Committee Members
Councilmember Chris Moore
Councilmember John Williams
City Administrator Scott Larson
City Clerk Kim Agfalvi
Executive Asst. Danielle Charchenko
Public Works Director Marshall Maurer
PW Admin Asst. Laura Hinds
Finance Director Gretchen Russo
Capital Projects Manager John Bielka
Building Official Tim Lincoln
Records Organizer Alison Williams
Engineer JC Hungerford

City of Orting Public Works Committee
AGENDA

Wednesday, November 1, 2023 – 2:30 p.m.
Public Works Operations Facility, Conference Rm, 900 Rocky Rd NE

- Call Meeting to Order, Roll Call
- Approval of Minutes
- Public Comment & Presentations

DEPARTMENT REPORTS	**Est. Time**	**Action**
1. ENGINEERING Updates– JC Hungerford **1.1** Kansas Street Reconstruction – Update **1.2** Whitehawk Blvd bypass – Update **1.3** WSDOT Fish Passage – Scope & Budget **1.4** AC Watermain Design – Update **1.5** Village Green Outfall – Update **1.6** Kansas St Outfall – Update **1.7** CIPP Project – Update	Min 15	
2. PROJECT MANAGEMENT – Bielka/Larson **2.1 NEW BUSINESS**	Min 20	
3. ADMINISTRATION – Scott Larson **3.1** TBD Funding Recommendation	Min 10	
4. PUBLIC WORKS – Marshall Maurer **4.1** Side Sewer Policy & Procedure **4.2**	Min 10	
5. FINANCE – Gretchen Russo **5.1 2024 Budget Update**	Min 10	

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City of Orting Public Works Committee
AGENDA

6. COUNCIL – CM Williams & CM Moore	Min	

REQUEST FOR NEW BUSINESS

-

ROUND TABLE

-

MEETING SUMMARY
ADJOURN

City of Orting
SR 162 Temporary Waterline Project

Introduction

The Washington State Department of Transportation led SR162 Fish Passage Project includes modifications to Pioneer Avenue to address the existing fish barrier. The project includes constructing a three sided culvert lifting the grade of the existing roadway. The new culvert will be in place of the existing roadway leaving the alignment unchanged. The design phase and construction management of the Project is being led by the WSDOT.

The City of Orting (City) owns, operates and maintains an existing 8-inch-diameter asbestos cement water transmission main (water main) within the Project area. During design of the new culvert, it was determined that the existing City of Orting water main would be impacted by construction of the new culvert foundations. The SR162 Temporary Waterline Project (Project) will be to design and permit the temporary waterline in preparation for WSDOT construction of the fish passage improvements.

Task 01 – Project Management

Objectives

Parametrix will:

- Attend up to two meetings with the City at City offices with two participants from Parametrix.
- Coordinate via e-mail and telephone with the City and WSDOT to obtain information needed to prepare the Phase 1 deliverables.
- Prepare monthly progress reports with monthly invoices for submittal to the City.
- Perform independent senior review of all technical deliverables prior to submittal.

Deliverables

Deliverables for this task include:

- Monthly status/progress reports and monthly invoice (up to three).

Assumptions

Assumptions for this task include:

- Phase 1 project duration of 3 months.

Task 02 – Alternatives Analysis (10%)

Parametrix will prepare a technical memorandum that summarizes the impacts to the existing water transmission main, summarizes up to two alternatives that have been identified to mitigate the impacts. The memorandum will include the following sections:

- Introduction and summary of project goals
- Alternatives Analysis – two alternatives will be presented for City consideration
  - Description of each alternative
  - Figure of each alternative
  - Planning level Engineer's Opinion of Probable Construction Cost
  - Property acquisition/easement needs (temporary and permanent)
  - Permit matrix
- Conclusion and recommendation

Parametrix will submit the technical memorandum electronically to WSDOT and the City for review. Parametrix will participate in a follow up review meeting with the City. During the meeting the City will select a preferred alternative. Parametrix will then update the memorandum to address comments and the recommendation.

The final memorandum will be submitted to WSDOT and Parametrix will schedule a meeting with the City of Orting and WSDOT to discuss the preferred alternative and work restriction such as:

- Traffic control
- Work hours
- Coordination with future project(s)

Parametrix will prepare and distribute draft and final meeting notes for all meetings.

Deliverables

- Alternatives Technical Memorandum – one PDF will be submitted electronically via e-mail.
- Meeting notes for two (2) meetings
- Alternatives Selection Technical memorandum – one PDF will be submitted electronically via e-mail.

Assumptions

- The existing water main has been shown in the base map based on record drawings, field locating, potholing, and field survey. No additional survey, field verification, or geotechnical exploration is included in Phase 1.
- Hydraulic analyses will not be required.
- Detailed design or permitting services can be provided in Phase 2 as noted below.
- Design will be based on City of Orting Engineering and Construction Standards.
- Electronic drawings for Phase 1 will be prepared in AutoCAD.
- Each technical memorandum will be submitted once. Updates to the selected alternative will be addressed in Phase 2.
- The pipe material will be 12-inch-diameter ductile iron pipe or high-density polyethylene pipe (HDPE). The pressure or special thickness class will be based on pressures provided

by the City of Orting and/or minimum wall thickness required for flanged joints or restrained joints.

- Alternative to be reflected in the technical memorandum include:
  - Temporary daylit pipe alignment south of existing roadway alignment
  - Direction drill under the proposed Card Creek alignment

Task 3 – Final Design

The scope and budget for Phase 2, Final Design, will be determined after completion of Phase 1 and selection of the preferred alternative. Depending on the outcome of Phase 1, the design in Phase 2 may provide a package that can be constructed prior to and independently of the fish culvert project or a package that is to be constructed during the fish culvert project either by the WSDOT selected contractor or a contractor to the City of Orting.

The proposed fee for the Phase 1 services is $12,270 as detailed in the attached Exhibit A.

Client: City of Orting
Project: Pioneer Way Fish Passage Temporary Water Line
Project No: 216-1711-026

				Jack Wright	April D. Whittaker	John C. Hungerford	Marcus Vassey	Kyle E. Hale	Amanda B. Lucas
				Sr Consultant	Sr Project Control Specialist	Water Solutions Div Mgr	Engineer IV	Sr Project Accountant	Publications Specialist II-9
			Rates:	$210.00	$150.00	$220.00	$140.00	$120.00	$130.00
Task	**SubTask**	**Description**	**Labor Dollars**						
01		**Project Management & QA/QC**	**$3,190.00**	**2**	**3**	**5**	**6**	**1**	**2**
	01	General City Correspondance	$440.00			2			
	02	Coordination with City, WSDOT	$1,000.00			2	4		
	03	Monthly Progress Reporting	$960.00		2		2	1	2
	04	Quality Assurance/Quality Control	$790.00	2	1	1			
02		**Alternative Anaylysis (10%)**	**$9,020.00**	**6**	**0**	**10**	**36**	**0**	**4**
	01	Alternatives Tech Memo, Cost Opinion, Figures	$5,340.00	4		4	24		2
	02	Meeting with City, Meeting Notes	$860.00			2	3		
	03	Meeting with City and WSDOT	$860.00			2	3		
	04	Final Alternatives Selection Tech Memo, Cost Opion, Figures	$1,960.00	2		2	6		2
		Labor Totals:	$12,210.00	8	3	15	42	1	6
		Totals:	**$12,210.00**	**$1,680.00**	**$450.00**	**$3,300.00**	**$5,880.00**	**$120.00**	**$780.00**

