

Sidewalks to Schools Grant Application

Portland Clean Energy Fund:
Collaborating for Climate Action Funding Opportunity



PBOT
PORTLAND BUREAU OF TRANSPORTATION



1. Project Description

Project Overview

This grant proposal is a genuine community initiative. Parents, neighbors, and organizations from across Portland—and especially those most affected by the lack of safe pedestrian facilities for kids—came together with Oregon Walks to advocate for PBOT's collaboration on this endeavor. These communities were thrilled when PBOT decided to join in! Since that time, PBOT and Oregon Walks have been working together on this proposal, aiming for a transformative impact on Portland's sidewalk infrastructure leading to schools. ***From this community advocacy Sidewalks to Schools was born.***

Sidewalks to Schools aims to create safer access to Portland schools—and increase the number of students walking and rolling to schools—by constructing new sidewalks near schools. Oregon law dictates that primary school students living within one mile of school are responsible for their own transportation. Yet, for decades, tens of thousands of children in Portland have not had safe, connected, or accessible sidewalk networks to their schools. We know this is the case because Safe Routes to Schools mapping projects have shown where gaps exist. It is important to note that neighborhoods with larger percentages of PCEF priority populations also have fewer completed and connected routes to their schools. As a result, students and their families are forced to make a choice: walk or roll to school on an unsafe and inaccessible route, drive to school, or don't attend school.

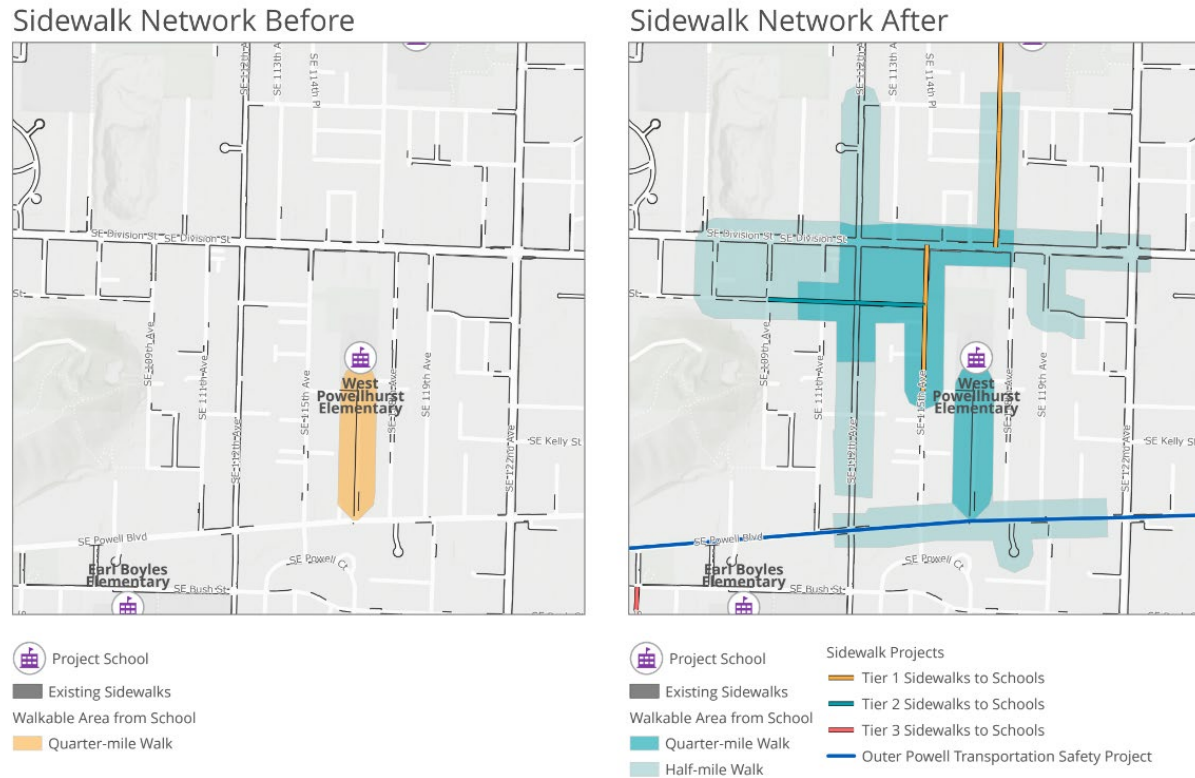
The Portland Bureau of Transportation (PBOT), in partnership with Oregon Walks, is requesting \$20-60 million from PCEF to make a meaningful and substantial investment in walking infrastructure near schools in the Portland neighborhoods that need it most, specifically Cully and East Portland. While this funding request would not complete every route to school, this is the best available opportunity to begin addressing the problem of unsafe infrastructure for children simply trying to get to and from school. This project, if funded in full, would construct approximately 32,000 linear feet (6.07 miles) of new sidewalks and would plant approximately 790 new street trees. The project would also construct approximately 225 Americans with Disabilities Act (ADA) compliant curb ramps.¹

While six miles may seem modest in the context of the city's overall needs, the project selection was highly strategic. These segments are specifically selected to fill sidewalk gaps, creating connected pedestrian networks around schools where they are most needed. This targeted approach maximizes the impact by enhancing safety and accessibility for students and families. For example, to understand the impact of adding the three nearby sidewalk projects, a walkshed analysis was conducted for the sidewalk network near West Powellhurst Elementary School. A “walkshed” is the area around a central destination—in this case schools—that is accessible, on foot, by the average person. With the existing sidewalk network, it's only possible to walk from West Powellhurst Elementary south on SE 116th Ave to Powell Boulevard on a complete sidewalk. This means the walkshed from West Powellhurst Elementary is currently ¼ mile in one direction. After adding the three sidewalk projects on SE 117th Ave (#6), SE

¹ All total numbers are approximations (except for those projects with complete design) and subject to change in the project development and design phases.

115th Ave (#7), and SE Clinton St (#11), plus the addition of the upcoming Outer Powell Project, the walkshed expands to over ½ mile and in multiple directions (Figure 1 Sidewalk Network Before and After Project Implementation).

Figure 1 Sidewalk Network Before and After Project Implementation



Walking is the most accessible, affordable, and carbon-free form of transportation, and pedestrian infrastructure is critical for those who rely on transit. Walking and transit are often the only option for people living with disabilities, people with low incomes, and others with limited transportation choices, making pedestrian infrastructure and safety a fundamental component of achieving transportation equity. In Portland, inadequate pedestrian infrastructure and traffic safety concerns disproportionately impact low-income communities and people of color. Sidewalk connectivity and quality is severely lacking in higher equity neighborhoods, particularly in the outer neighborhoods of East Portland.

This project will also be creating space for, and planting, street trees, adding tree canopy coverage in the neighborhoods in Portland that need it the most. Additionally, any projects that add curb and sidewalk will be required to manage stormwater, which is another ancillary benefit of this program. The added stormwater management will help mitigate the negative impacts of climate change for adjacent properties by reducing flooding and property damage from large rainfall events. Capturing this runoff will reduce this type of climate impact burden for the neighborhood. For example, the Cully projects would add 17 new sedimentation maintenance holes, 24 new sumps, 60 new inlets, and 1,830 feet of storm pipe. This would reduce nuisance flooding on 11 street segments in the Cully neighborhood. While this example is just for the three Cully projects, similar improvements to stormwater management and nuisance flooding would be completed in all proposed projects.

Project Tiers

PBOT is requesting \$20-60 million to construct new sidewalks near schools (*see Table 1 Sidewalks to Schools Project Information and Figure 2 Overview Map of Project Locations*). The proposal is organized into three project tiers of approximately \$20 million each. If awarded the full request of \$60 million, we anticipate building approximately six miles of pedestrian improvements. However, this proposal is scalable, and every dollar received will result in more pedestrian access to schools in neighborhoods that are disproportionately underserved in infrastructure investments for walking and rolling. Improvements from this grant, while targeted at households with school age children, serve all community members, especially older adults, and those with disabilities. Funding in Tiers 2 and 3 also includes funding for Oregon Walks to create an internship and workforce development program.

Tier 1

The Tier 1 projects are all high priority projects that will build critical sidewalk and pedestrian connections in Cully and East Portland, as well as plant street trees and install lighting as appropriate. These projects are all on the PBOT Safe Routes to School Priority Investment Route and all provide critical connections to the pedestrian network near schools.

The three Cully projects are at 100% design and ready to go to bid. This means construction can start in summer 2025 and all the PCEF funding for those projects will go directly to construction. This is an incredibly efficient use of the PCEF funding, with no city staff time covered by the grant funding.

There are four projects in the Tier 1 bundle that are through 60% design, which means the design team has a high level of confidence in the cost estimate and ability to deliver. Those four projects (NE Shaver, SE 130th, SE 117th and SE 115th) can leverage funding besides PCEF to finish design, meaning that all of the PCEF funding for those projects will go directly to construction costs.

The remaining two projects in the Tier 1 bundle have not gone through design but have high level concept designs and planning level cost estimates. These two projects are included because of the high priority score and community requests to fill these critical sidewalk gaps. PCEF funds would be used to both design and construct these two projects.

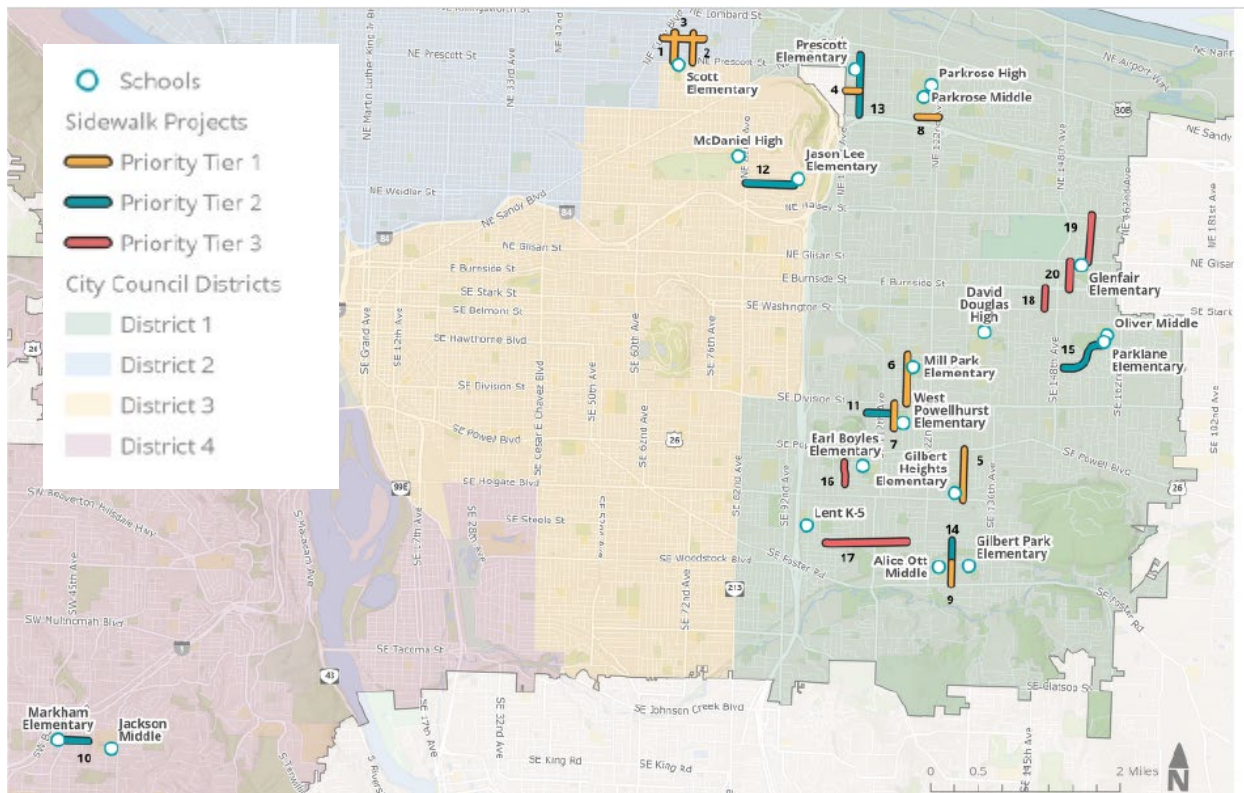
Tier 2

The Tier 2 projects are all high priority. However, except for one, these projects have not had any detailed design work. The cost estimates are planning level but do reflect the design phase, construction engineering, construction costs (with anticipated roadway and civil cost details, such as quantities and unit costs), project escalation, and a 20% contingency. All Tier 2 projects would construct sidewalks, as well as plant street trees, construct ADA ramps, and provide street lighting as warranted. Additionally, the Tier 2 budget includes funding for Oregon Walks. This funding would allow Oregon Walks to create an internship program with the goal of creating workforce development and job shadowing opportunities for youth in the community, connecting them to various jobs in the transportation sector.









Tier 3

Again, Tier 3 projects are all high valued sidewalk projects, but they have not started the design process. The cost estimates are planning level and reflect the design phase, construction engineering, construction costs (with anticipated roadway and civil cost details, such as quantities and unit costs), project escalation, and a 20% contingency. All Tier 3 projects would construct sidewalks, as well as plant street trees, construct ADA ramps, and provide street lighting as warranted. Like Tier 2, the Tier 3 budget includes funding for Oregon Walks to grow the internship program even more by, adding more internship spots into the program.

Figure 2 Overview Map of Project Locations



Sidewalks To Schools

-  Schools
- Sidewalk Projects
 -  Priority Tier 1
 -  Priority Tier 2
 -  Priority Tier 3
- City Council Districts
 -  District 1
 -  District 2
 -  District 3
 -  District 4

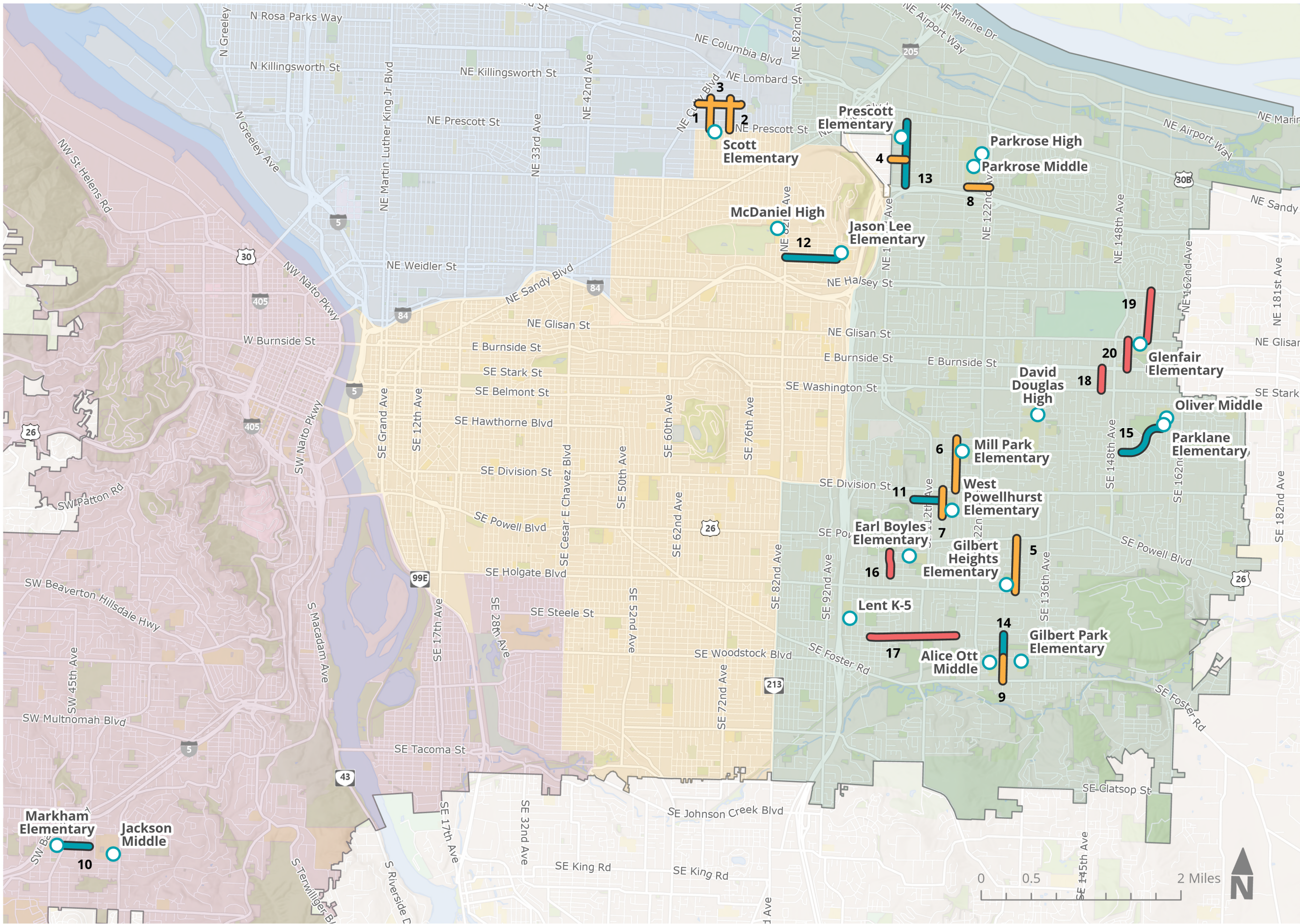
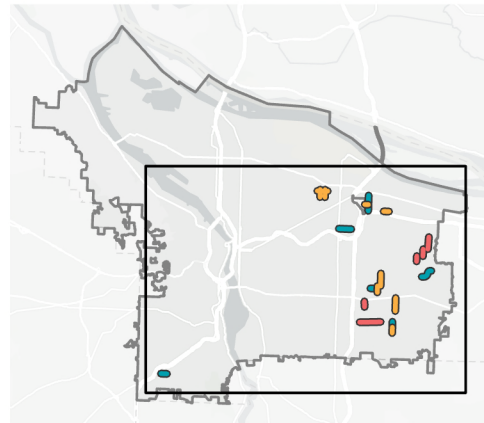


