



Americans with Disabilities Act Public Rights-of-Way Self-Evaluation Report

October 2015



Pierce County

The Americans with Disabilities Act Notice:

In accordance with the requirements of Title II of the Americans with Disabilities Act of 1990 ("ADA"), Pierce County Government will not discriminate against qualified individuals with disabilities on the basis of disability in its services, programs, or activities.

Alternative Formats:

Materials can be requested in alternative formats by contacting the County ADA Coordinator, Martha Keogh at Phone: (253) 798-2909, TTY: (253) 798-3965, Relay Service: (800) 833-6384, Email: mkeogh@co.pierce.wa.us, Mail: Pierce County Human Resources, 615 S 9th St, Suite 200, Tacoma, WA 98405-4670.

Questions about this report:

If you have questions about the content of this report, contact Dan Hansen P.E. at (253) 798-2288, or daniel.hansen@co.pierce.wa.us, or you may visit www.piercecountywa.org/ADAtransition.

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- Appendix A: Pedestrian Facilities Assessment Manual
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Introduction/Purpose

The Americans with Disabilities Act (ADA) is a federal civil rights law that prohibits discrimination against individuals with disabilities. Under Title II of the ADA [28 CFR 35.105](#), Pierce County must evaluate our “current services, policies and practices” to determine whether they comply with the requirements of the ADA. This process is called self-evaluation. Pierce County Public Works developed this report to fulfill our self-evaluation requirements for pedestrian facilities within county public rights-of-way (land owned by the county for public roadways). This report does not address buildings, privately owned facilities, or the facilities owned by the incorporated cities and towns of Pierce County. Pierce County is committed to providing accessible pedestrian facilities which ensure that all of our citizens have access to our transportation system. This report identifies areas where we must improve to meet that commitment, and where we are meeting it already.

Facilities evaluated in this report are those that make up the pedestrian access route and pedestrian circulation path in the public right-of-way as defined in [R105.5](#) of the [Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way](#), July 2011 (also referred to as Public Rights-of-Way Accessibility Guidelines or 2011 PROWAG). Specifically, the types of facilities evaluated in this report include: sidewalks, curb ramps, traffic control signals, and driveway entrances that include ramps. This report identifies barriers to the accessibility of these facilities as defined by the ADA.

As part of our self-evaluation, Pierce County reviewed internal policies and practices related to public rights-of-way accessibility. We examined how we implement these policies and practices, and determined where modifications needed to be made to ensure accessibility.

This report contains a summary of the county’s inventory of pedestrian facilities in the public right-of-way. The inventory includes extensive measurements taken for each type of facility. We used the measurement data to determine what barriers to accessibility exist and how severe each of those barriers is.

The county conducted an extensive public outreach and involvement effort to gain a better understanding of the public’s accessibility needs. We hosted public meetings, created website materials, and conducted surveys. The information we received from this outreach will help us to gauge the priorities of Pierce County residents.

The inventory and survey information in this report will serve as the basis to draft the *Pierce County ADA Transition Plan for Public Rights-of-Way*. This plan will lay out how and when we will upgrade pedestrian facilities to achieve compliance with the ADA. When the plan is completed, we will incorporate this report as an appendix to be periodically updated as planned improvements are completed.

Policies and Practices

This section contains a review of county policies and practices with relation to the ADA. As a result of the review, we found some policies and practices were adequate to ensure ADA compliance. We determined that other policies needed revision. Finally, the county identified areas where we needed to develop new policies. As new information becomes available, or ADA standards change, the county will update our policies and practices to incorporate the latest information and standards.

The following subsections list policies and describe their relationship to ADA. The subsections group policies and practices according to which are adequate, which have been modified, which are in the process of being modified, or which need to be developed.

Existing Policies and Practices Deemed Adequate

Pierce County found the following policies and practices to be adequate to ensure compliance with the ADA:

- **Pierce County ADA Coordinator:** Pierce County's designated ADA Coordinator is Martha Keogh. She can be reached at Phone: (253) 798-2909, TTY: (253) 798-3965, Relay Service: (800) 833-6384, Email: mkeogh@co.pierce.wa.us, Mail: Pierce County Human Resources, 615 S 9th St, Suite 200, Tacoma, WA 98405-4670.
- **Pierce County Grievance Procedure under the Americans with Disabilities Act:** The grievance procedure is used to file a complaint alleging discrimination on the basis of disability in the provisions of services, activities, programs, or benefits by Pierce County Government. Information on the county's grievance procedure can be found at www.co.pierce.wa.us/index.aspx?nid=1222, or by contacting the Pierce County ADA Coordinator.
- **License and Agreement between Pierce County and Pierce Transit relating to the Use of County Roads for the Installation and Maintenance of Bus Stop Facilities for Transportation Purposes:** This agreement describes the responsibilities for bus stops in Pierce County's public right-of-way.
- **Special Provision 8-14.3.OPT2 (Ramp Construction):** This specifies curb ramp construction procedures which ensure ADA compliant ramps are built on county road projects.

New and Modified Policies and Practices Developed

Pierce County developed the following new policies and modifications to existing policies and practices as a result of the self-evaluation process:

- **Pierce County Standard Drawings Manual:** We updated Sections A, F and H to clarify ADA design requirements and eliminate any non-compliant features of the drawings. This manual can be found at: www.piercecountywa.org/roadstandards
- **Designing and Constructing Curb Ramps:** We revised the existing procedure to reference new standard drawings, the new Maximum Extent Feasible Curb Ramp Documentation, and to include minor changes in how curb ramp designs are shown in plan sets.
- **Pierce County Pedestrian Facilities Assessment Manual:** We updated the existing manual to include procedures to inventory various features of pedestrian facilities. We also ensured that pedestrian facility assessments for maintenance purposes were based on the design guidance in the PROWAG.
- **Maximum Extent Feasible (MEF) Curb Ramp Documentation:** We developed a new procedure for use in the design of county road projects. It is used to document cases where meeting all ADA design requirements is technically infeasible. This procedure will ensure that designs are ADA compliant to the maximum extent feasible before they are approved and constructed.
- **ADA design standards for public rights-of-way:** The county adopted 2011 PROWAG as our standard to design and evaluate pedestrian facilities in the public right-of-way. We will use this standard until the Department of Justice adopts a final version of the guidelines.
- **Pierce County Comprehensive Plan, Chapter 14 Transportation Element Appendix:** The county added this section to our Comprehensive Plan to address the ADA, and the ADA Transition Plan.
- **Signal Alterations Requiring APS Installation:** Accessible Pedestrian Signals (APS) shall be installed and provided for existing signals for any substantive modification beyond normal maintenance issues. Examples of this would include new signal phasing (such as a new left turn phase or right turn overlap phase), the addition or deletion of a pedestrian phase, or the addition of a new lane.

Proposed Modifications to Existing Policies and Practices

Pierce County is in the process of modifying the following policies:

- **Manual on Design Guidelines and Specifications for Road and Bridge Construction in Pierce County:** We will update this manual to reference PROWAG and include minor changes to some design standards. This manual can be found at: www.co.pierce.wa.us/index.aspx?NID=3760
- **Manual on Accommodating Utilities in Pierce County Rights-of-Way:** We will update this manual to include information about ADA requirements for utility work that may

impact the pedestrian circulation path. This manual can be found at:
www.co.pierce.wa.us/index.aspx?NID=3760

Proposed New Policies and Practices

Pierce County identified the following areas where new policies or practices will be developed:

- **Americans with Disabilities Act Transition Plan for Public Rights-of-Way:** Pierce County is currently in the process of developing this plan to bring all pedestrian facilities in county public right-of-way into compliance with the ADA.

Pedestrian Facility Inventory

Completing an inventory of all existing pedestrian facilities was the most significant component of the self-evaluation process. We measured thousands of facilities across the county. The data collected allows us to determine whether any individual facility meets ADA requirements. We can then use the information to quantify the severity of defects which impact a facility's accessibility. An understanding of existing defects, combined with priorities expressed by the public, will ultimately serve as the basis to identify and prioritize locations that need accessibility improvements. The prioritization method and schedule to complete improvements will be included in our forthcoming *ADA Transition Plan for Public Rights-of-Way*.

We designed our inventory system to assess existing pedestrian facilities compliance with all design standards in the 2011 PROWAG. The survey methods were informed by the Department of Justice document [ADA Accessibility Survey Instruction: Curb Ramps](#). The Pierce County Pedestrian Facilities Assessment Manual describes the methods used to collect inventory data on elements of the pedestrian access route. It is included in Appendix A.

In the summer of 2013, Pierce County began collecting the data for this inventory of pedestrian facilities. We visited all known pedestrian facilities located in the public right-of-way. We recorded a multitude of characteristics and measurements needed to assess the ADA compliance of each. We measured characteristics like lengths and slopes using tape measures and smart levels. For other characteristics, such as the type of traffic control at an intersection or sidewalk material, we simply observed and recorded the condition.

We entered all of these measurements into handheld GPS devices which also recorded the location of the feature being measured. Finally we uploaded all of this location specific data into a geodatabase, so it can be mapped and analyzed using geospatial information system (GIS) mapping software. This software allows Pierce County to quickly find and display any pedestrian feature or group of features based on any characteristic or measurement collected during the inventory process.

This inventory will be used to develop and monitor the *Pierce County ADA Transition Plan for Public Rights-of-Way*. It will be updated annually as new sidewalks are built and existing needs

are addressed. These annual updates will assist the county in monitoring our progress in implementing the transition plan.

Separate from the general inventory of pedestrian facilities described above, the condition of existing sidewalks will be periodically assessed to monitor them for maintenance needs. This condition assessment will monitor for issues such as cracks, raised panels, and the encroachment of vegetation into the pedestrian circulation path.

Inventory Findings

This section includes a statistical summary of measurements taken for each type of pedestrian facility Pierce County inventoried. These statistics are intended to help assess the state of our entire network of public right-of-way pedestrian facilities. The statistical categories generally cover just one type of measurement, but the inventory data can be analyzed according to any combination of different measurements. The statistics show the percentages of facilities that are ADA compliant in each measurement category, as well as a number of non-compliant ranges to show how far from compliance some facilities are.

Many facilities that are fully ADA compliant in one measurement category are non-compliant in another. The forthcoming *ADA Transition Plan for Public Rights-of-Way* will address all of the facilities that are non-compliant in at least one measurement category.

Sidewalks

Sidewalks form the backbone of Pierce County's pedestrian transportation network in the urban areas of the county. The sidewalks measured for this plan were only those within county owned roadway right-of-way. Paths at parks, or sidewalks along private roadways were not included, because they are not within the jurisdiction of Pierce County Public Works.

The county measured all sidewalks according to the procedures contained in Appendix A. Some of the attributes measured were sidewalk width, cross slope, and condition. The condition rating addresses maintenance issues that surface over time, such as cracked panels, lifted panels, and vegetation encroachment. Photos explaining these measurements are also contained in Appendix A.

The Figures 1-3 on the following pages show the locations of all sidewalk facilities that we measured. The maps also include driveways entrances that require sidewalks to ramp down from full curb height. The unincorporated areas of Pierce County appear white, while cities are labeled and shaded gray. Table 1 shows ADA compliance statistics for the 237.04 miles of measured sidewalks.

