4. THE PEDESTRIAN PRIORITY NETWORK
The Pedestrian Priority Network is the network of Portland streets and paths that provide important pedestrian connections to transit and other key destinations. PedPDX uses this network as the basis for identifying where pedestrian infrastructure needs exist.
The Pedestrian Priority Network

The Pedestrian Priority Network and the prioritization of needs within it are directly shaped by the community input received in the PedPDX Citywide Walking Priorities Survey. Figure 19 summarizes the citywide survey responses to the question “What kinds of places are most important to improve for walking in Portland?” Portlanders’ most reported demand-based priority locations for walking improvements are:

- Streets connecting people to transit/bus stops
- Along and across busy streets
- Streets connecting families and children to schools
- Streets connecting people to neighborhood commercial districts

The Pedestrian Priority Network directly reflects these demand-based priorities. Public priorities relating to safety (“Streets where people walking have been killed or injured”) and equity needs (“Areas that serve people who need to rely on walking the most”) are overlaid on the Pedestrian Priority Network as part of the PedPDX prioritization framework described in Chapter 5.

Each of the streets within the Pedestrian Priority Network is given a pedestrian classification that reflects the level of demand for pedestrian movement on that street. This demand-based approach ensures that improvements are prioritized on streets that provide access to the walking destinations that Portlanders say are most important.

A classification is a formal designation of a street based on its roadway characteristics and context and is required by the Transportation Planning Rule as a policy for current and future use. The classification determines how that street is handled in a range of processes (such as roadway design, traffic operations, funding eligibility, and similar).

The City of Portland has several different street classifications for the network including transit classifications, bicycle classifications, and, as established through PedPDX, pedestrian classifications.
Figure 19: Top Responses to PedPDX Walking Priorities Survey Question “What Kinds of Places are Most Important to Improve for Walking in Portland?” Organized by Theme

<table>
<thead>
<tr>
<th>Category</th>
<th>Important Features</th>
<th>Citywide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equity</strong></td>
<td>Areas that serve people who need to rely on walking the most</td>
<td>5.11</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>Streets where people walking have been killed or injured</td>
<td>5.08</td>
</tr>
<tr>
<td><strong>Demand</strong></td>
<td>Streets connecting people to transit/bus stops</td>
<td>5.06</td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>Along and across busy streets</td>
<td>4.99</td>
</tr>
<tr>
<td><strong>Demand</strong></td>
<td>Streets connecting families and children to schools</td>
<td>4.99</td>
</tr>
<tr>
<td><strong>Demand</strong></td>
<td>Streets connecting people to neighborhood commercial districts</td>
<td>4.73</td>
</tr>
</tbody>
</table>

Places to Improve - Citywide average point values (from 1-6). The figure shows that the top priorities identified by respondents citywide are “Areas that serve people who rely on walking the most,” “Streets where people walking have been killed or injured,” and “Streets connecting people to transit/bus stops.”

**Pedestrian Districts include:**
- “Centers,” as defined by Portland’s 2035 Comprehensive Plan, where high levels of pedestrian activity exist or are expected in the future
- Transit Station Areas (1/4 Mile walksheds to Major Transit Stations)

**Major City Walkways include:**
- “Corridors” and “Main Streets,” as defined by Portland’s 2035 Comprehensive Plan, where pedestrian destinations such as housing, goods, and community services exist or are expected in the future
- Frequent transit streets
- Core downtown streets
- High-demand regional trails

**City Walkways include:**
- Non-frequent transit streets
- All other arterials and collectors
- Moderate-demand trails

**Neighborhood Walkways include:**
- Designated Safe Routes to School (local streets)
- Neighborhood Greenways (existing and funded)
- Neighborhood trails

Important to them. It also helps to implement the City’s 2035 Comprehensive Plan Vision to create walkable Centers, Main Streets, and Corridors.

The street classifications that together make up the Pedestrian Priority Network from highest demand to lowest demand are:

- **Major City Walkways**: These walkways have a high number of transit and land use destinations and are streets where we would expect a high number of pedestrians. Major City Walkways are generally comprised of Civic and Neighborhood Corridors and Main Streets (as defined in the 2035 Comprehensive Plan), streets along the planned and existing Frequent Transit Network, core downtown streets, and off-street trails in high demand corridors.