Table 1 Sidewalks to Schools Project Information

	Location	Funding Needed	Status	SRTS Primary Investment Route	Project Description
	Tier 1				
#1	NE 66th Ave: Prescott - Sumner	\$ 2,500,000	final plans done, ready for contracting	Scott ES	Constructs sidewalk on the east side of 66th Ave, connecting to a crossing of Prescott to Scott School. Also adds street trees (30), lighting, ADA ramps (16), and stormwater infrastructure to reduce nuisance flooding. Project preserves 87 existing trees.
#2	NE 70th Ave: Prescott- Sumner	\$ 1,500,000	final plans done, ready for contracting	Scott ES	Constructs a narrow ADA friendly shared street with dead-ends for motor vehicle traffic, allowing pedestrians and cyclists to pass through via multiuse path connections. This design allows the project to preserve mature trees growing in the right of way and reduces motor vehicle traffic while prioritizing non GHG emitting movement through the neighborhood. Also adds lighting. Project preserves 109 existing trees.
#3	NE Alberta St: Cully - 72nd	\$ 2,000,000	final plans done, ready for contracting	Scott ES	Constructs sidewalk on the south side of Alberta. Also adds street trees (21), lighting, ADA ramps (17), and stormwater infrastructure to reduce nuisance flooding. Project preserves 89 existing trees.

#4	NE Shaver St: 102nd - 105th	\$ 1,425,000	60 % design	Parkrose Middle, Parkrose High, Prescott Elementary	Construct 6' sidewalk and 6' furnishing zone with street trees (6) on the south side of NE Shaver between NE 102nd and 105th Avenue on this route to Parkrose MS and Parkrose HS. Would connect to sidewalk project planned from 105th - 115th. Upgrade ADA ramps (6)
#5	SE 130th Ave: Holgate - Powell	\$ 3,135,000	60% design	Gilbert Heights ES	Construct sidewalks on west side of SE 130th, plant 46 street trees, and add storm water management. Add 16 ADA ramps.
#6	SE 117th Ave: Division - Market	\$ 4,421,000	60% design	Mill Park ES	Construct sidewalks on the east side of SE 117th, plant 51 street trees, and add storm water management. Add 16 ADA ramps.
#7	SE 115th Ave: South of Division - Brooklyn	\$ 1,529,653	60% design	West Powellhurst ES	Construct sidewalks on the east side of SE 115th, plant 22 street trees, and add storm water management. Add 6 ADA ramps.
#8	NE Fremont St: 118th - 122nd	\$ 2,049,600	concept design from 2021; Rough Order of Magnitude Cost Estimate	Prescott ES, Parkrose MS, Parkrose HS	Construct sidewalk on the north side of NE Fremont behind the existing curb. New ADA ramps (14) on both sides of Fremont at NE 120th and 121st Ave. Add approx. 30 street trees.
#9	SE 128th Ave: Foster - Ramona	\$ 2,000,000	no design, would need to include stormwater mitigation at Ramona intersection	Alice Ott Middle, Gilbert Park ES	Construct sidewalk on the east side of SE 128th Ave. Add approx. 31 street trees.
	Total	\$ 20,560,253			
	Tier 2				

#10	SW Galeburn St: Capitol-41st	\$ 2,118,000	Updated engineering cost estimate from August 2024	Markham ES / Jackson MS	Pave gravel street, construct south side sidewalk and in-roadway walkway, install stormwater facilities with native plants, plant 15 streets trees in new planting strip.
#11	SE Clinton St: 109th - 115th	\$ 2,478,000	Engineer's Estimate only	West Powellhurst ES	Pave gravel street portion, repair pavement of asphalt portion, add sidewalk on one side, manage stormwater, replace and relocate water main.
#12	NE Tillamook St: 82nd - 92nd	\$ 4,909,000	no design; Rough order of Magnitude cost estimate	Lee ES, McDaniel	Construct sidewalk on the north side of the street. Add approx. 68 street trees. Add 36 ADA ramps.
#13	NE 105th Ave: Fremont - Wygant	\$ 6,055,000	no design; Rough order of Magnitude cost estimate	Prescott ES, Parkrose MS, Parkrose HS	Construct sidewalk on the west side of the street. Add approx. 96 street trees. Add 16 ADA ramps.
#14	SE 128th Ave: Ramona - Harold	\$ 2,617,200	no design; Rough order of Magnitude cost estimate	Alice Ott Middle, Gilbert Park ES	Construct sidewalk on east side of the street. Add approx. 38 street trees. Add 13 ADA ramps
#15	SE Millman Dr: 150th - Main	\$ 2,500,000	no design; Rough order of Magnitude cost estimate	Parklane/Oliver	Construct sidewalk on one side of the street. Add approx. 14 street trees.
	Total	\$ 20,677,200			
	Phase 3				
#16	SE 104th Ave: Boise - Bush	\$ 2,970,000	no design; Rough order of Magnitude cost estimate	Boyles ES, Davis Douglas HS	Construct sidewalk on the west side of the street. Add approx. 40 street trees. Add 24 ADA ramps.
#17	SE Harold St: 101st - 118th Ave	\$ 8,059,200	no design; Rough order of Magnitude cost estimate	Lent ES	Construct sidewalk on the north side of the street. Add approx. 125 street trees. Add 22 ADA ramps
#18	SE 146th Ave: Stark - Burnside	\$ 1,417,000	no design; Rough order	Arthur Academy, Glenfair ES	Construct sidewalk on the west side of SE 146th Ave. New ADA ramps at

			of Magnitude cost estimate		Burnside. Add approx. 14 street trees.
#19	NE 155th Ave: Glisan - Halsey	\$ 4,807,500	no design; Rough order of Magnitude cost estimate	Glenfair ES	Construct sidewalk on east side of the street. Add approx. 86 street trees. Add 8 ADA ramps.
#20	NE 151st Ave: Burnside - Glisan	\$ 2,745,000	no design; Rough order of Magnitude cost estimate	Glenfair ES	Construct sidewalk on the west side of the street. Add approx. 39 street trees. Add 11 ADA ramps
	Total	\$ 19,998,700			
	Total for all tiers	\$ 61,236,153			

Oregon Walks Internship and Workforce Development Program

Tier 1 projects represent some of the highest priority projects and those that can be constructed efficiently, relatively quickly, and by taking advantage of already-completed planning, design, and funding. Tier 1 is focused on delivering sidewalk projects and nothing else. In this way, these projects utilizes PCEF funding for maximum construction outcomes that will result in highly visible, highly popular projects that meet community needs. This is what the community members who signed off on the coalition letter want: for PBOT to build critical sidewalk connections to schools.

However, there is also an understanding that providing internship, job shadowing, and workforce development opportunities are an important piece of this work. Tier 2 of this grant proposal includes \$283,560 in funding for Oregon Walks—in partnership with the Bureau of Transportation—to manage a transportation career internship program. This program would connect youth from the community to participate in a 4-week internship opportunity where they would job shadow professionals in the transportation planning, engineering, construction, and Safe Routes to School spaces. The program would include 6-8 interns per quarter, resulting in up to 32 internship opportunities a year. Interns would receive a stipend of approximately \$1,500 upon completion of the 4-week program. Tier 3 includes another \$154,050 for Oregon Walks, so the internship program could expand for an additional year, bringing the total internships to approximately 96 internship slots over three years. Oregon Walks would hire a full-time employee to manage this program for two-three years. See *Table 1 Oregon Walks Internship Program Costs* for detailed cost information.

In addition to managing the internship program, this employee would partner with PBOT staff, Oregon Walks staff, and community partners on activation of the new construction through community events.

Finally, the internship program would work in concert with other workforce development programs in the transportation section, including along 82nd Avenue, where the 82nd Avenue Coalition is working with Trimet, Metro, and PBOT on connecting local citizens to training and job opportunities on the upcoming construction projects and utilizing this as an anti-displacement strategy.

Table 2 Oregon Walks Internship Program Costs

Year 1	Cost	Details
Oregon Walks FTE	70,000	
Oregon Walks overhead	22,960	
Internship stipends	44,800	8 internships at \$1,400 each x 4 quarters
Total Y1	137,760	
Year 2		
Oregon Walks FTE	73,500	
Oregon Walks overhead	24,300	
Internship stipends	48,000	8 internships at \$1,500 each x 4 quarters
Total Y2	145,800	
Year 3		
Oregon Walks FTE	77,175	
Oregon Walks overhead	25,675	
Internship stipends	51,200	8 internships at \$1,600 each x 4 quarters
Total Y3	154,050	

Project Origins & Coalition

Extensive community outreach and engagement underlies the projects that will be constructed through this grant funding. PedPDX, the city's pedestrian master plan that was adopted in 2019, included an extensive, multi-year community engagement effort that analyzed and prioritized the sidewalk gaps in Portland. In 2017, PBOT Safe Routes to School (SRTS) staff, together with school communities and a Stakeholder Advisory Committee, identified Primary Investment Routes leading to every permanent public elementary, K-8, and middle school campus in Portland. SRTS developed a prioritized list of infrastructure projects to improve safety and walking access along those routes. This list of underfunded or unfunded, but prioritized project locations, together with the PedPDX priority sidewalk gap locations, informed the selection of sidewalk projects to be funded by PCEF.

Oregon Walks has garnered support from many local partners and community groups, including those that represent and serve the communities that will benefit from the sidewalks this grant award would fund. In addition to the signed letter of support that was submitted as part of the PCEF Letter of Intent process, PBOT and Oregon Walks invited partners and community organizations to a virtual work session on May 15, 2024 to walk through the proposed grant application and discuss the proposal. At that work session, representatives from school districts (Portland Public, Parkrose, David Douglas, and Centennial), community organizations (Depave, APANO, and Thrive East PDX), partner bureaus (Portland Parks and Recreation's Urban Forestry), and interested and invested community members discussed the proposal and provided feedback on the approach.

Project Goals and Outcomes

The project aims to improve pedestrian safety and accessibility near schools by building sidewalks that promote walking and active transportation, reduce traffic congestion, and enhance community health. In doing so, this project aims to lower GHG and particulate emissions by replacing car trips to schools with kids who are now able to walk/roll safely and accessibly. It will also support equitable access to education by ensuring safe routes for all students, particularly those from underserved areas. Many schools in Portland also act as community centers and green space for the neighborhood even outside of school specific activities. Investments to increase walking access to school campuses supports students and families and the neighborhood at large. The project incorporates environmental sustainability by increasing tree planting and tree canopy coverage along sidewalks, improving air quality and aesthetic value. Additionally, it will enhance accessibility for individuals with disabilities through the installation of ADA-compliant curb ramps, creating an inclusive and safer walking environment for all.

Goal 1. Enhance Safety for Students and Pedestrians

Goal: Improve the safety of students and community members by providing secure, designated walking paths to and from school, reducing the risk of pedestrian-related crashes.

Outcome: A measurable decrease in crashes and reported near-misses in the areas surrounding schools. Families reporting feeling safer while walking to school.

Goal 2. Encourage Walking and Active Transportation

Goal: Promote walking and other forms of active transportation (e.g., biking, scootering) for students, parents, and staff by creating accessible and well-maintained sidewalks.

Outcome: More students walking or biking to school and the numerous health, social, and educational benefits related to students getting more exercise.²

Goal 3. Reduce Traffic Congestion and Vehicle Emissions

Goal: Alleviate traffic congestion during school drop-off and pick-up times by encouraging a mode shift from driving to walking, thereby reducing vehicle-related emissions around schools.

Outcome: A reduction in vehicle traffic near schools during peak hours results in fewer GHG and particulate emissions

Goal 4. Improve Accessibility for Individuals with Disabilities

Goal: Ensure all sidewalks and crossings are compliant with the Americans with Disabilities Act (ADA) by installing curb ramps and accessible pedestrian features, allowing safe and equitable access for individuals with disabilities.

Outcome: Install ADA-compliant curb ramps at all street crossings within the project area, ensuring accessibility for individuals with mobility challenges and improving overall pedestrian safety and inclusivity.

Goal 5. Increase Tree Canopy Coverage

Goal: Integrate green infrastructure by including tree planting areas in sidewalk corridor, enhancing the tree canopy to provide shade, improve air quality, and contribute to the aesthetic value of school routes.

Outcome: Plant hundreds of new trees along sidewalks within the project area.

Planning Integration

The City of Portland's Comprehensive Plan calls for the city to "Invest to reduce infrastructure disparities and improve livability. This strategy is appropriate for places that are not expected to grow significantly, but that have existing infrastructure deficiencies. Investments could fill gaps in streets, bicycle, and pedestrian routes, and create local parks. Economic development programs could support existing and new businesses and improve neighborhood prosperity and vitality". It also includes Chapter 9: Transportation with policy support for pedestrian infrastructure investments.

Policy 9.5 Mode share goals and Vehicle Miles Travelled (VMT) reduction. Increase the share of trips made using active and low-carbon transportation modes. Reduce VMT to achieve targets set in the most current Climate Action Plan and Transportation System Plan, and meet or exceed Metro's mode share and VMT targets.

Policy 9.6 Transportation strategy for people movement. Implement a prioritization of modes for people movement by making transportation system decisions according to the following ordered list: 1. Walking 2. Bicycling 3. Transit 4. Fleets of electric, fully automated, multiple passenger vehicles 5. Other shared vehicles 6. Low or no occupancy vehicles, fossil-fueled non-transit vehicles.

Policy 9.8 Affordability. Improve and maintain the transportation system to increase access to convenient and affordable transportation options for all Portlanders, especially those who have traditionally been under-served or under-represented or have historically borne unequal burdens. Policy

9.9 Accessible and age-friendly transportation system. Ensure that transportation facilities are accessible to people of all ages and abilities, and that all improvements to the transportation system (traffic, transit, bicycle, and pedestrian) in the public right-of-way comply with the Americans with Disabilities Act of 1990. Improve and adapt the transportation system to better meet the needs of the most vulnerable users, including the young, older adults, and people with different abilities.

Policy 9.17 Pedestrian transportation. Encourage walking as the most attractive mode of transportation for most short trips, within neighborhoods and to centers, corridors, and major destinations, and as a means for accessing transit.

Policy 9.18 Pedestrian networks. Create more complete networks of pedestrian facilities, and improve the quality of the pedestrian environment.

Policy 9.19 Pedestrian safety and accessibility. Improve pedestrian safety, accessibility, and convenience for people of all ages and abilities.

² Modal data and counts will be collected with support from schools.

Project Benefits

Greenhouse Gas Emissions Reduction

This project will construct sidewalks where there currently are none. Improvements to the pedestrian network are recognized by multiple transportation and climate expert bodies to reduce vehicle miles travelled and associated GHG emissions, based on the following logic:

- Increasing sidewalk coverage improves pedestrian access.³ Providing sidewalks and an enhanced pedestrian network encourages people to walk instead of drive. This mode shift results in a reduction in VMT and GHG emissions.
- Nearly 40% of all local carbon emissions come from transportation sources. Shifting our transportation patterns from driving to environmentally sustainable modes such as walking, biking, and public transit plays a major role in minimizing climate impacts.⁴
- By providing sidewalks, we can increase the number of trips made by walking, particularly in areas with mixed land uses.⁵ Every vehicle trip taking a child to school that we can replace with a walking trip eliminates those GHG emissions.
- Finally, by giving our children the chance to walk to school, we are helping them become lifelong active transportation users, no longer dependent on a car to get around their community.