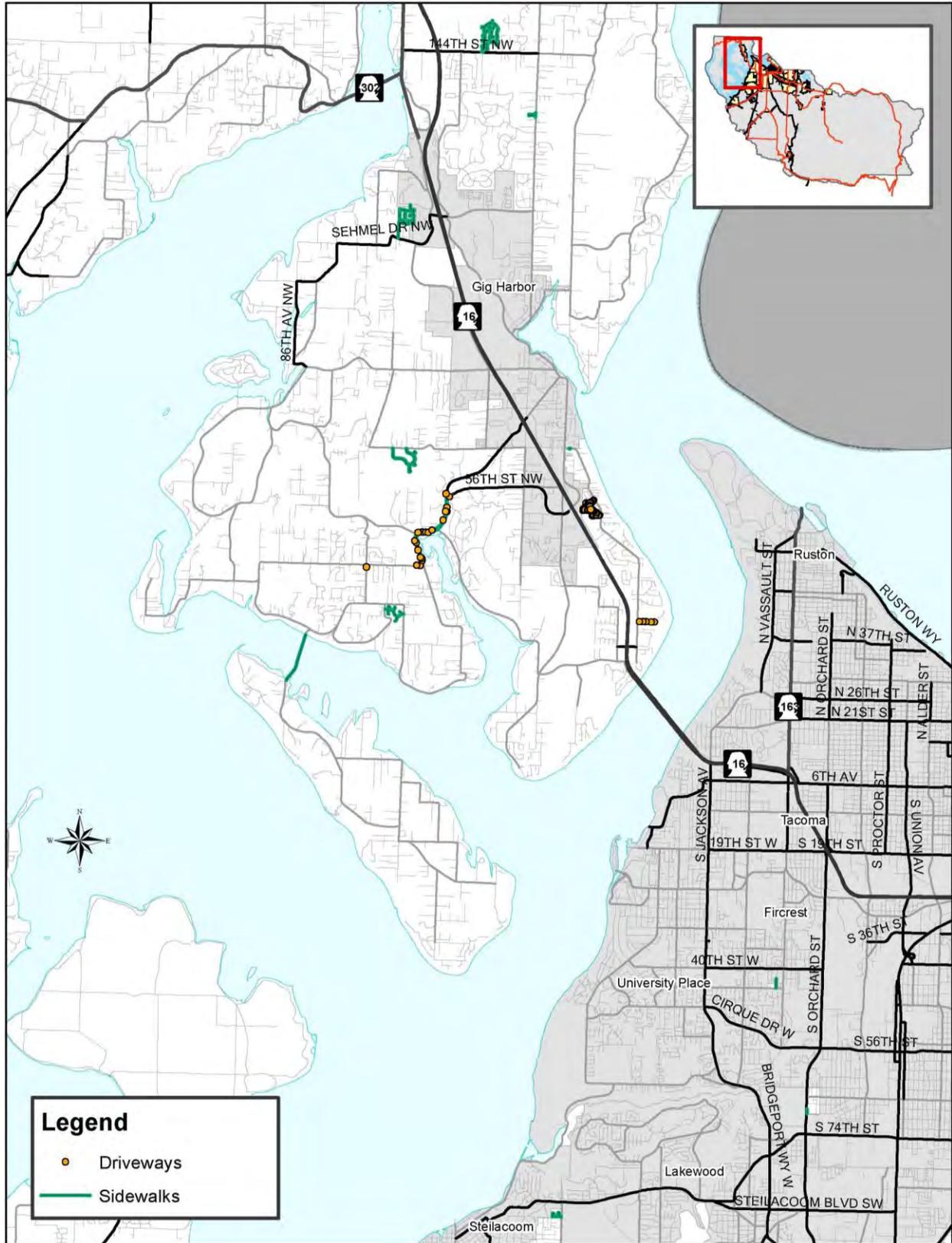


Figure 1 – Sidewalk and Driveway Entrance Map 1

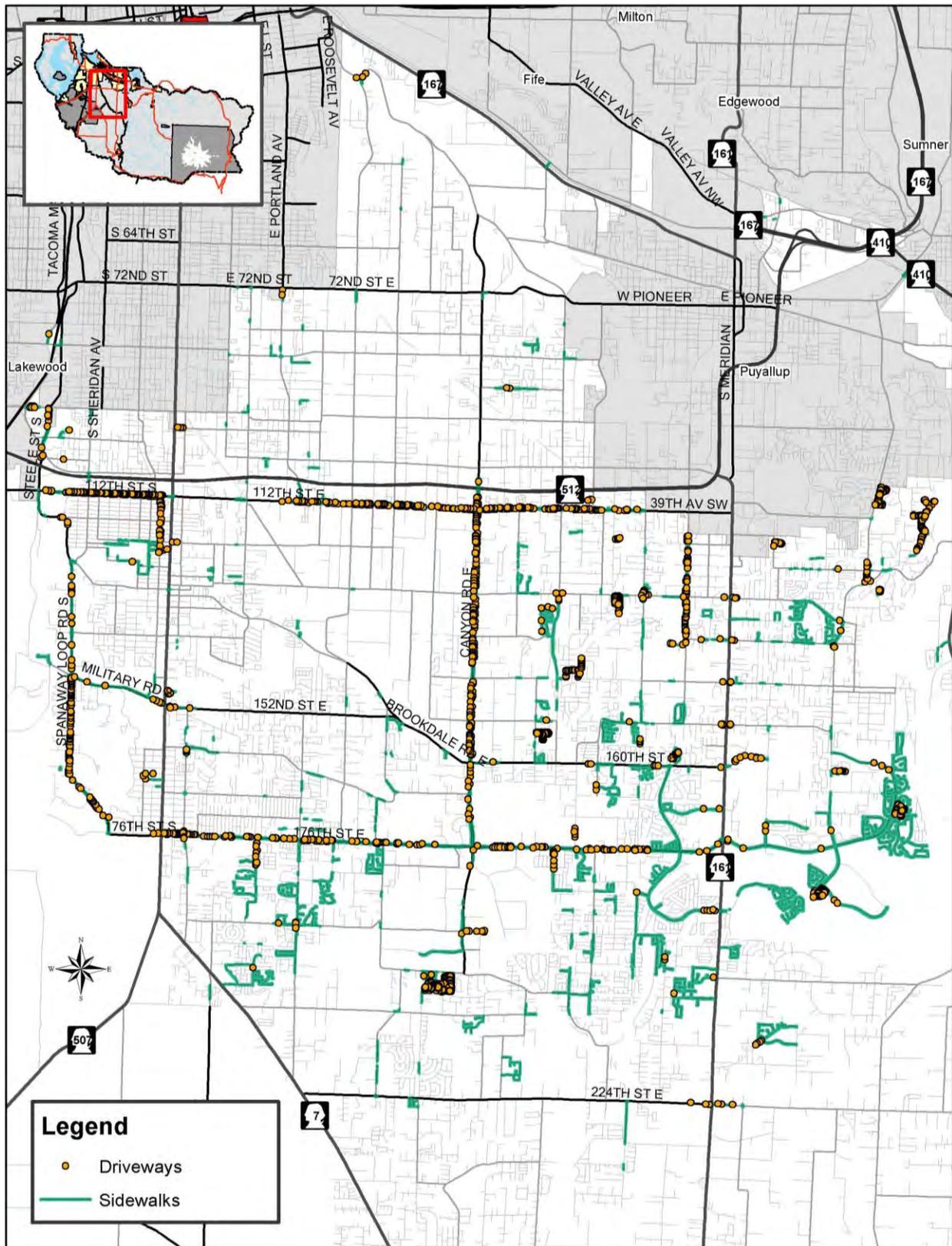


Figure 2 – Sidewalk and Driveway Entrance Map 2

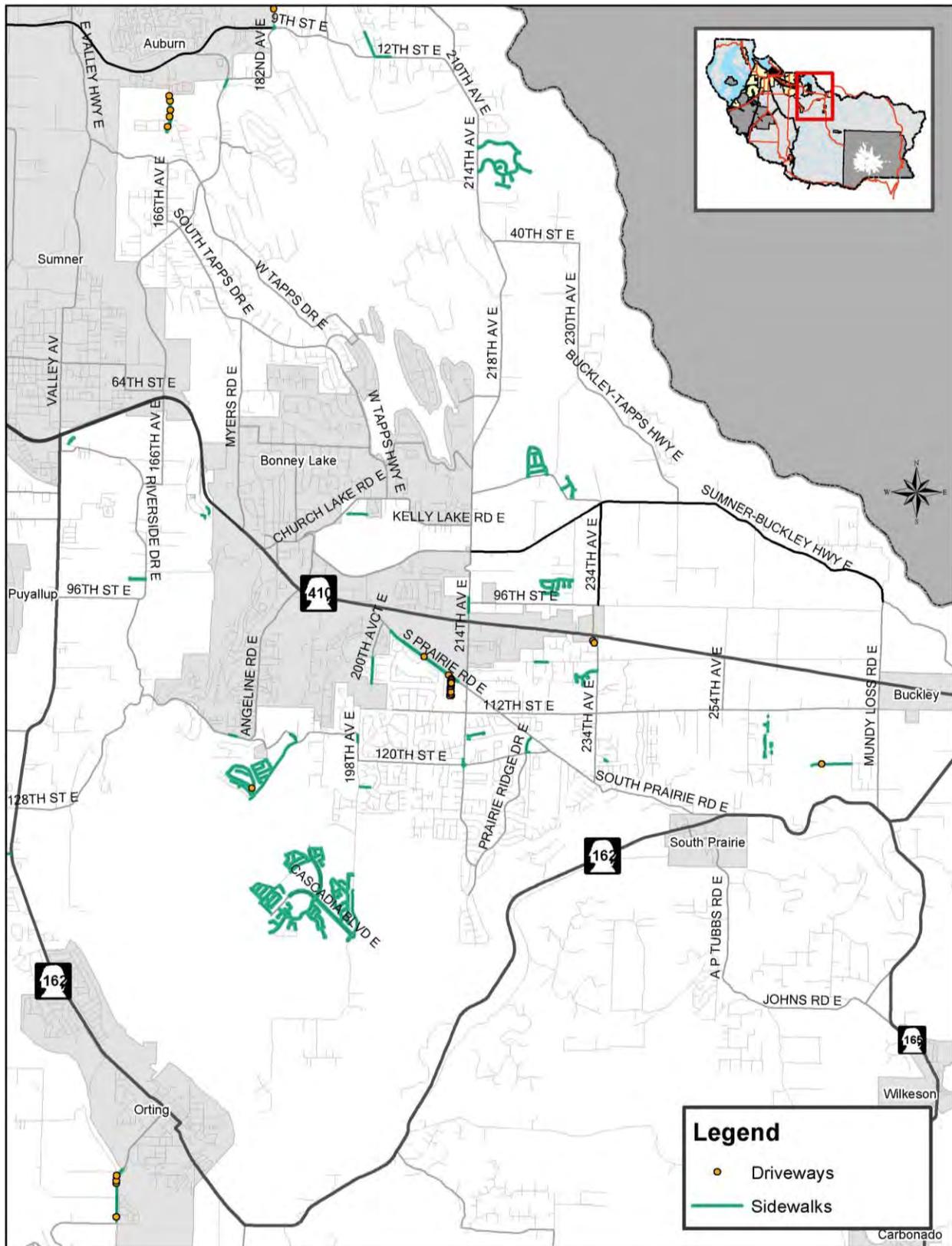


Figure 3 – Sidewalk and Driveway Entrance Map 3

Table 1 – Sidewalk Compliance Statistics

Sidewalk Measurement Category	Miles	Percentage
Sidewalk Material:		
Concrete	218.91	92.4%
Asphalt	18.07	7.6%
Other	0.06	0.0%
Sidewalk Cracks and Vegetation:		
Fully ADA compliant	225.69	95.2%
Noncompliant	11.35	4.8%
Sidewalk Cross Slope:		
0.0% - 2.0% (ADA compliant)	118.86	50.1%
2.1% - 3.0%	84.39	35.6%
3.1% - 5.0%	31.11	13.1%
> 5.0%	2.68	1.1%
Sidewalk Width:		
0.1' - 3.0'	0.00	0.0%
3.1' - 4.0'	0.70	0.3%
4.1' - 5.0' (ADA compliant if 200 feet long or less)	2.94	1.2%
> 5.0' (ADA compliant)	233.40	98.5%
Sidewalk Obstructions:		
Fixed object obstructs sidewalk path		203

Existing sidewalks in Pierce County right-of-way have a high level of ADA compliance in some measurement categories and are less compliant in others. The vast majority of sidewalks, 98.5%, meet minimum width requirements for two wheelchairs to pass each other. 95.2% of sidewalks meet ADA compliance guidelines for cracked or lifted panels. However, only about half of all sidewalk length has an ADA compliant cross slope. Pierce County now designs new sidewalks to have a 1.50% cross slope (lowered from a 2% cross slope in 2013) to account for construction tolerances and to help avoid this issue in the future.

Overall, Pierce County sidewalks are in good condition, however there are some issues that need to be addressed to ensure that all sidewalks are accessible. One issue for accessibility is the 203 obstructions in the sidewalk which may block access. The 11.35 miles of sidewalk that have noncompliant cracks and vegetation issues are another issue. Finally, 0.7 miles of sidewalks are less than 4 feet wide and 2.68 miles of sidewalks have a cross slope steeper than 5%. All of these issues could be significant barriers to sidewalk accessibility.

Pierce County will address all sidewalk facilities identified above that are not ADA compliant in the ADA Transition Plan. The ADA Transition Plan will lay out how and when we will make sidewalk facilities accessible to achieve compliance with the ADA.

Driveway Entrances

Driveways are common features that cross sidewalks wherever they exist in Pierce County. In many areas driveways are built to allow vehicles to cross the sidewalk while the sidewalk remains level. In other areas the sidewalk must ramp down to allow vehicles to cross over it at driveway entrances.

The driveway entrance inventory took measurements for driveways that included ramps. In situations where the sidewalks remained level across the entrances of driveways, they were included in the standard sidewalk inventory process. Measurements were taken using the same procedures as those described for curb ramps in Appendix A.

Pierce County measured 1,748 driveway entrance locations. These locations include 3,492 ramps since two ramps are present at most entrances. The sidewalk and driveway entrance maps, Figures 1-3, show the locations of all inventoried driveways. Table 2 shows ADA compliance statistics for those entrance locations.

Table 2 – Driveway Entrance Compliance Statistics

Driveway Entrance Measurement Category	Number	Percentage
Driveway Entrances Fully ADA Compliant		
Fully compliant	341	19.5%
Noncompliant	1407	80.5%
Ramp Width:		
0.1' - 2.9'	0	0.0%
3.0' - 3.9'	2	0.1%
4.0' or greater (ADA compliant)	3490	99.9%
Ramp Running Slope:		
0.0% - 8.3% (ADA compliant)	2472	70.8%
>8.3% with length 15' or longer (ADA compliant)	13	0.4%
>8.3% <=10% with length less than 15'	477	13.7%
>10% with length less than 15'	530	15.2%
Ramp Cross Slope:		
0.0% - 2.0% (ADA compliant)	1961	56.2%
2.1% - 3.0%	653	18.7%
3.1% - 5.0%	437	12.5%
> 5.0%	441	12.6%
Driveway Entrance Pedestrian Path Width:		
0.1' - 3.9'	1	0.1%
4.0' - 4.9'	26	1.5%
> =5.0' (ADA compliant)	1721	98.5%
Driveway Entrance Pedestrian Path Cross Slope:		
0.0% - 2.0% (ADA compliant)	940	53.8%
2.1% - 3.0%	366	20.9%
3.1% - 5.0%	126	7.2%
> 5.0%	315	18.0%

Less than 20% of all driveways measured were found to be fully ADA compliant. Driveway entrances featuring cross slopes greater than 5% and ramp running slopes greater than 10% are potentially significant barriers to accessibility.

