



Powell-Division Transit and Development Project



PEDESTRIAN ACCESS REPORT

REVIEW DRAFT

May 13, 2015

Powell-Division Transit and Development Project

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Project website: <http://www.oregonmetro.gov/powelldivision>

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Executive Summary

The Powell-Division Transit and Development Project seeks to create a long-term vision for transit service that identifies and prioritizes transit improvements and other changes that make it easier and safer to walk and bike to transit.

This report describes the evaluation process and tools and the information that will be provided support decisions on ways to improve pedestrian access to the transit project. Information developed through this process is intended to be used by the Project Steering Committee, the project team and interested stakeholders, such as pedestrian advisory committees to inform decision making. Decisions regarding the pedestrian access element will be made by the Project Steering Committee with input from the community.

The information in this document is expected to guide and inform what pedestrian facility improvements should be included as part of the transit project. As the project progresses this effort will ultimately:

1. Describe existing plans and policies related to walking in the corridor
2. Describe the safety issues for walking in the corridor
3. Outline the methodology used to analyze the existing pedestrian network
4. Report the existing conditions for access to potential transit stops and key destinations in the corridor
5. Inventory projects that have been identified through other plans
6. Identify additional projects through subsequent analysis and community input
7. Evaluate the projects based on equity and ability to improve safe access to transit and important community destinations to inform Steering Committee decision making.
8. Recommend projects to be included in the design of the transit project or funded through other means

This document includes the first five listed above. The purpose of the pedestrian access study is to inform decisions on a both a set of pedestrian projects that would be incorporated into the design, funding, and implementation of the Powell-Division Transit and Development Project, as well as other projects that may be incorporated into station area development led by local jurisdictions or property owners.

Planning for pedestrians is included in a broad range of state, regional and local plans and policies. Many existing plans have identified needed pedestrian improvements in the Powell-Division Corridor. These plans and policies provide the foundation for identifying the pedestrian improvements that will be incorporated into the transit project. An initial step in identifying potential improvements is the use of a pedestrian network analysis tool to identify gaps and deficiencies in existing network. The results of the analysis, along with existing plans and input from the public will be used to identify the pedestrian projects included in the transit project.

Walking and the Powell-Division Transit and Development Project

Walking is a key ingredient of any high capacity transit investment, because every transit rider starts as a pedestrian. Pedestrian infrastructure (sidewalks, trails, crossings, etc.) creates access to a community's key neighborhood and cultural destinations. Destinations include transit stops, schools, jobs, churches, urban amenities (e.g., restaurants, grocery stores) and public facilities (e.g., parks, libraries). Safe walking facilities advance the creation of livable and vibrant neighborhoods, support local businesses, and promote a healthy environment. Walking allows for an intimate experience with the neighborhood and increases individual and community health.

Community access through walking is at the heart of the region's goals. Metro defines the goal of creating great communities through growth in a sustainable and compact metropolitan structure and through great cultural and recreational opportunities. Both of these goals help define the role that community access plays in creating sustainable, connected, compact and culturally rich communities that are connected to recreation and nature. Safe and reliable transportation is manifested in the provision of active transportation options. Having safe and convenient choices enhances personal and regional quality of life.

Purpose of Report

The purpose of this report is to describe pedestrian-related plans and policies, identify existing pedestrian gaps, and areas for potential pedestrian improvements within one half-mile of proposed stations in the Powell-Division corridor. This report describes existing conditions, the policy context for pedestrian improvements, and includes outputs of a technical pedestrian network analysis. **This report includes the following:**

- Plans and policies that will guide the pedestrian element of the Powell-Division Project
- Constraints and opportunities for improving pedestrian safety
- Evaluation of the existing pedestrian network to identify the opportunities and constraints at each stop
- Next steps for prioritization of pedestrian projects
- A description of the pedestrian network model developed to analyze current conditions in the corridor and methodology for analysis is included as an appendix to this document.

Community Support for Better Walking Facilities

Powell-Division Efforts

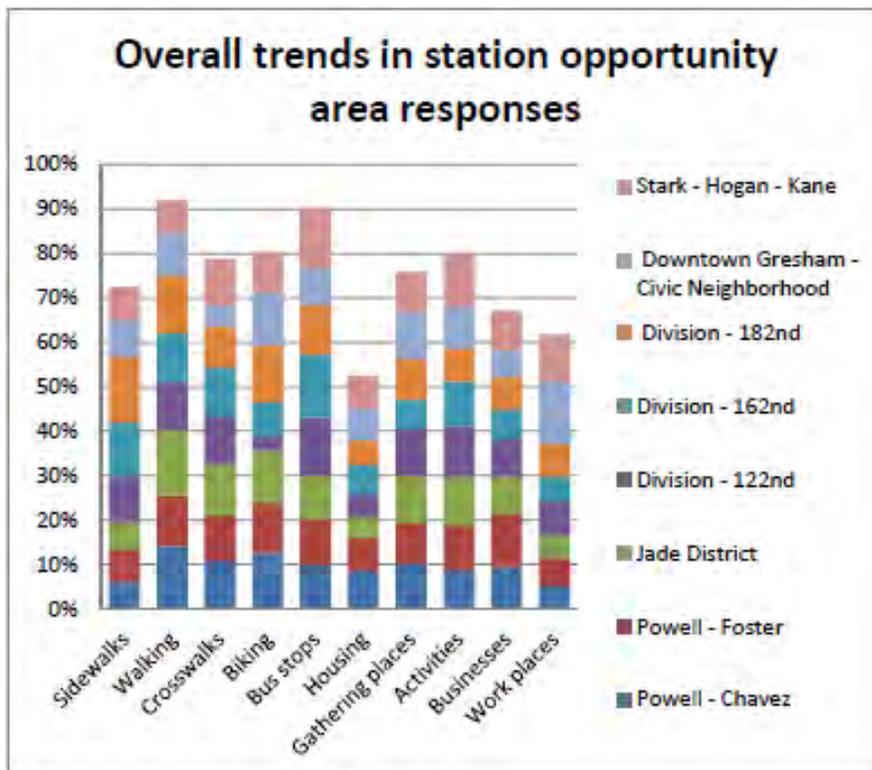
Through face to face workshops and an online, map-based commenting tool, the Powell-Division project team has invited people to weigh in on route options and station opportunity areas

There has been broad reaching, in-person engagement since the beginning of the project. Information briefings were provided to standing committees (Portland bicycle advisory committee, Gresham Public Safety Committee, Multnomah County Bicycle and Pedestrian Committee), neighborhood associations, business organizations, city councils, and advocacy organizations.

Between February 13 and March 4, 2015, 2,634 people utilized the online map-commenting tool. It received 1,541 comments from over 350 individuals.

Through these public engagement efforts, a clear trend emerged - people want safer, more comfortable transportation that includes:

- safe sidewalks, more crossings, safer crossings, more bike facilities, safer bike facilities
- more comfortable and convenient places to wait for transit
- better access to transit



East Portland Action Plan Survey

In May 2014, the East Portland Action Plan (EPAP) sent a survey with questions related to transportation and parks use to all East Portland addresses. The intent of the survey was not only to gather information, but to get neighbors to talk with each other and to identify priorities for public infrastructure investments. The survey results showed a clear preference for sidewalk projects:

Sidewalks on busy streets	648	47.47%
Sidewalks on residential streets	502	36.78%
Paving maintenance	468	34.29%
More frequent pedestrian crossings	398	29.16%
Pave dirt streets	296	21.68%
Signal or intersection improvements	236	17.29%
Slow traffic on side streets	236	17.29%
Other	211	15.46%
Protected bike lanes on busy streets	161	11.79%
Streetscape enhancements	155	11.36%
Low-stress bike routes	145	10.62%
Bridge maintenance & earthquake safety	127	9.30%
No Answer	39	2.86%

Another result from the EPAP survey show a large percentage of people walk and use transit to travel:

1. When you go somewhere, what is your main means of travel? (99.85% response rate):

Car = 1,093 (75.81%)	Transit & Lift = 181 (12.55%)
Walking = 105 (7.28%)	Biking = 63 (4.36%)
Multiple modes = 77 (5.62%)	No Answer = 2 (0.15%)

According to Metro’s 2011 Travel Behavior Survey, from 1994 – 2011 the mode share for walking in East Portland has increased 34 percent. East Portland had the second highest increase in the City of Portland.

Area	Walk%		Bike%		Transit%		Auto%	
	1994	2011	1994	2011	1994	2011	1994	2011
Portland - Central City	37.6	36.4	2.2	7.1	13.6	18.7	46.5	37.8
Portland - Southwest	12.4	6.7	1.2	1.3	2.6	5.6	83.8	86.3
Portland - Northwest	20.6	24.3	1.4	4.5	4.3	7.8	73.7	63.4
Portland - North	*	10.4	*	4.0	2.8	7.7	84.1	77.9
Portland - Northeast	10.4	15.9	0.8	9.8	4.6	5.8	84.2	68.5
Portland - Southeast	12.3	17.5	2.6	7.5	6.8	5.8	78.3	69.1
Portland - East	6.8	10.3	0.5	1.8	5.1	6.9	87.5	81.0
Oregon - 3 Co Suburbs	6.3	7.4	0.7	1.5	1.7	3.9	91.2	87.2
Washington - Clark Co	6.9	4.7	1.1	1.0	1.0	1.4	91.0	92.8
4-County Area	8.7	9.2	1.1	2.8	2.9	4.2	87.3	83.8
City of Portland	13.0	15.0	1.6	6.0	5.5	6.6	79.8	72.4

Source: Metro, Travel Behavior Survey and 2011 OHAS. *There were insufficient bike samples in subarea 4 (Portland -North) in 1994-95. Combining bike and walk trips, the bike-walk mode share for subarea 4 households in 1994-95 was 13.1%.

Powell-Division Transit and Development Project Goals

The Powell-Division Transit and Development Project provides an opportunity for the region, stakeholders and jurisdictional partners to increase multi-modal transportation options in the corridor, including pedestrian access to the transit stations and key destinations; improve mobility for all users; increase bicycle and pedestrian access to transit; complete multi-modal networks within the corridor; advance planned transportation projects that increase active transportation and encourage physical activity; improve multi-modal access for a range of housing types and businesses in growing communities; advance planned transportation projects that are sensitive to the environment, improve water and air quality and help reduce carbon emissions. Addressing walking network gaps and deficiencies is recognized as a powerful tool to advance these desired outcomes.

On June 23, 2014 the Project Steering Committee adopted project outcomes and goals. Improving access to transit and creating key places are important themes within the outcomes and goals. The adopted project goals are:

1. **Transportation:** People have safe and convenient transportation options – including efficient and frequent high capacity transit service that enhances current local transit service – that get them where they want to go and improves the existing system.
2. **Well-being:** Future development and transit improvements create safe, healthy neighborhoods and improve access to social, educational, environmental and economic opportunities.
3. **Equity:** Future development and transit improvements reduce existing disparities, benefit current residents and businesses and enhance our diverse neighborhoods. There is a commitment to prevent market-driven involuntary displacement of residents and businesses and to equitably distribute the benefits and burdens of change.
4. **Efficiency:** A high capacity transit project is efficiently implemented and operated.

Improving pedestrian access, including the safety, comfort and efficiency of walking helps achieve the project goals. Pedestrian access to transit stations increases transportation options and expands the reach of transit. Walking contributes to the well-being of the communities in the corridor. Improving walking in underserved communities helps address equity. And, improving pedestrian access will improve the overall efficiency of the project.

Pedestrian Access Study Goals

This document provides an overview of the pedestrian access study in the Powell-Division Transit and Development corridor and is intended to be used by the Project Steering Committee, the project team and interested stakeholders such as pedestrian advisory committees. Decisions regarding the pedestrian access element will be made by the Project Steering Committee.

The information in this document is intended to guide and inform what pedestrian facility improvements should be part of the transit alternative. As the project progresses this information will be enlarged upon and will ultimately:

1. Describe existing plans and policies that impact walking in the corridor
2. Describe the safety issues for walking in the corridor
3. Outline the methodology used to analyze the existing pedestrian network
4. Report the existing conditions for walking and access to proposed transit stops and key destinations in the corridor through pedestrian network analysis
5. Report the initial inventory of projects that have been identified through other plans
6. Suggest projects to add through subsequent refinement.
7. Produce a ranked list of projects that should be included with the Powell-Division Transit and Development Project's design and implementation.

Pedestrian Access Study Approach

To achieve the desired outcomes and goals of the Powell-Division Transit and Development Project outlined above, the following steps have been taken or will be to analyze pedestrian gaps and make funding recommendations for projects in the corridor:

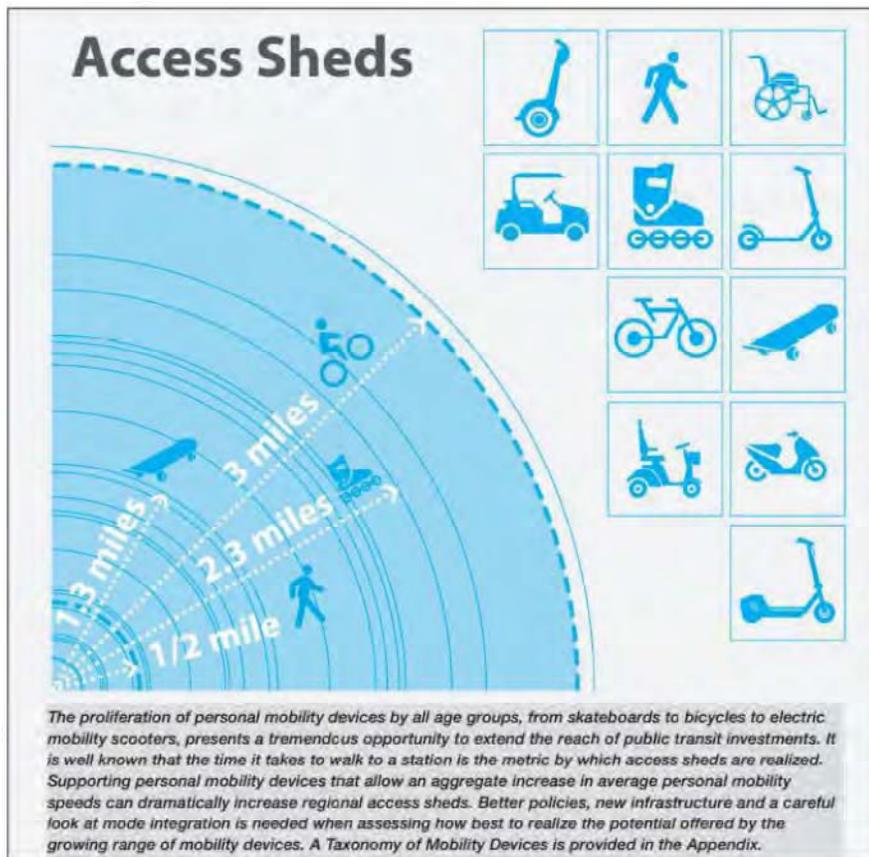
- Acknowledge previous policy and plans that analyze the conditions and make recommendations in the corridor – There have been a number of planning efforts that overlap the Powell-Division project, which are listed in the next section. Many projects that would provide greater access to potential transit stations in the corridor have been identified, comprising a large inventory of planned projects.
- Report the safety issues that are affecting pedestrian travel in the corridor - The pedestrian network is clearly in need of improvement within the corridor. Several studies have been conducted that analyze the safety issues in the region and specifically highlight the major thoroughways of the corridor.
- Construct a detailed pedestrian network model to analyze current conditions in the corridor – In order to best analyze the walking conditions to and from major destinations to potential transit stations (and vice versa) a corridor scale pedestrian network has been construct to highlight traffic conditions, sidewalk gaps/deficiencies, and crossing deficiencies.
- Identify gaps and areas for improvements in the pedestrian environment in the corridor - Highlight station walksheds that could be improved by building pedestrian projects using measures such as number of households and employment served and traffic-weighted travel time to schools, grocery stores, and major destinations.
- Inventory pedestrian-related projects from previous plans – in the aforementioned planning section, many pedestrian projects have been aggregated to a comprehensive database to be used as an inventory to address access and safety issues to the potential transit stations.
- Use the pedestrian model analysis to score infrastructure projects (sidewalks, crossings, trails, etc.) based on their ability to address network gaps/deficiency

Policy and Plan Context

Oregon and the Portland region have developed strong policies related to supporting and expanding infrastructure for pedestrian needs. The following policies at the state, regional, and local level provide policy context for the walking elements of the Powell-Division Transit and Development project.

Federal Policies

- **Federal Transit Administration (FTA) Policy** – Recognizing the synergistic relationship between transit and active modes, the Federal Transit Administration (FTA) developed a formal policy making pedestrian and bicycle improvements eligible for FTA funding. The policy establishes the eligibility of pedestrian and bicycle improvements for funding and defines the catchment area for pedestrians and bicyclists in relation to public transportation stops and stations. The graphic below illustrates “access sheds” for active travel modes to transit -- .5 mile for pedestrians and 3 miles for bicyclists, as well as other personal mobility devices that are not considered for funding purposes.
- The graphic below illustrates “access sheds” for active travel modes to transit. Recognizing the synergistic relationship between transit and active modes the Federal Transit Administration (FTA) developed a policy making pedestrian and bicycle improvements eligible for FTA funding.



Source: *First Last Mile Strategic Plan and Planning Guidelines*, LA County Metro and SCOG, March 2014

- **Moving Ahead for Progress in the 21st Century Act (MAP-21)** -Title I, Federal-Aid Highways, Subtitle A – Authorizations and programs, Section 1122 **Transportation Alternatives Program** – provides funding for programs and projects defined as transportation alternatives, including on and off-road pedestrian and bicycle facilities, safe routes to school projects.
- **Code of Federal Regulations Title 49** – contains the codified U. S. Federal laws and regulations that are in effect pertaining to all forms of surface transportation and transportation security.

State Plans/Policies

- **Statewide Planning Goal 12: Transportation** – transportation plans shall consider all modes of transportation, serve all people, and minimize adverse social, economic and environmental impacts and costs.
- **OAR 660-12, the Transportation Planning Rule** – implements Statewide Planning Goal 12 by supporting plans that increase transportation choices and make more efficient use of the existing transportation system, including bicycle travel, accessibility, transit, reduction in reliance on single occupant automobile use.
- **ORS 366.514: Use of Highway Fund for Footpaths & Bicycle Trails** - requires the inclusion of facilities for pedestrians and bicyclists wherever a road, street or highway is built or rebuilt. It applies to ODOT, cities and counties.
- **Oregon Transportation Plan** – comprehensively assesses state, regional and local and both public and private transportation facilities and services and builds on the established vision of a balanced, multifaceted transportation system leading to expanded investment in non-highway transportation options.
- **Oregon Public Transportation Plan** – provides a statewide vision for the public transportation system and describes the role of public transit in contributing to the transportation system overall.
- **Oregon Pedestrian and Bicycle Safety Implementation Plan** –includes a list of candidate priority locations based on an objective analysis and then provides a toolbox of countermeasures from which to choose.
- **Oregon Bicycle and Pedestrian Plan** – currently being updated. Provides a vision for the entire state system, including locally owned facilities, while defining the role of the State and ODOT. Includes a design manual for pedestrian and bicycle transportation.

Regional Plans/Policies

- **2014 Regional Transportation Plan (RTP)** – provides pedestrian, bicycle and complete streets policy; performance measures including triple 2010 bicycle mode share target.
- **Climate Smart Strategy** – a strategy to reduce the region’s per capita greenhouse gas emissions from cars and light trucks at least 20 percent by 2035.
- **Regional Active Transportation Plan** – identifies a vision, policies and actions to complete a seamless green network of on- and off-street pathways and districts connecting the region and integrating walking, biking and public transit.

- **Regional Transportation Safety Plan** – identifies ways to cut the number of fatalities and serious injuries for pedestrians, bicyclists and motor vehicle occupants in half by 2035, based on 2005 numbers.
- **Regional Travel Options Strategic Plan** – defines a mission and set of goals and objectives to increase opportunities to walk, bike, share a ride and take transit.
- **East Metro Connections Plan** – an action plan that identifies specific transportation, community, economic development projects for the metro area of east Multnomah County and their phasing over the next 20 years.

Local Plans/Policies

- **East Portland In Motion** – is a five-year implementation strategy for active transportation projects and programs east of 82nd Ave in the City of Portland.
- **Portland Progress** – is Portland Bureau of Transportation’s two-year work plan to provide steps to preserve past investments and improve the safety of the transportation system.
- **Portland Pedestrian Design Guide** - integrates a wide range of design criteria and practices into a coherent set of standards and guidelines
- **Portland Transportation System Plan (TSP)** -- meets State and regional planning requirements and addresses local transportation needs for cost-effective street, transit, freight, bicycle, and pedestrian improvements
- **Central City Transportation Management Plan** – encourages economic growth and housing in a compact urban form that also increases the use of alternative transportation modes
- **Portland Central City Plan** – addresses challenges and opportunities to ensure the unique economic, transportation, cultural and educational hub will be a vibrant resource for all Portlanders over the next 25 years and includes the Central City Transportation Management Plan
- **City of Portland and Multnomah County Climate Action Plan** – includes a 25 percent bicycle mode share and a 7.5 percent walk mode share target.
- **Portland Plan** – encourages active transportation, prioritizes safe and attractive frequent transit service, bikeways and accessible pedestrian connections, including sidewalks; measures include 70% transit and active transportation use by 2035 and 50% Carbon emissions reductions below 1990 levels by 2035.
- **Inner Powell Streetscape Plan** – informs the development of a streetscape plan for Powell Blvd from the Ross island Bridge to SE 92nd Ave that includes multi-modal improvements
- **Portland Comprehensive Plan** – guides the future growth and development of the city and is a generalized, coordinated land use map and policy statement that interrelates all functional and natural systems and activities in relation to the use of lands, including transportation systems.
- **Powell-Division Corridor Safety and Access to Transit** – focuses on making crossings safer, including adding rapid flashing beacons where appropriate and supported by existing plans and project partners, while also improving bus stop shelters and lighting.

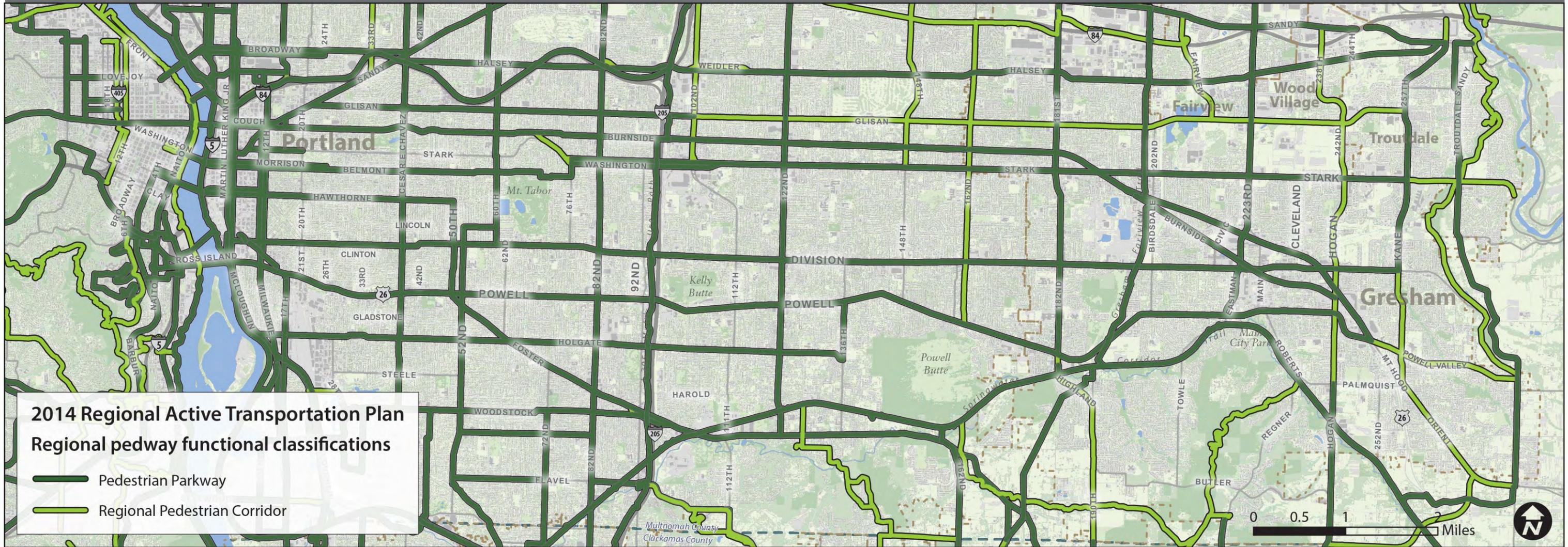
- **Gresham Transportation System Plan** – supports the growth and development of the City as an economically vital and livable community by providing residents and all transportation system users safe, pleasant and convenient access and travel within, to and through the city
- **Gresham Comprehensive Plan** – contains policy statements concerning each plan topic; goals, policies and actions measures and implementation strategies designed to carry out the policies, including transportation.

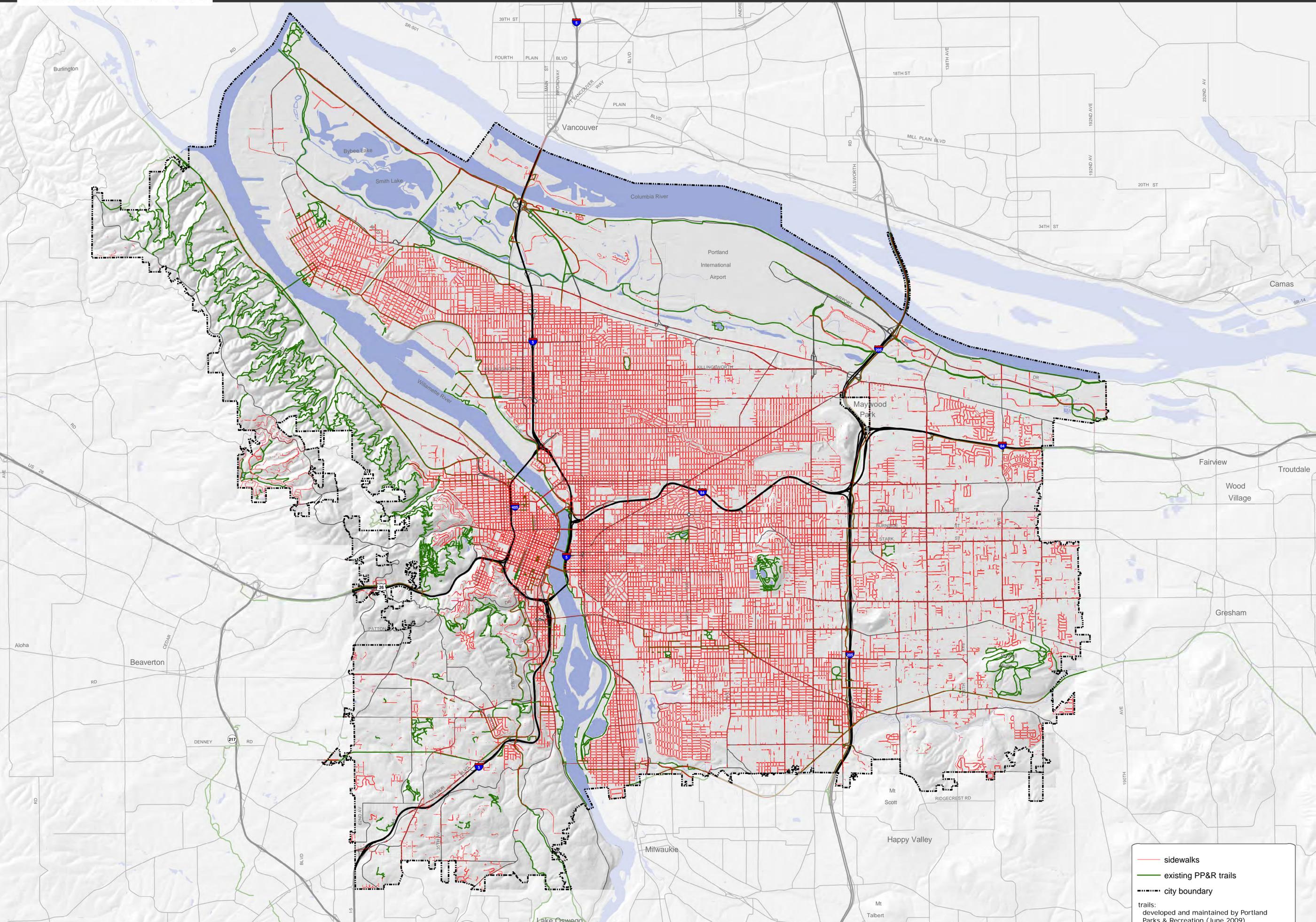
Pedestrian Routes Identified in Existing Plans

The Portland Transportation System Plan, Gresham’s Transportation System Plan, and the Regional Transportation Plan include policy maps and existing conditions maps for the pedestrian network. The Regional Transportation Plan map shows the adopted walking networks and functional classifications. Planned networks guide future development of the walkway networks. Functional classifications and planned facilities identified in the Portland and Gresham Transportation System Plans (along with more recent plans or projects) provide policy guidance as the pedestrian element of the project is developed.

The 2014 Regional Active Transportation Plan map on the following page shows the regional pedestrian network and functional classifications within the project study area. The regional pedestrian network is composed of pedestrian parkways, regional pedestrian corridors and pedestrian districts. Pedestrian parkways are the highest functional classification for regional pedestrian routes. Pedestrian parkways form the spine of the regional and local pedestrian network, overlap with the regional transit network and connect to and through pedestrian districts. Pedestrian districts are urban centers and station communities. Regional pedestrian corridors are the second highest functional classification and fill out the regional pedestrian network.

Powell-Division Transit and Development Project

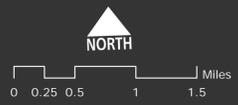




- sidewalks
- existing PP&R trails
- - - - - city boundary

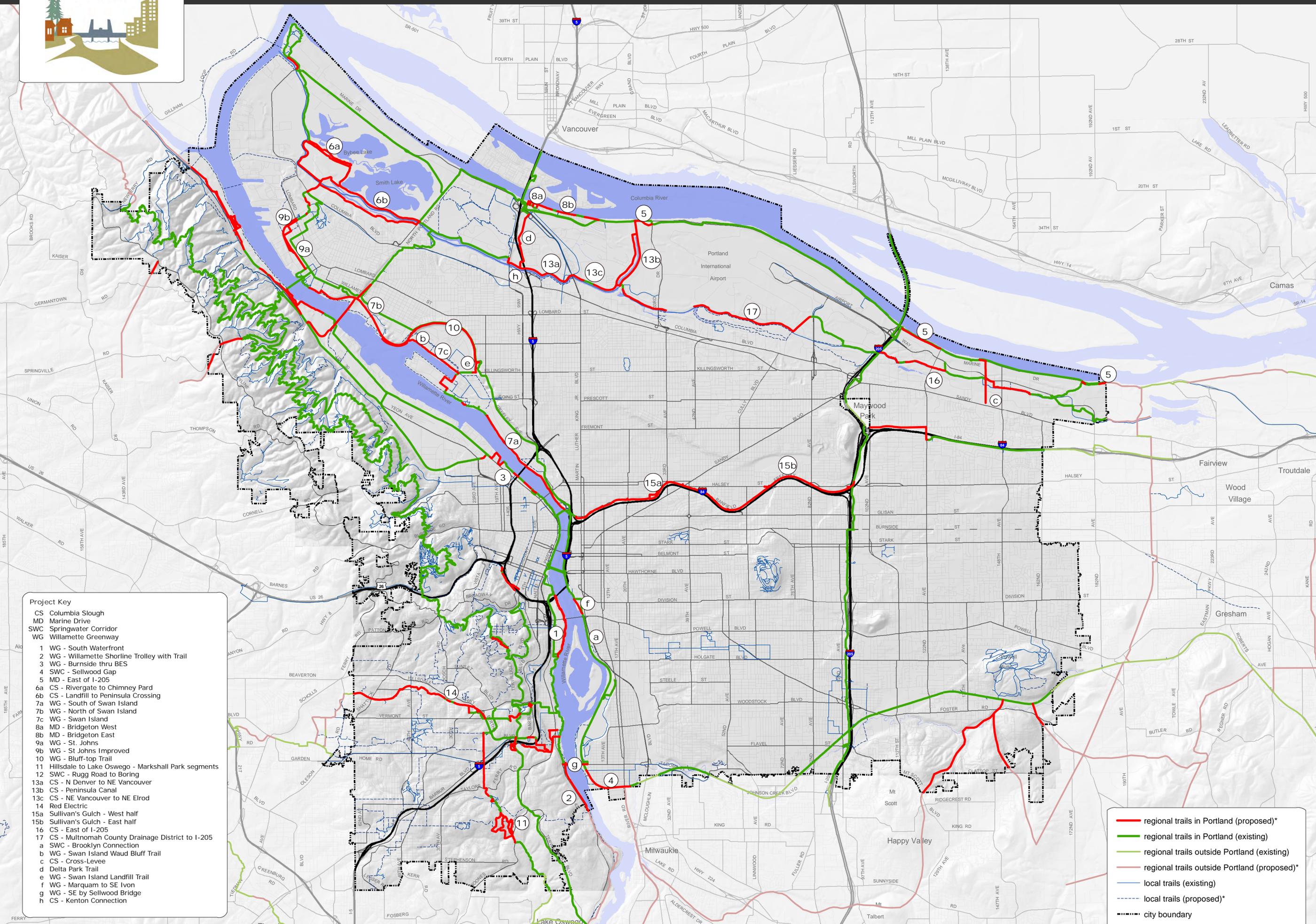
trails:
developed and maintained by Portland Parks & Recreation (June 2009)

sidewalks:
developed by City of Portland, Bureau of Transportation (Feb. 2008).