In the U.S., over the past two decades, 400 meters (0.25 miles or a 5-minute walk) has sometimes been assumed to be the distance that "the average American will walk rather than drive."⁶ The Oregon Department of Education defines the walkshed (mostly to help define who they need to serve with school bus transportation) in the following way: for elementary and middle school it is 1-mile radius from the school, for high school it is 1.5-mile radius. We understand that each child and family have different comfort and skill levels and leave it to parents/caregivers to decide what is walkable/bikeable for them. We often hear that asking a 3rd-5th grader to walk one mile is different from asking a kindergartner to walk one mile. That being said, up to ½ mile for even the youngest students with their parents seems reasonable, but only when provided consistent, safe, and accessible infrastructure.

Supporting City's Tree Planting Goals

Another climate benefit of this project is this tree planting component and its corresponding carbon sequestration benefits.⁷ This project will create significant opportunities to construct space for street

³ This includes inclusion of Pedestrian Network Improvements as a specific recognized project type in the State of California's quantification methodologies for compliance state Senate Bill (SB) 375, which requires metropolitan planning organizations (MPOs) to incorporate a Sustainable Community Strategy to reduce emissions in their regional transportation plans (RTPs) and submit it to the California Air Resources Board (CARB) for review.

⁴ PedPDX. [download \(portland.gov\)](https://portland.gov)

⁵ Safety Benefits of Walkways, Sidewalks, and Paved Shoulders. FHWA. [walkways brochure.pdf \(dot.gov\)](#)

⁶ Atash F. Redesigning suburbia for walking and transit: emerging concepts. *Journal of Urban Planning and Development*. 1994;120(1):48–57. [[Google Scholar](#)]

⁷ Nowak, David J. 2021. Understanding i-Tree: 2021 summary of programs and methods.

General Technical Report NRS-200-2021. Madison, WI: U.S. Department of Agriculture,

trees where currently none exists **and** will plant as many street trees as possible through this proposal. Initial project estimates show approximately 790 street trees will be planted as part of this project, although these are estimates and are subject to change during the project development and design phases of each project. This will provide physical space to plant street trees in the target neighborhoods that are most vulnerable to heat events. PBOT will coordinate with Portland Parks and Recreation's Urban Forestry for project implementation and permitting of street trees. Studies in Portland indicate that people of color and people earning low incomes are at higher risk for heat exposure and more vulnerable to urban heat than their white or higher income peers.⁸ Other vulnerable populations may include older adults and people with disabilities. Planting trees in heat-prone neighborhoods can meet the greatest need for cooling and achieves greater cooling capacity overall, maximizing both social and ecological benefits.⁹

Greener & More Equitable Construction

Manufacturing concrete is very greenhouse gas intensive. In fact, the cement sector is the third-largest industrial energy consumer and the second-largest industrial CO₂ emitter globally. Given that concrete is a widely used material on City construction projects, the City established its Low-Carbon Concrete Initiative in 2019 to reduce the overall carbon intensity of the concrete mixes used on City projects. This project will utilize low carbon concrete to further mitigate the carbon footprint of this project.

PBOT is committed to equity in contracting and workforce participation. Our proposed construction delivery methods for PCEF-funded sidewalk projects would be consistent with Council-adopted PCEF contracting and workforce equity goals. Construction procurement on these projects will typically involve one of four methods:

- Construction Price Agreements - PBOT holds several price agreement contracts for construction, consisting almost entirely of Disadvantaged, Minority-Owned, or Women-Owned businesses certified by the State of Oregon Certification Office for Business Inclusion and Diversity (COBID). These are typically used on projects under \$500,000 in value.
- Prime Contractor Development Program - On individual projects less than \$1 million, we utilize this sheltered market of COBID-certified contractors that bid on medium-sized capital projects to gain experience, grow their qualifications, and receive technical assistance.

Forest Service, Northern Research Station. 100 p. [plus 14 appendixes]. <https://doi.org/10.2737/NRS-GTR-200-2021>.

⁸ Voelkel, Hellman, Sakuma, and Shandas. 2018. Assessing Vulnerability to Urban Heat: A Study of Disproportionate Heat Exposure and Access to Refuge by Socio-Demographic Status in Portland, Oregon. *Int. J. Environ. Res. Public Health*. <https://doi.org/10.3390/ijerph15040640>

⁹ Weiqi Zhou, Ganlin Huang, Steward T.A. Pickett, Timon McPhearson, J. Morgan Grove,

Jia Wang. 2021. Urban tree canopy has greater cooling effects in socially vulnerable communities in the US. *Cell Press, One Earth*. [https://www.cell.com/one-earth/pdf/S2590-3322\(21\)00658-8.pdf](https://www.cell.com/one-earth/pdf/S2590-3322(21)00658-8.pdf)

- Low Bid Procurement - City of Portland Procurement administers and enforces the Subcontractor Equity Program and Workforce Training and Hiring Program on all low bid projects. PBOT has a good track record of achieving the program goals on its projects.
- Alternative Delivery - PBOT will consider alternative construction delivery methods such as Construction Manager / General Contractor (CM/GC) and Best Value Request for Proposals for particularly complex and higher value sidewalk projects. Alternative delivery offers the opportunity for additional contract equity and workforce requirements consistent with PCEF.

2. Project Funding Match

The Tier 1 projects bring over \$26 million in matching funds, as detailed in *Table 1 Tier 1 Leverage Funding*:

Table 3 Tier 1 Leverage Funding

Name of funding source	Value of resource (\$ or equivalent)
Local Transportation Infrastructure Charge (LTIC) - CULLY	\$ 7,005,954.00
Metro Grant - CULLY	\$ 2,200,000.00
Transportation System Development Charge funds (TSDCs) - CULLY	\$ 3,268,467.00
Water Bureau & Environmental Services Leverage - CULLY	\$ 6,000,000.00
PBOT General Funds (Out of the Mud) - CULLY	\$ 1,178,021.00
Local Transportation Infrastructure Charge (LTIC) - Division/Midway	\$ 4,671,780.00
PBOT General Funds (Out of the Mud) - Division/Midway	\$ 510,000.00
ODOT grant and Fixing our Streets funding – Shaver	\$ 1,500,000
Total leverage/match [CALCULATION]	\$ 26,334,222

The Tier 2 projects include \$1.1 million in matching funds, as detailed in *Table 2 Tier 2 Leverage Funding*:

Table 4 Tier 2 Leverage Funding

Name of funding source	Value of resource (\$ or equivalent)
Local Transportation Infrastructure Charge (LTIC) - SW	1,125,000

3. Project Beneficiaries

Neighborhood & School Community Benefits

There are over 36,000 households within ½ mile of the 20 proposed sidewalk projects in Tiers 1-3. That means over 36,000 households would benefit from having improved access and mobility from new sidewalk infrastructure in their neighborhoods. If funding is available to only construct Tier 1 projects, over 17,000 households will benefit from this new infrastructure. If Tiers 1 and 2 are funded, there are 28,000 households within ½ mile of the sidewalks that would benefit.

Table 5 Number of Households within 1/2 mile of sidewalk projects

TOTALS (without double counting)	
Tiers 1, 2, 3	36,315
Tiers 1, 2	28,000
Tier 1	17,840

Table 6 Number of Households within 1/2 mile of each project location

Data source: American Community Survey (ACS) 5-Year Estimates by Census Tract (2018-2022)			
Project #	Project Location	Estimated number of households within 1/2 mile	Summarized Area in SQUAREMILES
1	NE 66TH AVE: NE Sumner St to NE Prescott St	3135	1.10
2	NE 70TH AVE: NE Sumner St to NE Prescott St	3184	1.10
3	NE ALBERTA ST: NE Cully Blvd to NE 72nd Ave	3339	1.21
4	NE SHAVER ST: NE 102nd Ave to NE 105th Ave	2000	0.93
5	SE 130TH AVE: SE Powell Blvd to SE Holgate Blvd	4054	1.32
6	SE 117TH AVE: SE Market St to SE Division St	4092	1.30
7	SE 115TH AVE: SE Division St to SE Brooklyn St	3035	1.05
8	NE FREMONT ST: NE 118th Ave to NE 122nd Ave	2353	1.01
9	SE 128TH AVE: SE Ramona St to SE Foster Rd	1709	1.02
10	SW GALEBURN ST: SW Capitol Hwy to SW 41st Ave	2293	1.03
11	SE CLINTON ST: SE 109th Ave to SE 115th Ave	2801	1.07
12	NE TILLAMOOK ST: NE 82nd Ave to NE 92nd Ave	3017	1.29
13	NE 105TH AVE: NE Fremont St to NE Wygant St	2755	1.53
14	SE 128TH AVE: SE Ramona St to SE Harold St	2011	1.01
15	SE MILLMAIN DR: SE 150th Ave to SE Main St/SE 158th Ave	3674	1.29
16	SE 104TH AVE: SE Bush St to SE Boise St	3549	1.63
17	SE HAROLD ST: SE 101st Ave to SE 118th Ave	3632	1.64
18	SE 146TH AVE: E Burnside St to SE Stark St	2834	1.01
19	NE 155TH AVE: NE Halsey St to NE Glisan St	3268	1.28
20	NE 151ST AVE: NE Glisan St to E Burnside St	2928	1.07
	TOTALS (without double counting)		
	Tiers 1, 2, 3	36315	23.89
	Tiers 1, 2	28000	11.38
	Tier 1	17840	6.91

While the primary goal of Sidewalks to Schools projects is to connect households with their neighborhood schools, the sidewalk projects also connect people to nearby destinations and services. Sidewalk projects connect to multi-family housing developments, parks, public transit stops, grocery stores, markets, and food pantries, preschools and childcare facilities, and more. See Appendix A: Co-Benefits Maps for maps illustrating these benefits for all tier 1 and 2 projects.

While these sidewalk improvements will be strategically be placed on walking corridors for students, they serve all members of the community—especially older adults and people with disabilities—as routes for exercise, to daily needs, and to the green space at schools. AARP, the nation’s largest advocacy organization for older adults, calls Safe Routes to School improvements Safe Routes for All,

because their members benefit from these investments as well. Providing sidewalks increases the number of trips made by walking, an activity known to have physical and mental health benefits. A 2004 study found that of people with safe places to walk within 10 minutes of home, 43% reached recommended daily activity levels compared to just 27% of people who did not. Walking is known to help relieve stress, decrease the risk of heart disease, and boost the immune system thus reducing healthcare spending.

Investments in sidewalks serve more than just children walking to school. Sidewalks to Schools projects were analyzed to ensure that the PCEF priority populations would benefit from these investments. Older adults in particular benefit from better pedestrian networks due to decreased overall mobility and the health benefits of local and accessible exercise. Nine of the projects are in the top two quintiles of census tracts for population age 65 or greater (Appendix B: Demographic Profile - Age Over 65 Map). Additionally, fourteen of the 20 projects intersect or are completely within census tracts where over 23% of the population is under 18 - the highest quintile in the city (Appendix B: Demographic Profile - Age Under 18 Map).

People with disabilities are particularly vulnerable to injury without a safe place to travel separated from traffic. Half of the Sidewalks to Schools projects are within census tracts in the top two quintiles of disability percentage, where over 15% of residents have a disability (Appendix B: Demographic Profile – People with Disabilities Map).

Households with lower incomes often rely more on transit, walking, or other modes to get around. Lower income areas also tend to have historic infrastructure underinvestment, leaving the communities most in need of sidewalks with the least access to them. Eighteen of the projects are in the bottom two income quintiles, with almost two thirds being in the lowest quintile - census tracts where the median household income is below \$50,000 a year (Appendix B: Demographic Profile – Income Map).

Multnomah County Public Health created a Heat Vulnerability Index in 2023 to analyze and map adaptive capacity to extreme heat events in the Portland area. The index is a composite score of various inputs, such as the proportion of people with disabilities and those over 65. While each of these factors contribute to heat impacts, their intersection compounds vulnerability to extreme heat events. Of the 20 Sidewalks to Schools projects, 19 are in census tracts within the top two quintiles of heat vulnerability (Appendix B: Heat Vulnerability Index Map).

Mapping the density of street trees in Portland reveals stark differences in distribution as well (Appendix B: Street Tree Density Map) The Sidewalks to Schools projects are located in neighborhoods with the least amount of street trees, particularly compared to close in neighborhoods that have the highest density of street trees. By building sidewalks and creating space to plant street trees, these projects will bring benefits, such as shade, to the areas of our city that need it most.

Citywide Benefits

Residents of Portland benefit from the cost effectiveness of sidewalks and their longevity. Sidewalks are constructed from durable materials that can last for decades without the need for frequent repairs,

unlike roads, which often require repaving every 10 to 15 years due to wear and tear from heavier vehicle traffic. This longevity makes sidewalks a more sustainable and fiscally responsible investment in community infrastructure.

Residents of Portland also benefit from the management of stormwater run-off that will be a part of this project. Managing stormwater runoff provides several benefits, including reducing flooding by controlling water flow, enhancing water quality by filtering pollutants, and replenishing groundwater supplies. It also helps protect aquatic ecosystems, minimizes erosion, and can enhance local landscapes with green infrastructure like rain gardens and permeable pavements. Additionally, effective stormwater management can lead to cost savings by reducing the need for expensive drainage systems and maintenance.

Engagement

PBOT and Oregon Walks are eager to foster meaningful community engagement around the proposed sidewalk projects, creating both an informed and enthusiastic response from local residents and schools. As construction progresses, we aim to celebrate these milestones, ensuring that the community feels a deep connection to the project's success.

PBOT's Safe Routes to School (SRTS) program has a proven track record of successfully engaging with diverse communities across multiple project phases. This includes a [comprehensive Transportation Safety Education program](#), offering pedestrian safety training from elementary through high school, and supporting initiatives like the Walking School Bus. These efforts have not only improved safety but have also empowered schools to take ownership of their programs. PBOT's SRTS team will continue working closely with schools and neighborhoods to build excitement and momentum as these sidewalk projects advance.

In partnership, Oregon Walks, recently awarded a Community Benefits Grant from PCEF for its Walking School Bus program, is equally excited to support this initiative. As the new sidewalk infrastructure is completed, Oregon Walks will enhance its programming, encouraging more families to participate and experience the benefits of walking to school. Together, these efforts will strengthen community bonds and create safer, healthier, and more vibrant neighborhoods.

4. Economic and Business Impacts

The economic benefits of sidewalks are numerous and often observable. Yet quantifying those benefits can be less clear-cut. According to Todd Litman, a prolific transportation researcher, "conventional travel data tends to undercount and undervalue walking and biking because they often ignore short trips (those within a traffic analysis zone used to model traffic), non-work travel, travel by children, recreational travel, and nonmotorized links of multimodal trips."¹⁰ However, there are at least three broad categories of economic benefits that sidewalks and enhanced pedestrian infrastructure bring to communities.

¹⁰ Todd Litman, Economic Value of Walkability, 2023. Page 3 <https://www.vtpi.org/walkability.pdf>

Economic benefits of having sidewalks in your neighborhood.

In the context of sidewalks connecting children to schools, walking to school is free, while driving is not. From fuel and insurance to tires, depreciation, and other expenses, the cost of maintaining and operating a vehicle can have a major impact on a household's budget. One study demonstrated that "households in automobile-dependent communities devote 50% more to transportation (more than \$8,500 annually) than households in communities with more accessible land use and more multi-modal transportation systems (less than \$5,500 annually)."¹¹ In places where pedestrian connections make it possible for children to travel to school independently, or enable a family to reduce or eliminate ownership of a vehicle, the savings in time and fixed costs can be even greater.

Improving the ability of people to walk is also an economic driver. Local economist Joe Cortright has found that "when you build a city that enables people to drive less, they spend less on cars and gas and have more to spend on other things." In 2007, he "estimated that Portlanders saved a collective \$1.1 billion thanks to the fact that they drove about 20 percent less than the average American." But this "green dividend" only accrues to places that have infrastructure making it possible to get around without driving.¹²

Pedestrian infrastructure is also an efficient investment for moving people—moving 5 to 10 times more people than driving in the same amount of space—and requires far less in long-term maintenance costs than roads. In fact, many of the sidewalks we use in Portland today were originally laid decades ago, outliving the roads they run alongside.