Pierce County will address all driveway entrances identified above that are not ADA compliant in the ADA Transition Plan. The ADA Transition Plan will lay out how and when we will make driveway entrances accessible to achieve compliance with the ADA.

Curb Ramps

Pierce County located and measured curb ramps in all locations where sidewalks were located in the public right-of-way. Each curb ramp required a combination of up to 36 different measurements and observations. Curb ramp data includes many measurements of elements beyond the ramp itself. We measured and recorded data for elements such as turning space, clear space, gutters, crosswalks, flared sides, and detectable warning surfaces for each ramp. In many instances a single ramp location will include measurements for two ramps or two crosswalks. The county also noted locations where curb ramps are required to serve a legal crossing of a public road, but are currently absent. We recorded these as missing ramps. Appendix A Chapter 3 includes greater detail about the many ramp elements and measurement techniques.

Pierce County measured 3,256 curb ramp locations. These locations include 5,212 ramps since two ramps are included at many locations. We also identified 711 locations where required ramps were absent. Figures 4-6 on the following pages show the locations of all curb ramps and missing ramps in the public right-of-way in unincorporated Pierce County. The unincorporated areas appear white, while cities are labeled and shaded gray. The maps make no distinction between ramps that are compliant and those that are not compliant. Table 3 shows ADA compliance statistics for all curb ramp locations in the public right-of-way in unincorporated Pierce County.

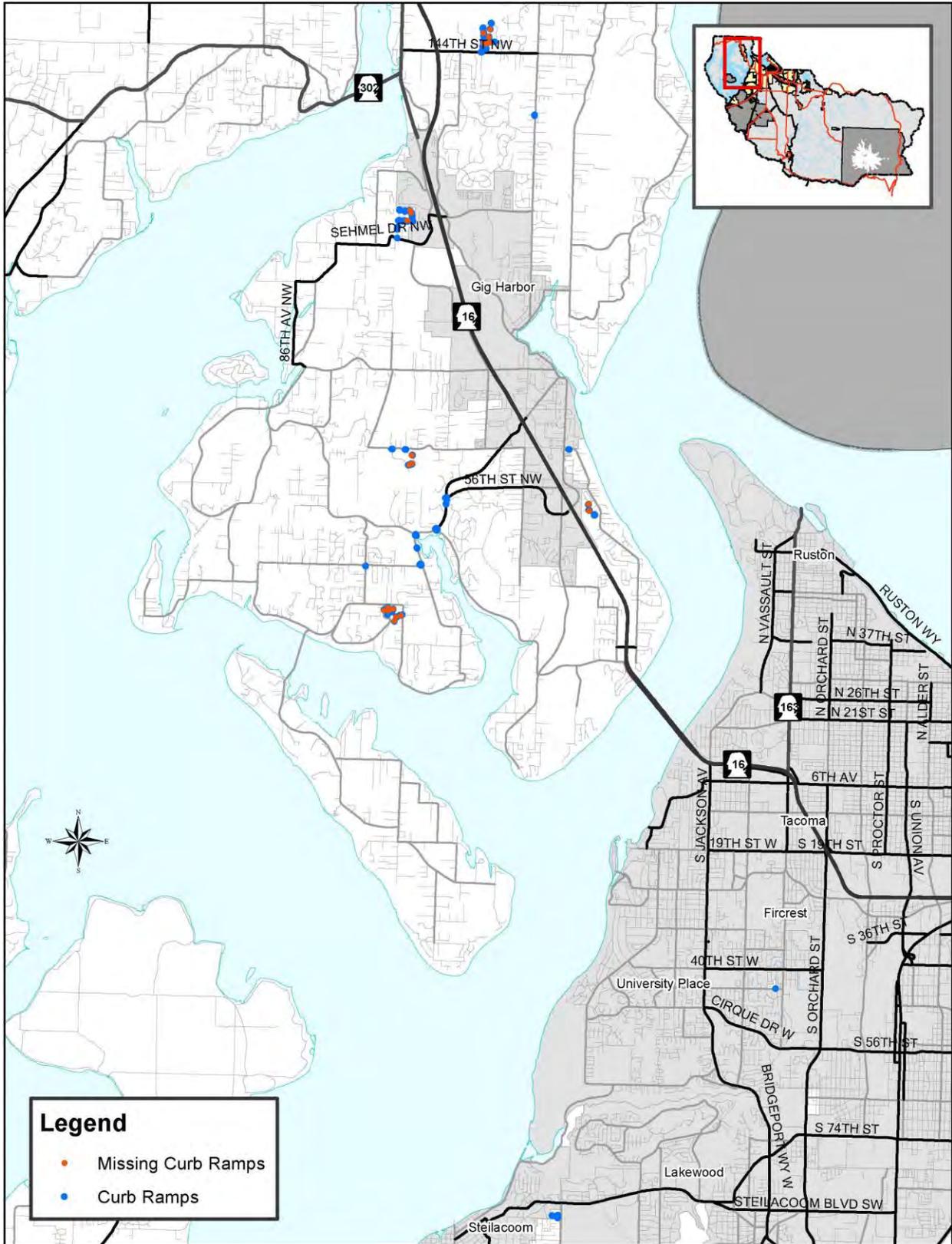


Figure 4 – Curb Ramp Map 1

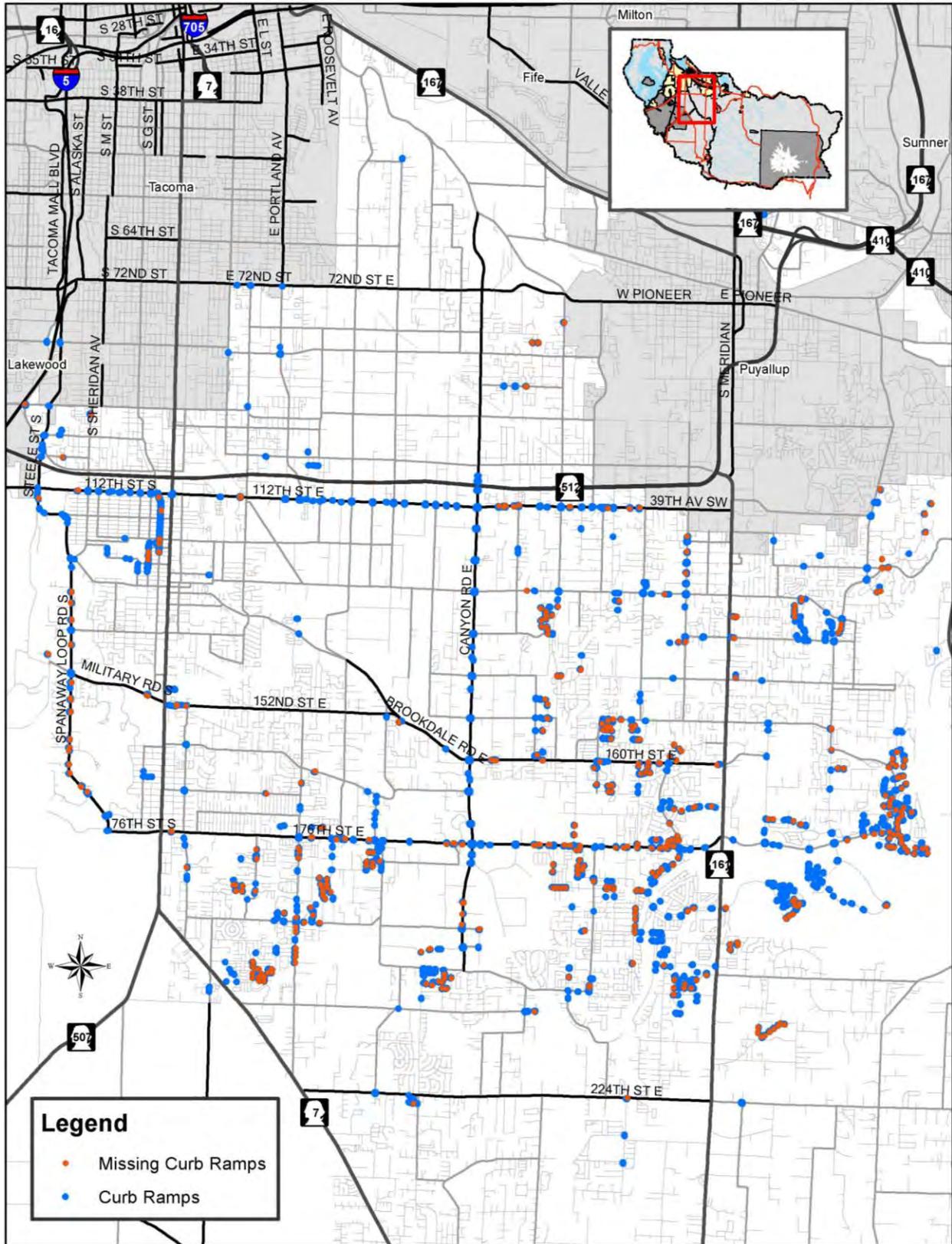


Figure 5 – Curb Ramp Map 2

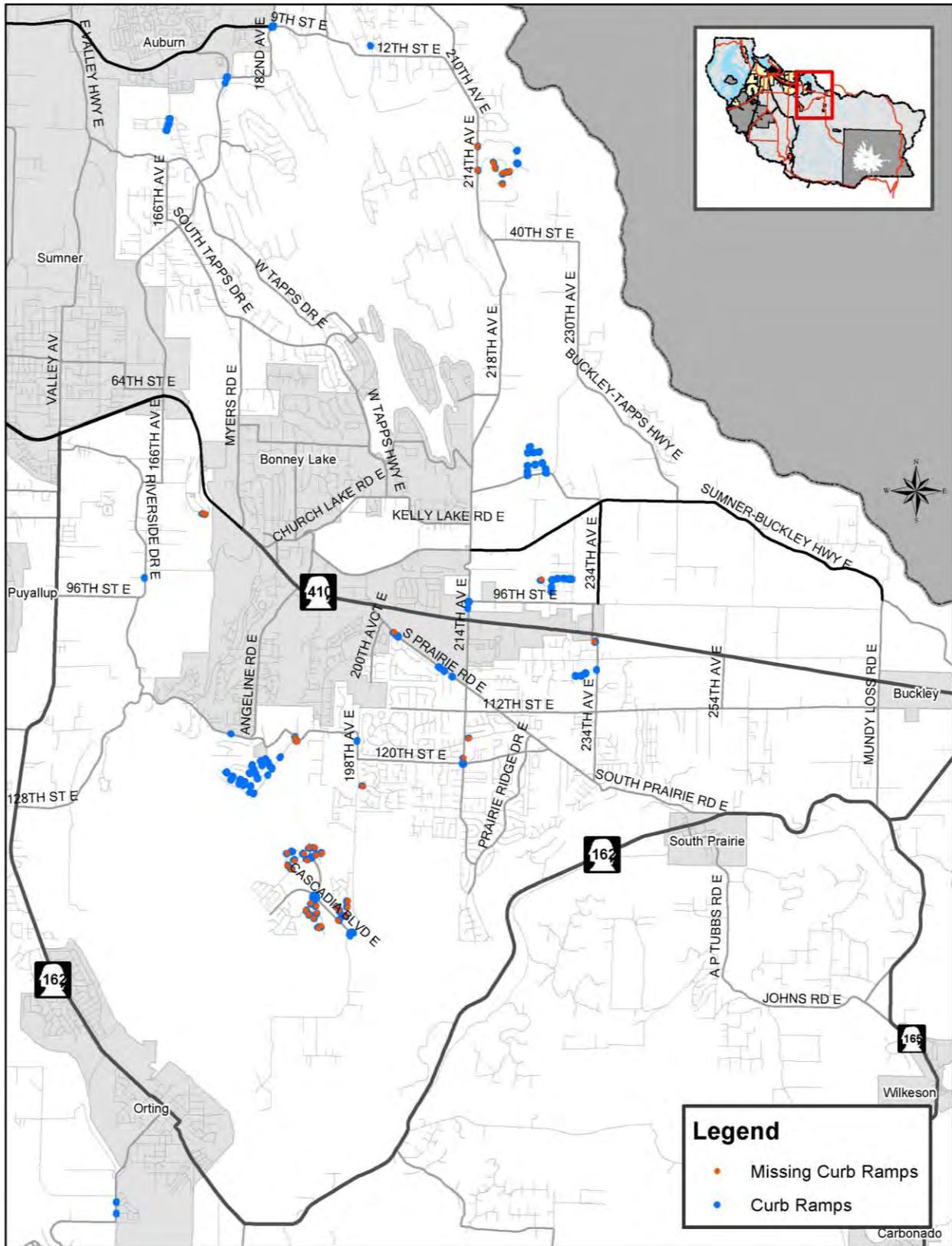


Figure 6 – Curb Ramp Map 3

Table 3 – Curb Ramp Compliance Statistics

Curb Ramp Measurement Category	Number	Percentage
Curb Ramp Type:		
Perpendicular (Type 1 PC)	1178	36.2%
Parallel (Type 2 PC)	1854	56.9%
Parallel Single Direction (PC Major Driveway Type)	185	5.7%
Median Crossing	24	0.7%
Other/Non standard	15	0.5%
Curb Ramps Absent Where Required:		
Total missing ramps	711	
Curb Ramps Fully ADA Compliant:		
Fully compliant	146	4.5%
Not fully compliant	3110	95.5%
Counterslope:		
0.0%-5.0% (ADA compliant)	1694	52.0%
5.1% - 8.3% turning space@ bottom of ramp	764	23.5%
5.1% - 8.3% turning space @ top of ramp	419	12.9%
> 8.3%	379	11.6%
Clear Space Presence:		
Clear space present (ADA compliant)	3209	98.6%
Clear space not present	47	1.4%
Turning Space Presence:		
Turning space present (ADA compliant)	2992	91.9%
Turning space not present	264	8.1%
Turning Space Smallest Dimension:		
0.0' - 2.9'	53	1.6%
3.0' - 3.9'	391	12.0%
4.0' or greater (ADA compliant)	2548	78.3%
No turning space	264	8.1%
Turning Space Steepest Slope:		
0.0% - 2.0% (ADA compliant)	880	27.0%
2.1% - 3.0%	660	20.3%
3.1% - 5.0%	674	20.7%
> 5.0%	778	23.9%
No turning space	264	8.1%
Ramp Obstruction:		
No obstruction present (ADA compliant)	3238	99.4%
Obstruction present	18	0.6%