Regional and Local Trail Network

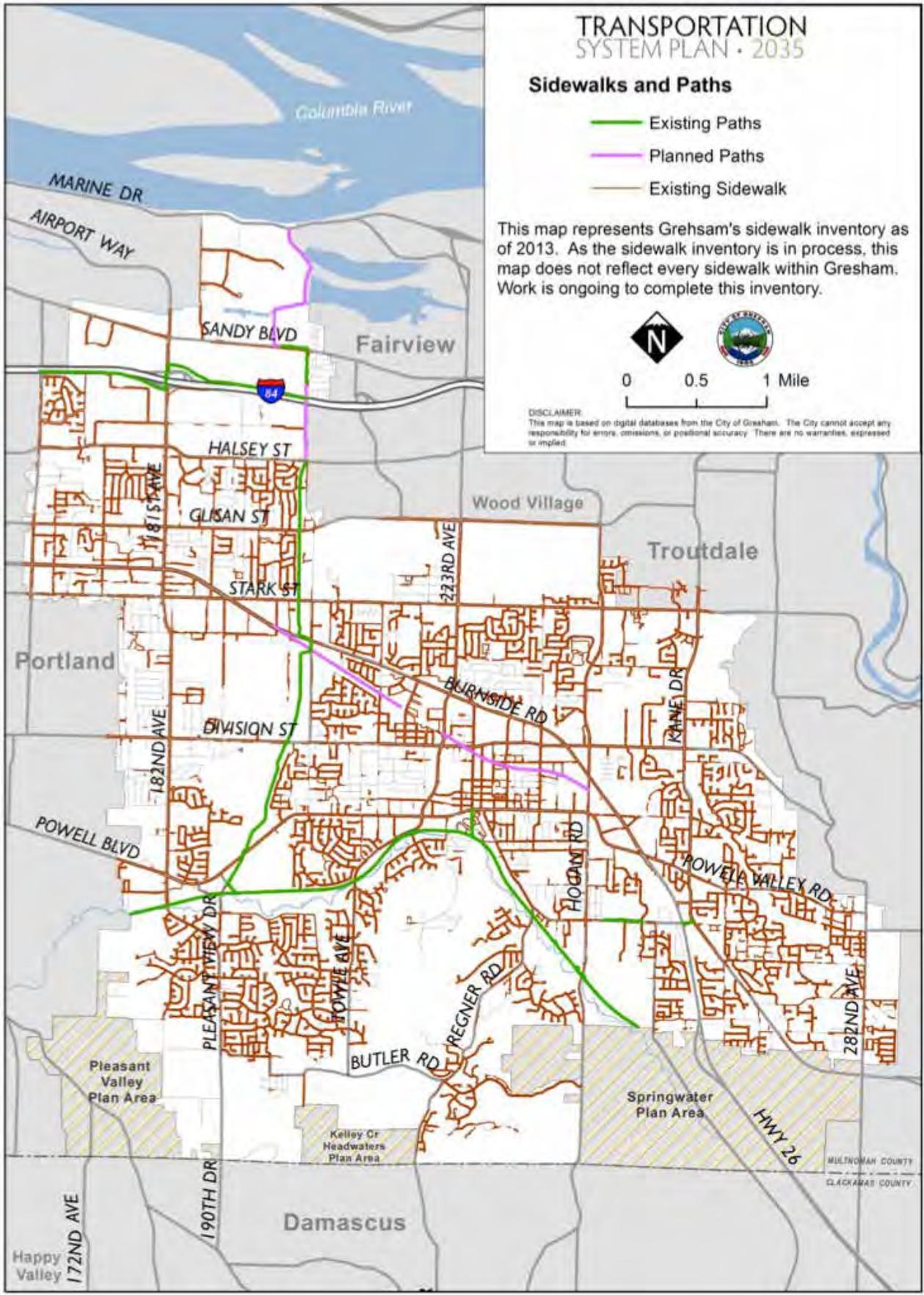


- Project Key**
- CS Columbia Slough
 - MD Marine Drive
 - SWC Springwater Corridor
 - WG Willamette Greenway
 - 1 WG - South Waterfront
 - 2 WG - Willamette Shoreline Trolley with Trail
 - 3 WG - Burnside thru BES
 - 4 SWC - Sellwood Gap
 - 5 MD - East of I-205
 - 6a CS - Rivergate to Chimney Pard
 - 6b CS - Landfill to Peninsula Crossing
 - 7a WG - South of Swan Island
 - 7b WG - North of Swan Island
 - 7c WG - Swan Island
 - 8a MD - Bridgeton West
 - 8b MD - Bridgeton East
 - 9a WG - St. Johns
 - 9b WG - St. Johns Improved
 - 10 WG - Bluff-top Trail
 - 11 Hillsdale to Lake Oswego - Markshall Park segments
 - 12 SWC - Rugg Road to Boring
 - 13a CS - N Denver to NE Vancouver
 - 13b CS - Peninsula Canal
 - 13c CS - NE Vancouver to NE Elrod
 - 14 Red Electric
 - 15a Sullivan's Gulch - West half
 - 15b Sullivan's Gulch - East half
 - 16 CS - East of I-205
 - 17 CS - Multnomah County Drainage District to I-205
 - a SWC - Brooklyn Connection
 - b WG - Swan Island Waud Bluff Trail
 - c CS - Cross-Levee
 - d Delta Park Trail
 - e WG - Swan Island Landfill Trail
 - f WG - Marquam to SE Ivon
 - g WG - SE by Sellwood Bridge
 - h CS - Kenton Connection

- regional trails in Portland (proposed)*
- regional trails in Portland (existing)
- regional trails outside Portland (existing)
- regional trails outside Portland (proposed)*
- local trails (existing)
- - - local trails (proposed)*
- city boundary

trails developed by Portland Parks and Recreation (August 2009)
* proposed trail alignments are conceptual

Map 10: Existing Sidewalks and Paths

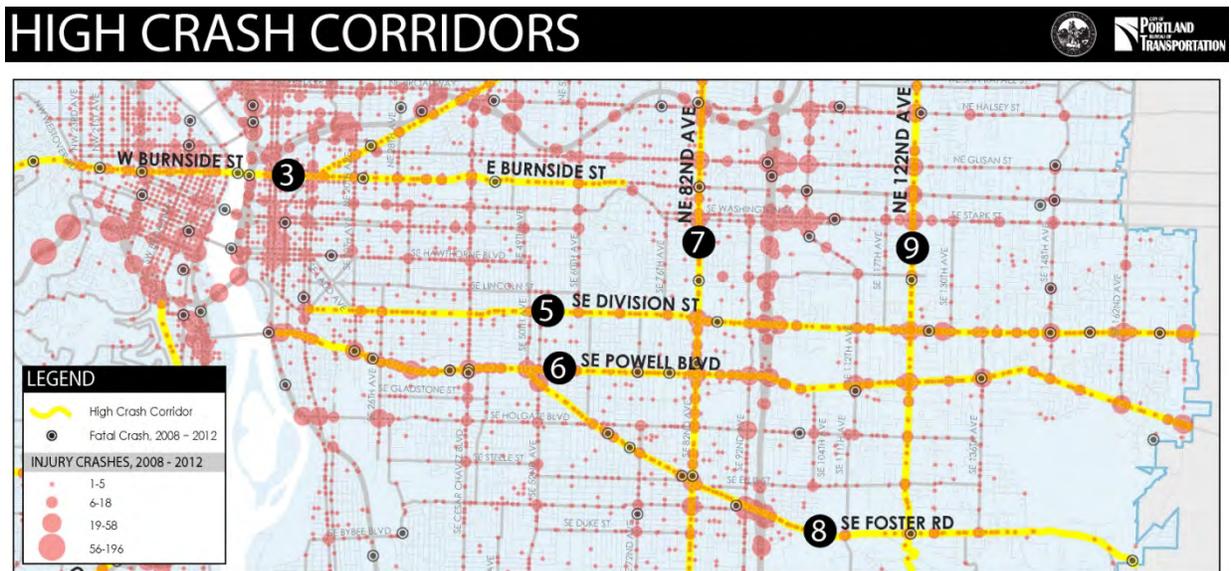


Safety in the Powell-Division Corridor

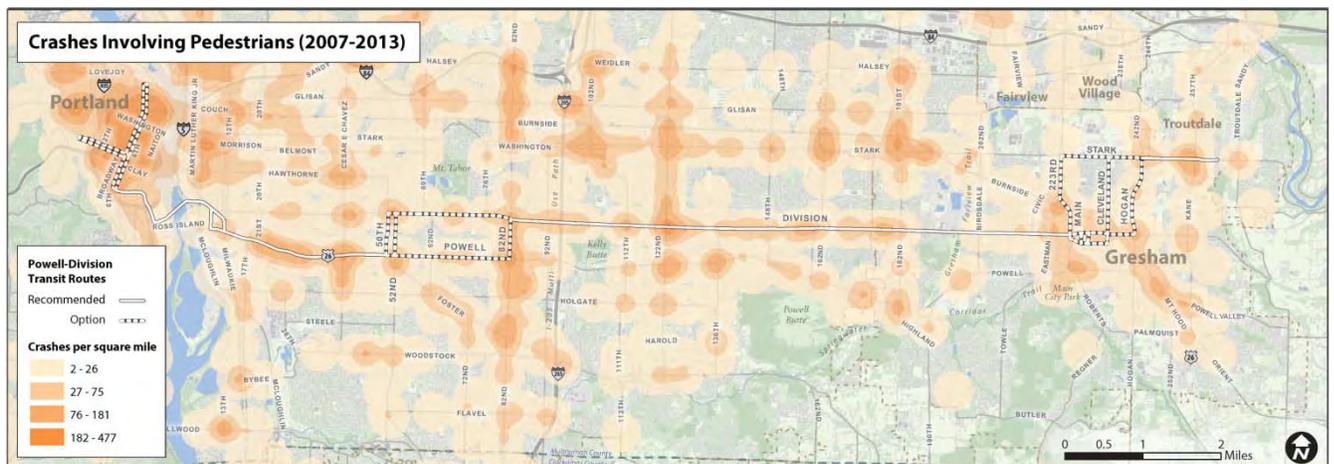
One of the most challenging aspects of considering pedestrian access in the Powell-Division Corridor is safety. East Portland and Gresham have high pedestrian and bicycle crash rates compared to the rest of the region. Metro’s 2012 *State of Safety* report found that the Cities of Portland and Gresham had more fatal/incapacitating pedestrian crashes per capita from 2007-2009 than any other city in the region:

Nearly every street being considered for the high capacity transit route in the Powell-Division project is listed as a “high crash corridor” by the City of Portland.

Portland-Identified High Crash Corridors in the Powell-Division Corridor



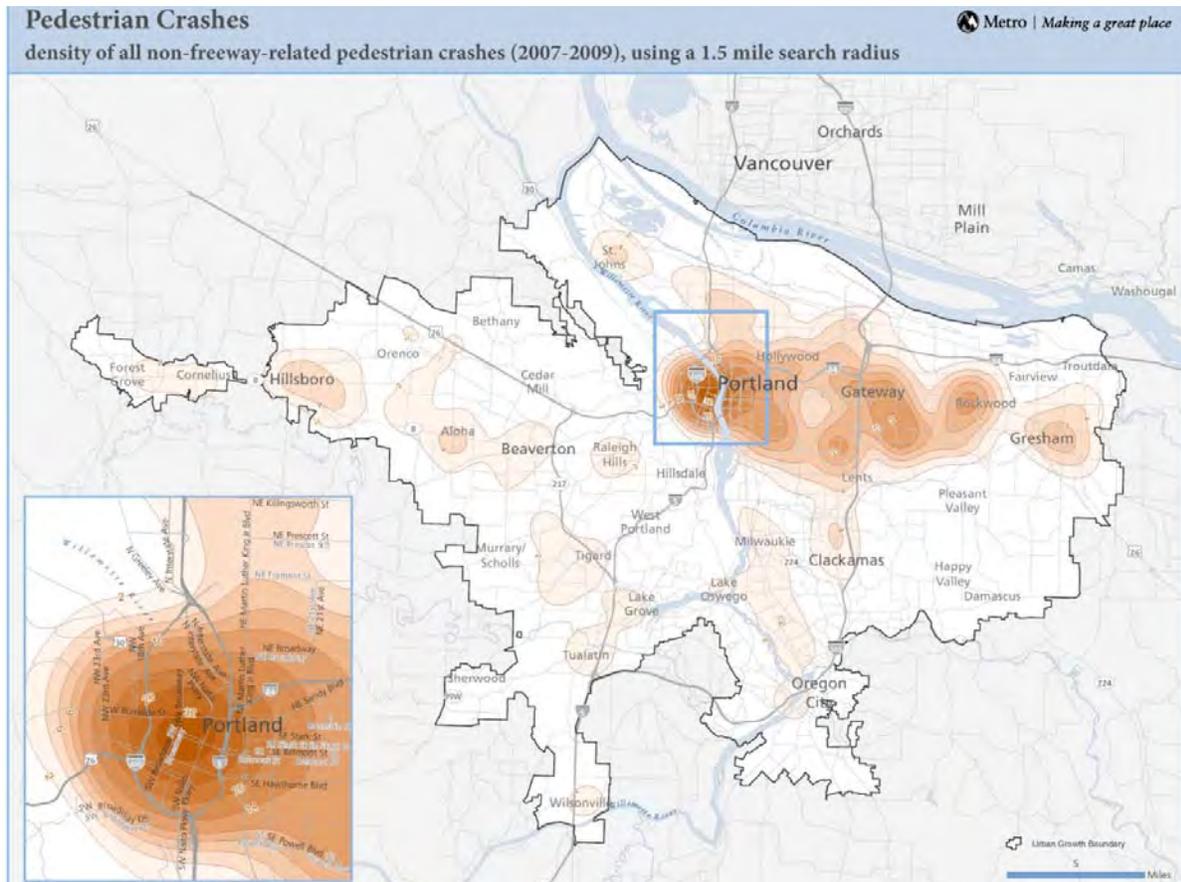
The following map shows the density of all pedestrian crashes (2007-2013) in the Powell-Division Corridor. There is a clear trend of high crash rates at the following locations: inner Powell, 82nd and Powell, Division and Powell, 122nd and Division, and Downtown Gresham.



Data Source: Oregon Department of Transportation

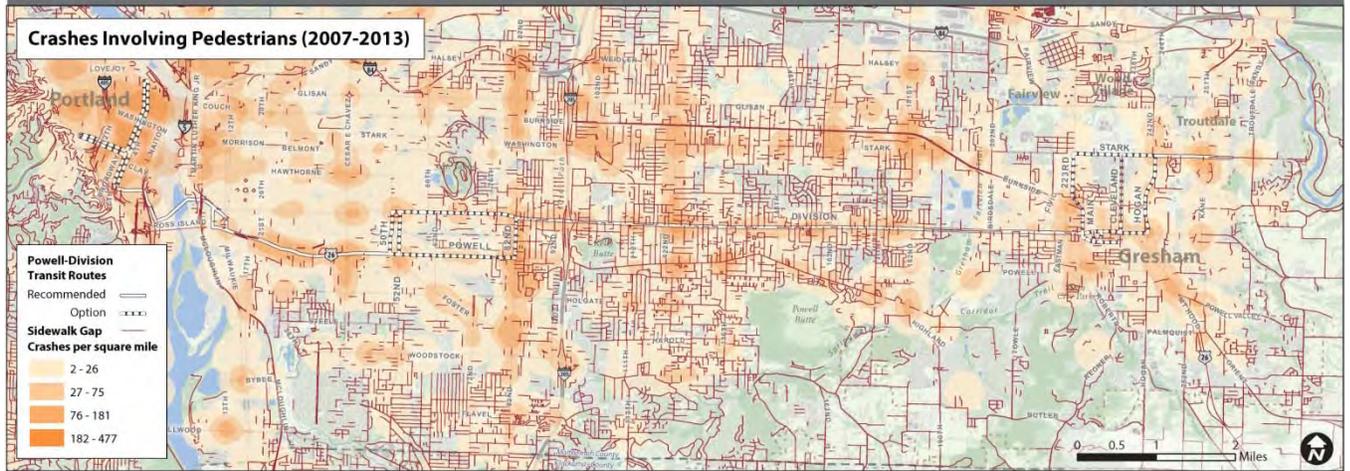
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The *State of Safety* report mapped the density of all non-freeway-related pedestrian crashes (fatal, serious; 2007-2009) in the region. There is a clear trend of crash occurrence in the Powell-Division corridor.



The pedestrian network is clearly in need of improvement within the corridor. Sidewalk coverage is relatively complete west of I-205, but between I-205 and the Gresham city boundary there is a major sidewalk gap on Division St. between 182nd and Birdsdale, and there are many sidewalk gaps on Powell Boulevard and on the local streets surrounding Powell and Division. The following map shows incomplete or missing sidewalks overlaid with the density of all pedestrian crashes.

Powell-Division Transit and Development Project



Crashes and the resulting injuries and deaths cost the region \$958 million a year in property damage, medical costs, and lost productivity. Studies have found that more people walking and riding bicycles make it safer to walk and ride a bicycle and increase road safety records for all users.

Identified Projects

The following map and tables represent the project inventory that has been assembled thus far within a half mile of potential stations. This inventory will be vetted and refined over the next month with help from partners and ultimately, the projects listed will be rated and prioritized for funding.

PD ID	RTP ID	Juris ID	Name	Description	Budget Status	Time Frame	Mode	Source Agency	Source Plan	Est. Cost	Dist. to PD Routes (mi)
1002	11644	TP01-0000317	North Portland Greenway Trail, Segment 5	Build a multi-use trail along the Albina Yard connecting Swan Island to the Rose Quarter.	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$7,306,910	1
1004	0	TP04-0000209	Water/Stark Corridor Improvements	Construct the multimodal transportation enhancements laid out in the Central Eastside Street Plan.	Constrained	11-20_YRS	Bike/Ped	Portland	TSPProjectLin	\$2,000,000	0.5
1005	0	TP04-0000207	SE Stark/Washington Corridor Improvements	Improve safety and capacity by restriping and signaling Stark and Washington as they intersect wi*	Constrained	11-20_YRS	Bike/Ped	Portland	TSPProjectLin	\$2,000,000	1
1006	11634	TP01-0000309	NE 7th/9th Neighborhood Greenway	Design and implement a bikeway using neighborhood greenway and/or separated in-roadway treatments a*	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$555,000	1
1008	11635	TP01-0000310	SE 7th/9th Neighborhood Greenway	Design and implement a bikeway using neighborhood greenway and/or separated in-roadway treatments t*	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$700,000	0.25
1009	11323	TP01-0000298	Sullivan's Gulch Trail, Phase 1	Construct a multi-use trail for pedestrians and bicycles within the Banfield (I-84) Corridor from t*	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$7,700,000	0.5
1013	11646	TP01-0000319	NE Broadway Corridor Improvements, Phase 1	Construct a protected bikeway with enhanced pedestrian/bicycle crossings, transit improvements, and*	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$3,500,000	0.5
1017	11198	TP01-0000287	PMLR Active Transportation Improvements	Construct a shared-use path along SE McLoughlin Blvd from 17th Ave to the Springwater Corridor Trail*	Constrained	11-20_YRS	Bike/Ped	Portland	TSPProjectLin	\$8,000,000	1
1026	0	TP04-0000068	Holgate Blvd Corridor Improvements	Reconstruct pavement structure and stormwater drainage facilities, improve corner curb ramps to ADA*	Unconstrained	1-5_YRS	Bike/Ped	Portland	TSPProjectLin	\$10,000,000	0.5
1028	10193	TP04-0000098	Inner Division Corridor Improvements, Phase 2	Design and implement streetscape improvements to enhance sidewalks, lighting, crossings, access to *	Constrained	11-20_YRS	Bike/Ped	Portland	TSPProjectLin	\$2,000,000	0.25
1037	0	TP04-0000061	Foster Road Streetscape Improvements	Improve sidewalks, lighting, crossings, bus shelters, and benches on Foster and improve pedestrian *	Funded	11-20_YRS	Bike/Ped	Portland	TSPProjectLin	\$3,857,778	0.25
1042	10220	TP04-0000076	SE Seventies Neighborhood Greenway	Design and implement a bikeway using neighborhood greenway and/or separated in-roadway treatments, *	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$2,818,037	0.25
1043	0	TP04-0000221	82nd Ave Corridor Improvements	Design and implement multimodal improvements to sidewalks, crossings, transit stops, striping, and *	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$5,000,000	0.25
1055	0	<Null>	100's Bush to I-84	<Null>	Planned	<Null>	Bike/Ped	<Null>	Neighborhood<Null>	<Null>	0.25
1056	10323	TP04-0000152	Cherry Blossom/112th/111th Ped/Bike Improvements	Design and implement pedestrian and bicycle facilities.	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$2,070,127	0.25
1059	0	TP04-0000161	Outer Holgate Ped/Bike Improvements	Construct sidewalks and crossing improvements to facilitate pedestrian travel and access to transit*	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$6,000,000	1
1062	0	TP01-0000405	122nd Ave Corridor Improvements	Design and implement multimodal improvements to sidewalks, crossings, bicycle facilities, transit s*	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$8,000,000	0.25
1063	0	TP04-0000163	Outer Powell Blvd Corridor Improvements, Phase 1	Widen street to three to four lanes (inclusive of a center turn lane) with sidewalks and buffered b*	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$19,768,416	0.5
1065	0	<Null>	130's Springwater Trail to I-84 Bike Path	<Null>	Planned	<Null>	Bike/Ped	<Null>	Neighborhood<Null>	<Null>	0.25
1066	0	<Null>	130's to I-84 Bike Path	<Null>	Planned	<Null>	Bike/Ped	<Null>	Neighborhood<Null>	<Null>	0.25
1069	11637	TP04-0000167	4M Neighborhood Greenway	Design and implement a neighborhood greenway, with improved crossings at major streets.	Constrained	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$450,000	0.5
1070	0	TP01-0000432	Outer Powell Blvd Corridor Improvements, Phase 2	Widen street to three to four lanes (inclusive of a center turn lane) with sidewalks and buffered b*	Constrained	11-20_YRS	Bike/Ped	Portland	TSPProjectLin	\$46,783,156	0.5
1072	10290	TP04-0000158	Outer Division Corridor Improvements	Construct streetscape improvements to enhance sidewalks, lighting, crossings, bus shelters and benc*	Constrained	11-20_YRS	Bike/Ped	Portland	TSPProjectLin	\$5,710,912	0.25
1073	10199	TP04-0000153	SE 136th Ave Ped/Bike Improvements	Construct missing sidewalks on both sides of the street and add bicycle facilities.	Constrained	11-20_YRS	Bike/Ped	Portland	TSPProjectLin	\$5,000,000	0.25
1081	0	<Null>	150's Powell to Halsey	<Null>	Planned	<Null>	Bike/Ped	<Null>	Neighborhood<Null>	<Null>	0.25
1087	0	TP04-0000156	Jenne/174th Multimodal Improvements	Widen roadway to three lanes and provide bicycle facilities and sidewalks.	Study	6-10_YRS	Bike/Ped	Portland	TSPProjectLin	\$7,155,300	1
1104	0	16 Main Street		Construct to standard collector cross section	<Null>	20 year	Bike/Ped	Gresham	TSP_Corridor	\$2,350,226	1
1106	0	14 181st Avenue		Construct to standard arterial cross section with boulevard design where applicable	Constrained	20 year	Bike/Ped	Gresham	TSP_Corridor	\$11,440,061	1
1120	0	17 Yamhill Street		Construct to minor collector cross section	<Null>	50 year	Bike/Ped	Gresham	TSP_Corridor	\$2,600,000	1
1121	0	12 190th Avenue		Construct to standard collector cross section	<Null>	50 year	Bike/Ped	Gresham	TSP_Corridor	\$910,000	0.25
1122	10859	73 Pleasant View Drive		Construct to minor arterial cross section	<Null>	20 year	Bike/Ped	Gresham	TSP_Corridor	\$4,000,000	1
1133	0	15 Burnside Street		Complete to standard arterial standard and improve remaining segments to boulevard standards where *	Constrained	50 year	Bike/Ped	Gresham	TSP_Corridor	\$7,950,000	1
1134	0	607400 197th Street Ped to MAX		<Null>	Unfunded	<Null>	Bike/Ped	Gresham	BikeTrailPath<Null>	<Null>	1
1136	0	609300 Gresham/Fairview Trail Access		<Null>	Unfunded	<Null>	Bike/Ped	Gresham	BikeTrailPath<Null>	<Null>	0.25
1140	0	18 202nd Avenue (Birdsdale)		Construct to minor arterial cross section	Unconstrained	50 year	Bike/Ped	Gresham	TSP_Corridor	\$18,202,734	0.25
1142	0	11 Glisan Street		Construct to standard arterial cross section. The northern half of this street section is within Mu*	<Null>	20 year	Bike/Ped	Gresham	TSP_Corridor	\$6,798,560	1
1144	0	19 Wallula Avenue		Construct to standard collector cross section	Constrained	50 year	Bike/Ped	Gresham	TSP_Corridor	\$8,347,988	0.25
1146	0	25 NW Norman Avenue		Construct to major collector cross section consistent with Civic Neighborhood Plan design	<Null>	20 year	Bike/Ped	Gresham	TSP_Corridor	\$2,500,000	0.25
1147	0	27 16th Street		Construct to major collector cross section with Civic Neighborhood Plan design	<Null>	20 year	Bike/Ped	Gresham	TSP_Corridor	\$2,500,000	0.25

1148	0	41 7th Street	Construct to standard collector cross section	<Null>	50 year	Bike/Ped	Gresham	TSP_Corridor:	\$1,553,194	1
1150	10436	108 Multi-Use Path	Construct new multi-use path from Ruby Junction Station to Hogan Drive	Constrained	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$3,800,000	0.25
1152	0	40 Walters Drive	Construct to standard collector cross section	<Null>	50 year	Bike/Ped	Gresham	TSP_Corridor:	\$2,519,478	1
1155	11699	28 Main Street - PED to MAX	Ped to MAX project, improve pedestrian access to light rail transit	Unfunded	20 year	Ped	Gresham	TSP_Corridor:	\$2,500,000	0.25
1157	0	31 Burnside Road	Construct to standard arterial cross section with boulevard design where applicable	Constrained	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$5,850,000	0.25
1158	10504	607600 Hood Street Ped to MAX	<Null>	Unfunded	<Null>	Ped	Gresham	BikeTrailPathI	<Null>	0.25
1159	0	30 Beech Avenue	Complete street	<Null>	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$353,400	0.25
1161	0	23 Division Street	Construct to standard arterial cross section and to boulevard cross section, where applicable	Unconstrained	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$1,990,179	0.25
1162	0	29 Cleveland Avenue	Construct to minor arterial cross section	Unconstrained	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$13,838,103	0.25
1163	0	26 Cleveland Avenue	Construct to standard collector cross section	Constrained	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$3,980,000	0.25
1166	0 32c	Hogan Road - Phase 3	Construct to major arterial cross section	Constrained	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$17,191,272	0.5
1167	0 32b	Hogan Road - Phase 2	Widen to major arterial cross section, construct sidewalks and planter strips	Constrained	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$11,595,863	0.25
1168	0	32 Hogan Road Corridor	Construct to major arterial cross section	Constrained	Corridor with pr	Bike/Ped	Gresham	TSP_Corridor:	\$69,302,529	0.25
1169	0	608800 Missing Bicycle Lanes	<Null>	Unfunded	<Null>	Bike/Ped	Gresham	BikeTrailPathI	<Null>	0.25
1181	0	36 1st Street	Construct to standard collector cross section	<Null>	20 year	Bike/Ped	Gresham	TSP_Corridor:	\$1,160,000	1
1182	10429	35 Powell Valley Road	Construct to standard arterial cross section	Constrained	50 year	Bike/Ped	Gresham	TSP_Corridor:	\$5,294,917	1
1190	10422	33 Division Street	Construct to minor arterial cross section	Unconstrained	50 year	Bike/Ped	Gresham	TSP_Corridor:	\$3,945,711	1
1191	0	609100 Division St., Kane Dr. to UGB	<Null>	Unfunded	<Null>	Bike/Ped	Gresham	BikeTrailPathI	<Null>	1

PD ID	RTP_ID	Project Name	Budget Status	Mode	Source Agency	Dist. to PD Routes (mi)
1	no	Powell Blvd Safety Project	Pending OTC Approval	Ped/Bike	ODOT	0
2	no	20s Bikeways	Funded	Ped/Bike	Portland	0
4	no	SE 82nd Ave & SE Stark St	unfunded	Ped/Bike	ODOT/Metro	1
5	no	SE 82nd Ave & SE Washington St	unfunded	Ped/Bike	ODOT/Metro	1
6	no	East Portland in Motion (EPIM)	Pending OTC Approval	Ped/Bike	<Null>	0.5
7	no	SE 82nd Ave & SE Division St	unfunded	Ped/Bike	ODOT/Metro	0
11	no	PD Corridor Safety & Access to Transit	Pending OTC Approval	Ped/Bike	ODOT	0
12	no	SE Division St & SE 101st Ave	unfunded	Ped/Bike	ODOT/Metro	0
16	no	SE Division St & SE 110th Ave	unfunded	Ped/Bike	ODOT/Metro	0
21	no	SE 122nd Ave & SE Clinton St	unfunded	Ped/Bike	ODOT/Metro	0.25
22	no	SE 122nd Ave & SE Tibbetts St	unfunded	Ped/Bike	ODOT/Metro	0.5
23	no	East Portland in Motion (EPIM)	Funded	Ped/Bike	Portland	0
24	no	new	unfunded	Ped/Bike	Portland	0.25
25	no	OPBP	unfunded	Street	Portland	0.25
26	no	new	unfunded	Street	Portland	0.25
27	no	East Portland Access to Transit (EPAT)	Funded	Ped/Bike	Portland	0
28	no	Far SE PMSP	unfunded	Ped/Bike	Portland	0.25
29	no	Far SE PMSP	unfunded	Street	Portland	0.25
30	no	OPBP	unfunded	Ped/Bike	Portland	0.25
32	no	SE Division St & SE 152nd Ave	unfunded	Ped/Bike	ODOT/Metro	0
34	no	SE 162nd Ave & SE Salmon St	unfunded	Ped/Bike	Portland	1
36	no	197th Street Ped to MAX	unfunded	Ped	Gresham	1
37	no	City Hall Ped to MAX TIF	unfunded	Ped	Gresham	0.25
38	11074	SW Walters Road Springwater Trail Access	unfunded	Ped/Bike	Gresham	1
39	no	Cleveland Station PED to MAX TIF	unfunded	Ped	Gresham	0.25
40	no	ODOT walk projects		Ped	Portland	0

Next Steps

In the next phase of the project, there are several steps involved for the selection of walkway projects to be included with the transit project or prioritized to be funded by other sources:

1. Refinement of model and interpretation of outputs to inform project selection
2. Refinement and vetting of project inventory
3. Application of additional screening criteria for project prioritization: equity, safety, funding, etc.
4. Release of design options of the transit project to inform pedestrian project selection
5. Continuation of engagement effort with public and standing committees/associations to get recommendations for projects and feedback on process

Appendix 1: Creation of the Pedestrian Network Model

Note that the follow section contains excerpts from Scott Parker and Ellen Vanderslice’s article “Pedestrian Network Analysis” that describes the methodology used for creating the pedestrian network for this analysis. View the entire article here:

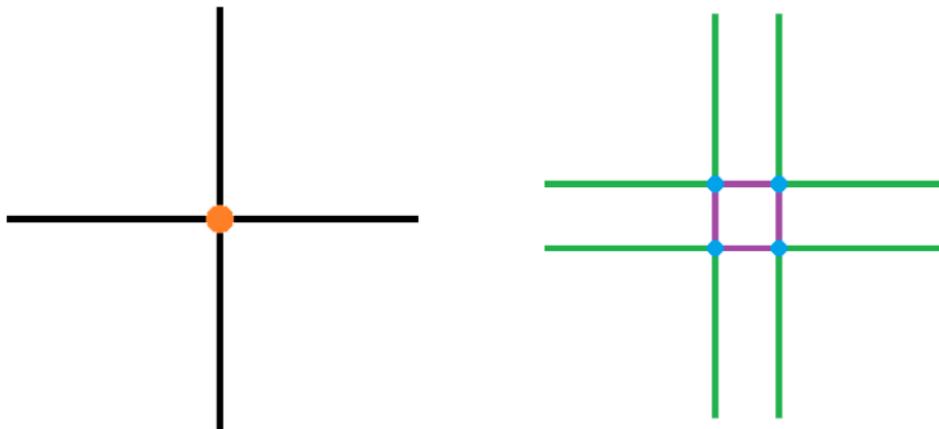
[http://www.walk21.com/papers/608_Parker%20and%20Vanderslice_Pedestrian%20Network%20Analysis\[1\].pdf](http://www.walk21.com/papers/608_Parker%20and%20Vanderslice_Pedestrian%20Network%20Analysis[1].pdf)

Integral to the analysis of the existing conditions of the pedestrian environment and future analysis of pedestrian projects is the creation of a robust, topologically correct network model capable of reflecting traffic conditions and sidewalk presence. The street centerline network traditionally used for transportation analysis does not reflect crosswalks or each side of the street (sidewalks), so new tools developed by Scott Parker and Ellen Vanderslice were used to make a more accurate pedestrian network that better reflects the walking environment. Special purpose GIS tools make it possible for planners to create and analyze the walkway network. These tools make it easier to determine what facility improvements are most likely to lead to more walking in a neighborhood.

Many types of analysis may be done, including: individual shortest-effective-distance walking routes, quality scores, network utilization by segment, service areas, surfaces of difference, and slope shaded maps that highlight improvement opportunities.

The walkway network is different from the street network. It is typically different in construction, with narrower facilities, no lanes, and no traffic control of its own. It is also different in topology, and that is important for analysis of a transportation network.

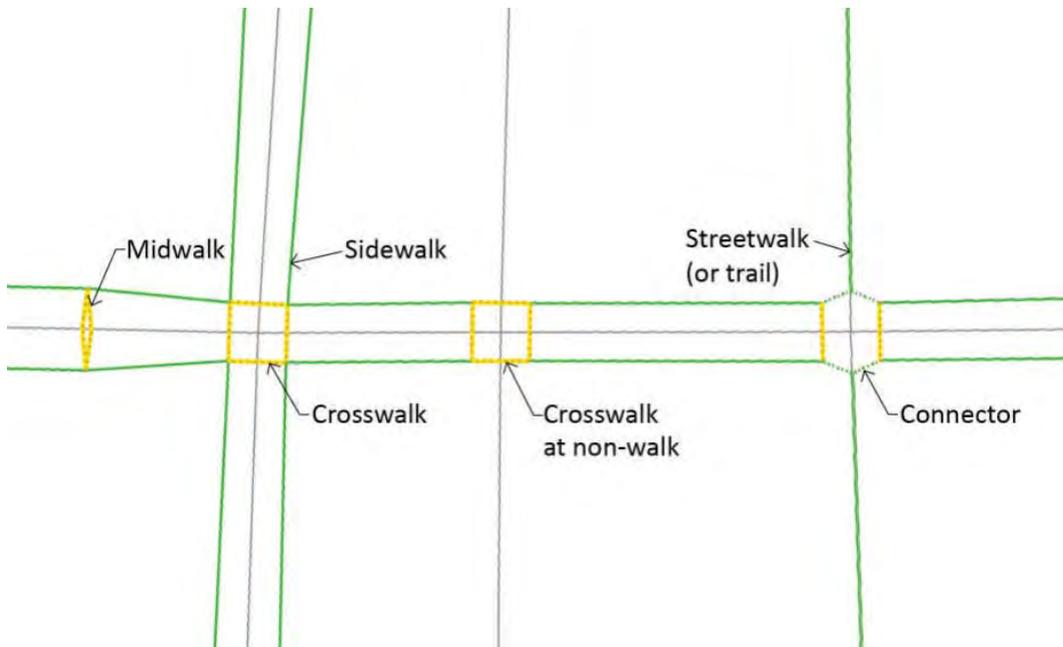
Street network intersection (left) compared to walkway network intersection (right)



Use of the street network distorts all types of network analysis of walking trips. The real pedestrian barriers can’t be considered if the walkway model doesn’t include both sides of the street and the street crossings. Using the street network discounts both street crossing and gaps in pedestrian facilities. If walking trips are analyzed on the street centerline network rather than the walkway network, the results will be dominated by the cost of distance (and possibly the quality of the walkway facility) rather than the cost of traffic at crossings.

In places where there is no physical walkway present, it is necessary to understand the difference between a walkway corridor that has no facility and a place that has no walkway corridor. Examples of walkway corridors without walkway facilities include an undeveloped street right-of-way or a rural road without sidewalks. Such places can be modeled in the walkway network as line segments with infinitely high impedance. A limited access highway is an example of a roadway with no walkway corridor. Even roadways with no walkway corridor, such as the ramps to a limited access highway, may need to be modeled in the walkway network if pedestrians must cross them.

Sidewalks go from corner to corner between intersections and have left and right side cases. Crosswalks go from corner to corner at the same street intersection. Midwalks represent mid-block crosswalks. They are a particular case of crosswalks that go from walkway corner to walkway corner, but not at a street intersection. Streetwalks represent local streets where traffic volumes are low, it doesn't matter which side of the street you're on, and crossing the street is easy. Within the network model, streetwalks and off-street trails are modeled in the same way. They connect to street centerline nodes, and they don't have a left and right side. Connectors are necessary where there are sidewalks and streetwalks joining at the same street intersection. They connect a walkway corner to a street centerline node.



Below is an example of the walkway network in downtown Gresham created for the Powell-Division corridor:



Weighting the Spatial Pedestrian Network

For this analysis, levels of pedestrian access to its proposed transit stops and assists prioritizing sidewalk and cross-walk improvements were evaluated by measuring their benefit in bridging pedestrians to the transit stops.

Measuring accessibility through pedestrian network analysis requires, in part, the “weighting” of cross-walks, sidewalks, and walking paths. Weighting involves both the measure of length of cross-walk and walking segments, as much as it does in measuring time impedances experienced by the pedestrian in route to their favorite transit stop.

Incorporating time at cross-walks requires estimating the amount of time spent waiting for a sufficient gap in the traffic caused by other transportation modes to allow for a safe crossing. Imagine the time spent waiting to cross a two-lane busy street at an unmarked crossing or the time spent waiting for the light to turn green at a four-lane arterial. Both situations add significant travel time for pedestrians to reach a transit stop. Accounting for time of walking segments has to deal primarily on the condition of the path. For example, when people avoid walking or rolling on a sidewalk segment because it has not been paved or not well lit at night, they add additional time to their commute trip.

To measure the level of service of a crosswalk or walkway segment in terms of its time, minutes traveled must be captured. Establishing minutes traveled in routing analysis provides a method to measure pedestrian travel time.

