blocks with adequate pedestrian facilities** within a 15-minute walk of the station
  - Land Use: **Number of jobs and housing units** located within a half-mile (network distance) of the station

- As shown in Figure 1, the *LMAP* identified priority pedestrian, bicycle, and transit projects, programs, and policies that will be incorporated into *Connect Lynnwood*.

Figure 1 Key Modal Strategies (LMAP, 2016)

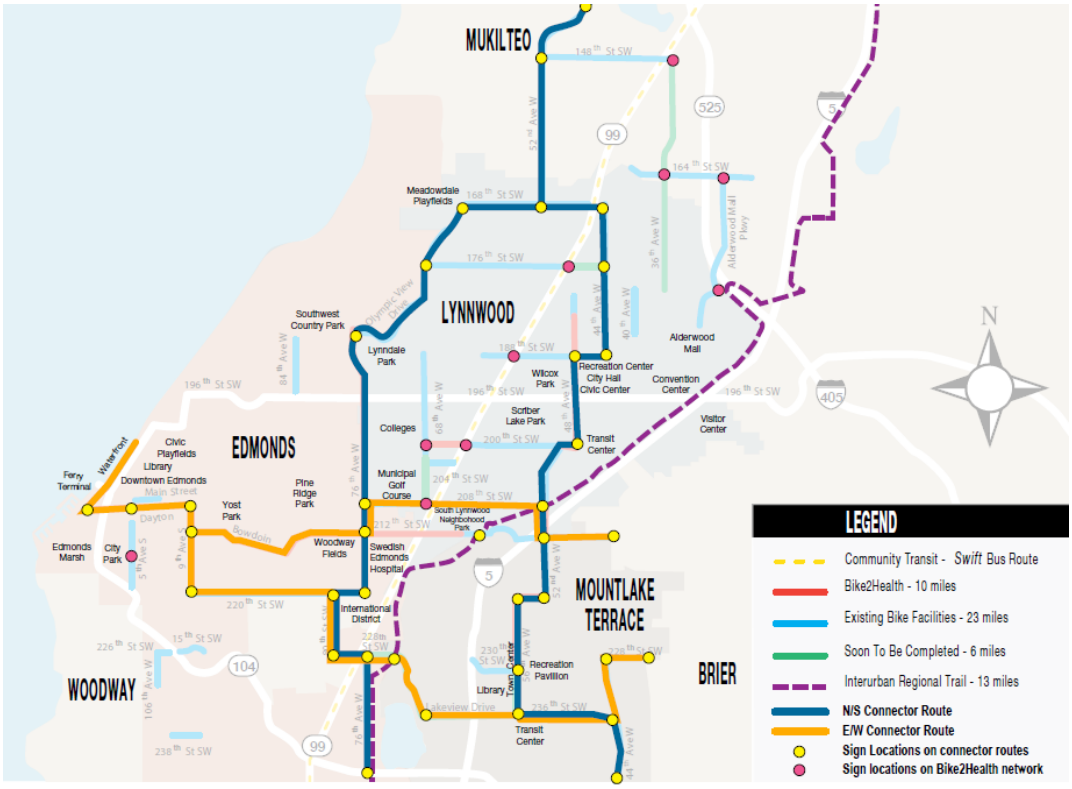
Pedestrian	Bicycle	Transit
Redevelop **Scriber Creek Trail**	Complete the **Bike2Health network**	Create new **Swift BRT Orange Line on 196th Street SW** connecting Edmonds Community College and McCollum Park-and-Ride, via Lynnwood Transit Center
Improve **access to Interurban Trail** from surrounding neighborhoods	Install **bike facilities on key routes** such as 36th Avenue W north from City Center, 44th Avenue W under I-5 and to the south, and completing the Center to Sound Trail (Scriber Creek Trail extension to the north)	Install **Transit Signal Priority** at key connecting locations
Install **walking enhancements at the 44th Avenue W / I-5 underpass**, possibly including a sidepath	Install network of **bicycle wayfinding** signage to City Center and Transit Center	Expanding customer service at Lynnwood Transit Center
Install additional **mid-block crossings**	Install **bike lockers** at Swift BRT stations	
Upgrade City Center sidewalks to match design standards	Implement **bike share** for local trips	
Complete City Center street grid and install additional traffic signals to facilitate pedestrian crossings		
Encourage new development in the City Center to include **pedestrian throughways**		

Bike2Health (2015-ongoing)

The cities of Lynnwood, Edmonds, and Mountlake Terrace are working together to improve access to health and wellness choices within their communities, make bicycling safer, and increase non-automobile connectivity by completing eleven critical missing links in the regional bicycle network. The Bike2Health program helped to establish a regional bicycle network by establishing several key corridor routes connecting major destinations and transit hubs.

The project connected or improved 10 miles of bicycle facilities by installing shared lane markings (sharrows), bicycle route signage, and nearly six miles of new bicycle lanes, as shown in Figure 2. To date, the bicycle facilities installed on streets in Lynnwood consist of striped bike lanes, sharrow markings, or signed bike routes.

Figure 2 Bike2Health Project Map, 2019



Source: https://verdanthealth.org/our-programs/bike2health-project/

How does it apply to *Connect Lynnwood*?

- Bike2Health created a regional bicycle network **connecting three neighboring cities with major destinations and transit hubs**, including Lynnwood. *Connect Lynnwood* will build upon the Bike2Health network by recommending new projects and upgrades to existing facilities.
- Lynnwood's key off-street bicycling connection in the Bike2Health network, the **Interurban Trail**, runs parallel to I-5 for more than three miles through southeast Lynnwood. Bike2Health links installed in the City of Lynnwood include **bike lanes and sharrows** on 76th Avenue W, 200th Street SW, and 48th Avenue W; and **bike lanes** on 212th Street SW and 52nd Avenue W. Similar and complementary bicycle connections will be identified within *Connect Lynnwood*.

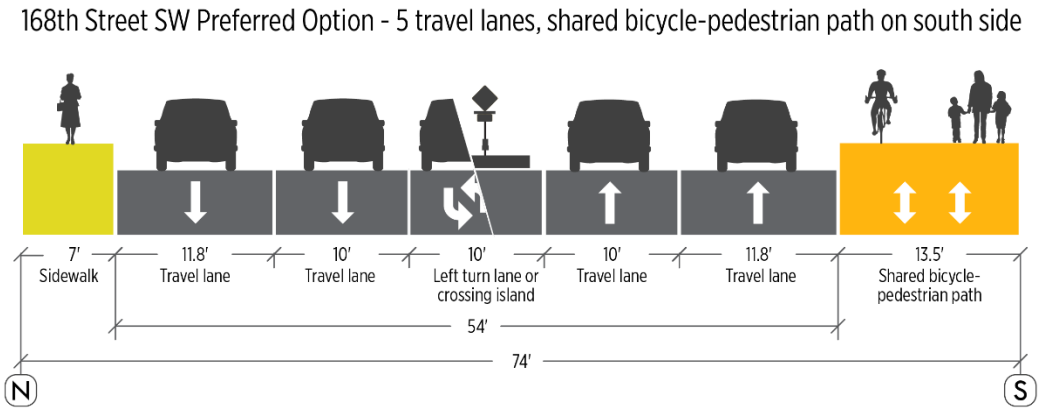
168th Street SW Corridor Study (2018)

The 168th Street SW corridor connects four schools, multifamily housing, residential neighborhoods, and commercial nodes in northwestern Lynnwood. The *168th Street SW Corridor Study* studied the stretch of 168th Street SW from Meadowdale Elementary School on the west side of Olympic View Drive to SR 99 with the goal to make the corridor safer for all users, engage the community in creating solutions, and develop a vision and list of projects that make the corridor into a complete street.

How does it apply to *Connect Lynnwood*?

- Community members emphasized the need to balance safety and mobility for people walking and bicycling while maintaining street capacity to carry peak traffic volumes during school arrival and dismissal times.
- The **preferred design concept** for the 168th Street SW corridor based on community input proposes a cross section that maintains the existing four travel lanes and a center two-way left turn lane. Improvements for people walking and bicycling include median crossing islands where crossings are needed, and a shared-use bicycle and pedestrian path along the south side of the street (Figure 3).

Figure 3 168th Street SW Preferred Corridor Design Concept (2018)



Source: Nelson\Nygaard

- Findings from the *168th Street SW Corridor Study* informed **2018 applications for Safe Routes to School (SRTS)** grant funding that involved collaboration with school administrators and Edmonds School District to develop site access and circulation improvements at all four school sites along the corridor.

Concurrent Plans and Projects

ADA Transition Plan (2018-Ongoing)

The City of Lynnwood is preparing an Americans with Disabilities Act (ADA) *Self-Assessment and Transition Plan* to ensure equality of access to all its public programs, services, facilities, and activities for people with disabilities. The *ADA Transition Plan* identified where sidewalks, curb ramps, and trails are out of compliance with ADA, limiting access and comfortable travel for those walking or rolling with mobility limitations. The plan proposes specific mitigations for each barrier. Key findings include:

- 31% of Lynnwood's curb ramps – mostly those along **Highway 99 and 196th Street SW –** were rated as a high priority to mitigate, with the majority requiring complete **replacement of curb ramps.**
- **98% of Lynnwood's sidewalk network is deficient for people with mobility limitations.** 7% of sidewalks ranked as a high priority to mitigate, mostly along Highway 99 and 196th Street SW. Predominant mitigation strategies include regrading sidewalks, removing overhanging barriers, moving protruding objects, and reorienting drainage grates.
- *The ADA Transition Plan* did not assess the presence or absence of sidewalks citywide**. Lack of sidewalks in many areas of Lynnwood presents a significant barrier to walking**, especially to those with mobility limitations.
- The *ADA Transition Plan* prioritizes mitigations to create accessible connections to public facilities including **parks, trails, City Hall, Civic/Justice Center, the Lynnwood library, recreation sites, and senior centers.**

How does it apply to *Connect Lynnwood*?

- *Connect Lynnwood* is an **opportunity to achieve multiple goals with city investments**: implementation of the *ADA Transition Plan* mitigations and improve walking and rolling connections, safety, and access to community destinations. Mitigations identified by the *ADA Transition Plan* can inform project identification and be prioritized through the *Connect Lynnwood* prioritization framework.
- High priority mitigations are defined based on proximity of project location to **government offices and public facilities, public transportation, commercial districts, and employers**. *Connect Lynnwood* will advance a similar methodology to prioritize improvements near important destinations.

Complete Streets Policy and Pedestrian/Bicycle Standards Update (2019-Ongoing)

Complete Streets is the integration of people and places in the planning, design, construction, operation, and maintenance of transportation networks. The Complete Streets approach ensures streets are safe for people of all ages and abilities, balances the needs of different travel modes, and supports local land uses, economic and civic vibrancy.[2] Lynnwood's Complete Streets Policy will set a vision for how the transportation network and City investments create safe and comfortable places for all people to travel no matter their mode.

[2] National Complete Streets Coalition. https://smartgrowthamerica.org/program/national-complete-streets-coalition/

The City of Lynnwood is drafting a Complete Streets policy to:

- Implement the Comprehensive Plan goal to create a **balanced transportation system with mobility options for all people.**
- Make the **best use of limited City resources** by aligning project development and delivery processes to ensure each city transportation investment achieves multiple goals.
- Advance **incremental change toward a multimodal future** where Lynnwood can grow with increased mobility options and connections to bus and light rail transit service.
- Establish eligibility for **Complete Streets Award funding** from the state of Washington's Transportation Improvement Board.[3]

Lynnwood's Complete Streets policy will establish a vision for complete multimodal networks accompanied by City processes and tools for implementation. Lynnwood's street design standards are one tool for implementing the Complete Streets vision. Creating and updating pedestrian and bicycle standards is an opportunity to **upgrade and codify the minimum facility designs** to create a network that is **comfortable for a wide range of people** to walk and bicycle, no matter their age or physical ability. Lynnwood currently has **no standard plans for bicycle facilities**, except sharrow markings included in the *City Center Streetscape Plan*. Bicycle and pedestrian standards will be applicable to city street improvement projects as well as projects identified by *Connect Lynnwood*.

How does it apply to *Connect Lynnwood*?

- *Connect Lynnwood* will **operationalize the Complete Streets Policy** by establishing the **complete walking and bicycling networks** along with priority projects for implementation.
- Updated pedestrian and bicycle standards will align with the facility types designated in *Connect Lynnwood* to create **walking and bicycling facilities suitable for people of all ages and abilities** on select streets to create a connected network**.**

Street Construction Projects

Several street projects under construction or in preliminary and final design phases will improve the bicycling and walking network.

- 196th Street SW will be rebuilt and expanded between 48th Ave W and 37th Ave W. The project will expand sidewalks and add a vegetated buffer to separate the sidewalk from traffic lanes.
- Beech Road will provide a new continuous street connection to improve access and circulation on the east side of Alderwood Mall, which will help to accommodate planned growth and development in this area and improve access to the Interurban Trail. At the southern end, the intersection with Alderwood Mall Parkway will be realigned and redesigned. A missing segment of street will be constructed behind Target and Homewood Suites, sidewalk will be added along the length of the project, and the intersection with Maple Road may be redesigned.
- 36th Ave W is currently being rebuilt between Maple Road/179th St SW and 165th Pl SW. The project will rebuild prior striped bike lanes, add a roundabout and a traffic signal, improve crossings, and create continuous sidewalk with buffers along both sides of the street.

[3] Transportation Improvement Board, Complete Streets Award: http://www.tib.wa.gov/grants/grants.cfm

Local and Regional Connections

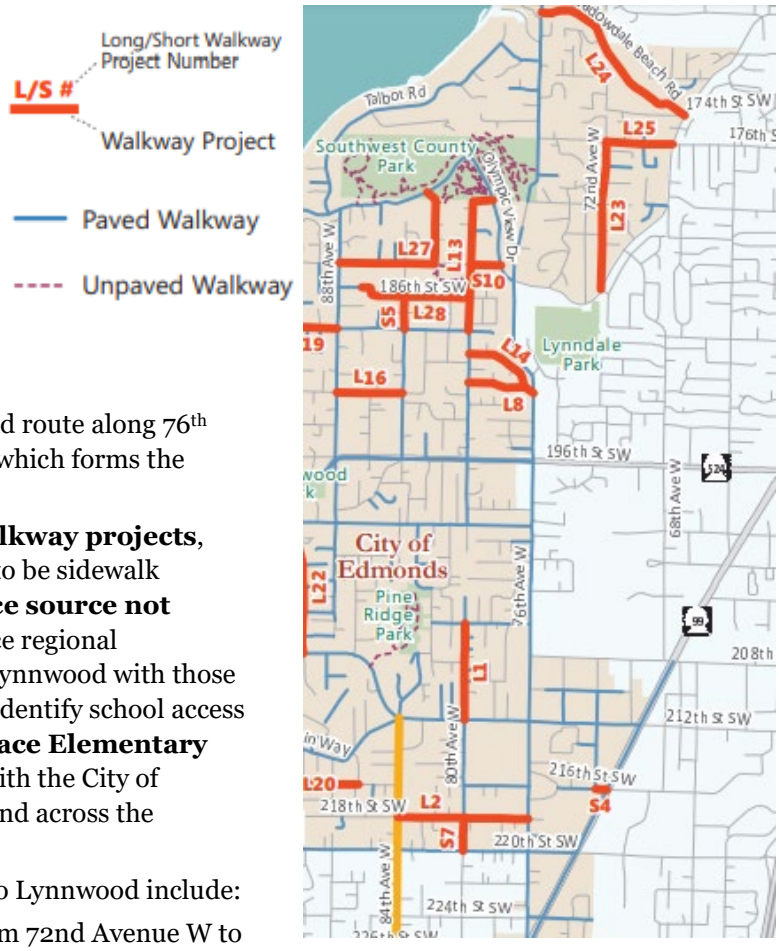
City of Edmonds

West of Lynnwood, the *City of Edmonds' Comprehensive Transportation Plan* includes basic but regularly-updated plans for Walkways and Bicycles, last updated in 2015.

Established bikeway connections between Edmonds and Lynnwood include:

- Bike lanes on 212th Street SW
- Interurban Trail
- Bike lanes, sharrows, and a signed route along 76th Avenue W/Olympic View Drive, which forms the boundary between the two cities

Figure 4 City of Edmonds Existing and Proposed Pedestrian Facilities Adjacent to Lynnwood (2015)



Source: City of Edmonds

Edmonds identified top priority walkway projects, (shown in Figure 4), which are assumed to be sidewalk construction and infill.**Error! Reference source not found.***Connect Lynnwood* could enhance regional connectivity by aligning investments in Lynnwood with those in Edmonds. For example, this plan will identify school access and safety improvements for **College Place Elementary and Middle Schools** in coordination with the City of Edmonds, as the school access areas extend across the Edmonds/Lynnwood city limits.

Edmonds priority projects that connect to Lynnwood include:

- **Project s4:** 216th Street SW from 72nd Avenue W to SR 99
- **Project L4:** 191st Street SW from 80th Avenue W and 76th Avenue W
- **Project L8:** 189th Place SW from 80th Avenue W to 76th Avenue W

City of Mountlake Terrace

Aside from the Interurban Trail, there are three critical connections for people bicycling and walking between Mountlake Terrace and Lynnwood. *Connect Lynnwood* could maximize regional connectivity by prioritizing bicycle and walking improvements along the street listed below.

Mountlake Terrace's 2007 *Transportation Master Plan* **proposed bike lanes on 44th Avenue W and 66th Avenue W**, which are both four-lane arterials, that would provide direct north-south connections with Lynnwood when implemented.

- **66th Avenue W**: No existing bicycle facilities. Sidewalks exist on both sides of the street in both cities.
- **52nd Avenue W:** Provides a connection under I-5, and now has striped bike lanes in both Lynnwood and Mountlake Terrace.

- **44th Avenue W:** Currently has 4-6 travel lanes and no bike facility. Biking and walking improvements under I-5 proposed in the *Lynnwood Multimodal Accessibility Plan* include an alternative for a sidepath adjacent to the street that would increase the level of comfort for people bicycling. There are also stretches of 44th Avenue W with no existing sidewalks.

Snohomish County and Puget Sound Region

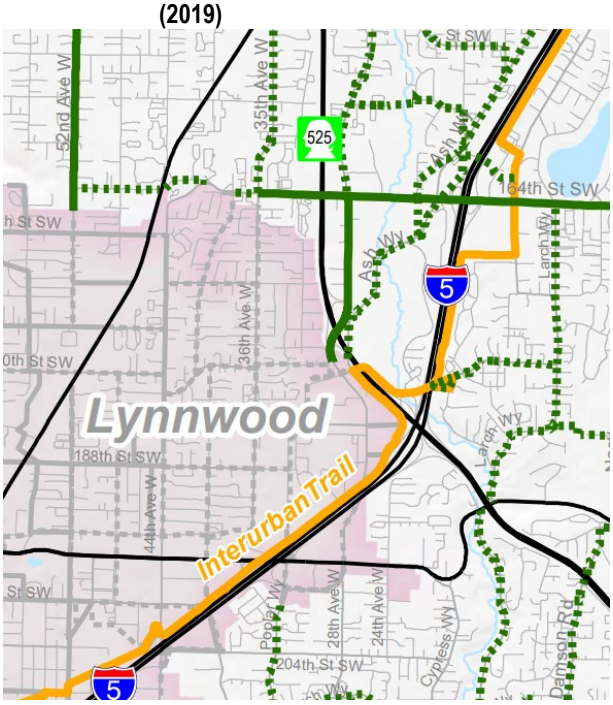
Since the adoption of the county's original comprehensive plan in 1995, Snohomish County has included bicycling and walking facilities on all arterial widening projects and new arterial streets in urban areas.

Bike lanes on county arterial corridors near Lynnwood include **148th Street SW and 164th Street SW** (**Error! Reference source not found.**).

Bike lanes connect into Lynnwood from unincorporated Snohomish County on **52nd Avenue W** (on the north end of the city) and **Alderwood Mall Parkway** (on the east side of the city).

Snohomish County has proposed bikeways on **Ash Way, Larch Way, and Poplar Way**, in addition to several bikeways that would connect with the Interurban Trail north of Lynnwood. The facility type is yet to be determined, though most county bikeways consist of **striped bike lanes**. These future projects would provide greater regional bicycle connectivity between Lynnwood, Brier, Bothell, Mukilteo, and Mill Creek.

Figure 5 Existing and Planned Bicycle Connections from Unincorporated Snohomish County (2019)



Source: Snohomish County

Snohomish County is in the midst of developing a countywide vision to improve active transportation access and connectivity, ***Pathways for Active Transportation***. The plan will create a list of prioritized projects, design elements, funding strategies, and an updated active transportation circulation map for Snohomish County. The draft study is anticipated in summer 2020.

The Puget Sound Regional Council (PSRC) completed an update of the ***Regional Bike Network Plan*** in 2018. Prior to this update, Highway 99 was the designated regional bicycle route through Lynnwood, in addition to the Interurban Trail. In the 2018 update, the Highway 99 segment was removed from the regionally significant bike network and **76th Avenue W** was added. A connection along **172nd Avenue W/Spruce Avenue and the Scriber Creek Trail corridor** were added as planned or aspirational facilities.[4]

[4] Puget Sound Regional Council Regional Bicycle Network
https://psregcncl.maps.arcgis.com/apps/webappviewer/index.html?id=ebb7a1aaf8ac4077b18a47061c7efdf4

How does it apply to *Connect Lynnwood*?

- *Connect Lynnwood* could maximize regional connectivity by prioritizing bicycle and walking improvements along these streets (shown in **Error! Reference source not found.**) to connect with unincorporated Snohomish County and nearby cities:
  - **52nd Avenue W**: Currently has striped bike lanes north of 168th Street SW.
  - **Alderwood Mall Parkway**: Currently has striped bike lanes north of Maple Road/33rd Avenue W. City of Lynnwood has recently installed bike lanes on 33rd Avenue W approaching Alderwood Mall Parkway.
  - **Poplar Way**: City of Lynnwood has proposed a bridge extending Poplar Way across I-5, which would provide critical biking and walking connectivity.
  - **164th Street SW and 36th/35th Avenue W**: City of Lynnwood's reconstruction of 35th Avenue W (currently in progress) will provide strong bicycle connectivity between existing and proposed Snohomish County bikeways on 164th Street SW and 35th Avenue W.
- *Connect Lynnwood* should coordinate with Snohomish County's *Pathways for Active Transportation* project and PSRC's periodic updates to the Regional Bike Network to leverage regional and county planning and funding for active transportation projects connect into Lynnwood.

3 BICYCLE AND WALKING NETWORKS

This section describes the overall experience walking and bicycling along and across Lynnwood streets, with maps of existing and planned networks and details on the types of walking and bicycling facilities available in Lynnwood today.

EXISTING & PLANNED BIKE NETWORK

Lynnwood's existing and planned bicycle network is the result of previous planning efforts described in greater detail in the Context Review. Key elements from these previous efforts specifically related to bike network planning and implementation include:

- *Multi-Choice Transportation System Plan* (2008) established **Lynnwood's first active transportation network** and prioritized connections to schools, parks/trails/open space, commercial areas, and services including senior facilities. On-street bicycle facility designs included **bike lanes or shared lane** (sharrow) markings.
- *Healthy Communities Action Plan* (2015) recommends update of the *Multi-Choice Plan* and a designated source of implementation funding, incorporates **trails and recreation corridors**, and prioritizes connections to schools, transit, retail, and parks.
- *Bike2Health* (2015-ongoing) **identified, funded, and built the most critical missing links in the regional bicycle network,** including connections to major destinations (transit hubs, high schools, hospitals, and Edmonds Community College).
- *Lynnwood Transit Center Multimodal Accessibility Plan* (LMAP, 2016) identified **priority bicycling projects, programs, and policies** to improve connectivity to **City Center, Lynnwood Transit Center, and the Interurban Trail**, including connections on 44th Avenue W and 36th Avenue W leading to City Center.

The bicycle network currently on the ground in Lynnwood is shown in Figure 6, along with planned or potential bike routes. The planned facilities are drawn from a composite of priority bicycling segments identified in the *Multi-Choice Plan* (within the city of Lynnwood) and the Bike2Health network (outside the city).

Figure 6 City of Lynnwood Existing and Planned (2008 / 2015) Bike Network

EXISTING AND PLANNED BICYCLE NETWORK

Existing Bicycle Facilities

- Bike Lane
- Bike Lane 1 direction / Sharrow 1 direction
- Sharrow Only
- Signed Bike Route, signage only
- Interurban Trail

Planned Bicycle Routes

- Previously planned or identified bicycle route *(from Multi-Choice Plan, Bike2Health, and Scriber Creek Trail concept)*

Destinations

- Convention Center
- Hospital/Clinic
- Recreation
- Park and Ride
- College/University
- School K-12
- Park/Open space
- Commercial Area
- Swift Blue Line Station
- Lynnwood City Limit

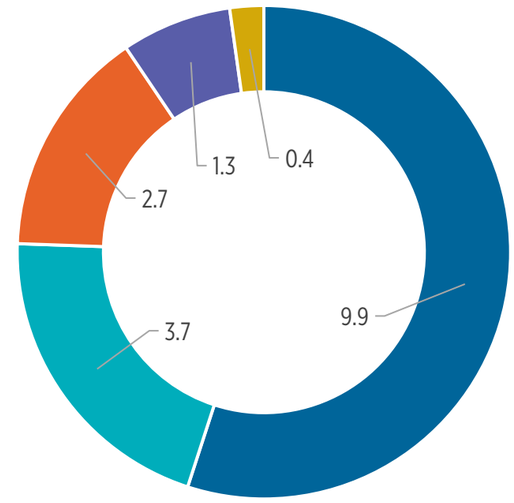
0 0.125 0.25 0.5 Miles

Data Sources: Snohomish County, ESRI, City of Lynnwood, Bike2Health

Lynnwood's Bike Network by the Numbers

Lynnwood's existing bike network consists of 18 centerline miles and includes a variety of facility types.

Figure 7 Centerline Miles by Bicycle Facility Type



A street reconstruction project is currently underway on 36th Avenue W between Maple Road/ 179th Street SW and 164th Street SW. The project is replacing the previous bike lanes with 5' bike lanes adjacent to the curb. When completed, these lanes will bring the city's total centerline mileage of bike lanes to 11 miles. Completion is anticipated in spring 2020.

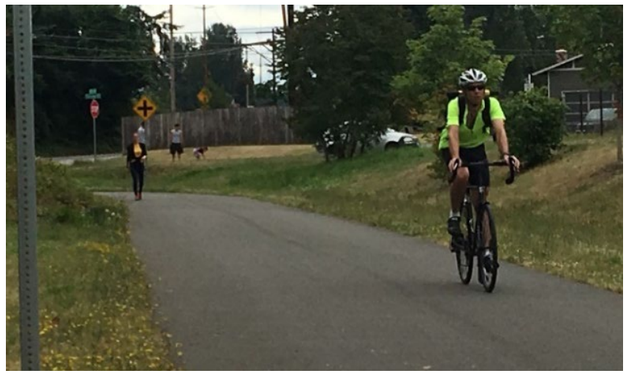
Figure 8 Existing Bicycle Facilities

Bicycle Facilities

Bike Lane
Over **half of the bicycle network** consists of striped bike lanes.

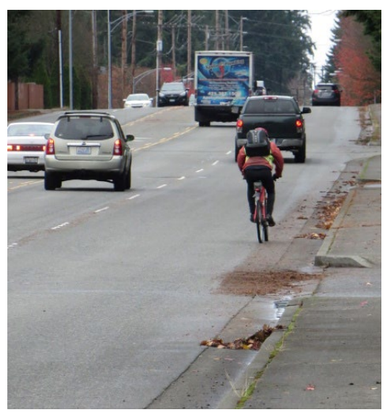
Sharrow
Less than a ½ mile of streets have sharrow markings only.

Multi-use Trail
The Interurban Trail is a paved multi-use trail that comprises the **second-largest share** of the city's established bicycle network, with a total of 3.7 miles.



Bike lane/Sharrow
Bike2Health built some bikeways with a bike lane in one direction, paired with sharrows in the other direction.

Signed Bike Route
Signed bike routes have been established through the Bike2Health network along several streets, including 168th Street SW and Olympic View Drive.



EXISTING & PLANNED WALKING NETWORK

Lynnwood's existing and planned walking network is the result of previous planning efforts described in greater detail in the Context Review. Key elements from these previous efforts that have shaped Lynnwood's walking network include:

- *The Multi-Choice Transportation System Plan (*2008) established a **vision for a minimum grid of priority walking connections** primarily along arterial streets that connect **key destinations, priority land uses, and transit stops.** This minimum grid or pedestrian "skeleton" network is depicted in Figure 11 as Lynnwood's planned walking network.
- The *City Center Streetscape Plan* (2014) established standards for higher quality walking facilities in the City Center, including **vegetated buffers, wider sidewalks** (seven feet wider than citywide standards), **and wider crosswalk markings with high visibility treatments.**
- The *Ten-Minute Walk Campaign* (ongoing) is focusing on **improving walking connections to parks** by documenting barriers and recommending targeted improvements to ensure every Lynnwood resident has easy walking access to the parks within a 10-minute walk of their home.
- The *Lynnwood Transit Center Multimodal Accessibility Plan* (LMAP, 2016) **identified priority walking projects, programs, and policies** to improve connectivity to City Center, Lynnwood Transit Center, and the Interurban Trail, including additional mid-block crossings, completing the street grid, and upgrading City Center sidewalks.
- Upon evaluating all of Lynnwood's sidewalks and curb ramps for ease of use by people with mobility limitations and disabilities, the *ADA Transition Plan* (ongoing) found that **most of Lynnwood's sidewalk network is deficient for people with mobility limitations**. The plan established a prioritized list of improvements based on proximity to public facilities such as City Hall, the senior and recreation centers, parks, trails, and public transportation. The *ADA Transition Plan* highlights that most citywide deficiencies exist along Highway 99 and 196th Street SW.

The existing walking network in Lynnwood is shown in Figure 9. The network includes elements that help people walk along the street, across the street, off street, and on trails. The planned walking network as identified in the *Multi-Choice Plan* is shown in Figure 11.

Figure 9 **Existing Walking Network**

EXISTING WALKING NETWORK

Sidewalks
- Sidewalk
- No sidewalk present

Trails
- Paved trail
- Unpaved trail
- Variable surface
- Interurban Trail

Crossings
- Traffic signal
- Pedestrian half signal
- Midblock crossing, with flashing beacon
- Midblock crossing, unsignalized

Destinations
- Convention Center
- Hospital/Clinic
- Recreation
- Park and Ride
- College/University
- School K-12
- Park/Open space
- Commercial Area
- Swift Blue Line Station
- Lynnwood City Limit

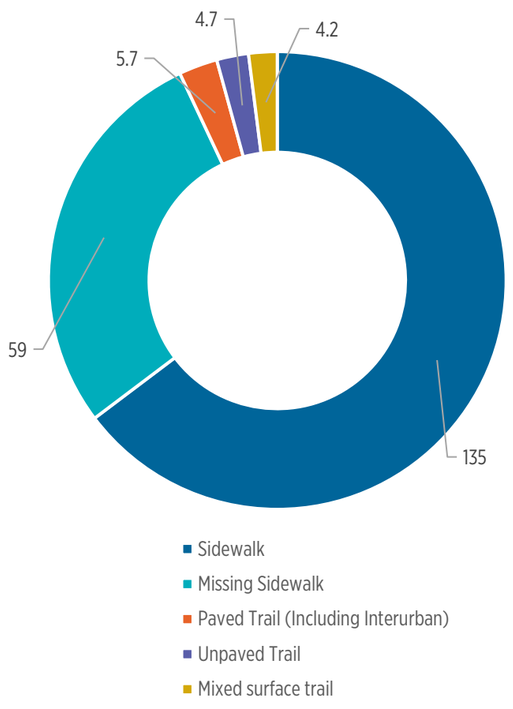
0 0.125 0.25 0.5 Miles

Data Sources: Snohomish County, ESRI, City of Lynnwood

Lynnwood's Walking Network by the Numbers

A large portion of Lynnwood's street network has sidewalks along both sides of the street. Many of Lynnwood's streets, however, have sidewalks on only one side of the street, or no sidewalks at all. Because of this it can be helpful to think of the sidewalk network in terms of street edges, assuming that a complete sidewalk network should have sidewalks on both sides of every street. Sixty-eight percent of Lynnwood's street edges have sidewalks, with the remaining 32% lacking sidewalks. Most of the 59 miles of street edges lacking sidewalks are residential streets, but this also includes several collector streets that have discontinuous sidewalks or long stretches with no sidewalk, including 40th Avenue W, 60th Avenue W, and 180th Street SW. Further analysis will help to determine residential streets where conditions are appropriate to not require sidewalks, either on both sides of the street or at all.

Figure 10 Walking Network: Presence and Absence of Sidewalk



Along the Street

Standard sidewalk

The current City of Lynnwood sidewalk standard is a sidewalk five feet in width in residential areas, and seven feet in some commercial areas. In both residential and commercial areas, the standard is adjacent to the curb, with no buffer between the street and the sidewalk.

Many street segments in the city have no sidewalks. Residential streets comprise much of these areas of missing sidewalks.

City Center sidewalk

Standards in the City Center specify a minimum 12' sidewalk width, including a buffer and amenity zone of 5' between the street and the walkway.

Across the Street

Standard crosswalk

The City of Lynnwood standard crosswalk is a continental crosswalk 8' in width.
371 painted crosswalks exist in Lynnwood.

Crosswalk widths across SR 99 are typically 10' in width.

Mid-block crossings

There are numerous mid-block crossings on Lynnwood's arterial streets. Designs vary, but most have push button-activated flashing beacons, while some have median islands, accompanied by yellow pedestrian crossing signage. These mid-block opportunities may make it easier to cross the street in areas between traffic signals.

City Center crosswalk

In the City Center, crosswalks must be 16' in width. Crosswalks built to City Center standards have not yet been installed.

Off-Street

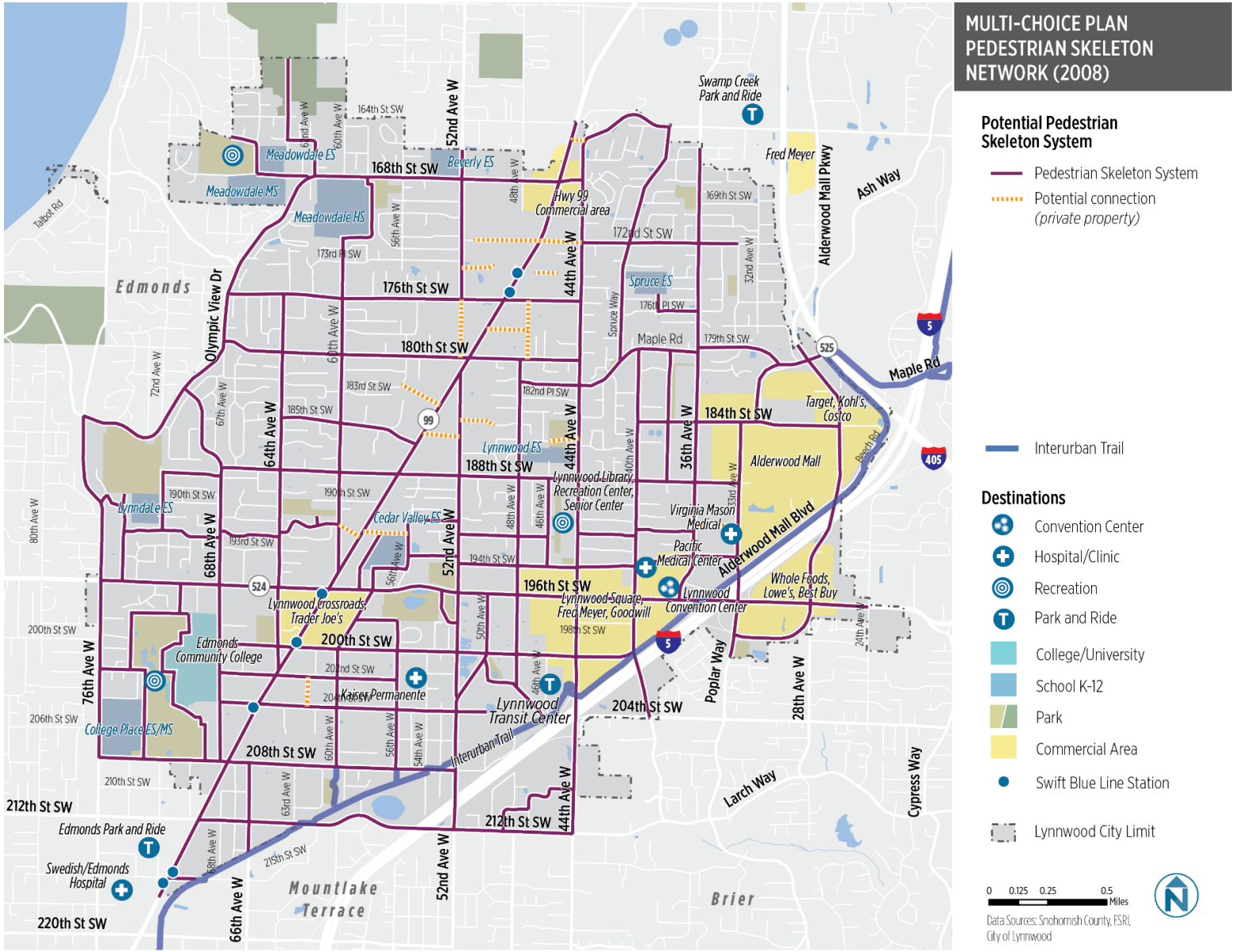
Multi-use Trails and Interurban Trail

The Interurban Trail stretches for more than three miles across Lynnwood. Other segments of paved trails are found in various parks, including North Lynnwood Park and Pioneer Park, bringing Lynnwood's total network of paved trails to 5.7 miles.