Neighborhoods with sidewalk can enable more connections to transit and businesses by getting potential riders out of the mud and providing a dignified travel experience. This is particularly true for people with disabilities that rely on accessible pedestrian networks to move around safely. Sidewalks can also encourage more physical activity, improving residents' health and reducing healthcare costs related to inactivity (obesity, heart disease, depression and dementia, diabetes, etc).¹³

Economic benefits to property owners

According to city code (17.28.020), sidewalk construction is the obligation of the private property owner: "the owner(s) of land abutting any street in the City shall be responsible for constructing, reconstructing, maintaining and repairing the sidewalks, curbs, driveways and parking strips abutting or immediately adjacent to said land."¹⁴ However, owners of properties without sidewalks are not typically required to construct them until the property redevelops. With sidewalk construction currently costing anywhere from \$5 - 20 million per mile, this can be a major and prohibitive cost for many property owners. But as noted, once built, sidewalks can last for decades.

That said, PBOT does construct new sidewalks as part of capital projects. Given there are about 400 miles of missing sidewalks in Portland, we prioritize improvements where the need is greatest. Building out the sidewalk network as proposed would remove the financial burden of constructing sidewalks

¹¹ Todd Litman, *Economic Value of Walkability*, 2023. Page 7 <https://www.vtpi.org/walkability.pdf>

¹² Joe Cortright, *Portland's Green Dividend*, 2017. <https://cityobservatory.org/portlands-green-dividend/>

¹³ Todd Litman, *Economic Value of Walkability*, 2023. Page 11 <https://www.vtpi.org/walkability.pdf>

¹⁴ City of Portland, 17.28.020 Responsibility for Sidewalks and Curbs. <https://www.portland.gov/code/17/28/020>

from the adjacent property owners, who would otherwise have to form a local improvement district or pay for sidewalks out of pocket.

Economic benefits for local contractors

Given the project development work that has already been done for proposed sidewalks, funding provided by this grant will go directly to program work, not overhead. In Cully, for example, PBOT simply does not have the money to build sidewalks that have been fully designed. All \$6 million requested for sidewalks in that neighborhood will be for construction.

As part of PBOT's commitment to advancing equity and addressing structural racism, at least 30% of our contractors will also be Disadvantaged Business Enterprises. These businesses are owned by racial minorities, women, or other disadvantaged individuals, as certified by the state.¹⁵ City of Portland Procurement administers and enforces the Contractor Equity Program and Workforce Training and Hiring Program on all low bid projects. Procurement staff will amend the specific goal numbers for COBID participation, workforce diversity, and apprentice hours, within these existing programs to match PCEF requirements. PBOT has a good track record of achieving contract equity goals on its projects, and Procurement has dedicated compliance staff to ensure that the contractor is meeting its equity requirements. This includes weekly queries of subcontract and workforce participation numbers during construction progress meetings.

5. Broader Project Benefits

Co-Benefits

In addition to providing much needed space for students, families, and the community to walk and roll, this project has a host of co-benefits:

- Constructing hundreds of ADA compliant curb ramps and improving accessibility for all users, including people who use mobility devices
- Improving accessibility to transit stops
- Addressing stormwater management and alleviating flooding/pooling of water
- Leveraging opportunities to rebuild or repair existing sidewalk to meet ADA standards near project sites (particularly where this project in providing sidewalk infill near existing sidewalk that is damaged or a trip hazard)
- Constructing space for street trees and planting trees
- Providing street lighting
- Improving access to existing infrastructure, such as crossings and transit
- Addressing safety by creating physical separation for people walking and others using the sidewalk

¹⁵ Disadvantaged Business Enterprise (DBE): "a for-profit small business entity where socially and economically disadvantaged individuals own at least 51% interest and also control management and daily business operations. A DBE must be properly certified within the State of Oregon." City of Portland, [ADM-1.23 - Subcontractor Equity Program Administrative Rules](#)

- Reducing peak hour congestion, especially for school trips at drop off and pick up
- Improving air quality near schools by replacing vehicle trips and idling with walking trips

6. Metrics, Milestones, & Schedule

The Sidewalks to Schools project proposal is organized into three tiers of funding, with various activities happening for each individual project. See “Project Tiers” in Section 1 for more information about the tiers.

See *Figure 2 Timeline & Milestones* for more information on the timeline and milestone details.

Project Development – Project development typically takes a few months and includes engagement with community on exact improvements and any property impacts, survey to understand locations of property lines, utilities, and more to understand the existing conditions. This phase also includes coordination with other agencies such as the Water Bureau, Bureau of Environmental Services, Urban Forestry and more to ensure a well-designed and smooth project with as few surprises as possible.

Design – Project design takes about one year, with civil design and full reviews from all necessary subject matter experts. After design is complete, the project goes into procurement and contractor outreach.

Construction – Once a contractor is selected, construction can begin and takes anywhere from one to two years, depending on the size of the project (or projects if they are able to be bundled together for efficiency). Tier 1 construction is anticipated to be completed by the end of 2027. Tier 2 would be completed by the end of 2028. If awarded the full grant award, Tier 3 would be completed by the end of 2029.

Additionally, if awarded funding for Tiers 2 and 3, Oregon Walks would kick off their internship program in 2026 at the latest.

SIDEWALKS TO SCHOOLS PROJECT TIMELINE & MILESTONES

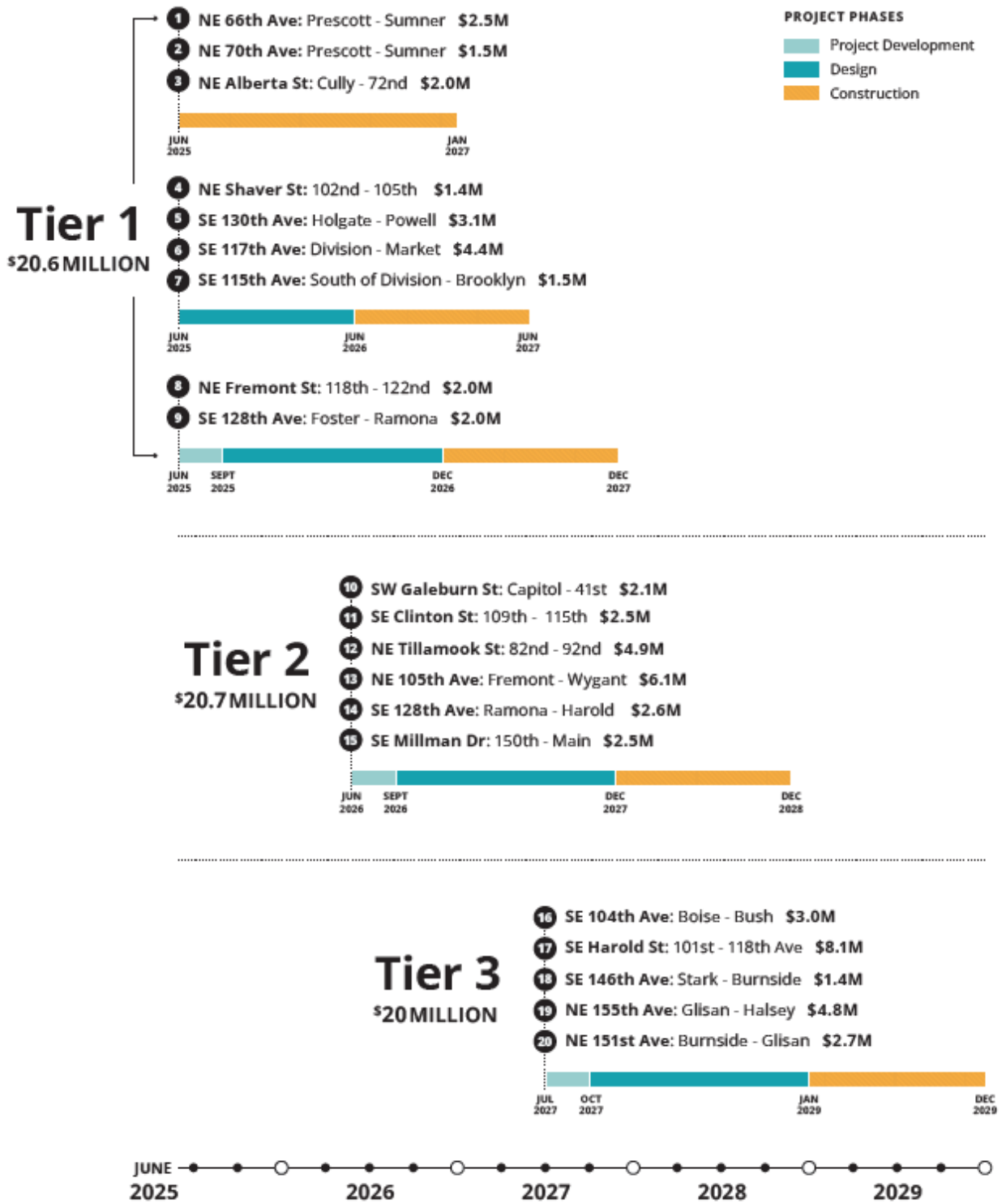


Figure 3 Timeline & Milestones

7. Anticipated Challenges & Barriers

Capital construction work has inherent challenges and risks. Sidewalk design and construction can introduce physical challenges at the interface with private properties, including impacts to mature trees and shrubs, fences, gates, mailboxes, private walkways, irrigation systems, and utility services. In areas with steeper topography, grading and/or retaining walls may be necessary, along with compensation for temporary or permanent impacts to property. Most sidewalk projects also introduce stormwater management requirements, which can escalate into significant costs, depending on what existing stormwater systems are available in each location.

With decades of construction experience and a half-billion dollar capital improvement program, PBOT is very familiar and prepared for these challenges. On the technical side, this includes collecting sufficient topographical survey data, developing a precise digital terrain model, partnering closely with stormwater engineers and urban foresters, and designing a context-sensitive sidewalk corridor that minimizes disruption to established neighborhoods. On the human side, this includes meeting with corridor residents, businesses, schools, and property owners to get a solid understanding of their concerns around the impacts of sidewalk construction. On the financial side, this includes preparing comprehensive project estimates and budgets with adequate contingency and inflation.

Other risks include unusually high construction bids as this work would be advertised for private contractors to construct, similar to most of PBOT's capital program. Budget risks for the segments included in this proposal are higher for Tiers 2 and 3 (which have had little to no design engineering), and lower for Tier 1 (which have undergone rigorous engineering and estimating and are closer to a construction timeline).

8. Requirements

Regarding permitting and regulatory requirements, a major advantage of the Sidewalks to Schools proposal is that PBOT, under the authority of the City Engineer and City Administrator, is authorized to design and construct capital improvements on city streets with very few external permits. Land use, zoning, and building permits are not required for city projects in the public right-of-way outside of environmental or design overlay zones. On projects such as this with no federal funding, environmental analyses are limited to Phase 1 or 2 environmental site assessments, plus consultation with the State Historic Preservation Office on any historic, cultural, or archaeological discoveries. State permits are limited or non-existent, depending on interaction with any state highways, or impervious surface impacts that are great enough to trigger water quality permits. Right-of-way – most commonly temporary construction easements and a very limited number of permanent easements – is carried out pursuant to state and federal laws by qualified PBOT Right-of-Way staff.

PBOT is uniquely positioned to implement the Sidewalks to Schools grant award as the infrastructure bureau that keeps Portland moving. We plan, build, manage, and maintain a transportation system that gets people and goods where they need and want to go. We will coordinate with various city bureaus for successful project delivery, including the Bureau of Environmental Services, the Water Bureau, and Portland Parks and Recreation's Urban Forestry team.

Examples of recently completed, complex projects include:

- East Portland Access to Education & Employment (sidewalks and bikeways) - \$10,268,528 total costs
- Foster Streetscape (sidewalks, bike lanes, signals, lighting, paving) - \$9,422,581 total costs
- 70s Greenway (bikeways, pedestrian crossings) - \$5,770,768 total costs
- SW Capitol Highway (sidewalks, bike lanes, stormwater management, water system upgrades) - \$30,000,000 total costs

In conclusion, the Sidewalks to Schools grant proposal addresses a critical need for safe, equitable, and accessible transportation infrastructure in Portland's most underserved communities. By focusing on building sidewalks near schools, this project not only promotes walking as a safe and sustainable transportation option but also ensures that children, families, and residents in high-equity neighborhoods have access to essential pedestrian infrastructure.









The project is grounded in equity, as it prioritizes neighborhoods where inadequate infrastructure has long impacted people with limited transportation options, including people of color, low-income households, and individuals living with disabilities. By addressing sidewalk gaps in these areas, the initiative will improve safety, enhance connectivity, and empower communities that have been historically underserved.

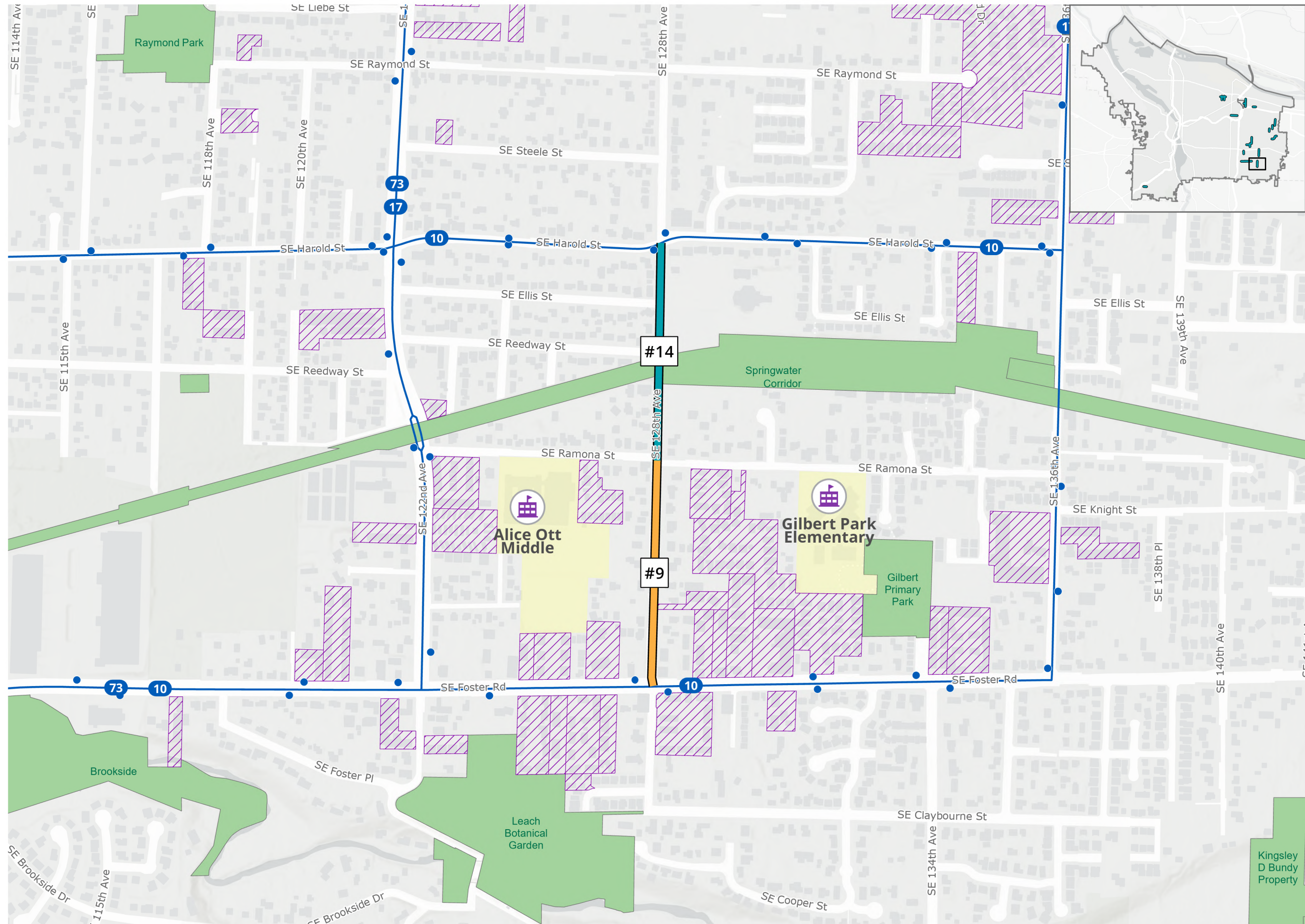
With strong support from community organizations and a clear alignment with PCEF priorities, this proposal represents a collaborative effort to build healthier, safer, and more inclusive neighborhoods. By investing in these sidewalk projects, we are taking a meaningful step toward achieving transportation equity and reducing carbon emissions.