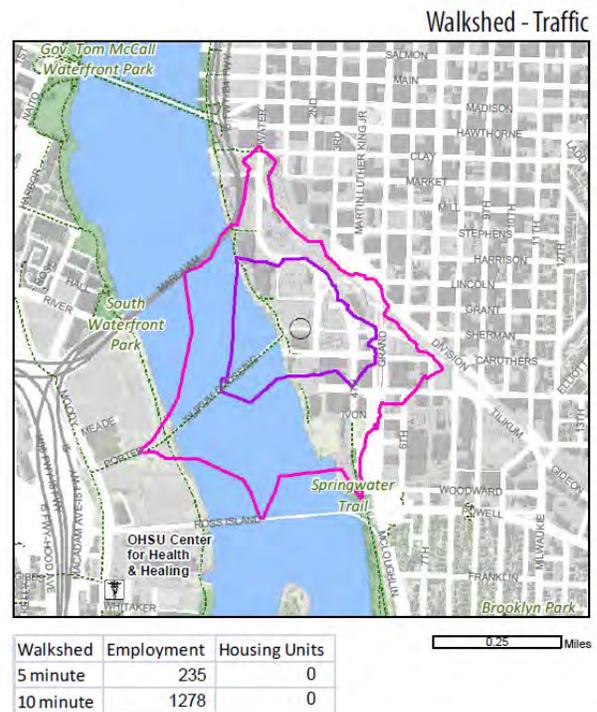
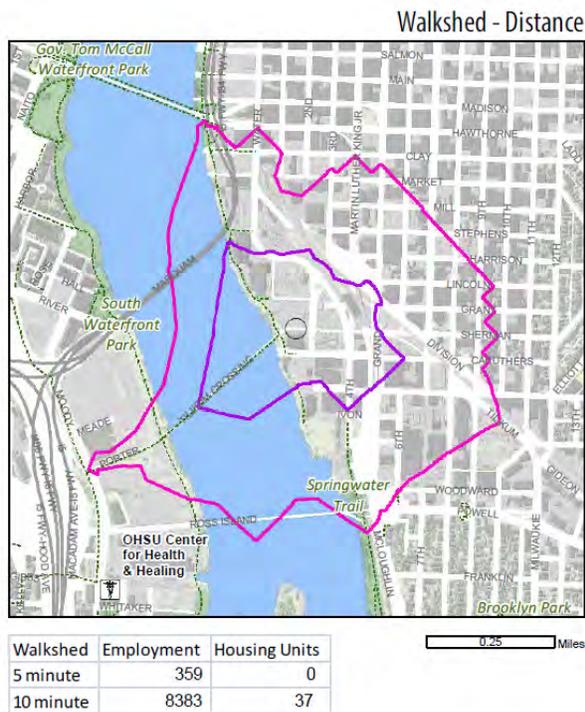
Appendix 2: Walkshed Generation Methodology

In order to analyze the deficiencies of the walking network, two types of weighting were applied: distance weighted and traffic weighted.

Distance Weighting versus Traffic Weighting

A distance weighted network can be considered the perfect scenario for the existing network that is built and in place. This is how far one could walk in a given amount of time, if they didn't have to wait at a crosswalk, every segment had a sidewalk, and there were no topographical challenges. The traffic weighted network uses the weighted described in the previous section. For example: if a pedestrian were attempting to cross Powell at a crossing where there is only a painted cross walk, this adds weight, in this case time, to that segment in the network. A 3 mile per hour average walking speed was assumed and is based on previous research.

In the examples below for a station at OMSI, the distance weighted walkshed result is smaller compared to the traffic weighted example, resulting in less housing units and employment capture by that station if one were to walk to it in ten minutes or less. There is a very stark contrast in the number of jobs reached in ten minutes using the different networks due to the fact that it takes some time (because of crossing delays at the east Tilikum bridge head) to reach the numerous jobs at South Waterfront. On the eastern side of the walkshed, more households can be reached if there were better ways to cross Division. In the next phase of analysis, crossing projects, such as rapid flash beacons, that would decrease the time it would take to cross an arterial like Division will be rated in terms of the increased access to/from households and employment for a particular station.



Limitations: In this example, while the walkshed on the left does capture employment in South Waterfront, the analysis won't perfectly reflect reality. The pedestrian would need to, in this case, walk to the west end of the bridge, get off the bridge and turn back east to reach the building with the job. This is not well reflected in this approach due to the "bleeding" effect of the walkshed generation (the pedestrian could not stray very far from the bridge!), but the results are useful relative to themselves – deficiencies will be highlighted and building a particular project could very well address that deficiency (it is just a model, after all).

Appendix I is a complete map book reflecting every station with a report detailing the schools and grocery stores that can be reached by that station and how long it would take to reach the station

Data sources use in this analysis:

Households – these estimates were derived using point data acquired from the assessor data and vetted by Metro's Data Resource Center in 2010. There is one point for every tax lot with a dwelling unit estimate for each.

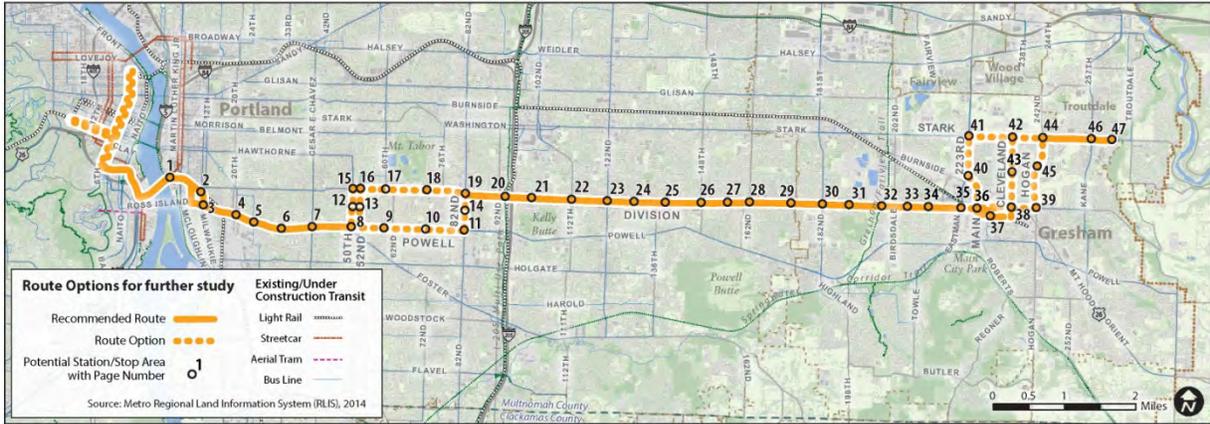
Employment – these estimates were derived using a dataset acquired from ESRI's Business Analyst base data which is based on data provided by InfoUSA, a company that specializes in business related data for the use of marketing and economic strategy. Data are from 2010.

Map Background and places: Metro's 2015 Regional Land Information System (RLIS)

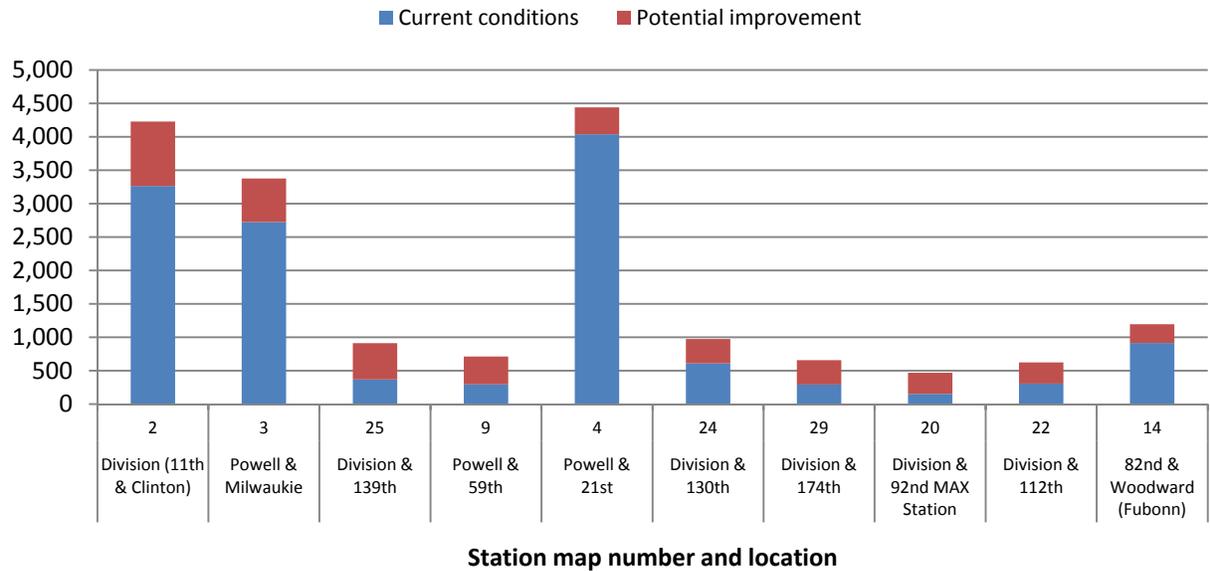
Appendix 3: Initial Outputs

What we have learned so far

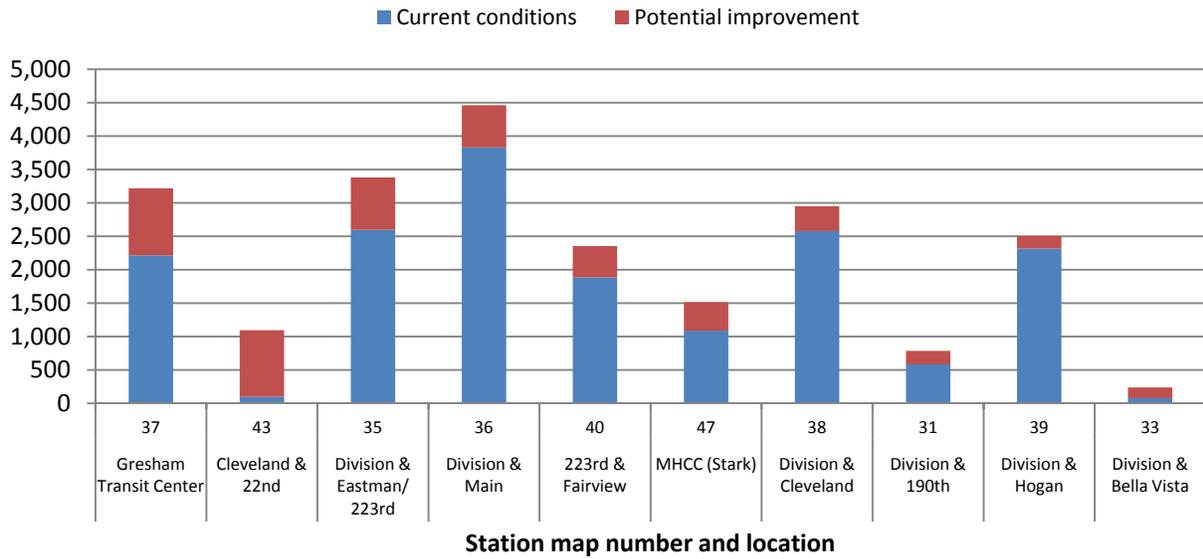
Comparing the modeled travel time without traffic to the travel time with traffic provides information on where traffic management improvements could potentially improve pedestrian access to and from employment and housing to transit. The graphs below depict the top ten stations in Portland and Gresham with the largest deltas based on the distance versus traffic weighted networks for households and employment, which indicates there may be potential for improvement. The stations are arranged in the order of greatest change from left to right. The map number corresponds to the index map below:



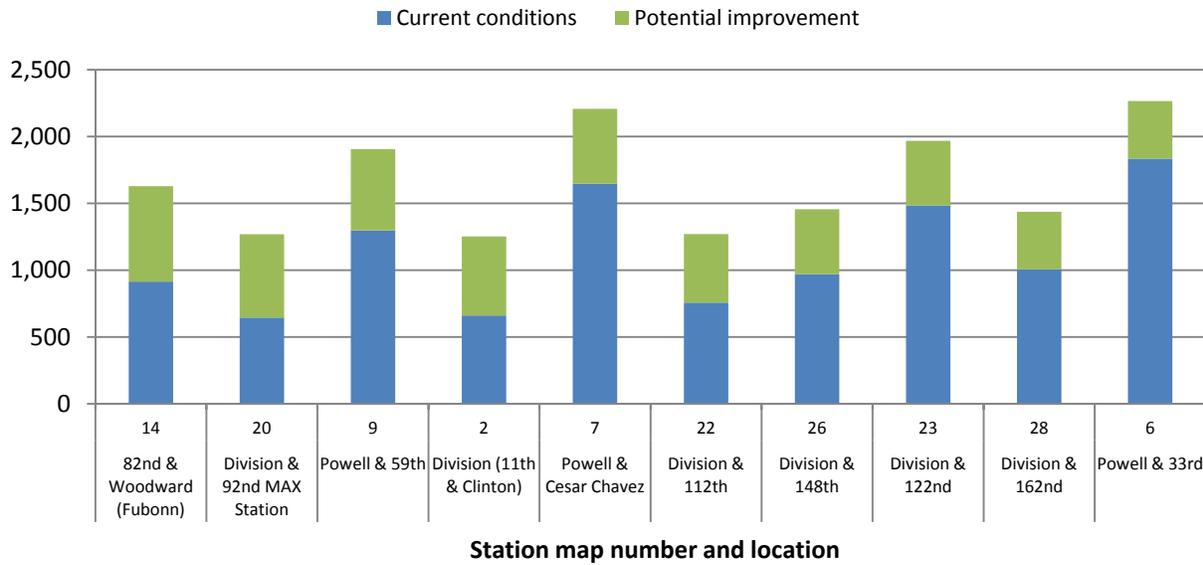
Portland employment: promising station locations for improving pedestrian access



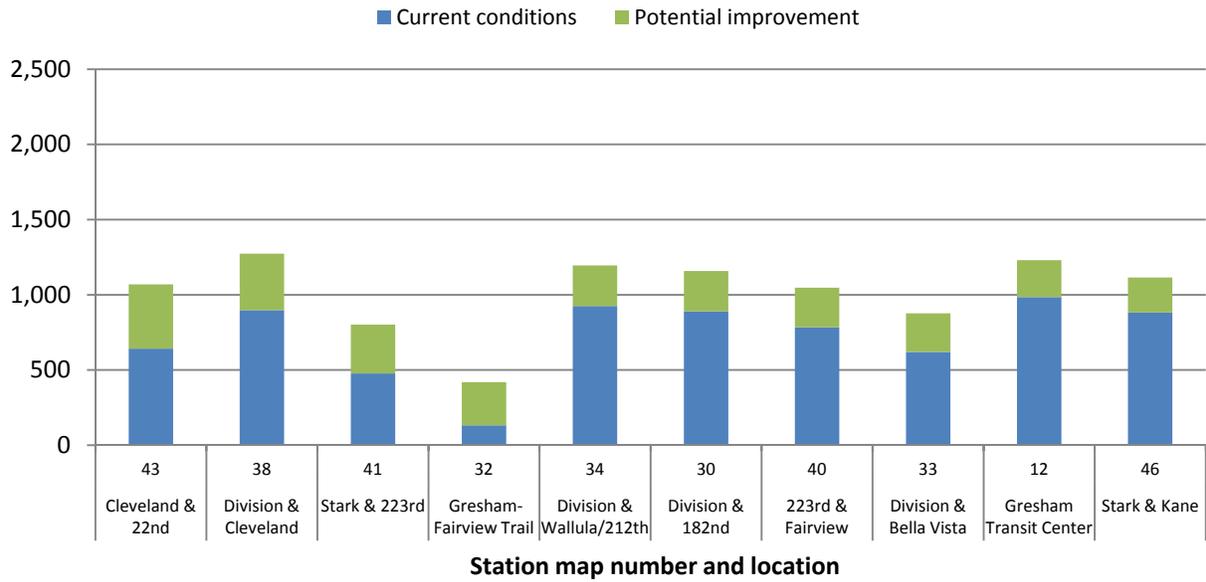
Gresham employment : promising station locations for improving pedestrian access



Portland households: promising station locations for improving pedestrian access

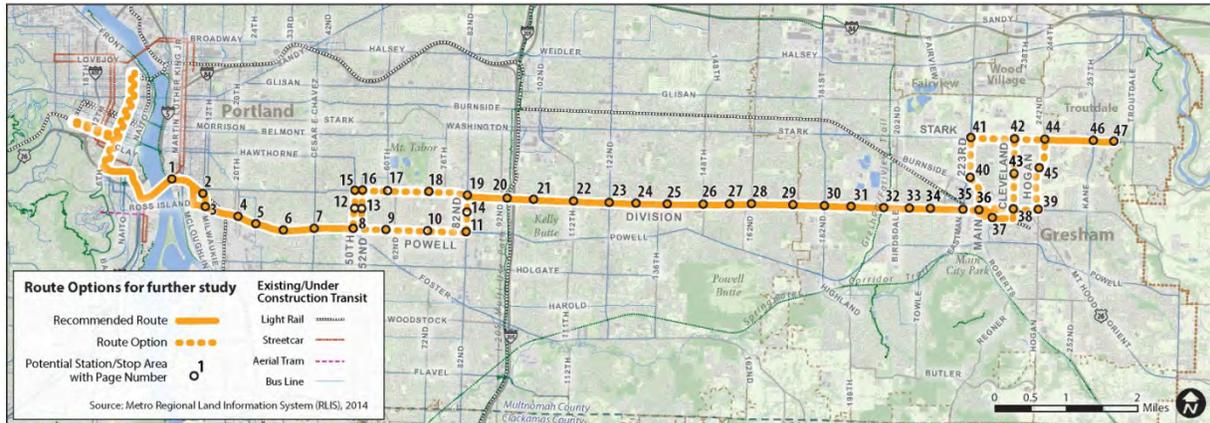


Gresham households: promising station locations for improving pedestrian access

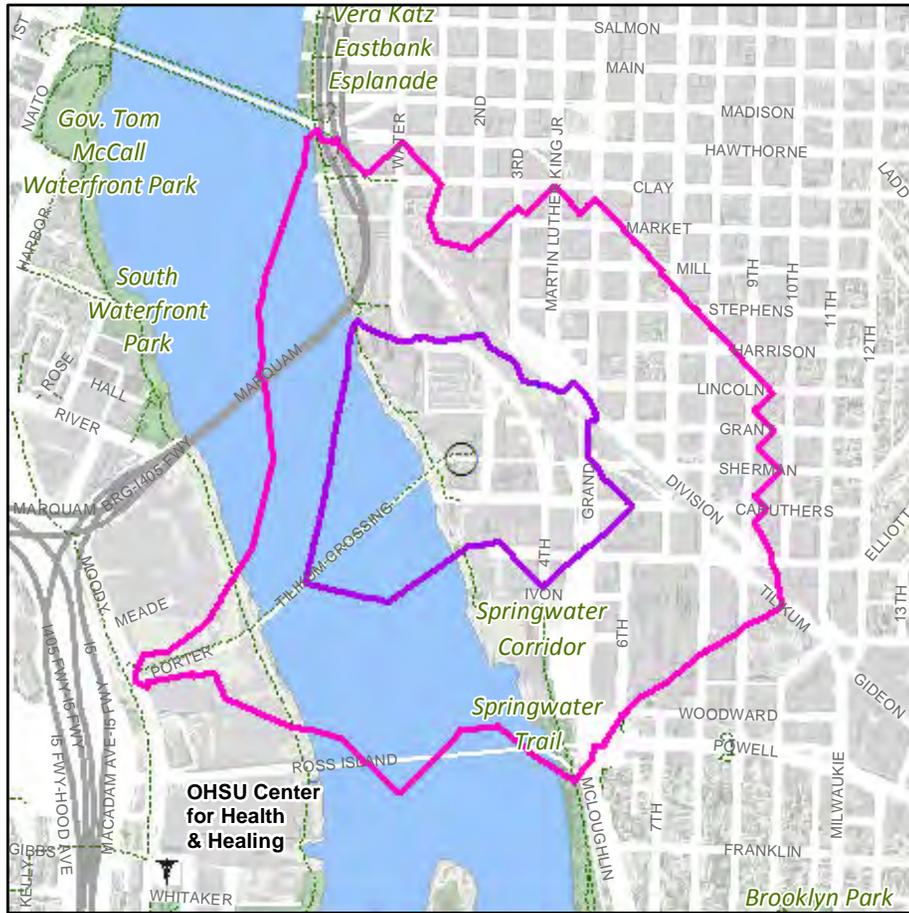


Walkshed Comparison Maps

The following section illustrates the distance and traffic weighted walksheds for each potential station location analyzed. The map below is a key to locate the page for a specific station.



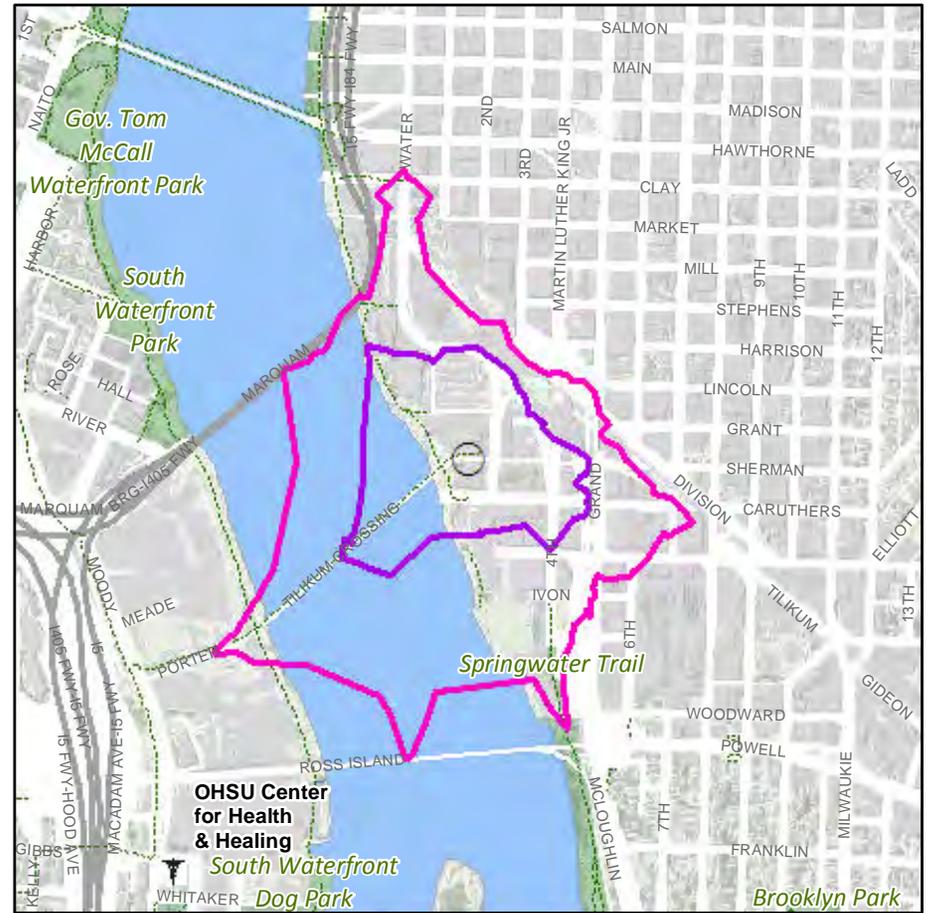
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	359	0
10 minute	8383	37

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	235	0
10 minute	1278	0

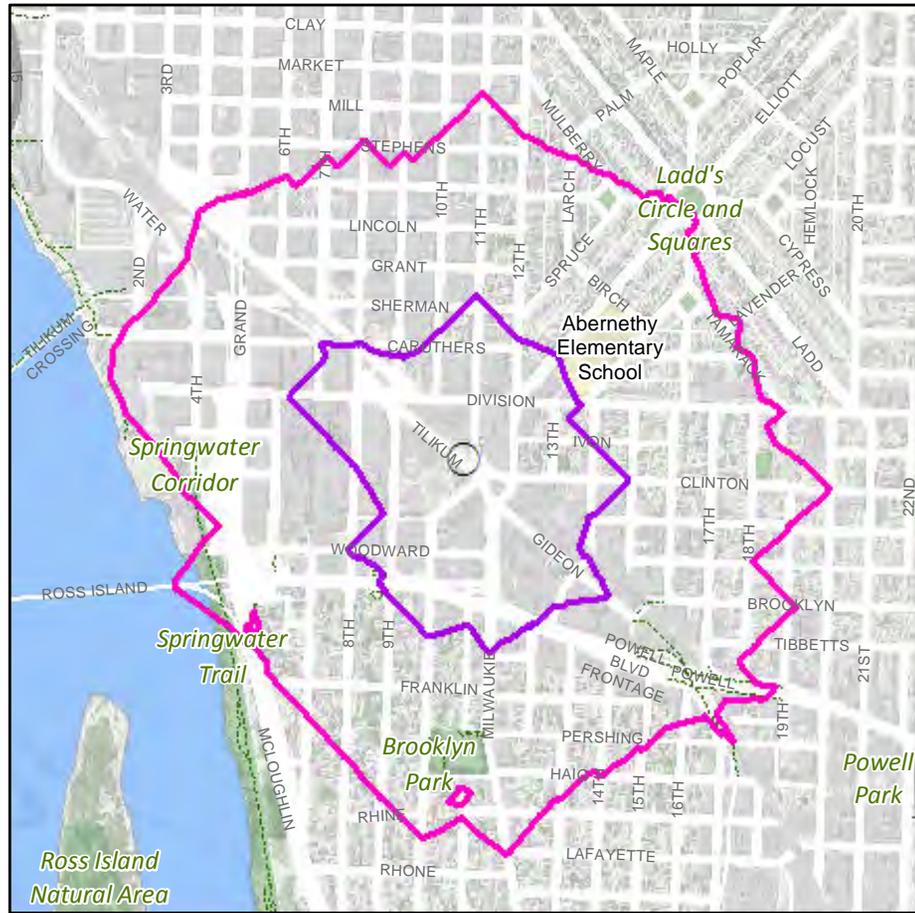
0.25 Miles

-  Station
-  5 minute walkshed
-  10 minute walkshed
-  Community Center
-  Employment
-  Hospital
-  Library
-  School
-  Parks and/or Natural Areas
-  Cemeteries
-  Golf Courses
-  School Lands

Division (11th & Clinton)

Map 2

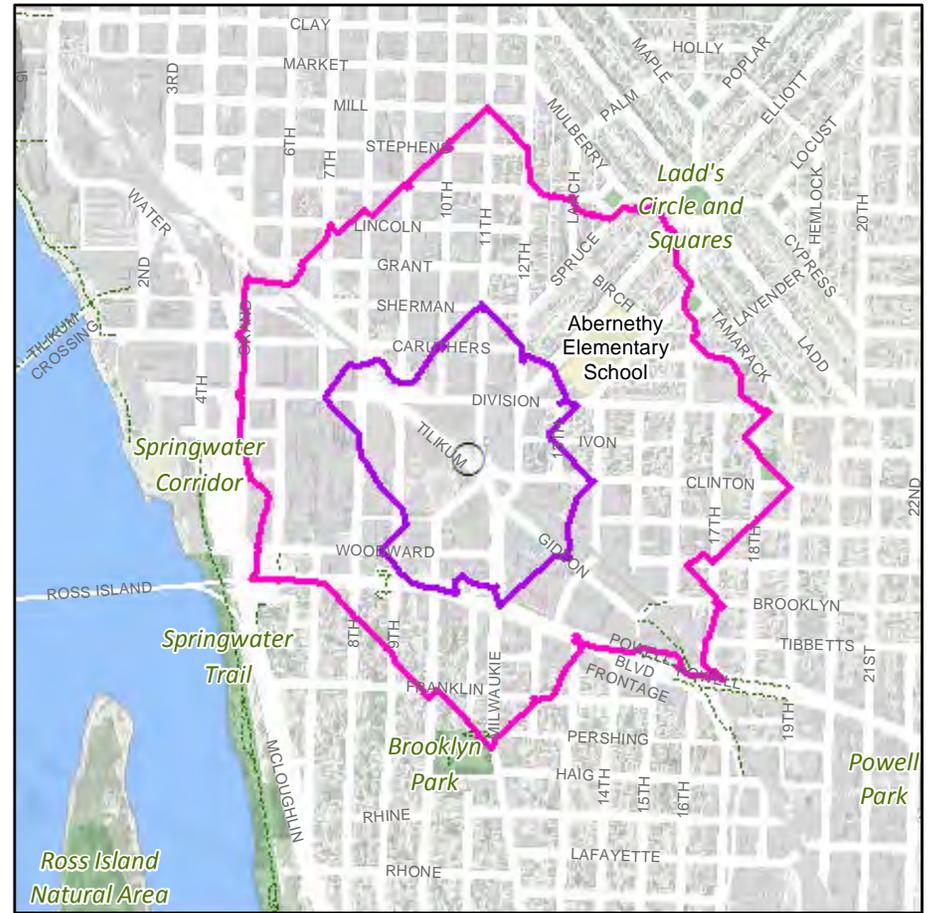
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	1659	90
10 minute	4229	1252

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	1009	53
10 minute	3265	661

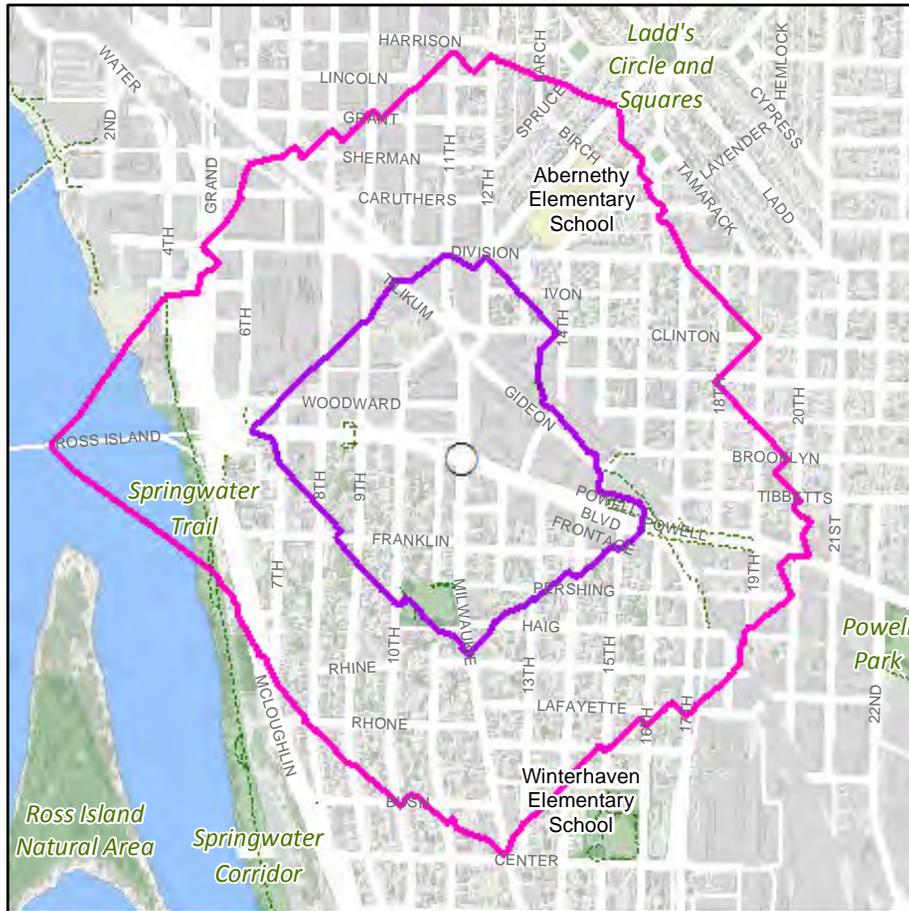
0.25 Miles

- Station
- Community Center
- Parks and/or Natural Areas
- 5 minute walkshed
- Employment
- Cemeteries
- 10 minute walkshed
- Hospital
- Golf Courses
- Library
- School Lands
- School

Powell & Milwaukie

Map 3

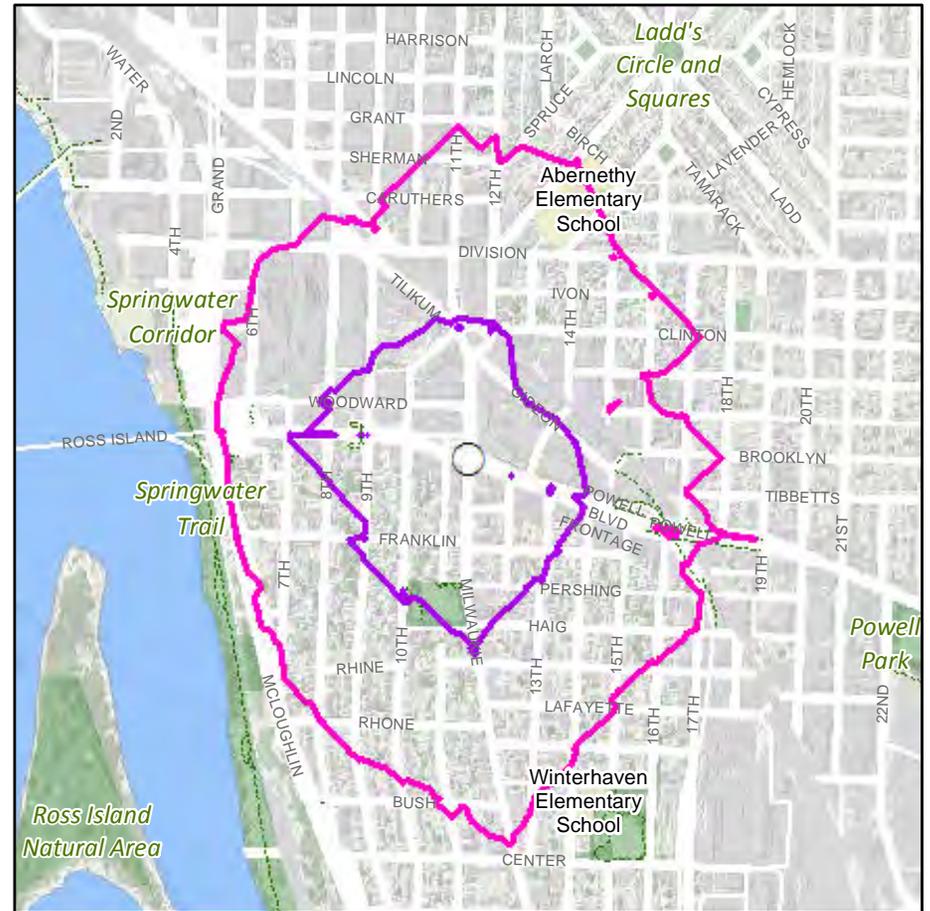
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	1469	244
10 minute	3375	1507

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	1032	184
10 minute	2725	1090

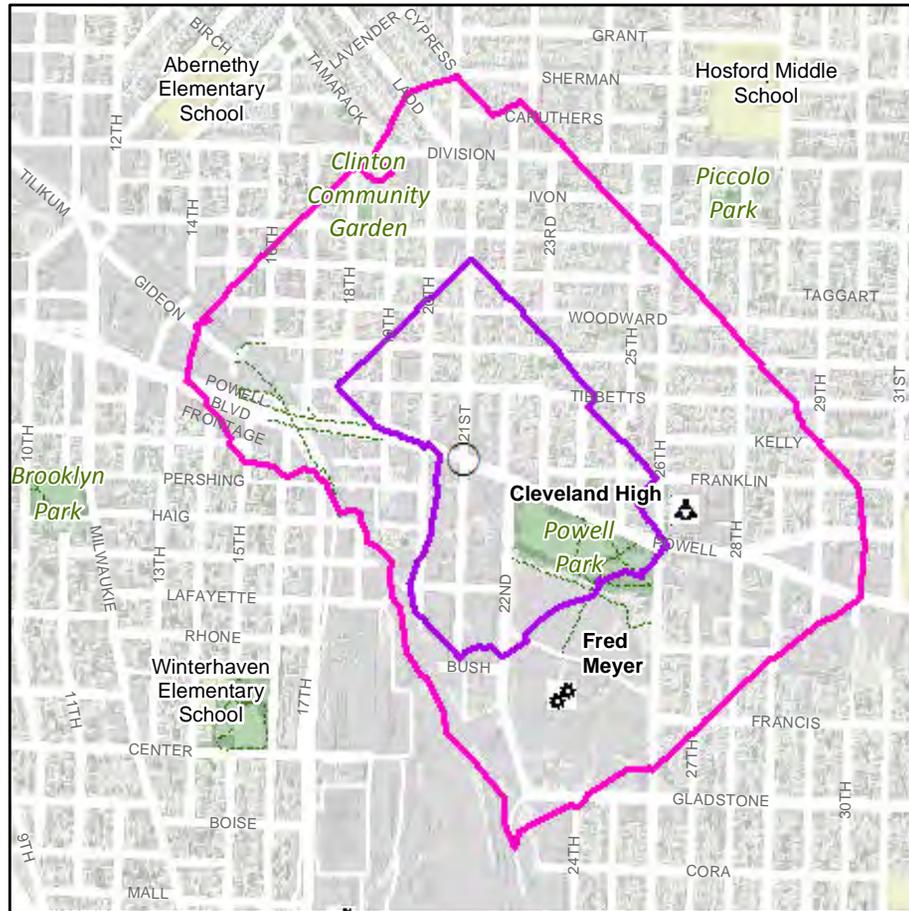
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Powell & 21st