Recreational Trails

Numerous trails are found throughout the city, primarily in parks and open spaces. 4.7 miles of natural surface trails, and 4.2 miles of mixed surface trails, are found in the Lynnwood Golf Course, Scriber Lake Park and Scriber Creek Park, Lund's, Gulch open space, Lynndale Park, and Pioneer Park. Other than the Interurban Trail, these off-street trails primarily serve recreational uses.

Figure 11 **Planned Walking Network: Pedestrian Skeleton Network (Multi-Choice Plan, 2008)**



HOW ARE LYNNWOOD'S WALKING AND BICYCLING NETWORKS WORKING TODAY?

This section presents analysis of how Lynnwood's walking and bicycling networks are functioning for people in Lynnwood today. Key outcomes of *Connect Lynnwood* will be an update to Lynnwood's active transportation network, and development of a list of priority projects to improve the safety and comfort of people walking and bicycling. To understand where investments will yield the greatest benefit, the following analyses highlight opportunities to build on what's working, and target improvements to areas of greatest need.

A summary of the analyses and key findings is presented below:

- **Bike Counts**: ***Where do people bike in Lynnwood today?***
  - *Key Finding:* Since 2016, the number of people bicycling remains steady, with the highest average daily bicycle activity observed at 200th Street SW and 48th Ave W near the Lynnwood Transit Center.
- **Level of Traffic Stress:** ***Where could bicycling be more comfortable?***
  - *Key Finding:* Established on-street bicycle routes in Lynnwood are primarily medium or high stress (LTS 3 or LTS 4), indicating that the majority of the established network caters to highly confident riders, and that many people who bicycle on these routes likely do not feel comfortable.
- **Ease of Crossing:** ***Where is it difficult to cross the street?***
  - *Key Finding:* Many streets with the highest walking demand are hardest to cross. Long distances between controlled crossings make many of Lynnwood's arterials very challenging to cross.
- **Collision Frequency Analysis:** ***Where are there safety concerns for people walking and bicycling?***
  - *Key Finding:* Collisions are more frequent on streets with higher posted speeds, more lanes, and higher traffic volumes. A collision frequency analysis from 2010 to 2018 showed 44% of vehicle collisions involving people bicycling and walking occurred on the two most traveled streets in Lynnwood – Highway 99 and 196th Street SW.

Where do people bike in Lynnwood today?

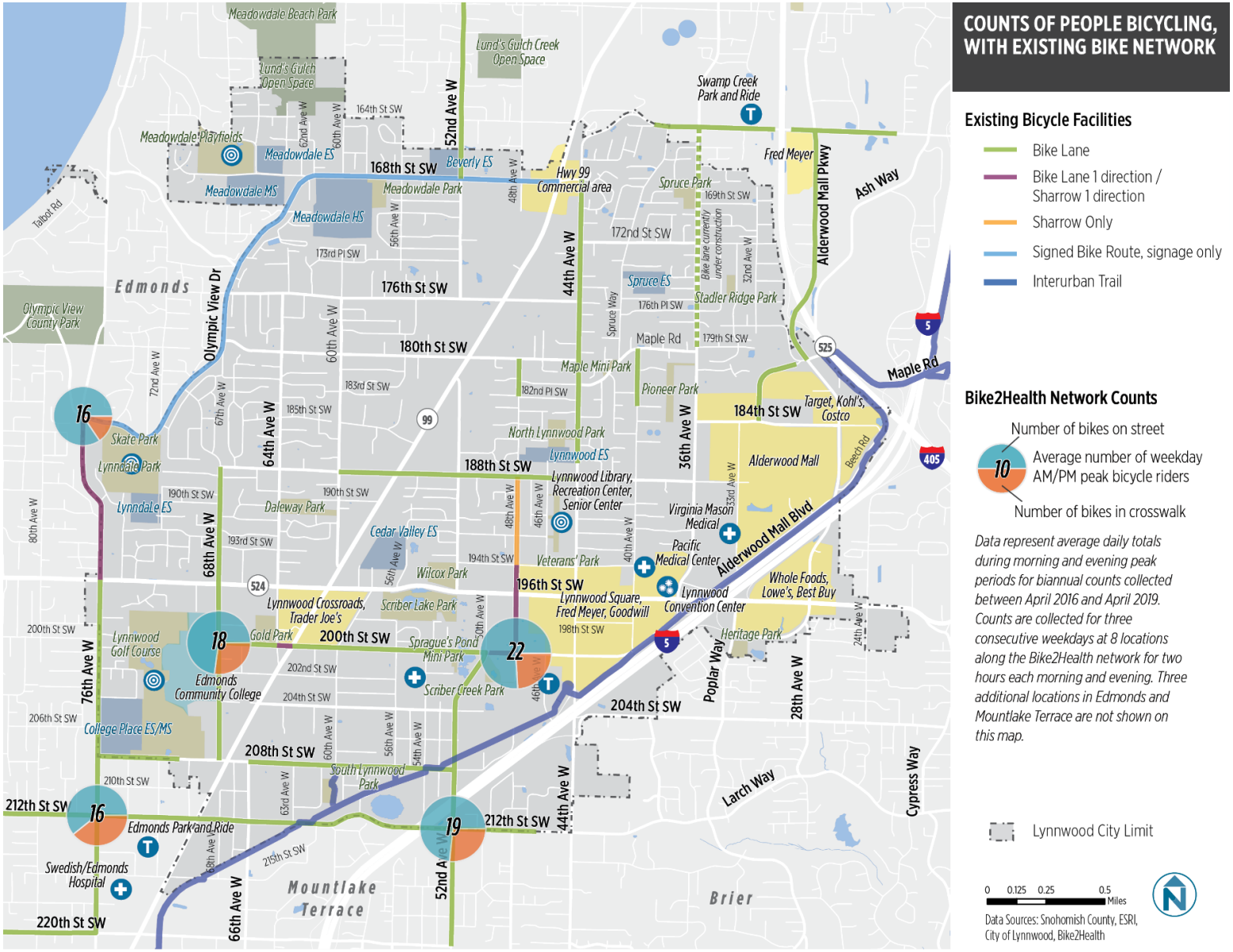
Bike counts are a good way to assess where and how many people are bicycling in Lynnwood today. As part of the implementation of the Bike2Health network, counts of people bicycling have been collected at eight locations (four within Lynnwood), twice per year in 2016, 2017, and 2019. Data were collected for three consecutive weekdays for two hours during the morning peak period (7-9:00 a.m.), and for two hours during the evening peak period (4-6:00 p.m.). Counts take place twice per year. Detailed bicycle count data can be found in Appendix B.

Count locations in or near Lynnwood are shown in Figure 12. Graph symbol sizes show the overall magnitude of counts, as well as the breakdown of people bicycling on the street versus in the crosswalk. A higher proportion of people bicycling in the crosswalk may indicate that people feel unsafe bicycling on the street.

Key Findings:

- **The number of people bicycling remains steady.** There has been no discernable trend upward or downward in bike counts, so the average per count period across all years is shown. The intersection of 200th Street SW and 48th Avenue W has the highest average daily bicycle count, with 22 people passing during morning and evening peak hours.
- **The locations with the highest average daily bicycle activity are all in Lynnwood** – 200th Street SW and 48th Avenue W, 52nd Avenue W and 212th St SW, and 68th Avenue W and 200th Street SW.
- **The location with the greatest proportion of people biking in the crosswalk is 76th Avenue W and 212th Street SW (in Edmonds)**, where 40% of people have been observed in the crosswalk versus in the street. The lowest proportion of people bicycling in the crosswalk was observed at 76th Avenue W and Olympic View Drive, where 15% of people ride in the crosswalk.

Figure 12 Lynnwood Average Weekday Peak Period Bicycle Counts by Location



Where could bicycling be more comfortable?

Bicycle level of traffic stress[5] (LTS) is a scoring methodology used to represent the level of stress, or discomfort, experienced by a person riding a bicycle on a street segment based on street design and environmental factors such as type of bike facility, speed limit, and traffic volume, among others. LTS analysis identifies segments of the street network with high traffic stress, gaps in the bicycle network, and gaps between "low stress" links to highlight opportunities to make the network more comfortable for people bicycling. Points increase as stress-inducing factors increase, with LTS 4 as the highest stress and LTS 1 as the lowest stress.

The **factors accounted for in LTS analysis** that impact the stress of a person bicycling are as follows:

- Presence of a bike lane
- Width of a bike lane
- Presence and width of an on-street parking lane
- Number of travel lanes per direction
- Presence of a marked roadway centerline
- Speed limit
- Average daily traffic volumes

Level of Traffic Stress analysis results in **four possible outcomes**, with the following populations likely to be comfortable bicycling along that street segment:

- **LTS 1 – Low Stress**: Most children are comfortable
- **LTS 2 – Moderate Stress:** Most of the adult population are comfortable
- **LTS 3 – High Stress:** Confident cyclists are comfortable
- **LTS 4 – Extreme Stress:** Only the strongest and most experienced cyclists are capable (but not necessarily comfortable)

These scoring factors interact to produce different LTS scores depending on street context. The overall stress level for a street segment is defined by the **scoring criterion that most contributes to the stressful condition.** Speed limits, for example, may exert a strong influence on the level of traffic stress: a wide bike lane adjacent to the curb may feel far less comfortable on a street with 45 mph speed limits versus on a street with 25 mph speed limits. A detailed scoring methodology can be found in Appendix C.

LTS analysis creates a nuanced understanding of how well existing bicycle facilities are serving people of all ages and abilities, informing where future bicycle facilities could be installed or upgraded, and what type of facility would yield the desired LTS score or lower stress bicycling experience.

To create a network that is welcoming to riders of all ages and abilities, the **target LTS scores should generally be LTS 1 or 2.** A key feature of LTS analysis is the ability to determine if existing facilities are consistent with a designed or targeted stress level for each designated route, given an expected rider type or population expected to bicycle. For example, providing bicycle facilities with an LTS 3 might be appropriate to serve commercial areas, but a separated bicycle facility or alternative route might be

[5] LTS values were assigned based on Level of Traffic Stress Criteria for Road Segments, version 2.0, June, 2017. Peter Furth, Northwestern University. Retrieved from http://www.northeastern.edu/peter.furth/wp-content/uploads/2014/05/LTS-Tables-v2-June-1.pdf

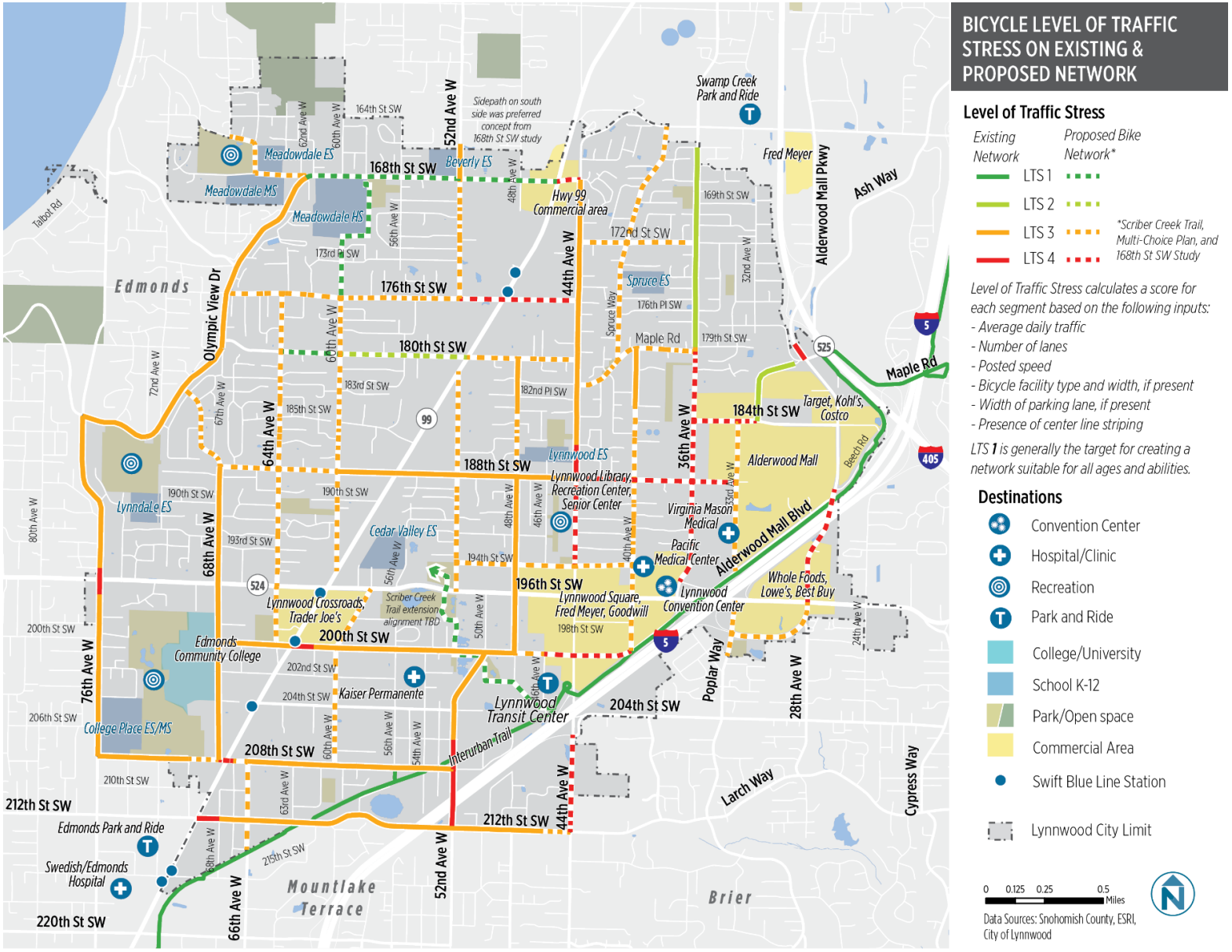
required to connect to schools and parks, where an LTS 1 may be preferred given that families and young people are likely to ride to these destinations.

Key Findings

Error! Reference source not found. depicts the results of the Level of Traffic Stress analysis for the existing and planned bicycle network. Level of Traffic Stress analysis is presented for all arterial and collector streets, in addition to the existing and proposed bike network, in Appendix C. Local/residential streets were not included in the analysis due to a lack of crucial data (average daily traffic was only available for collector and arterial streets), and because local streets are generally a low stress environment due to lower traffic volumes, lack of centerline markings, and slower speeds.

- **Lynnwood's existing on-street bicycle network does not include any segments with LTS 1** (lightest green color, lowest-stress).
- **Established on-street bicycle routes in Lynnwood are primarily LTS 3 or LTS 4, indicating that many people who bicycle on these routes likely do not feel comfortable.** Higher LTS segments may also deter riders who are interested in bicycling but concerned about safety and interacting with street traffic.
- **Two bike lanes recently installed or currently under construction score LTS 2**: 33rd Avenue W near Alderwood Mall, and 36th Avenue W between Maple Road and 164th Street SW (under construction).
- **The Interurban Trail scores LTS 1 due to its separation from street traffic**. Streets near the City Center and Alderwood Mall all score LTS 3 or 4, indicating that future bicycle facilities may require separation from traffic to create low-stress bicycle connections to the Interurban Trail.
- **44th Avenue W adjacent to City Hall is among the highest-stress segments in Lynnwood,** along with 168th Street SW, which serves numerous schools and parks.
- The majority of the proposed bike network has no facility type specified. With two exceptions, LTS scoring on these dashed segments was based on existing street conditions. **The exceptions are 168th Street SW and the Scriber Creek Trail, both of which, if built, would score LTS 1 due to their physical separation from motor vehicle traffic.**

Figure 13 Bicycle Level of Traffic Stress on Existing and Proposed Network



Where is it difficult to cross the street?

Walking and rolling trips can become more challenging when people encounter streets that are difficult to cross. The Ease of Crossing analysis **quantifies the challenge of crossing street segments** based on several inputs, many of which are the same as those used in the bicycle Level of Traffic Stress analysis.

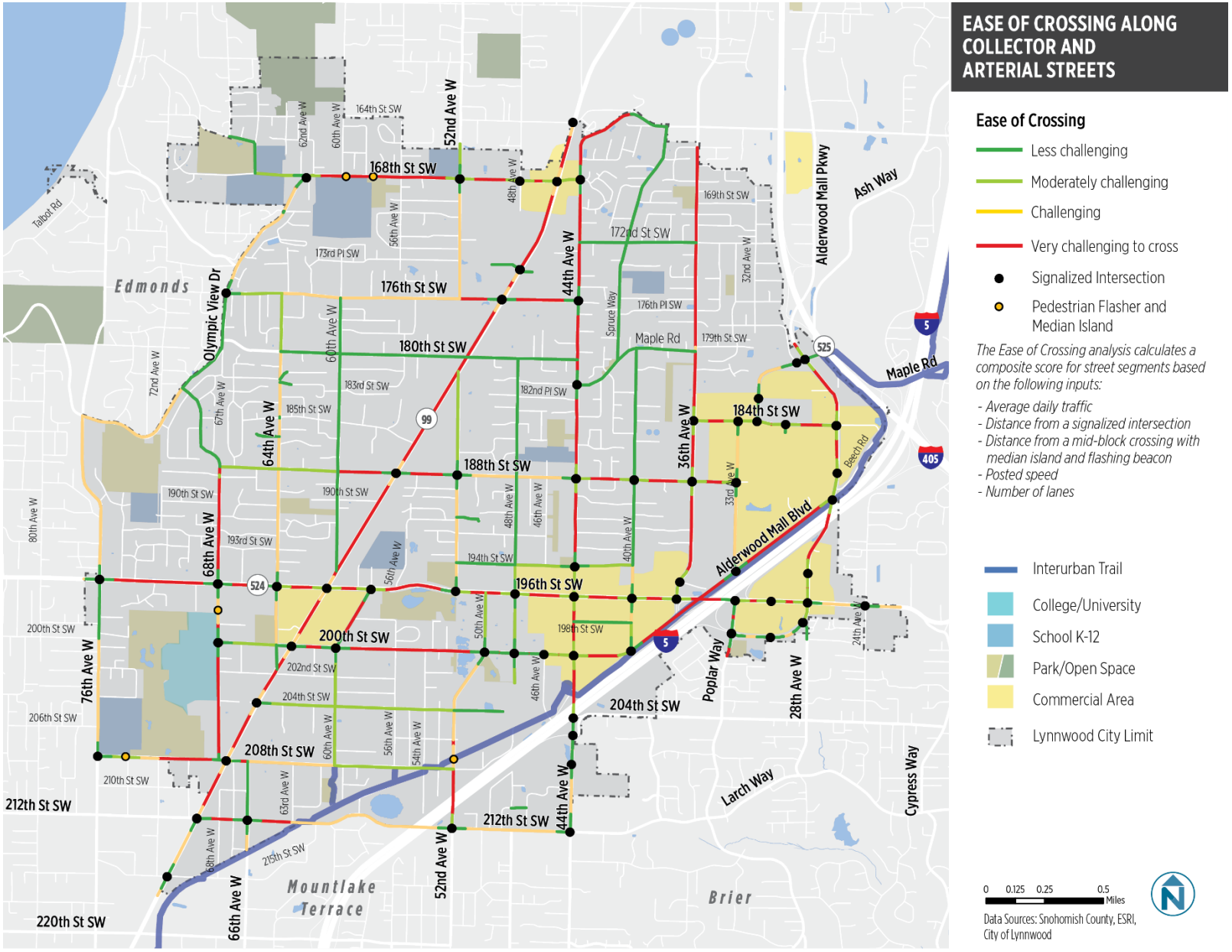
- Average daily traffic along the street segment
- Posted speed
- Number of lanes
- Distance from a signalized intersection
- Distance from a mid-block crossing with flashing beacon and median island

The Ease of Crossing analysis was performed on all collector and arterial streets, excluding local and residential streets due to lack of traffic volume data. Residential streets are typically much easier to cross as they are narrower, have fewer lanes, have lower speeds and volumes, and frequent stop control. A composite score was calculated for each street segment. The results are shown in Figure 14.

Key Findings

- **Many streets with the highest walking demand are challenging or very challenging to cross.** Several of the city's main arterial streets are very challenging to cross, including Highway 99, 196th Street SW, 36th Avenue W, 44th Avenue W, and Alderwood Mall Boulevard. These are also areas of high walking and bicycling demand, described below in the Demand Analysis.
- **Long distances between controlled crossings make many of Lynnwood's arterials very challenging to cross.** The further a person must walk to a reach a signalized crossing, the harder that street segment is to cross. Segments that are closer to traffic signals therefore score better than those further from signals, as shown by the short segments of green and yellow adjacent to many traffic signals. Traffic signals are spaced especially far apart along Highway 99 and the northern segment of 36th Avenue W.
- **High-volume, high-speed streets with many lanes are challenging to cross even with mid-block crossings.** Mid-block crossings with flashing beacons and median islands can make crossing the street less challenging. However, traffic volumes, speeds, and the number of lanes may mean that the segment is still challenging to cross. 168th Street SW between Olympic View Drive and 52nd Avenue W exemplifies this condition. Although the mid-block crossings provide a highly visible place to cross, the street still carries 14,000 vehicles per day across five lanes, meaning this segment is still challenging to cross.
- **Low-volume, 2-lane streets with 25 mph speed limits are least challenging to cross.** Several streets score well in this analysis despite their lack of signalized intersections. 60th Avenue W, 180th Street SW, 48th Avenue W, and 40th Avenue W are all ranked as less challenging to cross. This is due to low traffic volumes and 25 mph speed limits on 2-lane streets.

Figure 14 Ease of Crossing Along Collector and Arterial Streets



Where are there safety concerns for people walking and bicycling?

The citywide pedestrian and bicycle collision frequency analysis identified locations, road qualities, and factors commonly represented in collision reports. Collision data were analyzed for nine years: 2010-2018. Highest collision locations and common factors can be used to target proactive network and safety improvements and programs to help people walking and bicycling avoid collisions. Detailed results of the collision analysis can be found in Appendix D.

The collision analysis, figures, tables, and associated statements were reviewed by City of Lynnwood Traffic Engineer, Paul Coffelt, P.E. for appropriate use in City of Lynnwood Transportation Planning efforts only. These results will be used in conjunction with further collision analyses (if needed) to identify mitigation measures, resources, and timelines in subsequent *Connect Lynnwood* efforts.

Key Findings

- **Collisions are disproportionately likely to occur on streets with higher posted speeds, more lanes, and higher traffic volumes.** People walking and biking are much more likely to be killed or severely injured (KSI) on arterial streets that have higher speed limits and traffic volumes, even when those streets have only two lanes.
- **Pedestrians account for all recorded fatalities**, and 80% of severe injuries.
- Over 40% of collisions involving people bicycling and walking occur on two streets – **Highway 99 and 196th Street SW.**
- **Implementing planned bike facilities has a positive impact.** The yearly rate of collisions on the Bike2Health network has gone down since facilities were put in place in 2016. Currently 24% of bike collisions are on the planned bike network.
- **More severe collisions occur mid-block.** Only 15% of collisions occur mid-block, but they represent 43% of fatalities and severe injuries.
- **A driver making a right turn while the person walking or biking crosses is the most common action leading to a collision.** This is especially common on Highway 99 and 196th Street SW, and suggests opportunities for targeted improvements at intersections.
- **High crash corridors need higher-level separation for people walking and bicycling**, including bike lanes, sidewalks, and crossings.
- **State highways are attracting people walking and bicycling** despite their design for higher speeds and traffic volumes, particularly in areas with commercial destinations.
- WSDOT Highway Safety Improvement Program (HSIP) funding is available to **target improvements along high collision corridors**.

Where do bicycle and pedestrian collisions take place?

According to a simple frequency analysis, forty-four percent of the collisions involving people walking and biking in Lynnwood during the study period occurred along or crossing State Route 524/196th Street SW and Highway 99. To understand the influence of activity on collision occurrence, the number of collisions can be normalized by any number of factors. Figure 16 shows the highest collision corridors based on both average daily traffic (ADT) and segment length. Using both methods, whether based on traffic volume or segment length, collisions are concentrated on major commercial corridors and near major destinations, where road activity is higher, such as the Lynnwood Transit Center, Alderwood Mall, Lynnwood Square, and Edmonds Community College.

Figure 15 Collisions Involving People Walking or Biking 2010-2018

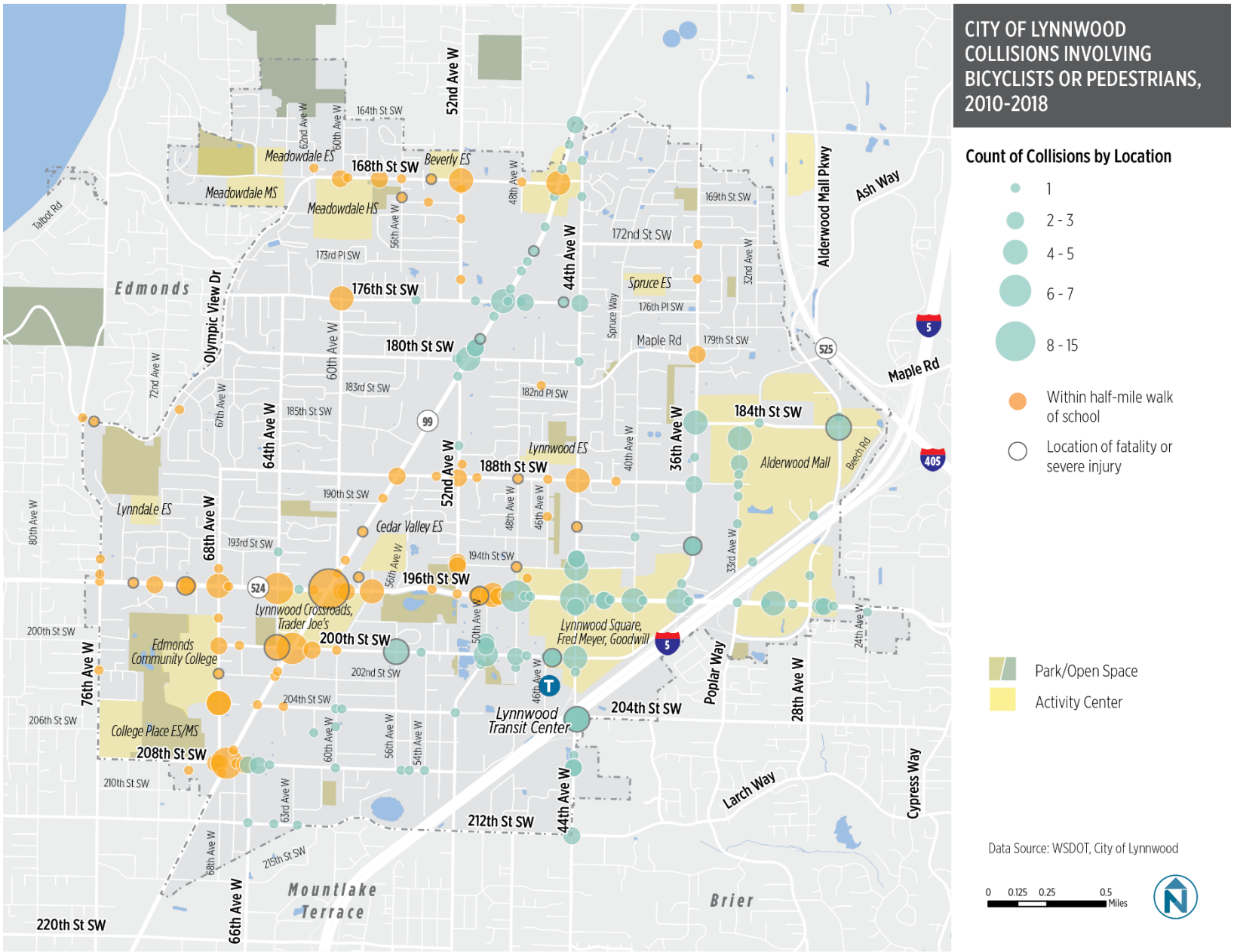
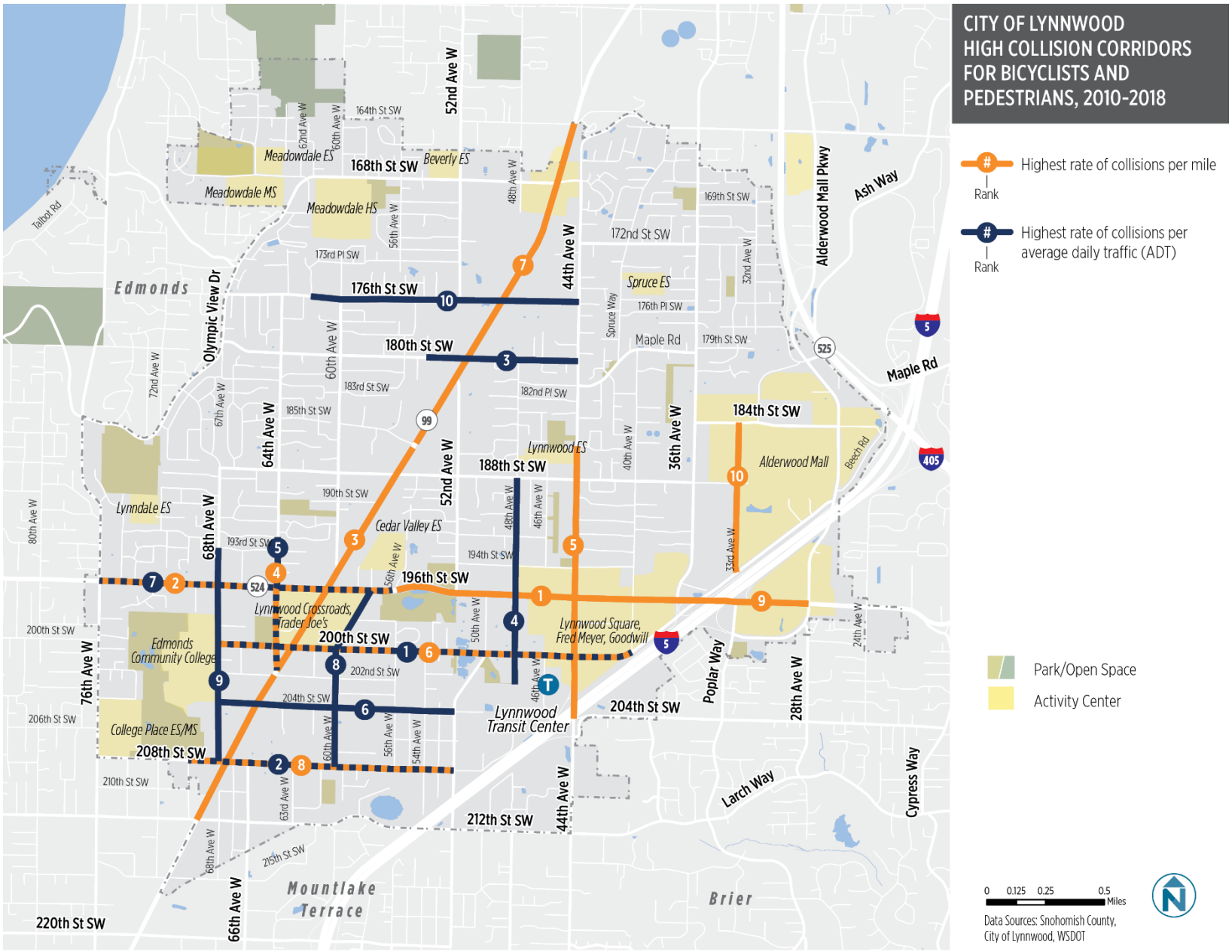


Figure 16 High Collision Corridors for People Walking or Biking, 2010-2018



What are the most common factors?

One way of understanding collision patterns for people walking and biking is to explore whether specific street types are overrepresented as the "primary roadway" of collisions. The primary roadway is defined by the Washington State DOT as "the roadway that the law enforcement officer or citizen considers to be the principal site of the collision." The collisions analysis looked at whether certain street types are overrepresented in collisions compared to the number of centerline miles citywide. Key trends include:

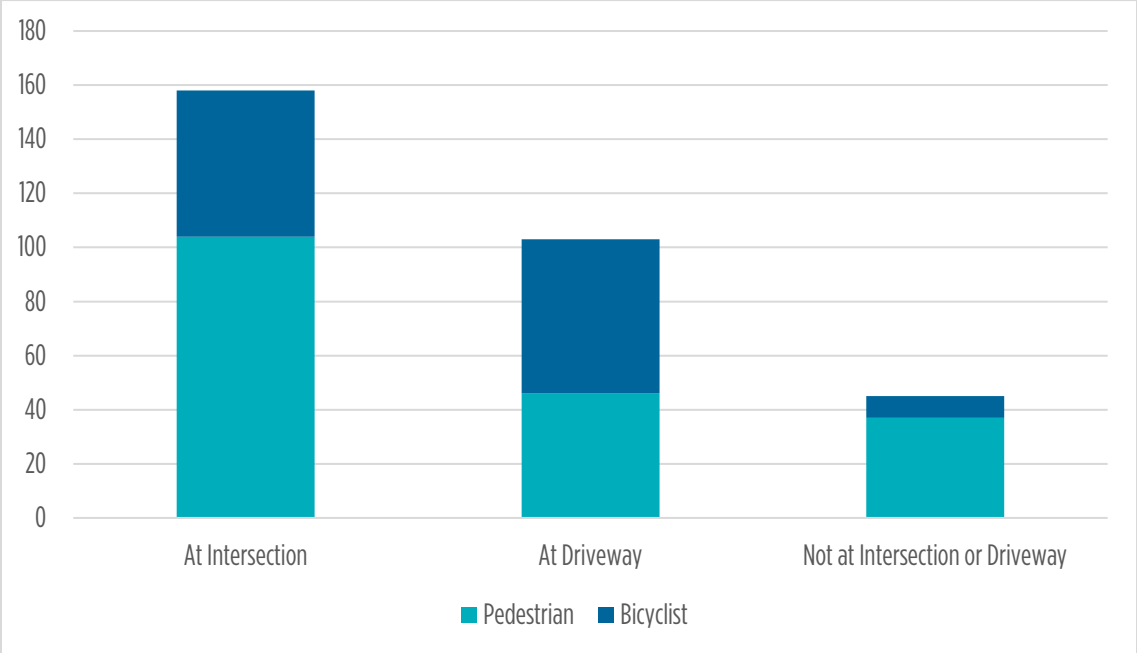
- Arterials make up less than a third of street miles in Lynnwood, but three-quarters of collisions occur on them.
- Collisions are disproportionately likely on streets with speed limit of 30 and above.
- Streets with three or more lanes are disproportionately likely to be the site of a collision, with the rate of collisions compared to street miles becoming much higher on streets with five to seven lanes.
- Streets with daily volumes above 7,000 are disproportionately likely to be the location of a collision.

What about intersections?

Just over half of vehicle-bicycle and vehicle-pedestrian collisions took place at intersections, while about one-third took place at driveways. Mid-block collisions were less common but were disproportionately likely to result in a fatality or severe injury.

In total, 154 collisions took place at an intersection. The size of those intersections was evaluated based on the number of lanes of the cross streets. Collisions were most likely to occur where two streets of five lanes or more intersected (41 total). For people walking, the most common type of collision was a driver making a right turn and a person crossing the street with the signal.

Figure 17 Intersection Relationship, Pedestrian- or Bicycle-Involved Collisions, 2010-2018



Where is the highest demand for bicycling and walking?

Lynnwood's walking and bicycling networks and investments ideally should serve the places and corridors where people are most likely to walk and bicycle. This section presents a multi-faceted demand analysis estimating the relative intensity of destinations that could generate walking or bicycling trips now and in the foreseeable future.

The demand analysis considers trip generating land uses, transit ridership and regional commute patterns as data are available to estimate where common trips could be captured with walking and bicycling. This section concludes with an overlay of demand with the existing and planned active transportation network to highlight where walking and bicycling trips may be in demand, but network connectivity may be limiting the viability of active trips.