Appendix A
Co-Benefits Maps

Sidewalks To Schools Co-Benefits

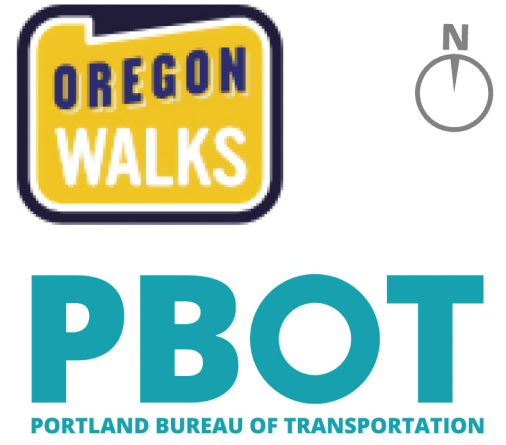
Alice Ott MS, Gilbert Park ES

-  Project School
-  Tier 1 Sidewalk Project
-  Tier 2 Sidewalk Project
-  Bus Stop
-  Bus Line
-  City of Portland Park
-  Multi-Family Housing
-  School Site



0 250 500 750 1,000 Feet











Data sources: City of Portland, TriMet, Metro Multi-Family Housing Inventory (all housing types, more than six units)

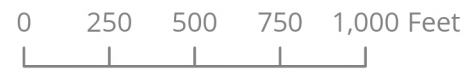


Kingsley D Bundy Property

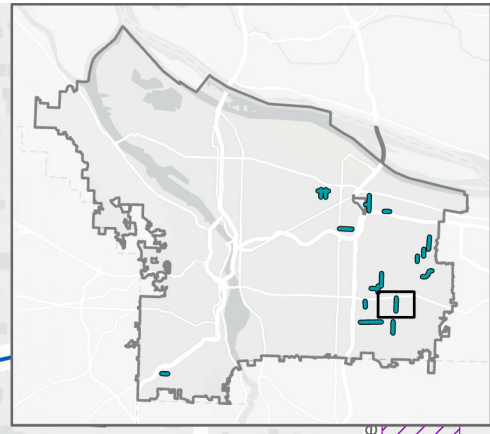
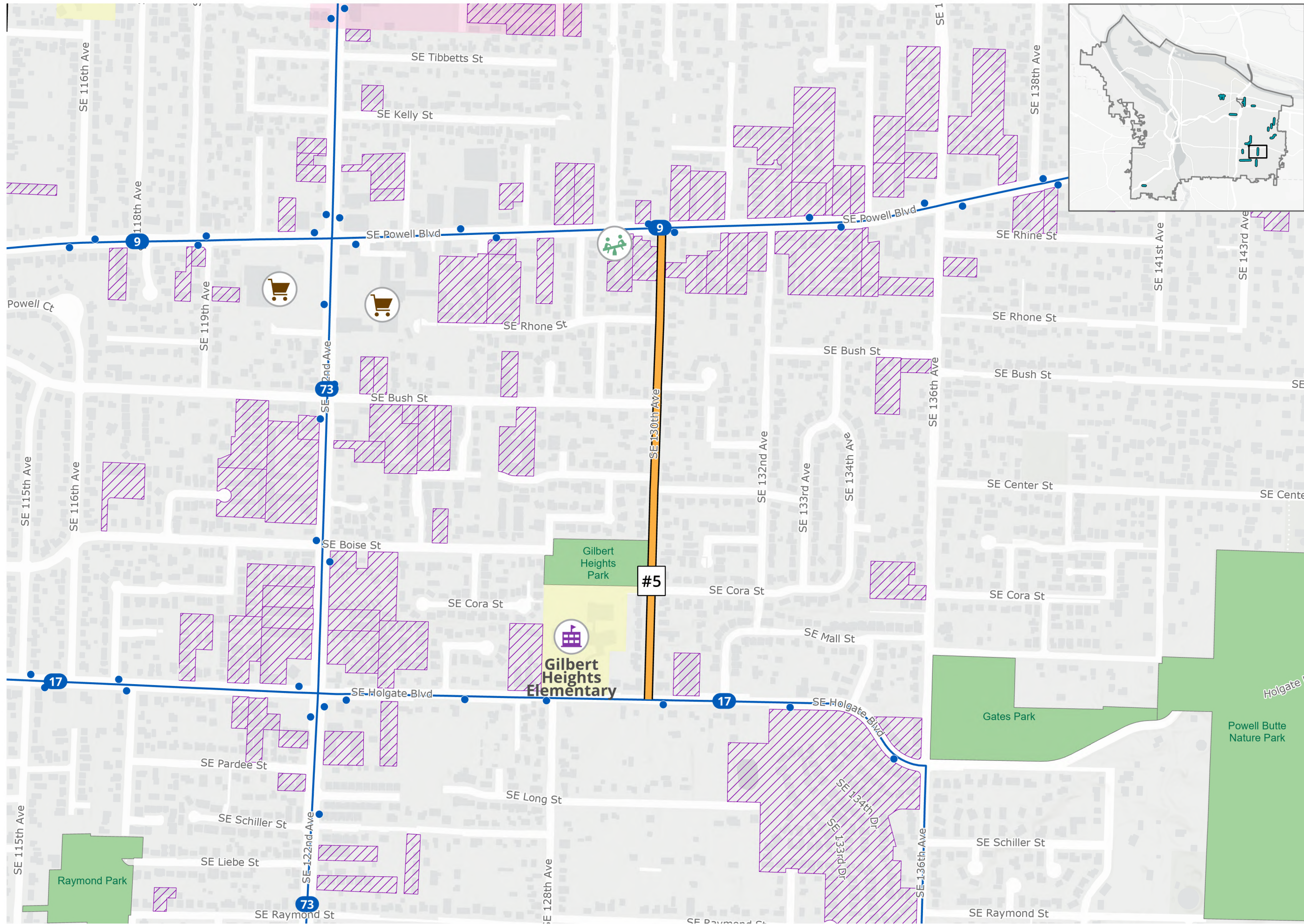
Sidewalks To Schools Co-Benefits

Gilbert Heights ES

-  Project School
-  Tier 1 Sidewalk Project
-  Bus Stop
-  Bus Line
-  Grocery Store or Market
-  Preschool
-  City of Portland Park
-  Multi-Family Housing
-  Comprehensive Plan Center
-  School Site














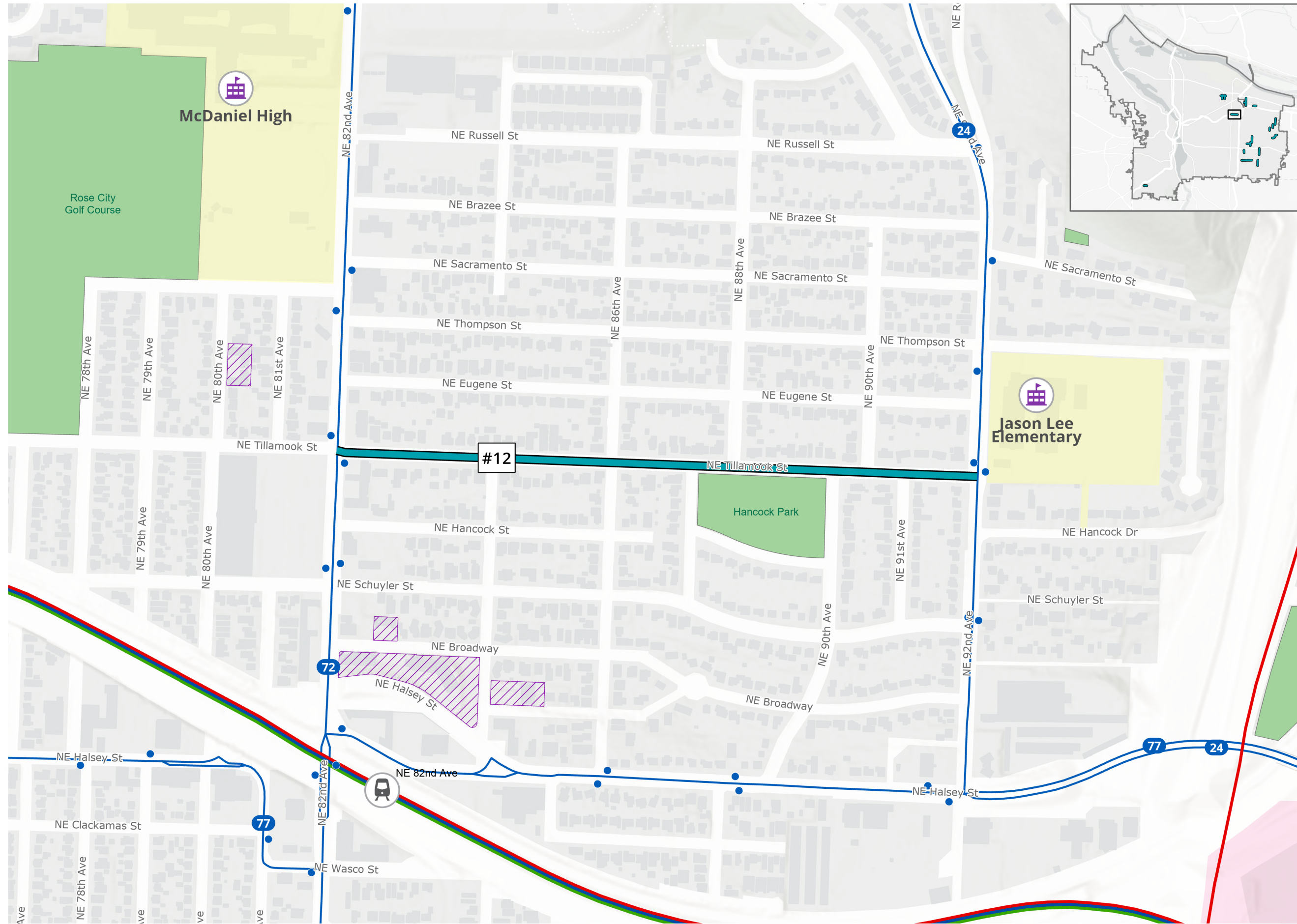
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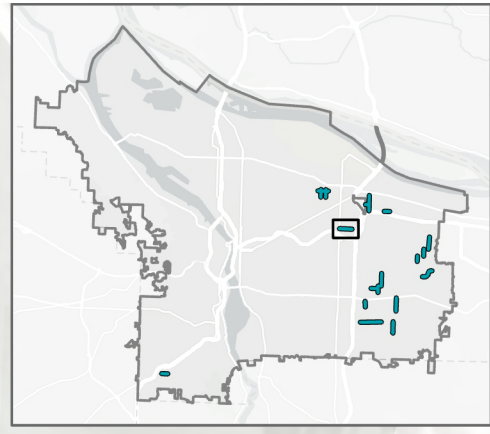
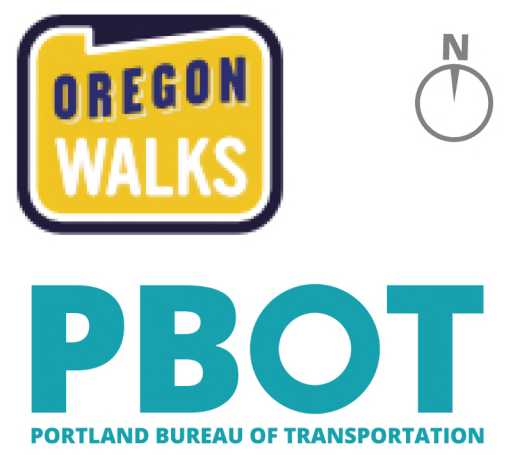
Sidewalks To Schools Co-Benefits

Lee ES, McDaniel HS

-  Project School
-  Tier 2 Sidewalk Project
-  Light Rail Stop
-  Red MAX Line
-  Blue, Green, Red MAX Lines
-  Bus Stop
-  Bus Line
-  City of Portland Park
-  Multi-Family Housing
-  Comprehensive Plan Center
-  School Site












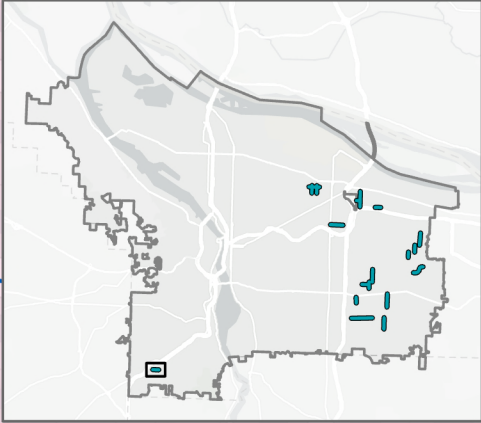
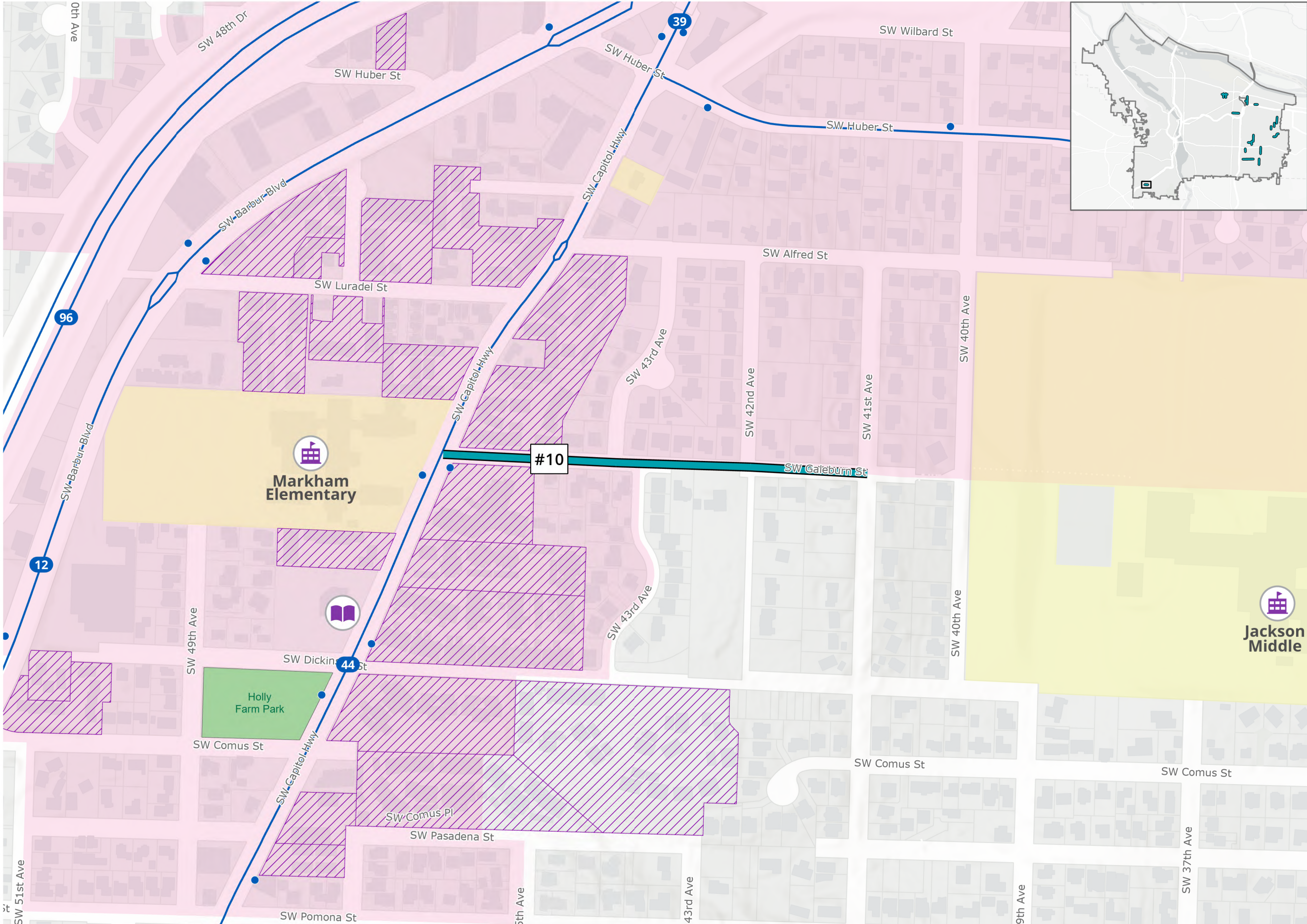
Data sources: City of Portland, TriMet, Metro Multi-Family Housing Inventory (all housing types, more than six units)



Sidewalks To Schools Co-Benefits

Markham ES, Jackson MS

-  Project School
-  Tier 2 Sidewalk Project
-  Bus Stop
-  Bus Line
-  Library
-  City of Portland Park
-  Multi-Family Housing
-  Comprehensive Plan Center
-  School Site