Other Direct Expenses	
Mileage (.545/mile)	$60.00
Other Direct Expenses Total:	**$60.00**

Project Total **$12,270.00**

2023 Pavement Management System (PMS)

ORTING
Washington

June 2023

SCJ ALLIANCE
CONSULTING SERVICES

2023 Pavement Management System

Project Information

Project:	2023 Pavement Management System (PMS)
Prepared for:	City of Orting P.O. Box 489 Orting, WA 98360 Contact Name: John Bielka Contact Phone: 360.706.7206

Project Representative

Prepared by:	SCJ Alliance 1201 Third Avenue, Suite 550 Seattle, WA 98101 206.739.5454 www.scjalliance.com
Contact:	Lisa M. Reid, PE, PMP lisa.reid@scjalliance.com Andrew Armstrong, EIT andrew.armstrong@scjalliance.com

Project Reference:	SCJ #21-000838, Phase 05, Task 01 Path: N:\Projects\4270 City of Orting\21-000838 Orting 2021-24 On-Call PE Services\Phase 05 - Pavement Management\05.01 2022 Street Condition Assessment\Reports

PROJECT ENGINEER'S CERTIFICATION

I hereby certify that this Pavement Management System for the City of Orting has been prepared by me or under my supervision and meets the minimum standards of the City of Orting and normal standards of engineering practice.

06-08-2023

Lisa M. Reid, PE, PMP
Lisa.Reid@scjalliance.com
206.739.5454

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1. EXECUTIVE SUMMARY

The City of Orting believes in the importance of well-maintained public infrastructure and wants to ensure that the public traveling throughout the City continue to have safe and well-maintained roads to navigate. This pavement maintenance program will be developed and adopted to maximize the efficiency and value of maintaining the city's largest and most valuable form of infrastructure, its roadways.

2. INTRODUCTION

2.1 ORTING'S PAVEMENT INFRASTRUCTURE

The City of Orting is in Pierce County, Washington and encompasses an area of approximately 1,730 acres. The City of Orting is responsible for maintaining approximately 62 lane-miles of roadways consisting of asphalt concrete pavement (ACP), Portland cement concrete (PCC) and gravel roadways. This infrastructure was assessed and rated in conjunction with this program in 2022, and is shown in Appendix A.

2.2 INTRODUCTION TO PAVEMENT MANAGEMENT SYSTEM

This report summarizes the City of Orting's Pavement Management System (PMS) and identifies a 6-year program of preservation and maintenance activities that will provide cost-effective approaches to maintain pavements in serviceable conditions. The purpose of the PMS is to maintain City, resident, and business operations without impacts resulting from degrading roadways. Early investment in a well-planned PMS has proven to be the most cost-effective solution for management of a system of roadways, especially as opposed to a program that simply waits for failures then repairs or reconstructs pavements to correct issues.

Actions that help to slow the rate of deterioration and delay major rehabilitation activities are considered preservation. Preservation impacts performance life, durability, lifecycle costs, construction, and materials use. Identifying and addressing specific deficiencies that contribute to overall deterioration can prolong or extend the life

> Applying a pavement preservation treatment at the right time (when), on the right project (where), with quality materials and construction (how) is a critical investment strategy for optimizing infrastructure performance. The "when and where" component supports preservation by managing pavements proactively. Whole-life planning defines expectations for the long term and provides more stability to the cost of operation and maintenance. Identifying preservation strategies at the network level reduces the need for frequent or unplanned reconstruction. The "how" component promotes quality construction and materials practices, including treatment options that apply to flexible and rigid pavements. These practices contribute to improved pavement performance, providing smoother, safer roads and delaying the need for rehabilitation.
>
> FHWA, Everyday Counts, EDC-4

of pavements or structures. It is important to apply the right treatment to the right pavement or structure at the right time.[1]

Pavement networks require significant, recurring investments to maintain, which only increases as pavement ages. Spending money earlier in a pavement's life cycle allows for a significant extension in the pavement's life at a much cheaper cost than if this maintenance work is delayed (see Figure 1 and Figure 2). This shows the importance of timely maintenance, rather than just waiting until roads reach a poor quality. This program's goal is to maintain and preserve the overall condition of their street network in a state of good repair rather than just reacting in a worst first manner. This will allow the roadway network to stay sustainable while using funds in the most effective manner possible.

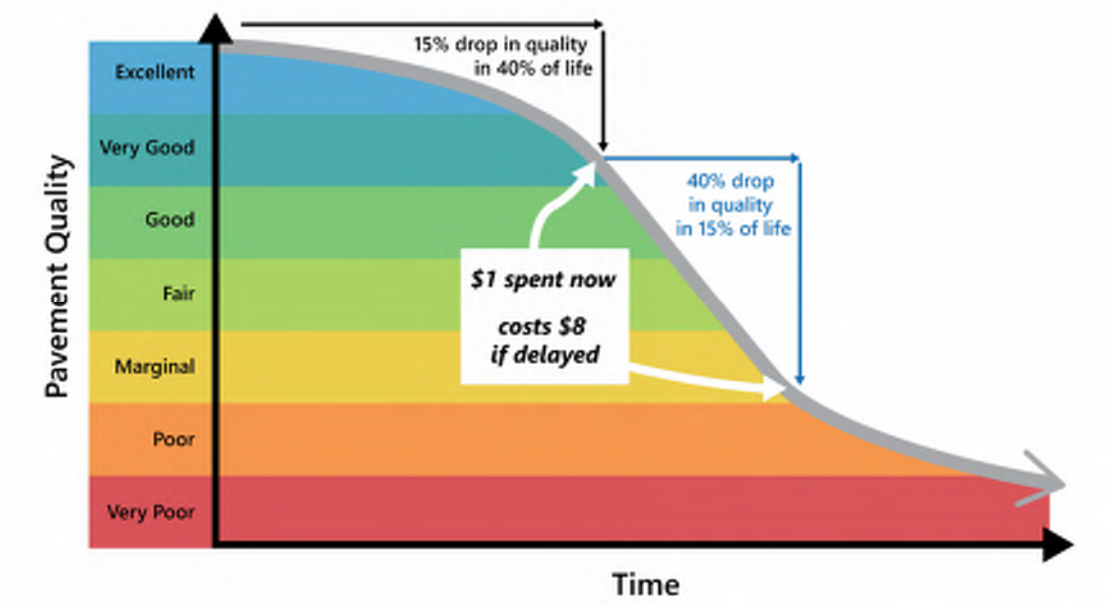

Figure 1. Pavement Degradation Curve (IMS, 2020)