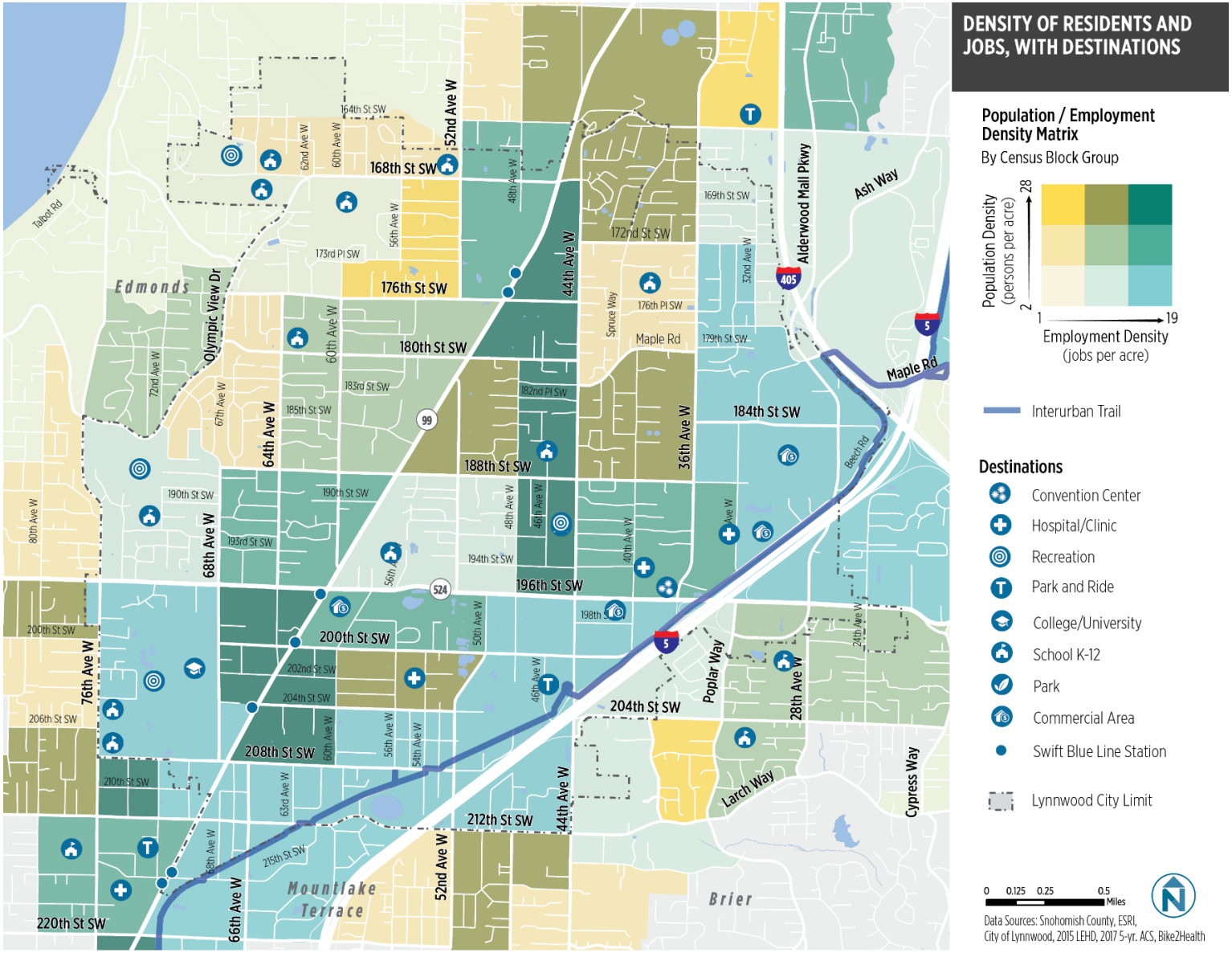
The demand analysis addresses the following questions:

- ***Where do people live and work in Lynnwood?***
  - *Key Finding:* Employment in Lynnwood is heavily concentrated along the Highway 99 and I-5 corridors and around the Alderwood Mall. The highest density of residents and jobs combined is found along the west side of 44th Avenue W, and along Highway 99 between 196th Street SW and 208th Street SW. Areas with higher population density but few jobs are near Meadowdale Neighborhood Park, between 168th Street SW and 176th Street SW.
- ***Where are people commuting for work?***
  - *Key Finding:* Several thousand workers commute within Lynnwood and to neighboring communities daily, areas well-served by frequent and reliable transit suggesting that first/last mile active trips could support regional transit commutes.
- ***Where are people accessing transit in Lynnwood?***
  - *Key Finding:* Lynnwood's local transit stops outside the Lynnwood Transit Center average 2,824 daily weekday boardings. Lynnwood Transit Center serves an additional 4,766 average daily weekday boardings, which is projected to more than triple to 17,900 with the opening of Link light rail in 2023. Current transit ridership is highest at Alderwood Mall, City Center, and Edmonds Community College.
- ***Where is future growth and density planned?***
  - *Key Finding:* City Center, Alderwood Transition Area, and commercial nodes along Highway 99 will accommodate growth with increased density and mixed-use development, creating more walking and bicycling demand in those areas.
- ***Where are the highest demand walking and bicycling areas in Lynnwood?***
  - *Key Finding:* Walking and bicycling hotspots include 196th Street SW, 40th and 44th Avenues W, numerous intersections along the Highway 99 corridor, and the College District.
- ***Can people walk and bike to important destinations in Lynnwood today?***
  - *Key Finding:* Much of the City Center and the Alderwood Mall area are not served by on-street bicycle facilities, lacking on-street connections to the Interurban Trail and Lynnwood Transit Center.

- ***Where do people rely on walking and bicycling the most?***
  - *Key Finding:* Many underserved communities likely reliant on walking and bicycling are concentrated south of Interstate 5, along the Highway 99 corridor, and around City Center.

Where do people live and work in Lynnwood?

Figure 18 Composite Population/Employment Density with Select Destinations



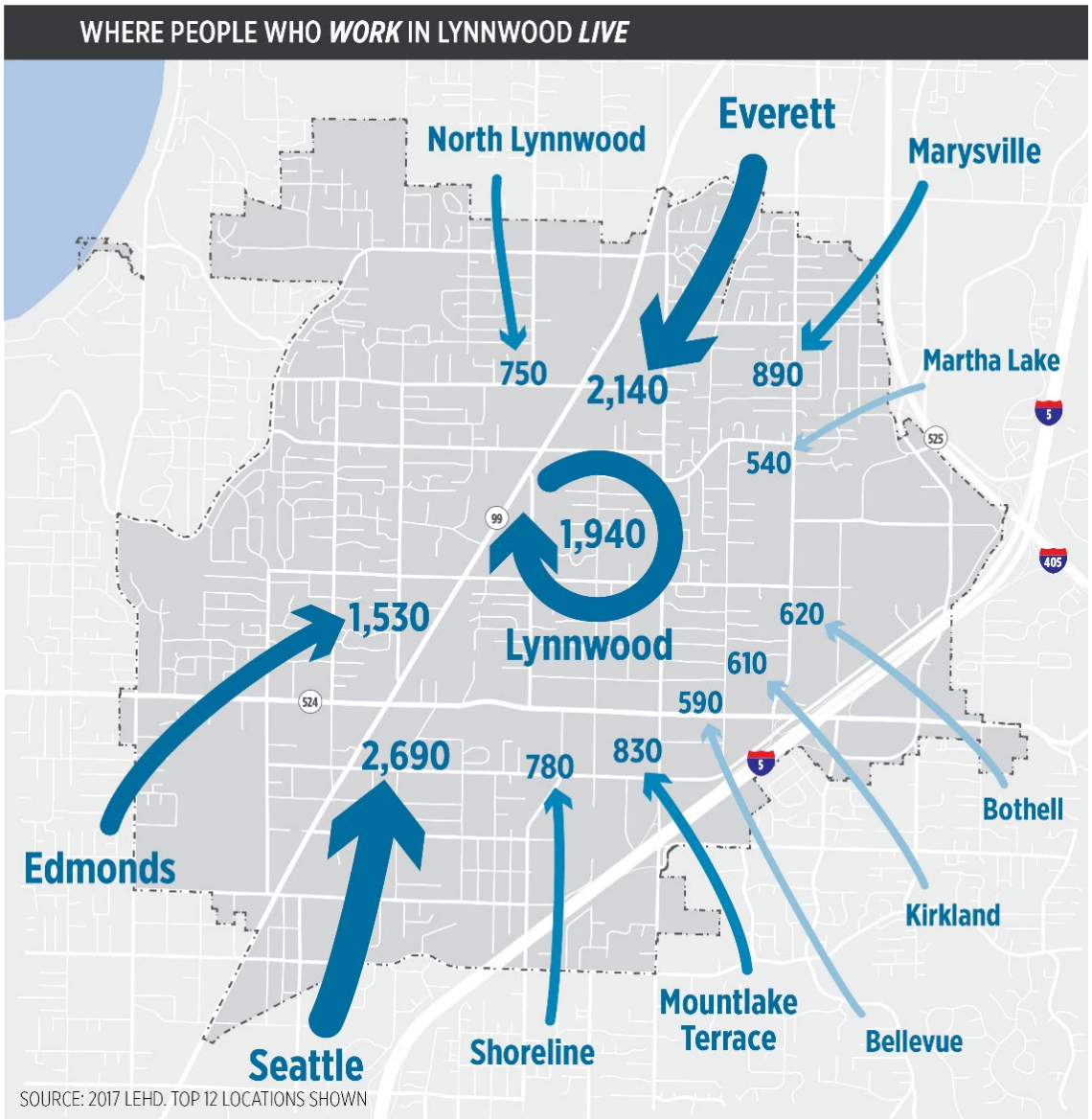
What are the regional work commute trends?

Lynnwood is a center of employment for workers in the region. As of 2017, the most recent year for which nationwide employment data are available, **Lynnwood had approximately 30,000 jobs located within the city limits**, while roughly 20,000 people of working age lived in Lynnwood. This results in a net inflow of roughly 10,000 workers.

According to the U.S. Census Longitudinal Household Dynamics program, the **top home locations for people who work in Lynnwood are Seattle, Everett, Edmonds, Marysville, and Mountlake Terrace**, as shown in Figure 19.

Nearly 2,000 people both work and live in Lynnwood, representing roughly 10% of the working age population.

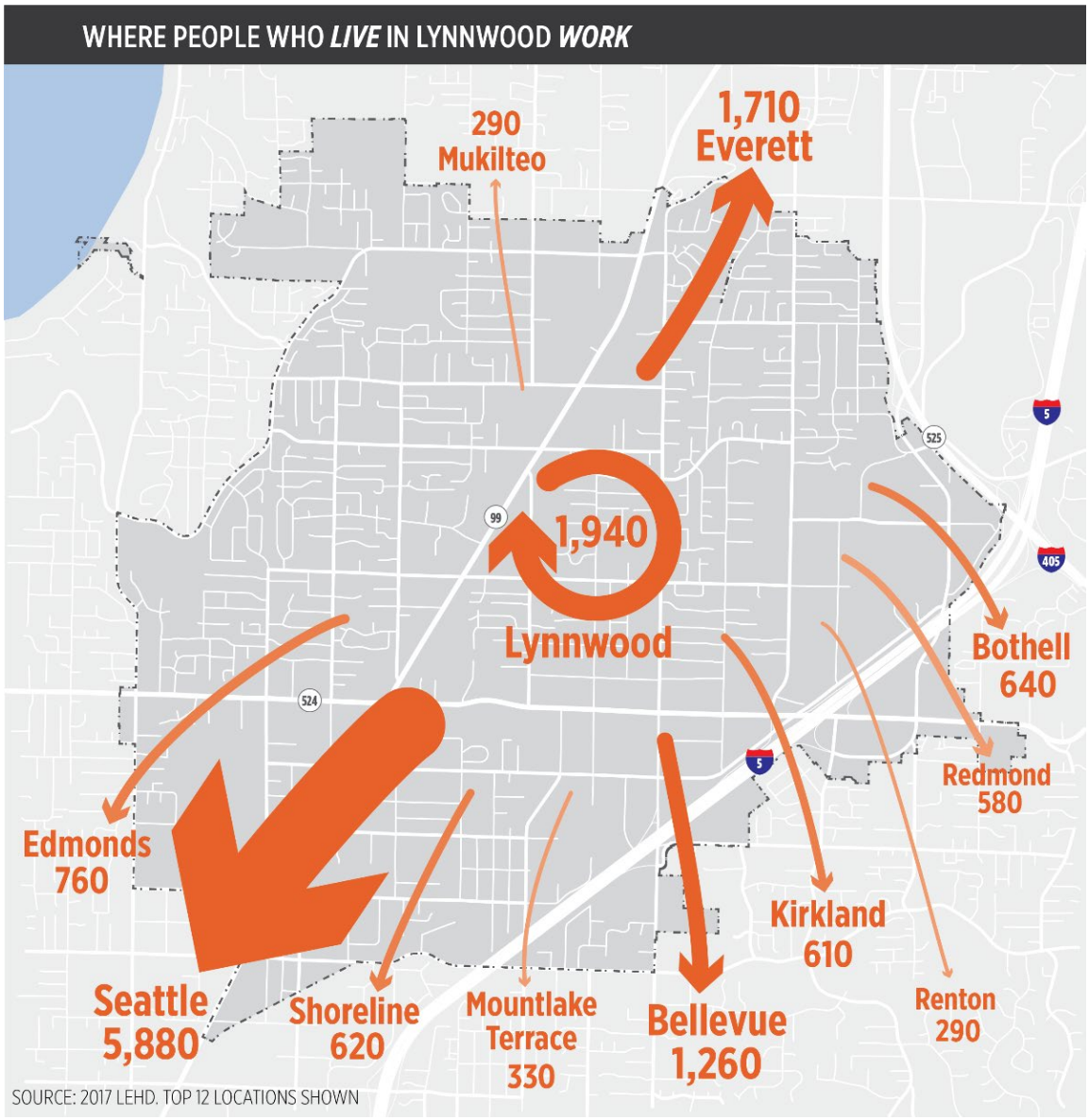
Figure 19 Regional Commute Patterns into Lynnwood



For those workers whose home locations are in Lynnwood, the **primary destinations for employment are Seattle, Everett, Bellevue, and Edmonds** (Figure 20). Nearly 30% of workers who live in Lynnwood are employed in Seattle. As mentioned above, nearly 2,000 people both live and work in Lynnwood. Figure 19 and Figure 20 show only the top 12 places for commute flows in and out of Lynnwood, so the total of the values shown is much less than the total number of jobs and residents in Lynnwood.

While these employment figures do not show exact home and work locations, they do indicate that several thousand workers commute between and within Lynnwood and immediate neighboring communities daily. These trips are well-served by frequent and reliable transit, suggesting that active transportation investments connecting to transit could support regional transit commutes with first/last-mile active trips.

Figure 20 Regional Commute Patterns Out of Lynnwood



Where do people access transit in Lynnwood?

Lynnwood is a transit-rich community served by two transit agencies. Community Transit provides local service in Lynnwood and connections throughout Snohomish and King County. Community Transit generally operates with 30-minute headways all day on weekdays, with the Swift Blue Line BRT along Highway 99 operating with 10- to 15-minute frequency. Sound Transit provides regional transit connections from Lynnwood to the greater Seattle metropolitan area, with Link light rail service beginning at the Lynnwood Transit Center in 2024. Other high capacity transit projects will connect to Lynnwood Transit Center in the next few years, including the Swift Orange Line and Sound Transit's 405 BRT line, as shown in Figure 21.

Figure 21 Existing and Future Lynnwood Transit Connections

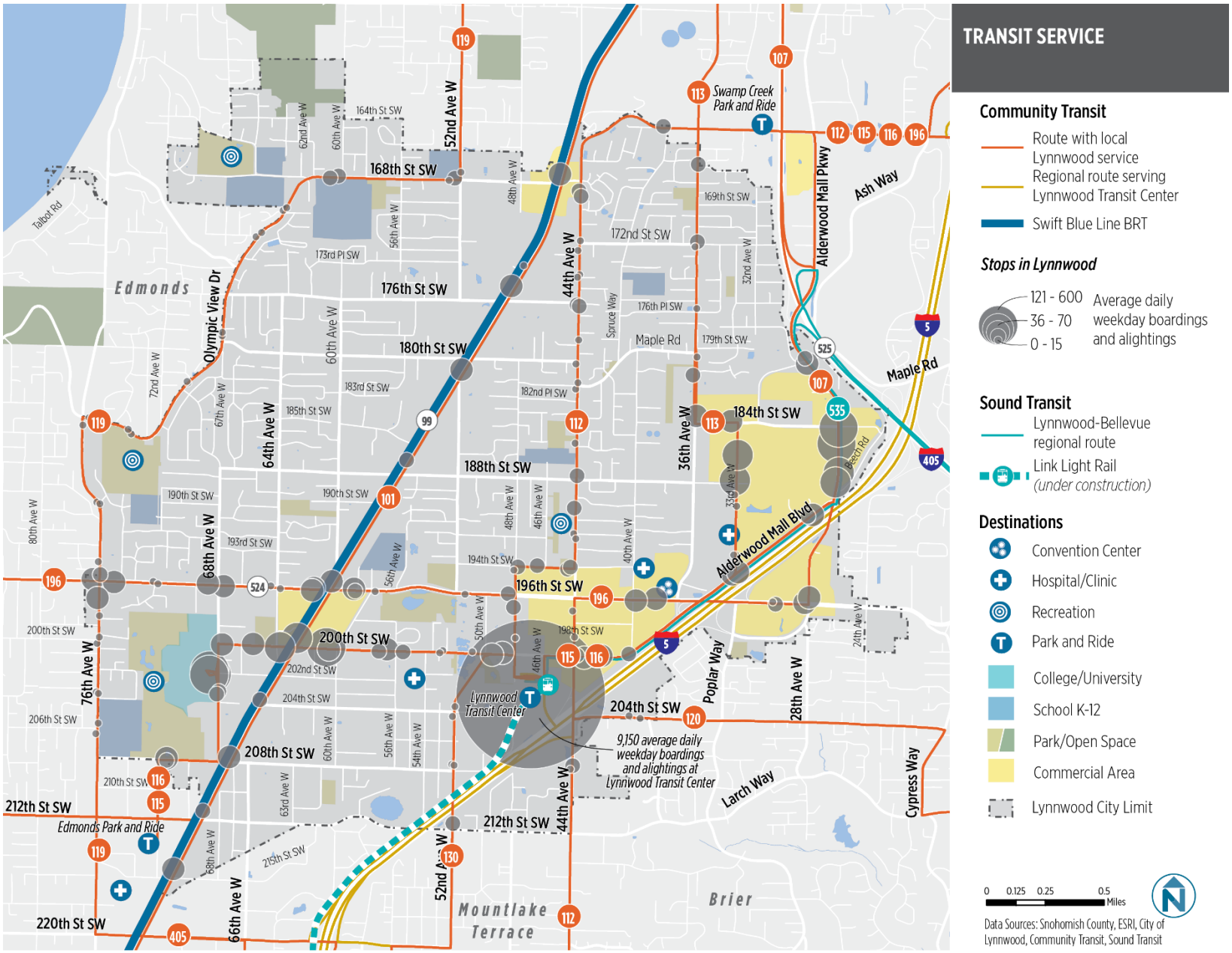
Source: Community Transit

Lynnwood's existing transit network and ridership are shown in Figure 22.

Key Findings

- **Lynnwood Transit Center accounts for nearly two-thirds of all daily transit ridership in the city, averaging nearly 4,800 total daily weekday boardings.**
- All 150 other local transit stops citywide **average nearly 2,800 total daily weekday boardings.**
- Transit stops near **Alderwood Mall, City Center, and Edmonds Community College have the highest daily ridership,** along with stops near the intersections of 196th Street SW with 76th Avenue W, and SR 99 with both 196th Street SW and 200th Street SW.
- Areas with **high transit ridership have elevated number of collisions** involving people walking and bicycling, including 200th Street SW and 196th Street SW.
- **All schools in Lynnwood, and many parks, are located within a few blocks of a transit stop.**

Figure 22 Existing Transit Network and Ridership



Where is future growth and density planned in Lynnwood?

As Lynnwood grows and welcomes light rail service, new developments will add significant numbers of housing units and mixed-use nodes around the City Center and near Alderwood Mall. Increased density of residential and commercial destinations can result in more walking and bicycling trips, underscoring the need to connect areas where growth is anticipated with high-quality walking and bicycling facilities. Figure 23 and Figure 24 depict projects currently under construction or soon to begin construction. The *Highway 99 Sub-Area Plan* identifies nodes along the Highway 99 corridors for denser development, but no development projects are active along the corridor currently.

Figure 23 Development Projects Detail

	Name	Description
1	Lynnwood Place - Phase 2	Mixed-use development including Home Depot and multi-family housing
2	Avalon Alderwood	Multi-family residential project with two six-floor buildings totaling 328 units
3	Alderwood MU	18-story mixed-use development with ground floor retail and housing
4	Alderwood South Apartments	3 story,10 building apartment community with 240 units
5	Hilton Garden Inn	150-room hotel
6	Kinect (4100 Alderwood Pkwy)	Multi-family residential project with 239 units
7	Northline Village (Lynnwood Square)	Major project encompassing 1,370 multi-family housing units, 500,000 sq. ft. of office, 207,000 sq. ft. of retail, and 50,000 sq. ft. of entertainment, in addition to two park spaces, a festival street, and structured parking.

Figure 24 Locations of Development Projects

Source for both: City of Lynnwood interactive map and City of Lynnwood staff

Where are the highest demand walking and bicycling areas in Lynnwood?

The demand analysis presented below identifies the areas of highest walking and bicycling demand in Lynnwood by bringing together data on population, employment, transit, and locations known to generate trips, such as City Center and Alderwood Mall.

Most input layers for the demand analysis are shown as points with corresponding icons in Figure 26. Icon sizes are scaled to match the assigned weight of importance in the demand analysis, as described in Figure 25. Darker green indicates areas of higher demand. Many of these input layers are clustered around the City Center, though layers such as parks and grocery stores are more widely dispersed.

Figure 25 Walking and Bicycling Demand Analysis Inputs and Weighting

Weight: 3 points	Weight: 2 points	Weight: 1 point
▪ Lynnwood Transit Center ▪ Alderwood Mall Transition Area ▪ City Center	▪ K-12 Schools ▪ Edmonds Community College ▪ New or Approved Developments ▪ Jobs	▪ Parks ▪ Hospitals/Clinics ▪ Grocery Stores ▪ Swift BRT Stops ▪ Top 25% Busiest Bus Stops (excluding Lynnwood Transit Center and Swift BRT) ▪ City Facilities such as Library, Recreation Center, and Police Department ▪ Residents

Walking and bicycling demand hotspots include:

- City Center along 196th Street SW, 44th Avenue W, and 40th Avenue W
- Numerous intersections along the Highway 99 corridor and south into Edmonds, including: 168th Street SW, 188th Street SW, 196th Street SW, 200th Street SW
- Edmonds Community College and north along 68th Avenue W

The demand analysis depicted in Figure 26 is overlaid with Lynnwood's existing walking and bicycling networks, highlight areas of high demand lacking sidewalks or bicycle facilities.

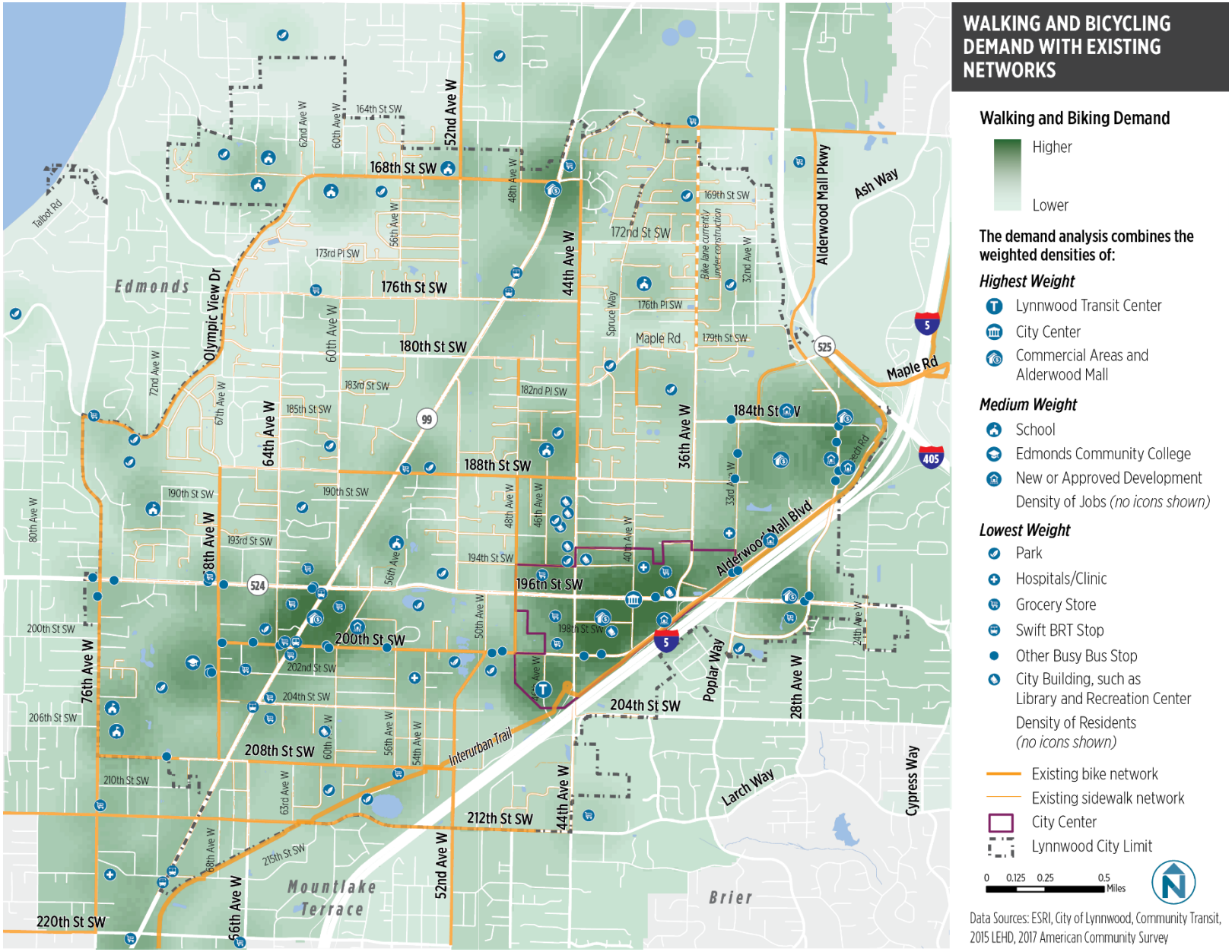
Areas of high demand that lack sidewalks include:

- 60th Avenue W
- 40th Avenue W
- Residential streets in northwest Lynnwood in the vicinity of Meadowdale Playfields
- Beech Road and Alderwood Mall Boulevard, though the Interurban Trail runs parallel to these streets

Areas where **the on-street bicycle network does not serve areas of high demand** include:

- Highway 99 corridor
- 196th Street SW corridor
- City Center and around Alderwood Mall

Figure 26 Biking and Walking Demand with Existing Walking/Bicycling Facilities



Can people walk and bike to important destinations in Lynnwood today?

Over the last ten years, Lynnwood has planned and prioritized walking and bicycling connections to key destinations including City Center, frequent transit, parks, and schools. While active transportation network planning and areas of walking and bicycling demand have been considered together, there remain key destinations and high demand areas of Lynnwood that lack comfortable, connected walking and bicycling facilities. *Connect Lynnwood* will highlight and prioritize such connections in collaboration with the public and in line with plan goals and priorities.

Notable findings regarding the alignment of Lynnwood's active transportation network with destinations and areas of high walking and bicycling demand include:

City Center Connections:

- The Interurban Trail connects Alderwood Mall, City Center, and Lynnwood Transit Center.
- **Much of the City Center and the Alderwood Mall area are not served by on-street bicycle facilities,** leaving the Interurban Trail as the only low-stress bicycle connection available for people not comfortable riding on the sidewalk or in mixed street traffic.
- **The only on-street bicycle connections to the Interurban Trail are found in southwest Lynnwood**, on 52nd Avenue W, 208th Street SW, and 212th Street SW. There are no on-street bicycle connections to the Interurban Trail in City Center or Alderwood Mall.
- Currently **no marked on-street bicycle facilities connect riders directly to the Lynnwood Transit Center.** Wayfinding signage on 200th Street SW and 48th Avenue W provides direction to the Transit Center, but the on-street lanes and sharrow markings along these streets do not extend south of 200th Street SW to the Transit Center. This leaves a gap in bicycle markings and facilities that may make some riders uncomfortable.
- There are **no marked bike facilities on 44th Avenue W to connect with City Hall, the library, Recreation Center, or Senior Center**, though bike lanes along 188th Street SW serve these destinations closely. There are opportunities to identify the best low-stress connections to these important destinations by using neighboring low-volume streets and capitalizing on existing marked bike lanes and recreational trails.

Connections to Schools:

- **Edmonds Community College is served by striped bike lanes** along 68th Avenue W and 200th Street SW.
- **College Place Elementary and Middle schools and Lynnwood Elementary are directly served** by the on-street network of striped bike lanes.
- The signed bike route along **168th Street SW** (a wide arterial street with four travel lanes plus a center turn lane**) does not provide students and school staff with comfortable connections** that encourage bicycling to school.

Lynnwood's existing bicycle network does not serve riders of all ages and abilities in the **northwest corner of the city.** Olympic View Drive and 168th Street SW are signed bicycle routes; however, the topography and street configuration make bicycling along these routes challenging.

Highways are barriers to easy connections along the east and southeast areas of the city. Interstate 5 has two adjacent points for crossing – 52nd Avenue W and 212th Street SW- while Alderwood Mall Parkway serves as the only on-street connection across SR 525. This suggests that the commercial cluster in southeast Lynnwood, consisting of Whole Foods, Best Buy, and Lowe's may be very challenging to reach on a bicycle.

Where do people rely on walking and bicycling the most?

People with lower incomes, youth, older adults, and households without access to a vehicle rely on active modes as accessible, low cost modes of transportation. *Connect Lynnwood* will address inequities and lack of access experienced by these underserved and underrepresented communities by working to remove barriers to walking and bicycling.

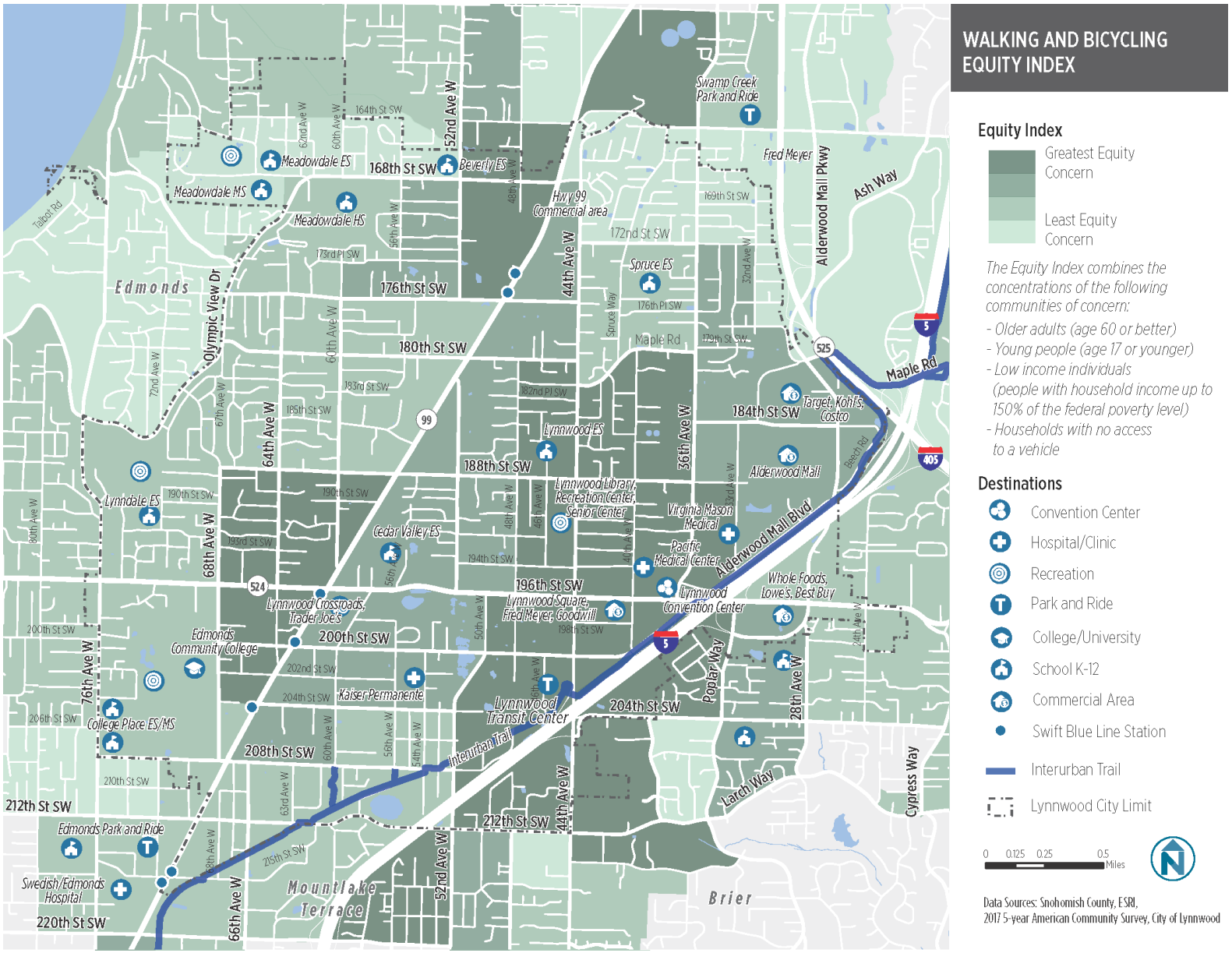
The equity index depicted in Figure 27 presents a demographic analysis of populations likely to rely more on bicycling and walking by combining the concentrations of the following communities of concern, using 2017 5-year ACS data by block group:

- Older adults (age 60 or better)
- Young people (age 17 or younger)
- Households with no access to a vehicle
- Low-income individuals, defined as people with household income at or below 150% of the federal poverty level

Key findings include:

- **Several underserved communities are concentrated south of Interstate 5.** I-5 is a major barrier to walking and bicycling. Proposed bicycle and walking improvements, including the Poplar Way bridge and improvements to 44th Avenue W, will provide important means of connecting these areas to Center City, Lynnwood Transit Center, and other destinations.
- **The SR 99 corridor and City Center host many communities who may rely on walking and bicycling.**
- **Underserved communities just north of Lynnwood's city boundary near Swamp Creek Park and Ride will be served by the new bicycle and walking improvements on 36th Avenue W,** enabling more comfortable connections to Spruce Elementary school, Swamp Creek Park and Ride, and City Center from north Lynnwood.

Figure 27 Walking and Bicycling Equity Index: Youth, Older Adults, Low-Income Individuals, and Zero-Car Households



4 SUMMARY OF KEY FINDINGS

Key findings from the existing conditions review are summarized below.

CONTEXT REVIEW

Lynnwood has invested in several projects during the last ten years that establish a framework for prioritizing connections to transit, schools, and parks in *Connect Lynnwood*.

- *The Multi-Choice Plan (2008)* established Lynnwood's **first walking and bicycling networks** and prioritized projects based on traffic volumes, collision history, and residential area proximity to schools and designated school routes, among other factors.
- *The Lynnwood Transit Center Multimodal Accessibility Plan (LMAP, 2016)* set a precedent for **data-driven project prioritization** aligned with plan goals, including using bicycle level of traffic stress, intersection density, and residential and employment density as performance measures for improving access to the city's transit hub.
- *Bike2Health (2015-ongoing)* energized bicycle network implementation in recent years, **building out key corridor routes** connecting to major destinations and transit hubs linking with the regional bicycle network. Shared lane markings, bicycle route signage, and striped bike lanes are the predominant facility types.
- The *ADA Transition Plan (2018-ongoing)* identifies **priority locations to remove barriers** for those walking and rolling with mobility limitations, including curb ramp replacement and sidewalk improvements near public facilities, transit, and commercial areas.
- Lynnwood's Complete Streets Policy and Pedestrian/Bicycle Standards Update (in process) will set a vision for how the transportation network and City investments can create **safe and comfortable places for all people to travel no matter their mode.** Creating pedestrian and bicycle standards is an opportunity to upgrade and **codify the minimum facility designs** to create a network that is comfortable for a wide range of people to walk and bicycle, no matter their age or physical ability.
- Regional planning context: Several key corridors connect Lynnwood to the regional active transportation network through Edmonds, Mountlake Terrace, and unincorporated Snohomish County. Walking and bicycling facilities along these corridors would **enhance regional connectivity**.

WALKING AND BICYCLING NETWORKS

- *Initial Public Outreach Findings:* According to public feedback gathered at the Fair on 44th, Lynnwood residents value creating **safe, easier walking connections**; improving **connections to parks** and recreation facilities; improving **connections to transit centers** and bus stops; and creating safe, **more comfortable bicycling routes**.

Additional public outreach will be incorporated throughout the remaining stages of *Connect Lynnwood*. See *Appendix F: Outreach Summary* for additional detail.

- *Separation from Traffic:* According to initial public outreach, residents prefer walking and bicycling space that is **physically separated from the street**, whether that be along wider sidewalks with buffers between people walking and traffic along busy streets, grade-separated street crossings, or sidepaths and multi-use paths.
- *Network Gaps:* Many areas of the city **lack sidewalks**, including residential streets and segments along major commercial streets and near schools, which presents the most basic barrier when people are making a choice between walking, biking, rolling, or driving a car.
- *Interurban Trail:* The Interurban Trail is an **integral biking and walking link** near or directly adjacent to many of the busiest commercial, light industry, fabrication, manufacturing, and service-oriented business locations. However, due to the lack of on-street bicycle network connections and busy street crossings, the trail is **challenging to access** from some of these areas of high walking and bicycling demand.
- *Street Connectivity:* The lack of connectivity in Lynnwood's residential street network points to the need for **comfortable bicycle facilities on collector and arterial streets** to achieve a connected bicycle network. **Cul-de-sac development and lack of a street grid** make it harder to walk along calmer, lower-volume streets.