Table 3 – Curb Ramp Compliance Statistics (continued)

Curb Ramp Measurement Category	Number	Percentage
Ramp Width:		
0.1' - 2.9'	5	0.1%
3.0' - 3.9'	201	3.9%
4.0' or greater (ADA compliant)	5006	96.0%
Ramps Running Slope:		
0.0% - 8.3% (ADA compliant)	4215	80.9%
>8.3% with length 15' or longer (may be ADA compliant)	0	0.0%
>8.3% <=10% with length less than 15'	552	10.6%
>10% with length less than 15'	445	8.5%
Ramp Cross Slope:		
0.0% - 2.0% (ADA compliant)	2630	50.5%
2.1% - 3.0%	1148	22.0%
3.1% - 5.0%	990	19.0%
> 5.0%	444	8.5%
Flared Side Slope (Only perpendicular Type 1 PC ramps have flared sides, 2152 measured):		
0.0% - 10% (ADA compliant)	1660	77.1%
>10%	492	22.9%
Crosswalk Cross Slope (many crosswalks will have duplicate measurements; one measurement is associated with the ramps on each side of the crosswalk; 4,774 total measurements taken):		
0.0% - 2.0% (ADA compliant)	2656	55.6%
2.1% - 3.0% (ADA compliant unless stop/yield controlled)	871	18.2%
3.1% - 5.0% (ADA compliant unless stop/yield controlled)	860	18.0%
> 5.0%	387	8.1%
Crosswalk Running Slope (many crosswalks will have duplicate measurements; one measurement is associated with the ramps on each side of the crosswalk; 4,774 total measurements taken):		
0.0% - 5.0% (ADA compliant)	4378	91.7%
5.0% - 8.3%	349	7.3%
>8.3%	47	1.0%
Detectable Warning Surface		
No detectable warning surface	1482	45.5%
Noncompliant surface	794	24.4%
ADA compliant surface	980	30.1%

The statistics compiled above make it clear that the current condition of curb ramps in Pierce County result in potentially significant barriers to accessibility. Less than 5% of all ramps measured were fully ADA compliant in each of the 36 measurement categories described in Appendix A. One major concern is the large number of missing ramps. In many cases the lack of ramps completely bars access to the sidewalk for people who use wheelchairs. In other cases it is a major inconvenience forcing wheelchair users to travel a longer route than those who do not use wheelchairs. The absence of ADA compliant level turning spaces is also a significant concern with only 27% being flat enough for ADA compliance.

Pierce County will address all curb ramps identified above that are not ADA compliant in the ADA Transition Plan. The ADA Transition Plan will lay out how and when we will make curb ramps accessible to achieve compliance with the ADA.

Traffic Signals

Traffic signals are an important part of the county's transportation system. They play a critical role in the pedestrian network by assisting pedestrians in safely navigating intersections. The county traffic signal inventory included measurements of the pedestrian features of every traffic signal system in the public right-of-way.

Pedestrian push buttons were the primary features of signal systems which Pierce County measured and evaluated for accessibility. We measured the height of the center of the buttons above the ground. We measured the distances between buttons on corners where there are two buttons for separate directions of the crosswalks. We also measured the distances from buttons to the bottoms of curb ramps. Finally we evaluated the buttons themselves to determine whether they comply with ADA standards for accessible pedestrian signals (APS) as detailed in the Manual on Uniform Traffic Control Devices (MUTCD). According to standards in the MUTCD buttons must relay audible messages, contain tactile information, and be easy to activate.

Figures 7-9 on the following pages show the locations of all traffic signal pedestrian push buttons in the public right-of-way of unincorporated Pierce County. We measured 876 pedestrian push buttons at 121 signal locations. The maps makes no distinction between buttons that are compliant and those that are not compliant. Table 4 shows ADA compliance statistics for those pedestrian push button locations.

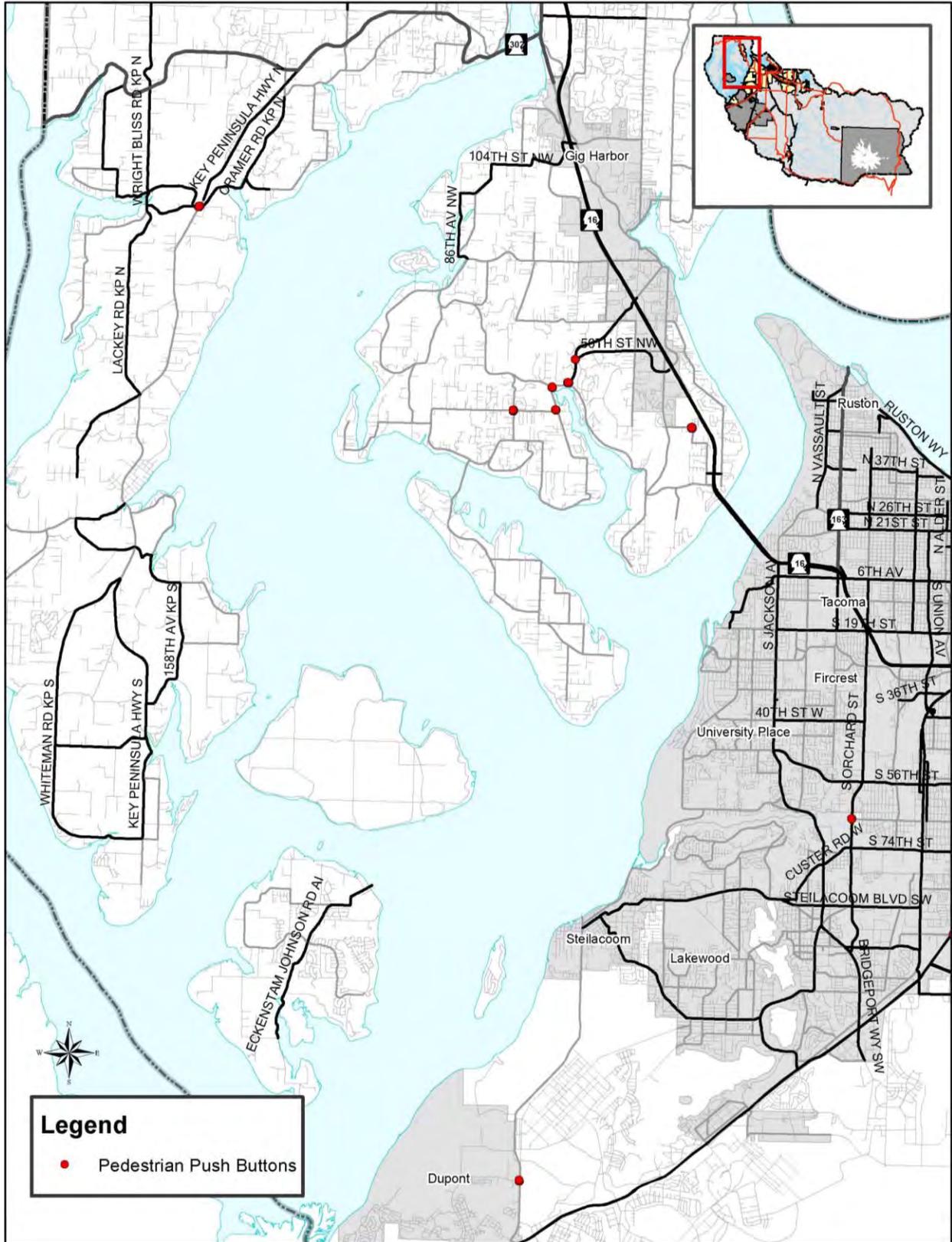


Figure 7 – Pedestrian Push Button Map 1

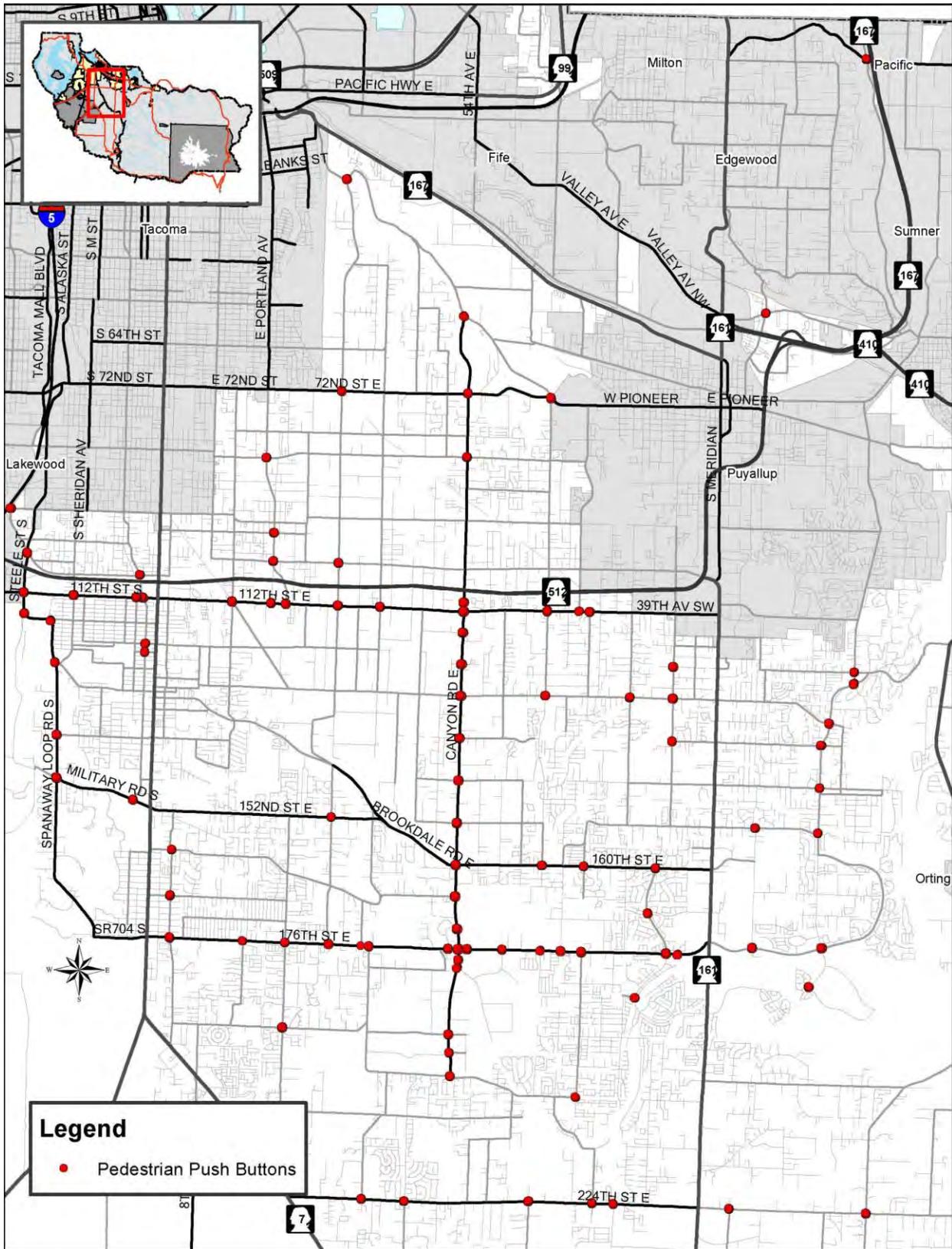


Figure 8 – Pedestrian Push Button Map 2

Table 4 – Pedestrian Signal Compliance Statistics

Pedestrian Signal Measurement Category	Number	Percentage
Button APS status		
No APS	746	84.4%
Non-compliant APS	34	3.8%
Compliant APS (ADA compliant)	104	11.8%
Height of Push Button:		
0.0'-1.25'	0	0.0%
1.25'-3.0' (ADA compliant not recommended)	73	8.3%
3.0'-4.0' (ADA compliant recommended height)	800	90.5%
>4.0'	11	1.2%
Distance Between Push Button and Edge of Curb:		
0.0'-1.4'	4	0.5%
1.5'-6.0' (ADA compliant)	117	13.2%
6.1'-10.0' (ADA compliant if physical constraint)	369	41.7%
>10.0'	394	44.6%
Distance Between Push Buttons (some pedestrian push buttons are on corners with only 1 button):		
Same pole (ADA compliant if physical constraint)	620	76.7%
Differrent poles 0.0'-9.9' (ADA compliant if physical constraint)	2	0.2%
Different poles 10.0' or greater (ADA compliant)	186	23.0%
Pedestrian Crossing Sign Size:		
5" x 7.5"	780	88.2%
9" x 12"	104	11.8%
No sign	0	0.0%

Only 11% of all county pedestrian push buttons include ADA compliant APS features. APS buttons include audio and vibrating tactile information. This information ensures that people who are blind, or have low vision, get the same crossing information available to people with unimpaired vision. The county has adopted a policy, included in the Policies and Practices section of this report, which details when an alteration to a Pierce County signal system requires the installation of new pedestrian push buttons with APS.