Map 4

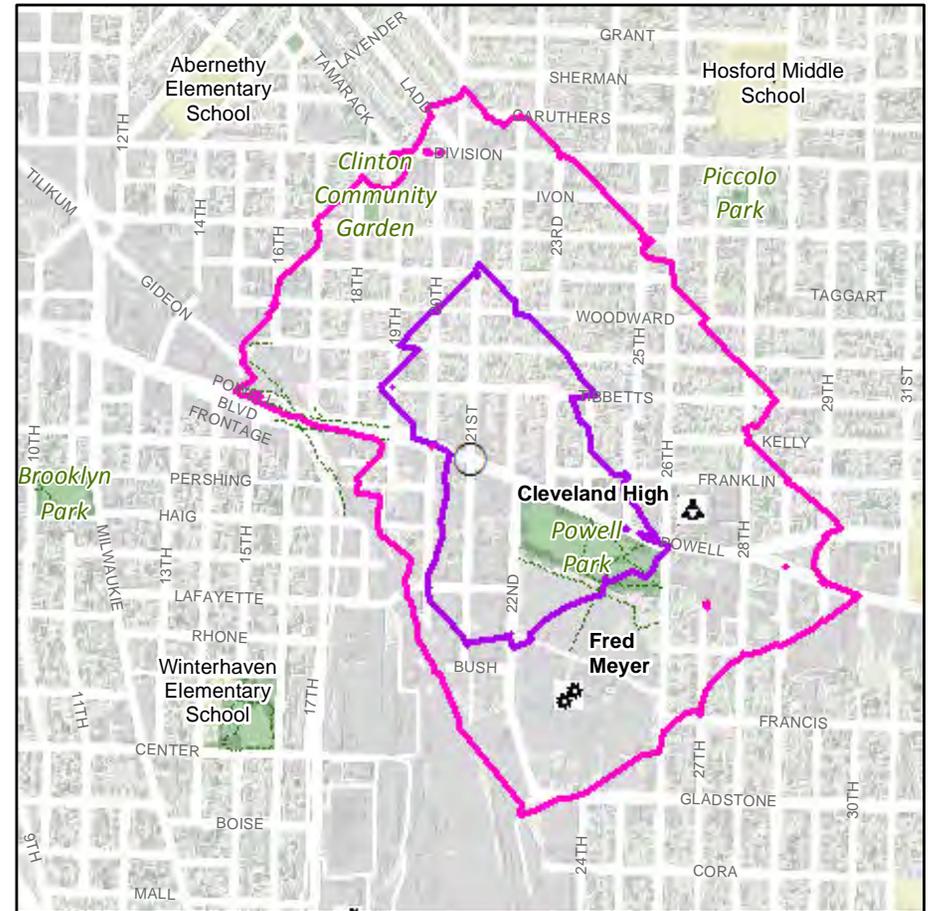
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	599	320
10 minute	4440	1460

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	581	274
10 minute	4037	1130

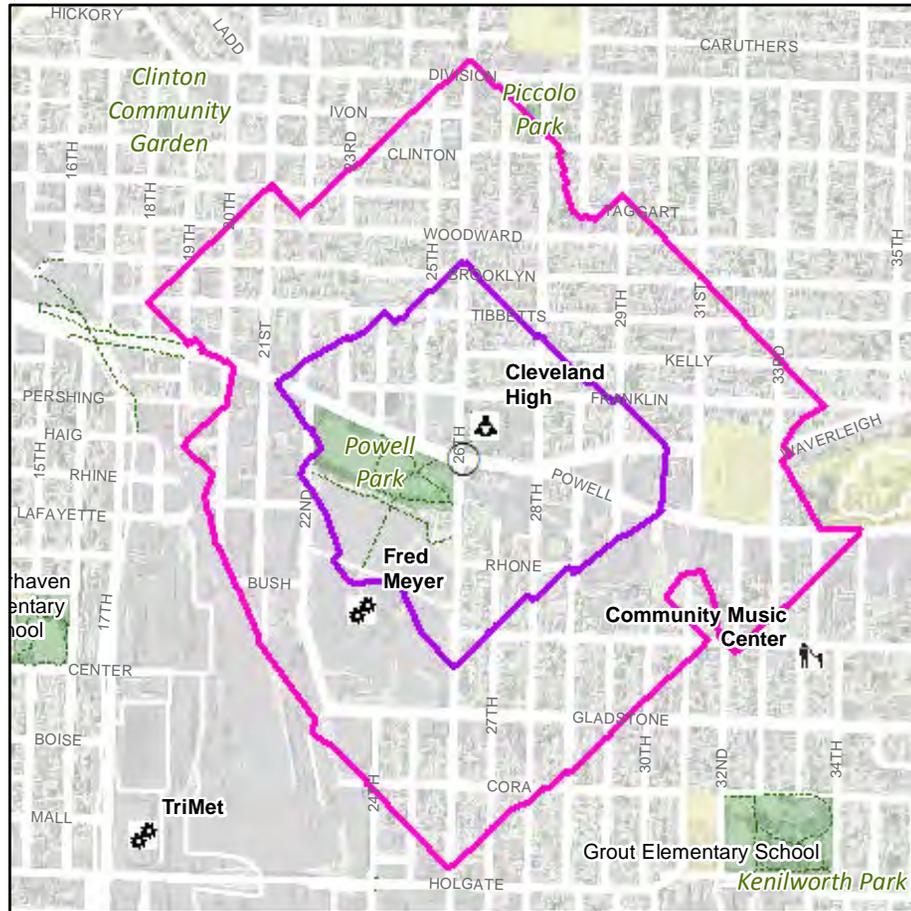
0.25 Miles

- Station
- 5 minute walkshed
- 10 minute walkshed
- 👤 Community Center
- 🏢 Employment
- 🏥 Hospital
- 📖 Library
- 🎓 School
- 🌳 Parks and/or Natural Areas
- 🏘 Cemeteries
- 🏌 Golf Courses
- 🏫 School Lands

Powell & 26th

Map 5

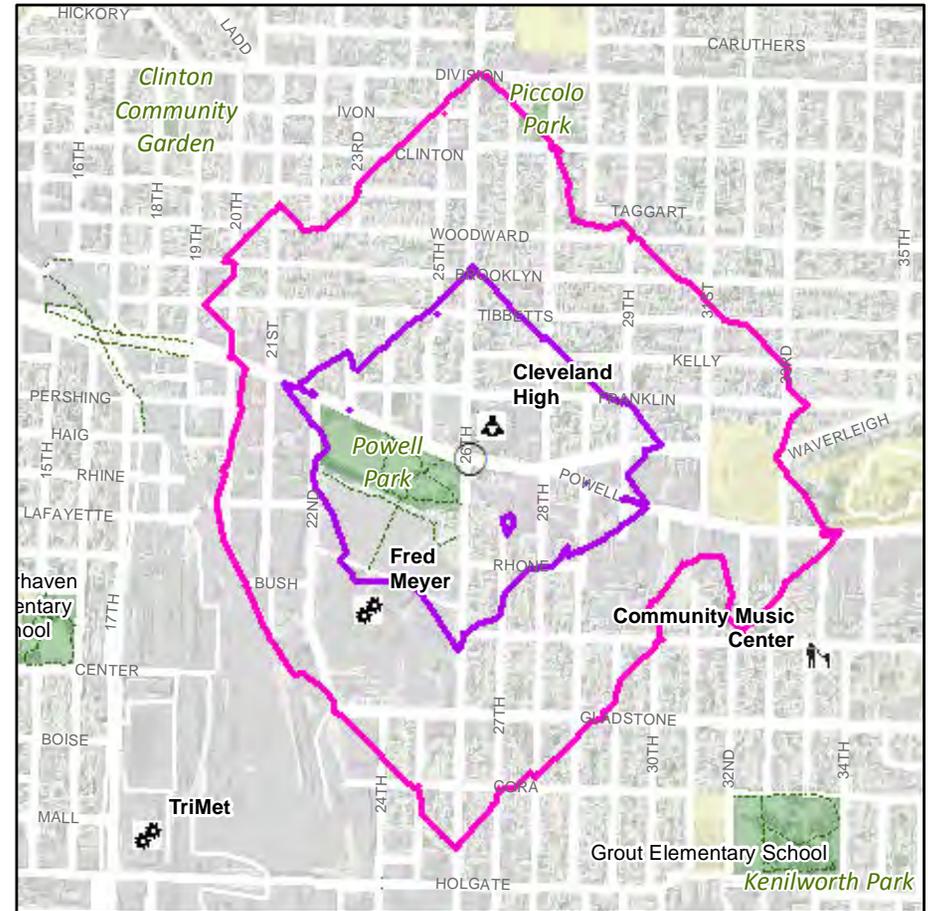
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	410	493
10 minute	3622	1841

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	378	362
10 minute	3464	1528

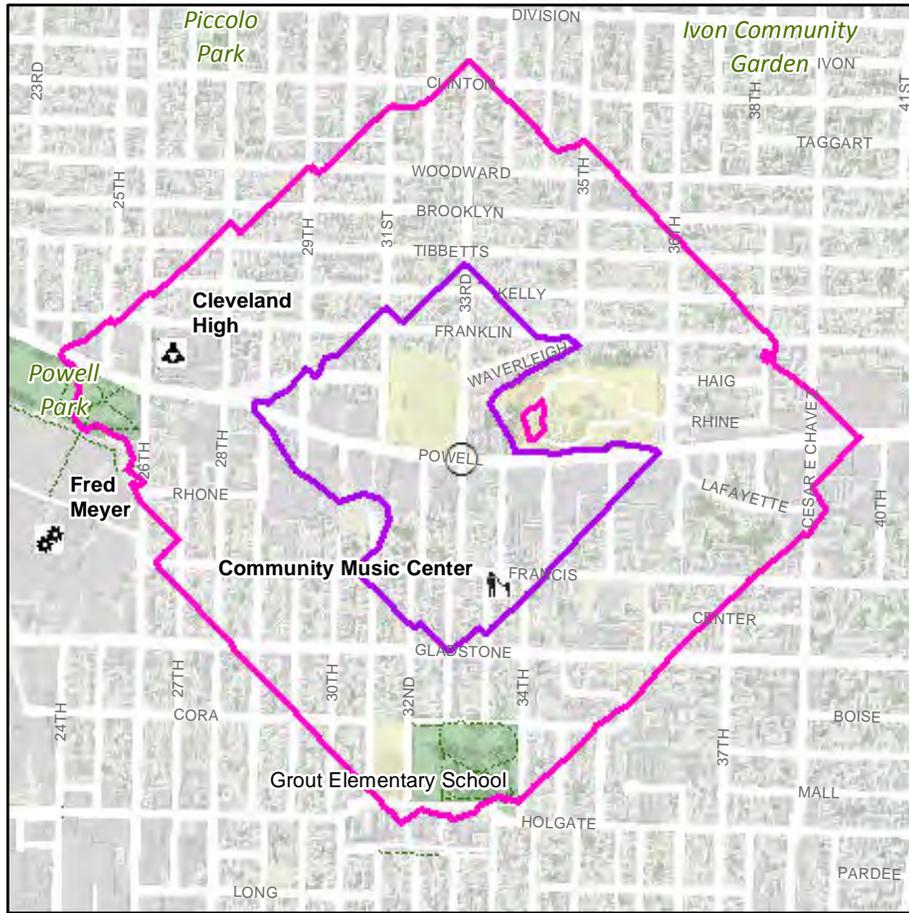
0.25 Miles

-  Station
-  5 minute walkshed
-  10 minute walkshed
-  Community Center
-  Employment
-  Hospital
-  Library
-  School
-  Parks and/or Natural Areas
-  Cemeteries
-  Golf Courses
-  School Lands

Powell & 33rd

Map 6

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	483	442
10 minute	1490	2265

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	457	371
10 minute	1269	1835

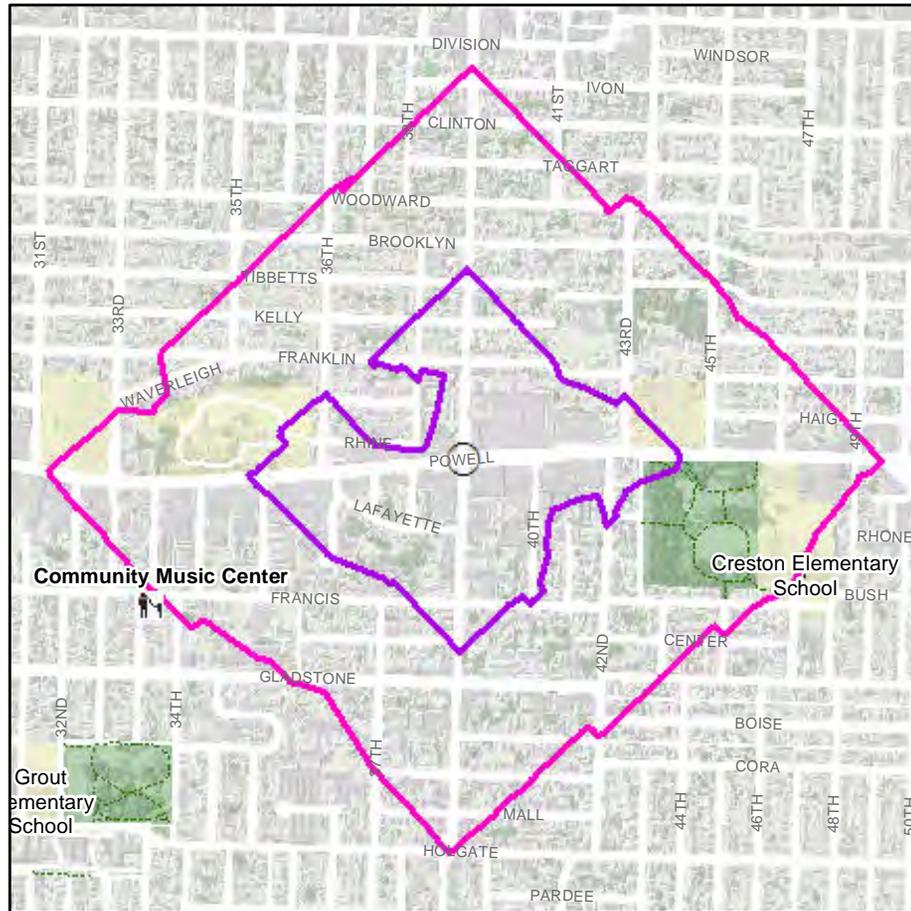
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Powell & Cesar Chavez

Map 7

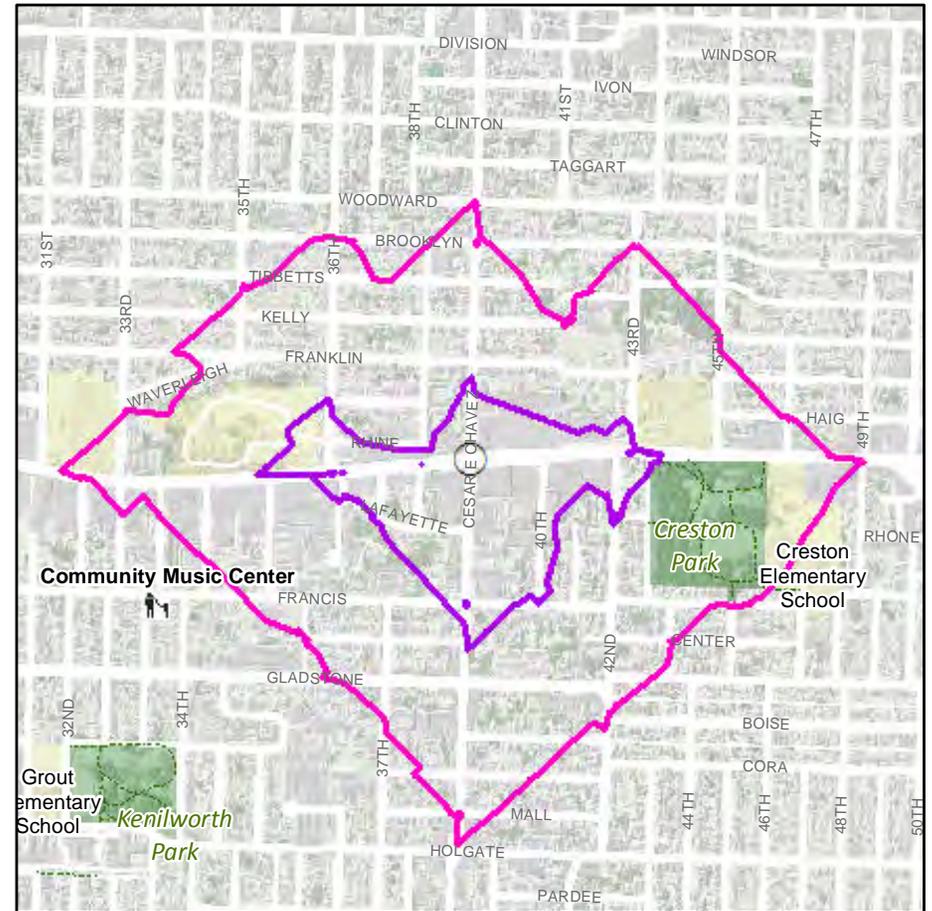
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	397	593
10 minute	1314	2207

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	340	330
10 minute	1132	1648

0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Powell & 50th

Map 8

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	702	373
10 minute	1200	1693

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	617	259
10 minute	1116	1272

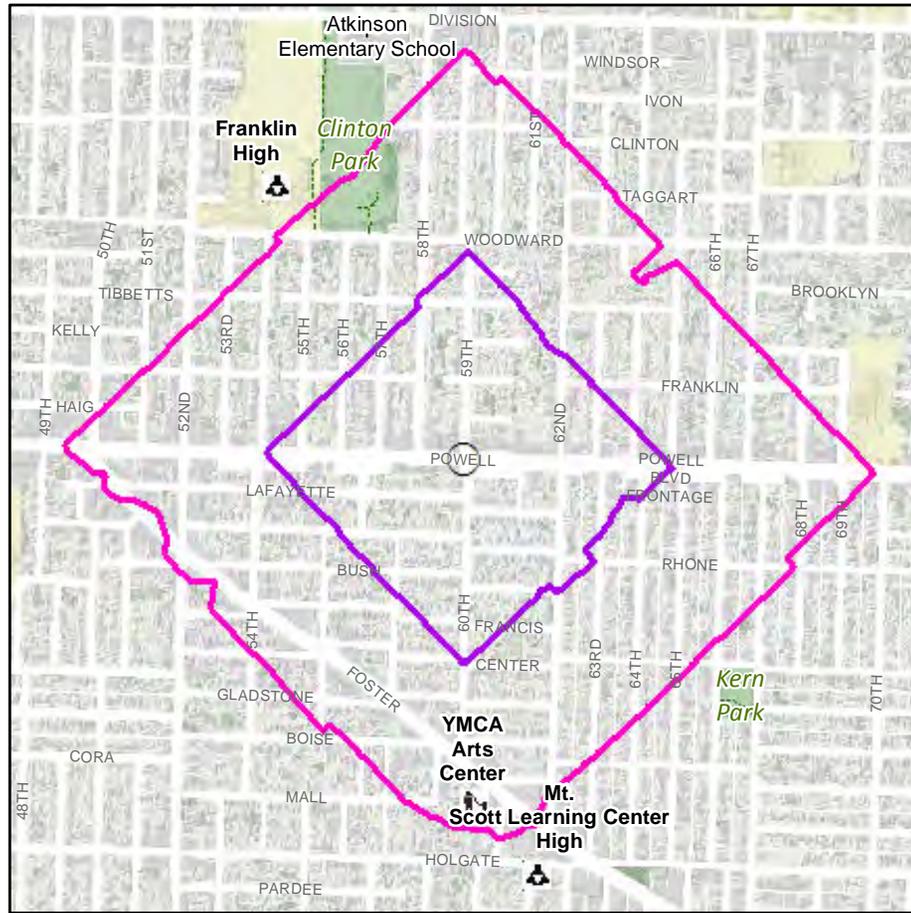
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Powell & 59th

Map 9

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	133	457
10 minute	712	1906

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	91	298
10 minute	296	1298

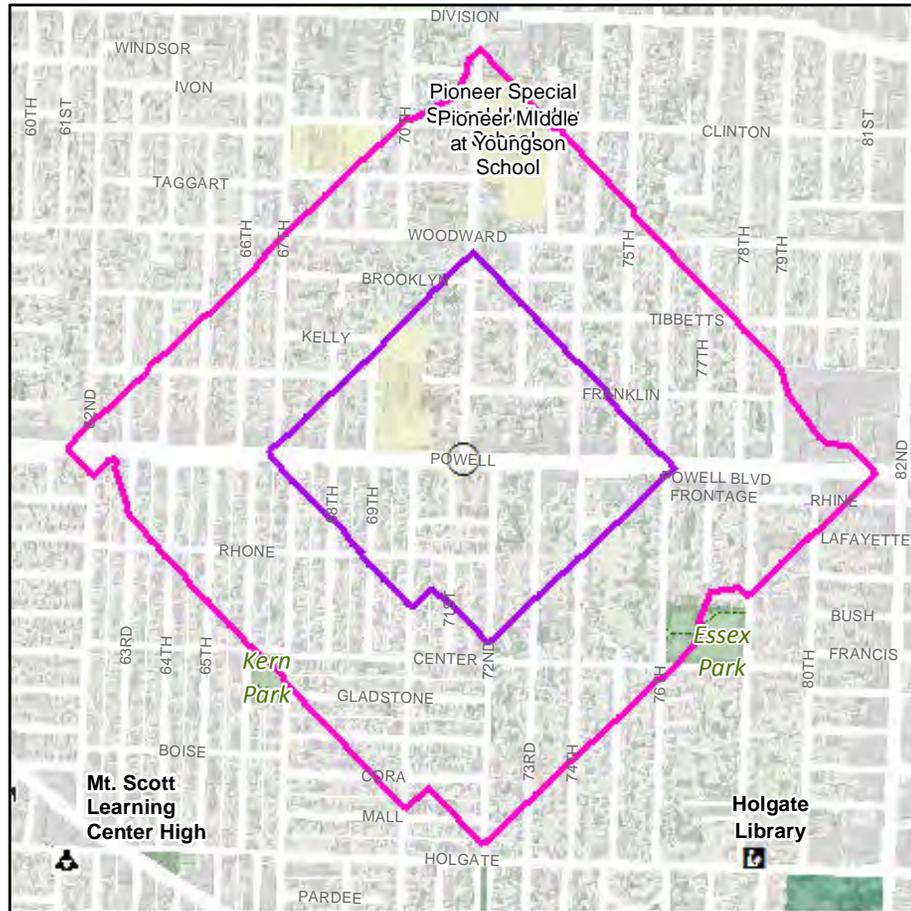
0.25 Miles

- Station
- 5 minute walkshed
- 10 minute walkshed
- Community Center
- Employment
- Hospital
- Library
- School
- Parks and/or Natural Areas
- Cemeteries
- Golf Courses
- School Lands

Powell & 71st

Map 10

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	56	459
10 minute	412	1662

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	51	383
10 minute	138	1319

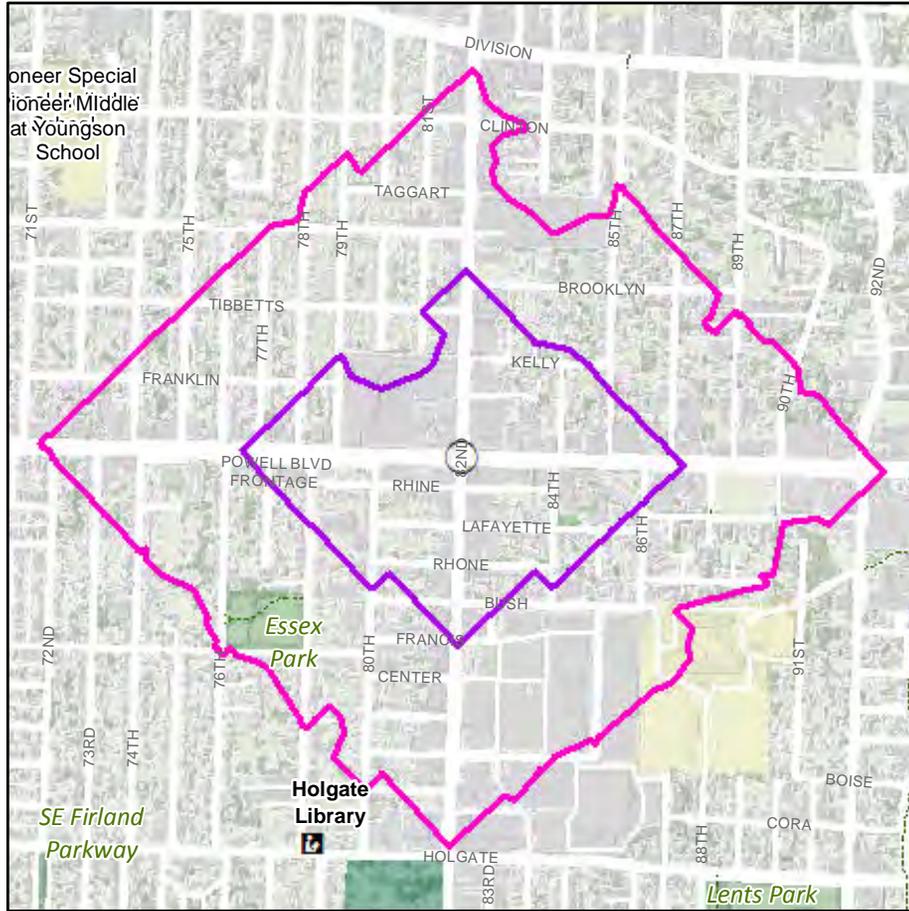
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School
-  School Lands

Powell & 82nd

Map 11

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	750	494
10 minute	1405	1691

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	537	400
10 minute	1334	1347

0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

50th & Woodward

Map 12

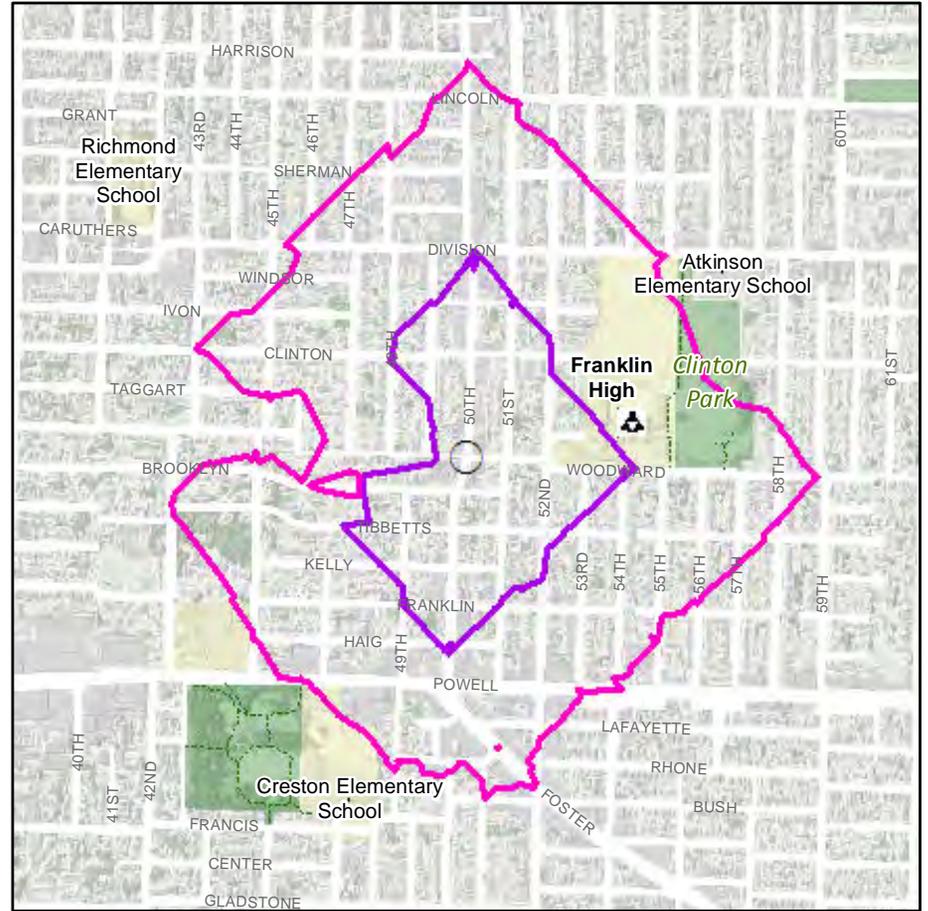
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	144	433
10 minute	1189	1587

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	138	347
10 minute	1024	1342

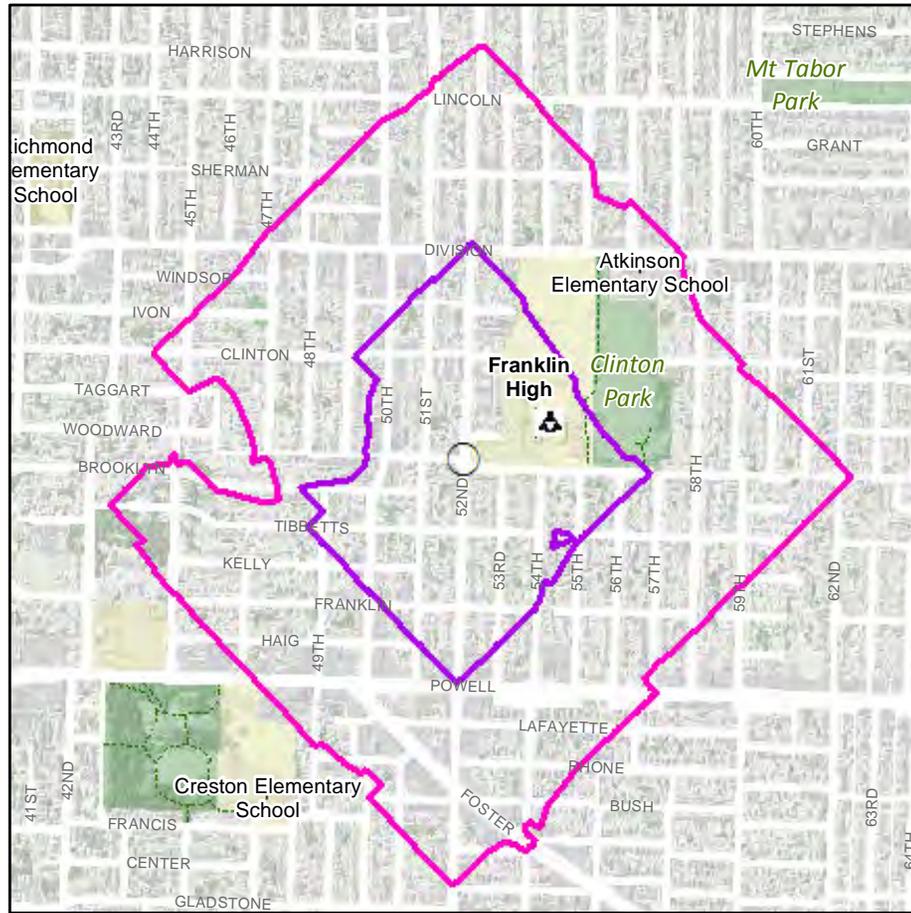
0.25 Miles

- Station
- 5 minute walkshed
- 10 minute walkshed
- 🏠 Community Center
- 🏢 Employment
- 🏥 Hospital
- 📖 Library
- 🎓 School
- 🌳 Parks and/or Natural Areas
- ⚰ Cemeteries
- 🏌 Golf Courses
- 🎓 School Lands

52nd & Woodward (Franklin High School)

Map 13

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	201	446
10 minute	1165	1700

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	183	375
10 minute	928	1284

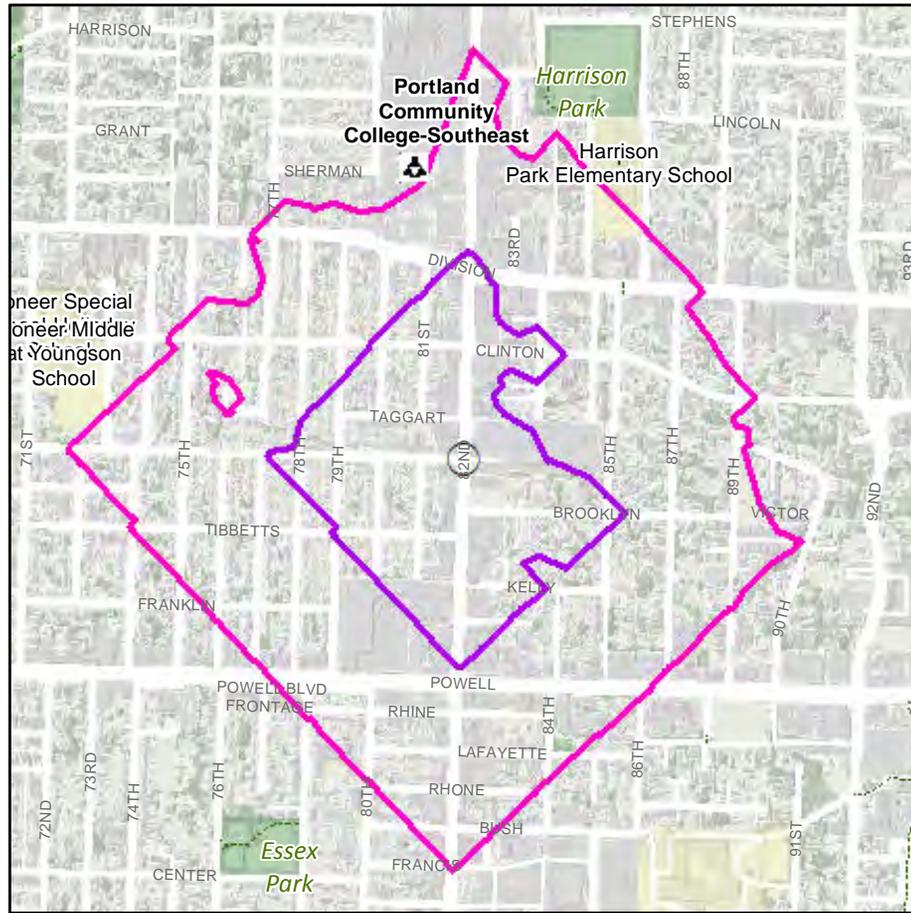
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

82nd & Woodward (Fubonn)

Map 14

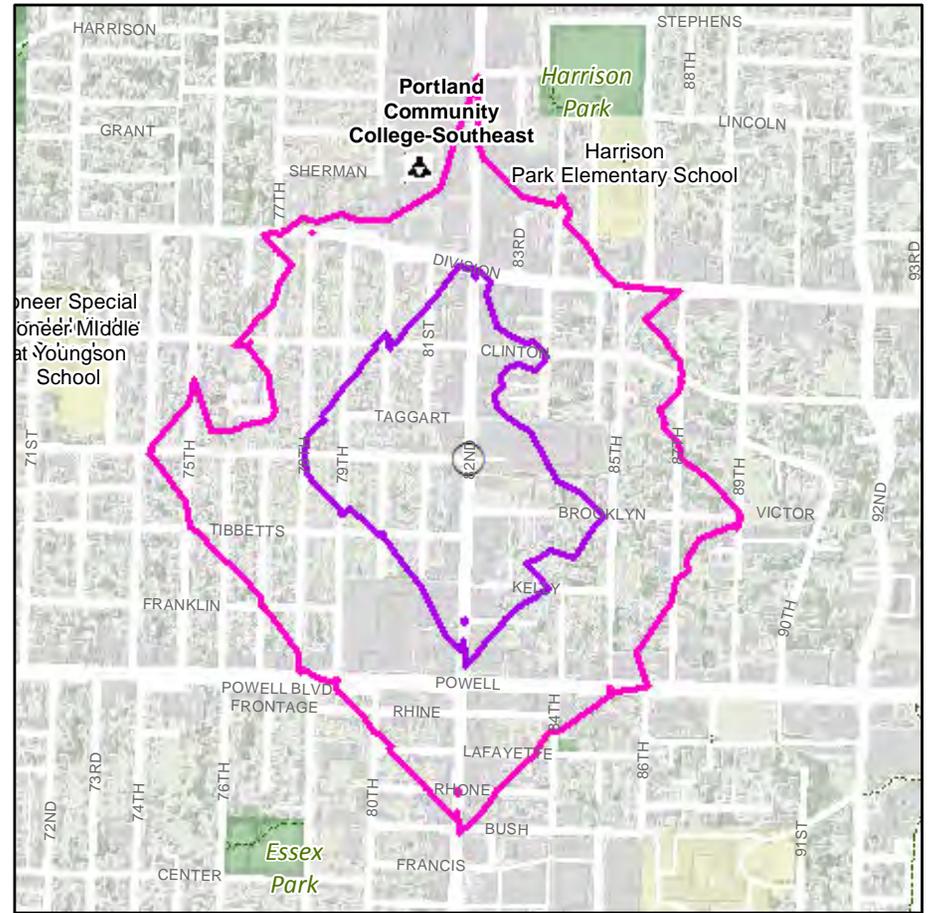
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	282	322
10 minute	1195	1628