- **City Walkways**: These walkways serve moderate pedestrian demand and are generally comprised of major traffic streets, collector streets, and streets with transit service that
are not designated as Major City Walkways, as well as off-street trails in moderate demand corridors.

- **Neighborhood Walkways**: These walkways serve neighborhood-level demand (typically on local residential streets) and are generally comprised of designated Safe Routes to School travel routes, neighborhood greenways, and priority walking routes on local traffic streets identified in area plans. Neighborhood walkways also include designated paths within the public right-of-way and neighborhood trails.

In addition to the street classifications, a Pedestrian District overlay indicates areas of additional pedestrian demand. Pedestrian Districts are comprised of designated Centers, as defined by Portland’s 2035 Comprehensive Plan, where high levels of pedestrian activity exist or are expected in the future (such as the Center City, the Gateway District, Hollywood, and other districts with a concentration of pedestrian destinations and activity).

They also include Transit Station Areas, comprised of streets within a quarter-mile walk of major transit stations that serve neighborhoods or employment areas.

PedPDX worked with each of the City’s seven District Coalitions to review and refine the Pedestrian Priority Network and associated classifications presented in the maps on the following pages. The City’s Transportation System Plan will be updated to reflect these new pedestrian classifications.
Adopting PedPDX Pedestrian Classifications

After the adoption of PedPDX, the Transportation System Plan (TSP) will be updated to reflect the PedPDX pedestrian classifications. The pedestrian classification descriptions within the TSP will include the following language:

**Pedestrian Districts**
Pedestrian Districts are intended to give priority to pedestrian access in areas where high levels of pedestrian activity centers, neighborhood centers, exist or are planned, including the Central City, Gateway regional center, town and transit station areas.

- **Land Use.** Zoning should allow a transit-supportive density of residential and commercial uses that support lively and intensive pedestrian activity. Auto-oriented development should be discouraged in Pedestrian Districts. Institutional campuses that generate high levels of pedestrian activity may be included in Pedestrian Districts. Exceptions to the density and zoning criteria may be appropriate in some designated historic districts with a strong pedestrian orientation.

- **Streets within a District.** Make walking the mode of choice for all trips within a Pedestrian District. All streets within a Pedestrian District are important in serving pedestrian trips and should have sidewalks on both sides or meet alternative design criteria.

- **Characteristics.** The size and configuration of a Pedestrian District should be consistent with the scale of walking trips. A Pedestrian District includes both sides of the streets along its boundaries, except where the abutting street is classified as a Regional Trafficway. In these instances, the land up to the Regional Trafficway is considered part of the Pedestrian District, but the Regional Trafficway itself is not.

- **Access to Transit.** A Pedestrian District should have, or be planned to have, frequent transit service and convenient access to transit stops.

- **Improvements.** Pedestrian Districts should be designed to provide a safe and comfortable walking environment for high volumes of pedestrians, with a highly-connected and built-out pedestrian network with relatively low levels of delay at signals and other crossings. Major City Walkways and City Walkways within Pedestrian Districts should have closely-spaced marked crossings.

**Major City Walkways**
Major City Walkways are intended to provide safe, convenient, and attractive pedestrian access along major streets and trails with a high level of pedestrian activity supported by current and planned land uses. These include Civic and Neighborhood Corridors, Civic and Neighborhood Main Streets, frequent transit lines, high-demand off-street trails, and streets in areas with a high density of pedestrian-oriented uses.

- **Land Use.** Major City Walkways generally serve areas with the highest density of mixed-use zoning, major commercial areas, and major destinations. Where auto-oriented land uses are allowed on Major City Walkways, site development standards should address the needs of pedestrians for access.

- **Improvements.** Consider special design treatments for Major City Walkways that are also designated as Civic or Neighborhood Main Streets. Major City Walkways should have regularly-spaced marked crossings (with closer spacing in Pedestrian Districts), wide sidewalks on both sides, and a pedestrian realm that can accommodate high volumes of pedestrian activity.
City Walkways
City Walkways are intended to provide safe, convenient, and attractive pedestrian access along major streets and trails with a moderate level of pedestrian activity supported by current and planned land uses. These include Community and Regional Corridors, non-frequent transit lines, and moderate-demand off-street trails.