Pierce County will address all pedestrian signals identified above that are not ADA compliant in the ADA Transition Plan. The ADA Transition Plan will lay out how and when we will make pedestrian signals accessible to achieve compliance with the ADA.

Public Involvement and Outreach

As part of the self-evaluation process the county made significant efforts to reach out to persons with disabilities and those who represent them. We developed a survey that was designed to gauge participant's concerns and priorities about accessibility in the public right-of-way. We held four open house events in different areas of unincorporated Pierce County. We reached out to organizations that serve individuals with disabilities and offered to meet with their members. Finally we made all of our materials available on our website at www.piercecountywa.org/ADAtransition and provided an opportunity for the public to participate through an online survey and online comments. A more comprehensive summary of our public outreach efforts is included in Appendix B.

Public Meetings and Organization Meetings

Pierce County held four separate public meetings at the following locations and dates:

- Nov. 6, 2014, 5:30 – 7:00 pm: Bonney Lake Regional Justice and Municipal Center, 9002 Main St., Bonney Lake
- Nov. 12, 2014, 5:30 – 7:00 pm: Sprinker Recreation Center, 14824 C St. S, Tacoma
- Nov. 18, 2014, 5:30 – 7:00 pm: Pierce County Central Maintenance Facility, 4812 196th St. E, Spanaway
- Nov. 20, 2014, 5:30 – 7:00 pm: Pierce College Puyallup, 1601 39th Ave. SE, Puyallup

Pierce County chose these ADA accessible meeting sites in areas of the county that have a significant number of existing sidewalks which are addressed in this report. Meetings included a presentation about the county efforts to complete the *Self-Evaluation Report* and *ADA Transition Plan for Public Rights-of-Way* followed by time for questions and answers. We gave attendees paper copies of a survey and a survey guide that contained supplementary information about the survey questions. These documents are described in greater detail below.

Pierce County also attended meetings of the following organizations:

- Pierce County Coordinated Transportation Coalition, Sept. 24, 2014
- Multiple Sclerosis Support Group at Tacoma Area Coalition for Individuals with Disabilities, Nov. 14, 2014
- Pierce County Accessible Communities Advisory Committee, Nov. 17, 2014

At these meetings we presented information about the *Self-Evaluation Report* and *ADA Transition Plan for Public Rights-of-Way* tailored to the concerns of the group and the allotted time.

Website and Virtual Workshop

The county created a webpage at www.piercecountywa.org/ADAtransition to offer all of the information that was available at the public meetings to those who could not attend the meetings. The website included all visuals from the meetings, slides from the presentation, an electronic survey, and a link to send comments. The website is still actively providing information to the public about our ongoing efforts. Ultimately we will continue to use the website during the implementation phase of the ADA Transition Plan. It will be used to provide periodic updates on the plan and information about accessibility in Pierce County's public right-of-way.

Survey Results

Pierce County received 15 paper survey responses and four online survey responses. Seven of the responses contained errors on questions 11 or 12 where we asked respondents to rank issues in order of importance using each number only once. They either used the same number multiple times, or did not enter an answer for some categories.

To compile statistics that still incorporated these responses, we developed a normalized response that conformed to the point total available in the ranking system. We averaged out scores across the questions for which the same number was used or no response was given. We then adjusted other responses to remain in the same order of importance and add up to the correct total of available points. In all of these cases the original survey response was saved alongside the normalized response. The results of the surveys are summarized Table 5.

Table 5 – Survey Results

Num.	Question Text	Yes	No	Blank
1	Do you use a wheelchair, electric wheelchair or other seated rolling assistive device?	7	12	0
2	Do you use a walker, crutch, or other walking assistive device?	12	7	0
3	Are you blind, or do you have low vision?	1	18	0
4	Do you live in unincorporated Pierce County?	8	11	0
5	What is the zip code of your residence?	19 zip code entries		
6	Do you work in unincorporated Pierce County?	2	17	0
7	Do you regularly shop in or visit unincorporated Pierce County?	12	6	1
8	Do you use regular bus service such as Pierce Transit or Sound Transit?	3	15	1
9	Do you use a disability qualified public transportation service such as Shuttle or Paratransit?	3	15	1
10	Did you attend one of Pierce County's public meetings on the ADA Transition Plan?	5	13	1
11	Please rank the following sidewalk defects in order 1-12, with 1 for the defect that is most important to be addressed or causes you the most difficulty, and 12 for the defect that is least important to be addressed or causes you the least difficulty. Use each number only once.	Average Priority Rank 1-12		
11a	Overgrown vegetation		5.2	
11b	Sidewalk cracks, bumps, or lifted panels		2.1	
11c	Slippery surfaces		6.8	
11d	Moveable objects blocking access		8.9	
11e	Fixed objects blocking access		5.4	
11f	Steep cross slopes		7.7	
11g	Steep curb ramp running slopes		7.3	
11h	Severe slope changes		6.6	
11i	Missing curb ramps		4.4	
11j	Missing or inadequate turning space		5.9	
11k	Missing or inadequate audible crossing information		9.2	
11l	Missing or inadequate cane detectable warning surfaces		8.4	
12	Please rank the importance to you of having accessible sidewalks next to public roads near the following facilities, with 1 as the most important to you and 10 as the least important to you. Use each number only once.	Average Priority Rank 1-10		
12a	Schools		5.3	
12b	Libraries		5.4	
12c	Post Offices		6.3	
12d	State and local government offices		5.1	
12e	Transit centers serving multiple bus routes		5.6	
12f	Signed bus stops		6.3	
12g	Office buildings or other places of employment		6.8	
12h	Shopping centers/retail		4.8	
12i	Medical facilities		3.8	
12j	Parks		5.6	

Table 5 – Survey Results (continued)

Num.	Question Text
13	Are there any locations in unincorporated Pierce County where you have difficulties with existing sidewalks and pedestrian facilities on public roadways? Please describe the problem or difficulty. Please be as specific as possible in describing the area or location, such as listing nearby intersections or addresses. (9 different surveys included the following responses)
	Unsafe walkway from 130th St Ct S at Spanaway Loop Rd to the nearest bus stop at 116th & Ainsworth, Parkland. Obsructions, overgrowth, uneven surfaces, few crosswalks.
	Pizza Casa in Lakwood does not have legal handicap parking: normal parking space with no clearance for wheelchair/walker & no upright sign, for only one space.
	There needs to be sidewalks and/or clear walkways all around Parkland, whith it's housing density & conceivable access to transit, etc. via walking/wheelchair.
	138th St: No Side walk and danger to pedestrians
	Golden Given: No Side walk and danger to pedestrians
	Pedestrians going to and leaving Victor Falls Elementary School have to cross busy intersection at Rhodes Lk Rd. and 188 Av Ct E.
	Golden Given-from 138 St E to 112 St E : No shoulder, side of the road is either residential lawn or ditch
	Pacific Av- from Parkland to Spanaway: Multiple damaged sidewalks, unfinished sidewalks, missing wheelchair ramps,. Parkland area crosswalks have no warning lights or buttons for pedestrians.
	Browns Point Area
	Spanaway U-Haul- 20' pole that supports an awning and blocks handicap parking
	Umqump Bank-no automatic door opener, very heavy doors
	Lakewood Bridgeport Way-No sidewalks
	Lakewood-Custer Rd-No sidewalks
Peacock Hill, Gig Harbor-No sidewalks, lots of vegetation	
Crescent Valley Hwy, Gig Harbor- No sidewalks and not enough space for wheelchairs, scooters, walkers, canes	
No sidewalks in my neighborhood, have to walk in the road.	
14	Do you have any other comments? (4 surveys included comments)
	I am not yet handicapped, but I became aware of many inadequacies for handicapped people while my husband was alive, during 22 years with Parkinson's Disease. Also, as I get older and have more arthritis, and as walking is a more important exercise for me, I am also affected by inadequate walkways, etc.
	"Very Informative! Outstanding presentation and speaker, who was very knowledgeable about ADA Disability Requirements in unincorporated Pierce Couonty. (Daniel Hansen)"
	See map attached
15	How did you hear about the ADA Transition Plan and this website? (Check all that apply)
	16 surveys identified how they heard about the transition plan
16	If you would like to receive email updates on the progress of the ADA Transition Plan, please share your email in the box below.
	7 surveys included email addresses

Questions 11 and 12 were designed to rank the importance of various issues to the respondents. Those responses will help us to develop priorities for the ADA Transition Plan. The most important sidewalk issue respondents identified by a significant margin was cracks, bumps, or lifted panels. Medical facilities were identified by respondents as the most important type of facility to have accessible sidewalks nearby.

In question 13, respondents identified specific areas where they had accessibility concerns. The survey responses and thoughtful comments from the public will help to inform the forthcoming *ADA Transition Plan for Public Rights-of-Way*.

Conclusions

The detailed findings of this report make it clear that there are deficiencies in many existing pedestrian facilities in Pierce County's public rights-of-way. These deficiencies create significant barriers to access for many community members with disabilities.

Pierce County is committed to creating a more accessible pedestrian transportation network for all members of the community. To address the deficiencies identified in this report, Pierce County is currently developing an *ADA Transition Plan for Public Rights-of-Way*. Title II of the Americans with Disabilities Act [28 CFR 35.150\(d\)](#) sets forth the requirements for this plan. This plan will identify noncompliant pedestrian facilities that limit accessibility, describe how these barriers to access will be corrected, specify a schedule for achieving compliance, and designate an official responsible for implementing the plan.

Appendix A: Pedestrian Facilities Assessment Manual

The Pedestrian Facilities Assessment Manual is a separate, standalone document. It is used by the Road Operations Division of Pierce County Public Works to assess the condition of various pedestrian facilities in the county's public right-of-way. This manual may be updated separately from the rest of the self-evaluation report. It is included here, because it is essential to understanding the inventory process that informed the conclusions of this report.

The methods detailed in the manual were used to compile an initial inventory of the sidewalks and ramps in the county public right-of-way. They will continue to be used to update that inventory, which will allow us to track the progress on the modifications made to bring our pedestrian facilities into compliance with the ADA.

Pedestrian Facilities Assessment Manual

Prepared by Aaron Riddell and Kirsten Gertje
Revised October 2015



Pierce County
Public Works and Utilities
Road Operations

www.piercecountywa.org/roads

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Introduction

The Pierce County Public Works Road Operations Division is responsible for all County-owned pedestrian facilities. This manual details the assessment process of pedestrian facilities in accordance with Road Operations standards.

Pedestrian facilities include the following:

- sidewalks
- paths
- pedestrian street crossings
- curb ramp
- median crossings

Road Operations is not responsible for maintaining pedestrian signals, push buttons, or other traffic-related assets.

The collection process is used to keep a complete condition inventory of County-maintained sidewalk and ramp assets, and to determine compliance with the 2011 Public Right Of Way Accessibility Guidelines (PROWAG). Non-compliant assets will be placed on the Pierce County transition plan for accessible pedestrian facilities.

This assessment manual is intended to assist Road Operations to determine the timing and scope of sidewalk and curb ramp maintenance within the scope of the operating budget. The goal is to efficiently maintain the sidewalks and curb ramps owned by Pierce County in as safe a condition as practicable.

The purpose of this Pedestrian Facilities Assessment Manual is to:

- Define the individual assets that together comprise the County's public pedestrian facilities.
- Define the purpose and function of each pedestrian facility.
- Identify standards laid out in the Americans with Disabilities Act (ADA) and the PROWAG.
- Detail the procedures for inventory collection of pedestrian facilities.

The photographs and diagrams in this manual are for illustrative purposes only. This manual does not constitute a standard, specification, or regulation. Go to www.access-board.gov for more information about ADA and PROWAG requirements.

Laws and History

Americans with Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 is the world's first comprehensive civil rights law for people with disabilities. The Act prohibits discrimination against people with disabilities in employment (Title I), in public services (Title II), in public accommodations (Title III), and in telecommunications (Title IV).

In 2009, the ADA was amended. The amendments made significant changes to the definition of "disability" under the ADA.

PROWAG

The PROWAG (Public Right-of-Way Accessibility Guidelines) was created by the Architectural and Transportation Barriers Compliance Board to provide “accessibility guidelines for the design, construction, and alteration of pedestrian facilities in the right-of-way” that ensure that “sidewalks, pedestrian street crossings, pedestrian signals, and other facilities for pedestrian circulation and use constructed or altered in the public right-of-way by state and local governments are readily accessible to and usable by pedestrians with disabilities.” These guidelines serve to implement the ADA, and other accessibility laws

Road Operations’ pedestrian facility assessments and maintenance procedures are based on the PROWAG as part of the effort to create a transition plan to bring all County pedestrian facilities into compliance with ADA law.