BICYCLE AND PEDESTRIAN COLLISION ANALYSIS

- *High Speed and Volume Streets:* Collisions are disproportionately likely to occur on streets with **higher posted speeds, more traffic lanes, and higher traffic volumes.**
- *High-Collision Corridors:* Over 40% of collisions involving people bicycling and walking occur on just two streets – **Highway 99 and 196th Street SW.**
- *More Severe Collisions Mid-block:* Only 15% of collisions occur mid-block, but they represent **43% of fatalities and severe injuries.**
- *Walking Fatalities*: Among collisions between people driving and people either walking or bicycling, **pedestrians account for all recorded fatalities**, and 80% of severe injuries.

WALKING AND BICYCLING DEMAND ANALYSIS

- *Areas of Highest Demand:* Walking and bicycling demand nodes include:
  - **City Center** along 196th Street SW and 200th Street SW at Lynnwood Transit Center
  - **44th Avenue W.** Destinations include North Lynnwood Park, Lynnwood Elementary School, Lynnwood Recreation Center, Lynnwood Senior Center, City Hall, Lynnwood Library, and several grocery stores.
  - **40th Avenue W** in City Center. Destinations include busy transit stops, Goodwill, and new senior housing.
  - Areas centered on numerous **intersections along the Highway 99 corridor** and south into Edmonds, including 168th Street SW, 196th Street SW, and 200th Street SW.
  - **College District,** along 68th Avenue W near 200th Street SW.

- *High-Demand Areas for Improvement:* Some of the corridors with the **highest walking and bicycling demand** and density of destinations also have some of the **most challenging conditions** for safe, comfortable walking, rolling, and bicycling.
- *High-Stress Bicycling Connections:* Lynnwood's existing and planned bicycle network is laid out on arterial streets, creating highly stressful riding conditions. These streets are also the site of a **disproportionate number of collisions** involving people biking and walking.
- *Areas of High Transit Activity:* Transit stop activity is concentrated near **Alderwood Mall, City Center, Edmonds Community College, and the Highway 99, 196th Street SW, and 200th Street SW** corridors, areas with **elevated numbers of collisions** involving people walking and bicycling.

POTENTIAL ACTIVE & ACCESSIBLE TRANSPORTATION PLAN GOALS AND PRIORITIES

- *Walking Connections*: Prioritize **high-quality connections to parks, schools, transit, and commercial destinations**, including more frequent enhanced crossing opportunities
- *Bicycling Connections:* Create **frequently spaced cross-town connections** to the Interurban Trail and Transit Center, and a grid of connected, comfortable bike corridors
- *School Connections:* Focus improvements within **a half-mile walking distance of schools**
- *Highest Annual Collision Corridors and Intersections:* Focus improvements **along corridors and at intersections with highest annual collision histories.**

5 BARRIERS & OPPORTUNITIES

A barrier is any condition that decreases the safety and comfort of people walking and bicycling. Barriers can also be considered opportunities for active transportation improvements. **Lynnwood's assets, including high transit ridership, parks, schools, and City Center destinations,** are opportunities to leverage current travel patterns and public investments to create more active and accessible travel options.

This memo's comprehensive review of existing conditions—both the performance of Lynnwood's existing walking and bicycling networks along with trends in how people travel in Lynnwood today—highlights both barriers and opportunities that will focus goals, priorities, and recommendations of *Connect Lynnwood*. This section concludes with a potential goals and priorities framework for *Connect Lynnwood* based on key findings from this analysis.

Barriers

The active transportation network inventory, Level of Traffic Stress, Ease of Crossing, and collision analyses highlighted where current conditions are uncomfortable and challenging for people walking and bicycling. Notably, streets with high traffic volumes, high traffic speeds, more than two lanes, or long distances between crossings, as well as those without sidewalks or bike facilities, present barriers to walking and bicycling in Lynnwood. High collision corridors and intersections have a history of multiple serious collisions involving people walking and bicycling, which influences people's decision to travel by active modes. These **high-stress segments, areas with collision history, and gaps in the network**, especially in areas with high walking and bicycling demand, are areas where *Connect Lynnwood* can focus improvements. Figure 28 visually depicts these barriers and gaps by overlaying missing sidewalks, high crash corridors and intersections, and segments that are challenging to cross and/or have high traffic stress.

Opportunities

Improvements that **address the most significant walking and bicycling barriers are likely to have great positive impact.** Lynnwood can target improvements where people are most likely to walk and bike first. Focusing improvements near transit, parks, schools, within City Center, and in areas where people rely on walking and bicycling the most will yield the greatest positive impact for the most people. Figure 29 visually depicts areas of opportunity by overlaying key destinations, public feedback on where people currently and would like to walk or bike, and school and park walksheds.

Figure 28 Barriers and Gaps in the Biking and Walking Network

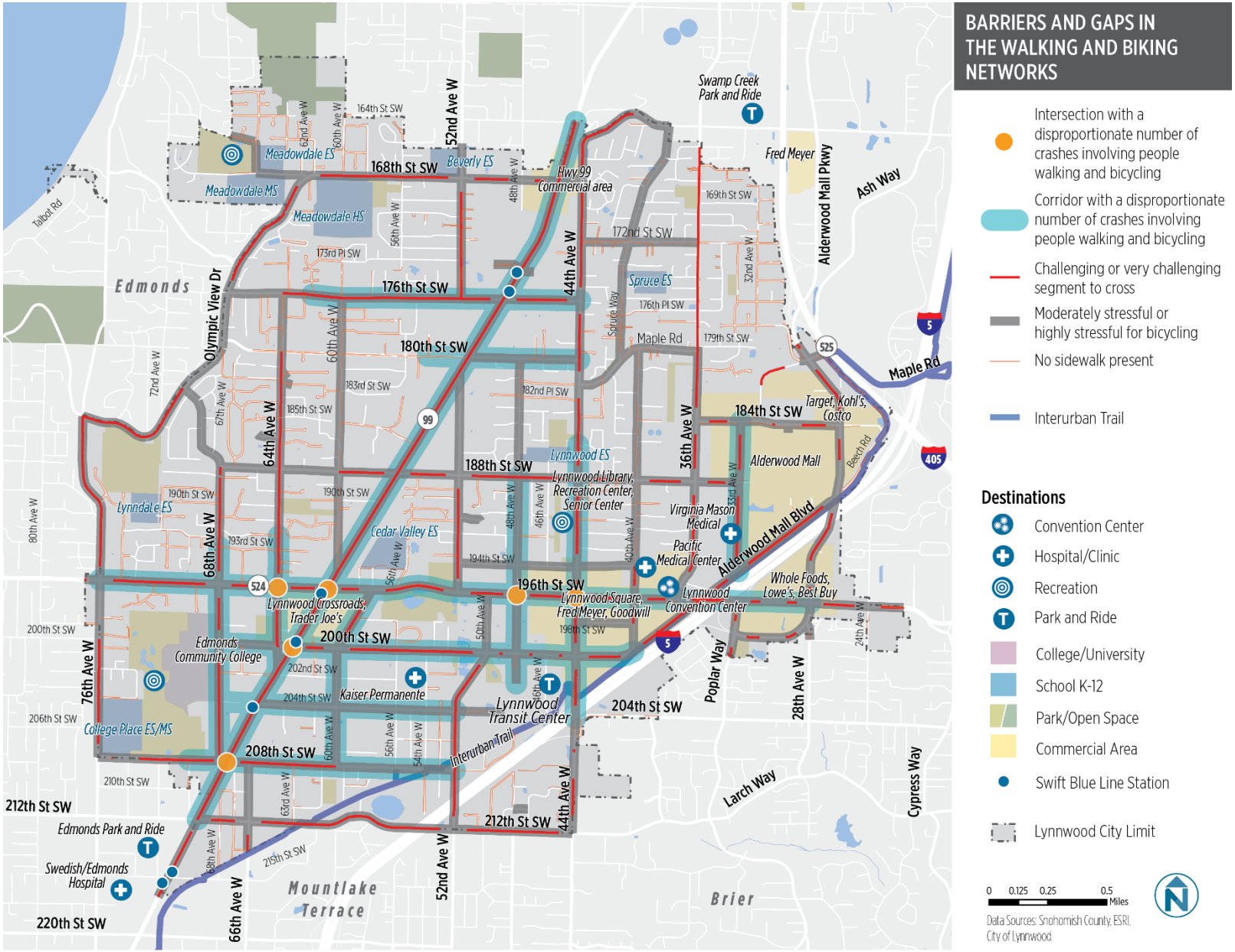
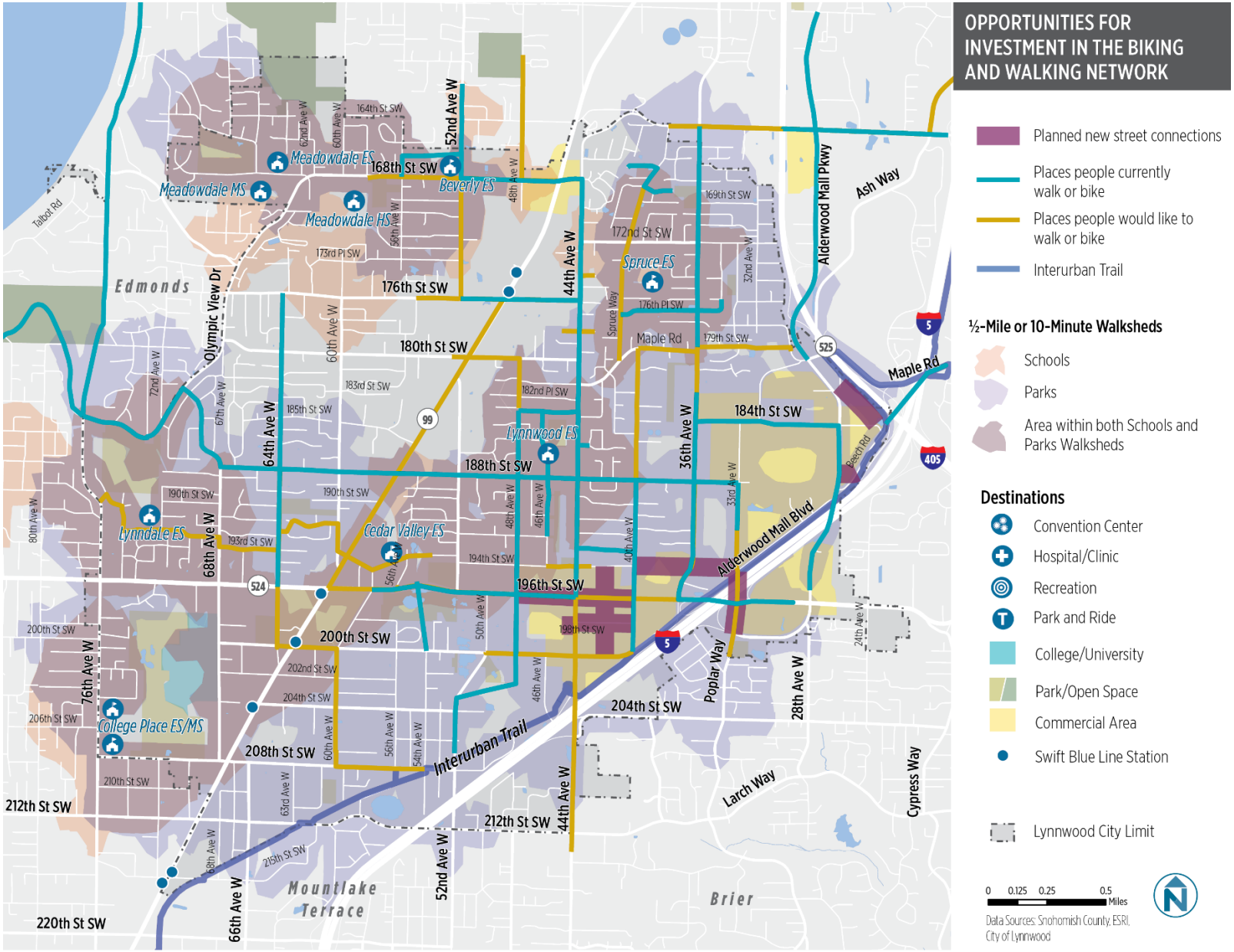


Figure 29 Opportunity Areas in the Biking and Walking Network



Potential *Active & Accessible Transportation Plan* Goals and Priorities

The key findings of this comprehensive review of Lynnwood's existing conditions, walking and bicycling demand, and travel patterns can shape how and where *Connect Lynnwood* improves walking and bicycling throughout Lynnwood. The DRAFT plan goals and priorities will be the topic of discussion and public outreach in the next phase *Active & Accessible Transportation Plan* development to ensure this memo's findings accurately reflect people's lived experience walking and bicycling in Lynnwood and prioritize the most meaningful, highest-benefit improvements.

Goal 1: Safety—Create safer conditions for people walking and bicycling

- *Priority 1.1* Focus improvements along corridors and at intersections with collision histories and proactively improve streets with characteristics common to multiple crashes.
- *Priority 1.2* Develop educational campaigns focused on frequently occurring collision types.
- *Priority 1.3* Expand the bicycle network.
- *Priority 1.4* Work with Washington State DOT to improve conditions for people walking along and across State routes.
- *Priority 1.5* Utilize strategies to slow vehicle speeds where appropriate.

Goal 2: Balance Lynnwood's mobility needs by providing transportation options with an integrated multimodal system

- *Priority 2.1* Create conditions that make walking or bicycling a viable and attractive option for people who live close to schools, parks, and commercial areas.
- *Priority 2.2* Provide frequent transit and high-quality walking and bicycling facilities near major parking areas to support a "park-once" experience.
- *Priority 2.3* Integrate the active transportation network into project development processes in line with the Complete Streets policy.
- *Priority 2.4* Refer to the Street Typology to inform design and operational decisions that elevate the experience of people walking and bicycling along priority active transportation corridors.
- *Priority 2.5* Focus active transportation improvements in areas where growth and density are planned.

Goal 3: Connectivity—Create comfortable, complete walking and bicycling networks

- *Priority 3.1* Provide buffered walkways and bikeways along high-speed and high-volume streets where there is also a high need for such facilities.
- *Priority 3.2* Increase the density of enhanced crossings along arterials where needed.
- *Priority 3.3* Provide high-quality connections across Interstate 5 and state routes where redundant connections do not exist.
- *Priority 3.4* Provide places to walk and bike that are separated from traffic to support people who have limited walking and bicycling skills.
- *Priority 3.5* Prioritize connections to the Interurban Trail.

Goal 4: Equity—Address inequities and lack of access experienced by underserved and underrepresented communities

- *Priority 4.1* Integrate the findings of the ADA Self Assessment.
- *Priority 4.2* Make investments that reduce the travel time and safety costs of transportation for people who rely on walking and bicycling the most.
- *Priority 4.3* Target improvements in areas of Lynnwood where people are most likely not to have access to an automobile.
- *Priority 4.4* Engage Lynnwood residents, committees and commissions in prioritizing and designing projects.

Goal 5: Health—Increase physical activity by making it easy and safe to be active in the public right of way

- *Priority 5.1* Establish and improve 10-minute walks to parks.
- *Priority 5.2* Normalize walking and bicycling to school.
- *Priority 5.3* Create more comfortable walking conditions in areas with higher concentrations of older adults.

NEXT STEPS

The findings of this existing conditions review will serve as the basis and foundational content for the next phase of public outreach and stakeholder engagement to verify that findings accurately reflect people's lived experience walking and bicycling in Lynnwood and shape plan goals and priorities accordingly. The project team will gather additional feedback from the community on how their mobility values and priorities should shape the goals and priorities of *Connect Lynnwood*. Outreach and engagement formats will include a citywide online survey, stakeholder focus groups, and discussions with City Council, boards, and commissions. This community feedback, combined with the networks and collision analysis presented here, will guide the identification of specific project types and locations to move into the project screening and evaluation phase.

Appendix A Context Review

Connect Lynnwood builds on prior work dating back to 2008. Key policies, plans, and projects applicable to this plan are described in the following Context Review.

Foundational Efforts

- *Multi-Choice Transportation System Plan* (2008)
- *Highway 99 Sub-Area Plan* (2011)
- *City Center Streetscape Plan* (2014) and *City Center Design Guidelines (2019)*
- *Healthy Communities Action Plan (*2015)
- *Lynnwood Transit Center Multimodal Accessibility Plan* (2016)
- *Bike2Health Project* (2015-2019)
- *168th Street SW Corridor Study* (2018)

Concurrent Plans and Projects

- *ADA Transition Plan* (2018-Ongoing)
- *Complete Streets Policy and Pedestrian/Bicycle Standards Update* (2019-Ongoing)

Local and Regional Planning Efforts and Active Transportation Networks

- Edmonds, WA
- Mountlake Terrace, WA
- Snohomish County
- Puget Sound Regional Council

MULTI-CHOICE TRANSPORTATION SYSTEM PLAN (2008)

Summary

The City of Lynnwood developed a citywide sidewalk and bicycle plan in 2008, also known as the "*Multi-Choice Transportation System*" because it provides multiple travel choices other than a car. The plan proposed a citywide bicycle network and laid out a series of pedestrian and bicycle projects with associated costs and evaluation factors.

Bicycle Recommendations

The proposed Multi-Choice bicycle network is shown in Figure 1. Bicycle facility types include 5-7' bike lanes, or sharrow or shared lane markings on 14' vehicle lanes on streets without curb and gutter. On streets with curb and gutter, the plan recommends 5' bicycle lanes either against the curb or between parking and the vehicle travel lane. The plan includes 112 bicycle projects totaling $33.4 million to implement.

Pedestrian Recommendations

The Multi-Choice Transportation System Plan lays out a vision for the walking network as shown in Figure 1. Generally, the pedestrian projects add sidewalks or trail connections to fill network gaps. *The Multi-Choice Plan* includes 114 pedestrian projects costing $25.5 million.

Key Takeaways

The Multi-Choice Plan developed a non-motorized skeleton system based on connections to:

- Walking and bicycling facilities in other jurisdictions
- Schools and colleges
- Existing and planned parks and recreation sites
- Community facilities
- Senior facilities and housing
- Major commercial areas
- Existing/future transit and park & rides
- Major employment and industrial areas

Projects were screened and prioritized based on the following criteria. All were assigned a weight of one point except where noted. Proximity to priority destinations was defined as within ¼ mile walk or ½ mile bicycle ride.

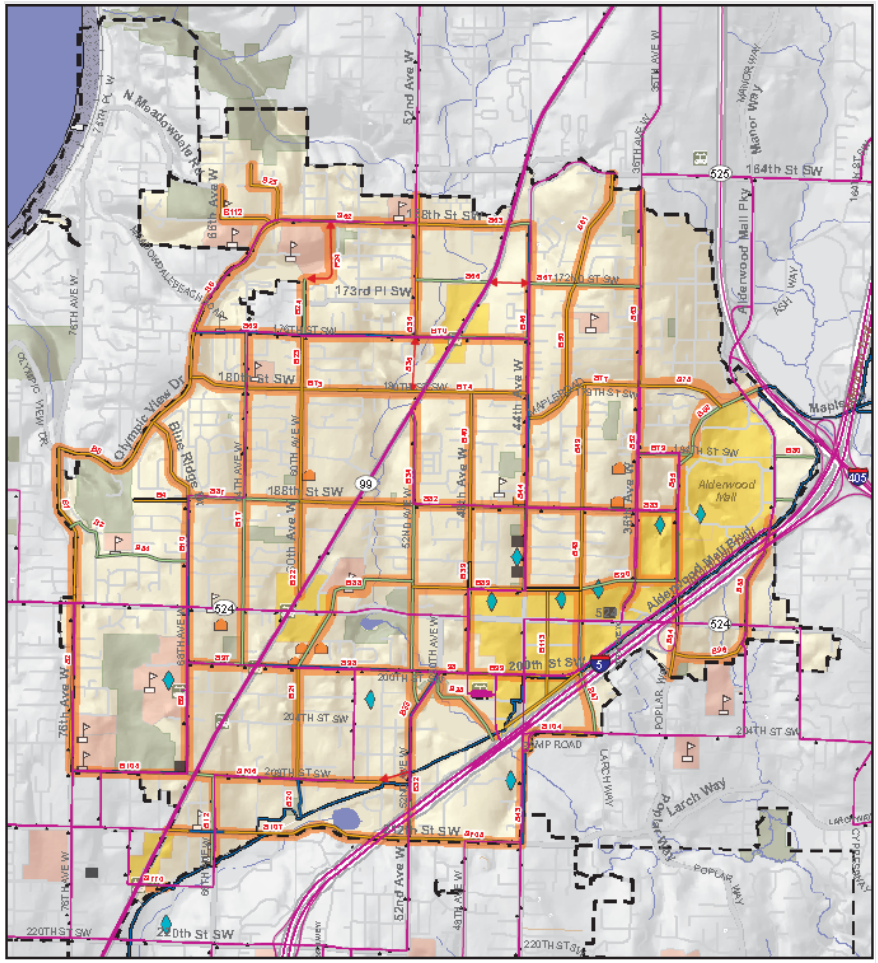
- Collision history (Two-point weight)
- Traffic volumes (Two-point weight)
- Proximity to schools and designated school routes (Two-point weight)
- Do concrete sidewalks already exist on both sides of the street?
- Proximity to senior services
- Proximity to stores/businesses
- Proximity to parks/trail/open space

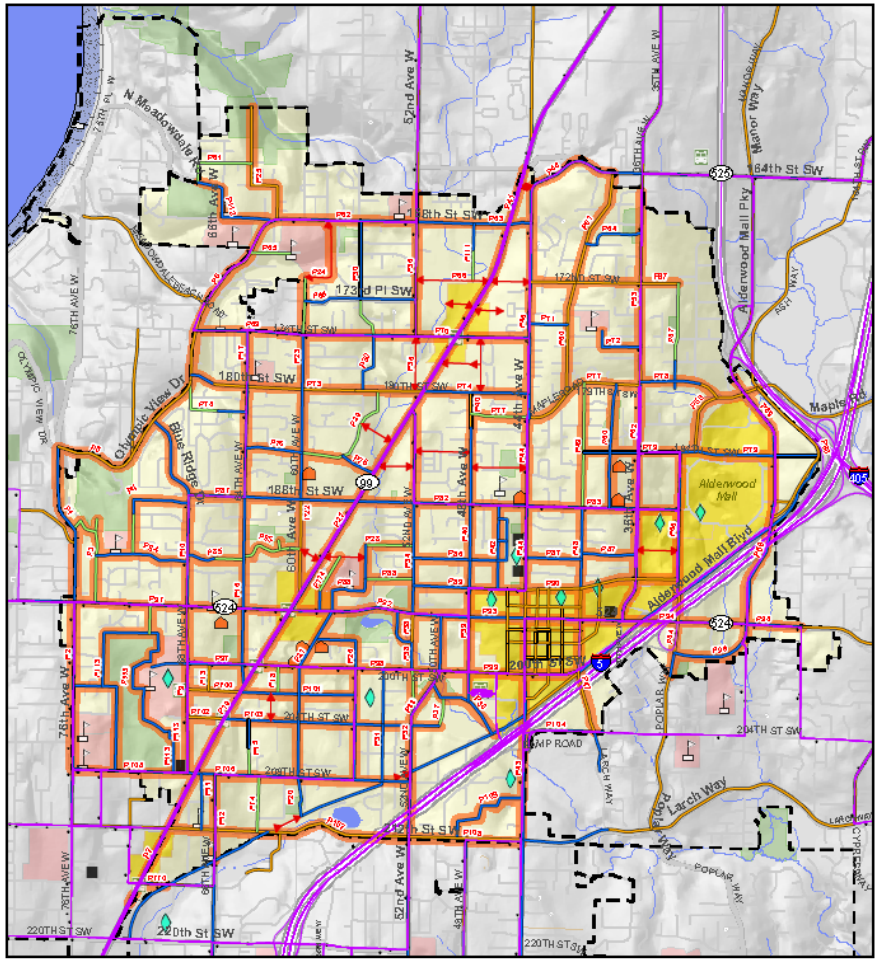
- Does the segment provide an important link to other areas?
- Roadside safety elements/obstacles
- Midblock crossing safety
- Proximity to transit
- Presence of existing sidewalk
- Street functional classification

How does it apply to the *Connect Lynnwood*?

- *The Multi-Choice Plan* proposed a **citywide network of walking and bicycling facilities** including prioritized walking connections both along streets and through green spaces. *Connect Lynnwood* will analyze and build upon these identified networks and priority connections.
- *The Multi-Choice Plan* established a **prioritization framework** to elevate implementation of the walking and bicycling networks based on key factors such as collision history, traffic volume, and proximity to schools, among others. *Connect Lynnwood* will build upon this prioritization framework by carrying forward key factors to identify projects for implementation.

Figure 1 Lynnwood Bicycle and Pedestrian Skeleton System (Multi-Choice Plan, 2008)





Source: City of Lynnwood, Snohomish County, City of Mountlake Terrace, City of Edmonds, Community Transit, Sound Transit, ESRI, Perteet Inc.

HIGHWAY 99 SUB-AREA PLAN (2011)

In 2008, City Council adopted a series of economic revitalization strategies for the Highway 99 corridor, extending from 148th Street SW to 216th Street SW at the City's southern limits. *The Highway 99 Sub-Area Plan* envisions a corridor transformed from an auto-oriented commercial strip into a series of multi-use nodes at key intersections and Swift Bus Rapid Transit (BRT) stations. The City finalized and adopted the plan, zoning regulations, design guidelines, environmental impact statement (EIS), and expanded vision for the Highway 99 corridor in 2011.

Key Takeaways

The *Highway 99 Sub-Area Plan* established the following key features or requirements of new development along the Highway 99 corridor, organized by topic:

- **Pedestrian Connectivity and Safety**
  - Improve pedestrian connectivity from residential areas to the corridor, especially to transit stops
  - Improve Highway 99 pedestrian crossings, including considering improved mid-block crossings
  - Develop design guidelines that require frontage improvement for new development, including 12' sidewalks with street trees
  - Consider requiring developments to include landscaped planting strips
- **Encourage Safe and Efficient Travel**
  - Improve safety by minimizing direct vehicular access to and from Highway 99 in order to reduce turning movements. Require shared driveways for new development and encourage driveway consolidation for existing development.
  - Consider converting unsignalized intersections and driveways to right-in, right-out
  - Provide internal roadway connections within and between developments
  - Connect with adjacent properties for greater access
- **Transit Connections**
  - Consider new transit stop locations or relocating existing BRT stops in response to redevelopment projects
  - Accommodate transit shelters at high volume stops or as part of redevelopment projects
- **Bicycle Connections**
  - Improve connections between Highway 99 and the Interurban Trail by implementing the Bicycle Skeleton System (Multi-Choice Plan, 2008)
  - Maintain and improve Scriber Creek Trail, which connects the Lynnwood Transit Center, Scriber Lake Park, Sprague's Pond Mini Park, Scriber Creek Park, and the Interurban Trail
  - Pursue opportunities to add additional trails to connect areas along Highway 99 to other key amenities

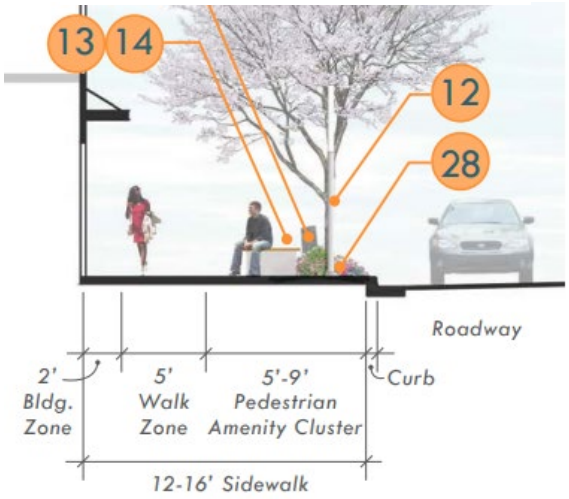
Along with the *City Center Streetscape Plan* (described below), the *Highway 99 Sub-Area Plan* development standards represent a significant upgrade in the walking and bicycling facilities designated in previous City of Lynnwood standards, establishing strong precedent for adoption of similar elements citywide.

CITY CENTER STREETSCAPE PLAN (2014)

The *Lynnwood City Center Streetscape Plan* provides pre-approved streetscape elements to streamline street designs in the City Center. Lynnwood's City Center is the area enclosed by 194th Street SW, 48th Avenue W, and I-5. Standards relevant to the walking and bicycling include recommended sidewalk layout, crosswalk design, bicycle lane specifications, and bicycle rack placement and design. The standards for bicycling and walking facilities in the *City Center Streetscape Plan* are higher quality than the standard streetscape plans applicable across the rest of the city. The *City Center Streetscape Plan* offers helpful precedent for street standards and high-quality walking and bicycling facilities applicable elsewhere in Lynnwood. City Center standards related to walking and bicycling include:

- **Bicycle Facilities**
  - Designates 5' striped lanes adjacent to curb or parking as appropriate on certain street types, ranging from Boulevards with 5-7 lanes, to Collectors with 2-3 lanes, with or without parking
  - Establishes shared lane standards with sharrow markings on 13'-14' travel lanes
  - Includes standards for bike rack placement and design
- **Walking Facilities**[1]
  - Total sidewalk minimum 12', as opposed to the citywide standard of 5'
  - Requires 2' building zone between a building wall and the walkway
  - Requires 5' buffer/pedestrian amenity zone between the sidewalk and street. This zone may be up to 9' wide. Citywide standards do not include a buffer between the street and sidewalk that can help to create a more comfortable walking environment, especially along streets with high speeds or traffic volumes.
  - Crosswalk striping 16' minimum width, including high visibility treatments

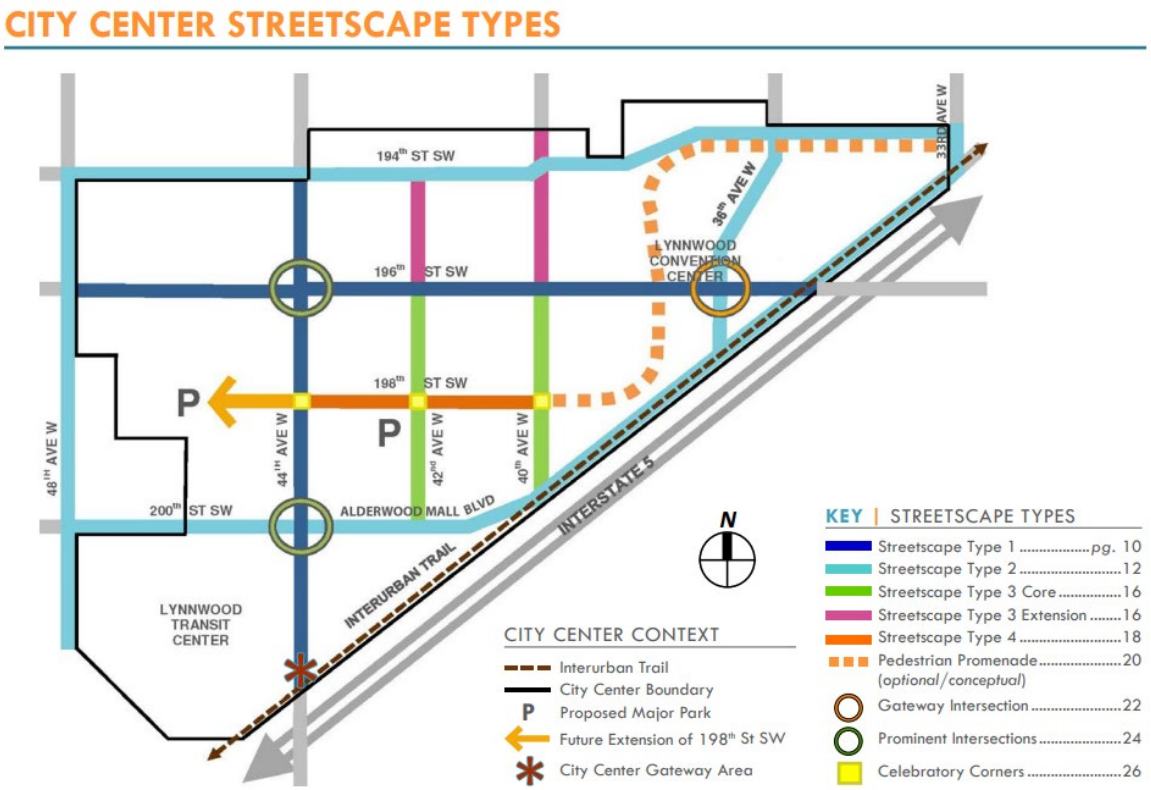
Figure 2 City Center Sidewalk Layout



In addition, the *City Center Streetscape Plan* provides detailed guidance on trees (spacing, species) and streetscape elements (benches, lighting). The plan includes several street types with associated designs, as shown in Figure 3.

[1] Citywide standard calls for 5' minimum sidewalks. Buffer is not required; if provided, must be 3' minimum. Crosswalk striping 8' minimum.

Figure 3 Streetscape Types



City Center Design Guidelines (2019)

Updated design guidelines established design requirements pertaining to the public right-of-way, building frontages, and site design that will make City Center a more comfortable, inviting place to walk and bicycle. The elements most pertinent to walking and bicycling include:

- **Curb cuts and access control** – Restricts driveway development and access near intersections, limits curb cut width, and requires prominent walkway treatments to emphasize pedestrian priority across curb cuts
- **Streetscape** – Describes spacing and size of street trees by street type, establishes pedestrian scale lighting requirements, and requires high quality transit shelters
- **Private walking connections** – Improves access for people walking by requiring walkways connecting adjacent parcels, apart from sidewalks in the public right-of-way
- **Bicycle facilities –** Establishes bike rack placement standards and suggests multiple bike parking locations throughout each parcel
- **Public plazas –** Establishes a minimum provision of public plaza space on each site, and describes features such as public art, water installations, outdoor seating, and landscaping to create inviting public spaces
- **Building materials and architectural design –** Describes building frontage treatments to create comfortable walking spaces and weather protection, and establishes maximum building setbacks

- **Surface parking lots** - Requires landscaping and walkway construction within surface lots, and prohibits surface lots adjacent to certain streets

How does it apply to *Connect Lynnwood*?

- The *City Center Streetscape Plan* establishes standards for **higher-quality walking and bicycling facilities** in the City Center than those required by the standard plans applicable across the rest of the city. Notably, 5'-wide striped bike lanes, wide sidewalks with buffers, and 16'-wide crosswalks may be applicable elsewhere in Lynnwood.
- *Connect Lynnwood* will incorporate and build upon the bicycle facilities and routes, and the pedestrian priority areas, designated by the *City Center Streetscape Plan*.
- The *City Center Streetscape Plan* creates opportunity for **accelerated implementation of high-quality walking and bicycling facilities** as a part of redevelopment projects with private sector partners as they build out street frontages to the City Center standards. Planned new public street connections will also be built to such standards. *Connect Lynnwood* will create opportunities to build a larger citywide network that connects with the City Center.
- The 2019 *City Center Design Guidelines* will help to **make walking and biking in City Center more comfortable and inviting** through design requirements pertaining to curb cuts and access control, landscaping and street trees, pedestrian scale lighting, walking connections between parcels, bike parking accommodations, and architectural and urban design features.

HEALTHY COMMUNITIES ACTION PLAN (2015)

Summary

The *Healthy Communities Action Plan* identifies policies and environmental changes that would increase access to safe opportunities for physical activity, make healthy food more available and affordable, and strengthen opportunities for social connections. A key recommendation of the *Healthy Communities Action Plan* is to **"Make Lynnwood a safe, attractive, and accessible place to walk and bike,"** laying the groundwork for an update of Lynnwood's walking and bicycling networks. *The Healthy Communities Action Plan* includes many recommendations that will be implemented and advanced by *Connect Lynnwood*.

Key Takeaways

Action 1a: Make Lynnwood a safe, attractive, and accessible place to walk and bike.

- Update the *Pedestrian and Bicycle Multi-Choice Transportation System Plan* (2008) to incorporate trails, storm, greenway and recreation corridors.
- Establish ongoing, dedicated, capital project funding to complete the Pedestrian and Bicycle Multi-Choice Transportation System.
- Annually review and prioritize the *Pedestrian and Bicycle Multi-Choice Transportation System* missing link segments and projects with an emphasis on improving connectivity to key destinations such as schools, transit, retail, and parks.
- Develop and implement wayfinding signage and monumentation standards that will prominently identify trails, multi-use corridors, and recreational areas, and highlight local destinations and amenities accessible from corridors.
- Identify opportunities to install new amenities and features along multi-choice corridors that serve as attractions, improve aesthetics, and serve to increase utilization of the non-motorized infrastructure.
- Develop a Healthy Communities grant acquisition program focused on identification, acquisition, and evaluation of funding, partnerships, grants, and loan opportunities to support the Multi-Choice built environment improvements.

How does it apply to *Connect Lynnwood*?