- Land Use. City Walkways should provide access along major streets to neighborhood commercial areas and other community destinations. Where auto-oriented land uses are allowed on City Walkways, site development standards should address the needs of pedestrians for access.
- Improvements. City Walkways should have regularly-spaced marked crossings (with closer spacing in Pedestrian Districts), sidewalks on both sides, and a pedestrian realm that can accommodate moderate levels of pedestrian activity.

Neighborhood Walkways
Neighborhood Walkways are intended to provide safe and convenient connections from residential neighborhoods to Major City Walkways, City Walkways, and nearby destinations such as schools, parks, transit stops, and commercial areas, primarily using routes that have low levels of motor vehicle traffic or do not allow motor vehicle traffic.

- Land Use. Neighborhood Walkways are usually located in residential or natural areas on low-volume Local Service Traffic Streets or connections that do not allow motor vehicles.
- Improvements. Neighborhood Walkways should be designed to provide a safe and comfortable walking environment, but may take many forms depending on the context. Design types may include sidewalks, shoulders, shared streets, pedestrian-only paths, multi-use paths, soft-surface trails, and ramps/stairs.

Local Service Walkways
Local Service Walkways are intended to serve local circulation needs for pedestrians and provide safe and convenient access to local destinations.

- Land Use. Local Service Walkways are usually located in residential, commercial, or industrial areas on Local Service Traffic Streets that are not classified as Neighborhood Walkways.
- Classification. All streets that allow pedestrian access and are not classified as Major City Walkways, City Walkways, or Neighborhood Walkways, are classified as Local Service Walkways.
- Improvements. Local Service Walkways should be designed to provide a safe and comfortable walking environment that provides access to adjacent land uses.
Figure 21: PedPDX Pedestrian Priority Network
Figure 22: Central City Inset Map - PedPDX Pedestrian Priority Network
Figure 23: PedPDX Pedestrian Priority Network - Northwest Portland

PEDESTRIAN PRIORITY NETWORK
Northwest Portland

- Major City Walkway
- City Walkway
- Neighborhood Walkway
- Ped District

0 0.5 1 Miles
Figure 25: PedPDX Pedestrian Priority Network - Northeast Portland

PEDESTRIAN PRIORITY NETWORK
Northeast Portland

- Major City Walkway
- City Walkway
- Neighborhood Walkway
- Ped District
PEDESTRIAN PRIORITY NETWORK

Southwest Portland

- Major City Walkway
- City Walkway
- Neighborhood Walkway
- Ped District

Figure 27: PedPDX Pedestrian Priority Network - Southwest Portland
Figure 28: PedPDX Pedestrian Priority Network - Southeast Portland

PEDESTRIAN PRIORITY NETWORK

Southeast Portland

- Major City Walkway
- City Walkway
- Neighborhood Walkway
- Ped District
PEDESTRIAN PRIORITY NETWORK

Outer Southeast Portland

- Major City Walkway
- City Walkway
- Neighborhood Walkway
- Ped District

Figure 29: PedPDX Pedestrian Priority Network - Outer Southeast Portland
Identifying Needs within the Pedestrian Priority Network

The PedPDX needs assessment identifies where there are sidewalk and crossing needs across and along each of the streets within the Pedestrian Priority Network. These needs are subsequently prioritized as part of the PedPDX prioritization framework described in the next chapter.

See Appendix H: “Network Completeness and Adequacy Criteria Memo” for more detailed information on the methodology used for the needs assessment.

Crossing Needs

CROSSING GAPS

PedPDX establishes new design guidelines for the desired frequency of marked pedestrian crossings in Portland moving forward. These guidelines are intended to identify crossing gaps in Portland’s pedestrian network at a planning level, and vary according to the street’s pedestrian classification. Pedestrian streets and districts with higher expected pedestrian activity and destinations should provide more frequent marked crossing opportunities, while streets with fewer destinations and expected pedestrian volumes may provide less frequent marked crossings (see Action 1.3 in Chapter 6 - “The PedPDX Implementation Toolbox” for additional information about the crossing spacing guidelines). Figure 30 describes the PedPDX crossing spacing guidelines according to pedestrian classification.