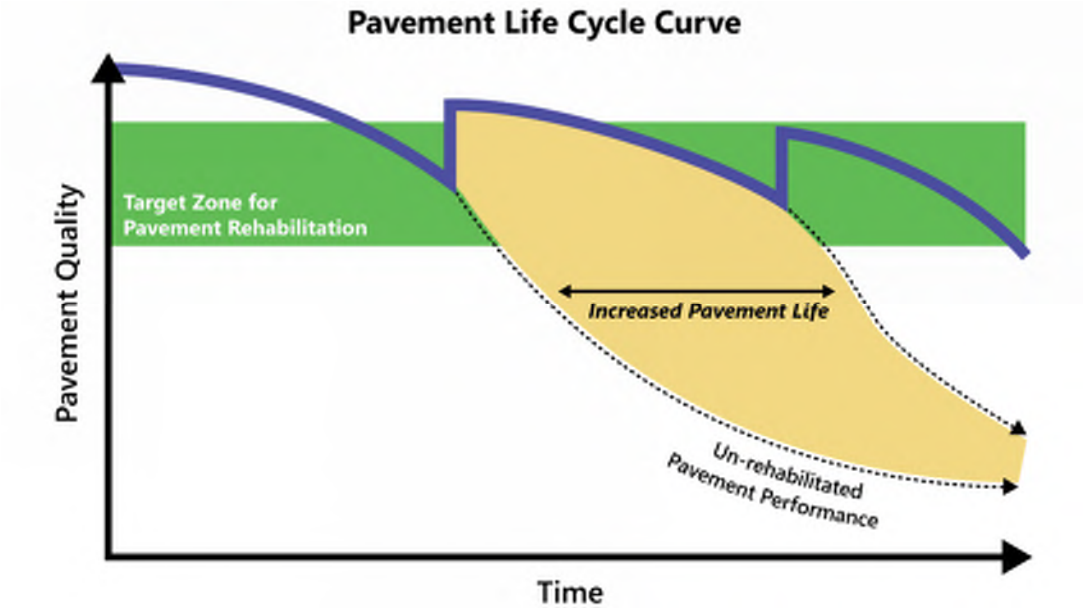

Figure 2. Pavement Rehabilitation Target Zone (IMS, 2020)

2.3 PRINCIPLES OF A PMS

The main priority of this PMS is to maximize the effectiveness of maintenance funds to preserve and maintain the City's pavement infrastructure. Often this will prioritize maintaining higher quality streets rather than reconstructing lower quality streets due to the difference in costs associated with different repair options. Arterials and collectors will generally have a higher importance than local access roads due to the repairs benefiting more people.

This program should coordinate with other street projects when possible. Other street projects provide an ideal time to address necessary maintenance due to the decreased mobilization costs as well as the decreased negative effects on residents (less road closures, less waste, fewer damage claims, etc.).

It is important to prioritize communication to the public with this program. Residents may see a good road being maintained and a poor road being seemingly ignored and feel the city is playing favorites. Communicating that the poor road is waiting on grants or other forms of outside funding, and that it is much cheaper to ensure good roads stay good than to make poor roads good again, may be necessary to ensure the program is not viewed negatively.

2.4 PAVEMENT PRESERVATION

Pavement preservation is defined as "a program employing a network level, long-term strategy that enhances pavement performance by using an integrated, cost-effective set of practices that extend pavement life, improve safety and meet motorist expectations". This PMS accomplishes these goals by assessing the quality of roads and then using the ratings to determine appropriate and timely treatments.

Pavement preservation programs commonly include multiple treatment activities and focus on the preventive maintenance level. Preventive maintenance is defined as "a planned strategy of cost-effective treatments to an existing roadway system and its appurtenances eliminate age-related, top-down surface cracking that develops in flexible pavements due to environmental exposure or to restore functionality of concrete pavements." This is generally the most effective use of funds, although some roads necessitate reconstruction or overlay as well (Geiger, 2005).

2.4.1 Distress Types

The following pavement distresses were used in the 2022 evaluation of pavement conditions throughout the City (see Appendix A). The bullets below describe what causes the distresses as well as typical preservation treatments that can address each distress condition.

- **Rutting** and wear is caused by repeated traffic loads along the same path and are characterized by surface depressions in the wheel path. Ruts due to only wear just need to be paved in. Ruts due to subgrade movement require rehabilitation that will improve the base materials such as in-place recycling or full depth reconstruction.
- **Alligator cracking** is caused by a loss of support from beneath the pavement. The methods to fix it rely on fixing the support beneath the pavement through an in-place recycle or full depth reconstruction.

- **Longitudinal, transverse, and block cracking** all have several causes but are present similarly on the surface. All can be crack sealed to prevent moisture from infiltrating the pavement. One method to fix the cracks is to mill and fill, although some may need full depth reconstruction.
- **Raveling and aging** occur when the aggregate or binder, respectively, wear away from the pavement. This can be fixed by microsurfacing, crack sealing, chip sealing, or milling and filling.
- **Flushing and bleeding** occur when excessive binder shows on the pavement surface. This can be fixed by applying sand to absorb the excess binder or a mill and fill.
- **Patching**, when in need of fixing, generally requires localized full depth reconstruction to ensure the same distresses do not reoccur.
- **Sags and humps** can occur due to settlement or frost heave, and it is important to determine which before repairing it. They can be repaired by mill and fill or in-place recycling, depending on the root cause of the issue.
- **Edge raveling** happens often near gravel driveways, and it can temporarily be fixed by surface edge patching. Edge potholes and lanes less than 10 feet can be fixed by full depth edge patches.

2.4.2 Pavement Treatment Types

There are many pavement treatments that can be used in a PMS. Common preservation and maintenance treatments are included below (all costs are in 2023 dollars):

Preservation treatments are used to maintain existing pavement assets and extend usable life. These treatments are typically low cost to implement, with $12 per LF of 11’ wide lane being repaired serving as a rough assumption of construction cost in general and $2 per LF of 11’ wide lane for crack sealing.

- Crack Seal
- Micro-surfacing
- Chip Seal
- Sand Application

Methods used in large scale maintenance activities or involved where pavement assets require preservation or rehabilitation. These treatments can trigger adjacent ADA improvement requirements depending on the scope of the treatment. Neglecting these potential ADA improvements, treatments in this category can be assumed to cost roughly $45 per LF of 11’ wide lane being replaced.

- Surface Patching
- Full-depth Patching
- Mill and Fill
- Overlay without Grinding/Fill

In some cases, the pavement asset is beyond maintenance and will require full depth replacement or repair. Note that full depth reconstruction could be the pavement or the pavement and subgrade. Reconstruction treatments can trigger adjacent ADA improvement requirements as well, and these costs need to be considered when implementing these treatment types. Ignoring ADA improvements, reconstruction may cost $142 per LF of 11’ wide lane being replaced.

- In-Place Recycling
- Full-Depth Reconstruction – Pavement Only
- Full-Depth Reconstruction – Pavement and Subgrade

3. PAVEMENT MANAGEMENT SYSTEM

3.1 INTRODUCTION

This Pavement Management System (PMS) includes all activities involved in maintaining the City's roadway including data, procedures, analysis, and a 6-Year Workplan. This Workplan is shown in Chapter 4 of this Program and shows a 6-year list of projects and includes both construction, and non-construction, activities. Updates to the Workplan are necessary bi-annually.