0 250 500 Feet

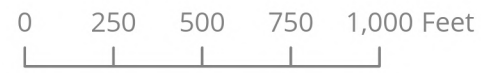
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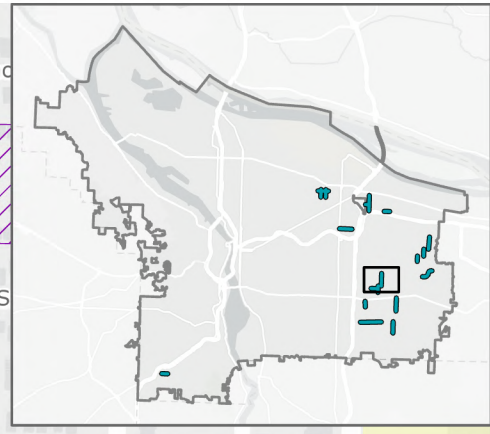
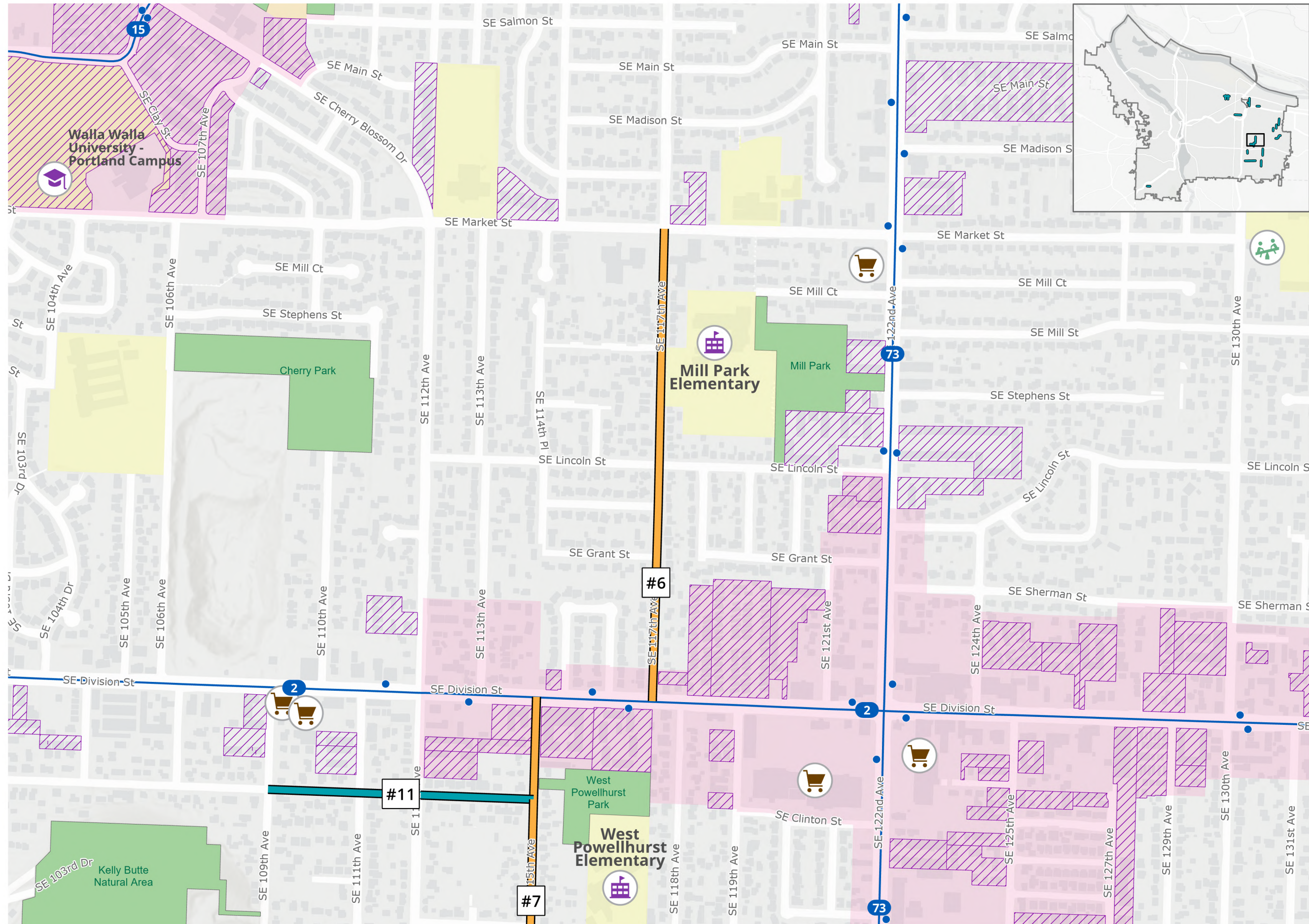
Sidewalks To Schools Co-Benefits

Mill Park ES

-  Project School
-  Tier 1 Sidewalk Project
-  Tier 2 Sidewalk Project
-  Bus Stop
-  Bus Line
-  Grocery Store or Market
-  Preschool
-  College
-  City of Portland Park
-  Multi-Family Housing
-  Comprehensive Plan Center
-  School Site











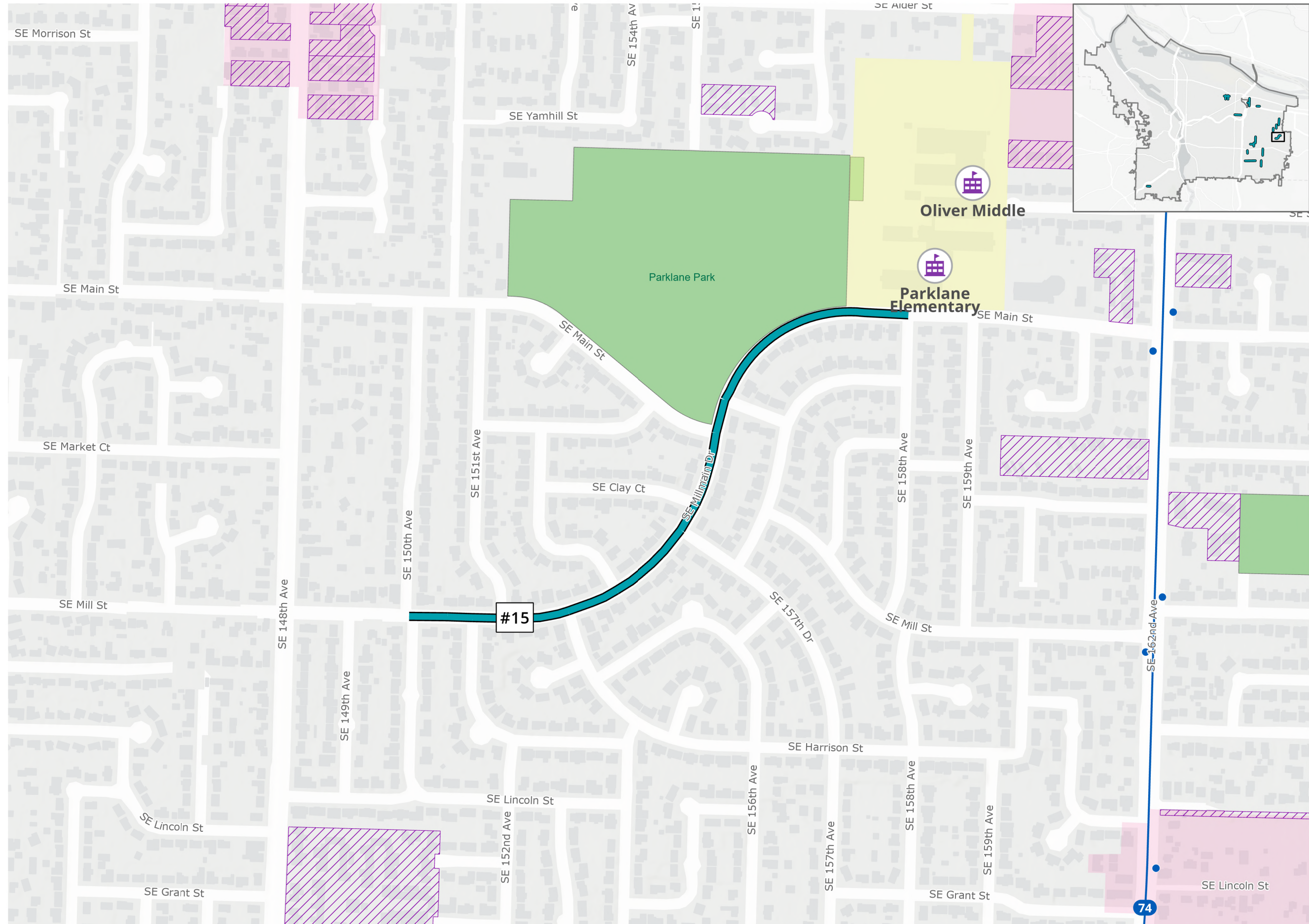
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Sidewalks To Schools Co-Benefits

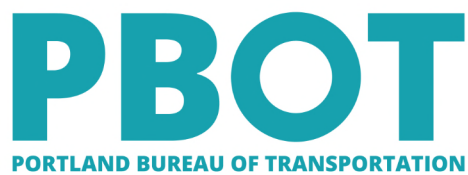
Parklane ES, Oliver MS

-  Project School
-  Tier 2 Sidewalk Project
-  Bus Stop
-  Bus Line
-  City of Portland Park
-  Multi-Family Housing
-  Comprehensive Plan Center
-  School Site
















0 250 500 750 Feet

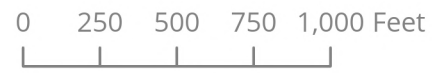
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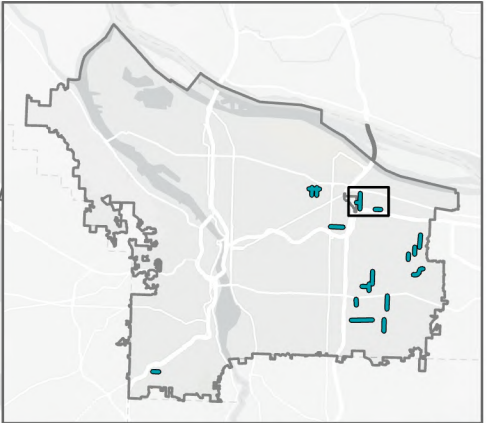
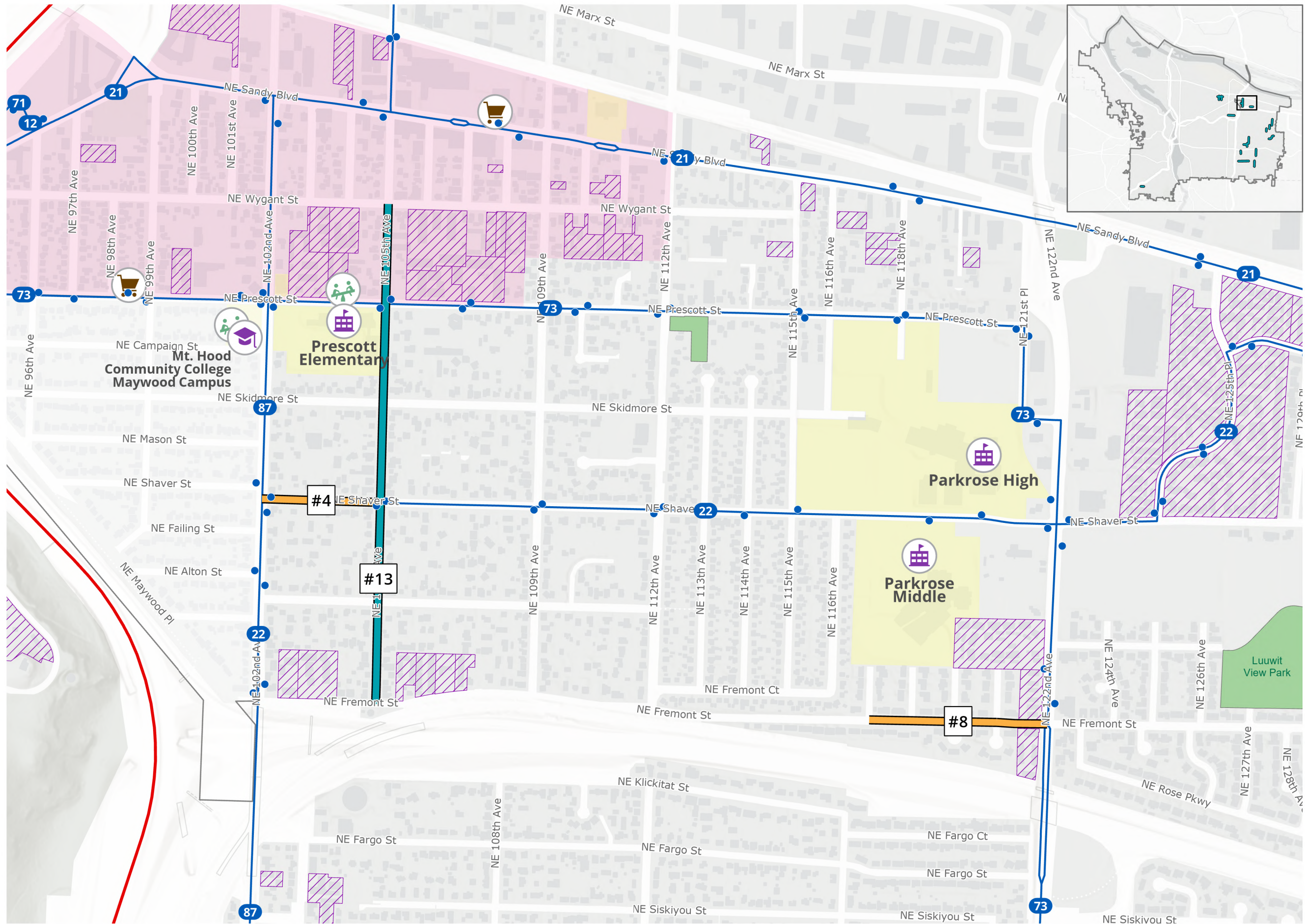
Sidewalks To Schools Co-Benefits

Prescott ES, Parkrose MS, Parkrose HS

-  Project School
-  Tier 1 Sidewalk Project
-  Tier 2 Sidewalk Project
-  Red MAX Line
-  Bus Stop
-  Bus Line
-  Grocery Store or Market
-  Preschool
-  College
-  City of Portland Park
-  Multi-Family Housing
-  Comprehensive Plan Center
-  School Site