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	182	268
10 minute	914	915

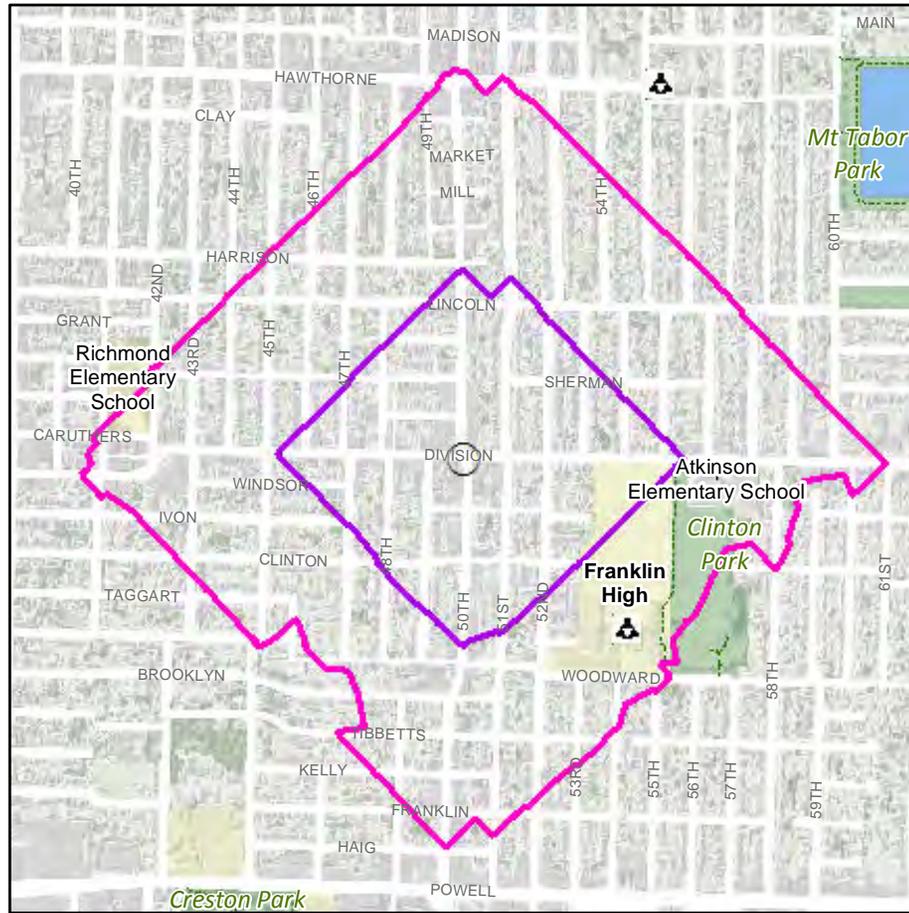
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 50th

Map 15

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	263	529
10 minute	801	1906

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	237	470
10 minute	742	1721

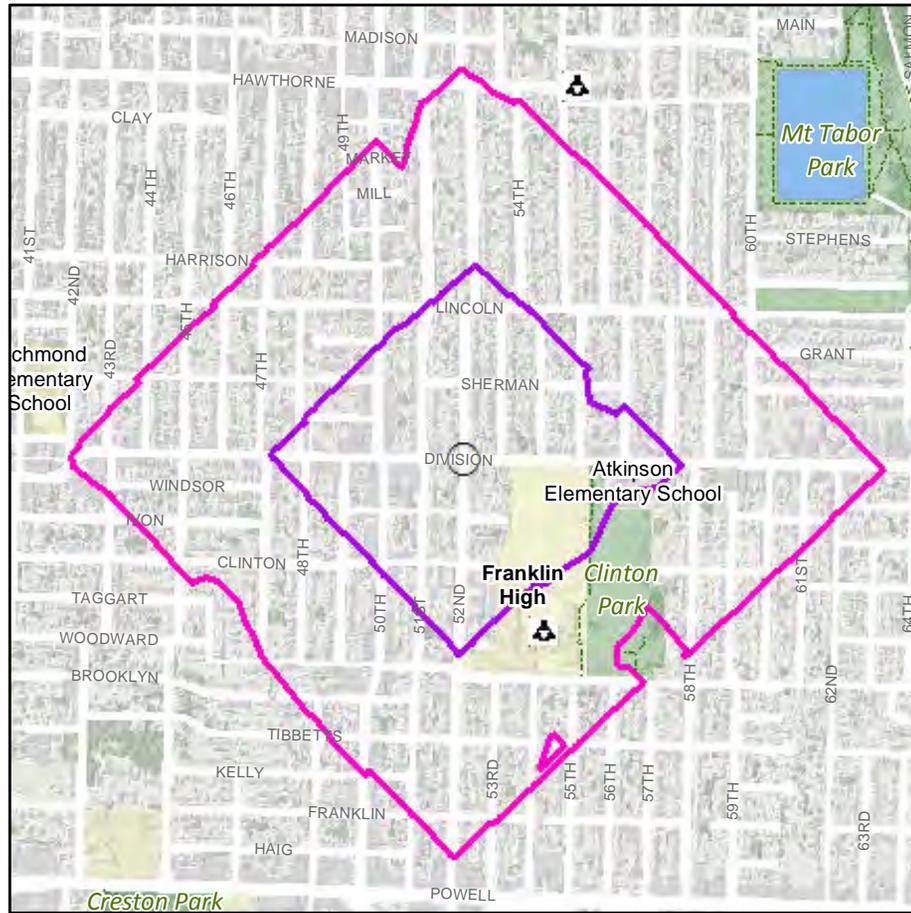
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 52nd

Map 16

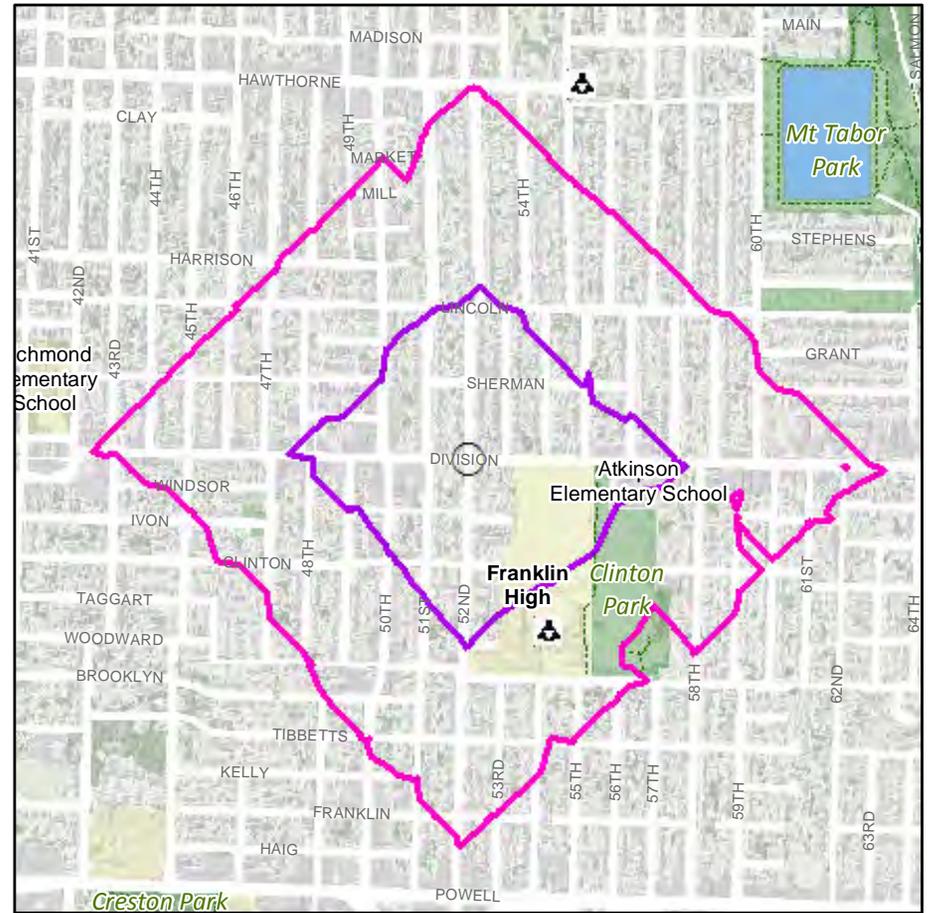
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	403	473
10 minute	727	1952

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	361	417
10 minute	701	1752

0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 60th

Map 17

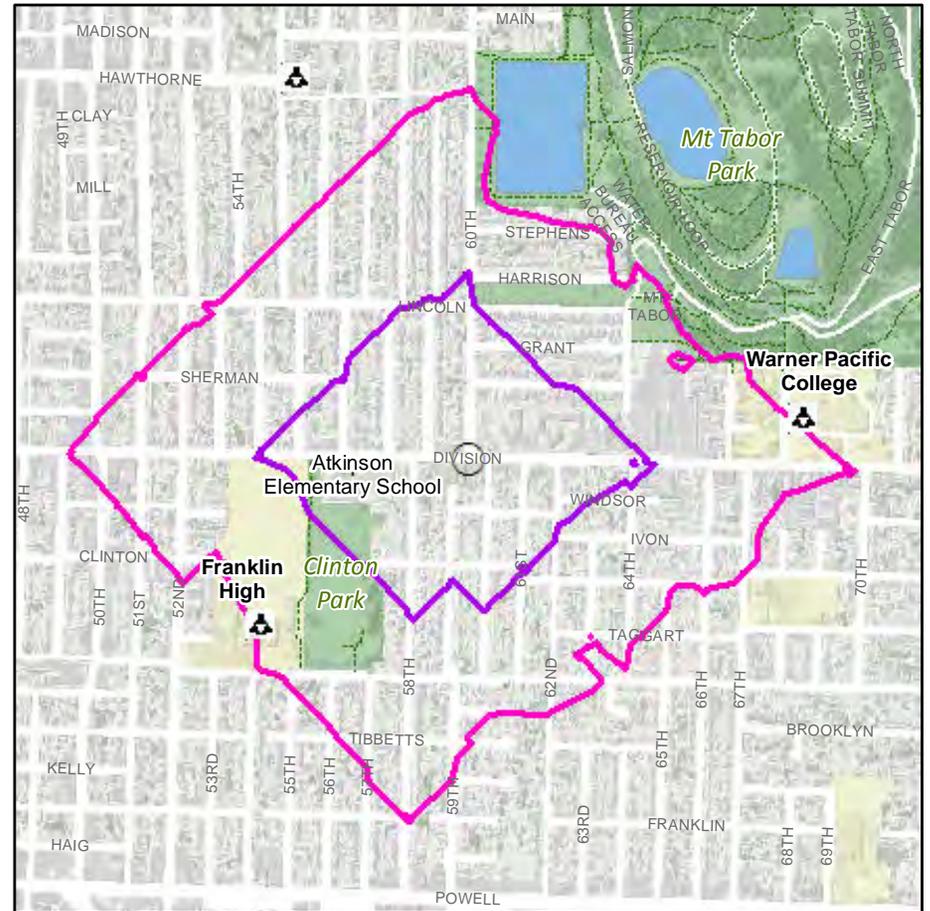
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	177	535
10 minute	687	1698

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	177	475
10 minute	644	1519

0.25 Miles

-  Station
-  5 minute walkshed
-  10 minute walkshed
-  Community Center
-  Employment
-  Hospital
-  Library
-  School
-  Parks and/or Natural Areas
-  Cemeteries
-  Golf Courses
-  School Lands

Division & 71st

Map 18

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	41	385
10 minute	480	1460

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	36	342
10 minute	458	1276

0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 82nd

Map 19

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	364	325
10 minute	1043	1538

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	267	139
10 minute	985	1163

0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 92nd MAX Station

Map 20

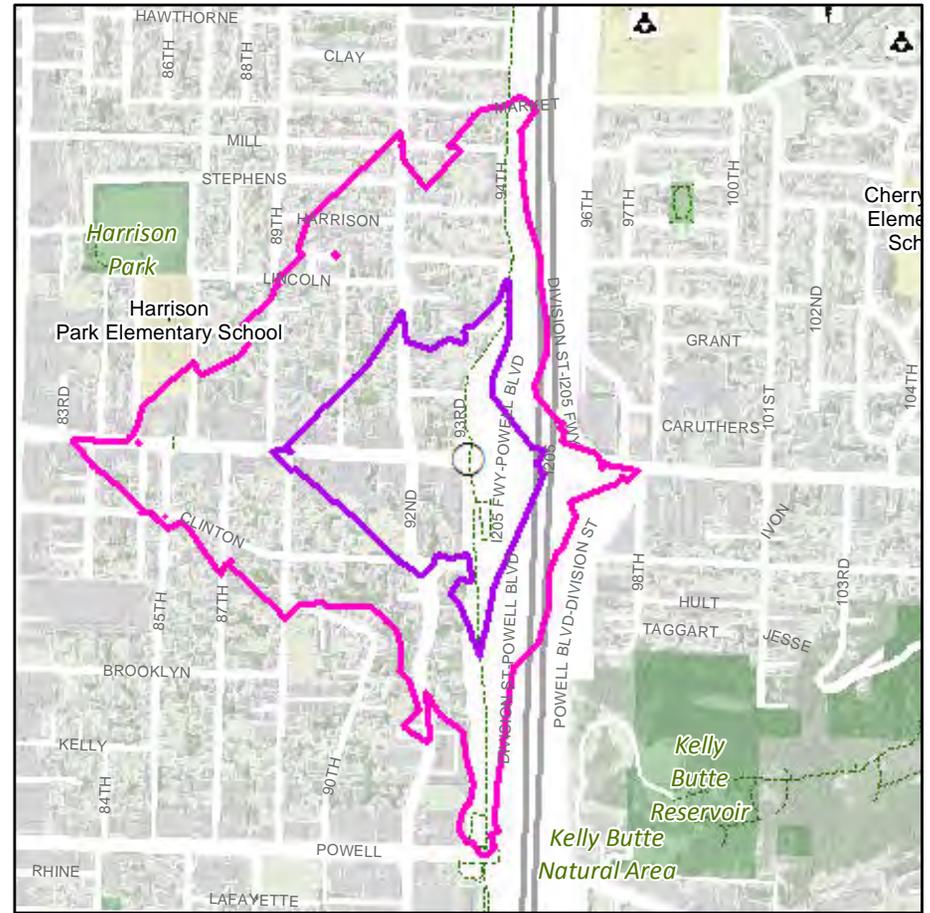
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	70	204
10 minute	471	1269

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	63	132
10 minute	154	645

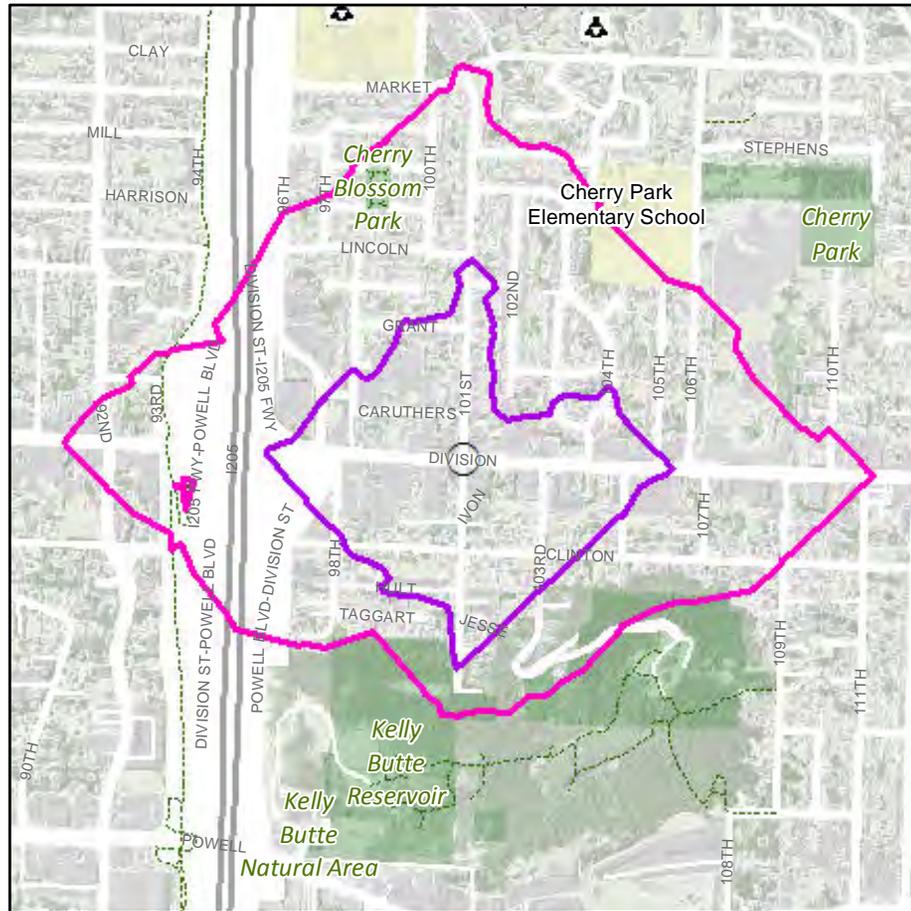
0.25 Miles

- Station
- Community Center
- Parks and/or Natural Areas
- 5 minute walkshed
- Employment
- Cemeteries
- 10 minute walkshed
- Hospital
- Golf Courses
- Library
- School Lands
- School

Division & 101st

Map 21

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	242	241
10 minute	414	906

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	235	188
10 minute	350	709

0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 112th

Map 22

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	175	372
10 minute	625	1270

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	143	265
10 minute	309	758

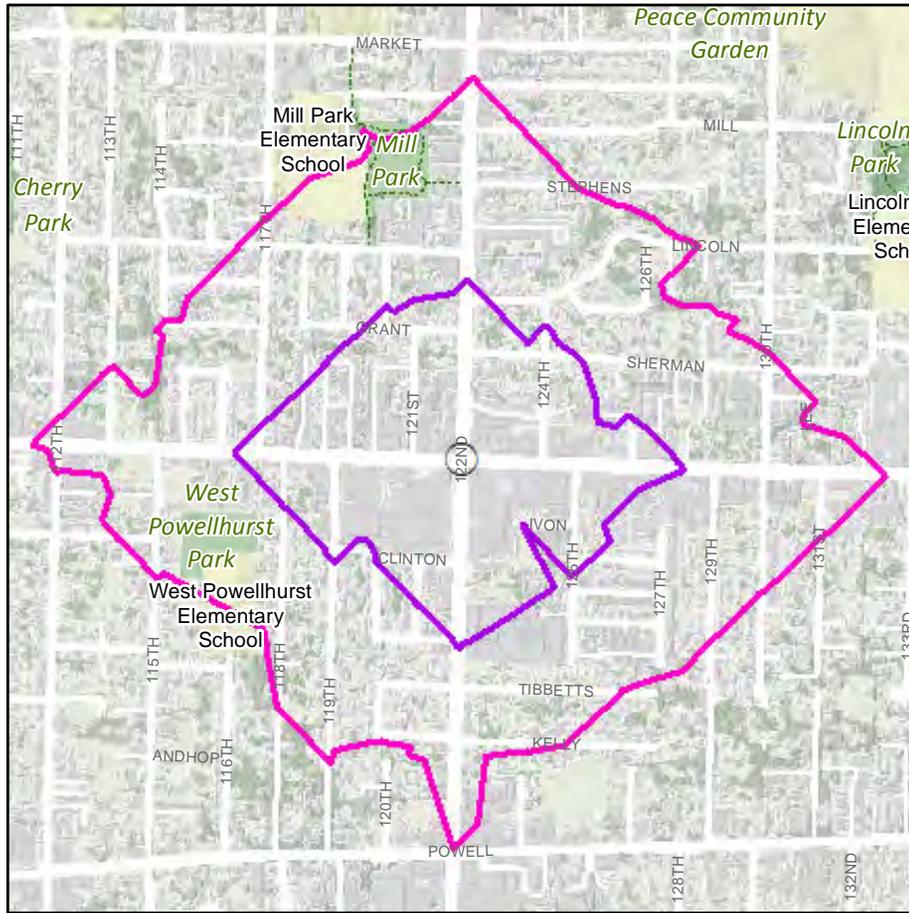
0.25 Miles

- Station
- 🏠 Community Center
- 🏢 Employment
- 🏥 Hospital
- 📖 Library
- 🎓 School
- 🌳 Parks and/or Natural Areas
- ⚰ Cemeteries
- 🏌 Golf Courses
- 🏫 School Lands

Division & 122nd

Map 23

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	596	419
10 minute	1142	1968

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	491	239
10 minute	995	1485

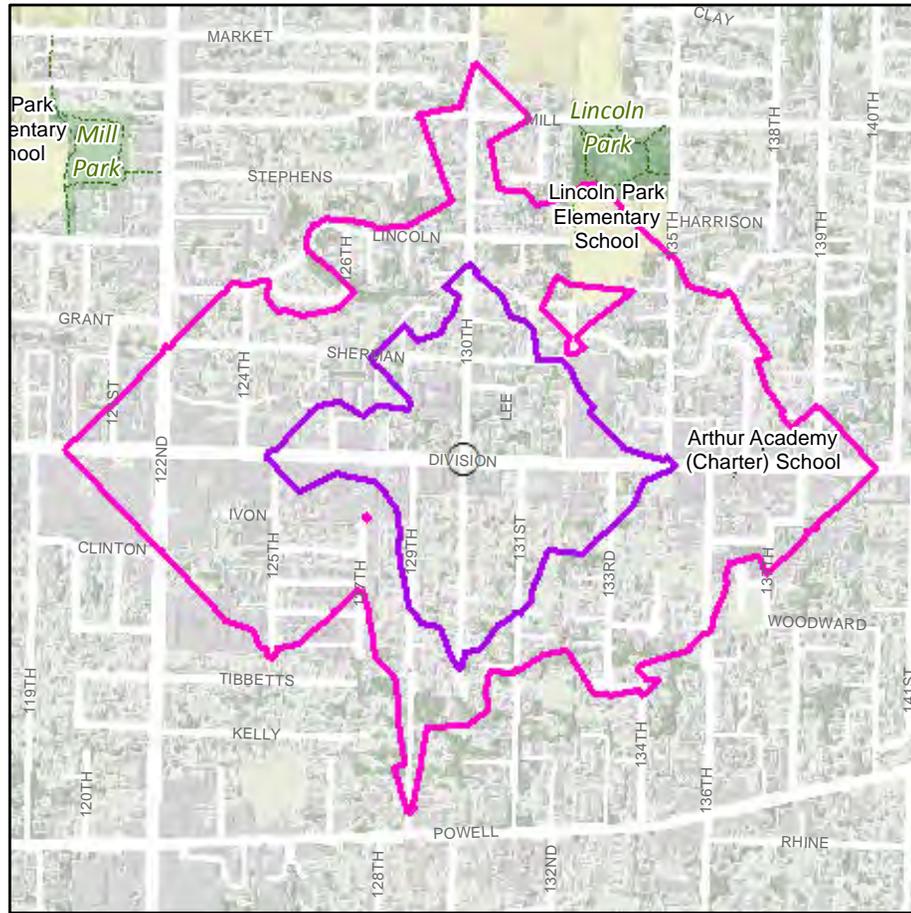
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 130th

Map 24

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	109	483
10 minute	974	1416

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	62	325
10 minute	610	1090

0.25 Miles

- Station
- 🏠 Community Center
- 🏢 Employment
- 🏥 Hospital
- 📖 Library
- 🎓 School
- 🌳 Parks and/or Natural Areas
- ⚰ Cemeteries
- 🏌 Golf Courses
- 🏫 School Lands

Division & 139th

Map 25

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	237	489
10 minute	913	1430

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	146	404
10 minute	371	1083

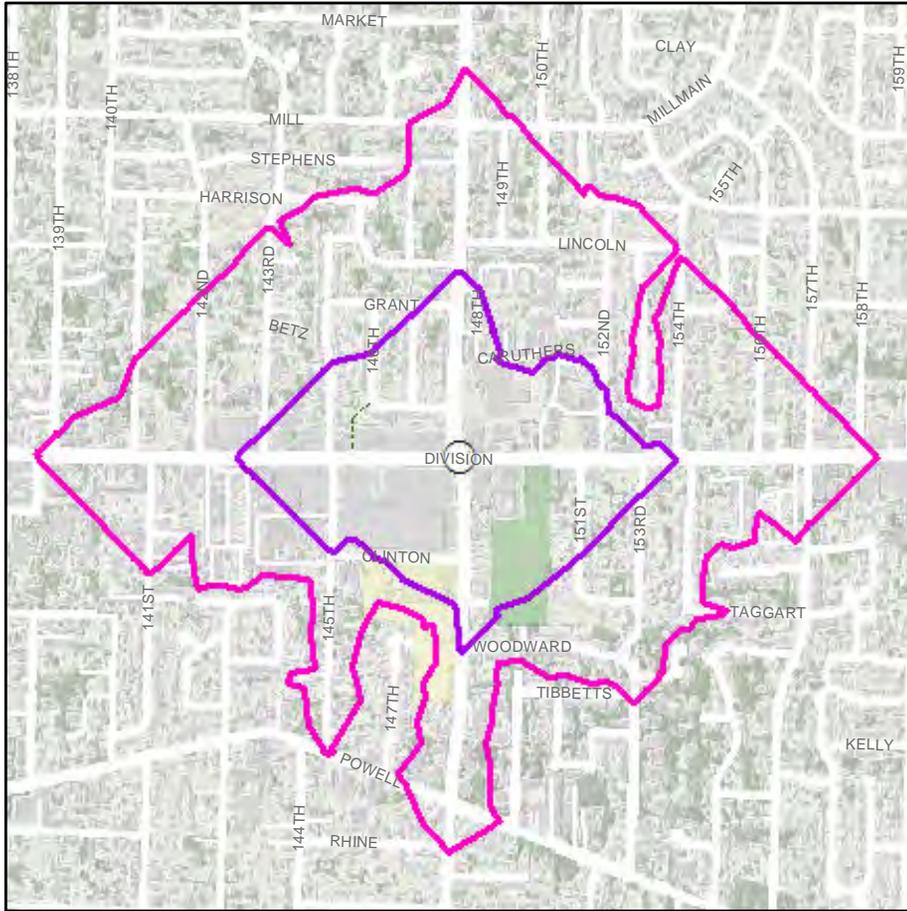
0.25 Miles

- Station
- Community Center
- Parks and/or Natural Areas
- 5 minute walkshed
- Employment
- Cemeteries
- 10 minute walkshed
- Hospital
- Golf Courses
- Library
- School Lands
- School

Division & 148th

Map 26

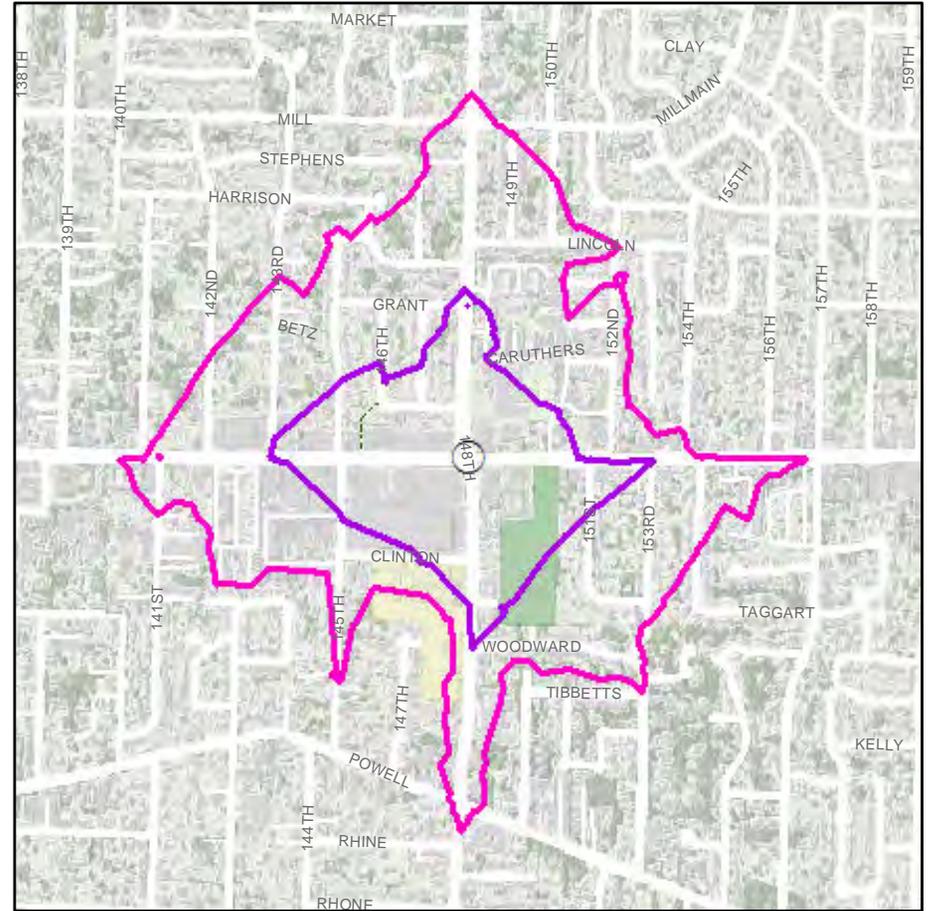
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	721	236
10 minute	929	1456

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	716	141
10 minute	901	971

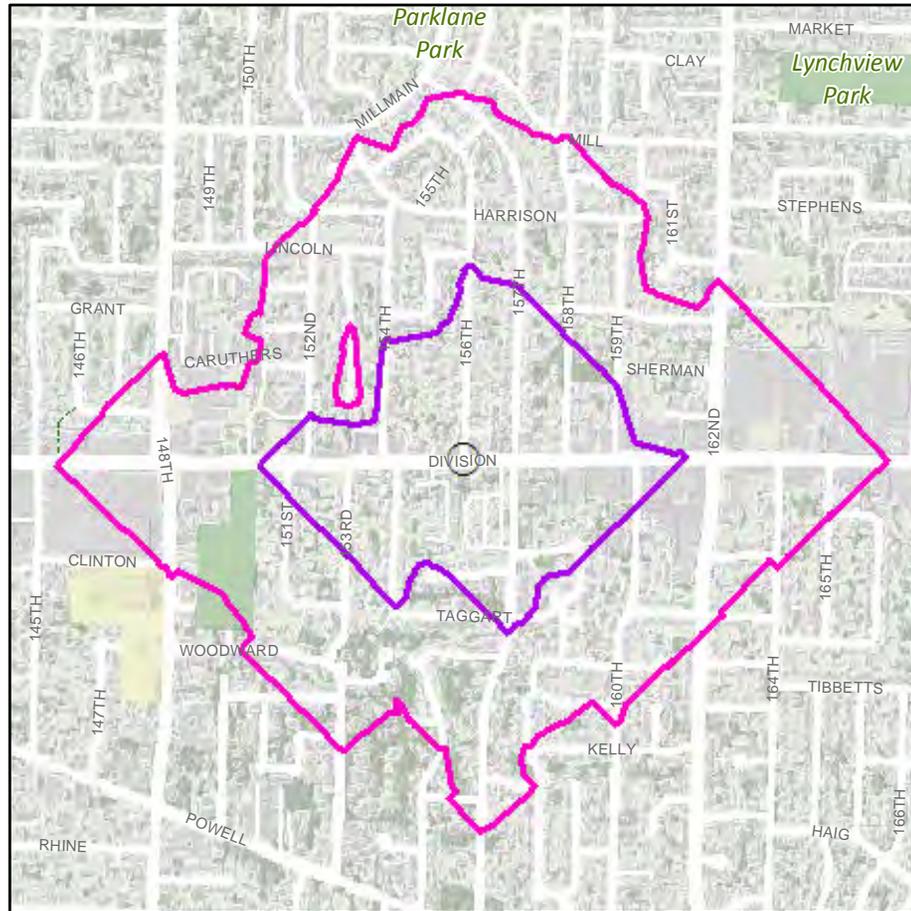
0.25 Miles

-  Station
-  5 minute walkshed
-  10 minute walkshed
-  Community Center
-  Employment
-  Hospital
-  Library
-  School
-  Parks and/or Natural Areas
-  Cemeteries
-  Golf Courses
-  School Lands

Division & 156th

Map 27

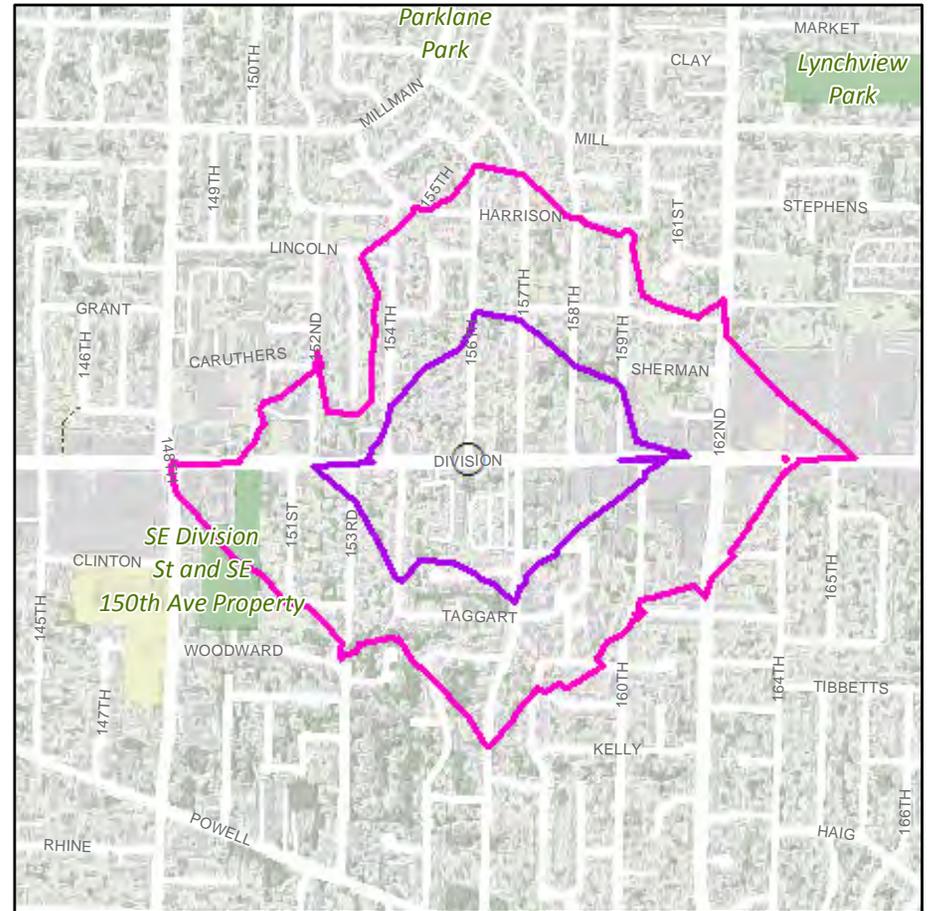
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	129	486
10 minute	588	1349

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	66	351
10 minute	454	995

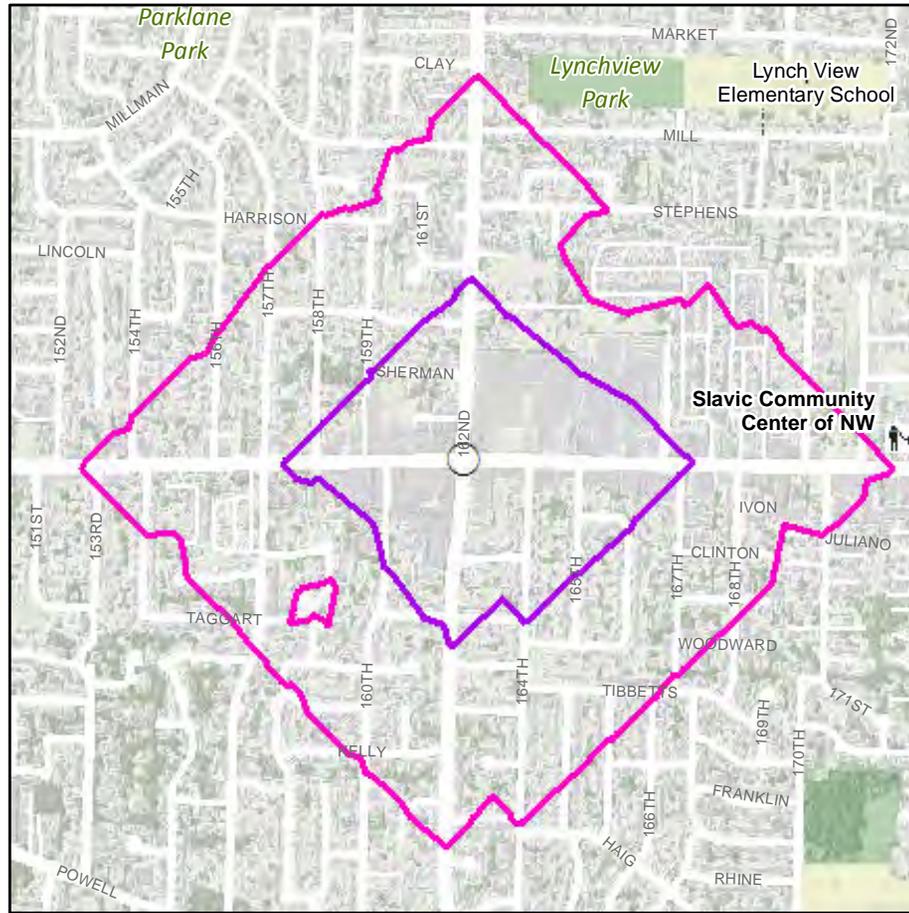
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 162nd