- *The Healthy Communities Action Plan* assessed and prioritized projects from the 2008 *Multi-Choice Plan* to **improve connectivity to schools, transit, retail, and parks, and complete missing links** in Lynnwood's walking and bicycling networks.
- *The Healthy Communities Action Plan* incorporates **trails, storm, greenway, and recreation corridors as "multi-choice" corridors** for inclusion in Lynnwood's walking and bicycling networks.

LYNNWOOD TRANSIT CENTER MULTIMODAL ACCESSIBILITY PLAN (2016)

Summary

Lynnwood's existing Transit Center (20100 48th Avenue W) will undergo significant changes during construction of the new Sound Transit Link light rail station, scheduled to open in 2024. The *Lynnwood Transit Center Multimodal Accessibility Plan* (LMAP), developed by Washington Department of Transportation (WSDOT), aims to provide safe, balanced, and efficient multimodal access to the Lynnwood Transit Center that adequately serves future transit ridership. The LMAP presents a series of strategies based on three scenarios (existing 2016, 2035 baseline, and LMAP), and evaluates them based on performance measures consistent with WSDOT's practical solutions process.[2]

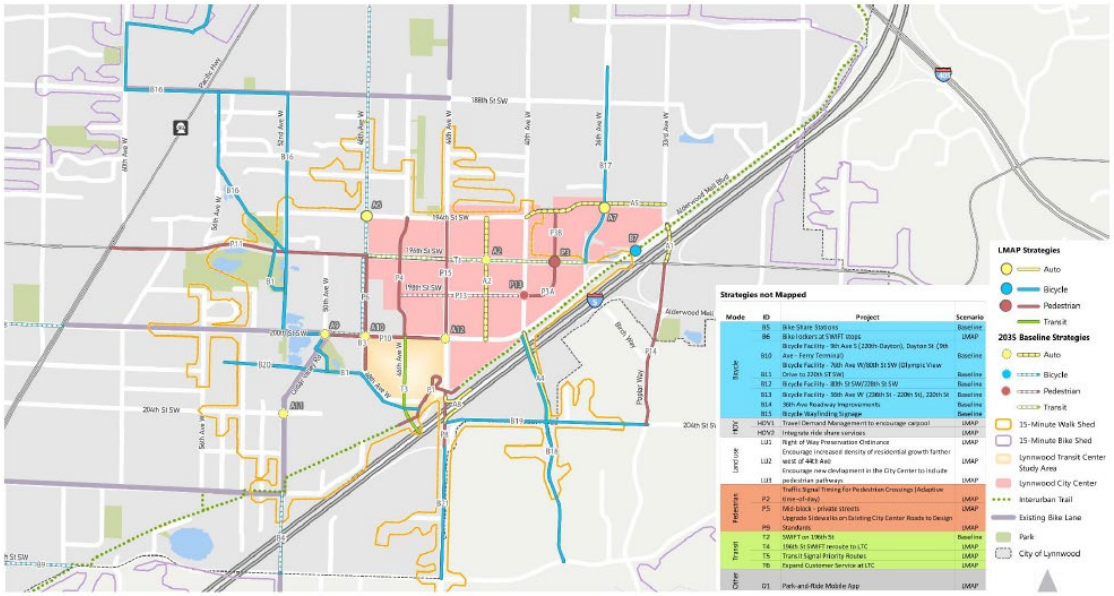
Key Takeaways

- LMAP performance measures were developed consistent with WSDOT's Practical Solutions process, including both baseline measures (ridership, land use, bicycle, pedestrian, transit and auto access, mode split, greenhouse gases, and pollution) and contextual measures (safety, environmental justice, social/community, urban design, economic development, environmental, implementation, and public health).
- LMAP developed and evaluated three scenarios against the defined performance metrics.
- LMAP goals include improving auto, bus, pedestrian, and bicycle access to the future light rail station at the Lynnwood Transit Center; reducing growing travel demand on I-5; reducing transportation-related greenhouse gas emissions; and identifying barriers to safe, efficient, multimodal travel, with consideration for people with special needs and economically disadvantaged populations.

LMAP strategies and projects are shown in Figure 4. Bicycle projects are mapped in blue, and pedestrian projects in orange.

[2] WSDOT's practical solutions process is a two-part strategy that integrates least cost planning and practical design principles based on six transportation policy goals: economic vitality, preservation, safety, mobility, environment, and stewardship. https://www.wsdot.wa.gov/about/practical-solutions/performance-framework

Figure 4 Baseline and LMAP Identified Strategies



Source: Lynnwood Transit Center Multimodal Accessibility Plan (2016)

How does it apply to *Connect Lynnwood*?

- The *LMAP* establishes goals and priorities for access to the Lynnwood Transit Center that can be adapted by *Connect Lynnwood* for application citywide. Relevant goals and priorities include:
    - Provide **safe, balanced, and efficient multimodal access** to the Lynnwood Transit Center that adequately serves future transit ridership
    - Improve auto, bus, pedestrian, and bicycle access by **identifying multimodal improvement connections to the Lynnwood City Center, Transit Center, and the Interurban Regional Trail**
    - Identify barriers to safe, efficient, multimodal travel, with consideration for **people with special needs and economically disadvantaged populations**
- The *LMAP* employed a **project prioritization method utilizing data-driven performance measures** based on plan goals to elevate projects for implementation. *Connect Lynnwood* will prioritize projects with a similar methodology to identify projects that achieve the biggest return on investment in achieving goals. Relevant *LMAP* performance measures include:
    - Bicycle Access: **Average level of traffic stress** on key bicycle routes within a 15-minute ride (3 miles) of the station
    - Pedestrian Access: **Average intersection density and percent of blocks with adequate pedestrian facilities** within a 15-minute walk of the station
    - Land Use: **Number of jobs and housing units** located within a half-mile (network distance) of the station

- As depicted in **Error! Reference source not found.**, the LMAP identified priority pedestrian, bicycle, and transit projects, programs and policies that will be incorporated into *Connect Lynnwood*.

Figure 5 Key Modal Strategies (Lynnwood Transit Center Multimodal Accessibility Plan, 2016)

Pedestrian	Bicycle	Transit
Redevelop **Scriber Creek Trail**	Complete the **Bike2Health network**	Create new **Swift BRT route on 196th Street SW** connecting Edmonds Community College and McCollum Park and Ride, via Lynnwood Transit Center
Improve **access to Interurban Trail** from surrounding neighborhoods	Install **bike facilities on key routes** such as 36th Avenue W north from City Center, 44th Avenue W under I-5 and to the south, and completing the Center to Sound Trail (Scriber Creek Trail extension to the north)	Install **Transit Signal Priority** at key connecting locations
Install **walking enhancements at the 44th Avenue W / I-5 underpass**, possibly including a sidepath	Install network of **bicycle wayfinding** signage to City Center and Transit Center	Expanding customer service at Lynnwood Transit Center
Install additional **mid-block crossings**	Install **bike lockers** at Swift BRT stations	
Upgrade City Center sidewalks to match design standards	Implement **bike share** for local trips	
Complete City Center street grid and install additional traffic signals to facilitate pedestrian crossings		
Encourage new development in the City Center to include **pedestrian throughways**		

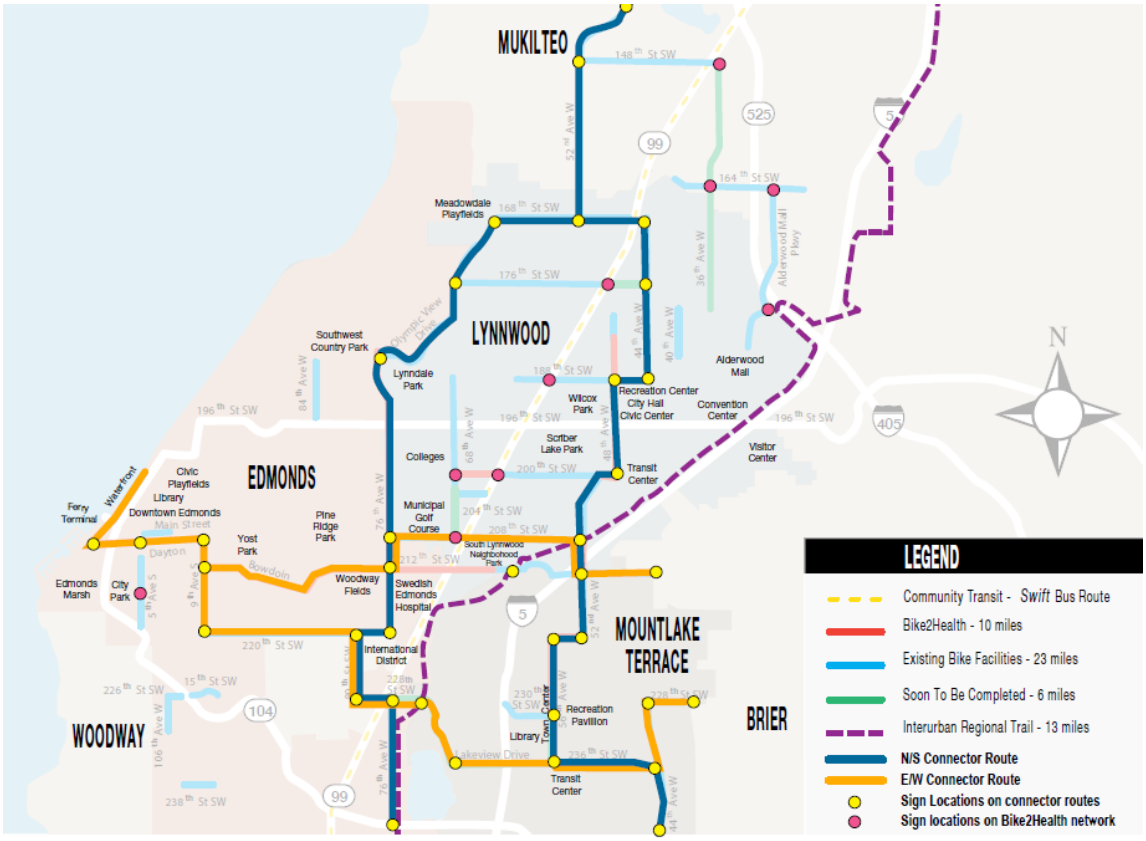
BIKE2HEALTH (2015-ONGOING)

Summary

The cities of Lynnwood, Edmonds, and Mountlake Terrace are working together to improve access to health and wellness choices within their communities, make bicycling safer, and increase non-automobile connectivity by completing eleven critical missing links in the regional bicycle network. The Bike2Health program helped to establish a regional bicycle network by establishing several key corridor routes connecting major destinations and transit hubs.

The project connected or improved 10 miles of bicycle facilities by installing shared lane markings (sharrows), bicycle route signage, and nearly six miles of new bicycle lanes, as shown in Figure 6. To date, the bicycle facilities installed on streets in Lynnwood consist of striped bike lanes, sharrow markings, or signed bike routes.

Figure 6 Bike2Health Project Map



Source: https://verdanthealth.org/our-programs/bike2health-project/

How does it apply to Lynnwood Active Transportation Plan?

- Bike2Health created a regional bicycle network **connecting three neighboring cities with major destinations and transit hubs**, including Lynnwood. *Connect Lynnwood* will build upon the Bike2Health network to recommend implementation of and upgrades to planned facilities.
- Lynnwood's key off-street bicycling connection in the Bike2Health network, the **Interurban Trail**, runs parallel to I-5 for more than three miles through southeast Lynnwood. Bike2Health links installed in the City of Lynnwood include **bike lanes and sharrows** on 76th Avenue W, 200th Street SW, and 48th Avenue W; and **bike lanes** on 212th Street SW and 52nd Avenue W.

168TH STREET SW CORRIDOR STUDY (2018)

The 168th Street SW corridor connects four schools, multifamily housing, and commercial nodes in northwestern Lynnwood. The *168th Street SW Corridor Study* studied the stretch of 168th Street SW from Meadowdale Elementary School on the west side of Olympic View Drive to SR 99 with the goal to make the corridor safer for all users, engage the community in creating solutions, and develop a vision and list of projects that make the corridor into a complete street.

Key project tasks included:

- Analyzing current transportation conditions by mode along and across the corridor, including circulation and access patterns, vehicle speeds and volumes, safety data, and typical conditions
- Conducting stakeholder interviews to gain a deeper understanding of corridor issues and opportunities
- Holding a community "walkshop" where members of the community walked the corridor together, learned about multimodal street design, and proposed ideas for segments of 168th Street SW
- Drafting five cross section alternatives that address needs identified by the project team's analysis and community input
- Convening a community open house to gather feedback on the proposed designs, and refining these into a preferred concept that aligns with community needs and priorities
- Creating a short-term project list that moves the corridor toward the preferred concept

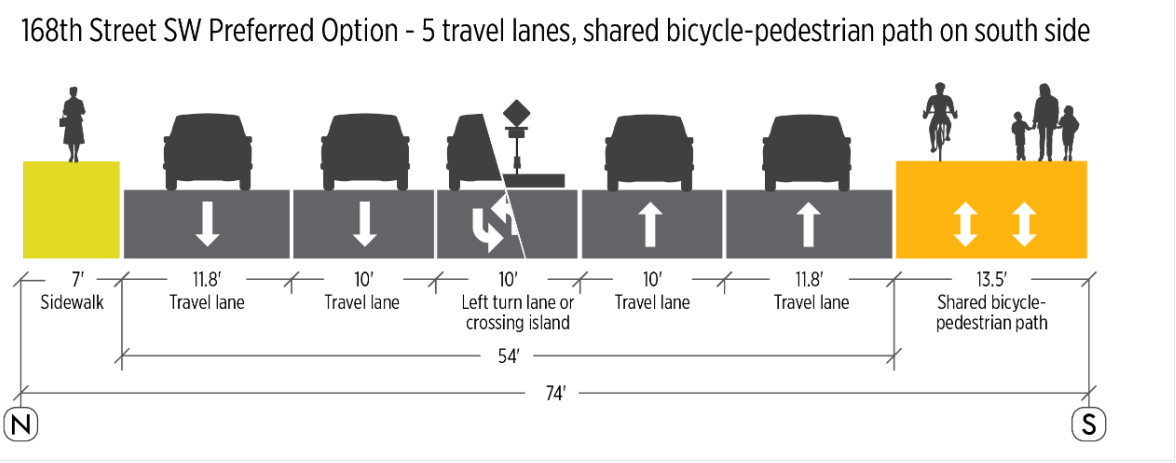
Data analysis and community input revealed numerous opportunities to use complete streets concepts and make the street better for all users. High vehicle speeds, numerous crashes, and community input that it feels unsafe to cross the street all inhibit travel along and across 168th Street SW by any means other than driving. At the same time, increasing the number of people bicycling and walking for school trips has the potential to alleviate congestion during school arrival and dismissal times and improve conditions for drivers. The corridor's designation as a regional bicycling connection as well as the number of schools, daycare facilities, and multi-family housing along the corridor justify the need for improvements to better serve travelers of all ages and abilities.

How does it apply to *Connect Lynnwood*?

The project team drafted a preferred design concept for the 168th Street SW corridor based on community input that balances the need to increase safety and mobility for people walking and bicycling with the need to maintain street capacity to carry peak traffic volumes during school arrival and dismissal times.

The concept proposes a cross section with four travel lanes, a center two-way left turn lane alternating with median crossing islands where crossings are needed, and a shared-use bicycle and pedestrian path along the south side of the street (Figure 7). The south side was preferred by the community due to more destinations being located along this side of the street. The curb lanes measure 11.8 feet to accommodate Community Transit vehicles. The design is applicable to the central portion of the corridor, stretching from Olympic View Drive east to SR 99, a distance of just over one mile.

Figure 7 168th Street SW Preferred Corridor Design Concept, Olympic View Drive to SR 99



Source: Nelson\Nygaard

Findings from the corridor study informed 2018 applications for Safe Routes to School (SRTS) grant funding, which involved collaboration with school administrators, Snohomish County, and Edmonds School District to develop site access and circulation improvements at all four school sites along the corridor. A revised application focused on improvements at Beverly Elementary School, located at 52nd Avenue W and 168th Street SW. Ultimately these SRTS projects were not selected to receive funding.

ADA TRANSITION PLAN (2018-ONGOING)

Overview

The City of Lynnwood is preparing an Americans with Disabilities Act (ADA) *Self-Assessment and Transition Plan* to ensure equality of access to all its public programs, services, facilities, and activities for people with disabilities. The *ADA Transition Plan* is intended to:

- Identify physical obstacles that limit the accessibility of facilities to individuals with disabilities
- Describe the methods to be used to make the facilities accessible
- Provide a schedule for making modifications to better provide access
- Curb ramp and sidewalk barriers are shown in Figure 8 and Figure 9

Figure 8 ADA Plan Curb Ramp Barriers Identified – High Priority

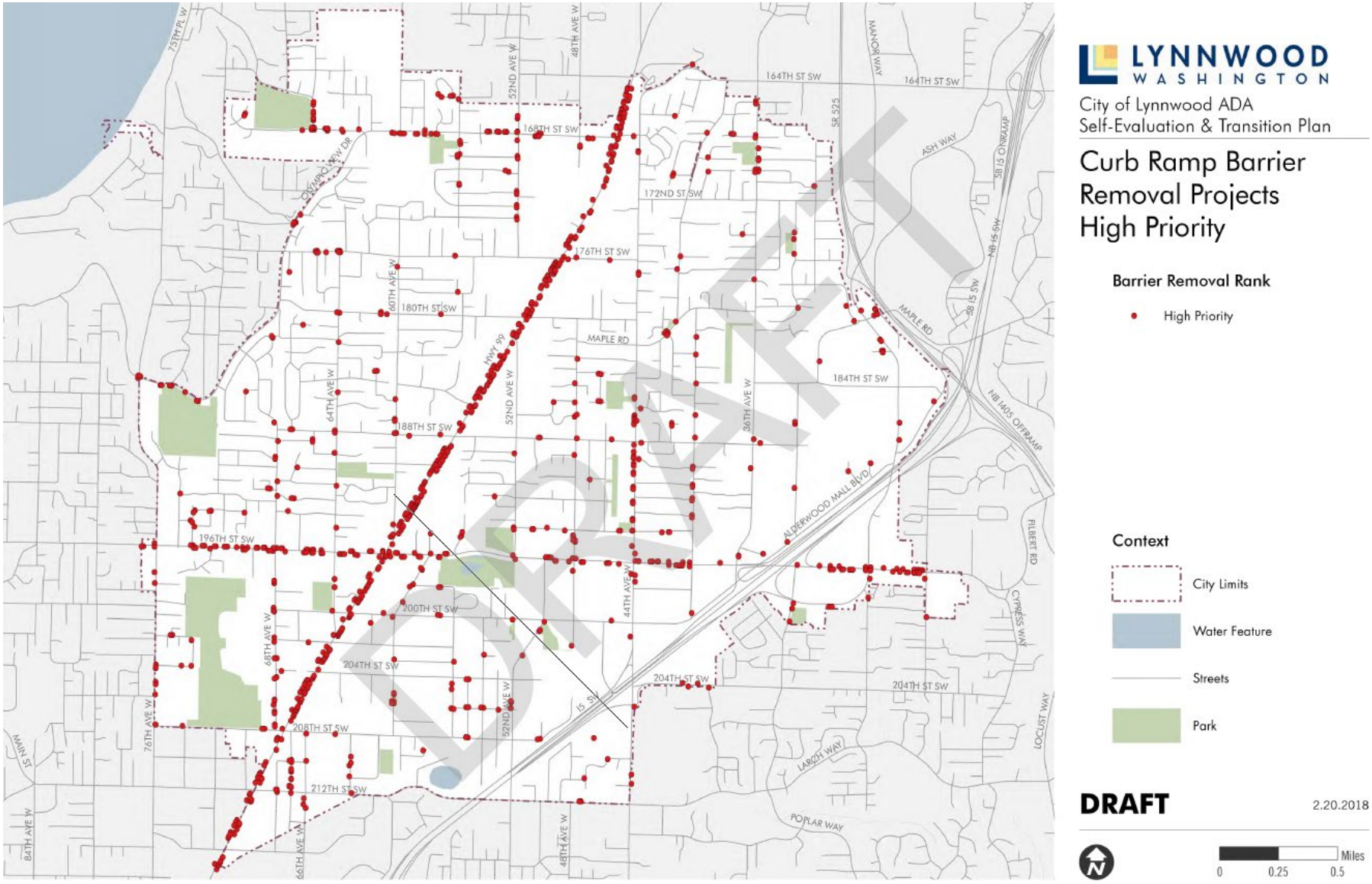
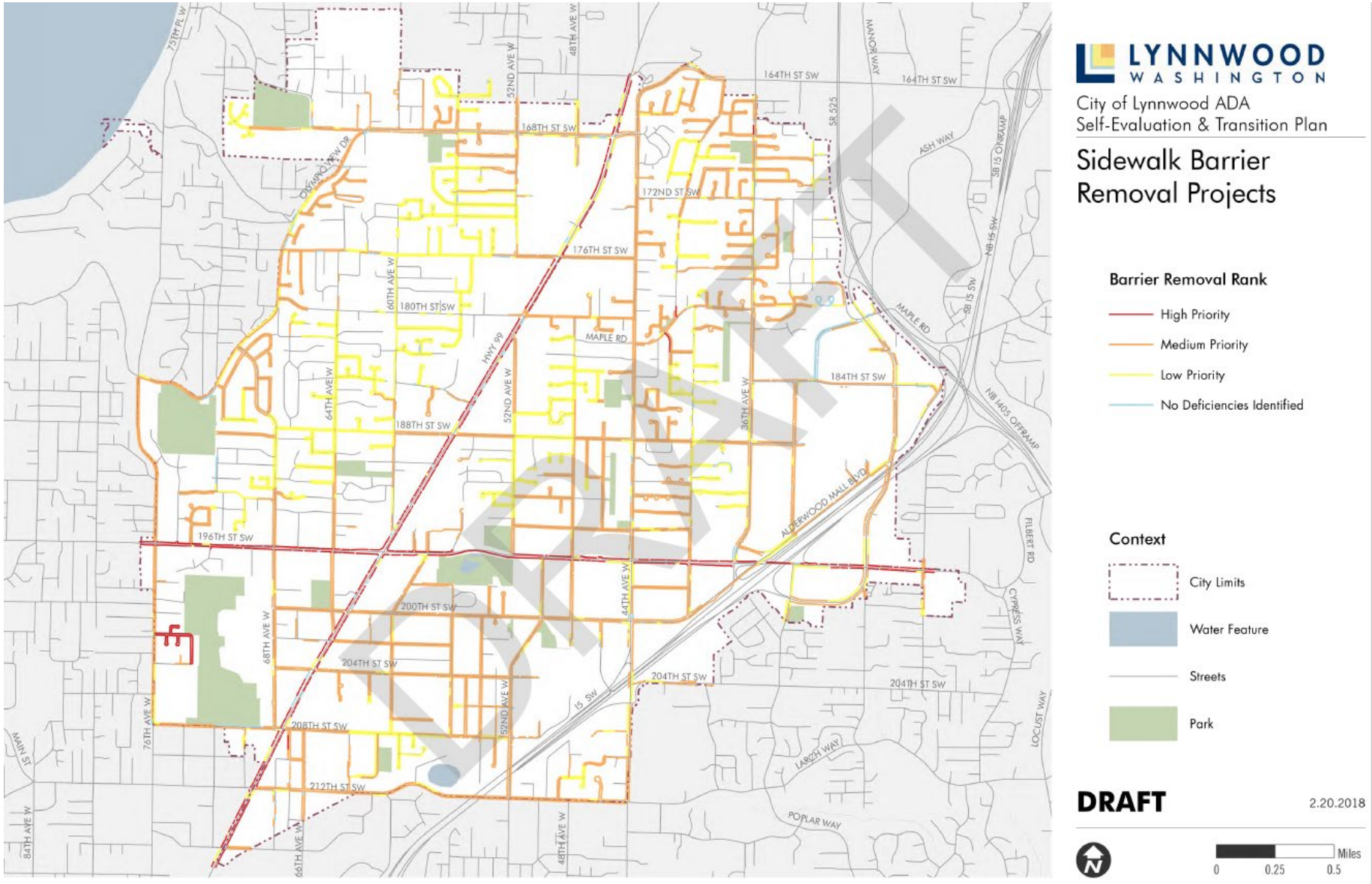


Figure 9 **ADA Transition Plan Sidewalk Barriers Identified**



Key Takeaways

- The *ADA Transition Plan* identified where sidewalks, curb ramps, and trails are out of compliance with ADA, limiting access and comfortable travel for those walking or rolling with mobility limitations. The plan proposed specific mitigation for each barrier.
- 31% of Lynnwood's curb ramps were rated as a high priority to mitigate. The majority of these require complete replacement of ramps, or installation or upgrade of detectable warning surfaces to assist people with vision impairments. Most curb ramps ranked high priority are located along Highway 99 and 196th Street SW.
- Deficiencies were identified in 98% of the sidewalk network. 7% of these sidewalks were ranked as a high priority to mitigate. The greatest number of proposed mitigation strategies include regrading sidewalks, removing overhanging barriers, moving protruding objects, and reorienting drainage grates. As with barriers identified in the city's curb ramps, the majority of sidewalk segments identified as high priority to mitigate are located along Highway 99 and 196th Street SW.
- Beyond the sidewalk segments evaluated in the *ADA Transition Plan*, there are numerous street segments and areas of neighborhoods where no sidewalks exist. The plan did not supply a comprehensive assessment of presence or absence of sidewalks citywide. This data is available from existing City of Lynnwood datasets as detailed in the "Biking and Walking Networks" portions of this memo.

How does it apply to *Connect Lynnwood*?

- *Connect Lynnwood* is an **opportunity to achieve multiple goals with city investments**: implementation of the *ADA Transition Plan* mitigations and improve walking and rolling connections, safety, and access to community destinations. Mitigations identified by the *ADA Transition Plan* can inform project identification and be prioritized through the *Connect Lynnwood* prioritization framework.
- High priority mitigations are defined based on proximity of project location to **government offices and public facilities, public transportation, commercial districts, and employers**. *Connect Lynnwood* will advance a similar methodology to prioritize improvements near important destinations.
  - Mitigation projects were prioritized according to the following criteria:
    - Location of citizen complaint or request
    - Locations serving government offices and public facilities
    - Locations serving public transportation
    - Locations serving commercial districts and employers

COMPLETE STREETS POLICY AND PEDESTRIAN/BICYCLE STANDARDS UPDATE (2019-ONGOING)

Overview

Complete Streets is the integration of people and place in the planning, design, construction, operation, and maintenance of transportation networks. The Complete Streets approach ensures streets are safe for people of all ages and abilities, balances the needs of different travel modes, and supports local land uses, economic and civic vibrancy.[3] Lynnwood's Complete Streets Policy will set a vision for how the transportation network and City investments create safe and comfortable places for all people to travel no matter their mode.

The City of Lynnwood is drafting a Complete Streets policy to:

- Implement the Comprehensive Plan goal to create a **balanced transportation system with mobility options for all people.**
- Make the **best use of limited City resources** by aligning project development and delivery processes to ensure each city transportation investment achieves multiple goals.
- Advance **incremental change toward a multimodal future** where Lynnwood can grow with increased mobility options and connections to bus and light rail transit service.
- Establish eligibility for **Complete Streets Award funding** from the state of Washington's Transportation Improvement Board.[4]

Key Takeaways

- Lynnwood's Complete Streets policy will establish a vision for complete multimodal networks accompanied by City processes and tools for implementation.
- Lynnwood's street design standards are one tool for implementing the Complete Streets vision. Creating and updating pedestrian and bicycle standards is an opportunity to **upgrade and codify the minimum facility designs** to create a network that is **comfortable for a wide range of people** to walk and bicycle, no matter their age or physical ability.
- Lynnwood currently has **no standard plans for bicycle facilities**, except sharrow markings included in the *City Center Streetscape Plan*. Bicycle and pedestrian standards will be applicable to city street improvement projects as well as projects identified by *Connect Lynnwood*.

How does it apply to *Connect Lynnwood*?

- *Connect Lynnwood* will **operationalize the Complete Streets Policy** by establishing the **complete walking and bicycling networks** along with priority projects for implementation.
- Updated pedestrian and bicycle standards will align with the facility types designated in *Connect Lynnwood* to create **walking and bicycling facilities suitable for people of all ages and abilities** on select streets to create a connected network**.**

[3] National Complete Streets Coalition. https://smartgrowthamerica.org/program/national-complete-streets-coalition/

[4] Transportation Improvement Board, Complete Streets Award: http://www.tib.wa.gov/grants/grants.cfm

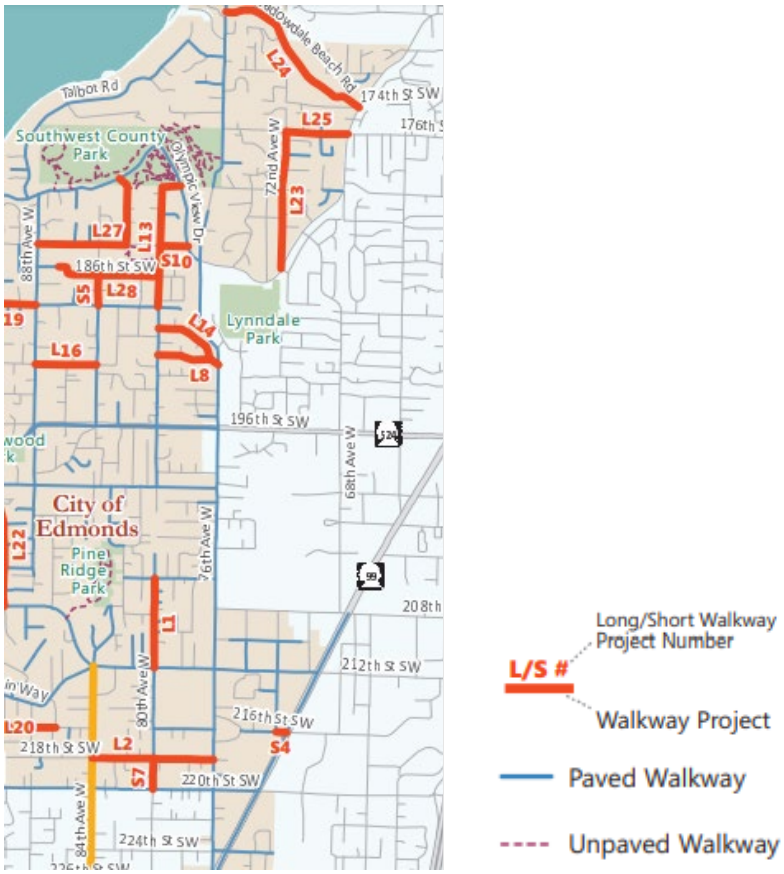
LOCAL AND REGIONAL CONNECTIONS

City of Edmonds

West of Lynnwood, the City of Edmonds' Comprehensive Transportation Plan includes basic but regularly-updated plans for Walkways and Bicycles, which were last updated in 2015.

Edmonds' existing walking network is similar to Lynnwood's: sidewalks are present along the majority of arterial and collector streets, while few sidewalks exist along the majority of neighborhood streets. The walking network is most complete around downtown Edmonds. The existing and proposed walking network as of 2015 is shown in Figure 10.

Figure 10 City of Edmonds Existing and Proposed Pedestrian Facilities Adjacent to Lynnwood (2015)



Source: City of Edmonds

Edmonds' bicycle network primarily consists of signed bicycle routes, with a few miles of striped bike lanes and shared lane markings. Prior to the installation of the Bike2Health network since 2016, designated bicycle connections between Lynnwood and Edmonds were minimal aside from the Interurban Trail. The existing and proposed network as of 2015 is shown in Figure 11.

Figure 11 City of Edmonds Existing and Proposed Bicycle Facilities Adjacent to Lynnwood (2015)

Source: City of Edmonds

Key bicycle connections between Lynnwood and Edmonds shown in Figure 11 have now been installed. Bicycle connections between the two cities now include bike lanes along 212th St SW, and the signed bike route and bike lanes on 76th Ave W/Olympic View Drive.

How does it apply to *Connect Lynnwood*?

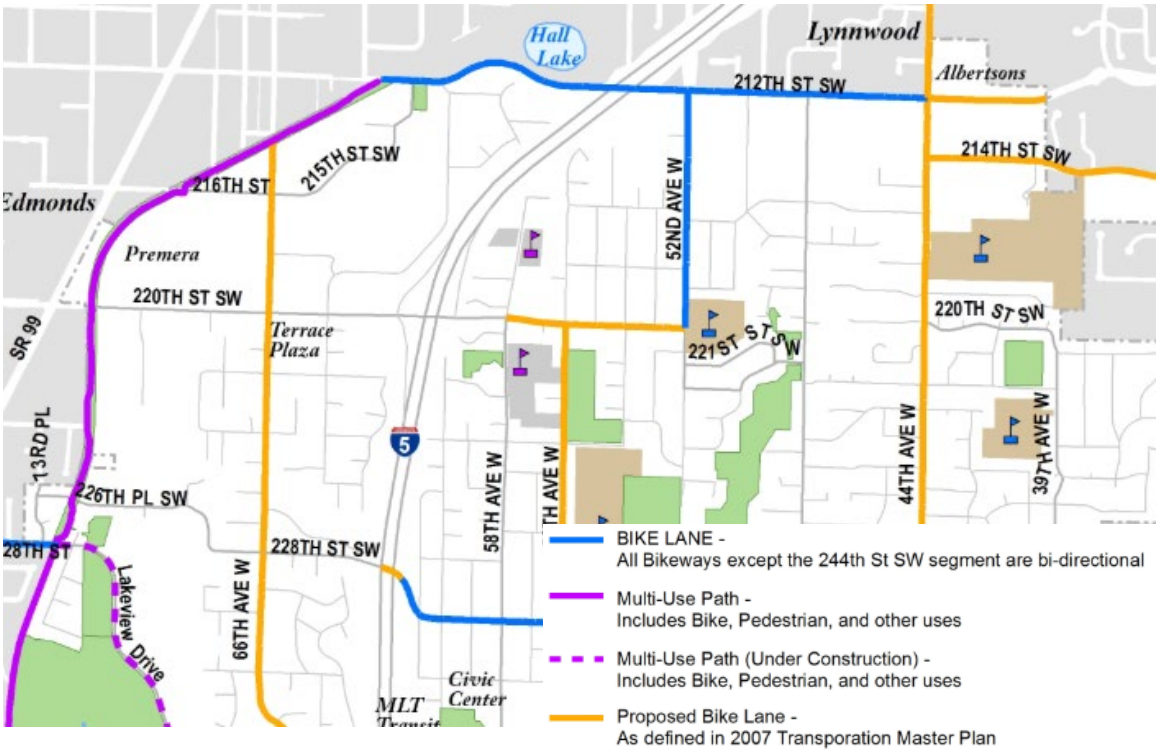
- Current established bikeway connections between Edmonds and Lynnwood include:
  - Bike lanes on 212th Street SW
  - Interurban Trail
  - Bike lanes, sharrows, and a signed route along 76th Avenue W/Olympic View Drive, which forms the boundary between the two cities
- Edmonds identified top priority walkway projects, several of which offer an opportunity to enhance regional walking connectivity if investments in Lynnwood align with those in Edmonds. Projects numbers below reference those shown in Figure 10. These projects are assumed to be sidewalk construction and infill. Those that connect to Lynnwood include:
  - 216th Street SW from 72nd Avenue W to SR 99

  - 191st Street SW from 80th Avenue W and 76th Avenue W
  - 189th Place SW from 80th Avenue W to 76th Avenue W
- *Connect Lynnwood* will identify school access and safety improvements for College Place Elementary and Middle Schools in coordination with the City of Edmonds, as the school access areas extend across the Edmonds/Lynnwood city limits.

City of Mountlake Terrace

South of Lynnwood, Mountlake Terrace has bicycle connections to Lynnwood via bike lanes on 52nd Avenue W or the Interurban Trail. 212th Street SW forms part of the boundary between Lynnwood and Mountlake Terrace, a stretch that includes bike lanes in each direction and an Interurban Trail crossing. Mountlake Terrace's 2007 *Transportation Master Plan* proposed bike lanes on 44th Avenue W and 66th Avenue W, which are both four-lane arterials, that would provide direct north-south connections with Lynnwood when implemented. These existing and proposed bicycle connections as of 2017 are shown in Figure 12.

Figure 12 Mountlake Terrace Existing and Proposed Bike Network (2017)



Source: City of Mountlake Terrace

Mountlake Terrace has a sidewalk network that is generally more complete along most streets, including local streets, than either Lynnwood or Edmonds. Most street connections between Lynnwood and Mountlake Terrace include complete sidewalk facilities.

How does it apply to *Connect Lynnwood*?