Chapter 1: Inventory and Assessment

Attributes

Sidewalks, Paths, and Ramps

Pedestrian facilities are made for pedestrian movement within the right-of-way.

Sidewalks and paths can be concrete, asphalt, wood, or pavers. A panel is a section of pavement isolated by a group of joints. A curb ramp is a slope that cuts through a curb or is built up to a curb.

Table 1—Curb Ramp Attribute Specifications

Attribute	Measurement
Ramp slope	5%–8.3%
Ramp cross-slope	2%
Ramp run	15 feet
Ramp width (excluding curb)	4 feet minimum
Turning space slope	2%
Turning space cross-slope	2%
Turning space size	4 feet by 4 feet minimum, unless constrained; then see R304.2.1/R305.3.1 of the PROWAG
Flare slope	10%
Sidewalk slope	Up to the grade of the roadway
Sidewalk cross-slope	2%
Counter slope	5%
Crosswalk slope	5%
Crosswalk cross-slope	2% (If at a non-traffic controlled intersection or mid-block crossing, then 5% is OK)
Continuous sidewalk width	4 feet minimum at all times (excluding curb)
Overhead clearance	80 inches minimum
Vertical heaves (trip hazards)	1/4 inch (unless a 50% grade beveled transition is provided; then 1/2 inch is allowed)
Horizontal breaks (cracks)	1/2 inch

Assessments

The following assessment procedures determine sidewalk and ramp conditions by observing and recording the presence of defects in sidewalks and ramps.

There are numerous types of defects and several possible condition categories and extents for each defect. Each defect may also have multiple corrective actions to restore the sidewalks and ramps to a no defect condition.

Methods

Defect rating is based on Pierce County maintenance standards for obstructions, trip hazards, and passable space as per requirements of the PROWAG. Rate sidewalk segments independently from roadway shoulders.

Extent

Unless otherwise stated, rate the extent of all sidewalk and curb ramp defects according to these guidelines.

The extent of sidewalk defects is related to the entire length of the defined sidewalk or path section. Measure defects by extent ranges of Low (1,4,7), Medium (2,5,8), or High (3,6,9).

Measurement

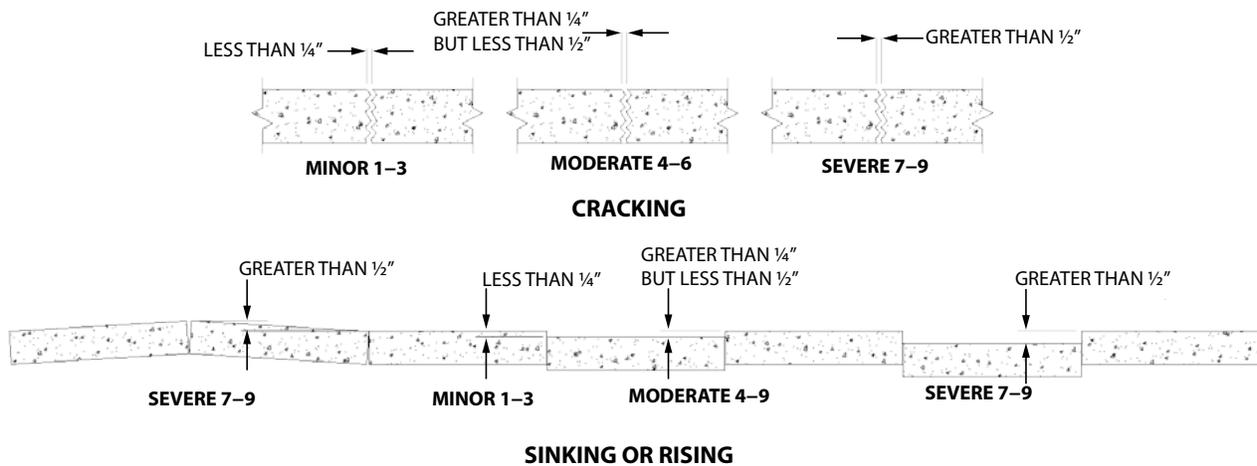
Unless otherwise stated, measure slopes in percentage and round to the nearest tenth of a percent and measure lengths in feet and round to the nearest half foot.

Figure 1—Rating System for Concrete Sidewalks and Paths

Condition A: No Work necessary at this time	0	No Defect
	1	Isolated (1 defected panel within a segment)
	2	Several (2-3 defected panels within a segment)
	3	Predominant (4+ defected panels within a segment)
Condition B: Work Necessary before the next assessment, as resource capacity allows	4	Isolated (1 defected panel within a segment)
	5	Several (2-3 defected panels within a segment)
	6	Predominant (4+ defected panels within a segment)
Condition C: Work Necessary as soon as practicable	7	Isolated (1 defected panel within a segment)
	8	Several (2-3 defected panels within a segment)
	9	Predominant (4+ defected panels within a segment)

Table 2—Rating System for Non-concrete Sidewalks and Paths

Condition A: No Work necessary at this time	0	No Defect
	1	Isolated (1 defect within a segment)
	2	Several (2-3 defected areas within a segment)
	3	Predominant (Defect spans more than 50% of segment)
Condition B: Work Necessary before the next assessment, as resource capacity allows	4	Isolated (1 defect within a segment)
	5	Several (2-3 defected areas within a segment)
	6	Predominant (Defect spans more than 50% of segment)
Condition C: Work Necessary as soon as practicable	7	Isolated (1 defects within a segment)
	8	Several (2-3 defected areas within a segment)
	9	Predominant (Defect spans more than 50% of segment)



Comments

Use these comment code(s), which note common issues that may not be accurately captured by an attribute field.

A1: under construction—the sidewalk segment/ramp is under construction

B2: unable to locate—couldn't locate feature

C3: private—feature is private

D4: mapping needed, missing feature—additional feature needs collecting

F6: graffiti—graffiti on sidewalk segment/ramp

J10: separated from roadway—sidewalk is not adjacent to roadway

M13: vehicle/object obstructing—a movable object is obstructing the sidewalk path

O15: sidewalk grade defect—the sidewalk grade is greater than the roadway grade



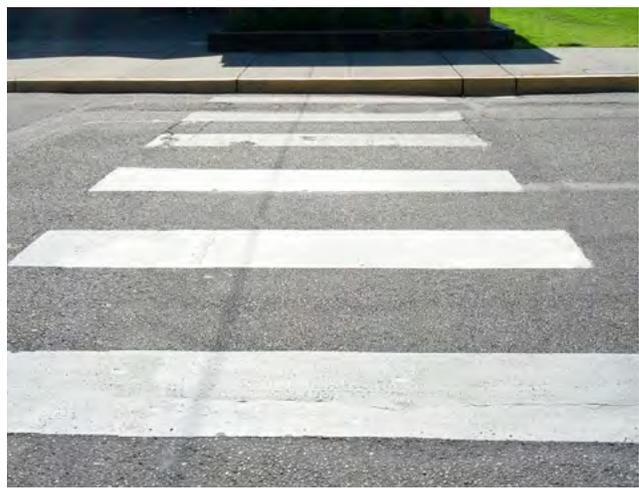
J10: separated from roadway



M13: vehicle/object obstructing



O15: sidewalk grade defect



Missing ramp

Chapter 2: Sidewalks

Attributes

Width

Measure the full width independent of the curb.

Surface Type

Record sidewalk surface type for each segment.



Concrete



Asphalt



Wood



Pavers

Pervious

Call out whether the sidewalk is pervious or non-pervious pavement.



Pervious asphalt sidewalk



Pervious concrete sidewalk

Sidewalk Obstruction

A sidewalk obstruction is a fixed object that hinders use of the sidewalk. Hindrances include but are not limited to:

- disallowance of 4 feet of passable space on the sidewalk
- interference with the 80 foot overhead clearance requirement at any point in the pedestrian access route
- any object between 27 inches and 80 inches (measured from the surface of the pedestrian access facility) that protrudes horizontally from the base of its support (post, wall, etc.) a distance of more than 4 inches.

Vegetation and movable objects (vehicles, garbage cans, etc.) are not obstructions.



Obstruction: telephone pole



Obstruction: mailbox

Sidewalk Cross-slope

Don't take sidewalk measurements on curb ramps, driveway sections, or transitional sections. Use a negative value for the grade percentage of sidewalks that slope away from the roadway. Measure the cross-slope at the following intervals:

0-100 feet (2 measurements)

- beginning (first non-transitional panel)
- end (final non-transitional panel)

101-400 feet (4 measurements)

- beginning (first non-transitional panel)
- after one-third total length
- after two-thirds total length
- end (final non-transitional panel)

401+ feet (5-25 measurements)

- beginning (first non-transitional panel)
- every 200 feet
- end (final non-transitional panel)



Cross slope

Assessment Cleaning

Cleaning is required when debris, trash, and sediment build up on sidewalks and paths. Debris can cause blockage in the storm drainage system and can impede pedestrian movement.

Condition A

Minor debris or sediment buildup on less than one foot of the sidewalk width.

Condition B

Debris or sediment buildup on one to two feet of the sidewalk width.

Condition C

Debris or sediment buildup on more than two feet of the sidewalk width



Condition A: debris



Condition B: debris



Condition C: sidewalk debris

Surface, Joint, and Crack Vegetation

Vegetation in or along cracks, joints, edges, or surface of sidewalks are associated with potential drainage problems and pedestrian impediment on and along sidewalks, paths, and ramps.

Condition A

Vegetation is less than ½ inch tall or less than one foot wide.

Condition B

Vegetation is over ½ inch tall or one to two feet wide.

Condition C

Vegetation is over one inch tall or over two feet wide.



Condition A: crack vegetation



Condition B: sidewalk joint vegetation



Condition C: joint vegetation

Encroaching Vegetation

Encroaching vegetation is associated with potential drainage problems and pedestrian impediment on and along sidewalks, paths, and ramps.

Condition A

Vegetation is within one foot of either side of the sidewalk.

Condition B

Vegetation encroaches into the vertical plane created between the edges of the sidewalk.

Condition C

Vegetation extends over one foot into the vertical plane created by the edges of the sidewalk.



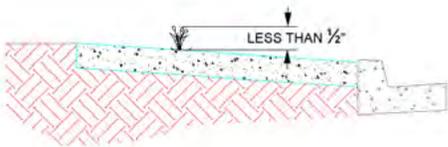
Condition A: encroaching vegetation



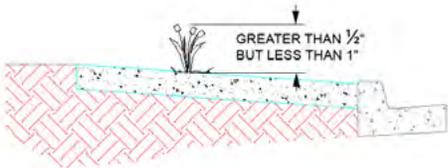
Condition B: encroaching vegetation



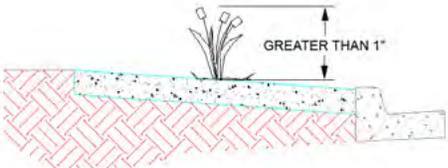
Condition C: encroaching vegetation



MINOR 1-3

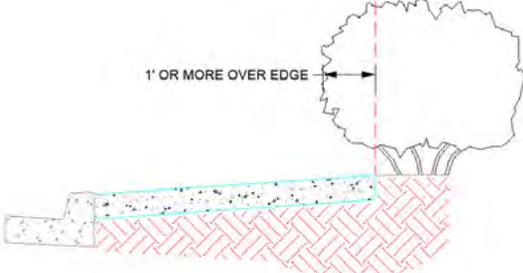
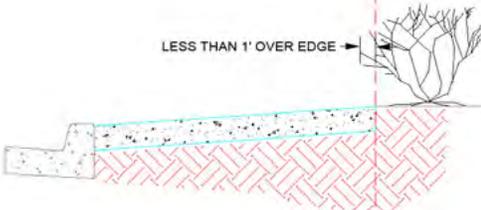
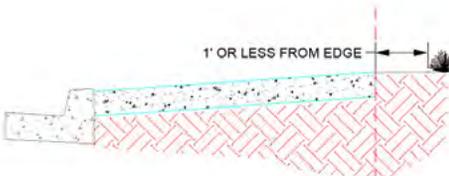


MODERATE 4-6



SEVERE 7-9

SURFACE VEGETATION



ENCROACHING VEGETATION

Repair and Replace of Sidewalks

Cracking and sinking/rising are associated with potential drainage and tree root problems on sidewalks and paths.

Condition A

Cracking, sinking, or rising less than $\frac{1}{4}$ inch.

Condition B

Cracking, sinking, or rising greater than $\frac{1}{4}$ inch but less than $\frac{1}{2}$ inch.

Condition C

Cracking, sinking, or rising greater than $\frac{1}{2}$ inch, or Condition Category B that has a secondary impact to another asset, such as, but not limited to water ponding, tree root problems, joint and crack spalling.



Condition A: sidewalk cracking



Condition B: sidewalk cracking



Condition C: sidewalk cracking



Condition A: sinking or rising



Condition B: rising/sinking



Condition C: rising/sinking

Chapter 3: Curb Ramps and Medians

Attributes

Determine left or right directional by standing at the top of the ramp or back of the turning space and facing the roadway.

Ramp Types

Ramp type is based on the direction of slope in relationship to the sidewalk direction.

- Type 1 ramps (perpendicular) have a ramp that runs perpendicular to the direction of sidewalk travel.
- Type 2 ramps (parallel) have two ramps that run parallel to the direction of sidewalk travel.
- Type 3 ramp (parallel) have one ramp that runs parallel to the direction of sidewalk travel.
- Median ramps are on an island or median cut-throughs, and may be flat or have little slope.