Map 28

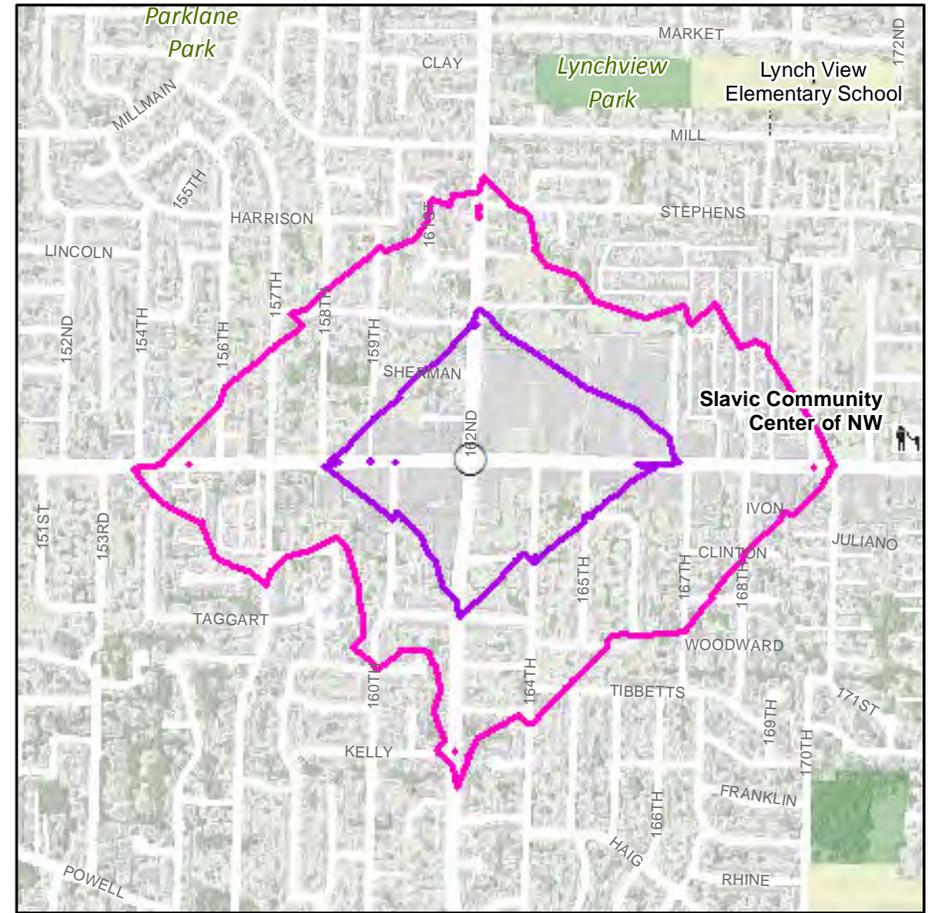
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	423	221
10 minute	533	1437

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	389	139
10 minute	499	1007

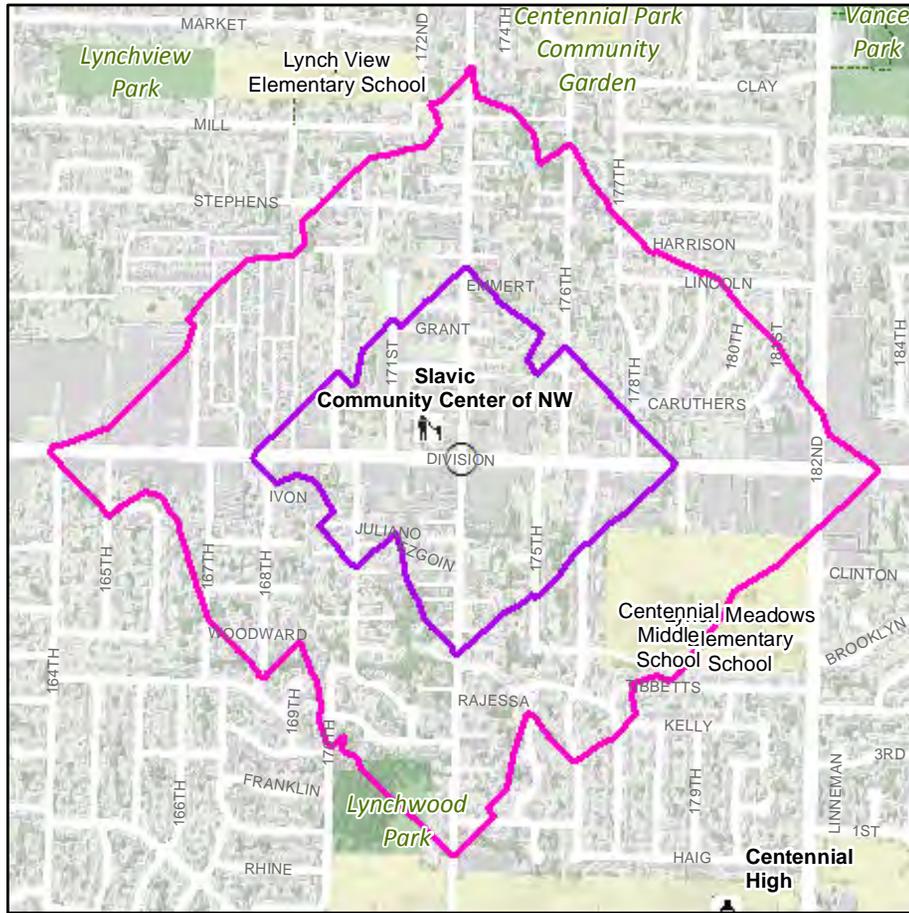
0.25 Miles

- Station
- 🏠 Community Center
- 🏢 Employment
- 🏥 Hospital
- 📖 Library
- 🎓 School
- 🌳 Parks and/or Natural Areas
- ⚰ Cemeteries
- 🏌 Golf Courses
- 🏫 School Lands

Division & 174th

Map 29

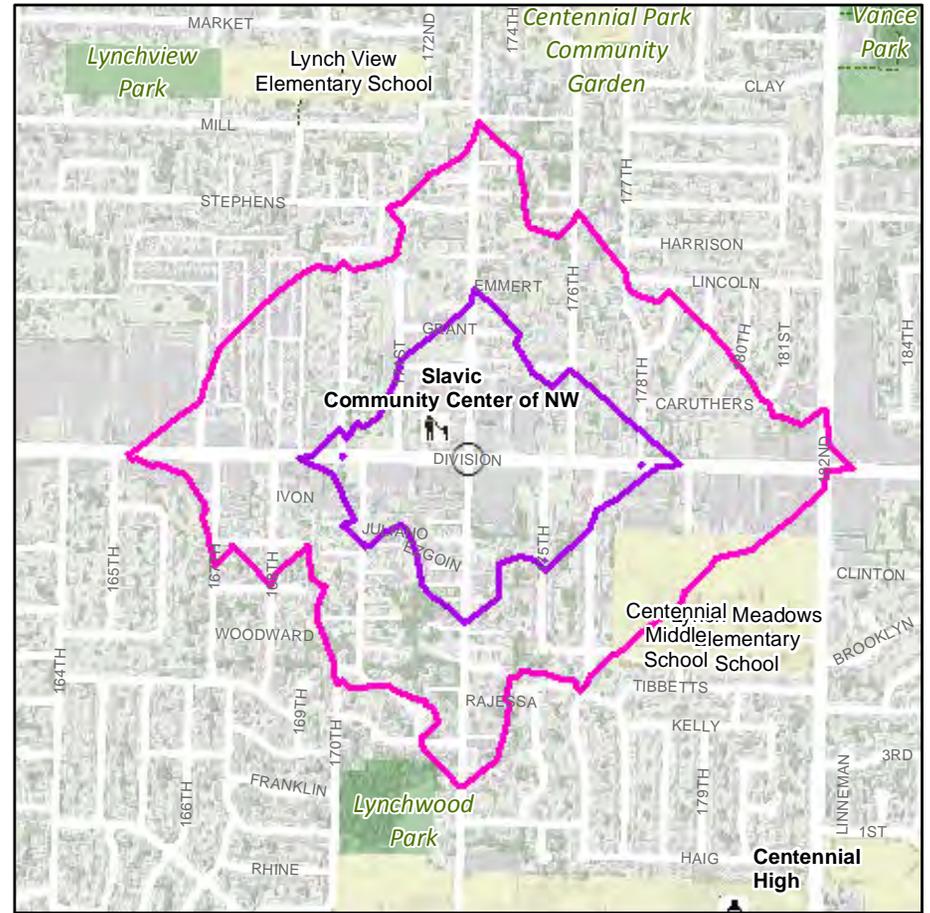
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	131	446
10 minute	659	1373

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	129	292
10 minute	295	1109

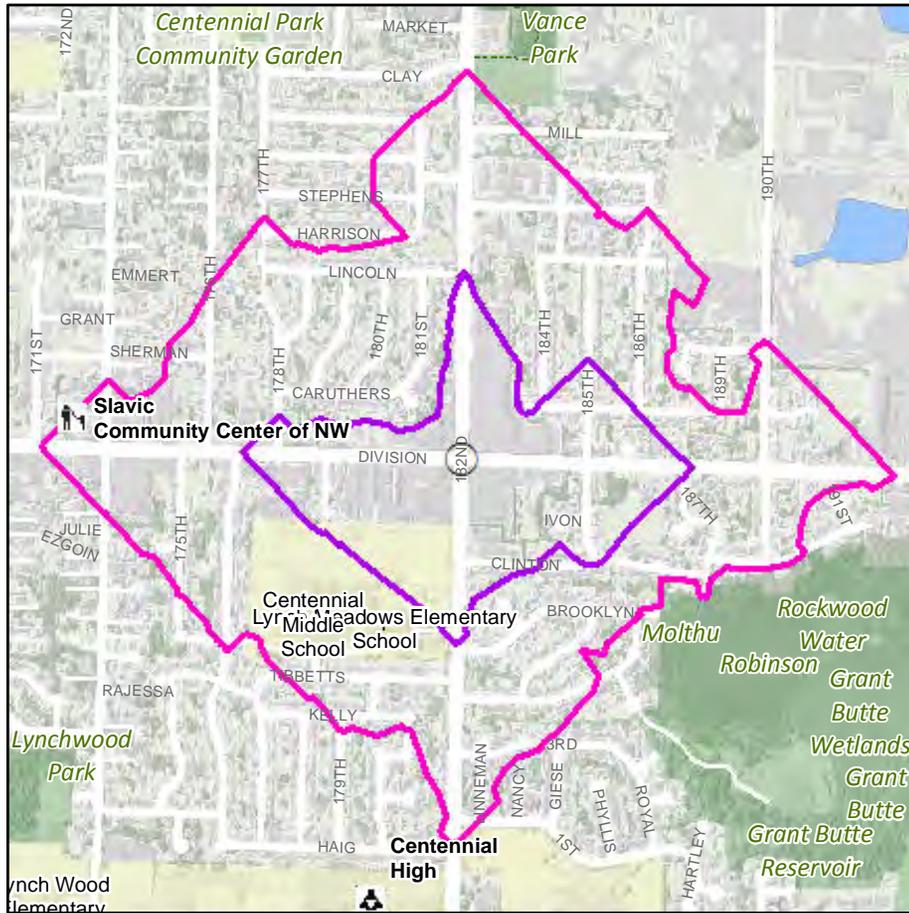
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & 182nd

Map 30

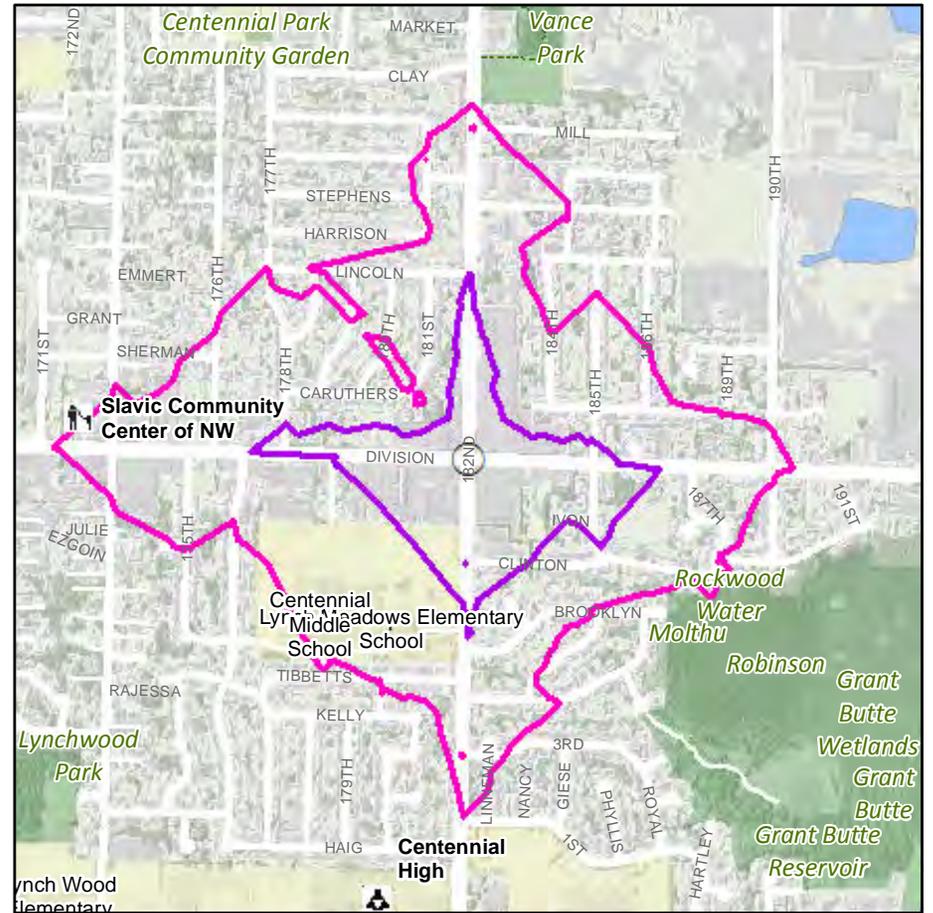
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	519	284
10 minute	967	1158

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	504	107
10 minute	938	890

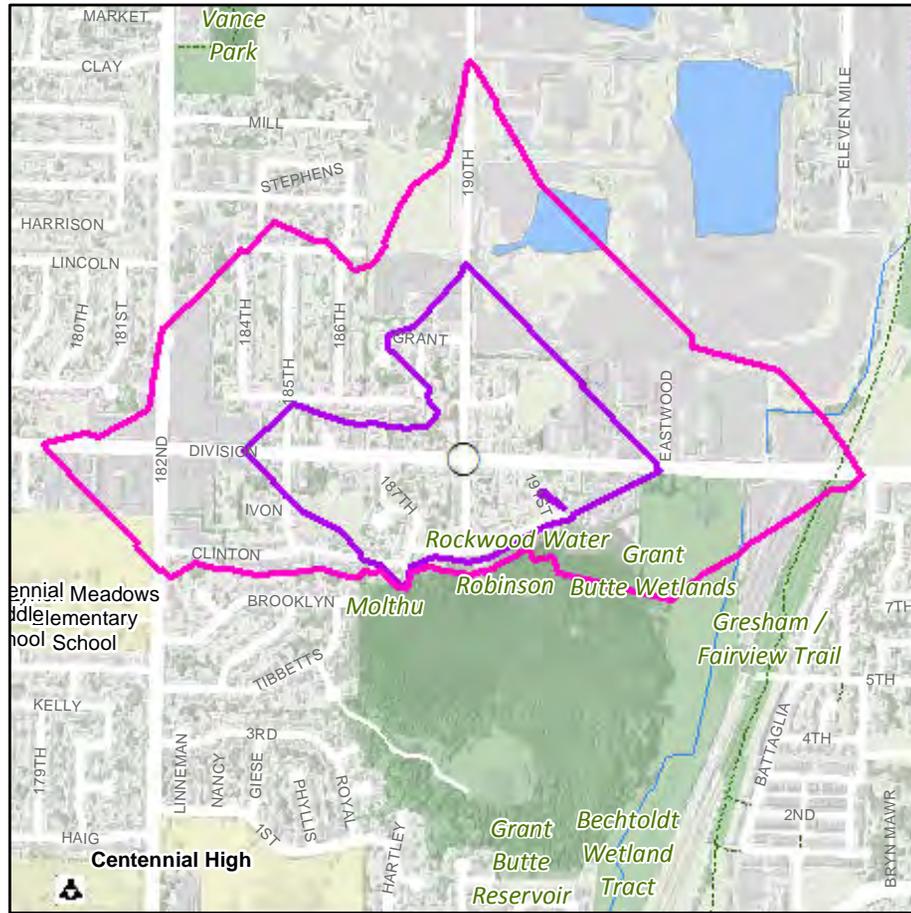
0.25 Miles

- Station
- Community Center
- Parks and/or Natural Areas
- 5 minute walkshed
- Employment
- Cemeteries
- 10 minute walkshed
- Hospital
- Golf Courses
- Library
- School
- School Lands

Division & 190th

Map 31

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	195	142
10 minute	786	437

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	12	99
10 minute	584	311

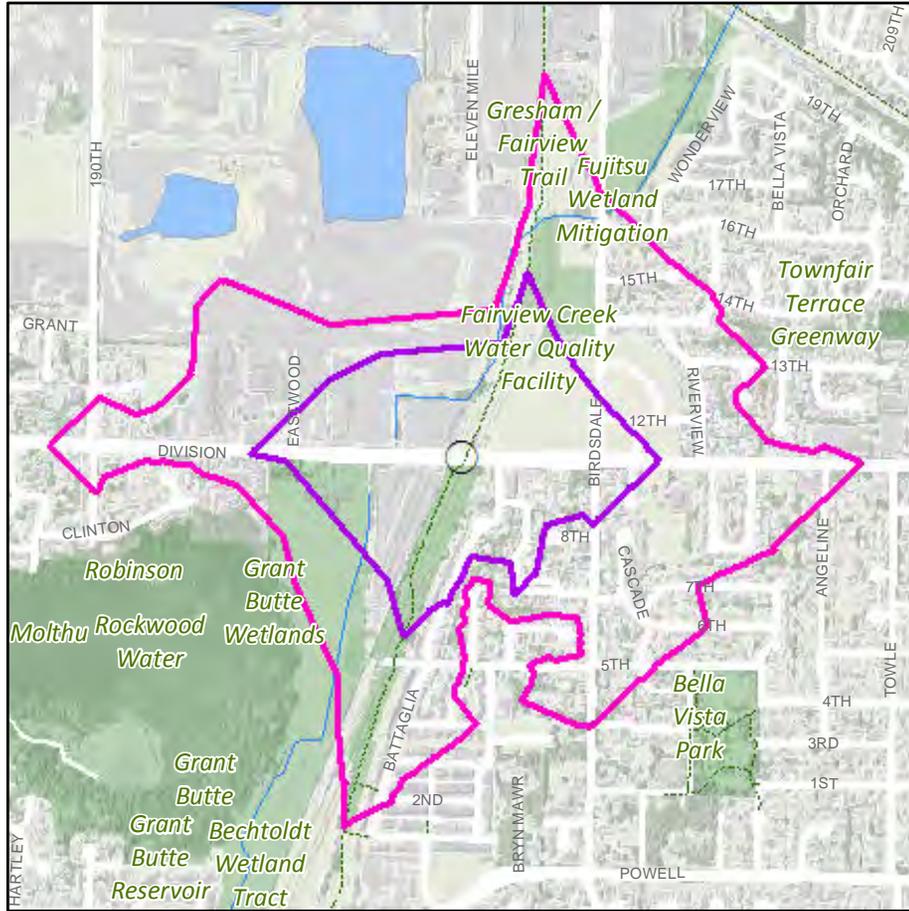
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & Gresham-Fairview Trail

Map 32

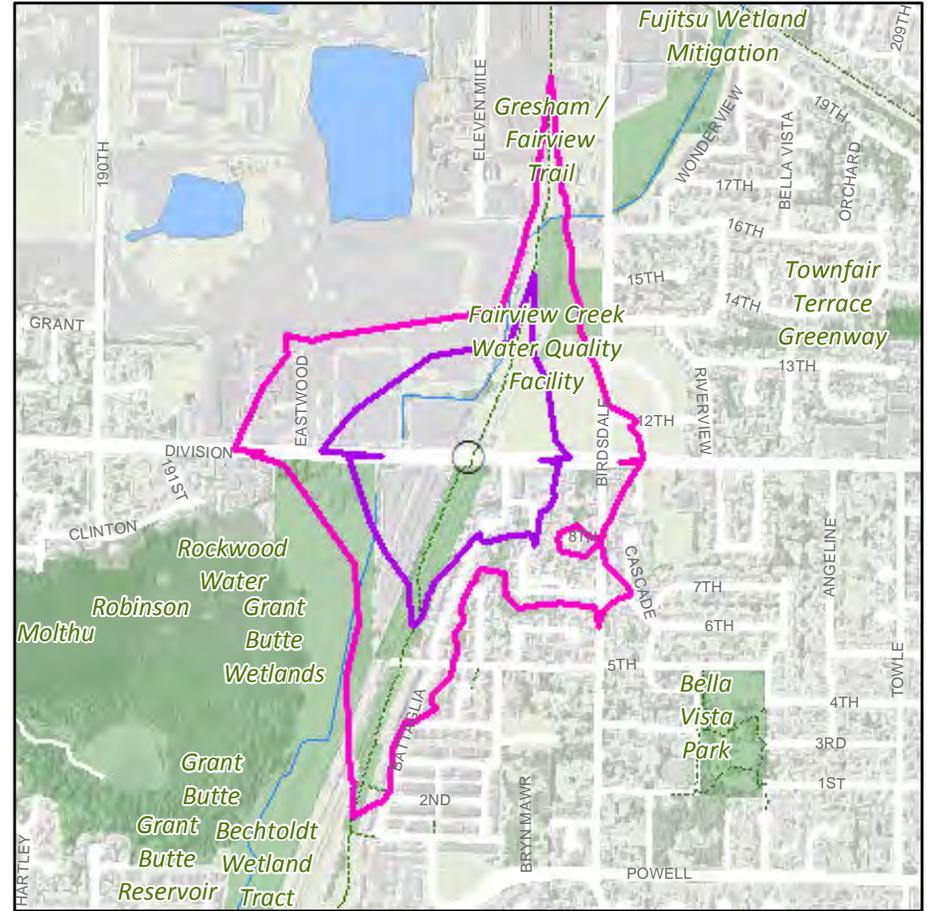
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	153	73
10 minute	242	419

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	96	41
10 minute	163	132

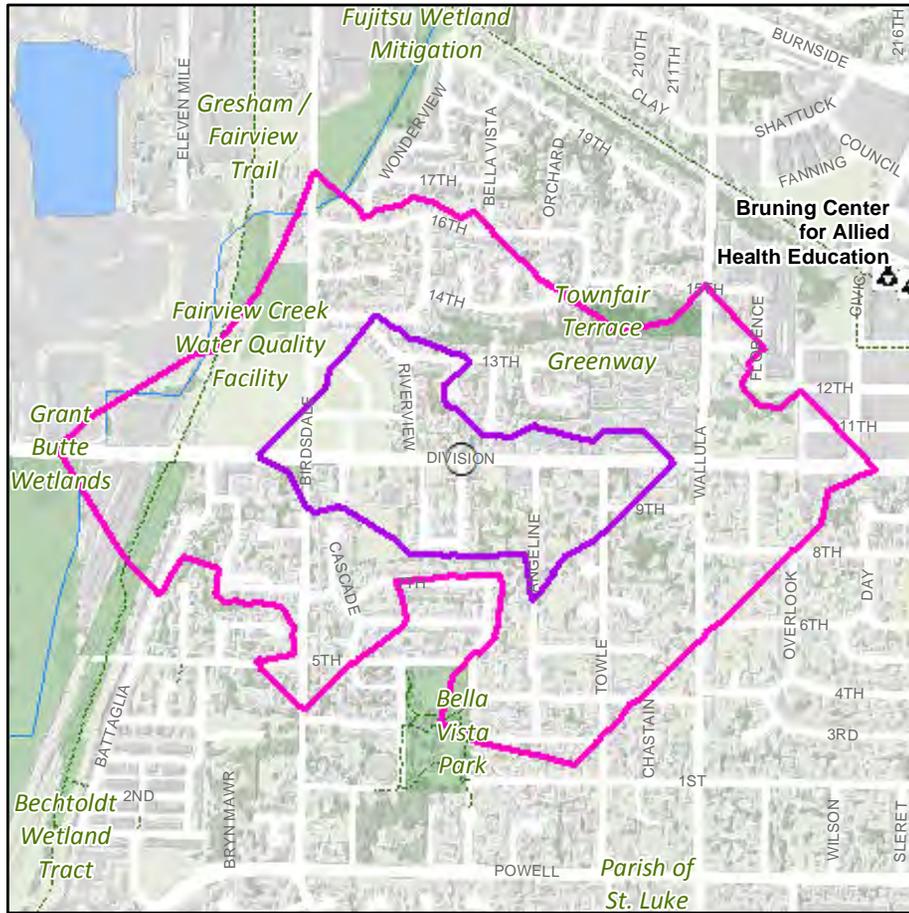
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & Bella Vista

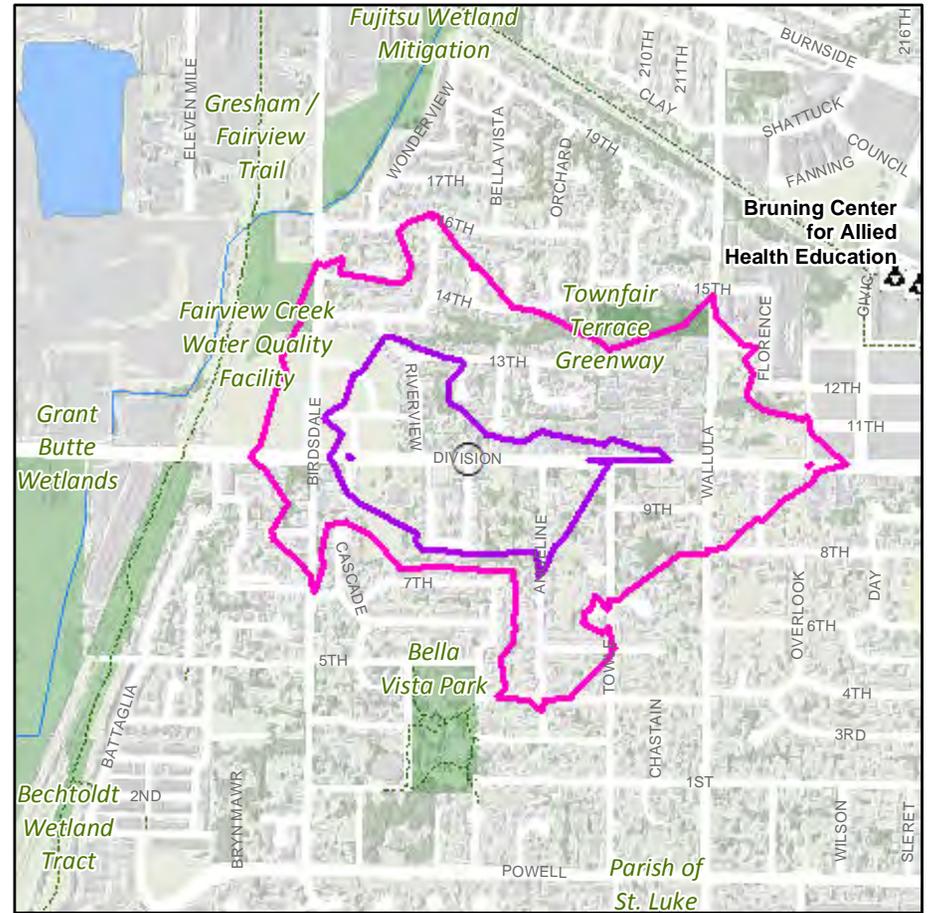
Map 33

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	34	119
10 minute	240	877

Walkshed - Traffic



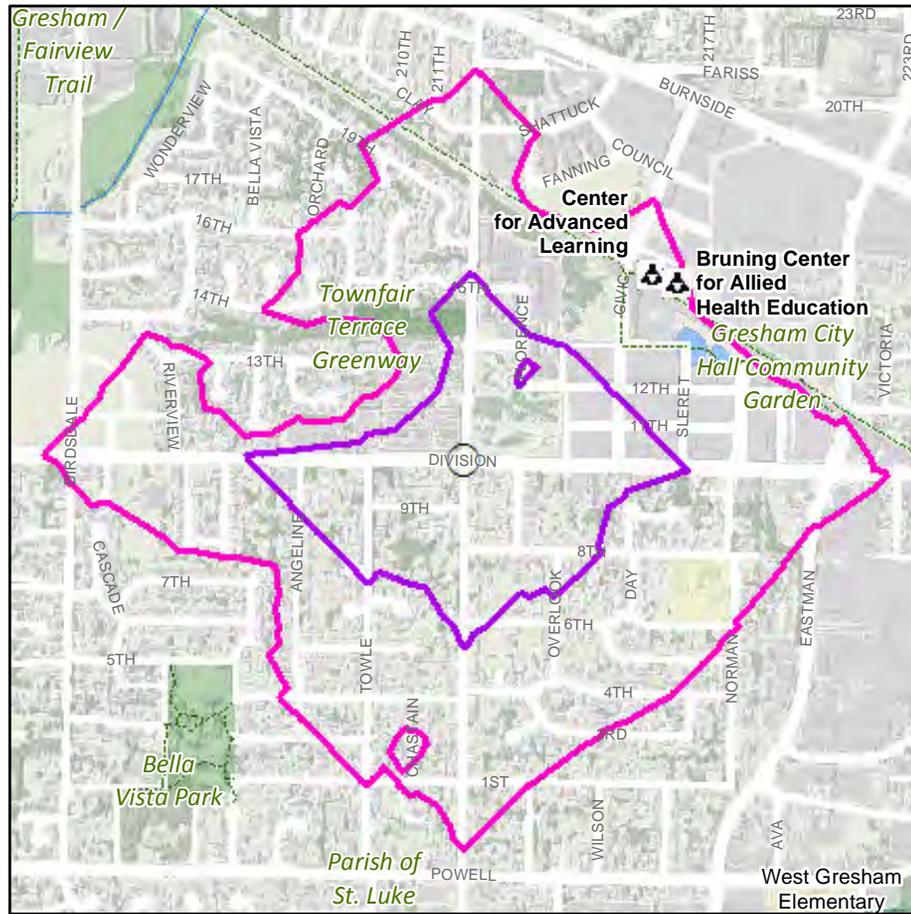
Walkshed	Employment	Housing Units
5 minute	34	85
10 minute	80	620

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & Wallula/212th

Map 34

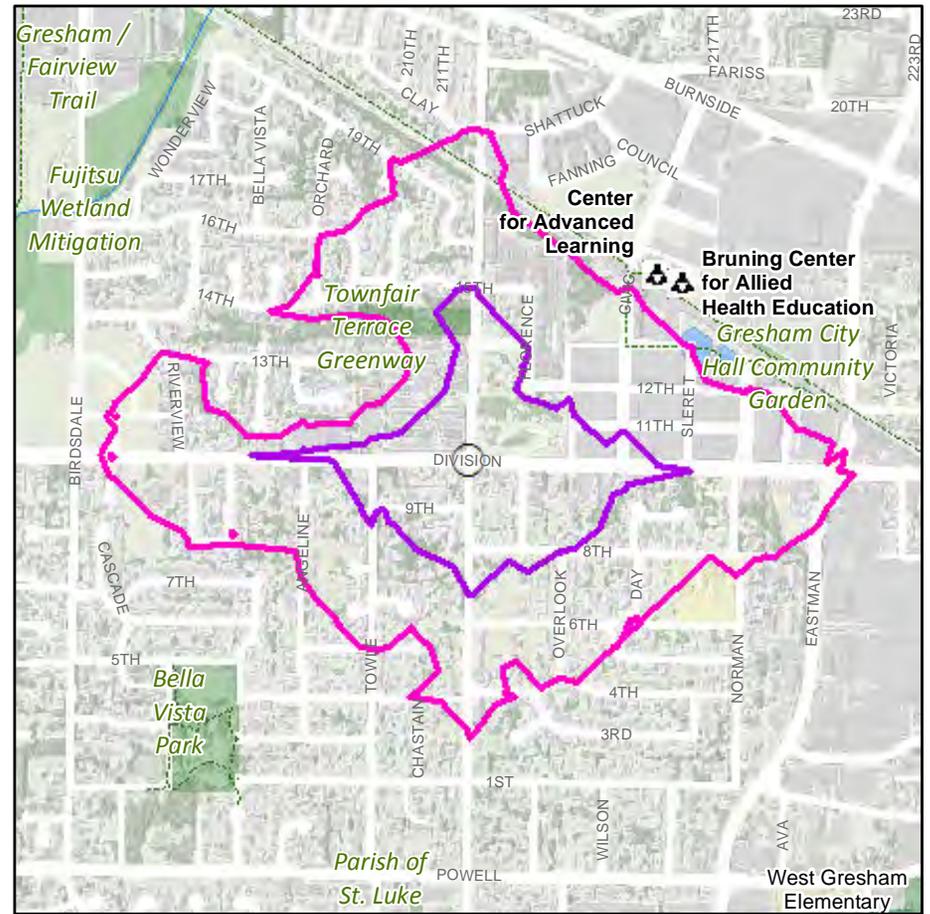
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	149	116
10 minute	931	1195

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	68	79
10 minute	782	926

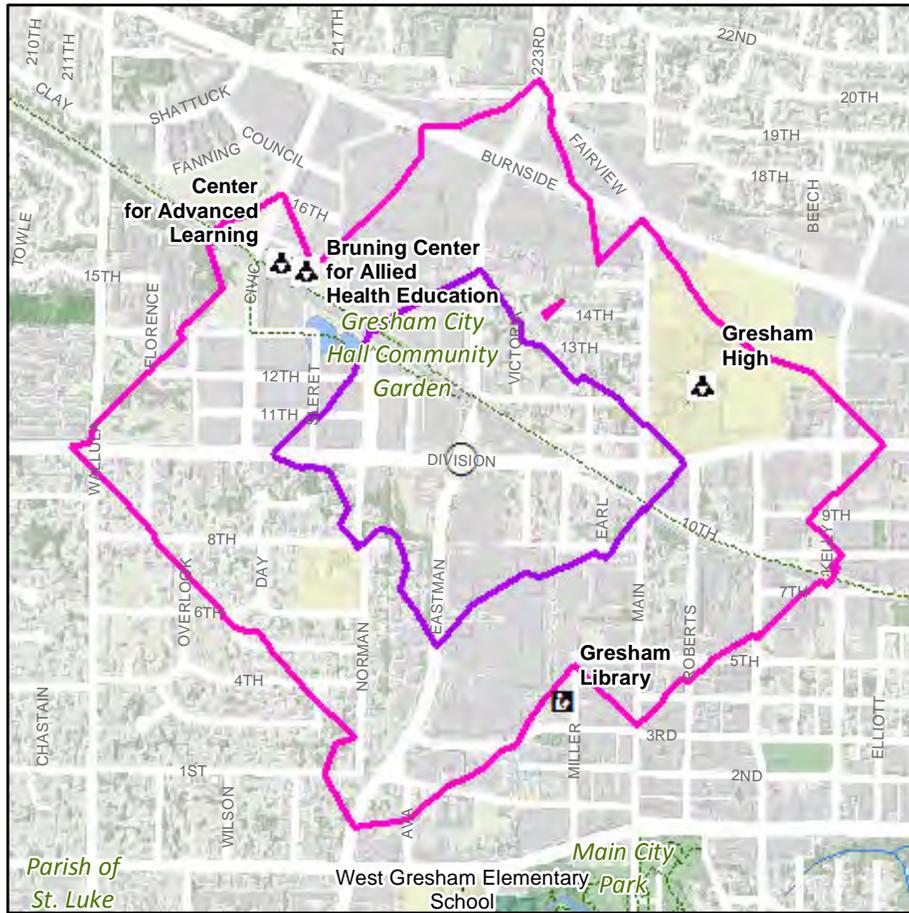
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & Eastman/223rd