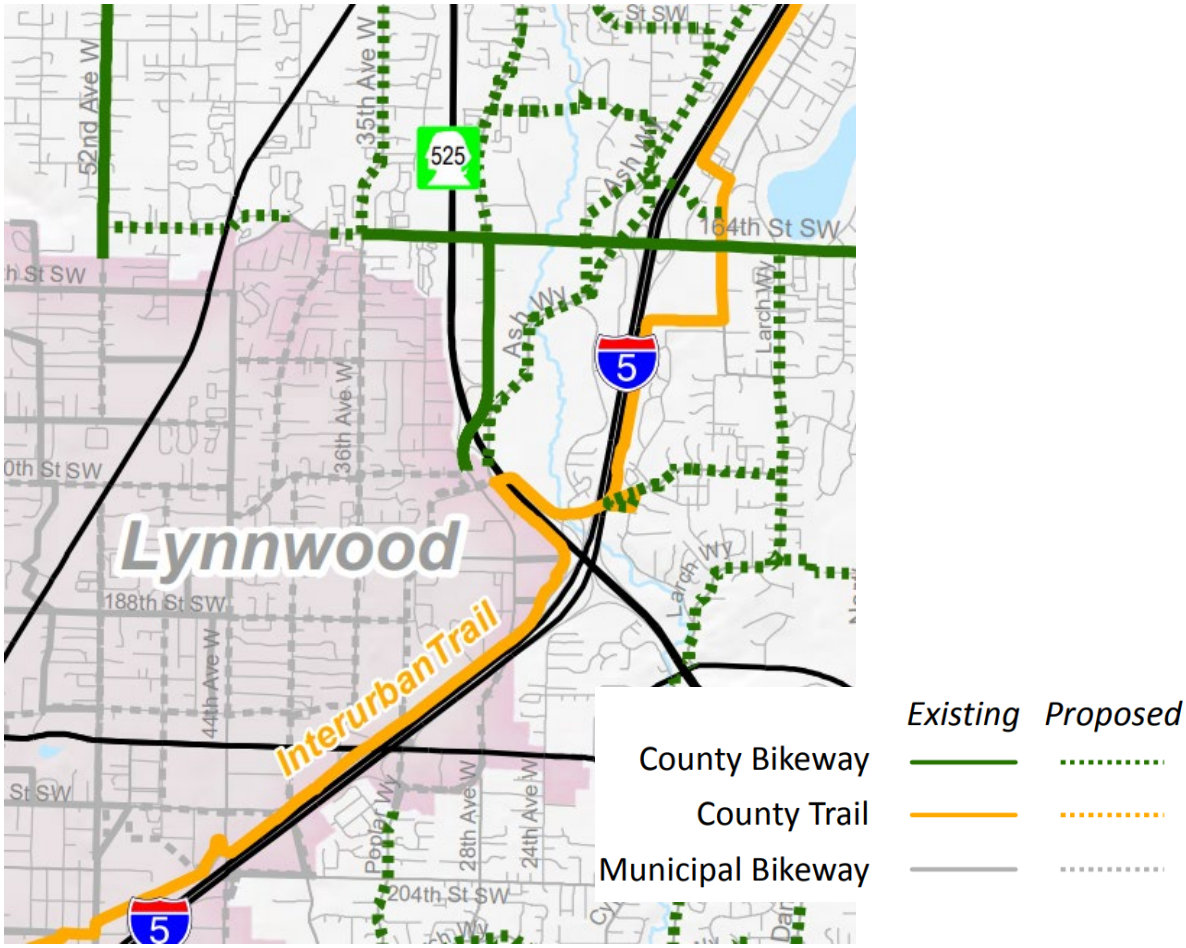
- Aside from the Interurban Trail, there are three critical connections for people bicycling and walking between Mountlake Terrace and Lynnwood. *Connect Lynnwood* could maximize regional connectivity by prioritizing bicycle and walking improvements along these streets:

- **66th Avenue W**: No existing bicycle facilities, though sidewalks exist on both sides of the street in both cities.
- **52nd Avenue W**: Provides a connection under I-5, and now has striped bike lanes in both Lynnwood and Mountlake Terrace.
- **44th Avenue W**: Currently has 4-6 travel lanes and no bike facility. Biking and walking improvements under I-5 proposed in the Lynnwood Multimodal Accessibility Plan include an alternative for a sidepath adjacent to the street, which would increase the level of comfort for people bicycling. There are also stretches of 44th Avenue W with no existing sidewalks.

Snohomish County and Puget Sound Region

Since the adoption of the county's original comprehensive plan in 1995, Snohomish County has included bicycling and walking facilities on all arterial widening projects and new arterial streets in urban areas. Bike lanes on county arterial corridors near Lynnwood include **148th Street SW and 164th Street SW** (Figure 13). Bike lanes connect into Lynnwood from unincorporated Snohomish County on **52nd Avenue W** (on the north end of the city) and **Alderwood Mall Parkway** (on the east side of the city). Snohomish County has proposed bikeways **on Ash Way, Larch Way, and Poplar Way**, in addition to several bikeways that would connect with the Interurban Trail north of Lynnwood. The facility type for these proposed bikeways is yet to be determined, though most county bikeways consist of **striped bike lanes**. These future projects would provide greater regional bicycle connectivity between Lynnwood, Mukilteo, and Mill Creek.

Figure 13 Snohomish County Existing and Proposed Bike Facilities (2019)



Source: Snohomish County

Snohomish County is in the midst of developing a countywide vision to improve active transportation access and connectivity, *Pathways for Active Transportation*. The plan will create a list of prioritized projects, design elements, funding strategies, and an updated active transportation circulation map for Snohomish County. The draft study is anticipated in summer 2020.

Snohomish County has two programs for funding, designing, and constructing walking improvements through unincorporated areas of the county: Local Infrastructure Project bonds, and the Safe Kids, Improved Pathways (SKIP) program, which addresses infrastructure needs near elementary schools. Projects have included widening shoulders, installing crosswalks and crossing beacons, filling gaps in walkways, and upgrading curb ramps.

The Puget Sound Regional Council (PSRC) completed an update of the *Regional Bike Network Plan* in 2018. Prior to this update, Highway 99 was the designated regional bicycle route through Lynnwood, in addition to the Interurban Trail. In the 2018 update, the Highway 99 segment was removed from the regionally significant bike network and **76th Avenue W** was added. A connection **along 172nd Avenue W/Spruce Avenue and the Scriber Creek Trail corridor** were added as planned or aspirational facilities.[5]

[5] Puget Sound Regional Council Regional Bicycle Network
https://psregcncl.maps.arcgis.com/apps/webappviewer/index.html?id=ebb7a1aaf8ac4077b18a47061c7efdf4

How does it apply to *Connect Lynnwood*?

- *Connect Lynnwood* could maximize regional connectivity by prioritizing bicycle and walking improvements along these streets (shown in Figure 13) to connect with unincorporated Snohomish County and nearby cities:
  - 52nd Avenue W: Currently has striped bike lanes north of 168th Street SW.
  - Alderwood Mall Parkway: Currently has striped bike lanes north of Maple Road/33rd Avenue W. City of Lynnwood has recently installed bike lanes on 33rd Avenue W approaching Alderwood Mall Parkway.
  - Poplar Way: City of Lynnwood has proposed a bridge extending Poplar Way across I-5, which would provide critical biking and walking connectivity.
  - 164th Street SW and 36th/35th Avenue W: City of Lynnwood's reconstruction of 36th/35th Avenue W (currently in progress) will provide strong bicycle connectivity between existing and proposed Snohomish County bikeways on 164th Street SW and 35th Avenue W.
- *Connect Lynnwood* should coordinate with Snohomish County's *Pathways for Active Transportation* project and PSRC's periodic updates to the Regional Bike Network to leverage regional and county planning and funding for active transportation projects that connect to Lynnwood.
  - Lynnwood's Safe Routes to School application for Beverly Elementary School, submitted in 2018, provides a recent example of this coordination across jurisdictions: proposed school access improvements were aligned with upcoming Snohomish County improvements to the bike lanes and sidewalks that lead directly to the school. Proposed investments within the City of Lynnwood connected directly with county networks to enhance regional active transportation connectivity.

Appendix B Bicycle Counts

This appendix provides the detailed bicycle counts as collected by the Bike2Health monitoring and evaluation program. Bike2Health has funded the counts through October 2019, but data for this count period were not yet available. Counts have been conducted twice per year on three consecutive weekdays, from 7:00-9:00 AM and 4:00-6:00 PM.

Figure 14 Bike2Health Network Count Summary

Count Location	City	Average per day in combined AM+PM peaks
200th Street SW & 48th Avenue W	Lynnwood	22
52nd Avenue W & 212th Street SW	Lynnwood	19
68th Avenue W & 200th Street SW	Lynnwood	18
76th Avenue W & Olympic View Drive	Edmonds/Lynnwood	16
76th Avenue W & 212th Street SW	Edmonds/Lynnwood	16
9th Avenue S & Walnut Street	Edmonds	9
56th Avenue W & 230th Street SW	Mountlake Terrace	6
80th Avenue W & 224th Street SW	Edmonds	4
Average daily totals for AM+PM peaks, all 8 Bike2Health count locations		**110**

Figure 15 Total Counts by Date

Location ID	Location Description	26-Apr-16	27-Apr-16	28-Apr-16	30-Aug-16	31-Aug-16	1-Sep-16	27-Jun-17	28-Jun-17	29-Jun-17	17-Oct-17	18-Oct-17	19-Oct-17	23-Apr-19	24-Apr-19	25-Apr-19	Avg. per day	TOTALS
1	76th Avenue W & Olympic View Drive	29	22	17	19	15	12	18	16	25	10	3	3	10	25	11	***16***	***235***
2	9th Avenue S & Walnut Street	11	8	8	17	6	5	15	18	18	7	5	1	7	6	4	***9***	***136***
3	76th Avenue W & 212th Street SW	17	18	49	23	25	32	0	0	0	4	6	5	11	34	23	***16***	***247***
4	52nd Avenue W & 212th Street SW	24	24	24	44	17	22	20	20	15	12	10	6	14	14	21	***19***	***287***
5	200th Street SW & 48th Avenue W	30	23	36	25	19	16	15	11	22	11	14	4	35	42	34	***22***	***337***
6	68th Avenue W & 200th Street SW	29	20	18	21	16	16	26	13	29	9	11	11	16	20	10	***18***	***265***
7	56th Avenue W & 230th Street SW	13	11	12	4	2	6	7	4	6	2	2	3	2	5	6	***6***	***85***
8	80th Avenue W & 224th Street SW	8	3	3	5	0	1	13	8	7	1	1	1	2	5	2	***4***	***60***

Figure 16 Percentages of People Bicycling in Crosswalk Versus on Street

Location ID	Location Description	26-Apr-16	27-Apr-16	28-Apr-16	30-Aug-16	31-Aug-16	1-Sep-16	27-Jun-17	28-Jun-17	29-Jun-17	17-Oct-17	18-Oct-17	19-Oct-17	23-Apr-19	24-Apr-19	25-Apr-19	Avg. per day
1	76th Avenue W & Olympic View Drive	21%	14%	0%	5%	20%	8%	17%	13%	24%	20%	0%	0%	0%	32%	9%	***12%***
2	9th Avenue S & Walnut Street	0%	0%	13%	12%	33%	0%	20%	33%	0%	0%	0%	0%	29%	0%	25%	***11%***
3	76th Avenue W & 212th Street SW	35%	22%	76%	30%	32%	41%	0%	0%	0%	75%	50%	20%	18%	21%	26%	***30%***
4	52nd Avenue W & 212th Street SW	21%	17%	29%	32%	47%	41%	20%	25%	13%	42%	20%	17%	29%	14%	19%	***26%***
5	200th Street SW & 48th Avenue W	33%	17%	28%	44%	5%	13%	7%	36%	27%	36%	21%	25%	23%	31%	9%	***24%***
6	68th Avenue W & 200th Street SW	21%	40%	28%	10%	50%	50%	19%	15%	24%	44%	55%	55%	6%	20%	10%	***30%***
7	56th Avenue W & 230th Street SW	15%	18%	33%	25%	0%	0%	57%	50%	0%	0%	0%	0%	50%	40%	17%	***20%***
8	80th Avenue W & 224th Street SW	38%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	***3%***

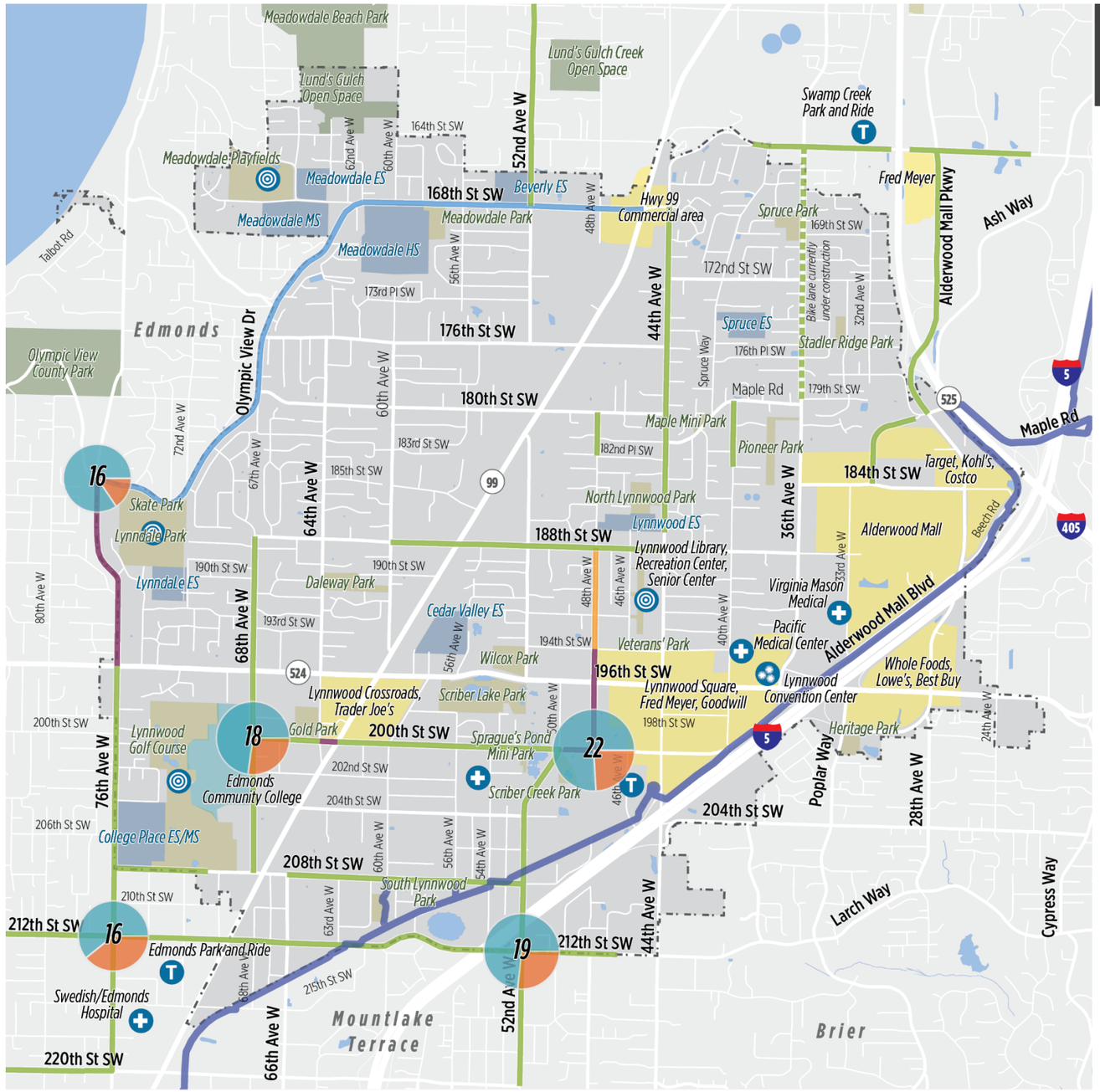
Figure 17 AM Peak Period Counts

Location ID	Location Description	26-Apr-16	27-Apr-16	28-Apr-16	30-Aug-16	31-Aug-16	1-Sep-16	27-Jun-17	28-Jun-17	29-Jun-17	17-Oct-17	18-Oct-17	19-Oct-17	23-Apr-19	24-Apr-19	25-Apr-19	Avg. per day
1	76th Avenue W & Olympic View Drive	5	13	4	7	4	8	6	3	8	2	1	2	3	8	4	***5***
2	9th Avenue S & Walnut Street	4	3	2	8	2	0	4	4	6	2	3	0	3	1	0	***3***
3	76th Avenue W & 212th Street SW	7	11	24	5	9	11	0	0	0	0	3	3	3	18	10	***7***
4	52nd Avenue W & 212th Street SW	8	7	6	14	7	9	5	9	5	6	6	1	5	5	6	***7***
5	200th Street SW & 48th Avenue W	14	9	12	10	7	10	7	4	5	9	7	2	15	11	12	***9***
6	68th Avenue W & 200th Street SW	10	9	8	7	3	3	11	3	9	4	5	5	3	6	4	***6***
7	56th Avenue W & 230th Street SW	6	3	7	2	2	4	0	1	2	1	2	1	1	1	2	***2***
8	80th Avenue W & 224th Street SW	1	0	0	1	0	0	7	2	4	0	0	0	0	0	0	***1***
AM as percentage of AM/PM total																	
1	76th Avenue W & Olympic View Drive	17%	59%	24%	37%	27%	67%	33%	19%	32%	20%	33%	67%	30%	32%	36%	***35%***
2	9th Avenue S & Walnut Street	36%	38%	25%	47%	33%	0%	27%	22%	33%	29%	60%	0%	43%	17%	0%	***27%***
3	76th Avenue W & 212th Street SW	41%	61%	49%	22%	36%	34%	0%	0%	0%	0%	50%	60%	27%	53%	43%	***32%***
4	52nd Avenue W & 212th Street SW	33%	29%	25%	32%	41%	41%	25%	45%	33%	50%	60%	17%	36%	36%	29%	***35%***
5	200th Street SW & 48th Avenue W	47%	39%	33%	40%	37%	63%	47%	36%	23%	82%	50%	50%	43%	26%	35%	***43%***
6	68th Avenue W & 200th Street SW	34%	45%	44%	33%	19%	19%	42%	23%	31%	44%	45%	45%	19%	30%	40%	***34%***
7	56th Avenue W & 230th Street SW	46%	27%	58%	50%	100%	67%	0%	25%	33%	50%	100%	33%	50%	20%	33%	***46%***
8	80th Avenue W & 224th Street SW	13%	0%	0%	20%	0%	0%	54%	25%	57%	0%	0%	0%	0%	0%	0%	***11%***

Figure 18 PM Peak Period Counts

Location ID	Location Description	26-Apr-16	27-Apr-16	28-Apr-16	30-Aug-16	31-Aug-16	1-Sep-16	27-Jun-17	28-Jun-17	29-Jun-17	17-Oct-17	18-Oct-17	19-Oct-17	23-Apr-19	24-Apr-19	25-Apr-19	Avg. per day
1	76th Avenue W & Olympic View Drive	24	9	13	12	11	4	12	13	17	8	2	1	7	17	7	***10***
2	9th Avenue S & Walnut Street	7	5	6	9	4	5	11	14	12	5	2	1	4	5	4	***6***
3	76th Avenue W & 212th Street SW	10	7	25	18	16	21	0	0	0	4	3	2	8	16	13	***10***
4	52nd Avenue W & 212th Street SW	16	17	18	30	10	13	15	11	10	6	4	5	9	9	15	***13***
5	200th Street SW & 48th Avenue W	16	14	24	15	12	6	8	7	17	2	7	2	20	31	22	***14***
6	68th Avenue W & 200th Street SW	19	11	10	14	13	13	15	10	20	5	6	6	13	14	6	***12***
7	56th Avenue W & 230th Street SW	7	8	5	2	0	2	7	3	4	1	0	2	1	4	4	***3***
8	80th Avenue W & 224th Street SW	7	3	3	4	0	1	6	6	3	1	1	1	2	5	2	***3***
PM as percentage of AM/PM total																	
1	76th Avenue W & Olympic View Drive	83%	41%	76%	63%	73%	33%	67%	81%	68%	80%	67%	33%	70%	68%	64%	***65%***
2	9th Avenue S & Walnut Street	64%	63%	75%	53%	67%	100%	73%	78%	67%	71%	40%	100%	57%	83%	100%	***73%***
3	76th Avenue W & 212th Street SW	59%	39%	51%	78%	64%	66%	0%	0%	0%	100%	50%	40%	73%	47%	57%	***48%***
4	52nd Avenue W & 212th Street SW	67%	71%	75%	68%	59%	59%	75%	55%	67%	50%	40%	83%	64%	64%	71%	***65%***
5	200th Street SW & 48th Avenue W	53%	61%	67%	60%	63%	38%	53%	64%	77%	18%	50%	50%	57%	74%	65%	***57%***
6	68th Avenue W & 200th Street SW	66%	55%	56%	67%	81%	81%	58%	77%	69%	56%	55%	55%	81%	70%	60%	***66%***
7	56th Avenue W & 230th Street SW	54%	73%	42%	50%	0%	33%	100%	75%	67%	50%	0%	67%	50%	80%	67%	***54%***
8	80th Avenue W & 224th Street SW	88%	100%	100%	80%	0%	100%	46%	75%	43%	100%	100%	100%	100%	100%	100%	***82%***

Figure 19 **Lynnwood Average Weekday Peak Period Bicycle Counts by Location**



COUNTS OF PEOPLE BICYCLING, WITH EXISTING BIKE NETWORK

Existing Bicycle Facilities

- Bike Lane
- Bike Lane 1 direction / Sharrow 1 direction
- Sharrow Only
- Signed Bike Route, signage only
- Interurban Trail

Bike2Health Network Counts

Number of bikes on street

10 — Average number of weekday AM/PM peak bicycle riders

Number of bikes in crosswalk

Data represent average daily totals during morning and evening peak periods for biannual counts collected between April 2016 and April 2019. Counts are collected for three consecutive weekdays at 8 locations along the Bike2Health network for two hours each morning and evening. Three additional locations in Edmonds and Mountlake Terrace are not shown on this map.

Lynnwood City Limit

0 0.125 0.25 0.5 Miles

Data Sources: Snohomish County, ESRI, City of Lynnwood, Bike2Health

Appendix C Bicycle Level of Traffic Stress

This appendix provides technical information related to LTS scoring for street segments.

Figure 20 Level of Traffic Stress Scoring for Varying Street Contexts

Level of Traffic Stress Scoring

Mixed traffic criteria

Number of lanes	Effective ADT*	Prevailing Speed ≤ 20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50+mph
Unlaned 2-way street (no centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 1	LTS 1	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4
	1501-3000	LTS 2	LTS 2	LTS 2	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
1 thru lane per direction (1-way, 1-lane street or 2-way street with centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4
	1501-3000	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
2 thru lanes per direction	0-8000	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	8001+	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
3+ thru lanes per direction	any ADT	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4

* Effective ADT = ADT for two-way roads; Effective ADT = 1.5*ADT for one-way roads

Bike lanes and shoulders not adjacent to a parking lane

Number of lanes	Bike lane width	Prevailing Speed ≤ 25 mph	30 mph	35 mph	40 mph	45 mph	50+ mph
1 thru lane per direction, or unlaned	6+ ft	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
2 thru lanes per direction	6+ ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
3+ lanes per direction	any width	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4

Notes 1. If bike lane / shoulder is frequently blocked, use mixed traffic criteria.
2. Qualifying bike lane / shoulder should extend at least 4 ft from a curb and at least 3.5 ft from a pavement edge or discontinuous gutter pan seam
3.Bike lane width includes any marked buffer next to the bike lane.

Bike lanes alongside a parking lane

Number of lanes	Bike lane reach = Bike + Pkg lane width	Prevailing Speed ≤ 25 mph	30 mph	35 mph
1 lane per direction	15+ ft	LTS 1	LTS 2	LTS 3
	12-14 ft	LTS 2	LTS 2	LTS 3
2 lanes per direction (2-way)	15+ ft	LTS 2	LTS 3	LTS 3
2-3 lanes per direction (1-way)		LTS 2	LTS 3	LTS 3
other multilane		LTS 3	LTS 3	LTS 3

Notes 1. If bike lane is frequently blocked, use mixed traffic criteria.
2. Qualifying bike lane must have reach (bike lane width + parking lane width)≥ 12 ft
3.Bike lane width includes any marked buffer next to the bike lane.

Figure 21 shows the level of traffic stress on the existing bike network (solid lines), and all other collector and arterial streets (dashed lines). Figure 22 shows LTS on only the existing and proposed network. The majority of the proposed bike network is sketched on arterial and collector streets. For most of this proposed network, no specific facility type has been proposed, so LTS analysis reflects existing street conditions on these streets comprising the proposed network. The two exceptions are 168th Street SW and the Scriber Creek Trail. The *168th Street SW Corridor Study (2018)* proposed a sidepath between Olympic View Drive and SR 99, as shown in Figure 7 above; the Scriber Creek Trail project proposes a shared-use path. These proposed facilities would both score LTS 1 due to their physical separation from motor vehicle traffic.

Figure 21 Bicycle Level of Traffic Stress

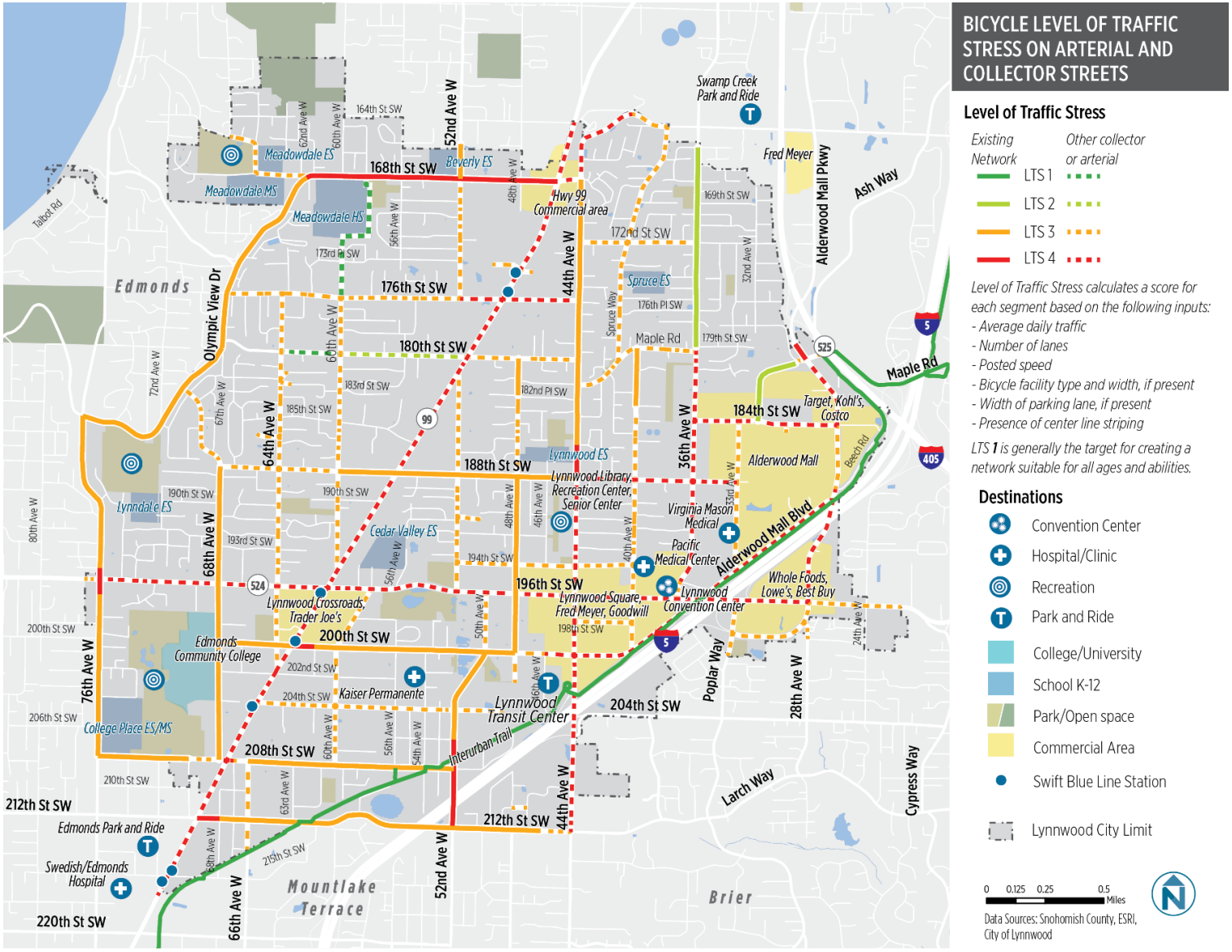
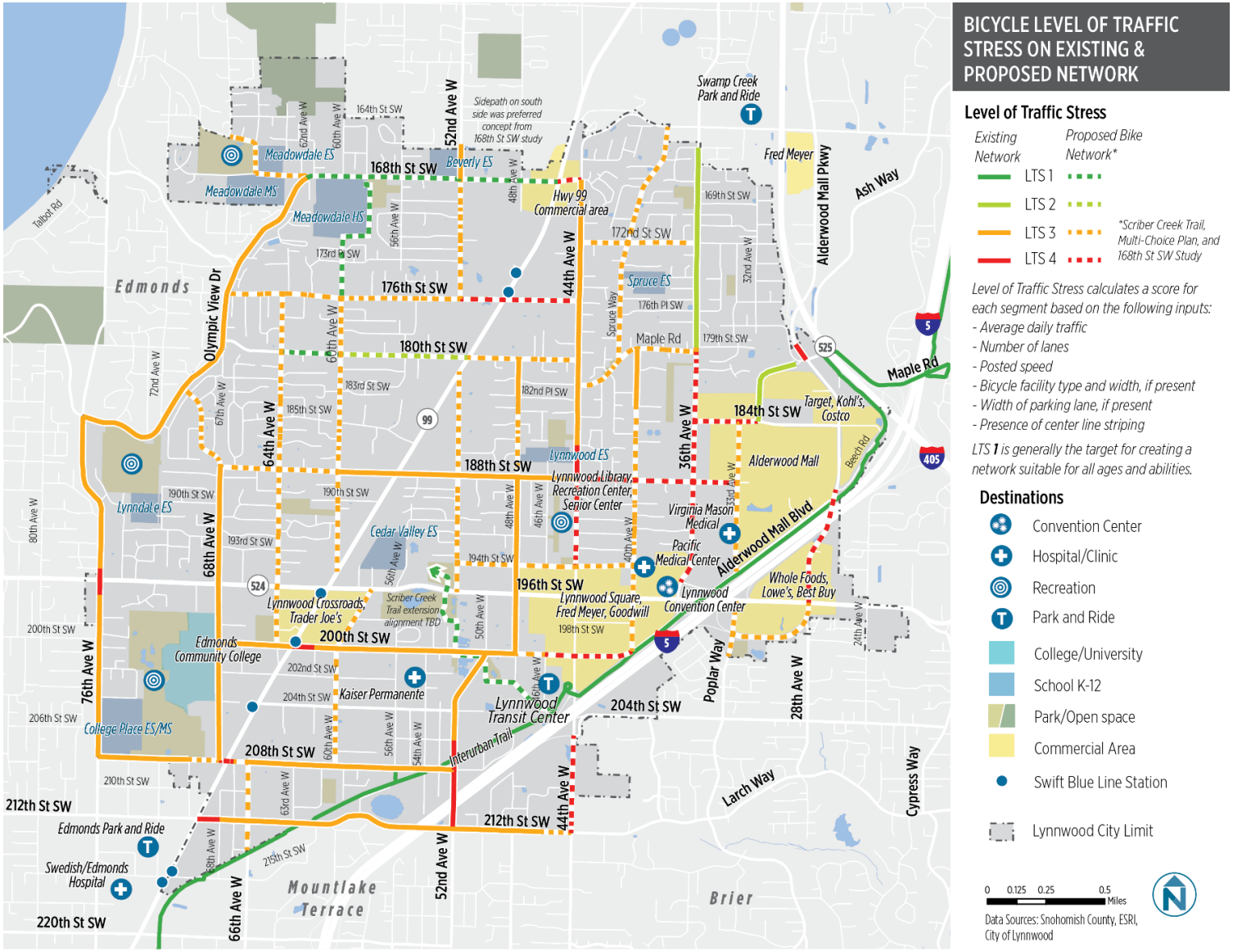


Figure 22 Bicycle Level of Traffic Stress on Existing and Proposed Bike Network



Appendix D Citywide Collision Analysis

The purpose of the citywide pedestrian and bicycle collision analysis is to identify locations, road qualities, and party factors commonly represented in collision reports. High collision locations and common factors will be used to target proactive network and safety improvements and programs to help people walking and bicycling avoid collisions.

KEY TAKEAWAYS

- **Collisions are disproportionately likely to occur on streets with higher posted speeds, more lanes, and higher traffic volumes.** People walking and biking are much more likely to be killed or severely injured (KSI) on arterial streets that have higher speed limits and traffic volumes, even when those streets have only two lanes.
- **Pedestrians account for all recorded fatalities**, and 80% of severe injuries.
- Over 40% of collisions involving people bicycling and walking occur on two streets – **Highway 99 and 196th Street SW.**
- **Implementing planned bike facilities has a positive impact.** The yearly rate of collisions on the Bike2Health network has gone down since facilities were put in place in 2016. Currently 24% of bike collisions are on the planned bike network.
- **More severe collisions occur mid-block.** Only 15% of collisions occur mid-block, but they represent 43% of fatalities and severe injuries.
- **A driver making a right turn while the person walking or biking crosses is the most common action leading to a collision.** This is especially common on Highway 99 and 196th Street SW, and suggests opportunities for targeted improvements at intersections.
- **High crash corridors need higher-level separation for people walking and bicycling**, including bike lanes, sidewalks, and crossings.
- **State highways are attracting people walking and bicycling** despite their design for higher speeds and traffic volumes, particularly in areas with commercial destinations.
- WSDOT Highway Safety Improvement Program (HSIP) funding is available to **target improvements along high collision corridors**.

OVERALL COLLISION TRENDS

The number of collisions involving people walking and people biking in Lynnwood has varied from year to year. It increased gradually between 2012 and 2017 and then due to significantly fewer pedestrian collisions, it dropped in 2018. There were a total of 187 collisions involving people walking and 119 involving people bicycling from 2010 to 2018. Seven of the collisions were fatal for the person walking. There were no fatalities of people bicycling.