Crossing spacing guidelines are intended to identify gaps where further engineering analysis is
required. While the stated maximum desired distances between marked pedestrian crossings should generally not be exceeded, the exact location of marked crossings should be context-driven, and will be determined based on pedestrian crossing demand, specific land use generators, sight distance needs, proximity to traffic signals, existing pedestrian crossings, and engineering judgment.

For the purposes of the needs assessment, a roadway crossing gap is defined as any street segment where marked pedestrian crossings are further apart (on average) than the desired maximum. The needs assessment identifies street segments in the Pedestrian Priority Network that do not meet the crossing spacing guidelines shown in Figure 30. These gaps should be evaluated to determine whether a new marked crossing would make sense within the identified area.

The crossing gap analysis found that approximately 3,520 new marked crossings may be needed to meet the City’s crossing spacing guidelines.

79% of the total miles of City Walkways and Major City Walkways have a gap. The average gap length is roughly one-third mile; however, gaps are less prevalent in pedestrian districts than on streets outside of pedestrian districts.

The map in Figure 32 shows the location of crossing gaps in the Pedestrian Priority Network according to the PedPDX planning level analysis. These are street segments that do not currently meet the new crossing spacing guidelines. These crossing gaps are prioritized as part of the PedPDX prioritization framework described in Chapter 5.

CROSSING DEFICIENCIES

PBOT has developed design guidance that identifies the appropriate type of crossing treatment to install based on the number of lanes, posted speed limit, and average daily traffic of a roadway Figure 31).
Inside Pedestrian Districts:

**DESIRED SPACING OF 530 feet between marked crossings**

**City Walkways and Major City Walkways within Pedestrian Districts**

**DESIRED CROSSING FREQUENCY 530 ft**

Pedestrian Districts are areas where high levels of pedestrian activity exist or are planned, including the Central City, Gateway regional center, town centers, and near MAX stations.

For Major City Walkways and City Walkways within Pedestrian Districts the desired spacing between marked pedestrian crossings is 530 feet.

Demonstrating existing crossing demand will not be required to justify new marked crossings within Pedestrian Districts.

On a street with standard 200-ft blocks, the 530-ft crossing frequency results in a marked pedestrian crossing approximately every other block.

Outside of Pedestrian Districts:

**DESIRED SPACING OF 800 feet between marked crossings**

**City Walkways and Major City Walkways outside of Pedestrian Districts**

**DESIRED CROSSING FREQUENCY 800 ft**

City Walkways and Major City Walkways provide walking access to important land use and transit destinations. The desired spacing between marked pedestrian crossings on these streets is 800 feet.

On a street with standard 200-ft blocks, the 800-ft crossing frequency results in a marked and/or enhanced pedestrian crossing approximately every three blocks.

To ensure that new marked crossings on streets with lower pedestrian volumes do not result in driver disregard of crosswalks, a minimum of 20 pedestrian/bicycle crossings per peak hour will be required to provide new marked/enhanced crossings on City Walkways and Major City Walkways outside of Pedestrian Districts or where there is not a transit stop.

At Transit stops:

**WITHIN OF ALL TRANSIT STOPS 100 ft**

**Transit Stops**

**DESIRED CROSSING WITHIN 100 ft**

Moving forward, PBOT practice will be to provide a marked pedestrian crossing at all transit stops¹, regardless of street classification.

Demonstrating existing crossing demand will not be required to justify new marked crossings at transit stops.

Marked crossing requirements at transit stops may be implemented by providing new marked crossings at existing transit stops, and/or by strategically relocating or consolidating transit stops such that they are located at existing marked crossings. This will require PBOT capital project managers to collaborate with TriMet to consolidate, relocate, or otherwise confirm stop locations.