3.2 ELEMENTS OF A PMS

- 6-Year PMS Workplan Development (2024 to 2029)
    - Baseline Pavement Condition Assessment (2022)
    - Construction Activity Planning & Prioritization
        - Pavement Condition Overall Ratings
        - Prioritization of segments
        - Determining Preservation and Maintenance Treatments Needed
        - Costs to Repair
        - Annual Budget
        - Analysis of the System
        - 6-year Workplan
    - Non-Construction Activities
        - Inspection
        - Overall Rating by Section
        - Prioritization
        - Updating Treatments if Necessary
        - Updating Program Costs
        - Revising TIP as Needed
- Annual Workplan Implementation
    - Construction
        - Plan Sets and Engineering
        - Bidding
        - Coordination with Other Agencies
        - Construction Management
    - Non-Construction
        - Pavement Condition Assessment Updates
        - TIP Updates
        - PMS Updates
        - Administrative Updates
            - Funding Activities
            - GIS Updates

4. 6-YEAR PMS WORKPLAN

4.1 BASELINE PAVEMENT CONDITION ASSESSMENT (2022)

The pavement condition assessment SCJ Alliance performed in 2022 rated roads based on visual inspection. This inspection led to overall ratings for each roadway, which were then used to develop this 6-year Workplan. Bi-annual updates to this system will be performed and reviewed to make sure there are no substantial condition changes that require reprioritization of which roadways to treat.

4.2 CONSTRUCTION ACTIVITY PLANNING & PRIORITIZATION

Prioritization strategies used in the report develop a targeted list of segments with current distresses and provides a snapshot status of the pavement network. From this, project planning is done to maximize the value of pavement maintenance operations given the condition of the City's infrastructure and to coordinate with nearby or currently planned improvement projects.

4.2.1 Pavement Condition Overall Ratings

Pavement condition ratings were calculated using a formula that weighed distresses by their extent, severity, and level of impact to the condition of the roadway. The full assessment is included in Appendix A and the final roadway section ratings are shown in Figure 3 on the next page.

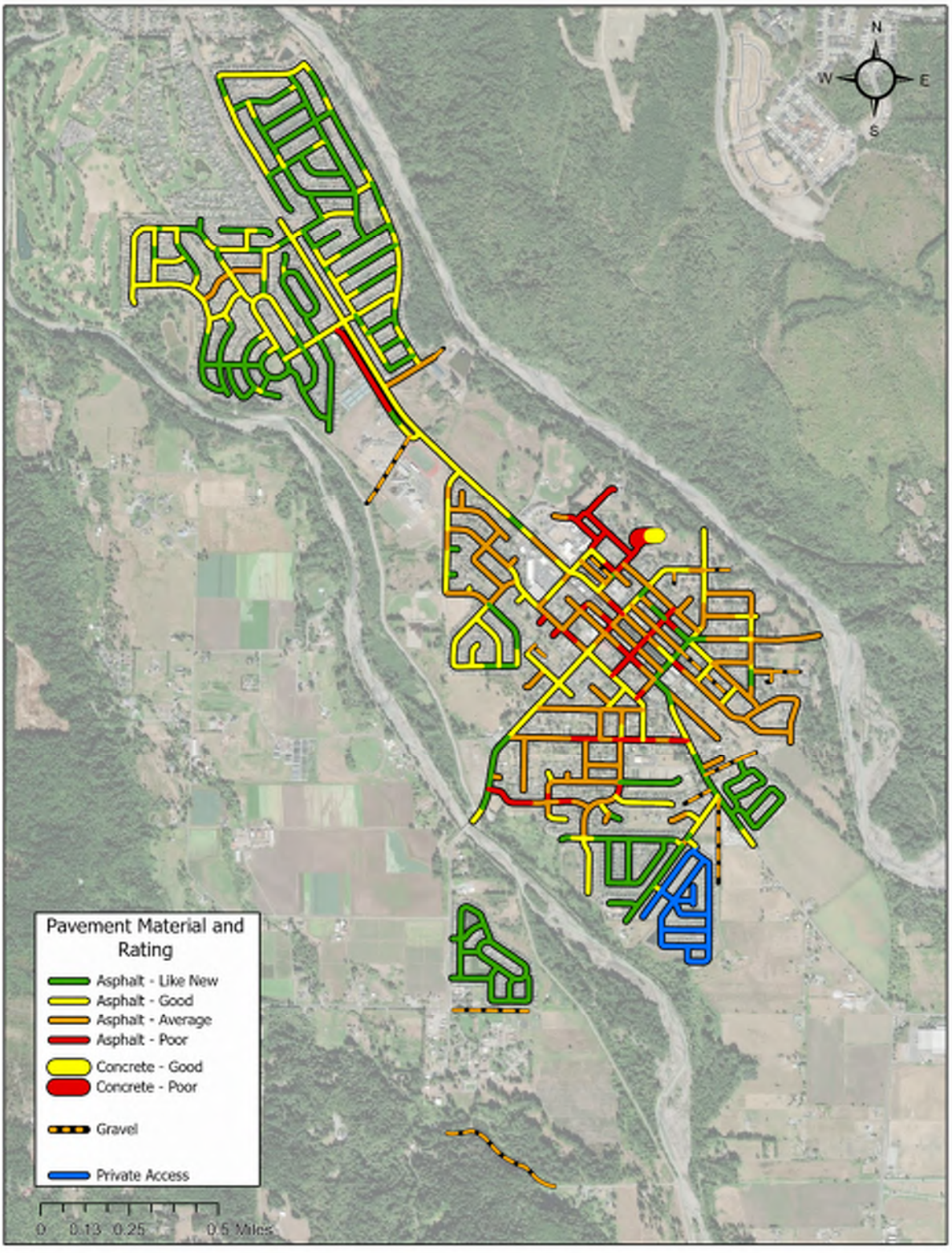

Figure 3. 2022 Pavement Condition Overall Ratings

4.2.2 Prioritization of Segments

Projects were prioritized by treatments needed (based on segment conditions), timing of other projects, and with the goal of minimizing the overall cost of the program. Preventative work is prioritized over maintenance in order to maximize the efficiency of dollars spent. Reconstruction projects are balanced with Kansas and Whitehawk with the goal of having one major project each year. This also allows the costs to be evenly balanced over the years and to be more manageable by the City. Overlays and reconstructions are predated by preventative treatments to allow the pavement to stay functional until the maintenance work can take place. Finally, projects with the same treatment are grouped when possible, to allow for the lowest prices based on the economy of scale.

4.2.3 Determining Preservation and Maintenance Treatments Needed

Different distresses are better addressed with different maintenance treatments. While this program uses crack sealing, chip sealing, mill and fill, and full-depth reconstruction as the 4 fundamental reconstruction methods for cost estimating purposes, the repair methods shown in Table 1 are still included so they can be examined once a project has been selected and is in more in-depth planning.