Figure 23 Collisions Involving Someone Walking or Biking by Year (2010-2018)

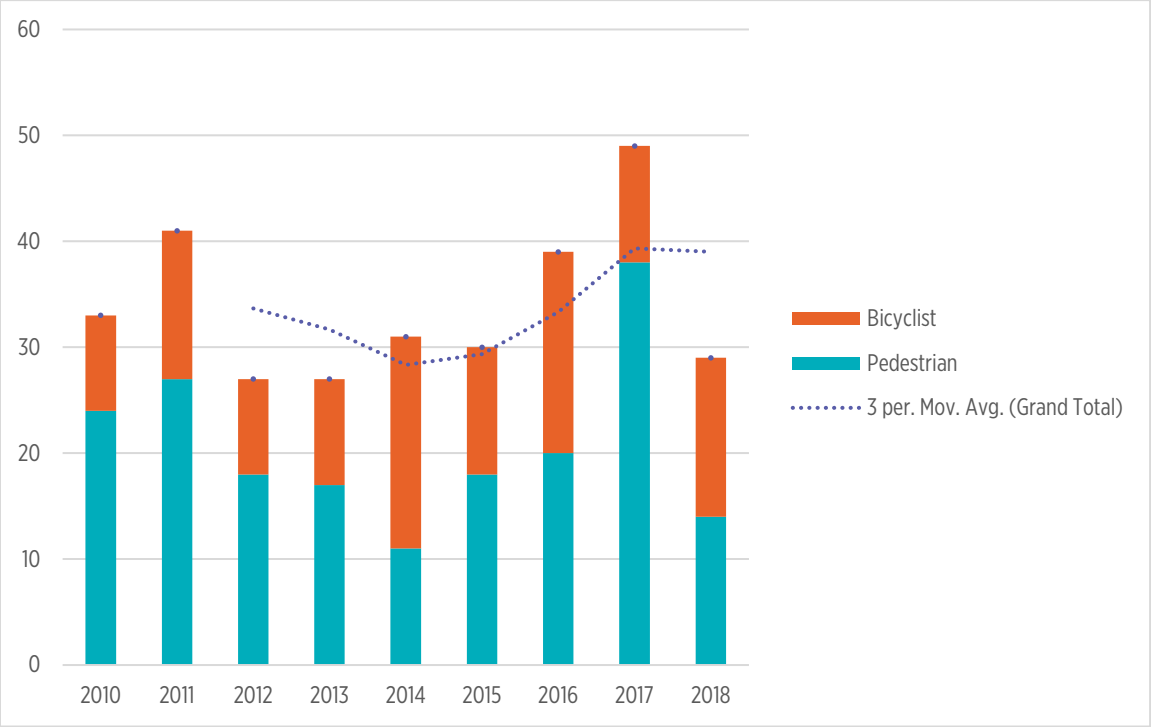


Figure 24 Collisions Involving People Walking or Biking by Year and Severity, 2010-2018

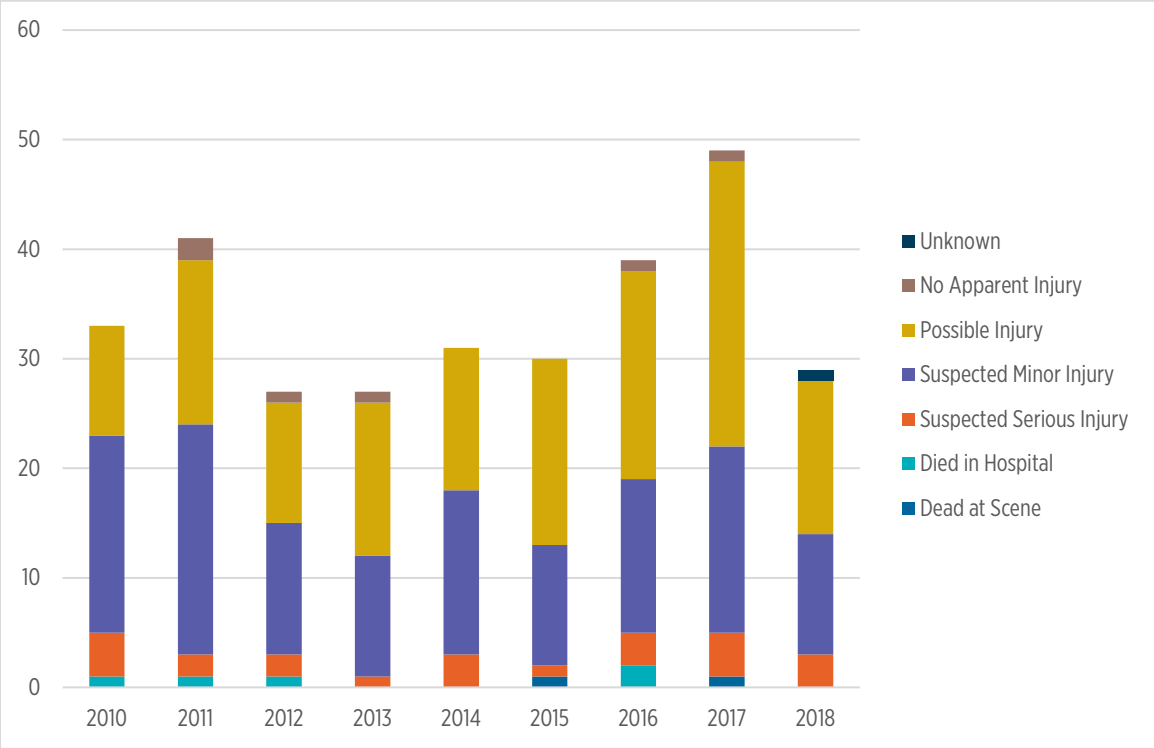


Figure 25 Collisions Involving People Walking or Biking 2010-2018

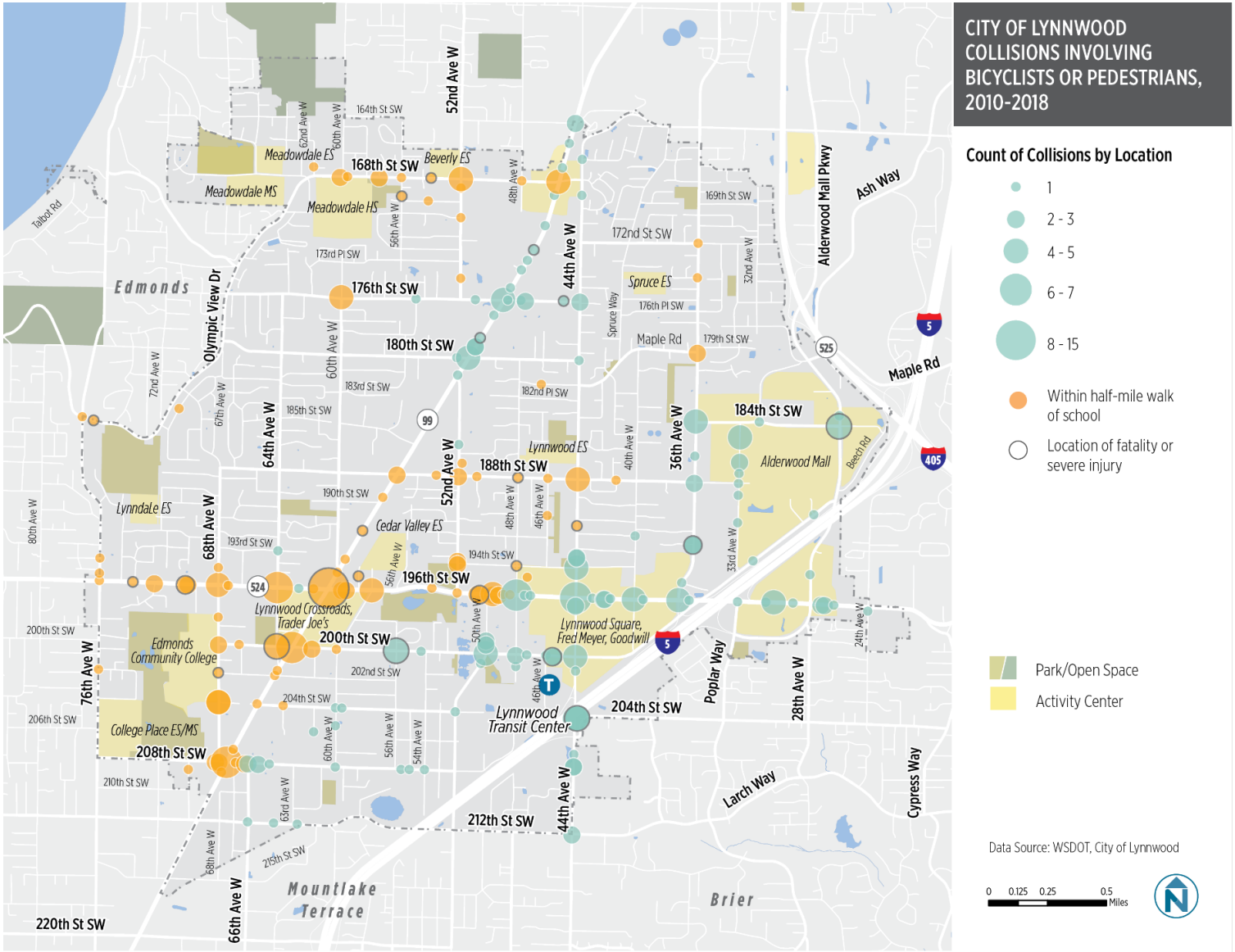
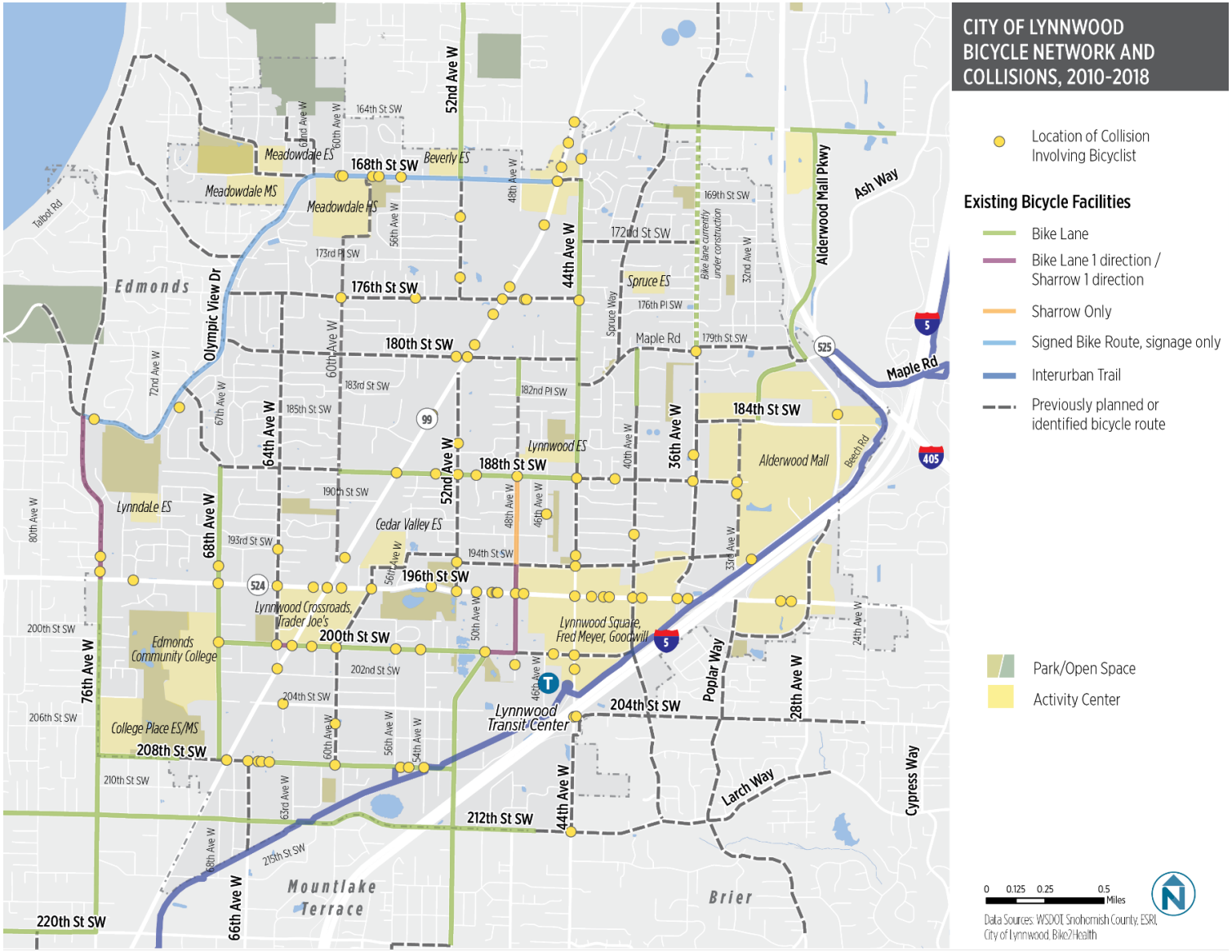


Figure 26 Existing Bike Network with Collisions Involving People Biking

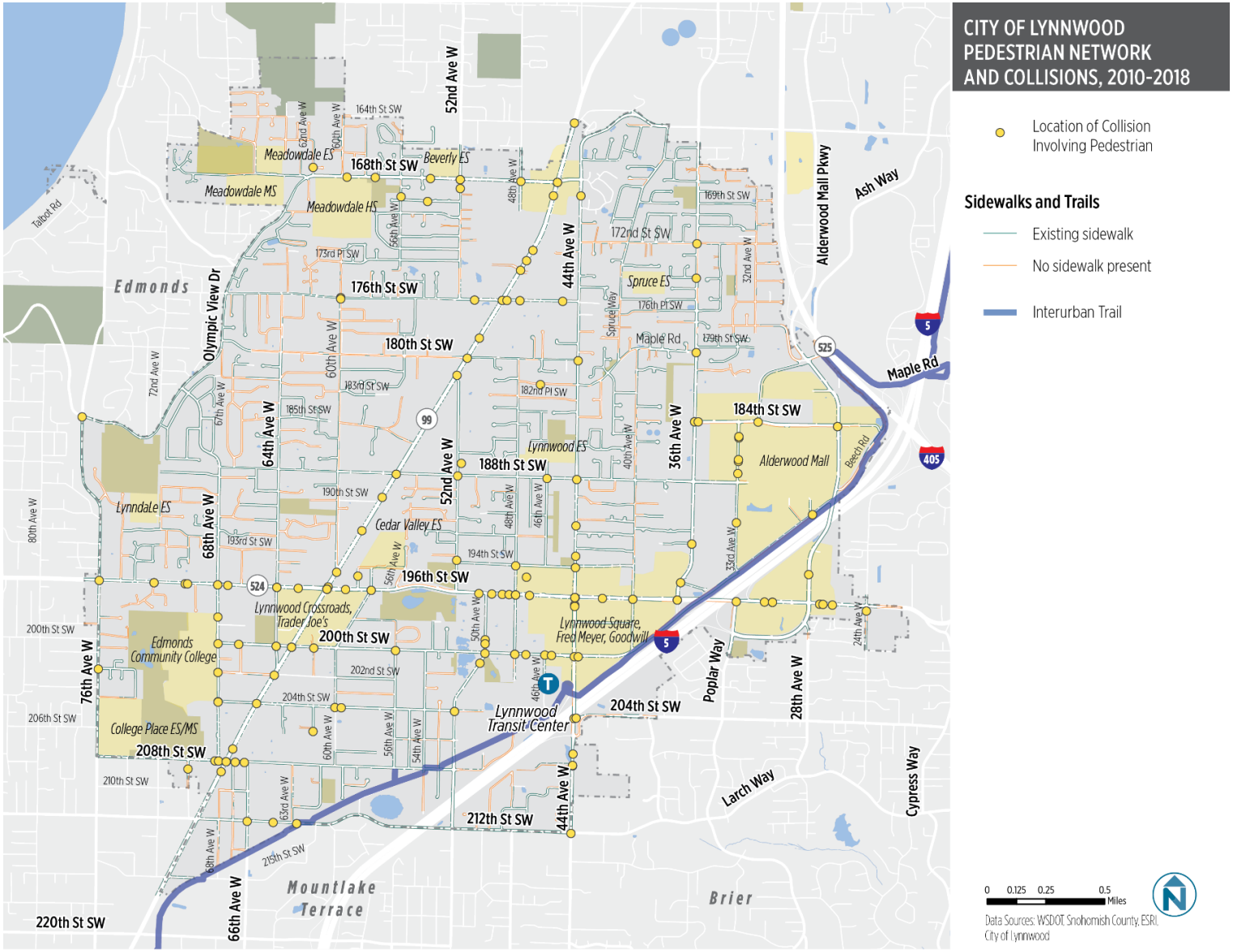


Collisions are concentrated on major commercial corridors and near major destinations, where road user activity is higher, such as the Lynnwood Transit Center, Alderwood Mall, Lynnwood Square, and Edmonds Community College.

33% of the 119 collisions involving a person bicycling took place on the existing bicycle network. Since collisions date back to 2010, and the date of installation was not available for all bike facilities, some of these collisions may have taken place before bike facilities were in place. 24% of collisions took place on the planned bike network.

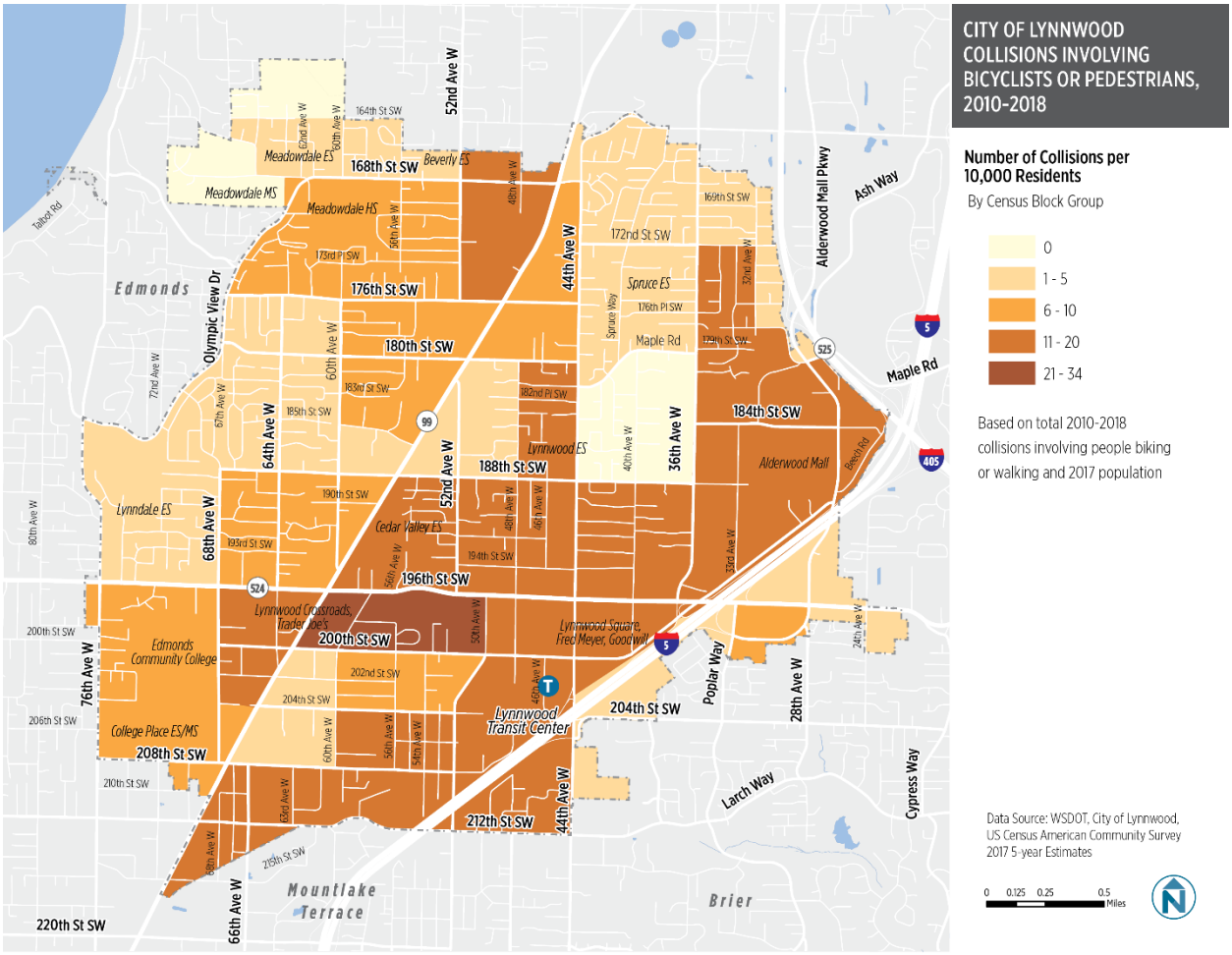
Several Bike2Health facilities were put in place in late 2016. In those locations, there were nine collisions involving someone biking before the improvements went in, and one since improvements went into place. This translates into a lower rate per year post-Bike2Health.

Figure 27 Existing Walking Network with Collisions Involving People Walking



Only 10 collisions involving someone walking appear to have taken place where there is a gap in the sidewalk. However, the collisions analyzed occurred as early as 2010, and sidewalk locations are from the 2018 American with Disabilities Act (ADA) Transition Plan. Some collisions could have been associated with sidewalk gaps that were filled more recently.

Figure 28 Collisions per 10,000 Population within Census Block Groups



Comparing collisions with population by census block group (see Figure 28) is one way of visualizing where people are exposed to more collisions relative to other city residents. Compared to its relative population, more collisions are happening in the area near Scriber Lake Park, which has few residences.

High Collision Corridors

Forty-four percent of the collisions involving people walking and biking in Lynnwood occur along or crossing State Route 524/196th Street SW or State Route 99. The intersection of the two highways has more than twice as many collisions as any other intersection in the city. All of the top five highest collision intersections are located on either SR 524/196th Street SW or SR 99. In order to understand the influence of activity on collision occurrence, the number of collisions can be normalized by any number of factors. Figure 29 describes the collision rates on Lynnwood street segments controlling for average daily traffic (ADT) and segment length. The map in Figure 30 shows the number of collisions per 1,000 daily vehicles by street segment. By this measure SR 99 and SR 524 have a lower rate of collisions than many other corridors due to their high traffic volumes.

Figure 31 shows the top ten corridors based on both metrics.

Figure 29 High Collision Corridors Normalized by ADT and Centerline Miles

Corridor	Total Collisions	Total Pedestrians Involved	Total Bicyclists Involved	Collisions Resulting in KSI	Collisions per 1,000 ADT	Collisions per Centerline Mile	Rank (based on rate per mile)
SR 524 (56th Ave W to Alderwood Mall Blvd)	38	21	18	1	1.01	29.51	1
SR 524 (76th Ave W to 56th Ave W)	37	27	11	4	1.64	29.19	2
SR 99 (186th Pl SW to 212th St SW)	37	28	10	4	1.00	20.29	3
64th Ave W (192nd to SR 99)	11	7	4	3	1.87	19.36	4
44th Ave W (166th St SW to I-5)	22	13	9	2	1.00	18.95	5
200th St SW (68th Ave W to I-5)	32	21	12	6	2.58	18.13	6
SR 99 (164th St SW to 168th Pl SW)	27	13	14	3	0.65	17.54	7
208th St SW (70th Ave W to 52nd Ave W)	18	9	10	0	2.52	15.92	8
SR 524 (Alderwood Mall Blvd to Alderwood mall Pkwy)	7	7	2	0	0.19	14.92	9
33rd Ave W (184th St SW to Alderwood Mall Blvd)	9	7	2	0	0.66	14.07	10

Figure 30 Collision Rate per 1,000 Daily Vehicles by Street Segment[6]

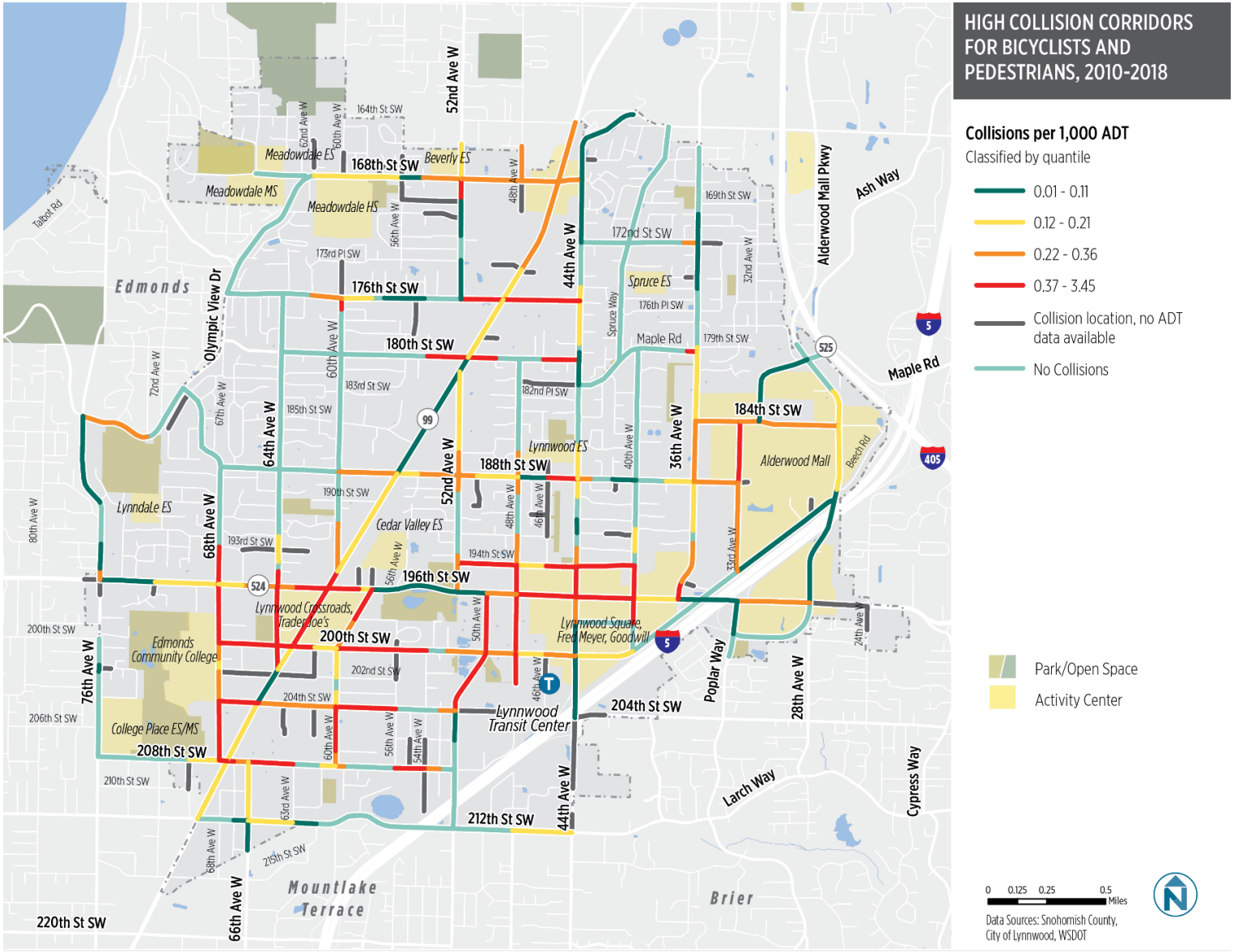
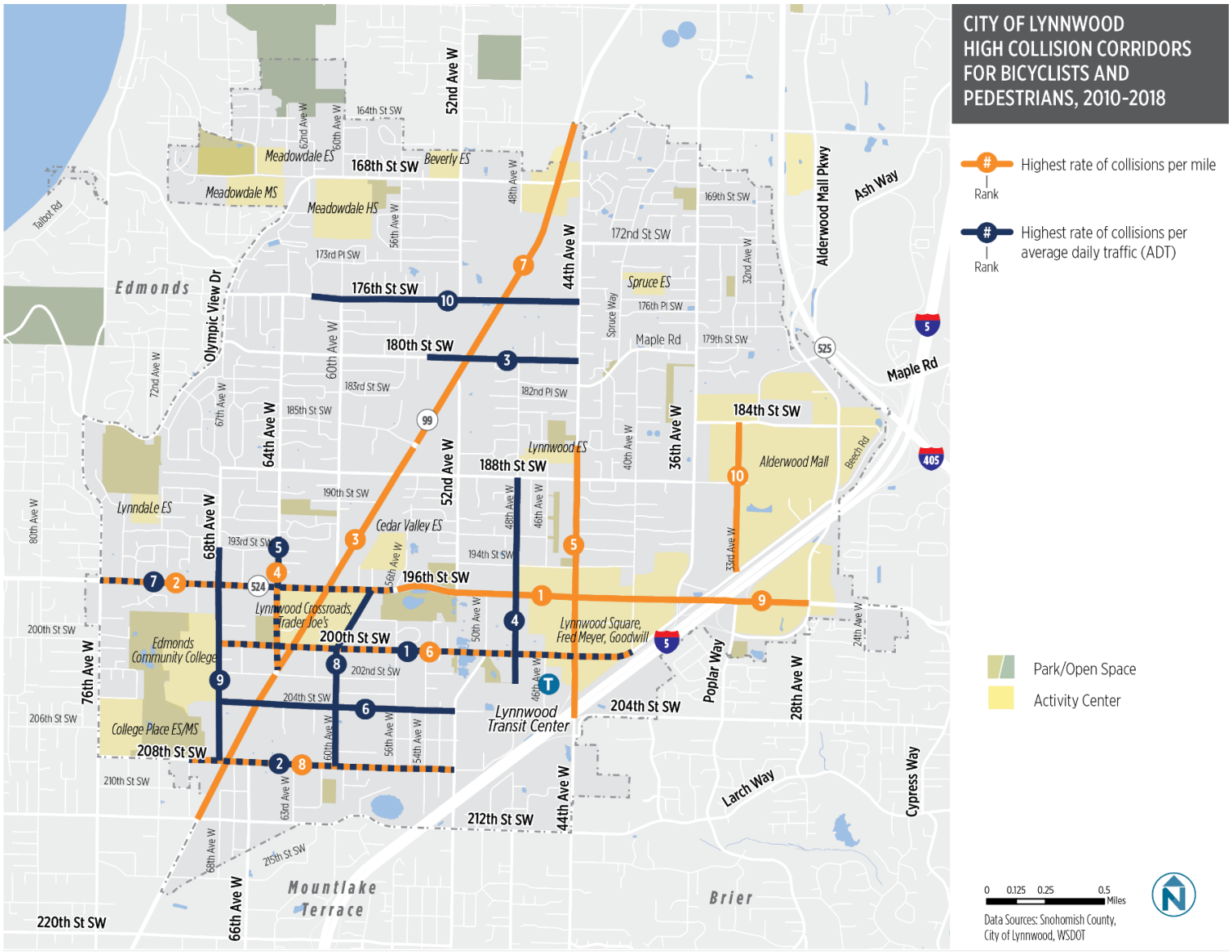


Figure 31 High Collision Corridors



FACTORS PRESENT IN PEDESTRIAN AND BICYCLE-INVOLVED COLLISIONS

Roadway Characteristics

Forty-four percent of walking and bicycling collisions in Lynnwood took place on either SR 99 or SR 524, both of which are principal arterials with posted speeds of 35 mph (SR 524) to 45 mph (SR 99), average daily traffic of 20,000 to over 50,000, and four to seven lanes. These streets are designed for through movement of vehicles. In 80% of pedestrian collisions on SR 99 or SR 5 24, the person walking was crossing the street.

Classification

One way of understanding collision patterns is to explore whether specific street types are overrepresented as the "primary roadway" of collisions. The primary roadway is defined by the Washington State DOT as "the roadway that the law enforcement officer or citizen considers to be the principal site of the collision." Figure 32 describes whether certain street types are overrepresented in collisions compared to the number of centerline miles citywide. Key trends include:

- Arterials make up less than a third of street miles in Lynnwood, but three-quarters of collisions occur on them.
- Principal arterials were most over-represented of any class. They make up 9.4% of Lynnwood's street miles but were the location of 44.5% of bike and pedestrian collisions and 33.3% of collisions that resulted in a fatality or severe injury.
- Fewer collisions occurred on minor arterials than on principal arterials, but they were more likely to result in a fatality or severe injury (40% of the total).

Figure 32 Collisions by functional classification of primary roadway

Functional Class	Centerline Miles	Percent of total centerline miles	Total collisions	Percent of total collisions	KSI collisions	Percent of KSI collisions
Unknown	0.64	0.6%	2	0.7%	1	3.3%
Residential	55.77	53.7%	0	0.0%	0	0.0%
Collector	19.28	18.6%	52	17.3%	4	13.3%
Minor Arterial	18.52	17.8%	92	30.6%	12	40.0%
Principal Arterial	9.72	9.4%	134	44.5%	10	33.3%
Private	0.05	0.0%	21	7.0%	3	10.0%
TOTAL	103.97	100%	302	100%	30	100%

Note: Four collisions occurred in parking lots and are not represented in this data

Intersection Relationship

Figure 33 shows the proportion of collisions that involved a pedestrian or a bicyclist at intersections, driveways, or mid-block ("not at intersection or driveway").

Figure 34 shows the number and percent of total collisions and KSI collisions by location.

- Just over half of bicycle and pedestrian collisions took place at intersections, while about 1/3 took place at driveways.
- Mid-block collisions were less common, but were disproportionately likely to result in a fatality or severe injury.
- People walking were far more likely to be involved in a mid-block collision than people biking, while people biking were more likely to be involved in collisions at intersections.

Figure 33 Intersection relationship

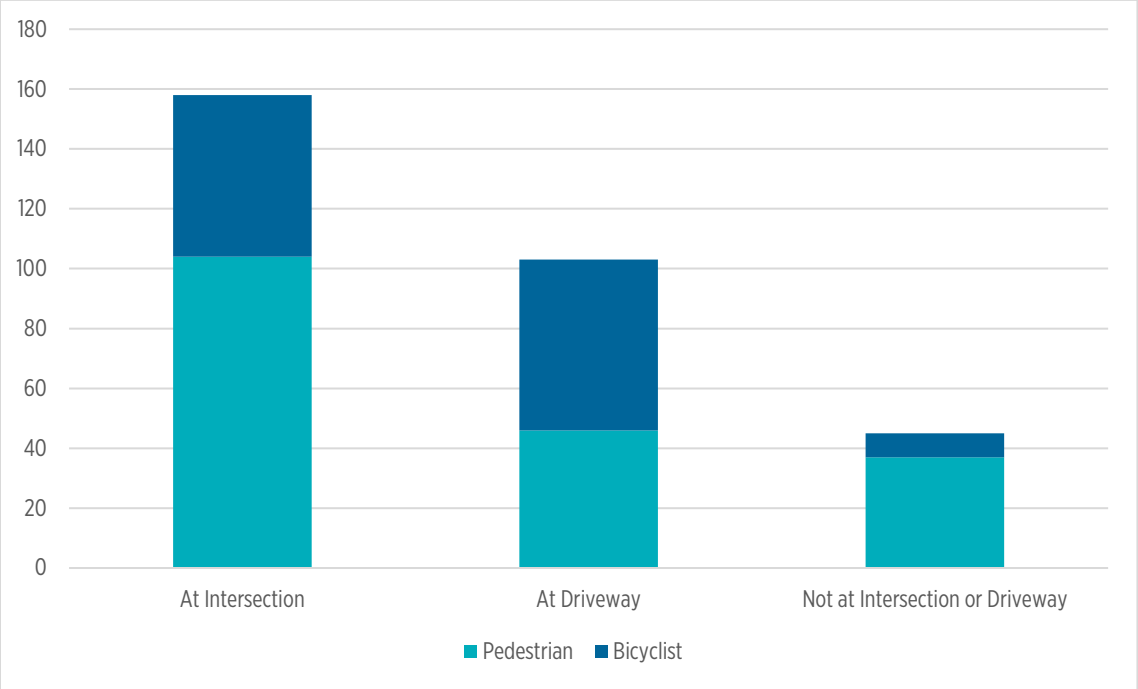


Figure 34 Intersection vs mid-block collisions and probability of a KSI crash by location

	Total collisions	Percent of total collisions	Total KSI collisions	Percent of KSI collisions
At intersection	158	51.6%	12	40.0%
At driveway	103	33.7%	5	16.7%
Not at intersection or driveway	45	14.7%	13	43.3%
TOTAL	306	100%	30	100%

Presence of Traffic Signals

The type of traffic control that was present for the primary driver involved in a collision with someone biking is shown in Figure 35, broken down by injury type. The same information is shown for collisions involving someone walking in Figure 36.

- A large portion of collisions took place at intersections with no traffic control for the motor driver.
- People walking were more likely than people biking to be involved in collisions at signalized intersections.

Figure 35 Intersection control type of primary involved driver by most severe injury type for bicycle-involved collisions

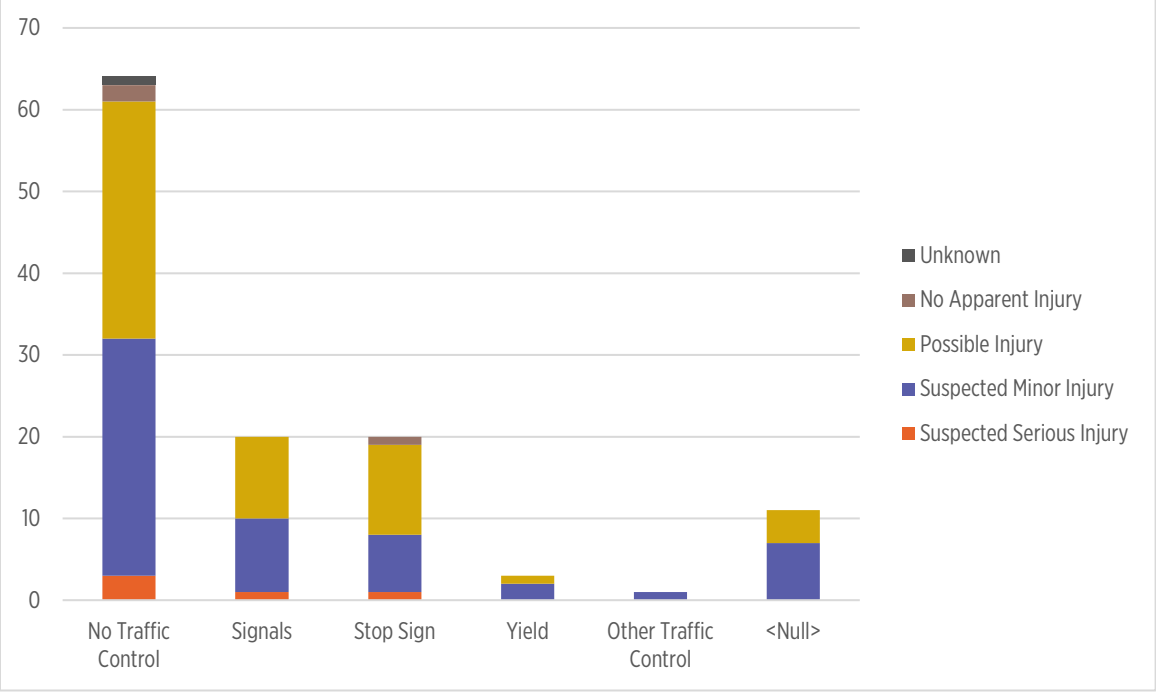
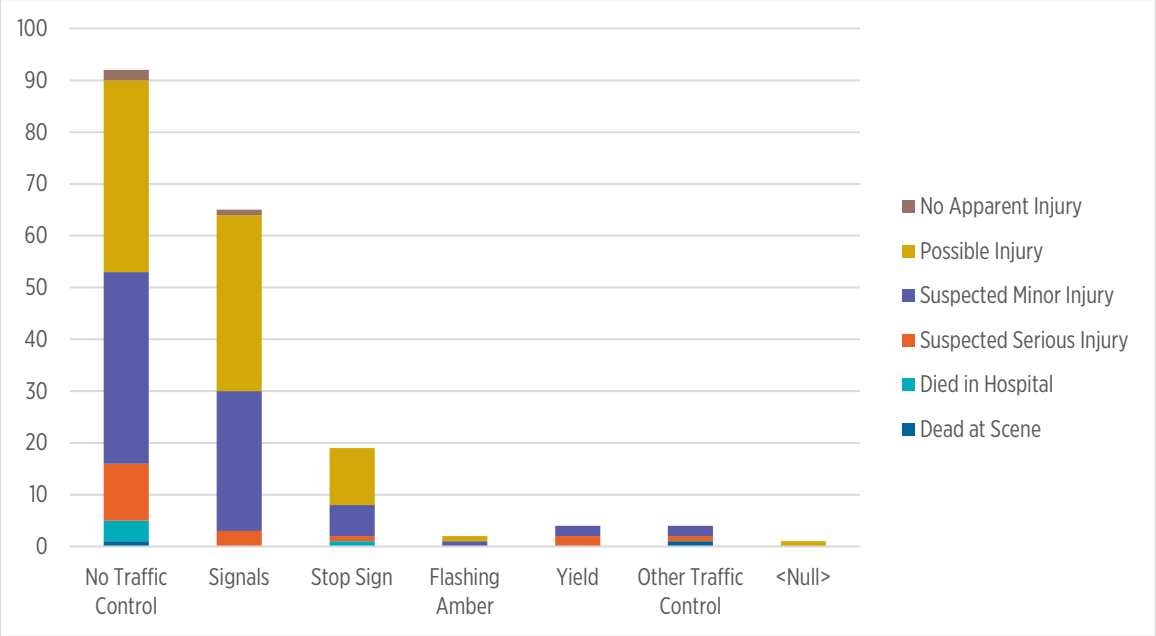


Figure 36 Intersection control type of primary involved vehicle by most severe injury type for pedestrian-involved collisions



Intersection Size

154 collisions took place at an intersection. The size of those intersections was evaluated based on the number of lanes of the cross streets.