¹ Engineering judgment may deem marked crossings unwarranted in some locations, particularly on two-lane streets with very low vehicle volumes and low transit ridership.
For the purposes of the PedPDX needs analysis, a crossing deficiency is defined as an existing marked pedestrian crossing within the Pedestrian Priority Network that may not meet the City of Portland’s guidance for crosswalk design. This planning level analysis requires additional engineering evaluation to verify if additional enhancements are needed at each of these individual locations. Ninety-four percent of existing crossings that are potentially deficient are on roads that would need a new Rapid Rectangular Flashing Beacon (RRFB) or other enhancement to be considered sufficient. RRFBs are pedestrian beacons that are used at crossings without existing traffic signals. The beacons flash with a specific pattern to alert drivers to expect pedestrians crossing the street.

The crossing gaps and deficiencies maps in Figures 32 and 33 show that...
CROSSING GAPS AND DEFICIENCIES

City of Portland

- Green: Meets City Crossing Spacing Guidelines
- Maroon: Does Not Meet City Crossing Spacing Guidelines
- Blue Circle: Potentially Deficient Crossing
- Yellow: Ped District

Figure 32: Crossing Gaps and Deficiencies on the Pedestrian Priority Network
Figure 33: Central City Inset Map- Crossing Gaps and Deficiencies on the Pedestrian Priority Network
many of the potentially deficient crossings are on a few key streets. These are streets where there are many mid-block crossings, so there aren’t as many gaps, but the crossings that exist could potentially use improvements.

**Sidewalk Needs**

A gap along the roadway is a location where a sidewalk is not provided. The PedPDX needs analysis identifies two types of gaps: street segments within the Pedestrian Priority Network with a sidewalk gap on both sides of the street, and street segments with a sidewalk gap on only one side of the street. Trails gaps are considered a gap on both sides of the street.

Though a street with a sidewalk on one side only is identified as a gap, we know that in some locations, a sidewalk on both sides of the street may not be the best design solution. In recognition of new City Comprehensive Plan policies indicating that context-sensitive walkways may be more appropriate than a traditional sidewalk on both sides of the roadway in certain locations, the PedPDX Implementation Toolbox provides guidance for the application of alternative pedestrian walkway treatments.

Figures 35 and 36 illustrate the sidewalk gaps on the Pedestrian Priority Network. The sidewalk gap analysis found that there are approximately 350 miles of missing sidewalk on busy arterial and collector streets in Portland. This figure does not include sidewalks that may be missing on local streets as well.
Figure 34 shows that while fifty percent of all arterial and collector roadways in Portland have a sidewalk on both sides of the street, 32% of busy arterial and collector streets have a sidewalk missing on both sides of the roadway.

PedPDX identifies gaps along the roadway only, and does not identify deficiencies. While deficiencies were considered within the process, the project team did not analyze these needs for two reasons: 1) available data is inconsistent and difficult to interpret; and 2) with limited public resources, a gap will be prioritized over an existing facility. This decision does not preclude the City from investing in sidewalk or trail deficiencies on the Pedestrian Priority Network in the future.

Prioritizing Crossing and Sidewalk Needs

The magnitude of pedestrian infrastructure needs is significant. The PedPDX needs analysis shows that there are approximately 350 miles of missing sidewalks along Portland’s busy arterial and collector streets, and a need for approximately 3,520 new marked crossings across the city.

This is likely more need than we have resources to address in the next 20 years.

As a comparison, the existing conditions analysis in Chapter 3 found that we constructed and repaired approximately 230 miles of sidewalk and installed or re-installed approximately 2,500 marked crossings in the last 20 years.

The following chapter describes the prioritization framework we will use to systematically address these sidewalk and crossing needs across the city and ensure that we are addressing locations with the greatest needs first.
Figure 35: Central City Inset Map- Sidewalk Gaps on the Pedestrian Priority Network

SIDEWALK PRESENCE

On Major City Walkways, City Walkways, and Neighborhood Walkways

- Sidewalk Present on Both Sides
- No Sidewalk Present on One Side
- No Sidewalk Present on Both Sides
- No Data Available
Figure 36: Sidewalk Gaps on the Pedestrian Priority Network

SIDEWALK PRESENCE
On Major City Walkways, City Walkways, and Neighborhood Walkways

- Sidewalk Present on Both Sides
- No Sidewalk Present on One Side
- No Data Available

Central City See Inset Map
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