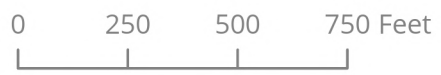
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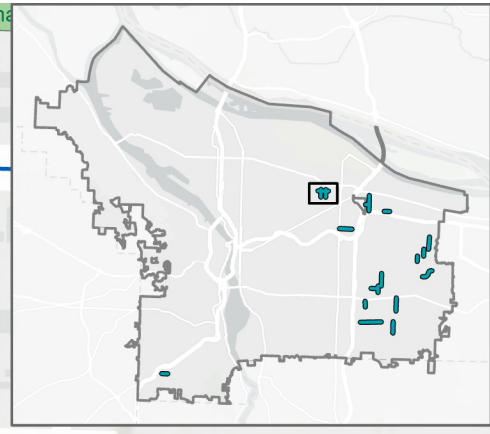
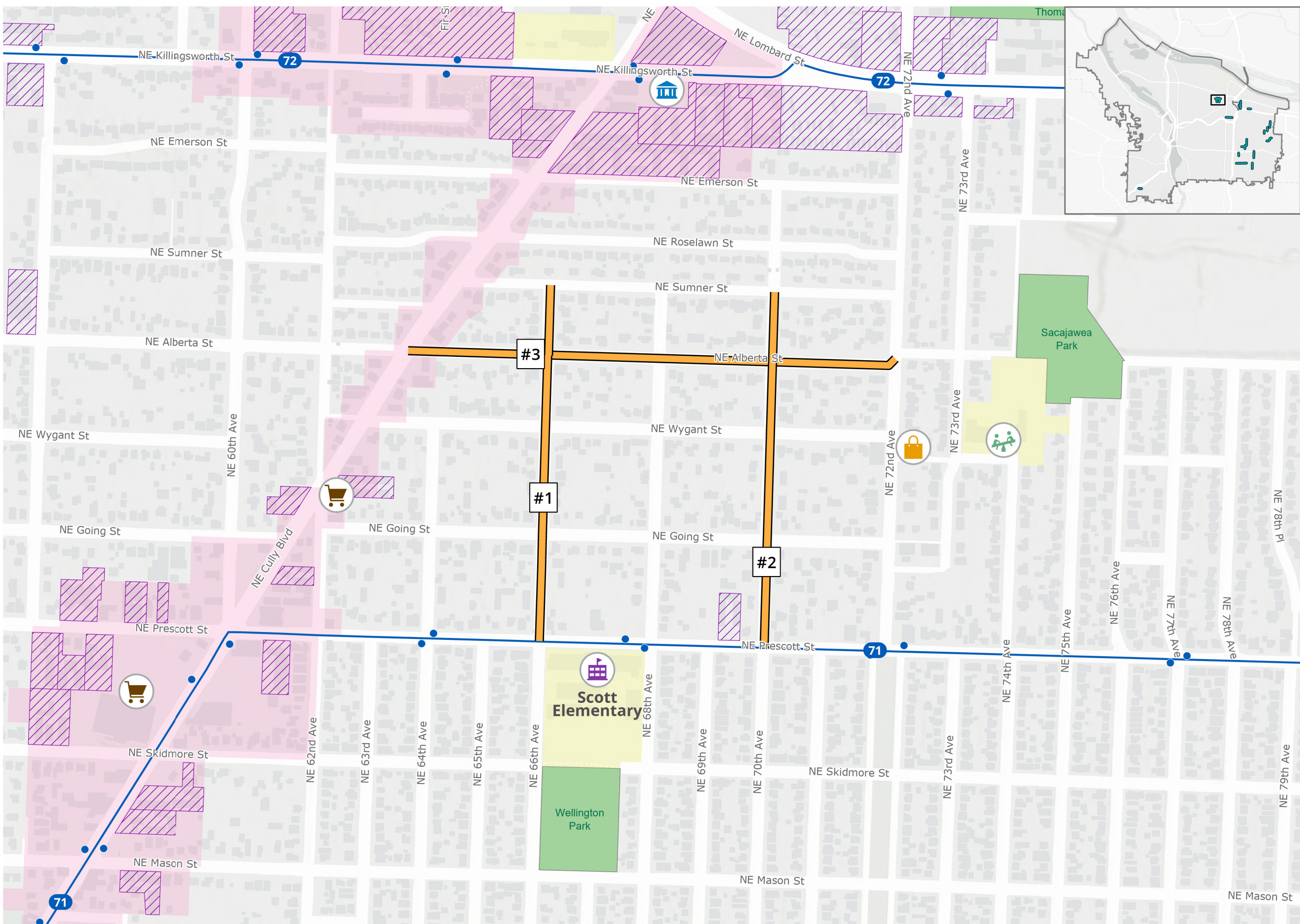
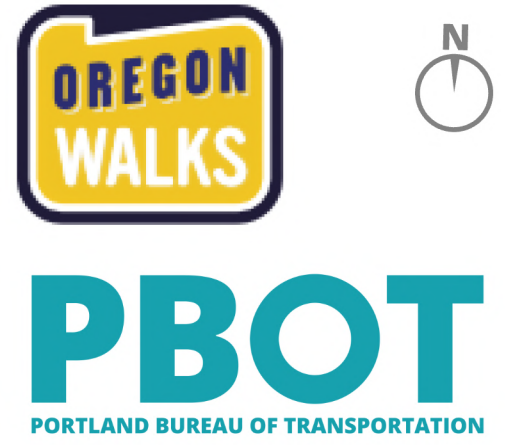
Sidewalks To Schools Co-Benefits

Scott ES

-  Project School
-  Tier 1 Sidewalk Project
-  Bus Stop
-  Bus Line
-  Grocery Store or Market
-  Preschool
-  Community Center
-  Food Pantry
-  City of Portland Park
-  Multi-Family Housing
-  Comprehensive Plan Center
-  School Site













Data sources: City of Portland, TriMet, Metro Multi-Family Housing Inventory (all housing types, more than six units)



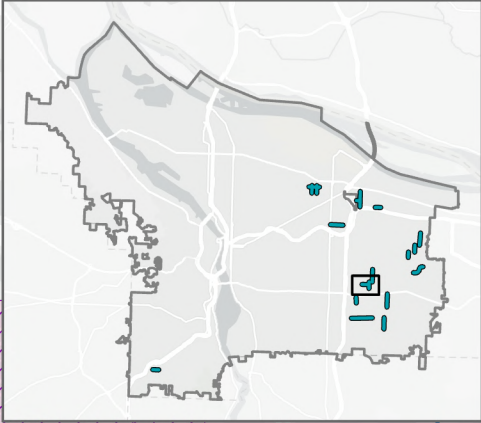
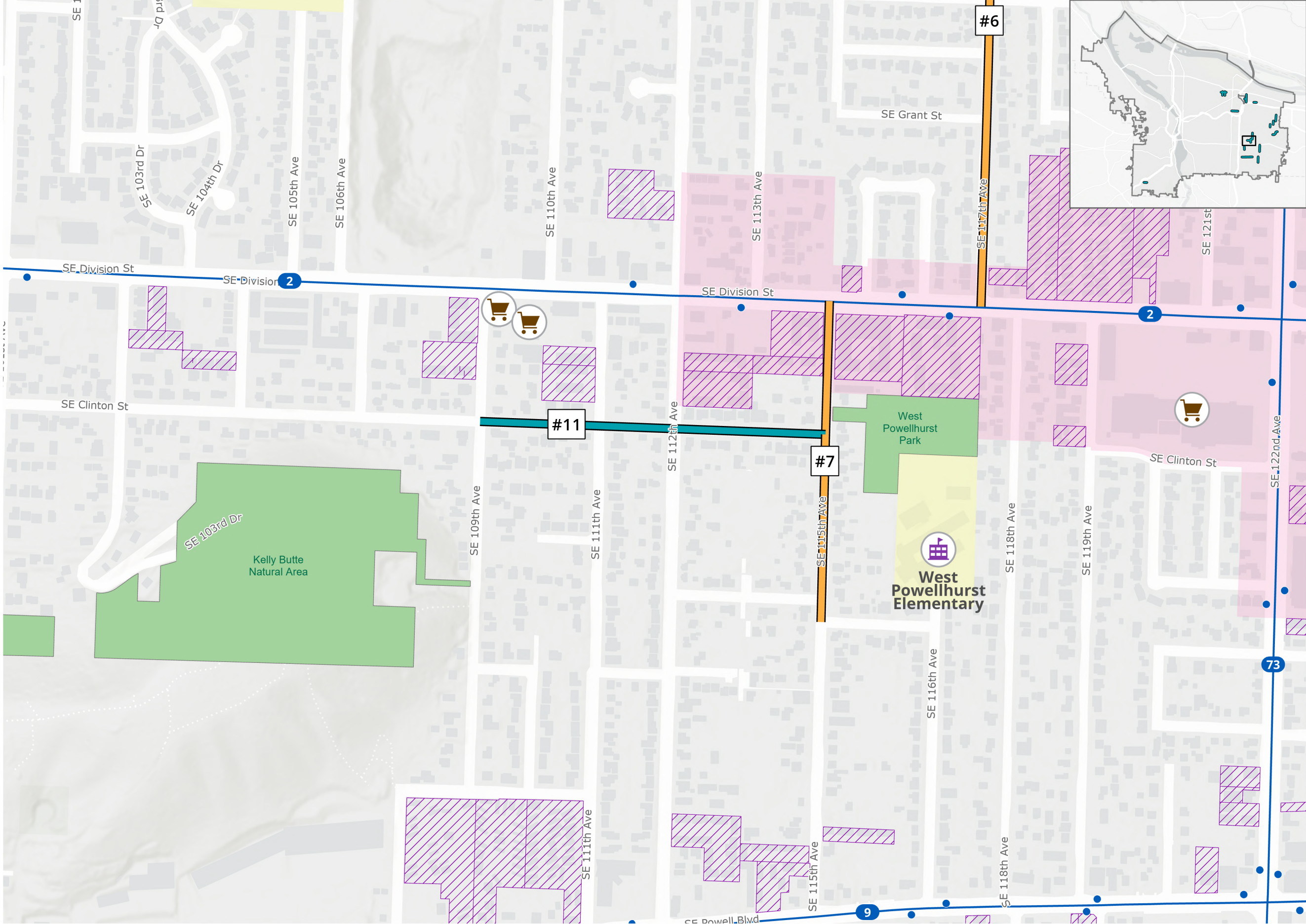
Sidewalks To Schools Co-Benefits

West Powellhurst ES

-  Project School
-  Tier 1 Sidewalk Project
-  Tier 2 Sidewalk Project
-  Bus Stop
-  Bus Line
-  Grocery Store or Market
-  City of Portland Park
-  Multi-Family Housing
-  Comprehensive Plan Center
-  School Site



Data sources: City of Portland, TriMet, Metro Multi-Family Housing Inventory (all housing types, more than six units)

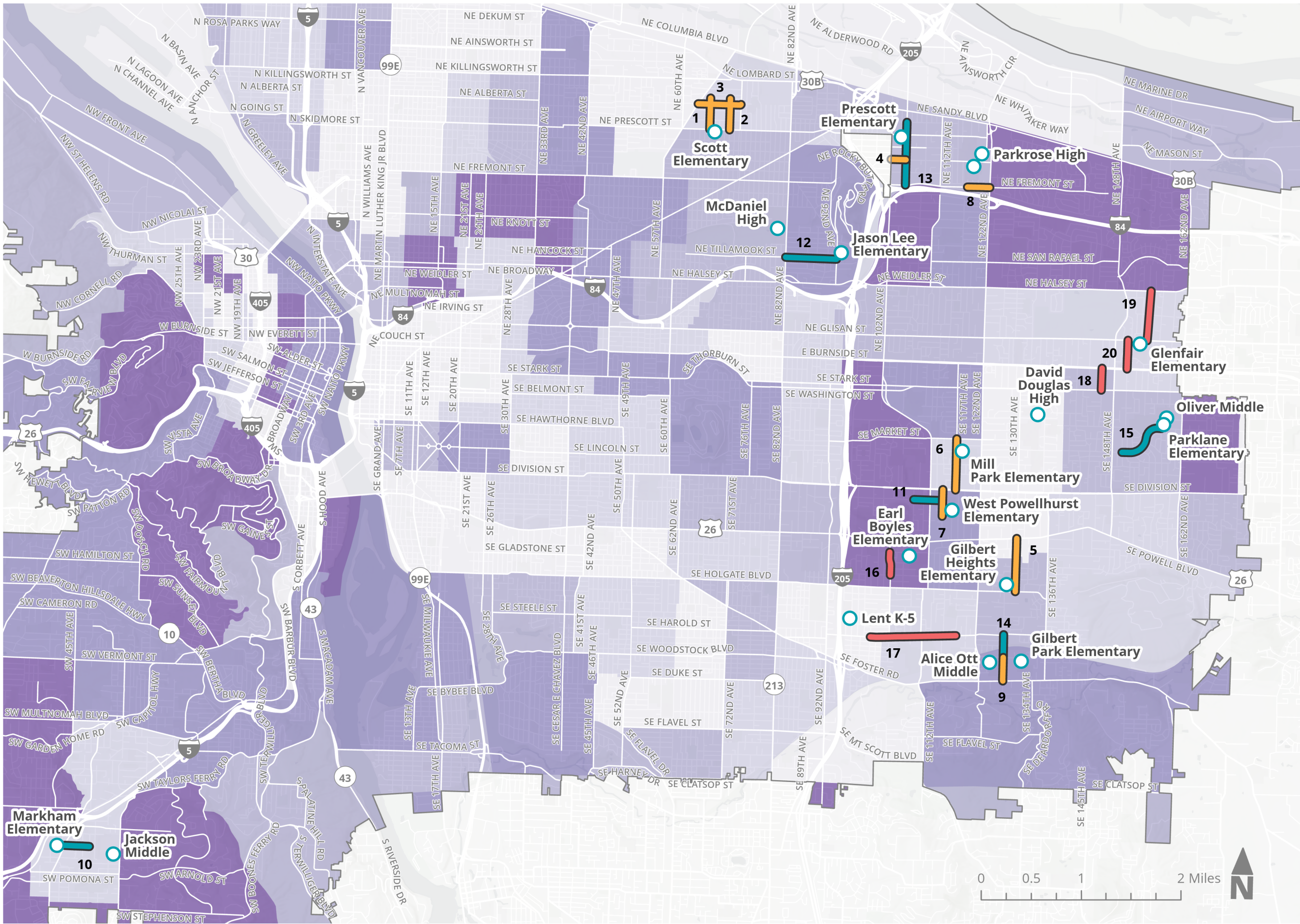
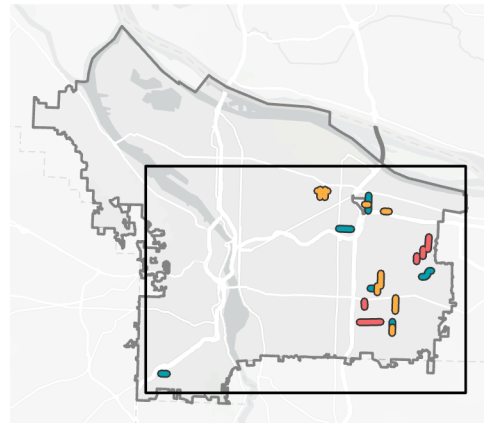


Appendix B
Demographic and Existing Conditions Maps

Sidewalks To Schools










Demographic Profile: Age over 65

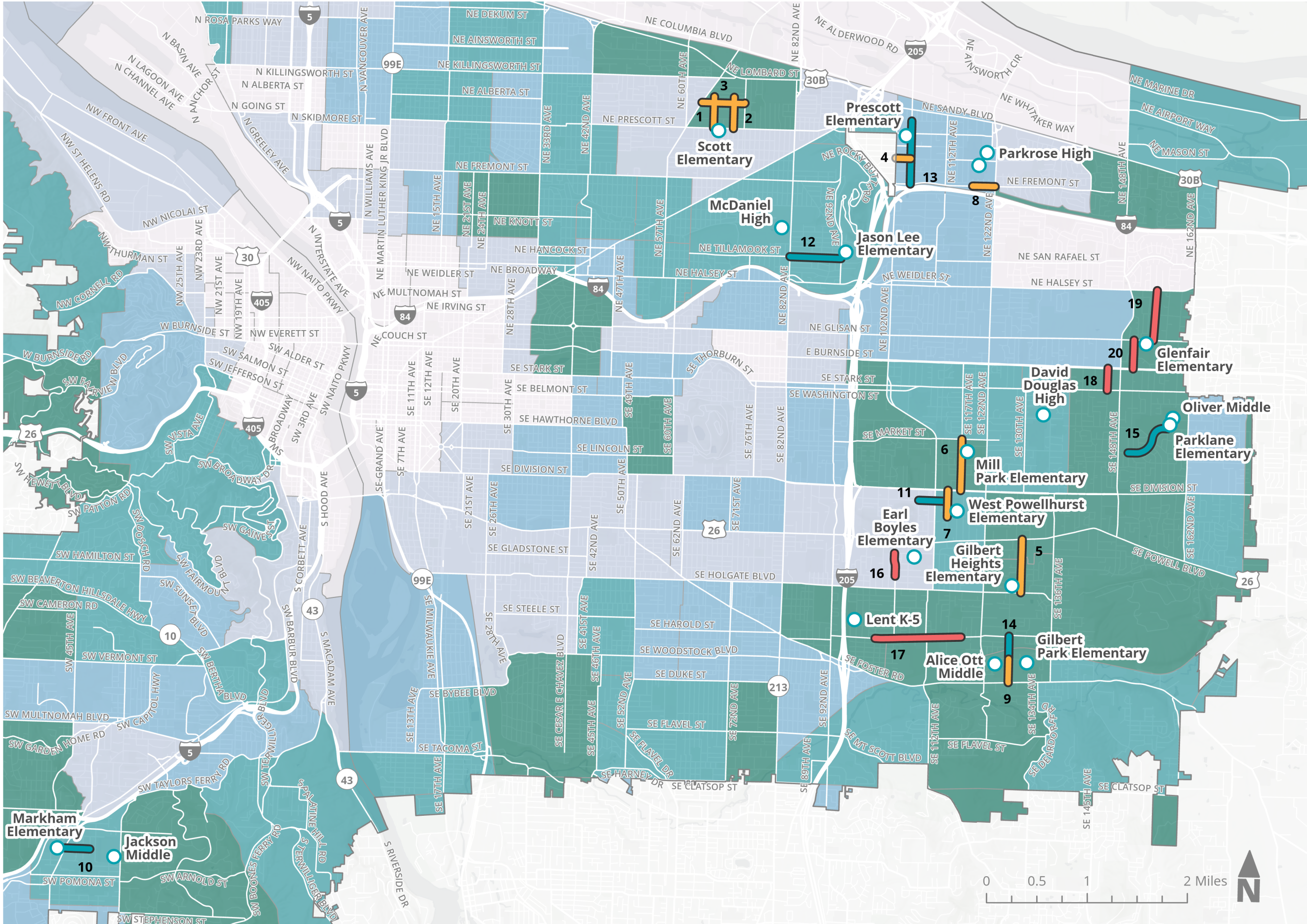
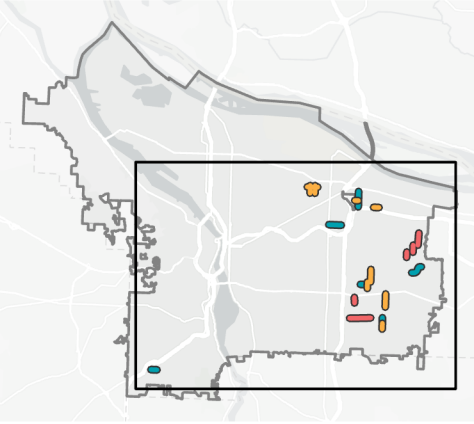
- Schools
- Sidewalk Projects
 - ▬ Priority Tier 1
 - ▬ Priority Tier 2
 - ▬ Priority Tier 3
- Percentage of Population Over the Age of 65 by Quintile
 - 0% - 10%
 - 11% - 13%
 - 14% - 16%
 - 17% - 20%
 - 21% - 39%