- Collisions were most likely to where two streets of five lanes or more intersected (41 total).
- 46 collisions occurred where two lane streets intersected streets of three lanes or more

Figure 37 Intersection size (number of lanes of intersecting streets) for collisions at intersections

	2 lanes	3-4 lanes	5-7 lanes
No data	1	2	11
2 lanes	17	26	20
3-4 lanes		10	26
5-7 lanes			41

Speed limit of involved driver(s)

Figure 38 summarizes the posted speed limit for the primary driver involved in a collision with a person walking or bicycling. The portion of street miles, total collisions, and KSI collisions is shown for each posted speed limit present in Lynnwood.

- The majority of Lynnwood's streets, 65%, have a speed limit of 25 mph, but only a small portion of bike and pedestrian collisions occur on them.
- Collisions are disproportionately likely on streets with speed limit of 30 and above.
- 43% of fatal and severe injury collisions occurred on streets with a 30 mph speed limit.

- 87% of fatal and severe injury collisions occurred on streets with a 30 mph or higher speed limit.

Figure 38 Collisions by driver's posted speed

Speed_Zone	Centerline miles	Percent of total centerline miles	Number of collisions	Percent of total collisions	Number of KSI collisions	Percent of KSI collisions
Not given	1.4	1.3%	71	23.2%	1	3.3%
20 mph	0	0%	3	1.0%	0	0.0%
25 mph	67.9	65.3%	26	8.5%	3	10.0%
30 mph	19.0	18.3%	105	34.3%	13	43.3%
35 mph	11.9	11.5%	73	23.9%	8	26.7%
45 mph	3.8	3.6%	28	9.2%	5	16.7%
TOTAL	103.4	100%	306	100%	30	100%

Number of lanes

Figure 39 summarizes the number of lanes of the "primary roadway" where collisions involving people walking or biking occurred. Figure 37 provides more detail about roadway size for collisions that occurred at intersections.

- Streets with three or more lanes are disproportionately likely to be the site of a collision, with the rate of collisions compared to street miles becoming much higher on streets with five to seven lanes.
- The greatest number of collisions took place on streets with five lanes.
- 27% of the fatal and severe injury collisions occurred on two-lane streets. This is low compared to the percent of the street network that has two lanes, but still represents a large portion of KSI collisions. However, five of the eight took place on two-lane arterial or collectors with relatively higher speeds and traffic volumes.

Figure 39 Collisions by number of lanes of primary roadway

Number of Lanes of Primary Trafficway	Centerline miles	Percent of total centerline miles	Number of collisions	Percent of total collisions	Number of KSI collisions	Percent of KSI collisions
Unknown	1.4	1.3%	3	1.0%	1	3.3%
2	76.7	73.7%	64	21.2%	8	26.7%
3	7.6	7.3%	31	10.3%	3	10.0%
4	5.2	5.0%	37	12.3%	5	16.7%
5	8.2	7.9%	83	27.5%	7	23.3%
6	1.0	1.0%	21	7.0%	0	0.0%
7	3.9	3.8%	63	20.9%	6	20.0%
TOTAL	103.4	100%	302	100%	30	100%

Note: Four collisions occurred in parking lots and are not included in this data

Average Daily Traffic

Figure 40 summarizes the 2018 average daily traffic of streets where collisions occurred. Streets with no ADT data available are primarily residential and are assumed to have low traffic volumes. They make up 57.2% of Lynnwood's street miles but only about 10% of collisions. Other trends include:

- Streets with daily volumes above 7,000 are disproportionately likely to be the location of a collision.
- The streets with the highest volumes (over 27,000) are the most over-represented, at 5.7% of street miles and 34.4% of collisions.

Figure 40 Collisions by average daily traffic

ADT_Category	Centerline miles	Percent of centerline miles	Number of collisions	Percent of total collisions	Number of KSI collisions	Percent of KSI collisions
No data	59.5	57.2%	32	10.6%	4	13.3%
3,000 or less	3.7	3.6%	3	1.0%	2	6.7%
3,001 - 7,000	11.8	11.4%	27	8.9%	2	6.7%
7,001 - 14,000	14.5	14.0%	69	22.8%	8	26.7%
14,001 - 27,000	8.5	8.2%	67	22.2%	6	20.0%
Greater than 27,000	5.9	5.7%	104	34.4%	8	26.7%
TOTAL	104.0	100%	302	100%	30	100%

Note: Four collisions occurred in parking lots and are not included in this data

Most Common Factors

Roadways

The roadway characteristics that are disproportionately present in collisions involving people walking and bicycling are:

- Principal arterials
- Posted speed of 30 mph and above
- Average daily traffic over 14,000, with volumes over 27,000 being most over-represented
- Five to seven traffic lanes

Intersections

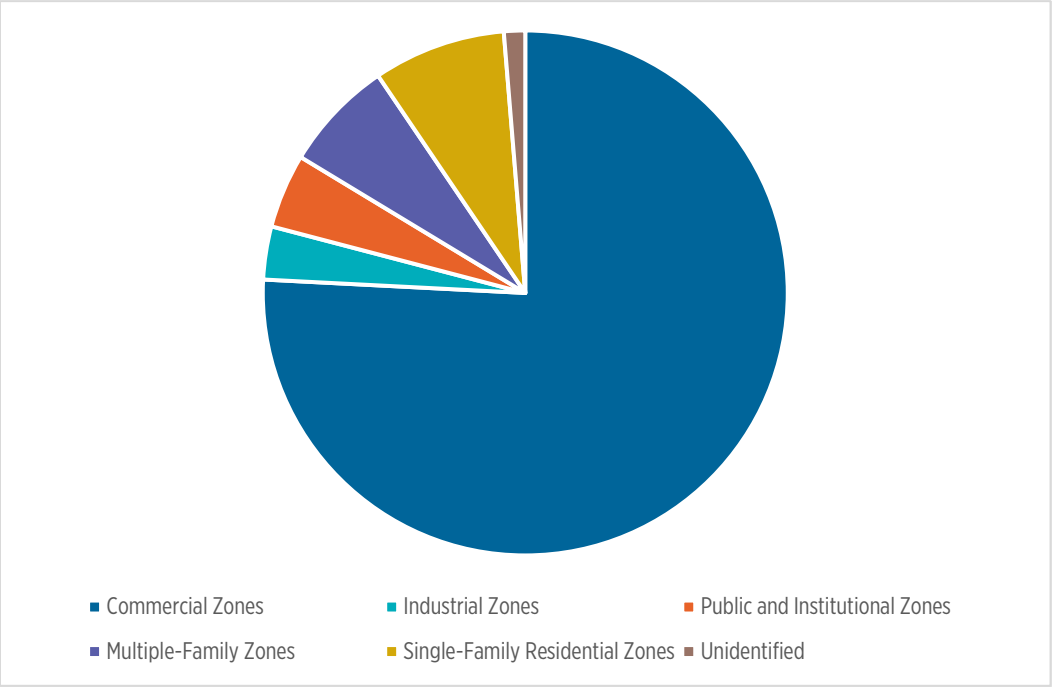
- While about half of collisions occur at intersections, collisions at mid-block locations represented 43% of all fatalities and severe injuries
- Collisions are most likely to occur at intersections where there is no intersection control for the driver, but there are also a large portion of pedestrian collisions occurring at signalized intersections
- More collisions occur at larger intersections, where streets with five to seven lanes intersect

Environment Characteristics

Over ¾ of collisions occurred at a location where the primary land use is commercial. This trend aligns with the nature of the roadways where collisions are more likely to occur, since commercial land uses in Lynnwood are heavily concentrated on arterials with more lanes, higher speeds, and higher traffic volumes. The rate of collisions in these commercial areas is likely due to a higher volume of people walking and riding bicycles in order to access retail and services.

Adjacent land use

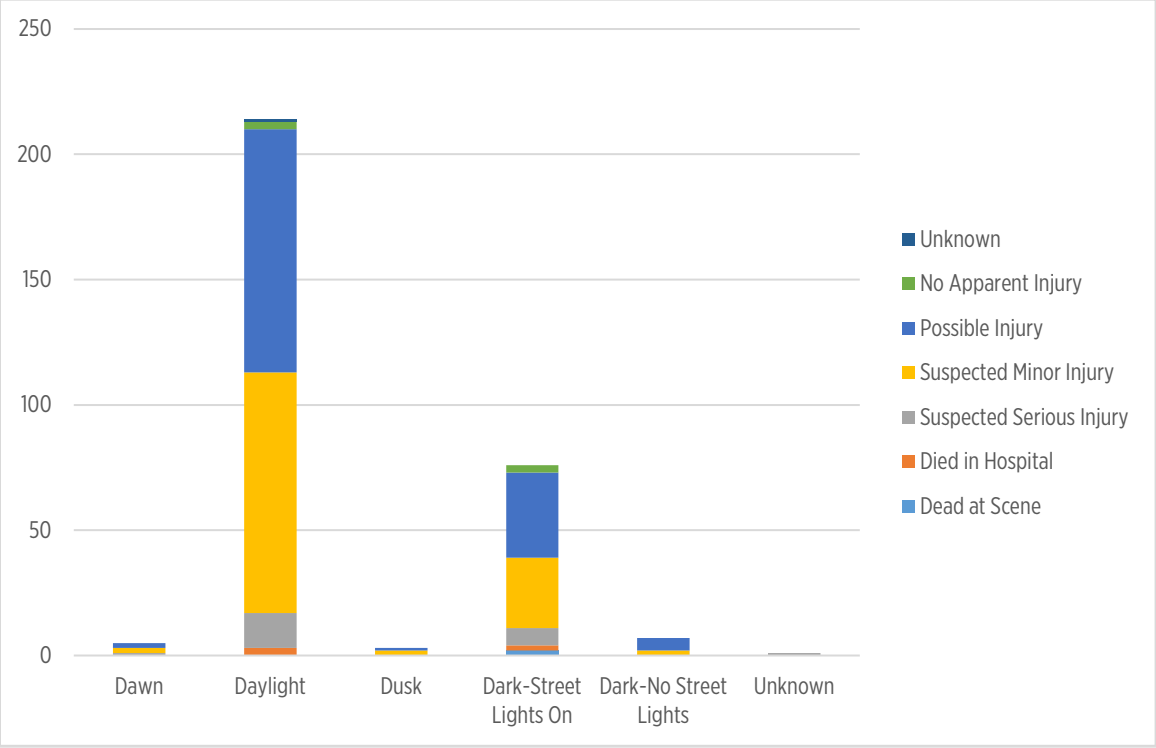
Figure 41 Primary adjacent land use at collision locations



Lighting Conditions / Time of Day / Season

The majority of collisions involving people walking or biking, 70%, took place in daylight. However, over half of the collisions that resulted in a fatality took place after dark, with streetlights on.

Figure 42 Lighting conditions by most severe injury type



Proximity to School

Collisions involving people walking or biking that were within ½ mile of a school were analyzed separately to see if any trends emerged.

- There were 83 collisions within a half-mile walk of a school, 49 involving pedestrians and 34 involving bicyclists.
- The most common pedestrian action prior to the collision was crossing at an unsignalized intersection (31% of total) – higher than the citywide rate (22%).
- People under age 18 were *not* disproportionately represented in pedestrian or bicycle collisions near schools.

Actions and Characteristics of Involved Parties

Figure 43 shows the types of collisions involving people walking that took place in Lynnwood, as defined by the action of the person walking and the drivers immediately preceding the collision. The person walking was crossing the street in 74% of cases.

The most common collision types are:

- A right-turning driver colliding with a person crossing at an intersection with the signal
- A left-turning driver colliding with a person crossing at an intersection with the signal
- A driver going straight colliding with a person crossing mid-block with no crosswalk

Figure 43 Driver and pedestrian actions prior to collision

Pedestrian vs. Driver Action	Going Straight Ahead	Making Right Turn	Making Left Turn	All Other Actions	Total for Pedestrian Action
Xing at Intersection with Signal	6	28	17	0	**51**
Xing at Intersection Against Signal	4	1	3	1	**9**
Xing at Intersection - No Signal	9	12	15	6	**42**
Xing at Intersection - Diagonally	1	0	0	0	**1**
At Intersection Not Using Crosswalk	6	0	1	0	**7**
Xing - Non Intersection - In X Walk	3	0	0	1	**4**
Xing - Non Intersection - No X Walk	17	2	1	4	**24**
Other actions in roadway	11	1	0	5	**17**
Not in Roadway	3	4	1	0	**8**
All Other Actions	10	9	5	4	**28**
Total for Driver Action	**70**	**57**	**43**	**21**	

The most common action leading to a fatal or severe injury collision was a driver going straight and a person crossing the street mid-block with no crosswalk present. Pedestrian and driver actions for KSI collisions only are shown in Figure 44.

Figure 44 Driver and pedestrian actions prior to KSI collision

Pedestrian vs. Driver Action	Going Straight Ahead	Making Right Turn	Making Left Turn	Starting in Traffic Lane	Total for Pedestrian Action
Xing at Intersection with Signal	1	1	0	0	**2**
Xing at Intersection Against Signal	1	0	0	0	**1**
Xing at Intersection - No Signal	1	1	2	0	**4**
At Intersection Not Using Crosswalk	2	0	0	0	**2**
Xing - Non Intersection - No X Walk	7	0	0	1	**8**
Walking in Roadway with Traffic	1	0	0	0	**1**
Not in Roadway	1	0	1	0	**2**
All Other Actions	2	2	1	0	**5**
Total for Driver Action	**16**	**4**	**4**	**1**	**25**

Bicycle collision reports do not include information as nuanced as in pedestrian collision reports. Figure 45 shows the types of collisions involving people bicycling in Lynnwood, as defined by the actions of the person biking and the driver immediately preceding the collision. For people biking, the most common collision type is a right-turning motorist colliding with a person biking.

Figure 45 Driver and bicyclist actions prior to collision

Bicyclist vs. Driver Action	Going Straight Ahead	Making Right Turn	Making Left Turn	All Other Actions	Total for Bicyclist Action
Xing or Entering Trafficway	10	19	4	17	**50**
Xing diagonally	2	0	0	0	**2**
Riding Against Traffic	3	0	0	3	**6**
Riding with Traffic	2	6	6	6	**20**
Cyclist Turned Into Path of Driver - Opposite Direction	0	2	0	0	**2**
Cyclist Turned Into Path of Driver - Same Direction	1	0	0	2	**3**
All Other Actions	11	12	2	11	**36**
Total for Driver Action	**29**	**39**	**12**	**39**	

Actions prior to collisions on State Routes 99 and 524

A closer look at collisions that took place on the two major state highways that run through Lynnwood is helpful in understanding what type of safety improvement might be most effective. Collisions on SR 524 and SR 99 follow the same trends as other collisions in Lynnwood—they are even more likely to involve someone crossing the street (80% of total), and most collisions at both signalized and unsignalized intersections involve a driver making a right turn.

Figure 46 Driver and pedestrian actions prior to collision on SR 524 or SR 99

Pedestrian vs. Driver Action	Going Straight Ahead	Making Right Turn	Making Left Turn	All Other Actions	Total
Xing at Intersection with Signal	4	17	8	0	**29**
Xing at Intersection Against Signal	2	1	2	1	**6**
Xing at Intersection - No Signal	2	10	3	4	**19**
At Intersection Not Using Crosswalk	3	0	1	0	**4**
Xing - Non Intersection - No X Walk	4	1	1	2	**8**
Xing at Intersection - Diagonally	1	0	0	0	**1**
Not in Roadway	1	2	1	0	**4**
All Other Actions	2	5	0	2	**9**
<Null>	2	1	0	1	**4**
Total	**21**	**37**	**16**	**10**	

Impairment

Driver drug and alcohol impairment were involved in 13% of the city's serious and fatal injury collisions and 4% of all collisions involving people walking and biking. Statewide, impairment was involved in 57% of all fatalities and 22% of all serious injuries.[7]

Figure 47 Table of impairment and probability of a KSI crash with impaired driver

	No Impairment	Drug Impaired Person Involved	Drinking Impaired Person Involved	Grand Total	Percent Impaired
Dead at Scene	1	1		2	50.0%
Died in Hospital	4		1	5	20.0%
Suspected Serious Injury	21	1	1	23	8.7%
Suspected Minor Injury	124		6	130	4.6%
Possible Injury	136		3	139	2.2%
No Apparent Injury	6			6	0.0%
Unknown	1			1	0.0%
TOTAL	293	2	11	306	4.2%

[7] Based on 2012-2014 data. Source: 2016 Target Zero Priorities. Target Zero: Washington's Strategic Highway Safety Plan. http://www.targetzero.com/priorities.htm.

Age

Compared to the city's population, people between the ages of 18 and 24 are overrepresented in pedestrian and bicycle collisions.

Figure 48 Age distribution of pedestrians involved in collisions compared to 2017 age distribution of Lynnwood population

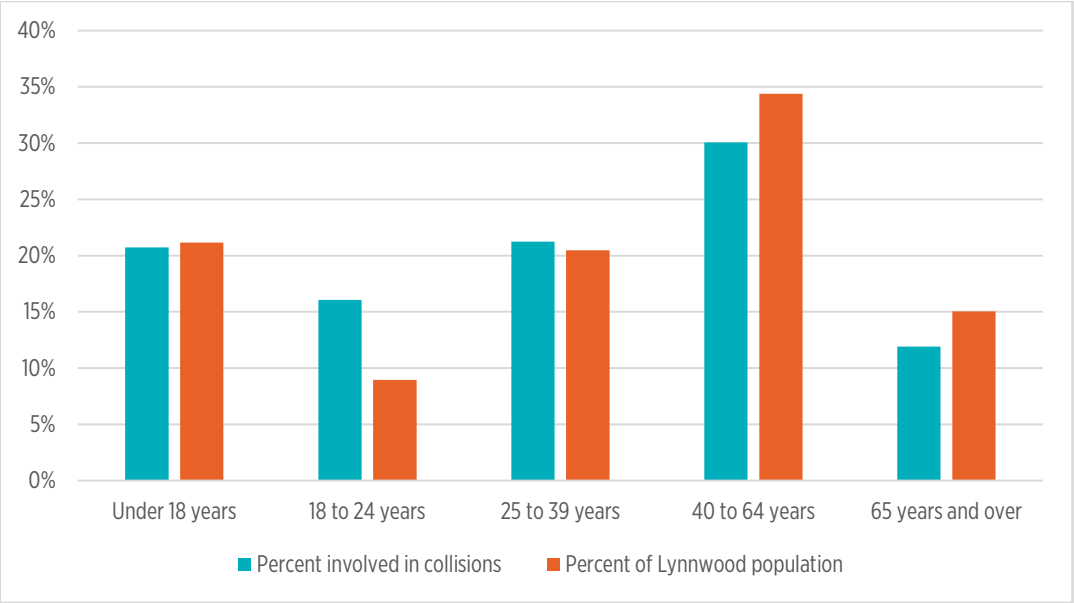
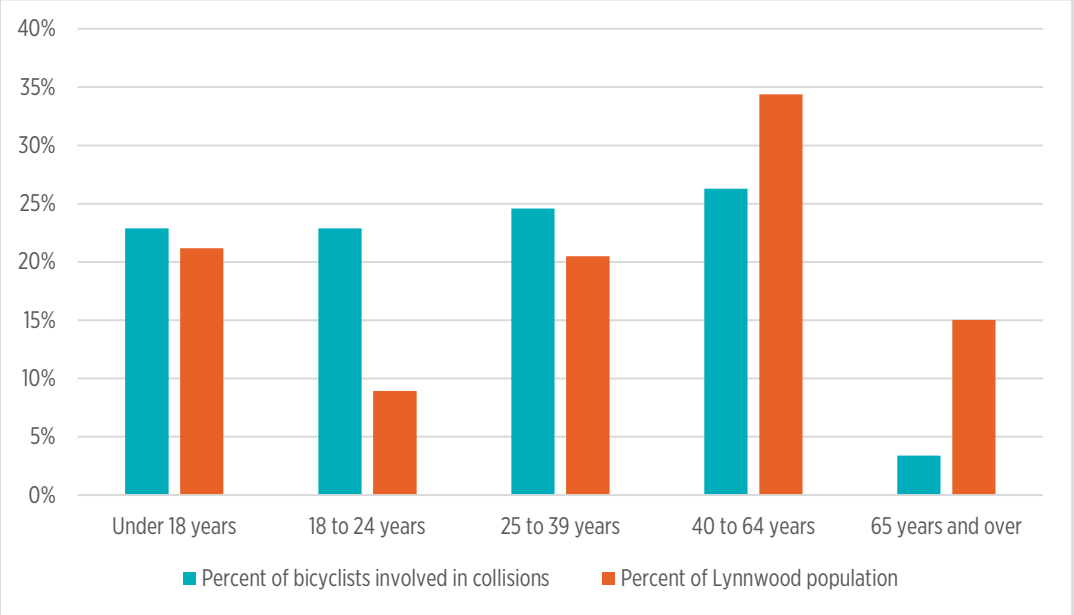


Figure 49 Age distribution of bicyclists involved in collisions compared to 2017 age distribution of Lynnwood population



Appendix E Transit Service

This appendix describes transit service in the city of Lynnwood. Lynnwood is served by Community Transit, which provides connections to locations in Snohomish County and King County, and Sound Transit, which is the regional transit agency serving the greater Seattle metropolitan area.

Local Service

Community Transit routes offering local service to Lynnwood generally operate with 30-minute headways all day on weekdays. Weekend service varies by route. The Swift Blue Line BRT connects Shoreline, Edmonds, Lynnwood, Mukilteo, and Everett along SR 99. It operates with 10- to 15-minute headways on weekdays and Saturdays, and 20-minute headways on Sundays.

Regional Service

As part of the Sound Transit 2 regional transit expansion, Sound Transit is in the midst of constructing the Lynnwood Link Extension to Lynnwood Transit Center, which is scheduled to begin operations in 2024. Lynnwood will be the northernmost hub in the Link light rail network until 2036, when an additional extension to Everett is scheduled to open as part of the Sound Transit 3 regional transit funding package.

One Sound Transit-branded regional bus route operates with local service in the city. Sound Transit's line 535 connects Alderwood Mall and Lynnwood Transit Center with the city of Bellevue. Other regional Sound Transit routes connect Lynnwood Transit Center with various points in Seattle, Marysville, Smokey Point, and Lake Stevens via I-5 in Lynnwood.

Stop Activity and Access

Local stops in the city of Lynnwood, excluding Lynnwood Transit Center, average 2,824 daily weekday boardings citywide. Lynnwood Transit Center serves an additional 4,766 average daily weekday boardings.

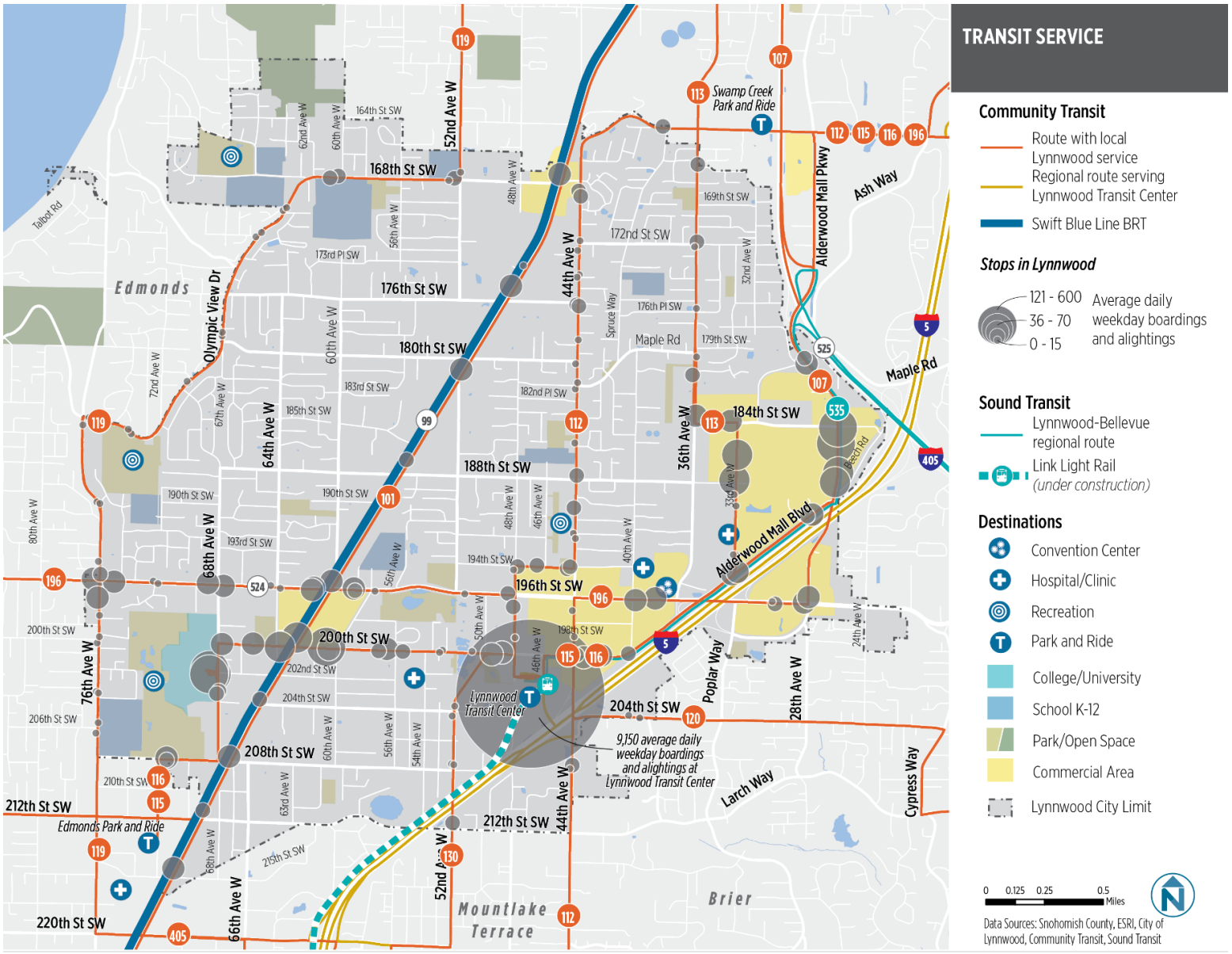
As shown in Figure 50, the stops with the highest daily boardings and deboardings (the largest gray bubbles) are found:

- Concentrated around Alderwood Mall and City Center
- Clustered around the intersections of 196th Street SW with 76th Avenue W, and SR 99 with 196th Street SW and 200th Street SW
- At Edmonds Community College

As described in Appendix D Citywide Collision Analysis, several of these high ridership areas are also associated with elevated numbers of collisions involving people walking and bicycling, including 200th Street SW and 196th Street SW.

All schools in Lynnwood, and many parks, are located within a few blocks' walk of a transit stop.

Figure 50 Existing Transit Network



Appendix F Outreach Summary

The project team, including City of Lynnwood staff, presented a set of engagement activities to the public at the Fair on 44th on September 7, 2019. The team gathered participants' feedback on several topics:

- Where they currently walk and bicycle
- Where they would like to walk and bicycle more easily, or places they find challenging to walk or bike
- Identifying the community's "mobility values," the most important characteristics of Lynnwood's ideal mobility network
- Types of walking and biking facilities that would make them feel safer as they travel around the community

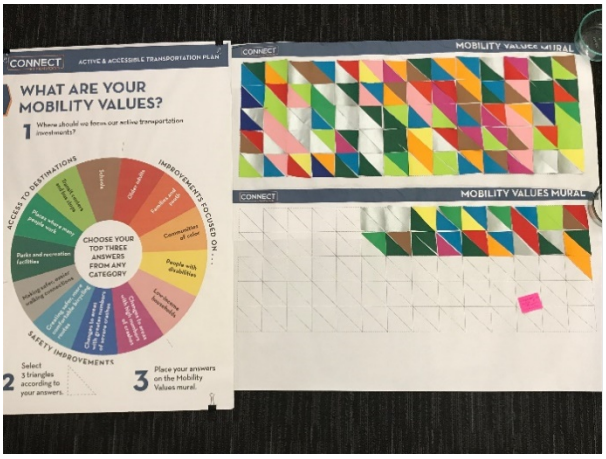
The feedback gathered through this public process will be used throughout the project to draft project goals, inform project evaluation criteria, and weight destinations for analyzing biking and walking demand.

THE COMMUNITY'S MOBILITY VALUES

Participants selected from a set of choices to define their most important mobility values. The choices were grouped into the categories of Access to Destinations, Safety Improvements, and Improvements Focused on Specific Populations (communities of concern). Participants pasted together colored triangles of paper corresponding to their chosen values to form Lynnwood's Mobility Values Tapestry. The project team collected 176 total votes from the community. The top choices at the Fair on 44th were:

- Making safer, easier walking connections (31 total votes)
- Connections to parks and recreation facilities (23 votes)
- Connections to transit centers and bus stops (20 votes)
- Creating safer, more comfortable bicycling routes (19 votes)
- Improvements focused on older adults (15 votes)

Participants select their Mobility Values



The responses were compiled to create the Mobility Values Tapestry

FEEDBACK ON FACILITY TYPES

Participants were asked to identify those street features that would make them feel more comfortable walking and bicycling. Over 400 votes were collected (Figure 51). The features that received the most votes were:

- Sidewalks and buffers from traffic (49 votes)
- Multi-use trails (47 votes)
- Pedestrian/bicycle overcrossings (46 votes)
- Placemaking improvements, such as street furnishings and plantings (42 votes)
- Sidepaths along streets (37 votes)
- Street lighting (36 votes)

These results indicate that people in Lynnwood want dedicated space to walk and more separation from traffic, and trails and sidepaths that offer space to bicycle that is physically separated from the mixed traffic environment in the street.

Figure 51 Priorities Identified for Biking and Walking Improvements

KEY COMMENTS AND THEMES

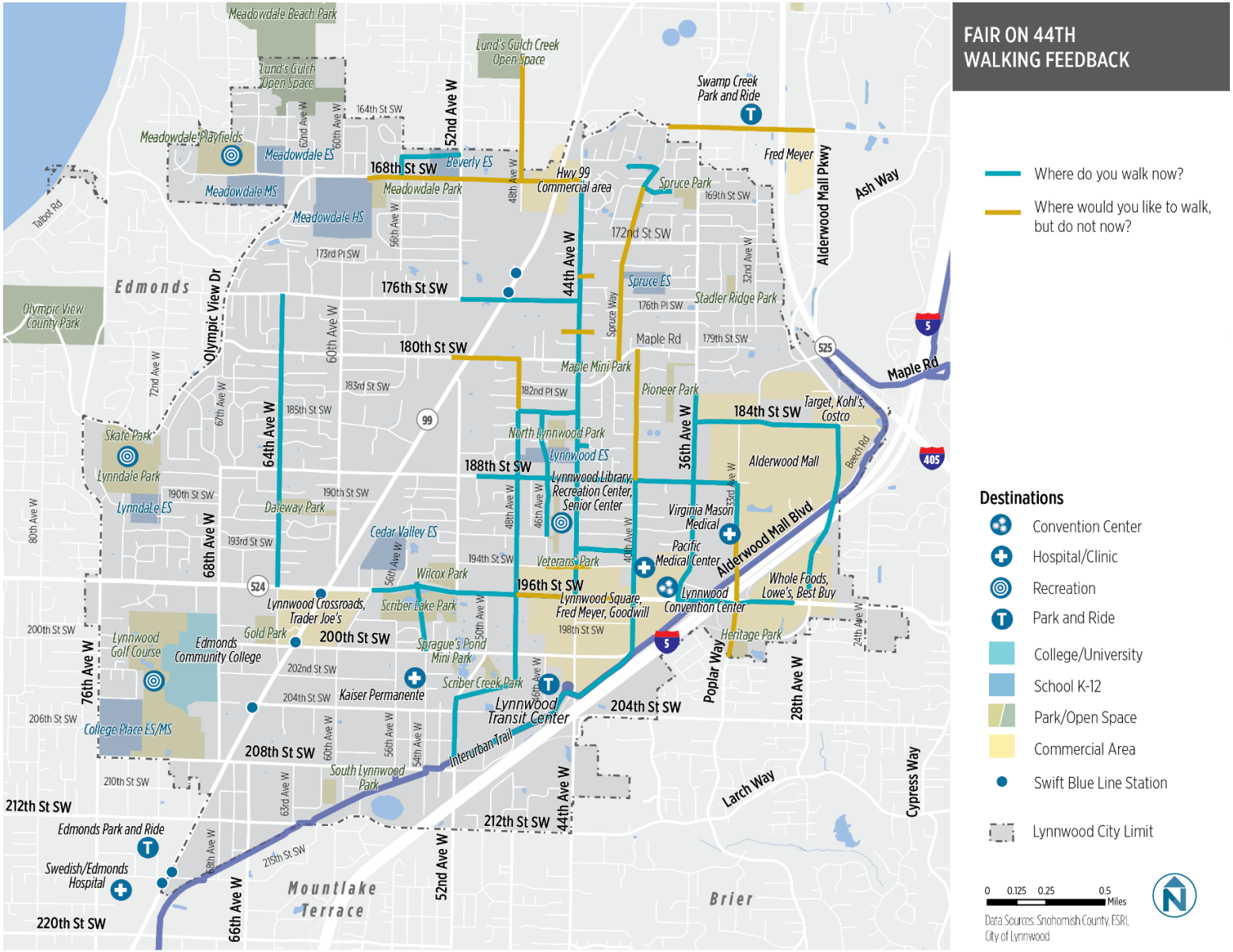
Through discussion with the project team, participants shared comments about their experiences walking and bicycling in Lynnwood. Major themes and notable comments are listed below by topic area. The team received more comments regarding walking than for bicycling.

Walking

- Pedestrian crossings times are perceived as too short at major intersections, such as 196th Street SW at 48th Avenue W
- Drivers do not yield to people crossing in crosswalks
- Destinations identified as popular for walking, or to which people would like to walk more easily:
  - Meadowdale Neighborhood Park
  - SR 99 commercial area at 168th Street SW
  - Fred Meyer at 44th Avenue W and 198th Street SW
  - Daleway Park
  - Cedar Park Christian School
- 36th Avenue W
  - Needs additional crossing opportunities to make it safer and easier to access bus stops
- 44th Avenue W
  - Popular walking route
  - Needs more safe opportunities to cross the street
  - Vegetation often blocks the sidewalk
  - Short crossing times at key intersections
  - Conflicts are common between people walking and drivers making right turns
- 48th Avenue W
  - North of 168th Street SW it provides good connection to Lund's Gulch open space, but is missing sidewalks
  - Needs additional crossing opportunities
- 64th Avenue W
  - Popular walking connection to residential areas, parks, and schools
  - Low volume, comfortable street, but lacks continuous sidewalks

Participants marked on a printed map with colored tape to indicate the places where they walk now, and places where they would like to walk. These places are shown in Figure 52.

Figure 52 Places Where People Walk or Would Like to Walk



Bicycling

- More east-west connections are needed to the Interurban Trail, especially in the northeast part of the city. Connections should be identified from 164th Street SW, Maple Road/179th Street SW, and through Alderwood Mall.
- The intersection of Maple Road and Ash Way is difficult to navigate when connecting to the Interurban Trail from the west.
- Lynnwood Transit Center needs more and higher quality bicycle parking
- 36th Avenue W and 48th Avenue W are good north-south alternatives to 44th Avenue W
- Bicycle sensors at traffic signals would make bicycling easier, especially connecting to Lynnwood Transit Center
- Destinations to which people bike now, or to which they would like to bike more easily, include:
  - Daleway Park
  - Trader Joe's/Lynnwood Crossroads
  - Spruce Park
  - Stadler Ridge Park
  - Alderwood Fred Meyer, located just outside the city limits on 164th Street SW
- As with walking, participants placed colored tape on a printed map to indicate places where they bicycle now, and places where they would like to bike. These places are shown in Figure 53.

Figure 53 Places Where People Bike or Would Like to Bike