Table 1. Distresses and Associated Preservation/Repair Methods

Distress	Crack Seal	Microsurfacing	Chip Seal	Sand Application	Surface Patching	Full-Depth Patching**	Mill and Fill**	In-Place Recycle**	Full-Depth Reconstruction**
Rutting and Wear					●	●		●	●
Alligator Cracking	●	●	●			●		●	●
Cracking	●	●	●				●		●
Raveling and Aging	●	●	●				●		
Flushing and Bleeding				●			●		
Patching						●			
Sags and Humps							●	●	
Edge Raveling					●	●			
Edge Potholes					●	●			

*** May trigger adjacent ADA improvements based on the scope and location of work.*

Several of the preservation and repair methods listed in **Table 1** may trigger a requirement to make adjacent ADA improvements. It is important to understand which will trigger this requirement, as this could alter the cost estimate and perhaps require rescheduling repairs. These repairs include full-depth reconstruction, in-place recycling, milling, and filling, and, sometimes, full-depth patching.

4.2.4 Preservation Costs

One of the goals of this maintenance program is to schedule roadway repairs on a frequent, recurring basis. Scheduling annually will allow yearly funds to be used efficiently and will ensure roads do not slip between the cracks and worsen before treated. Scheduling rehabilitation methods annually ensures there is budget to address the minor issues before they become more significant.

Costs of different treatment options can vary significantly. The following total costs of treatment were used in this analysis. These costs are shown per lane-foot (per linear-foot in length of 11-foot-wide lane). Appendix C includes the calculations for each treatment:

- Crack Sealing – $2/LF of 11' lane
- Chip Seal Coat – $12/LF of 11' lane
- Mill and Pavement Overlay – $45/LF of 11' lane
- Reconstruction – $142/LF of 11' lane

In addition to the basic construction costs, the total costs include all contingency, engineering, administration, and inflation costs. The following percentages were used to calculate total costs for each treatment.

Table 2. Total Cost Elements

Cost Element	% Construction	Description
Design Contingency	10% of itemized construction costs	Estimates the construction costs of minor design elements that have not yet been identified (e.g., pavement markings, minor ADA improvements)
Inflation/Year	3% of itemized construction costs	Escalates the construction costs from 2023 to the year of construction.
Permitting	3% of total construction cost	Estimates permit costs for the City. Does not include environmental documentation.
Design	12% of total construction cost	Estimates costs to prepare PS&E and environmental documentation.
City PM/Administration	3% of total construction cost	Estimates City costs for administration and oversight of the project.
Construction Management	15% of total construction cost	Estimates construction inspection and management for the project.
Management Reserve	10% of total construction cost	Overall contingency for the project – reduces as the project definition progresses.

4.2.5 Analysis of the System

Poor roads were analyzed first using their functional class and likely cost. Kansas Street Reconstruction, a project included in the city's 2022-2027 TIP and currently in design, will repair the road most in need of reconstruction. Another strong candidate for reconstruction is Old Pioneer Way. Old Pioneer Way, and other future candidates for reconstruction projects, are shown in

Table 3. Note that it is proposed to maintain an annual budget of $150k for selected spot pavement replacements – to fix recurring potholes or minor instances of failed pavement.

Table 3. Reconstruction Projects

Project	Construction Cost (in 2022 dollars)	Linear Feet of Lanes	Year Scheduled
Train Street Reconstruction (Eldredge Avenue to Ammons Lane)**	$415,000	2,917	2026
Skinner Way Reconstruction (Calistoga Street to Belfair Avenue)**	$273,000	1,915	2027
Bowlin Avenue Reconstruction (Parker Lane to Leber Street)**	$260,000	1,828	2028
Old Pioneer Way Reconstruction (North of Chief Emmons Lane)**	$404,000	2,842	2029
TBD – Annual Reconstruction (includes spot replacements)	$150,000 per year	NA	2024-2029

*** Each of these streets is also included in the crack sealing program in 2024 to maintain their current condition prior to reconstruction.*

Although it is good to keep in mind the poor roads that will need to be reconstructed, due to their high funding needs, it is more efficient to spend money on roads that have not yet reached this level of disrepair. Due to this, the average roads were analyzed next to determine ideal cases for an overlay project. Corrin Avenue, from Whitesell Street to Bridge Street, is a strong candidate for a mill and overlay project due to its cracking and aging as well as its status as a minor arterial. Eldredge Avenue, from Whitesell Street to Calistoga Street is another strong candidate for a mill and overlay due to its aging and patches. These, and other, candidates for a mill and overlay project are shown in Table 4. Note again that an annual overlay budget of $80k is proposed after 2026 to address specific overlays that will be needed.

Table 4. Overlay Projects

Project	Construction Cost (in 2022 dollars)	Linear Feet of Lanes	Year Scheduled
Corrin Avenue Overlay (Whitesell Street to Bridge Street)	$179,000	3,986	2024
Eldredge Avenue Overlay (Whitesell Street to Calistoga Street)	$90,000	1.990	2024

Project	Construction Cost (in 2022 dollars)	Linear Feet of Lanes	Year Scheduled
Anderson Street Overlay (Williams Street to Boatman Avenue)	$99,000	2,203	2024
Orting Avenue (Callendar Street to Whitehawk Boulevard)	$61,000	1,358	2028
Deeded Lane (Calistoga Street to Eldredge Avenue)	$145,000	3,216	2024
Ammons Lane (Leber Street to River Avenue)	$135,000	2,994	2028
Corrin Avenue Overlay (South of Harman Way)**	$93,000	2,060	2028
Brown Street and Brown Way**	$134,000	2,983	2028
Washington Avenue (South of Bridge Street)**	$150,000	3,330	2028
TBD – Annual Overlay after 2026	$80,000 per year		2027-2029

*** Each of these streets is also included in the crack sealing program in 2024 to maintain their current condition prior to overlay.*

Finally, the most efficient use of funding is to keep good roads good. Chip and crack sealing are both cheap and effective maintenance methods. Chip sealing is generally better if the road is aging and/or has several cracks, while a road without aging and with only a few cracks will likely be better served with crack sealing. Crack sealing is also appropriate when old crack seals are beginning to crack again.

Crack sealing would be appropriate on Calistoga Street between Ammons Lane and River Avenue as well as Callendar Street between Thompson Avenue and Groff Avenue. Chip sealing would be appropriate along Whitehawk Boulevard, between Washington Avenue and Orting Avenue, and Calistoga Street, from Kansas Street to Corrin Avenue. Crack sealing projects are shown in Table 5, while chip sealing projects are shown in
Table 6. Both tables include annual programs of $25k and $30k per year respectively to begin after this set of projects is completed.