Type 1 (perpendicular) ramp



Type 2 (parallel) ramp



Type 3 (parallel) ramp



Median "ramp"

Detectable Warning Surfaces Types

Formed detectable warning surfaces are formed from the sidewalk material (usually concrete) and should be painted.

Attached detectable warning surfaces are attached to the surface of the sidewalk by bolts, adhesives, or cast into the pavement.

Mesh detectable warning surfaces are diamond pattern grating (cast in, tear out).



Attached



Formed



Mesh



No detectable warning

Detectable Warning Surface Placement

Type 1 Ramps

The detectable warning surface must be placed at the back of the curb at the bottom of the ramp.



Detectable warning correctly placed



Incorrect detectable warning placement

Type 2 Ramps

The detectable warning surface must be placed at the back of the curb on the turning space.



Detectable warning correctly placed



Incorrect detectable warning placement

Type 3 Ramps

The detectable warning surface of type 3 ramps must be placed in one of two locations, depending on the ramp's attributes.

Back of curb: distance from the bottom grade break to the back of the curb is greater than 5 feet.

Bottom of ramp: distance from the bottom grade break to the back of the curb is less than 5 feet.



Detectable warning correctly placed



Detectable warning correctly placed



Detectable warning incorrectly placed



Detectable warning incorrectly placed

Medians

The detectable warning surface must be placed at the back of the curb, with at least two feet from any other detectable warning surface.



Detectable warning correctly placed



detectable warning incorrect 2

Turning Space

Measure the turning space run and running slope perpendicular to the direction of the street crossing. Measure the width and the cross-slope of a turning space parallel to the street crossing.



Turning space of type 1 (perpendicular) ramp



Turning space type 2



Turning space of type 3 (parallel) ramp



No turning space



Median turning space



Median turning space

Turning Space Constrained

Type 1 ramps are constrained if there is an object at the back of the turning space.

Type 2 and Type 3 ramps are constrained if there is an object on two or more sides of the turning space.

Constraints include but are not limited to:

- buildings
- walls
- handrails
- pedestrian activated buttons



Turning space not constrained



Type 1 turning space constrained

Type 2 constrained
Photo not available



Type 3 turning space constrained

Ramp Obstruction

A ramp obstruction is a fixed object that hinders use of the ramp. Hindrances include but are not limited to:

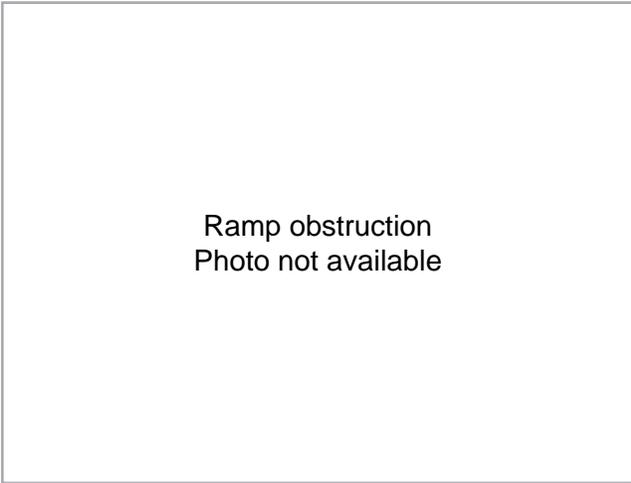
- disallowance of 4 feet of passable space on the ramp
- interference with the 80 inch overhead clearance requirement
- any object between 27 inches and 80 inches (measured from the surface of the pedestrian access facility) that protrudes horizontally from the base of its support (post, wall, etc.) a distance of more than 4 inches.



Ramp obstruction



Ramp obstruction



Ramp obstruction
Photo not available

Counter Slope

The counter slope is the slope of the curb/gutter/street at the bottom of the ramp.



Type 1 ramp counter slope



Type 2 ramp counter slope



Type 3 ramp counter slope



Median ramp counter slope

Crosswalks

Crosswalk Markings

Curb ramps typically have either one, two, or no marked crosswalks. Not all crosswalks are marked. Collect crosswalk attributes, regardless of if the crosswalk is marked or not.



One marked crossing



Two marked crossings



No marked crossing

Ramp in Crosswalk



Ramp in crosswalk



Ramp in crosswalk



Ramp offset from crosswalk

Crosswalk Running Slope and Cross-slope

Measure on the side of the roadway closest to the curb ramp. Measure running slope from the end of the curb towards the crown of the roadway. Measure the cross-slope perpendicular to the direction of pedestrian travel.



Crosswalk running slope



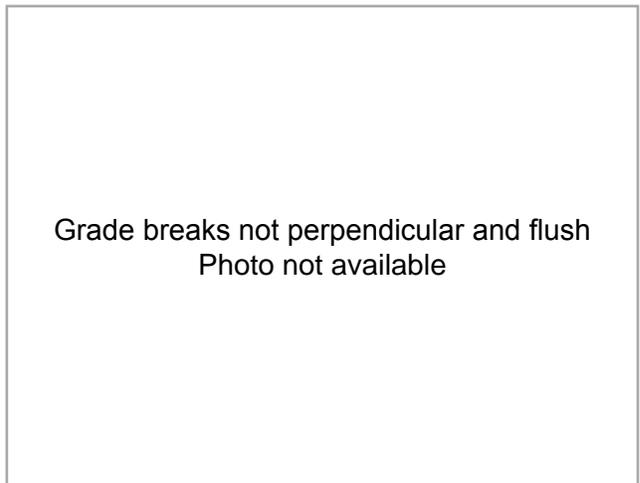
Crosswalk cross slope

Grade Breaks Perpendicular and Flush

Grade breaks should be perpendicular to the slope and flush in all transition areas.



Grade breaks perpendicular and flush



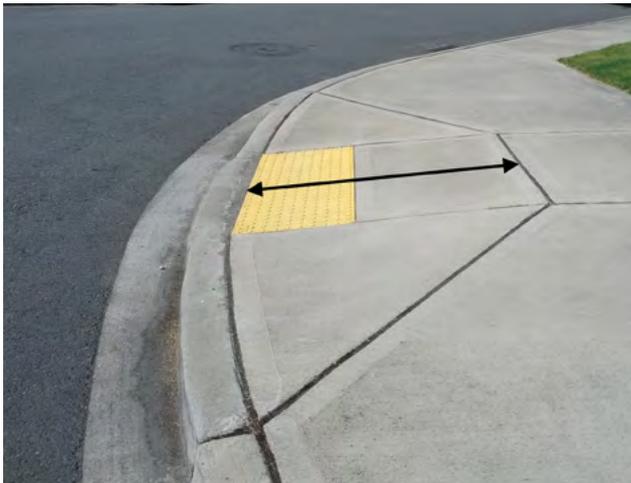
Grade breaks not perpendicular and flush
Photo not available

Right and Left Ramps

Record the run and running slope for ramps that have only one sloped surface (type 1 and type 3) as the right ramp run and running slope. Type 2 ramps have both left and right ramps.

Ramp Run and Running Slope

Ramp run is the running length of a curb ramp. Measure the running slope along the same dimension as the ramp run.



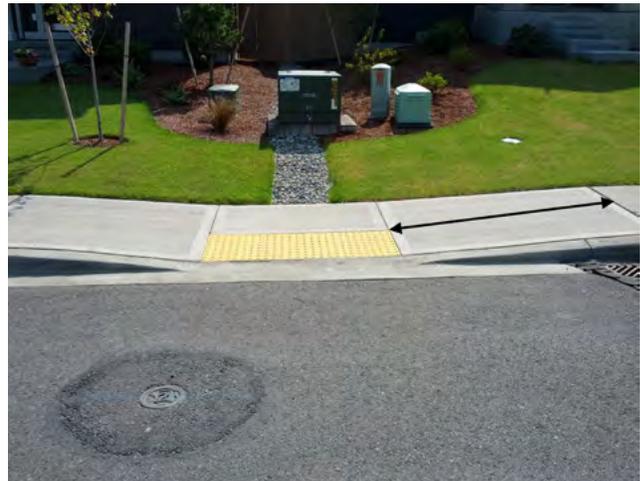
Type 1 right ramp run and running slope



Type 3 right ramp run and running slope



Type 2 right ramp run and running slope



Type 2 left ramp run and running slope

Ramp Width and Cross-slope

Width and cross-slope are measured perpendicular to the ramp run.



Type 1 right ramp width and cross slope



Type 2 right ramp width and cross slope



Type 3 right ramp width and cross slope

Return Curb

Return Curb Protected

Ramp has returned curbing on one side or both sides of the ramp.



Return curb protected



Not return curb protected

Return Curb Trip Hazard



Return curb is not a trip hazard



Flares

Only type 1 ramps have flares. Most type 1 ramps have a right flare and a left flare. Leave flare fields blank for ramps with no flares. Measure flares at the curb line.



Right flare



Left flare

Ramp Clear Space

Ramps are required to have a clear 4 foot by 4 foot zone below the bottom grade break. Type 2 ramps usually have clear space by default as the turning space is also at the bottom of the grade break. Striped shoulders and bike lanes can overlap the clear space.



Ramp has clear space



Ramp has no clear space

Intersection Control Types



Traffic signal control



Stop control



No control



Yield control

Assessment

Defects

Repair and Replace of Ramps

Condition A

Cracking, sinking, or rising is less than ¼ inch.

Condition B

Cracking, sinking, or rising is more than ¼ inch.

Condition C

Cracking, sinking, or rising is greater than ¼ inch and has an impact on a secondary asset such as but not limited to, water ponding and tree roots.

Cracking, sinking, rising is greater than ½ inch.



Condition A: ramp damage



Condition B: ramp cracking



Condition C: ramp damage

Detectable Warning Surfaces

Condition A

No defects

Condition B

Detectable warning surface is loose or is missing paint.

Condition C

Detectable warning surface is detached, presents a trip hazard, or a majority of the truncated domes are broken.

Extent

Record defects with only 0 (condition A), 6 (condition B), or 9 (condition C).



Condition B: missing paint



Condition C: detectable warning surface partly missing

Appendix A: Glossary

ABA: Architectural Barriers Act.

action: type of maintenance function that is required to either repair or maintain the feature to a “no work” rating (0–3).

ADA: Americans with Disabilities Act.

ADT: average daily traffic.

blended transitions: raised pedestrian street crossings, depressed corners, or similar connections between the pedestrian access route at the level of the sidewalk and the level of the pedestrian street crossing that have a grade of 5 percent or less.

clear space: area free of traffic where pedestrians can wait to cross the travelled way.

compliance: refers to adherence to construction standards, regardless of assessment ratings.

concrete: a paving material constructed from a mixture of water, aggregate and cement. Concrete is a rigid paving material.

Condition Category A: a rating of 1–3 that does not warrant any maintenance work at the time of rating, but acknowledges that the feature has isolated defects. A rating of 1 is an isolated defect over the length of the feature that does not warrant any maintenance work at the time of rating. A rating of 2 is a defect that occurs multiple times over the length of the feature that does not warrant any maintenance at the time of rating. A rating of 3 is a defect that occurs throughout the majority of the feature that does not warrant any maintenance at the time of rating.

Condition Category B: a rating value of 4–6 that does warrant maintenance work at the time of the rating, but does not affect another asset. A rating of 4 is an isolated defect over the length of the feature that warrants maintenance work at the time of rating. A rating of 5 is a defect that occurs multiple times over the length of the feature that warrants maintenance work at the time of rating. A rating of 6 is a defect that occurs throughout the majority of the feature that warrants maintenance at the time of rating.

Condition Category C: a rating value of 7–9 that does warrant maintenance work at the time of the rating, or as soon as practicable and does affect another asset. A rating of 7 is an isolated defect over the length of the feature that does warrant maintenance work at the time of rating. A rating of 8 is a defect that occurs multiple times over the length of the feature that does warrant maintenance work at the time of rating. A rating of 9 is a defect that occurs throughout the majority of the feature that does warrant maintenance at the time of rating.

condition category: an asset rating scale that utilizes an A, B, or C scale.

cross-slope: the slope perpendicular to the run slope.

crosswalk: an area in the roadway designated for pedestrian crossing, crosswalks may be marked or unmarked. Each street intersection is a legal pedestrian crossing unless clearly marked otherwise.

curb: the edge of a sidewalk or path. It may rounded, curved, or a straight drop off.

defect: a fault or failure in the pavement associated with a specific pavement property, such as aging, wearing, fatigue, or material characteristics.

detectable warning surface: truncated domes aligned in a square or radial grid pattern and must contrast visually with adjacent gutter, street, or sidewalk.

distress: see *defect*.

extent: the length, width, or area of the feature or defect.

extruded asphalt curb: a block of asphalt which is used as a curb.

formed asphalt curb: a curb in which the asphalt used to construct the roadway is rolled at the edge in order to form a curb.

GIS: geographic information system.

grade break: the point at which two or more slopes meet.