Sidewalks To Schools










Demographic Profile: Age under 18

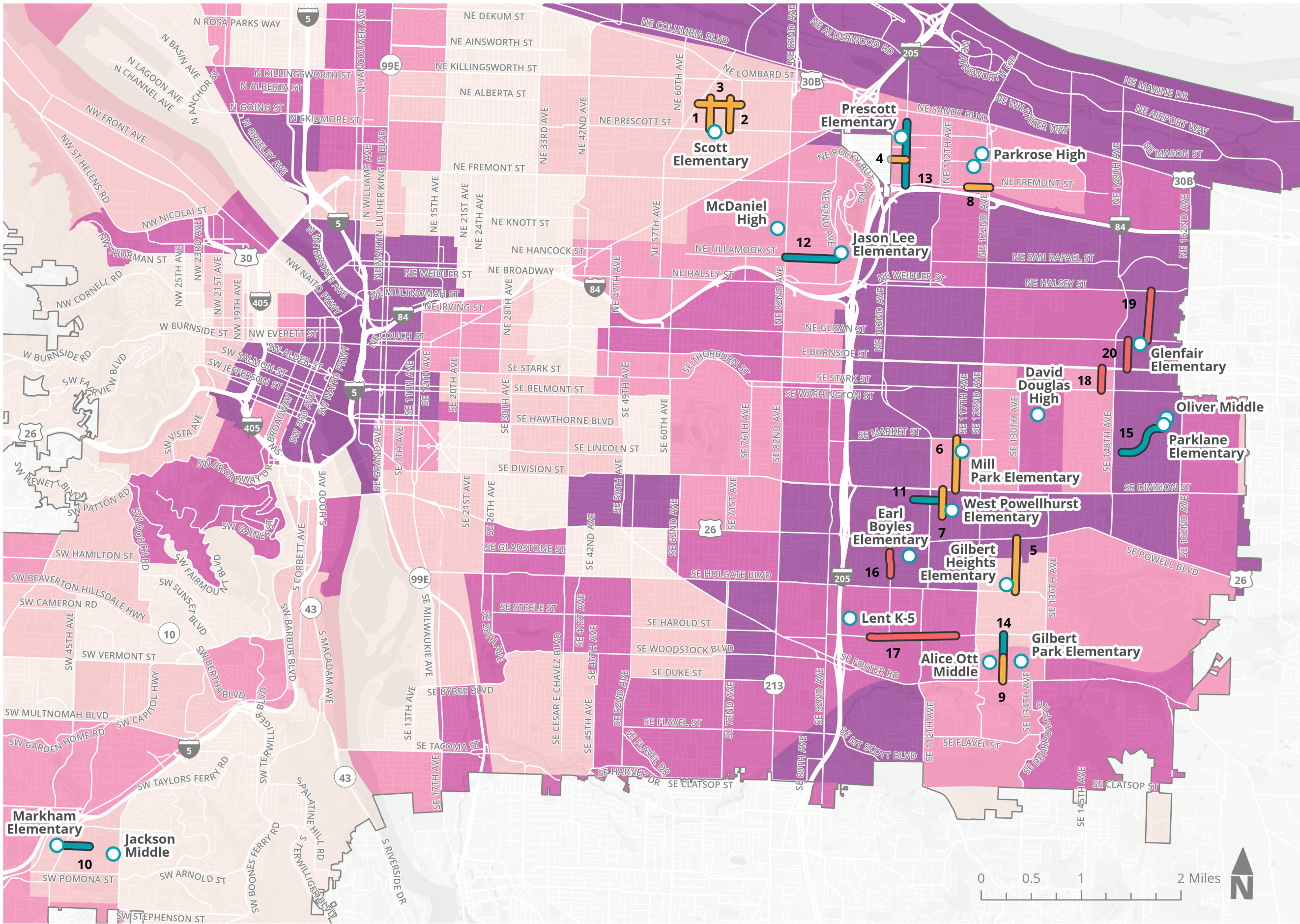
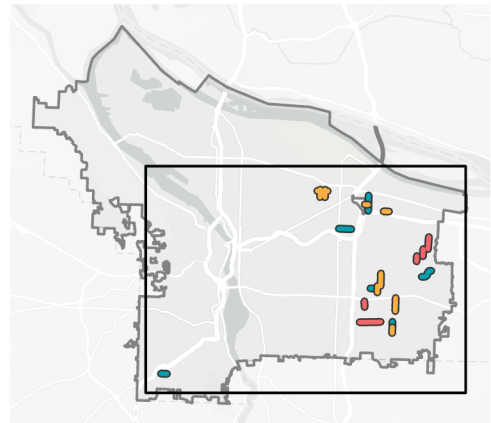
-  Schools
- Sidewalk Projects
 -  Priority Tier 1
 -  Priority Tier 2
 -  Priority Tier 3
- Percentage of Population Under the Age of 18 by Quintile
 -  0% - 11%
 -  12% - 16%
 -  17% - 19%
 -  20% - 22%
 -  23% - 39%



Sidewalks To Schools

Demographic Profile: People with Disabilities

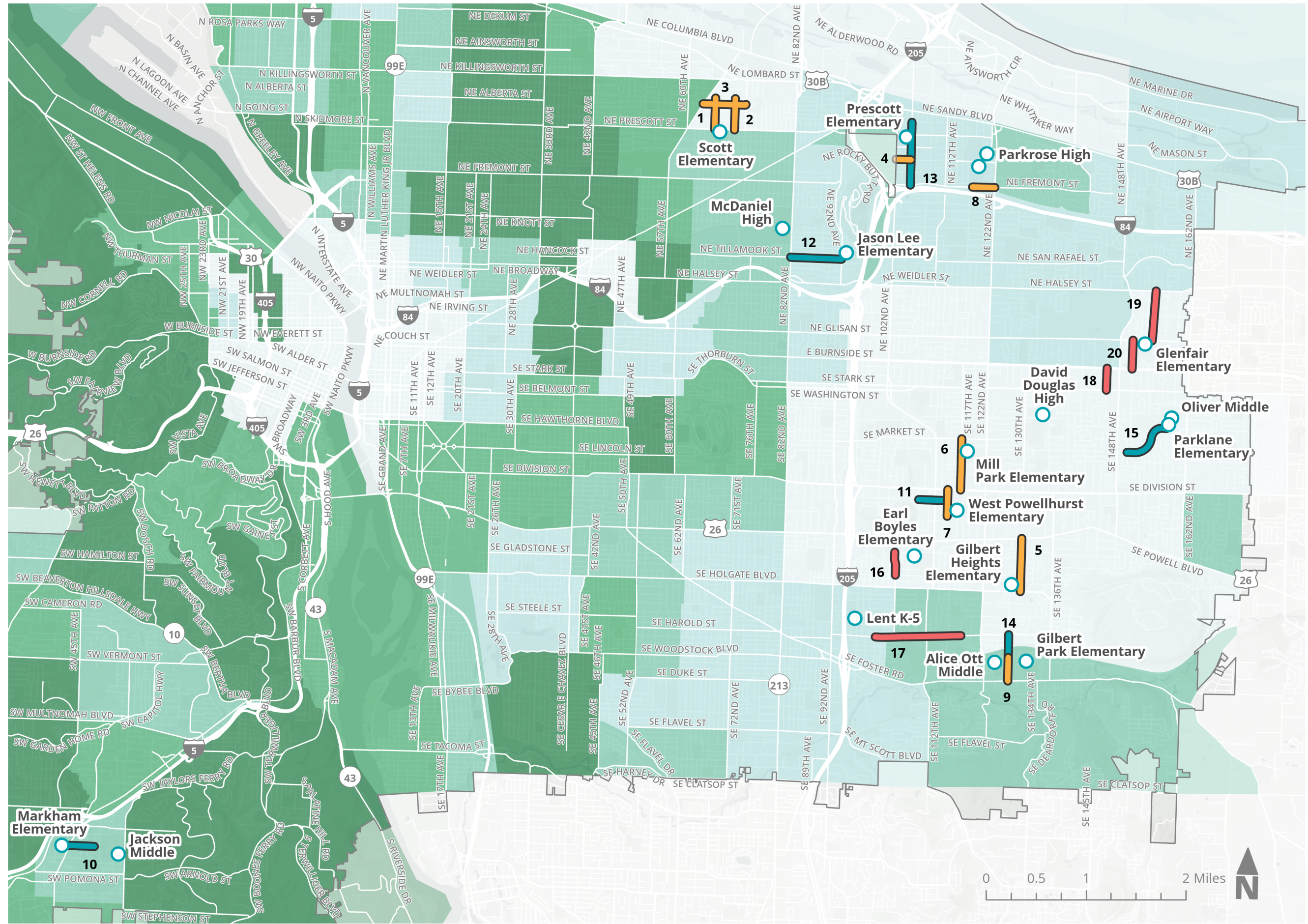
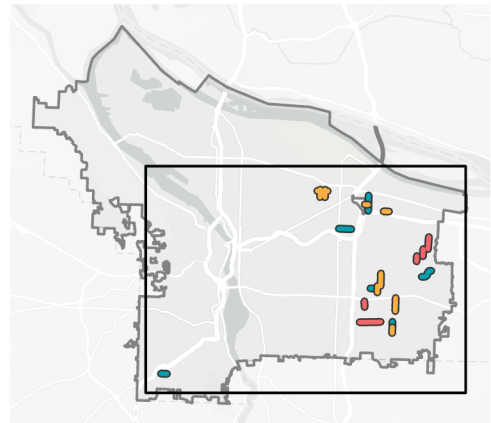
-  Schools
- Sidewalk Projects
 -  Priority Tier 1
 -  Priority Tier 2
 -  Priority Tier 3
- Percentage of Population with a Disability by Quintile
 -  0% - 8%
 -  9% - 11%
 -  12% - 14%
 -  15% - 16%
 -  17% - 44%



Sidewalks To Schools

Demographic Profile: Income

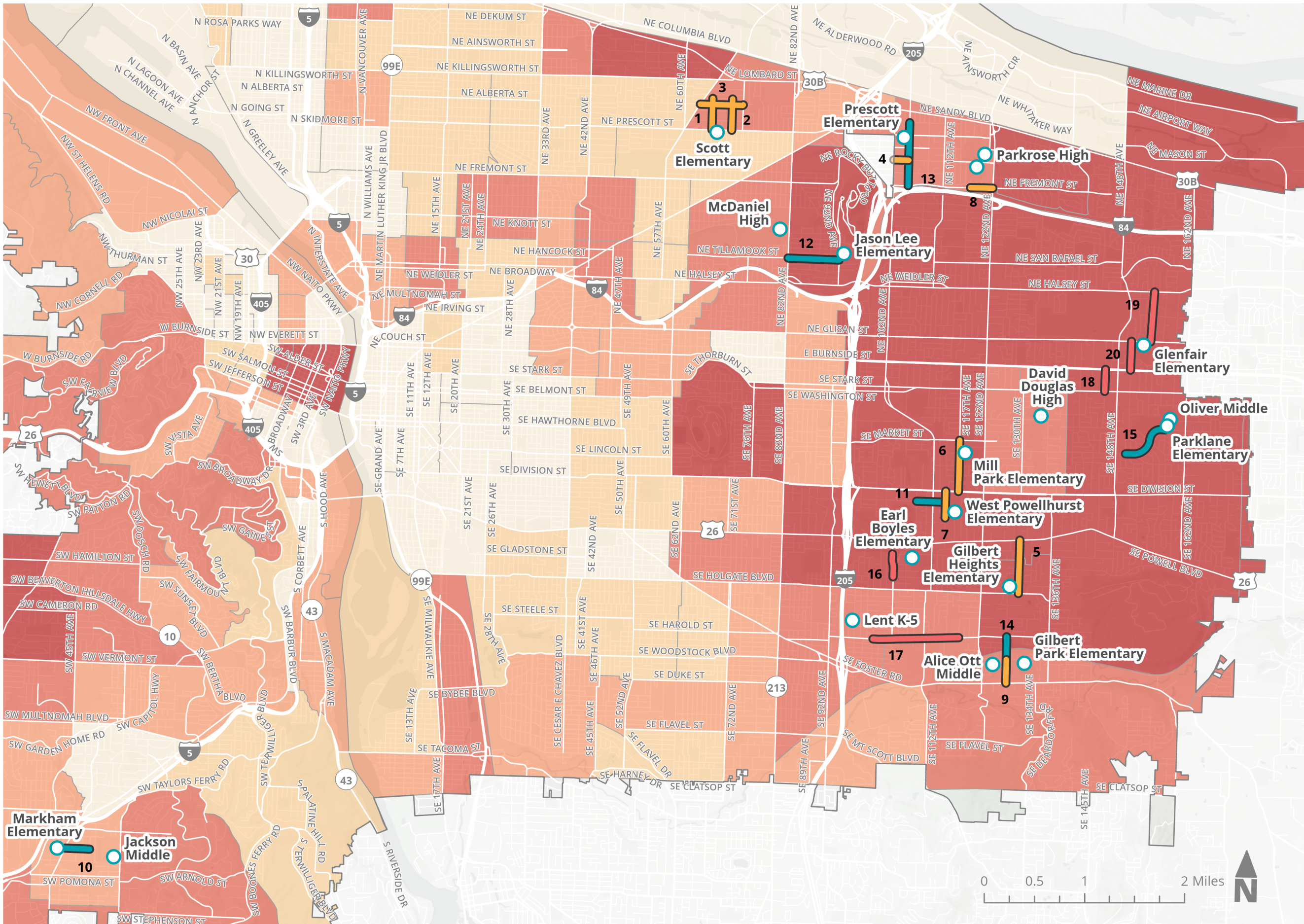
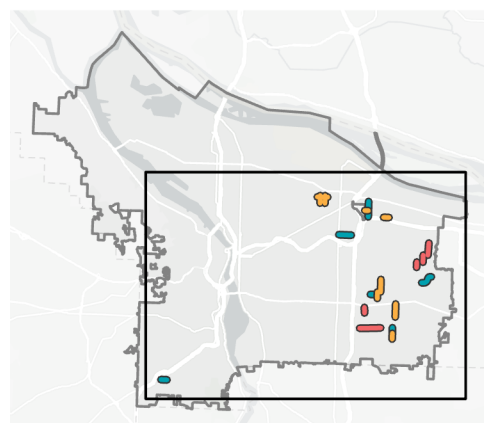
○ Schools
 Sidewalk Projects
▬ Priority Tier 1
▬ Priority Tier 2
▬ Priority Tier 3
 Median household income by Quintile
 \$14,071.00 - \$49,792.00
 \$49,792.01 - \$61,555.00
 \$61,555.01 - \$72,755.00
 \$72,755.01 - \$97,578.00
 \$97,578.01 - \$165,179.00



Sidewalks To Schools

Heat Vulnerability Index: Sensitivity

- Schools
- Sidewalk Projects**
- Priority Tier 1
- Priority Tier 2
- Priority Tier 3
- Heat Vulnerability Index Sensitivity - by Quintile**
- 0% - 20%
- 20% - 40%
- 40% - 60%
- 60% - 80%
- 80% - 100%



Sidewalks To Schools

Street Tree Density

-  Schools
- Sidewalk Projects
 -  Priority Tier 1
 -  Priority Tier 2
 -  Priority Tier 3
- Street Tree Inventory
 -  Sparse
 -  Dense