Table 5. Crack Seal Projects

Project	Construction Cost (in 2022 dollars)	Linear Feet of Lanes	Year Scheduled
Boatman Avenue/Cloud Street/Nunnally Avenue Crack Seal (Lane Boulevard to Colorossi Circle)	$9,000	3,871	2024
Icey Street Crack Seal (East of Grinnell Avenue)	$4,000	1,729	2024

Project	Construction Cost (in 2022 dollars)	Linear Feet of Lanes	Year Scheduled
Grinnell Avenue Crack Seal (South of Balmer Street)	$4,000	1,642	2024
Williams Boulevard/Avenue/Court Crack Seal (West of Headley Avenue)	$8,000	3,356	2024
Williams Street Crack Seal (Ozzie Street to Williams Avenue)	$7,000	2,845	2024
Mellinger Avenue Crack Seal (Williams Street to Williams Boulevard)	$4,000	1,685	2024
Nunally Avenue Crack Seal (Cloud Street to Williams Boulevard)	$5,000	1,960	2024
Lane Boulevard Crack Seal (Nunnally Avenue to Washington Avenue)	$5,000	2,086	2024
Thompson Avenue Crack Seal (Callendar Street to Groff Avenue)	$4,000	1,688	2024
Calistoga Street Crack Seal (Ammons Lane to River Avenue)	$5,000	1,831	2024
Callendar Street Crack Seal (Thompson Avenue to Groff Avenue)	$4,000	1,676	2024
Train Street Reconstruction (Eldredge Avenue to Ammons Lane)**	$7,000	2,917	2024
Skinner Way Reconstruction (Calistoga Street to Belfair Avenue)**	$5,000	1,915	2024
Bowlin Avenue Reconstruction (Parker Lane to Leber Street)**	$5,000	1,828	2024
Old Pioneer Way Reconstruction (North of Chief Emmons Lane)**	$7,000	2,842	2024
Corrin Avenue Overlay (South of Harman Way)**	$5,000	2,060	2024
Brown Street and Brown Way Overlay**	$7,000	2,983	2024
Washington Avenue Overlay (South of Bridge Street)**	$8,000	3,330	2024

Project	Construction Cost (in 2022 dollars)	Linear Feet of Lanes	Year Scheduled
TBD – Annual Crack Seal After 2024	$25,000 per year		2025-2029

** *Each of these streets is included for crack sealing prior to a subsequent overlay or reconstruction.*

Table 6. Chip Seal Projects

Project	Construction Cost (in 2022 dollars)	Linear Feet of Lanes	Year Scheduled
Olive Street Chip Seal	$10,000	749	2025
Whitehawk Boulevard Chip Seal (Washington Avenue to Orting Avenue)	$74,000	5,617	2025
Calistoga Street Chip Seal (Kansas Street to Corrin Avenue)	$55,000	4,222	2025
Tacoma Avenue Chip Seal	$24,000	1,770	2025
Stone Street Chip Seal (Headley Avenue to Mellinger Avenue)	$13,000	982	2025
Eldredge Avenue Chip Seal (Calistoga Street to Kansas Street)	$44,000	3,313	2025
TBD – Annual Chip Seal After 2025	$30,000 per year		2026-2029

4.2.6 Annual Budget

The annual budget varies depending on several assumptions, including the overall extent of preservation treatments needed (defined by total construction costs), the aggressiveness of making preservation treatments (generally controlled by total years of preservation program/cycle), and availability of funding. The total construction costs are constant for a given year. The total years of the preservation cycle is based on the TIB cycle as balancing the number of roads in need of maintenance with a reasonable annual budget (targeted at $1M to 1.3M annually in 2024 based on similar local agencies). The availability of funding changes based on government programs and the City's budget.

The annual budget, shown in Table 7, was estimated at $1.15M for the first 2 years, $1.25 million for years 3 and 4 and $1.35 million for years 5 and 6.

Table 7. Annual Budget

Year #	Year	Cost
1	2024	$1,150,000
2	2025	$1,150,000
3	2026	$1,250,000
4	2027	$1,250,000
5	2028	$1,350,000
6	2029	$1,350,000

4.2.7 6-Year Workplan

This workplan needs to account for the roadway projects currently planned. These are the Kansas Street Reconstruction and the Whitehawk Boulevard Road Extension. The Kansas Street Reconstruction is a major reconstruction project that is currently in design while the Whitehawk Boulevard Road Extension is currently in the planning stages. For the purposes of this program, it will be assumed that these two projects will reconstruct all of Kansas Street and remedy any pavement needs in Whitehawk Boulevard and they were not factored into the pavement preservation budget. See Table 8 for a list of all of the projects covered in the 6-year Workplan. Note that the Annual Budgets will be used to address projects TBD throughout that year (as the PS&E is being prepared) and will include monies for ongoing pavement preservation and maintenance activities.

Table 8. 6-Year Workplan

Location and Treatment	Year of Construction
2024	
Corrin Avenue Overlay (Whitesell Street to Bridge Street)	2024
Eldredge Avenue Overlay (Whitesell Street to Calistoga Street)	2024
Anderson Street Overlay (Williams Street to Boatman Avenue)	2024
Orting Avenue Overlay (Callendar Street to Whitehawk Boulevard)	2024
Boatman Avenue/Cloud Street/Nunnally Avenue Crack Seal (Lane Boulevard to Colorossi Circle)	2024
Icey Street Crack Seal (East of Grinnell Avenue)	2024
Grinnell Avenue Crack Seal (South of Balmer Street)	2024
Williams Boulevard/Avenue/Court Crack Seal (West of Headley Avenue)	2024
Williams Street Crack Seal (Ozzie Street to Williams Avenue)	2024
Mellinger Avenue Crack Seal (Williams Street to Williams Boulevard)	2024
Nunally Avenue Crack Seal (Cloud Street to Williams Boulevard)	2024
Lane Boulevard Crack Seal (Nunnally Avenue to Washington Avenue)	2024
Thompson Avenue Crack Seal (Callendar Street to Groff Avenue)	2024
Calistoga Street Crack Seal (Ammons Lane to River Avenue)	2024
Callendar Street Crack Seal (Thompson Avenue to Groff Avenue)	2024
Train Street Reconstruction (Eldredge Avenue to Ammons Lane)*	2024
Skinner Way Reconstruction (Calistoga Street to Belfair Avenue)*	2024
Bowlin Avenue Reconstruction (Parker Lane to Leber Street)*	2024
Old Pioneer Way Reconstruction (North of Chief Emmons Lane)*	2024

Location and Treatment	Year of Construction
Corrin Avenue Overlay (South of Harman Way)**	2024
Brown Street and Brown Way Overlay**	2024
Washington Avenue Overlay (South of Bridge Street)**	2024
Annual Pavement Reconstruction Budget $150K	2024
2025	
Deeded Lane Overlay (Calistoga Street to Eldredge Avenue)	2025
Ammons Lane Overlay (Leber Street to River Avenue)	2025
Olive Street Chip Seal	2025
Whitehawk Boulevard Chip Seal (Washington Avenue to Orting Avenue)	2025
Calistoga Street Chip Seal (Kansas Street to Corrin Avenue)	2025
Tacoma Avenue Chip Seal	2025
Stone Street Chip Seal (Headley Avenue to Mellinger Avenue)	2025
Eldredge Avenue Chip Seal (Calistoga Street to Kansas Street)	2025
Annual Crack Seal Budget $25K	2025
Annual Pavement Reconstruction Budget $150K	2025
2026	
Train Street Reconstruction (Eldredge Avenue to Ammons Lane)	2026
Corrin Avenue Overlay (South of Harman Way)	2026
Annual Chip Seal Budget $30K	2026
Annual Crack Seal Budget $25K	2026
Annual Pavement Reconstruction Budget $150K	2026
2027	
Skinner Way Reconstruction (Calistoga Street to Belfair Avenue)	2027
Brown Street and Brown Way Overlay	2027
Annual Overlay Budget $80K	2027
Annual Chip Seal Budget $30K	2027
Annual Crack Seal Budget $25K	2027
Annual Pavement Reconstruction Budget $150K	2027
2028	
Bowlin Avenue Reconstruction (Parker Lane to Leber Street)	2028
Washington Avenue Overlay (South of Bridge Street)	2028
Annual Overlay Budget $80K	2028
Annual Chip Seal Budget $30K	2028
Annual Crack Seal Budget $25K	2028
Annual Pavement Reconstruction Budget $150K	2028
2029	
Old Pioneer Way Reconstruction (North of Chief Emmons Lane)	2029
Annual Overlay Budget $80K	2029
Annual Chip Seal Budget $30K	2029
Annual Crack Seal Budget $25K	2029
Annual Pavement Reconstruction Budget $150K	2029
** Crack Seal prior to scheduled reconstruction* ***Crack Seal prior to scheduled overlay*	