IDDE: Illicit Discharge and Detection Elimination.

impervious: does not allow liquids to pass through. See also, *pervious*.

lifecycle: the length of time an asset can exist before actual maintenance costs exceed normally expected maintenance costs for that asset.

linear feature: lengthy structures, such as pipes, ditches, and trenches, etc.

localized: condition is limited to isolated location(s).

maintenance corridor: a corridor that is maintained by Road Operations and is defined as the legal right-of-way or the known maintenance limits that then becomes the legal right-of-way over time by prescribed rights. When the exact right-of-way limits are not known, it can be estimated at the back of private utility power poles, visible mowing limits, or private telephone utility pedestals, etc.

maintenance: work to clean, preserve, repair, rehabilitate, replace, or reconstruct an asset and its elements to its original design or condition and its scope of function to even include minor improvements.

median ramp: a median ramp is one that is located in the median of the road or on an "island."

network: the roadway network is the complete system of roadways that make up the PMS database. It can be the complete roadway system or a subset, such as the arterial roadways only.

no defect: rating value of 0, where no defects are visible at the time of rating, and there is no maintenance required. These features are typically brand new or relatively new.

obstruction: established objects in a sidewalk that obstruct the movement of pedestrians along the sidewalk or ramp. Examples of potential obstructions are telephone poles, mailboxes, etc. Movable objects such as garbage bins, cars, basketball hoops, etc. are not considered obstructions.

operations: those activities that support the function and use of the road system. Distinct from maintenance, repair and preservation activities, road operations activities are specific and peculiar to use and function of the asset.

panel: the area between expansion joints in a pavement sidewalk segment.

parallel ramp: a ramp in which the slope of the ramp is parallel to the curb the ramp guides the pedestrian over.

pedestrian access route: a continuous and unobstructed path of travel provided for pedestrians with disabilities within or coinciding with a pedestrian circulation path.

pedestrian circulation path: a prepared exterior or interior surface provided for pedestrian travel in the public right-of-way.

perpendicular ramp: a curb ramp with a slope that is perpendicular to the curb which the ramp guides the pedestrian over.

pervious: allows water to pass through or drain efficiently. See also, *impervious*.

point feature: single-location structures that can be represented as a point, such as catch basins and manholes.

polygon feature: structures that take up larger, broader areas, such as tanks, vaults and filters.

predominant: the predominant distress severity is the distress condition that is most prevalent, or the typical severity.

preservation: those specialized maintenance activities including treatments, replacements or repairs that serve to extend the originally estimated useful life of each type of roadway, roadway structure and facility without significantly changing its function, capacity or efficiency.

PROWAG: Public Right of Way Access Guidelines.

public right-of-way: public land or property, usually in interconnected corridors, that is acquired for or dedicated to transportation purposes.

PW: Public Works.

PWRO: Public Works Road Operations

ramp: a designed transition from a sidewalk over a curb.

ramp turning space: the flat portion of a ramp provided in order for the pedestrian to turn to cross the street or resume passage on the sidewalk. Turning spaces are provided at the top of perpendicular ramps and the bottom of parallel ramps.

ramp slope: the grade of the ramp measured parallel to pedestrian travel.

RCW: Revised Code of Washington.

rigid pavement: pavement with high bending resistance.

rising: see *sinking or rising*.

rolled concrete curb: a curb that has a rolled edge that allow the unrestricted passage of vehicles over the curb and sidewalk where present.

run: running length; usually the longest dimension.

run slope: the grade of the sidewalk measured parallel to pedestrian travel.

segment: a single block or other relatively short, homogeneous unit of a linear asset with an average length of 0.25 miles. Segments are broken by changes in attributes like width, number of lanes, road class, etc, or at intersections.

severity: The degree to which a defect has deteriorated. Examples are crack widths, crack deterioration or spalling, and loss of materials.

sidewalk: the property between the curb lines or the lateral lines of a County roadway and the adjacent property, set aside and intended for use by pedestrians.

sidewalk cracking: cracks are associated with potential drainage and tree root problems on sidewalks.

sidewalk debris: debris is associated with trash and sediment build up on sidewalks and paths that can cause excessive build up in the storm drainage system and can cause problems for pedestrians.

sidewalk surface: in the collection process the sidewalk surface refers to the material of the sidewalk, i.e., concrete, asphalt, pavers, or other.

sidewalk width: measured in inches perpendicular to the run of the sidewalk.

sinking or rising: vertical surface discontinuity. Sinking and rising are associated with tree roots, drainage impacts, or poor subgrade soils.

spalling (defect): deterioration of the sharp edge formed at the pavement surface along each side of a crack or joint. In cases of severe spalling, pieces of pavement break away, causing the visual size or width of the crack on the pavement surface to be irregular and greater than the crack width below the surface.

travelled way: the area between the edges of pavement or edge line(s), if present.

type 1 ramp: has a ramp that runs perpendicular to the direction of sidewalk travel.

type 2 ramp: has two ramps that run parallel to the direction of sidewalk travel.

type 3 ramp: has one ramp that runs parallel to the direction of sidewalk travel.

vertical concrete curb: a concrete curb with a steep vertical edge.

vertical deviation: separation of two surfaces, often caused by shifting or sinking.

walking assessment: a survey of an asset's condition by walking the full length of the segment.



Pierce County

Public Works and Utilities

Road Operations

4812 196th Street E

Spanaway, Washington 98387

www.piercecountywa.org/roads

Appendix B: Self-Evaluation Outreach Summary

As part of the self-evaluation process, the Americans with Disabilities Act calls for interested parties to have the opportunity to participate by submitting comments. It also requires that public entities make available for public inspection “a list of the interested persons consulted.” This appendix describes how these two requirements were met.

Pierce County held four public meetings in easily accessible, central locations around the county to share information on the self-evaluation and seek feedback on top priorities through a paper survey. Meeting dates and locations:

- Nov. 6, 2014: Bonney Lake Regional Justice and Municipal Center, 9002 Main St. in Bonney Lake
- Nov. 12, 2014: Sprinker Recreation Center, 14824 C St. S in Tacoma
- Nov. 18, 2014: Pierce County Central Maintenance Facility, 4812 196th St. E in Spanaway
- Nov. 20, 2014: Pierce College Puyallup, 1601 39th Ave. SE in Puyallup

Pierce County also created a website for the ADA Transition Plan and self-evaluation. In order to allow citizens that were not able to attend a public meeting a chance to provide feedback, Pierce County created a virtual workshop where people could view the public meeting presentation, review the accompanying maps, and take the survey online.

Public meeting and website outreach

Pierce County advertised the public meetings and website through the following methods:

- A press release (<https://www.co.pierce.wa.us/civicalerts.aspx?aid=1910>) advertising the public meetings and website was distributed to local and regional media, along with all Pierce County employees and interested stakeholders. The following media outlets received the press release:
 - King 5
 - Associated Press
 - KCPQ
 - KLAY
 - KRXV
 - KOMO
 - KIRO
 - KUNS
 - KUOW
 - KIRO Radio
 - Q13

- Puyallup Herald
 - Tacoma Business Examiner
 - South Puget Sound News
 - Enumclaw Courier-Herald: <http://www.blscourierherald.com/news/280246252.html#>
 - Rainier Connect
 - The Tacoma Facts
 - Tacoma Daily Index: <http://www.tacomadailyindex.com/blog/pierce-county-community-meetings-aim-to-make-sidewalks-ramps-ada-compliant/2420236/>
 - The Suburban Times: <http://thesubtimes.com/2014/10/30/community-can-help-with-ada-compliance-plan/>
 - Blanco Media Group
 - Peninsula Gateway
 - Orting News
 - Anderson Island Sounder
 - Tacoma Weekly
 - Auburn Reporter
 - Citizen Courier
 - Key Peninsula News
 - The News Tribune
 - Eatonville Dispatch
 - Pierce Prairie Post: <http://pierceprairiepost.com/2014/10/23/sidewalks-in-unincorporated-pierce-county/>
 - Puget Sound Business Journal
- Senior Scene: <http://www.seniorscene.org/2015/01/14/sidewalks-getting-ada-scrutiny/>
Media interview: Pierce County was interviewed via email by the editor of the Eatonville Dispatch/Senior Scene.
 - [Pierce County Website](#): Pierce County created a section on its website for the ADA Transition Plan and self-evaluation at www.piercecountywa.org/ADAtransition. The section is updated regularly as Pierce County moves through the process. Examples of content include an overview of the project, documents such as preliminary inventory results and public meeting materials, and maps of sidewalks and ramps and traffic signal systems, as well as unincorporated Pierce County.

- [Pierce County calendar of events](#): Pierce County advertised the four public meetings on its website's calendar of events, which is accessible from the homepage at www.piercecountywa.org.
 - Example: <http://www.co.pierce.wa.us/Calendar.aspx?EID=1360&month=11&year=2014&day=5&calType=0>
- [Pierce County Public Works Facebook](#): Pierce County Public Works posted multiple reminders on its Facebook page about the public meetings. As of July 2015, the Facebook page had 755 likes.
 - Example: <https://www.facebook.com/PierceCountyPWU/posts/10152864660817206>
- [Pierce County Twitter](#): Pierce County posted multiple reminders on its Twitter account about the public meetings. As of July 2015, the Twitter account had 12,200 followers.
 - Example: <https://twitter.com/PierceCo/status/525403959511359488>
- [Pierce County Facebook](#): Pierce County posted the press release on its Facebook page. As of July 2015, the Facebook page had 2,485 likes.
 - Post: <https://www.facebook.com/pierceco/photos/a.405402136158637.94035.405381432827374/851685774863602/?type=1&theater>
- [Pierce County TV](#) news story: Pierce County TV is a TV station run by Pierce County. The station interviewed the project manager for an October 2014 story to promote the public meetings. The show with the story ran regularly over a one-week period.
 - Link: <https://www.youtube.com/watch?v=bouutcRL10w&feature=youtu.be>
- Ads in [The News Tribune](#): The News Tribune is based in Tacoma, WA, and is the second largest newspaper in Washington State. It covers local news stories in Pierce County. Pierce County ran three black and white ads in the regular edition of The News Tribune, which has a circulation of 60,000. Pierce County also ran three black and white ads in The News Tribune Extra, which has a circulation of 183,215.
- Pierce County partner outreach: Pierce County contacted multiple organizations to help promote the public meetings and virtual workshop. In order to keep our message intact and make it easier for partners to distribute the information, Pierce County provided the following materials for its partners: an 8 ½ by 11 poster, a short article for newsletters

or website, suggested Facebook/Twitter posts, an email with an embedded image of the poster, and links to the press release, Pierce County TV news story and website. Pierce County also provided printed copies of a postcard and the poster to several partners, as noted below.

- [Pierce County Councilmember Joyce McDonald](#) ran an article about the meetings in her November 2014 District 2 e-newsletter:
<http://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/3083>
- [Pierce Transit](#) posted information about the meetings on its Twitter and Facebook accounts. As of July 2015, Pierce Transit had 2,454 followers on Twitter and 2,707 likes on Facebook.
- [Pierce County Library System](#) helped promote the meetings and website by distributing postcards and posters provided by Pierce County to branches in Parkland/Spanaway, South Hill, Summit, Bonney Lake, and their Administrative Center. The system also shared Pierce County's [Facebook](#) and [Twitter](#) posts, and posted Pierce County's poster on their community events page at <http://www.piercecountylibrary.org/about-us/community-partner-links/community-events.htm> (post no longer available).
- [Pierce County Community Connections](#) brought posters and postcards provided by Pierce County to several community events. They also sent Pierce County's outreach materials to members of its Aging and Disability Resource Center (ADRC) Community Forum to distribute to their members. The forum is made up of about 25 partners. Pierce County staff gave a presentation about the ADA Transition Plan and self evaluation to the ADRC Community Forum in May 2014. Community Connections included Pierce County's newsletter article in the November 2014 ADRC newsletter, which goes out to 800 professionals in the aging and disabilities services networks in Pierce County. See page 2:
<http://www.co.pierce.wa.us/ArchiveCenter/ViewFile/Item/3093>
- Pierce County Coordinated Transportation Coalition (members include Paratransit, Tacoma Area Commission on Disability, Bates Technical College, Pierce County Community Connections, Pierce Transit, and more) invited Pierce County staff to its September 2014 meeting to provide an overview of the project. Pierce County's outreach materials were sent to all coalition members.
- The Pierce County Accessible Communities Advisory Committee invited Pierce County to give a presentation to the committee. Pierce County's outreach materials were also forwarded to members.
- [Puyallup School District](#) agreed to advertise meetings, although Pierce County was unable to find any examples.

- [Center for Independence](#) made postcards and posters provided by Pierce County available to its visitors. The organization also shared materials with staff and asked for feedback.
- [Tacoma Area Coalition for Individuals with Disabilities](#) made postcards and posters provided by Pierce County available to its visitors. Pierce County also gave a presentation to the coalition's Multiple Sclerosis Support Group and asked attendees to take the printed survey. Pierce County also provided information to the following support groups: Low Vision, Pierce County Association of the Blind, and the Muscular Dystrophy Association.
- [Puget Sound Educational Service District](#) included a summary and links to the poster and website in its Early Learning Connector external newsletter that goes to about 950 support staff. See page 4:
http://www.earlylearningwa.org/images/ForStaff/HUB_All_Staff/ConnectorMonthlyNews/PSESEarlyLearningCONNECTORNewsletterNOVEMBER2014.pdf. The organization also requested that the information to be posted to social media, but Pierce County was unable to find any examples.
- Pierce County Parks and Recreation posted information about the meetings on its Facebook page, which had 4,826 likes as of July 2015:
<https://www.facebook.com/PierceCountyParks.Recreation/posts/10152405956989249>
- [Frederickson Clover Creek Community Council](#): Pierce County posted meeting information on this group's Facebook page.
- Other groups: Pierce County provided information to the following groups, but does not know if they distributed the information further:
 - Pierce County High Risk Populations Disaster Planning Coalition
 - White River School District
 - Franklin Pierce School District
 - Special Olympics Washington
 - Bethel School District