Map 35

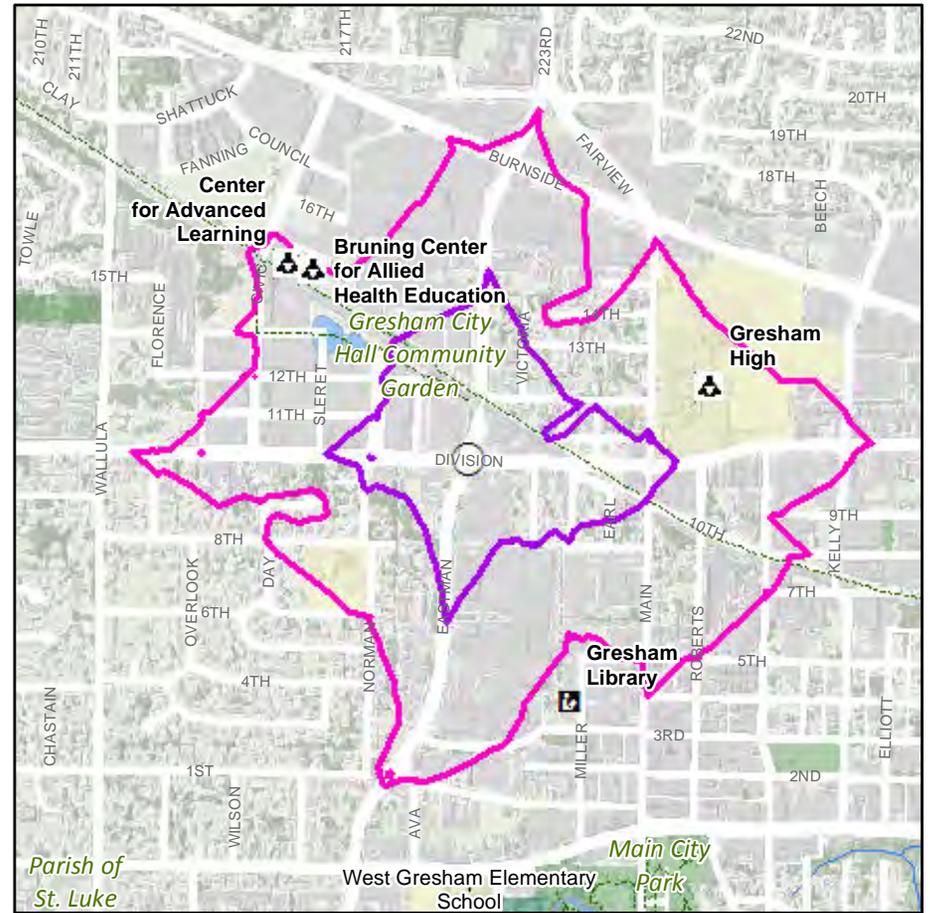
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	1589	205
10 minute	3380	843

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	1308	68
10 minute	2598	733

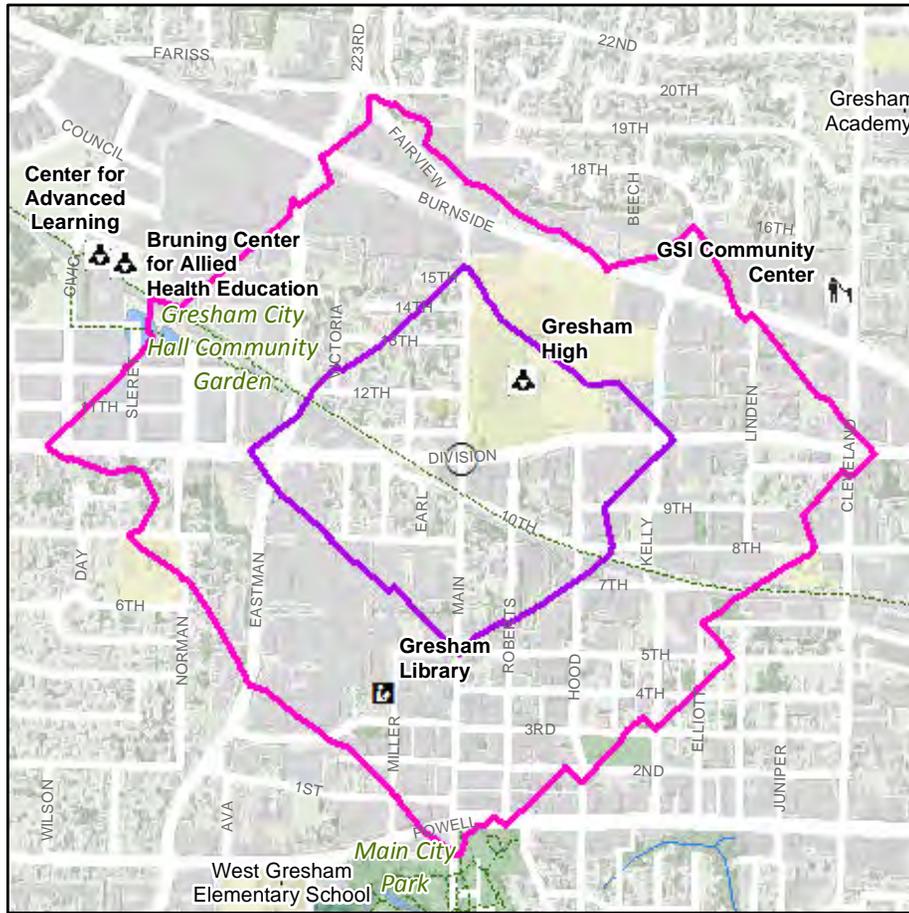
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & Main

Map 36

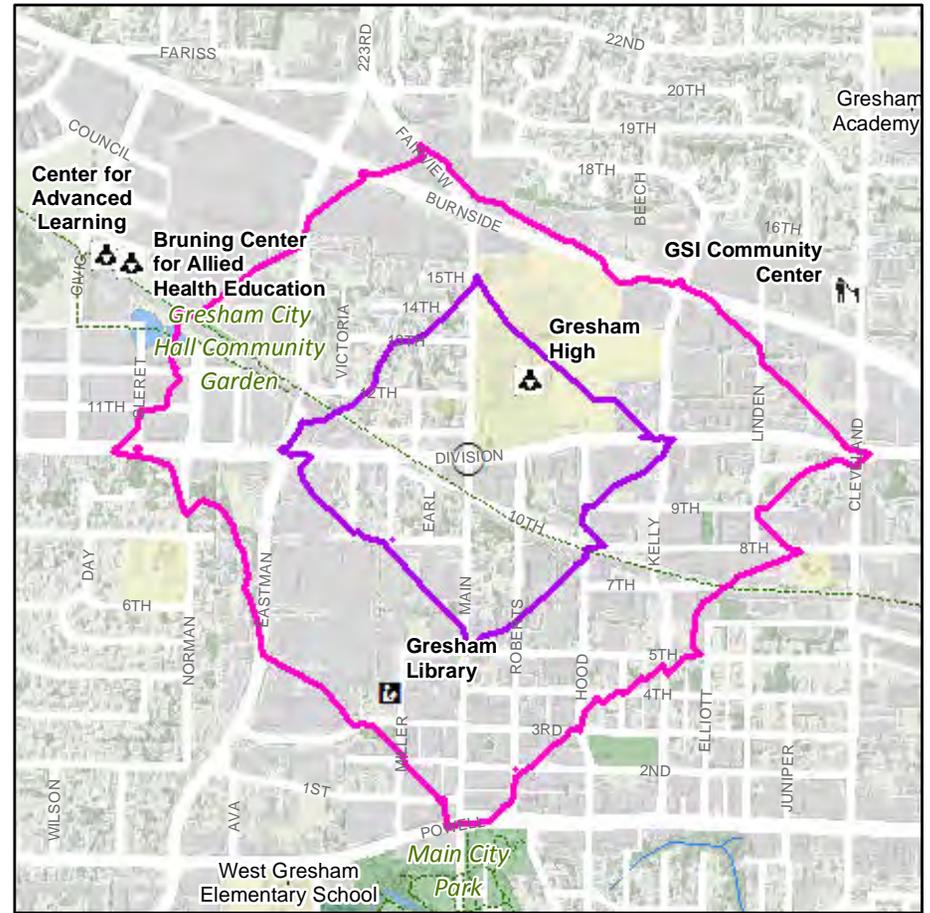
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	652	338
10 minute	4462	961

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	256	332
10 minute	3830	769

0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Gresham Transit Center

Map 37

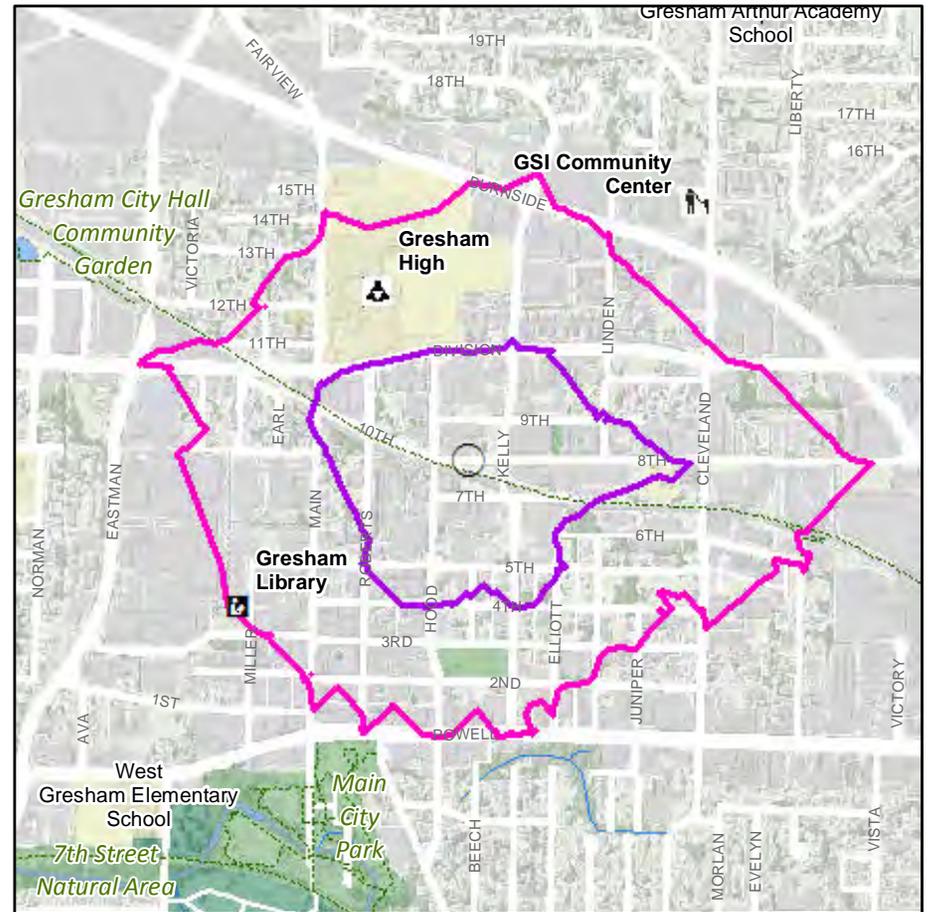
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	854	464
10 minute	3218	1230

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	763	279
10 minute	2214	985

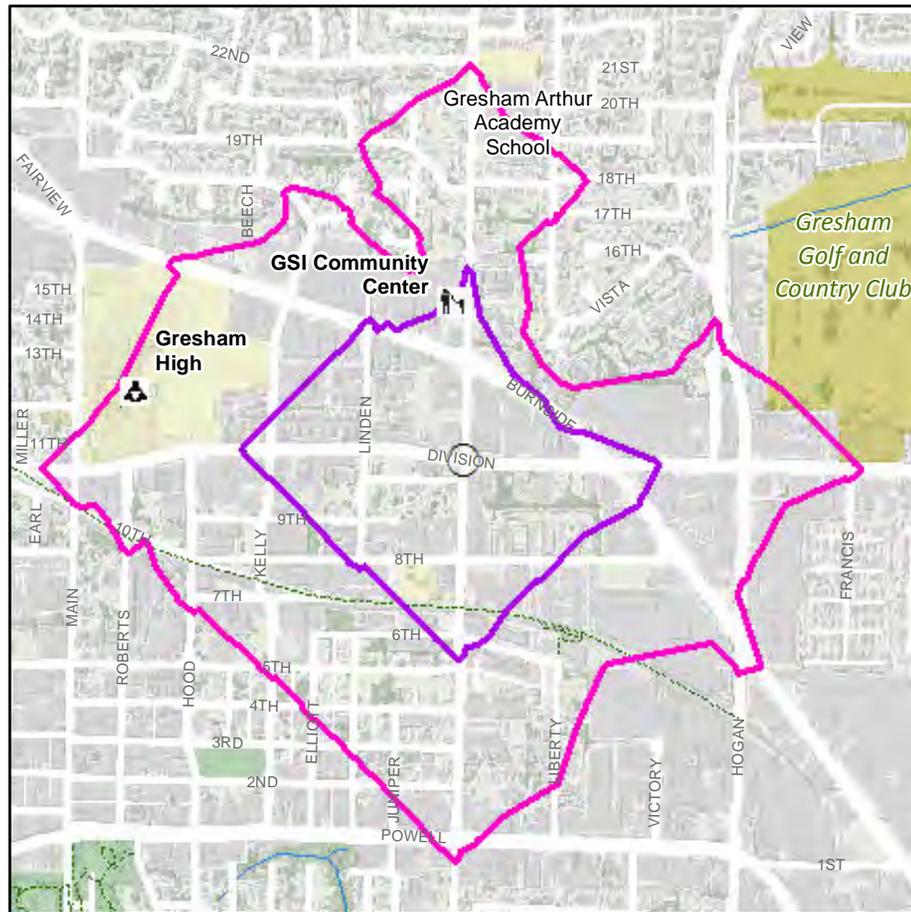
0.25 Miles

- Station
- 5 minute walkshed
- 10 minute walkshed
- 👤 Community Center
- 🏢 Employment
- 🏥 Hospital
- 📖 Library
- 🎓 School
- 🌳 Parks and/or Natural Areas
- ⚰ Cemeteries
- 🏌 Golf Courses
- 🏫 School Lands

Division & Cleveland

Map 38

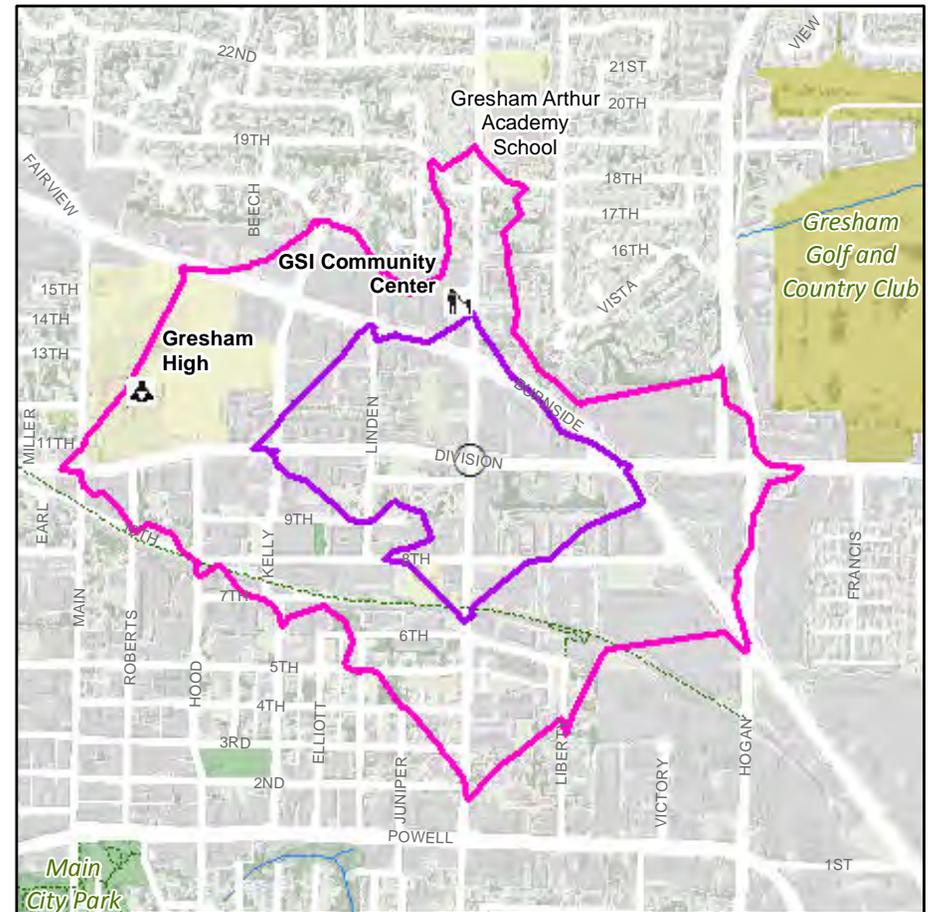
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	689	374
10 minute	2949	1274

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	584	319
10 minute	2579	898

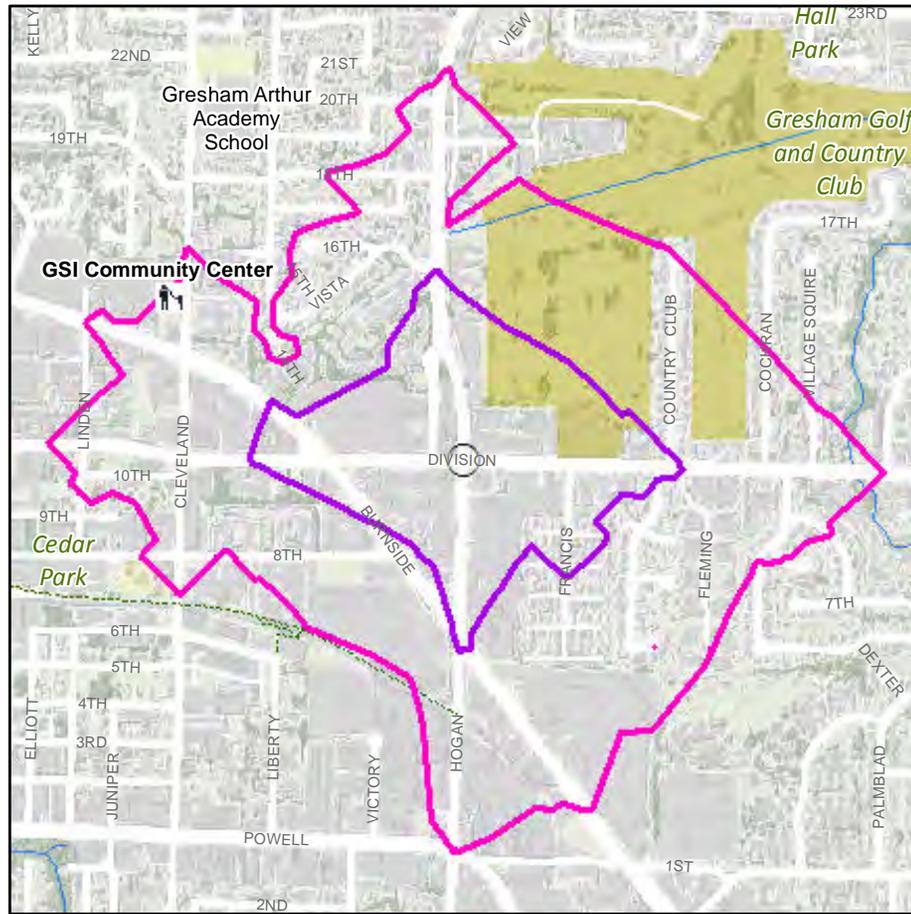
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Division & Hogan

Map 39

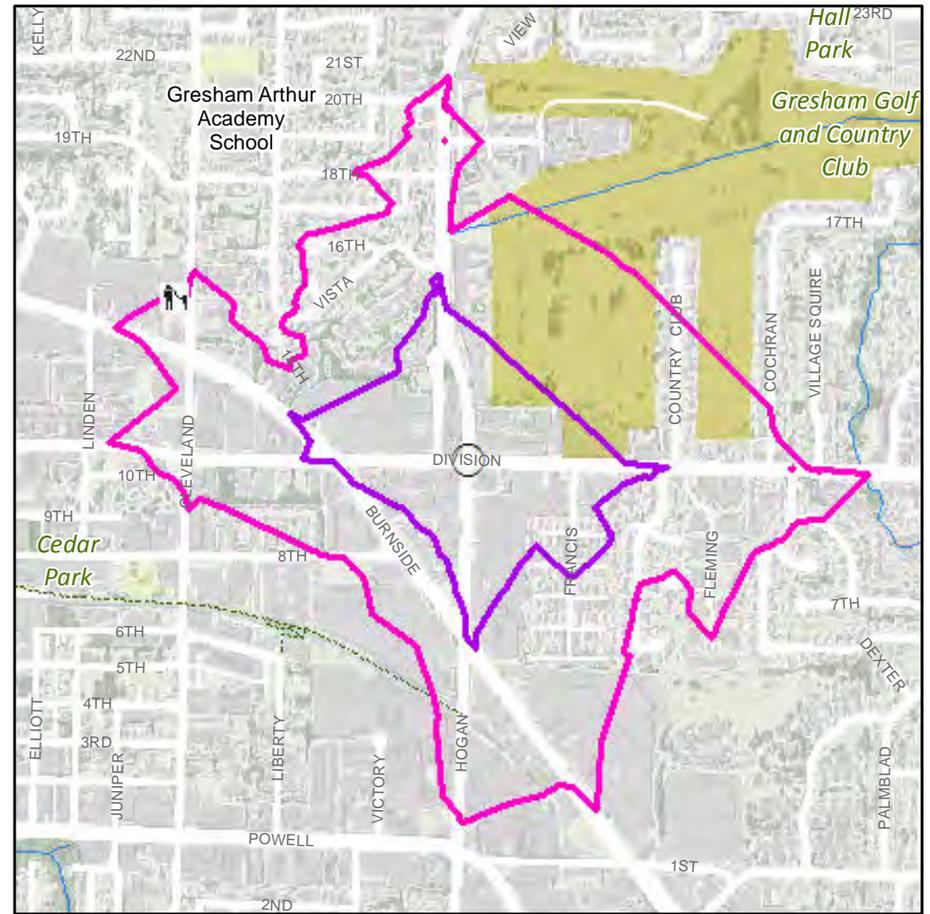
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	817	266
10 minute	2505	1312

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	644	231
10 minute	2318	1102

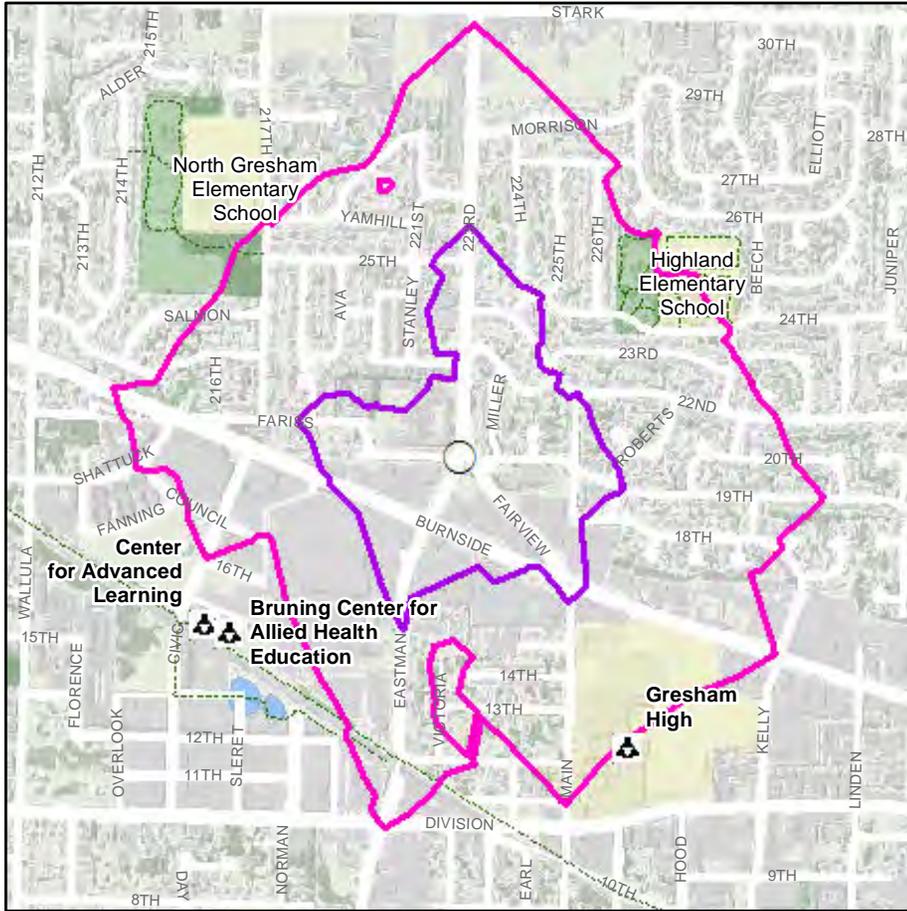
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

223rd & Fairview

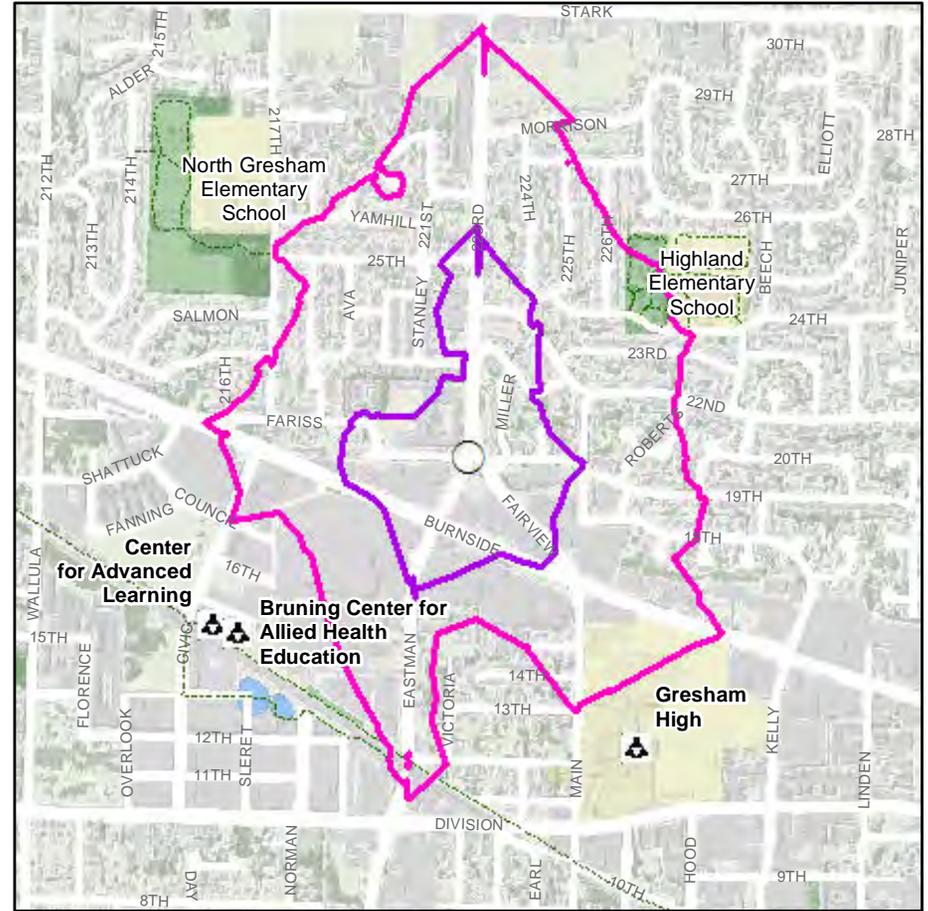
Map 40

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	471	311
10 minute	2355	1047

Walkshed - Traffic



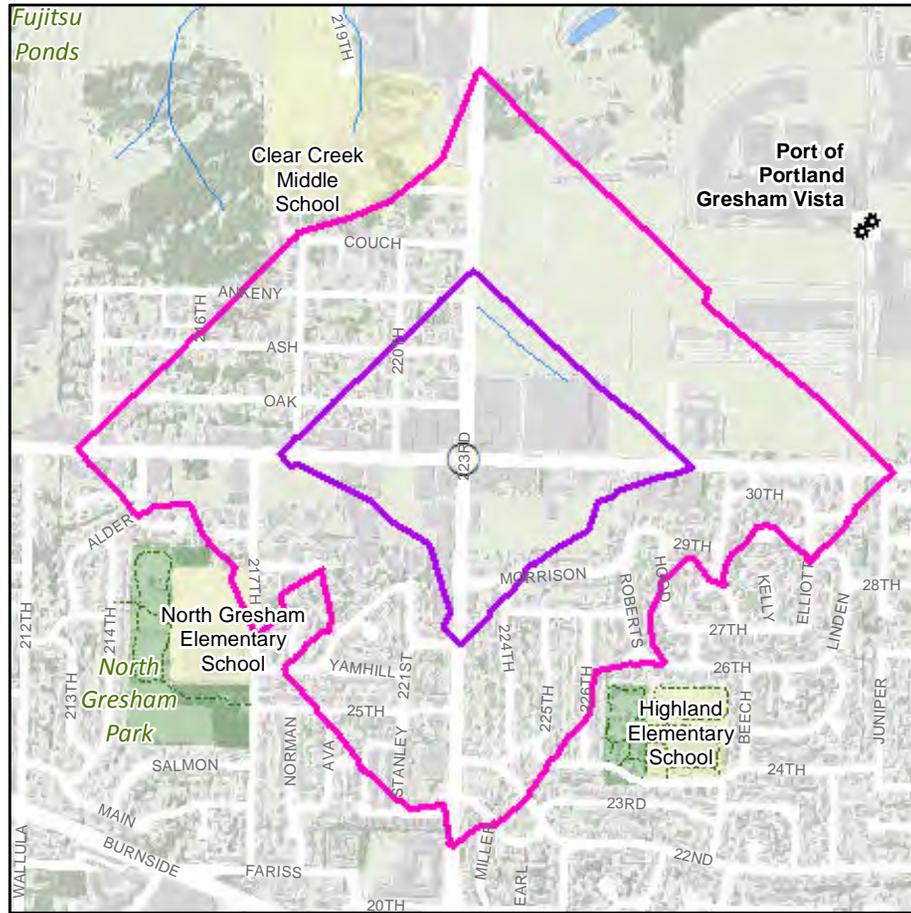
Walkshed	Employment	Housing Units
5 minute	379	265
10 minute	1885	784

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Stark & 223rd

Map 41

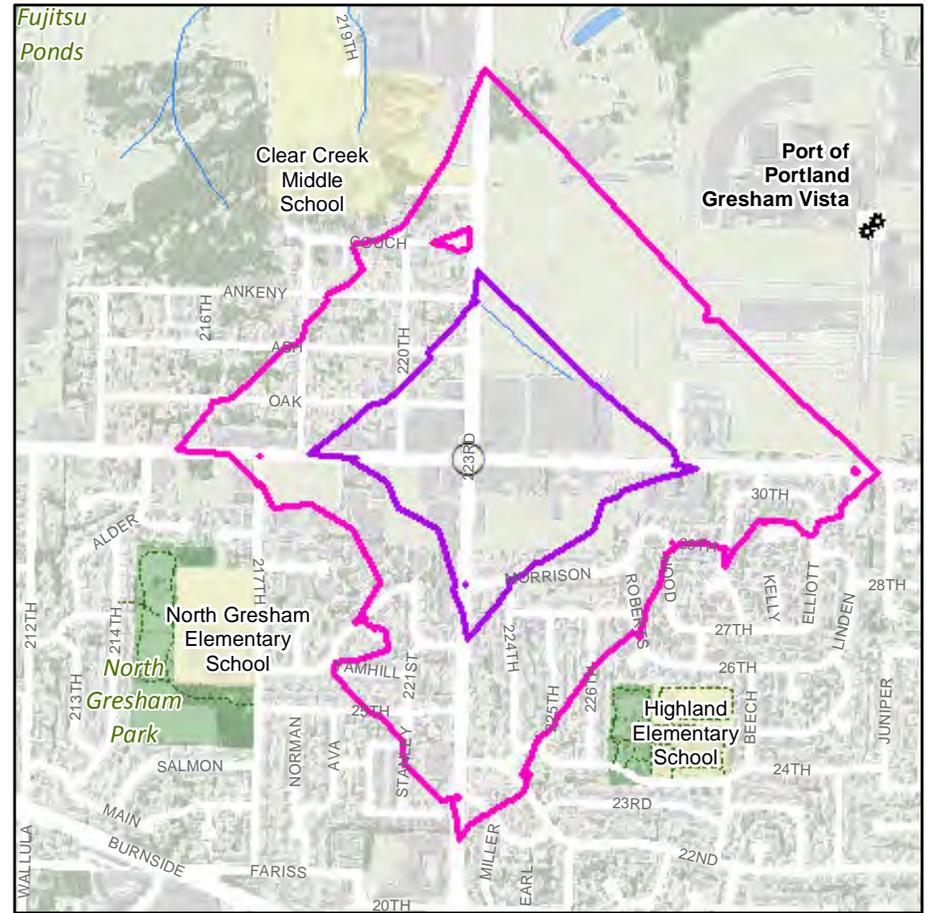
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	369	82
10 minute	478	802

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	325	26
10 minute	435	477

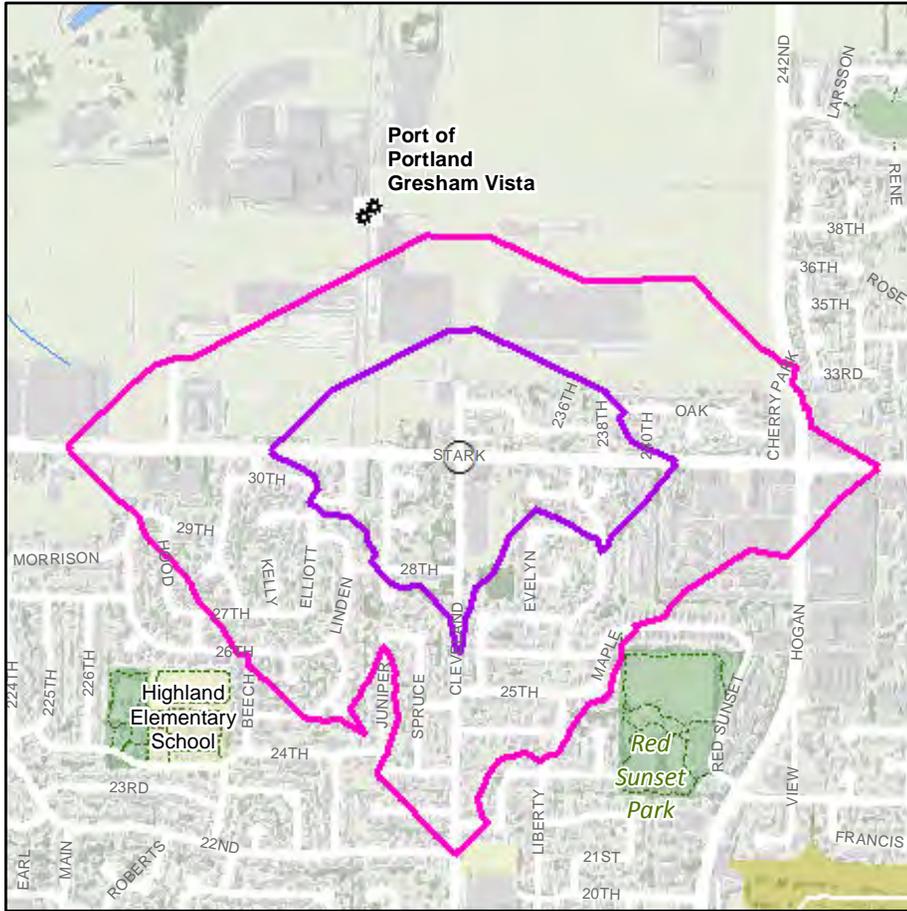
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Stark & Cleveland