4.3 Non-Construction Activities

4.3.1 Inspection

This PMS is reliant on knowing the distresses present on streets, which is used to determine their overall quality. This knowledge will come from inspecting the pavement on a 6-year basis. All arterial and collector streets should be evaluated once every 2 years, while the local access streets should be split into a 6-year cycle with 1 section being looked at every 2 years. Table 9 shows the recommended split for the local access roads on a 3-section cycle, while Figure 4 on page 25 shows the groups on a map. Each year is budgeted $50,000 (in addition to the project costs shown in Table 8) to allow for inspection and PMS updates. These updates should follow the prioritization process included in this report.

Table 9. Annual Roadway Inspection Schedule

	Year of Roadway Inspection							
Inspection Group	**2022 (Baseline)**	**2024**	**2026**	**2028**	**2030**	**2032**	**2034**	**2036**
Group 1 (northern neighborhoods)	●	●			●			●
Group 2 (north of Eldredge)	●		●			●		
Group 3 (south of Eldredge)	●			●			●	
Group 4 (non-local access)	●	●	●	●	●	●	●	●

4.3.2 Overall Rating by Section

For all newly reviewed segments, compare the ratings given during the recent inspection cycle to the previous inspection cycle. This report serves as the implementation point. The map of current distressed pavements will help in re-prioritization of segments not previously considered as high traffic or in high rate of distress.

4.3.3 Prioritization

Segments found to be in major distress or potentially hazardous that require emergency repair efforts will be communicated to the City engineer directly. Segments that have a poor rating and are in requirement of full reconstruction are prioritized for outside funding, while segments that need rehabilitative maintenance are also outside funding candidates. Segments in low need of repair have the benefit of low-cost maintenance options and should be addressed earlier rather than later. These are a target for funds and maintenance activity as these road segments are still within service life and this life can be extended cheaply.

4.3.4 Updating Treatments if Necessary

This section will be updated ongoing to incorporate new policy making activity relevant to the pavement treatment activities to be implemented with local guidance from FHWA or WSDOT. This section includes

treatment types that may have not been previously implemented by the city or are new maintenance technologies that, with local guidance, are being implemented.

4.3.5 Updating Program Costs

Costs in the baseline 6-year Workplan are based on 2023 construction costs escalated to the year of construction. Costs will need to be updated to reflect inflation, or else the cost estimates shown in this report will quickly become dated. A standard 3% inflation factor may be used for future cost estimating, although the National Highway Construction Cost Index (NHCCI) provides a more roadway specific inflation factor that could be interpolated to find a more accurate factor (Federal Highway Administration).

4.3.6 Revising TIP as Needed

The City's transportation improvement plan, or TIP, will need to be updated using this program as a resource. These updates should take place after the roadway assessments have taken place and the roadways that could use funding the most efficiently have been identified.

4.4 SUMMARY

The PMS begins with inspections of the roads. A Workplan would then be assembled or revised by including new inspection data and re-prioritizing the roads that can be most cost-effectively addressed per the new inspection, which leads to an expected budget. This budget allows funding to be chased and projects to be addressed. Finally, the PMS must be updated with new costs, treatments, and inspections as necessary.

5. ANNUAL WORKPLAN IMPLEMENTATION

5.1 INTRODUCTION

From the data collected, activities to implement the maintenance strategies can then be conducted. First is the project list, or annual pavement preservation workplan, which lays out a list of projects for the city to consider over the next six years. The project list will be evaluated at the start of every year, and this engineering analysis will lead to an annual project list with bid documents attached. These projects will go to bidding, be awarded, and then after the construction project will be inspected and tested. Finally, a post-construction report will be written about each maintenance project.

5.2 CONSTRUCTION

A project list covering the next six years has been established. The original version will cover 2024-2029, and it will be updated after the roadways are inspected. This list will prioritize projects based on the elements listed out in this program, while also considering the annual budget. Construction season is generally from April through September or mid-October, and these projects may need to plan around this timeline.

5.2.1 Plan Sets and Engineering

PS&E need to be prepared annually for the program of projects and should be finalized as early in the year as possible, but no later than the end of March to allow the projects to be advertised for construction in the same calendar year.

5.2.2 Bidding

Projects with a schedule of less than 3 months will typically be advertised for bid by the end of March, and the bid should be finalized by the end of April. Projects scheduled for more than 3 months may need to begin during the next construction season or may take more than one construction season (esp. reconstruction projects).

5.2.3 Coordination with Other Agencies

Some projects in this program, especially those abutting State Route 162, may require coordination with WSDOT. Orting is in the WSDOT Olympic Region and could also contact the WSDOT Local Programs Headquarters for help with coordination.

Coordination with other agencies, especially Pierce County Roads, may be beneficial. This coordination could allow the price of projects to decrease through increasing the size of a project and the economy of scale.

5.2.4 Construction Management

All of the work scheduled for one year can typically be completed under one PS&E and one construction management contract that can be included with the design of the project or contracted separately.

5.3 NON-CONSTRUCTION

5.3.1 Pavement Condition Assessment Updates

As an ongoing part of the pavement condition assessment program, this section is to include updates to policy and procedures around the Pavement Condition assessment. This should also include any additions and updates to the pavement network and updates on previous construction activities completed or referenced in the previous inspection cycle.

This section should include updates and revisions to the data collection process and app or assessment methodology.