Map 42

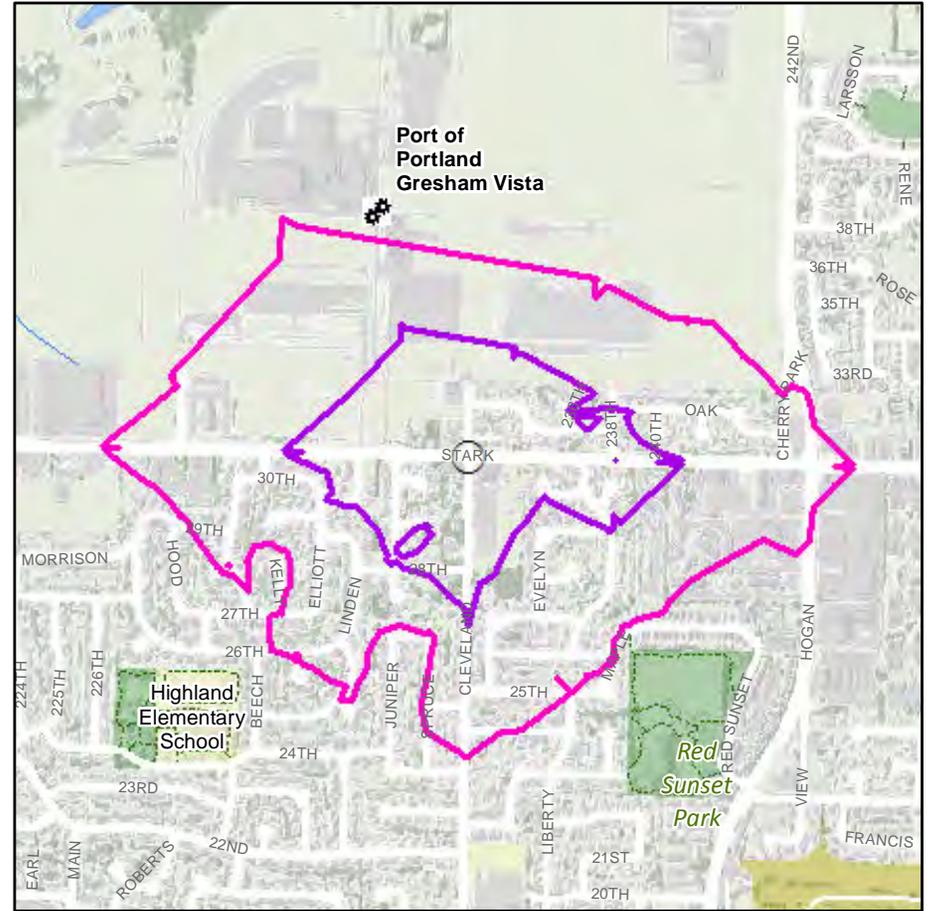
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	109	132
10 minute	511	687

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	108	112
10 minute	398	568

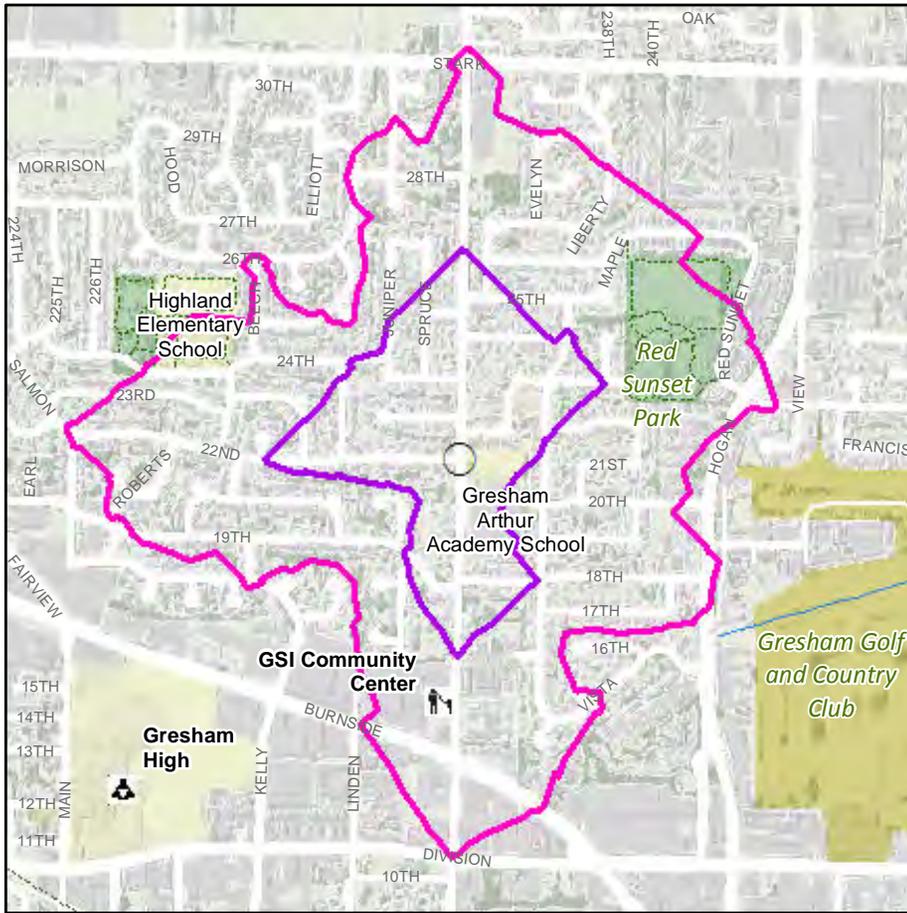
0.25 Miles

-  Station
-  5 minute walkshed
-  10 minute walkshed
-  Community Center
-  Employment
-  Hospital
-  Library
-  School
-  Parks and/or Natural Areas
-  Cemeteries
-  Golf Courses
-  School Lands

Cleveland & 22nd

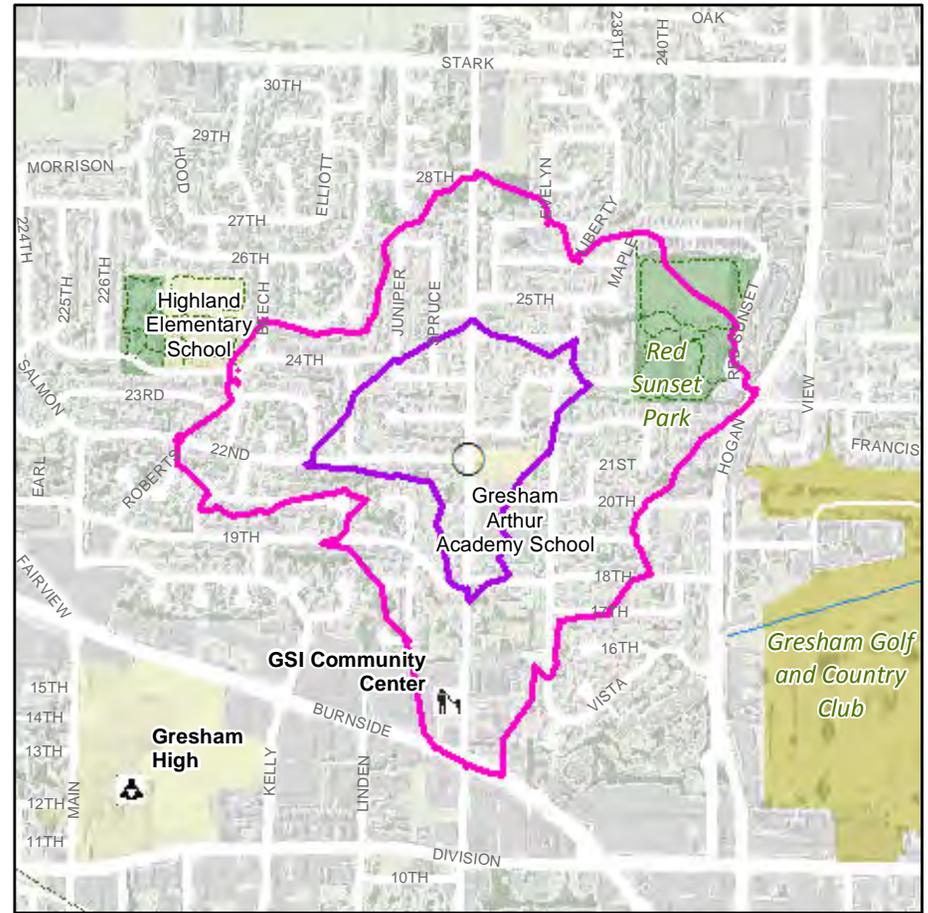
Map 43

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	46	191
10 minute	1095	1069

Walkshed - Traffic



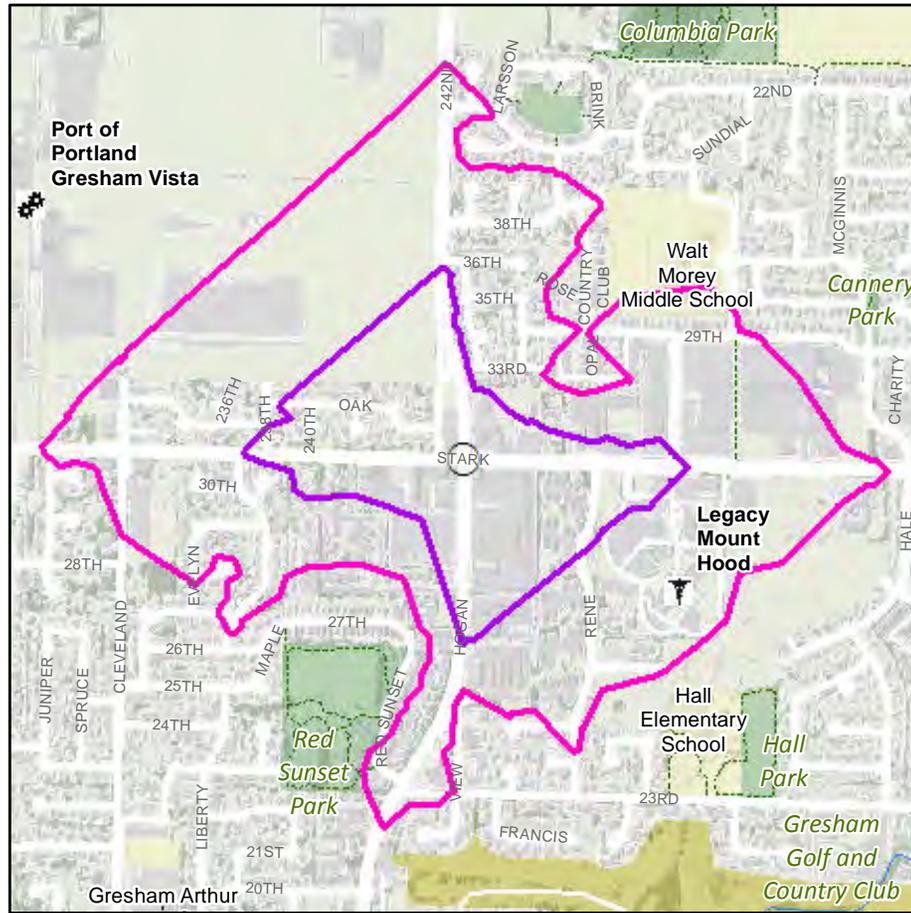
Walkshed	Employment	Housing Units
5 minute	38	114
10 minute	98	642

-  Station
-  5 minute walkshed
-  10 minute walkshed
-  Community Center
-  Employment
-  Hospital
-  Library
-  School
-  Parks and/or Natural Areas
-  Cemeteries
-  Golf Courses
-  School Lands

Stark & Hogan

Map 44

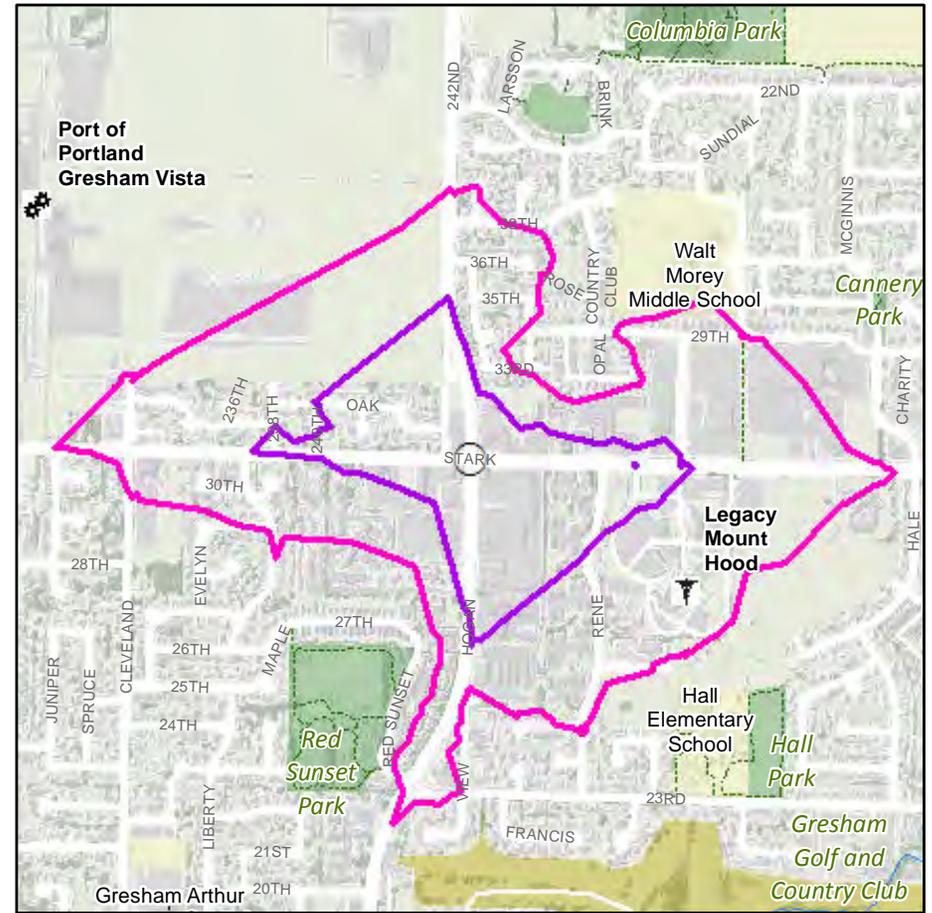
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	521	41
10 minute	1584	675

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	521	34
10 minute	1563	469

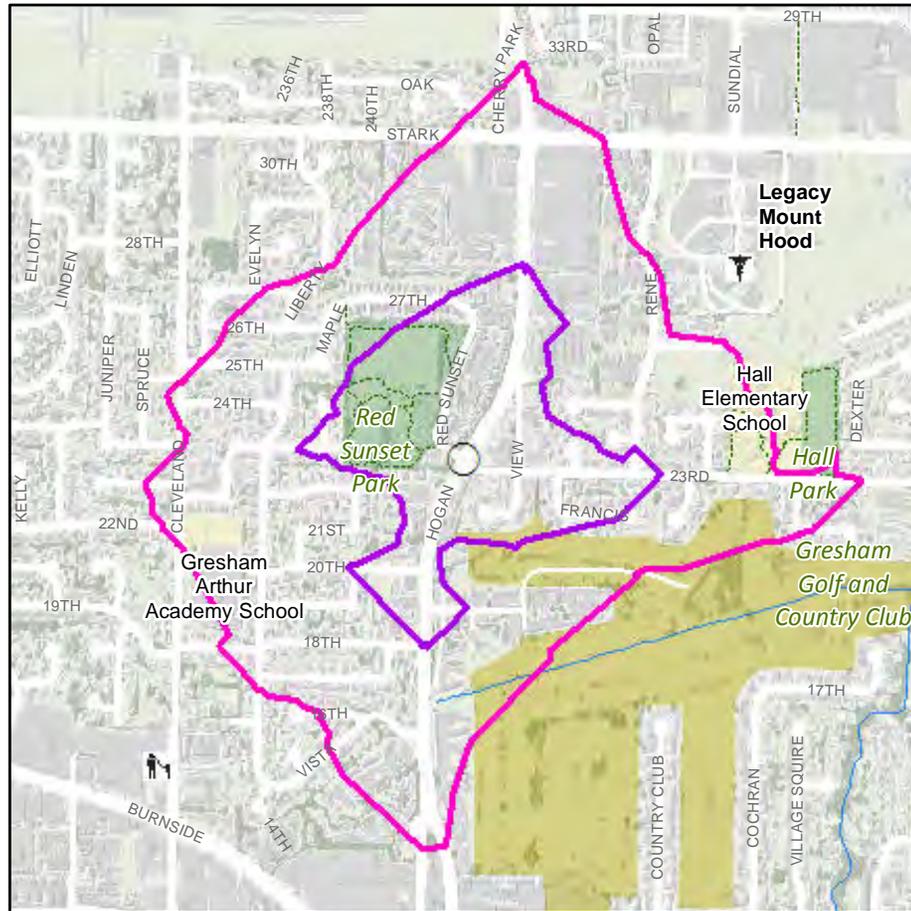
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Hogan & 23rd

Map 45

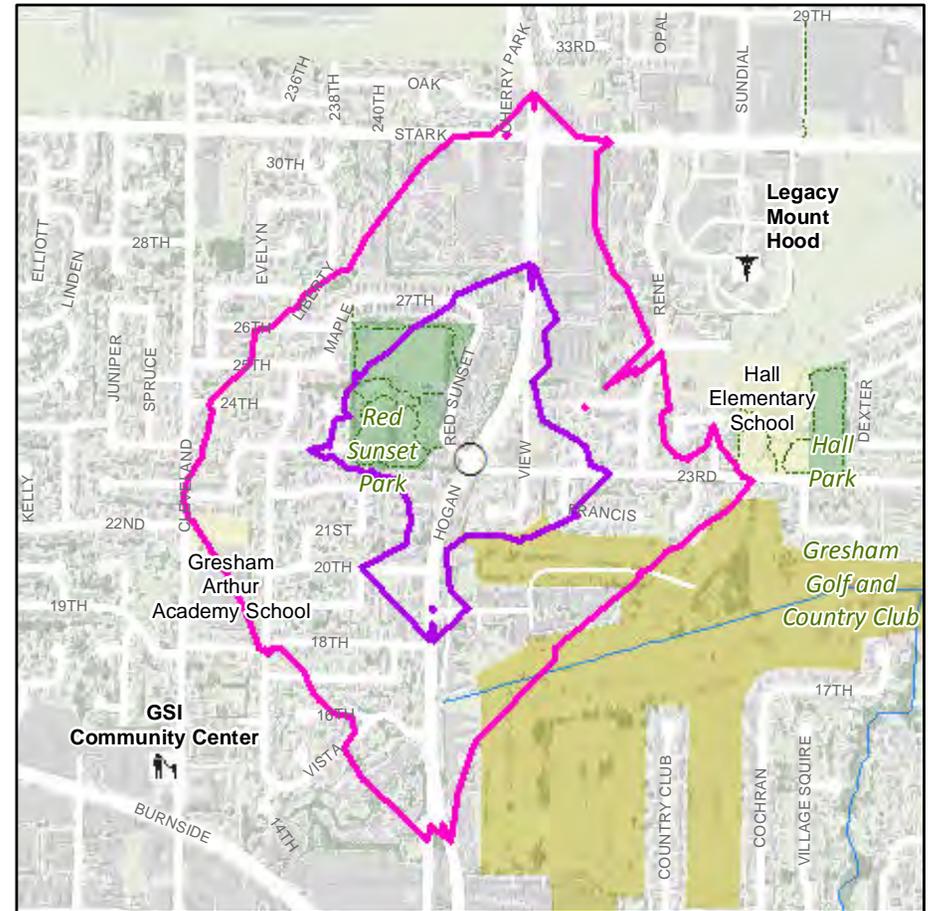
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	66	360
10 minute	630	1291

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	65	333
10 minute	537	1061

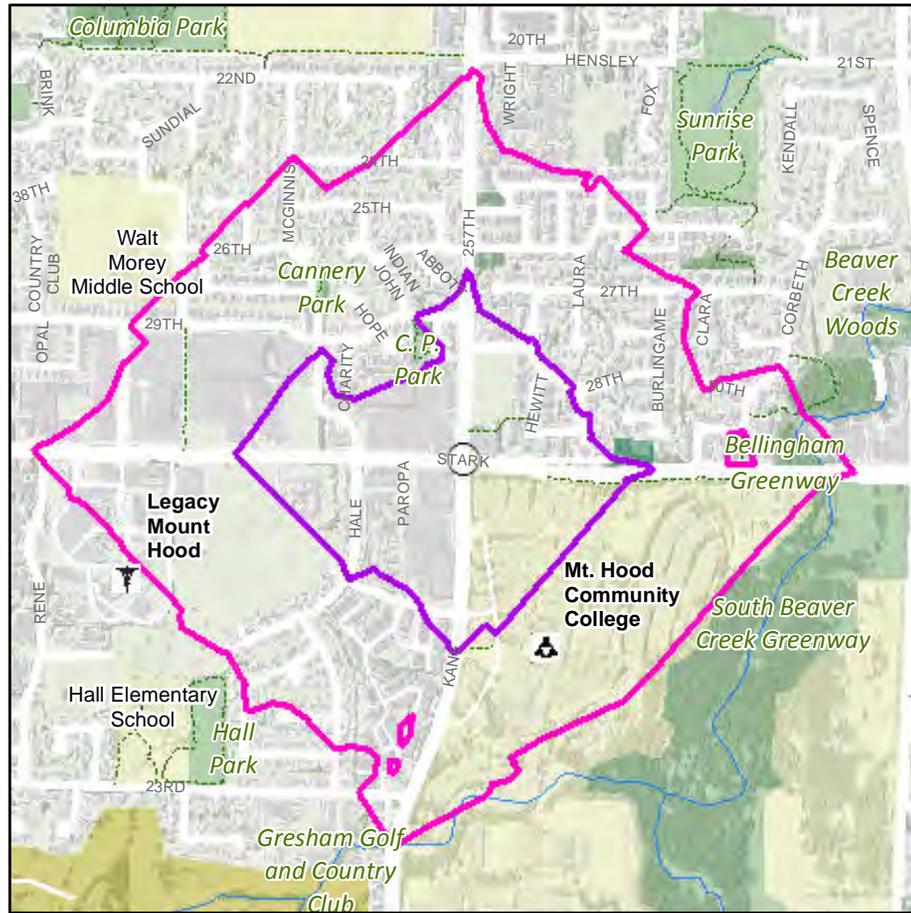
0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Stark & Kane

Map 46

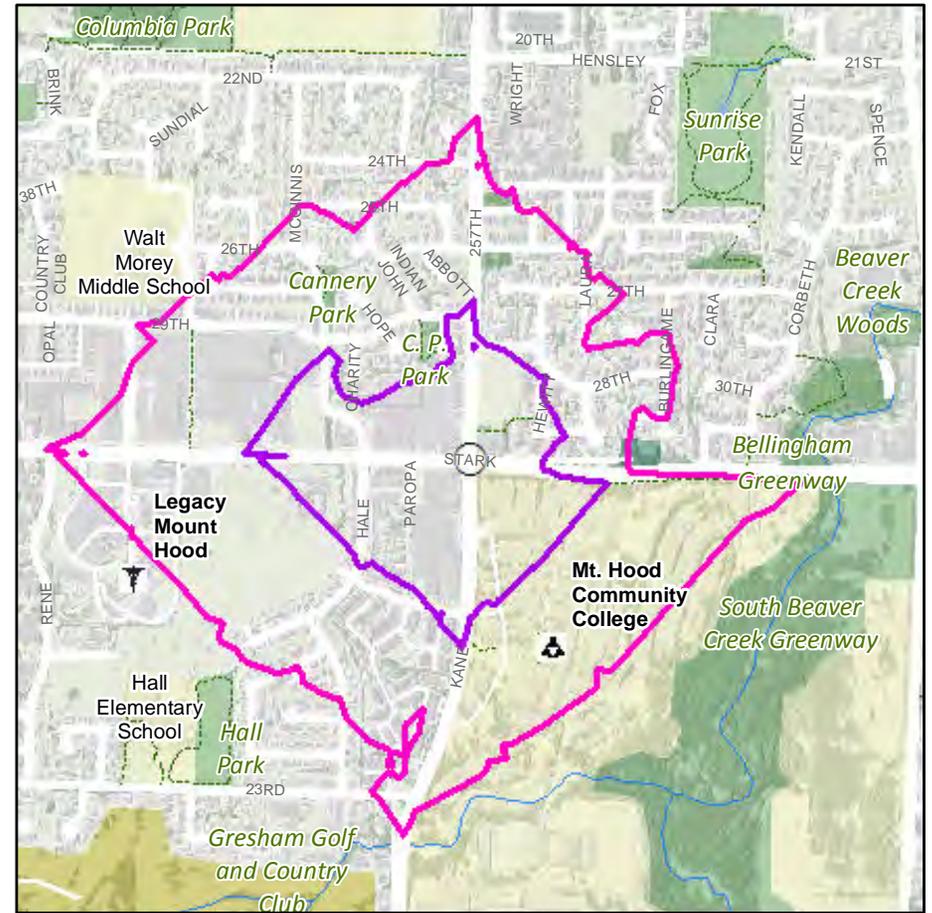
Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	481	256
10 minute	1726	1115

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	381	239
10 minute	1712	882

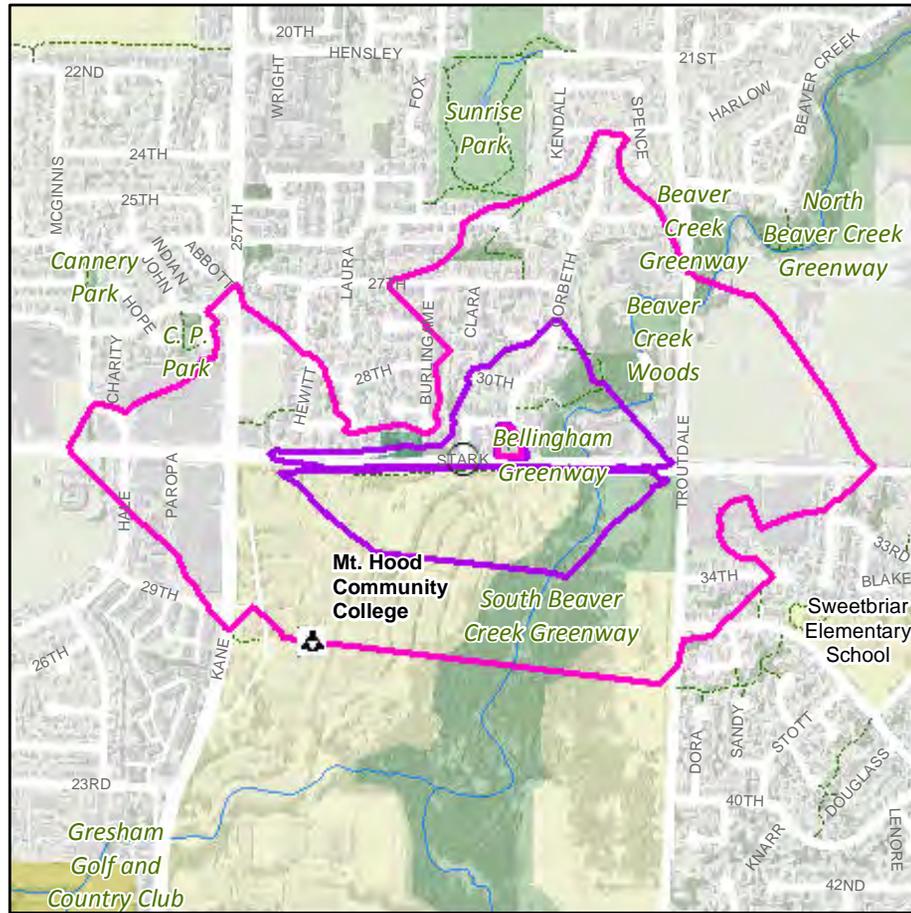
0.25 Miles

- Station
- 5 minute walkshed
- 10 minute walkshed
- 🏠 Community Center
- 🏢 Employment
- 🏥 Hospital
- 📖 Library
- 🎓 School
- 🌳 Parks and/or Natural Areas
- ⚰ Cemeteries
- 🏌️ Golf Courses
- 🏫 School Lands

MHCC (Stark)

Map 47

Walkshed - Distance



Walkshed	Employment	Housing Units
5 minute	130	118
10 minute	1515	366

0.25 Miles

Walkshed - Traffic



Walkshed	Employment	Housing Units
5 minute	1	71
10 minute	1089	217

0.25 Miles

-  Station
-  Community Center
-  Parks and/or Natural Areas
-  5 minute walkshed
-  Employment
-  Cemeteries
-  10 minute walkshed
-  Hospital
-  Golf Courses
-  Library
-  School Lands
-  School

Travel Time Comparison Tables

The tables on the following pages report the walking travel times from potential stations to key destinations that were identified in the project goals. Two travel times are reported per destination: ideal conditions (distance-weighted model) and existing traffic conditions (traffic-weighted model). The travel time savings will be used to prioritize walking projects (along with other criteria) in the next phase of the project.

Map Page Number	Station Name	Grocer/Market	Walk time - Traffic (min)	Walk time - No Traffic (min)
1	OMSI	Westfarm Foods	11.4	7.6
2	Division (11th & Clinton)	Westfarm Foods	8.9	7.7
3	Powell & Milwaukie	Westfarm Foods	10.5	8.1
4	Powell & 21st	Seven Days Food Market	9.0	8.0
4	Powell & 21st	New Seasons	8.7	7.6
4	Powell & 21st	New Seasons	9.9	8.9
4	Powell & 21st	People's Food Co-op	2.9	1.9
5	Powell & 26th	Penny Saver Market & Deli	7.6	6.4
5	Powell & 26th	People's Food Co-op	8.1	7.1
6	Powell & 33rd	Safeway	10.9	8.8
7	Powell & Cesar Chavez	Dahbin & Co	7.2	5.5
7	Powell & Cesar Chavez	Safeway	2.1	0.2
8	Powell & 50th	A To Z Piggy Mart	10.7	9.4
8	Powell & 50th	An Dong Market	5.6	5.1
8	Powell & 50th	Franklin Market	7.7	6.6
9	Powell & 59th	An Dong Market	8.3	4.5
9	Powell & 59th	Paldo Market	16.2	9.2
9	Powell & 59th	Yeseinas Market	14.2	7.1
10	Powell & 71st	Food 4 Less	12.2	8.8
10	Powell & 71st	Yeseinas Market	7.1	4.8
11	Powell & 82nd	Food 4 Less	2.9	2.1
11	Powell & 82nd	Food Depot	4.6	3.7
11	Powell & 82nd	Good Neighbor Store	7.5	6.5
12	50th & Woodward	Franklin Market	0.8	0.1
13	52nd & Woodward (Franklin High Schoo	An Dong Market	9.0	8.8
13	52nd & Woodward (Franklin High Schoo	Franklin Market	3.4	2.7
14	82nd & Woodward (Fubonn)	Food 4 Less	9.2	7.7
14	82nd & Woodward (Fubonn)	Food Depot	10.2	9.2
14	82nd & Woodward (Fubonn)	Fubonn Supermarket	7.9	6.2
14	82nd & Woodward (Fubonn)	Pin Seng Trading Co	6.6	5.4
14	82nd & Woodward (Fubonn)	Sun's Market	11.7	8.9
15	Division & 50th	Franklin Market	5.5	5.3
16	Division & 52nd	Franklin Market	7.6	7.2
16	Division & 52nd	Sunny's Mini Mart	9.7	9.4
17	Division & 60th	Sunny's Mini Mart	2.6	2.3
19	Division & 82nd	Fubonn Supermarket	8.0	5.5
19	Division & 82nd	Pin Seng Trading Co	4.3	2.9
19	Division & 82nd	Sun's Market	6.4	4.6
20	Division & 92nd MAX Station	Sun's Market	8.4	7.1
21	Division & 101st	Roman Russian Food Store	11.1	8.1

Map Page Number	Station Name	Grocer/Market	Walk time - Traffic (min)	Walk time - No Traffic (min)
22	Division & 112th	Best Buy Market	1.1	0.2
22	Division & 112th	Roman Russian Food Store	4.7	3.3
23	Division & 122nd	Albertsons	5.4	4.6
23	Division & 122nd	Us Market	7.0	5.4
23	Division & 122nd	Usa Market	5.3	4.0
24	Division & 130th	Us Market	4.8	3.5
24	Division & 130th	Usa Market	5.8	4.7
25	Division & 139th	3d's Grocery	11.4	8.9
25	Division & 139th	C Mart	10.2	7.2
26	Division & 148th	C Mart	4.7	3.4
26	Division & 148th	K S Food Market	10.7	6.7
26	Division & 148th	Pakse Market	10.1	8.7
27	Division & 156th	K S Food Market	6.6	4.4
27	Division & 156th	Safeway	9.2	7.9
28	Division & 162nd	K S Food Market	12.7	9.8
28	Division & 162nd	Safeway	2.4	1.6
29	Division & 174th	Asian Food Market	11.2	9.3
29	Division & 174th	Save-a-lot	1.4	1.3
29	Division & 174th	Us Market	2.7	2.6
30	Division & 182nd	Asian Food Market	11.6	9.0
30	Division & 182nd	Save-a-lot	9.4	7.6
30	Division & 182nd	Us Market	8.2	6.4
31	Division & 190th	Canned Foods	15.8	7.6
31	Division & 190th	Cash & Carry	19.0	9.4
31	Division & 190th	Grocery Outlet	15.8	7.6
32	Division & Gresham-Fairview Trail	Canned Foods	11.4	6.7
32	Division & Gresham-Fairview Trail	Cash & Carry	2.9	0.1
32	Division & Gresham-Fairview Trail	Grocery Outlet	11.4	6.7
33	Division & Bella Vista	Cash & Carry	14.0	7.2
35	Division & Eastman/223rd	Cost Cutter Foods	11.0	9.5
38	Division & Cleveland	Tienda Y Verdureria Alvarez	11.7	9.4
40	223rd & Fairview	12 Mile Market	10.2	8.1
40	223rd & Fairview	Cost Cutter Foods	2.1	0.1
41	Stark & 223rd	12 Mile Market	3.8	3.1
41	Stark & 223rd	Lucky 7	0.8	0.1
44	Stark & Hogan	Cfr Inc	3.3	2.5
46	Stark & Kane	Albertsons	2.3	1.5
47	MHCC (Stark)	Albertsons	15.8	8.0
47	MHCC (Stark)	Mt View Market	12.5	5.8

Map Page Number	StationName	School Name	Walk time - Traffic (min)	Walk time - No Traffic (min)
1	OMSI	Portland Community College-CLIMB Cen	9.2	8.6
4	Powell & 21st	MESD Program at Cleveland HS	6.3	5.3
4	Powell & 21st	Cleveland HS	7.8	5.6
5	Powell & 26th	MESD Program at Cleveland HS	1.1	0.2
5	Powell & 26th	Cleveland HS	2.6	1.7
6	Powell & 33rd	MESD Program at Cleveland HS	9.0	8.1
6	Powell & 33rd	Cleveland HS	10.5	9.7
6	Powell & 33rd	Parry Center SCIP	7.9	7.0
7	Powell & Cesar Chavez	Parry Center SCIP	7.4	5.4
12	50th & Woodward	Franklin High	7.5	6.2
13	52nd & Woodward (Franklin High S	Franklin High	5.0	4.7
15	Division & 50th	Franklin High	10.0	9.7
16	Division & 52nd	Franklin High	7.8	7.6
17	Division & 60th	Franklin High	8.6	8.4
17	Division & 60th	Warner Pacific College	9.3	8.7
18	Division & 71st	Warner Pacific College	5.2	4.6
20	Division & 92nd MAX Station	Grace Lutheran	6.3	5.3
26	Division & 148th	Serendipity	1.8	0.9
27	Division & 156th	SERP Enterprises Inc.	5.6	3.7
27	Division & 156th	Serendipity	13.7	9.1
34	Division & Wallula/212th	Center for Advanced Learning	10.8	8.6
35	Division & Eastman/223rd	Center for Advanced Learning	9.4	8.0
35	Division & Eastman/223rd	Gresham High	7.1	6.0
36	Division & Main	Gresham High	2.4	1.6
37	Gresham Transit Center	Alpha High	6.6	6.6
37	Gresham Transit Center	Gresham High	8.1	6.8
37	Gresham Transit Center	Pathways Community School	11.2	8.3
38	Division & Cleveland	Alpha High	4.3	2.5
39	Division & Hogan	Alpha High	12.0	9.5
40	223rd & Fairview	Gresham High	11.7	8.8
46	Stark & Kane	Mt. Hood Community College	6.2	5.2