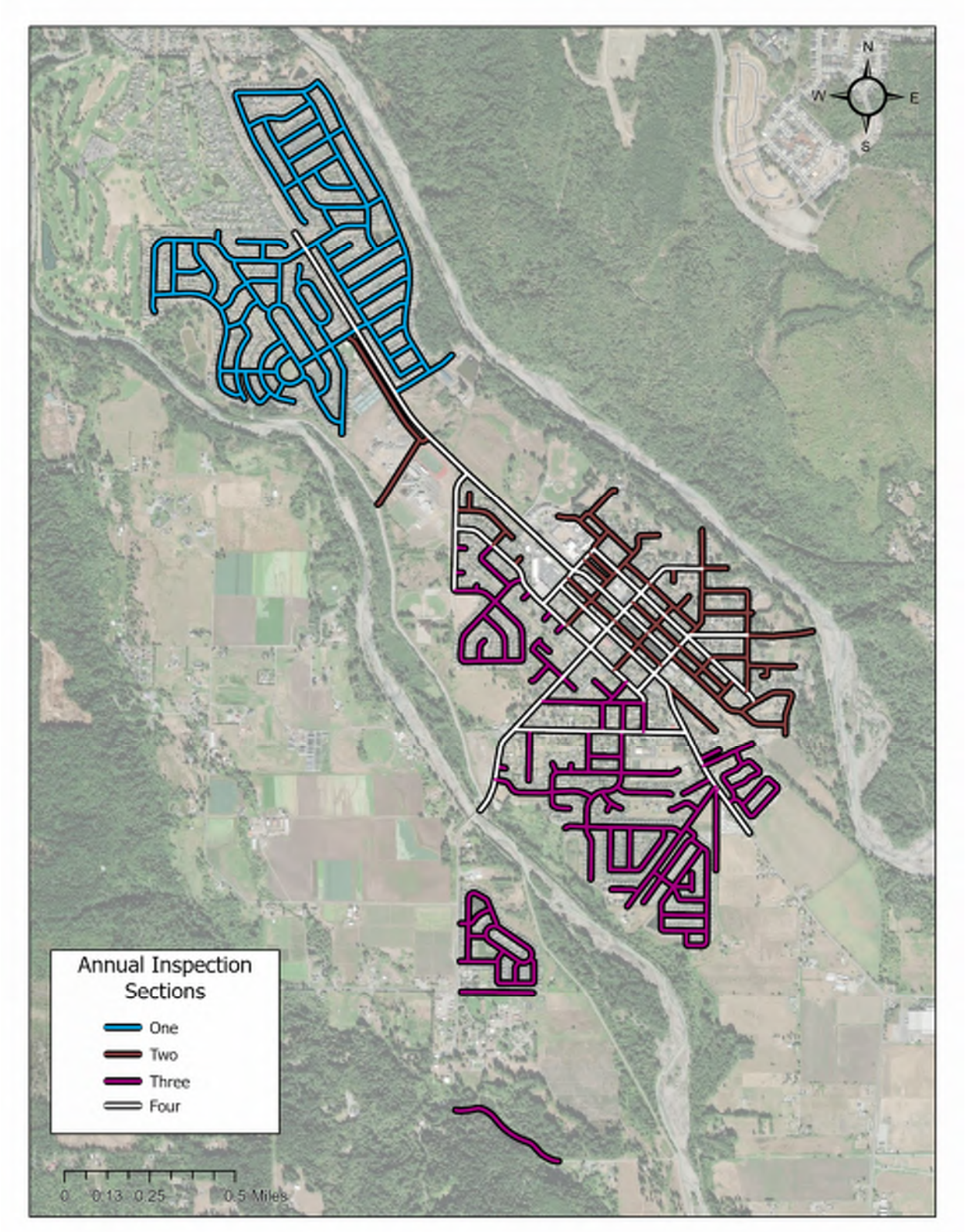

Figure 4. Annual Roadway Inspection Groups

5.3.2 TIP Updates

This section should include any anticipated or upcoming and planned construction projects that address nearby pavement deficiencies. By taking inventory of upcoming projects, the city can dedicate resources to projects not incorporated as part of larger capital improvement or frontage development project.

5.3.3 PMS Updates

This section will incorporate future and ongoing updates and revisions to the pavement management system.

5.3.4 Administrative Updates

Section to be updated as annual reporting strategy is implemented. This includes personnel and policy updates related to the Pavement Maintenance program and assessment.

5.3.5 Funding Activities

As this program is implemented, this section will include funding that has been obtained or is being sought at the time of assessment for current and future projects. A major source of this funding is expected to be the Washington State Transportation Improvement Board, TIB, which distributes maintenance grants throughout the state. Another potential source of funding is the Safe Routes to School Program through WSDOT.

5.3.6 GIS Updates

Segments produced from the pavement management program inception are updated with new segment photos at time of inspection. These segments are also intended to be updated post construction or maintenance activity along a given segment, the compliance of this is up to the maintenance program administrator.

5.4 SUMMARY

This report is intended to serve as a starting point and as guidance for ongoing and future pavement maintenance activities and procedures. As the city grows and the needs change, the City and program administrator will need to make ongoing updates to this report to reflect the present and ongoing needs of the pavement system.

6. CONCLUSION

The pavement maintenance recommended and included in this report are intended to be used as a planning tool. Further engineering judgment and field verification is necessary before preparing final maintenance plans for each year.

APPENDIX A

2022 PAVEMENT CONDITION ASSESSMENT REPORT (ATTACHED WITHOUT APPENDICES)

2022 Pavement Condition Assessment

ORTING
Washington

February 2023

SCJ ALLIANCE
CONSULTING SERVICES

2022 Pavement Condition Assessment

Project Information

Project:	2022 Pavement Condition Assessment
Prepared for:	City of Orting PO Box 489 Orting, WA 98360 Contact Name: John Bielka Contact Phone: 360.706.7206

Project Representative

Prepared by:	SCJ Alliance 1201 Third Avenue, Suite 550 Seattle, WA 98101 206.739.5454 www.scjalliance.com
Contact:	Lisa M. Reid, PE, PMP Jordan Graham, EIT Andrew Armstrong, EIT
Project Reference	SCJ #21-000838, Phase 05, Task 01 Path: N:\Projects\4270 City of Orting\21-000838 Orting 2021-24 On-Call PE Services\Phase 05 - Pavement Management\05.01 2022 Street Condition Assessment\Reports\Assessment Final Draft

PROJECT ENGINEER'S CERTIFICATION

I hereby certify that this Pavement Condition Assessment for the City of Orting has been prepared by me or under my supervision and meets the minimum standards of the City of Orting and normal standards of engineering practice.

2-12-23

Lisa M. Reid, PE, PMP
Lisa.Reid@scjalliance.com
206.739.5454

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1. EXECUTIVE SUMMARY

SCJ Alliance performed this pavement condition assessment from September to October, 2022, to assess the City of Orting's roadway network according to WSDOT's recommended methods per the Northwest Pavement Management Association's (NWPMA) Pavement Surface Condition Field Rating Manual for Asphalt Pavements (PSCFRM). This manual is included in Appendix D. The assessments were made by a two-person team to visually qualify and physically quantify various pavement distresses that are discussed further in Chapter 4.3 and include:

1. Rutting
2. Alligator Cracking
3. Longitudinal Wheel Path Cracking
4. Longitudinal Non-wheel Path Cracking
5. Transverse Cracking
6. Raveling and Aging
7. Flushing and Bleeding
8. Patching
9. Corrugation and Waves (not observed)
10. Sags and Humps
11. Block Cracking (not observed)
12. Pavement Edge Condition
13. Crack Seal Condition

Based on the cumulative presence or lack of these distresses, each roadway segment was given an overall rating of poor, average, good, or new. A summary of the overall quality of the City of Orting's roadway network is shown in Figure 1 below. Roadway segments were primarily in good or like new quality, as seen in Figure 2 on page 8. Kansas Street and Old Pioneer Way were found to have multiple, consecutive, notably low-quality segments along their limits.

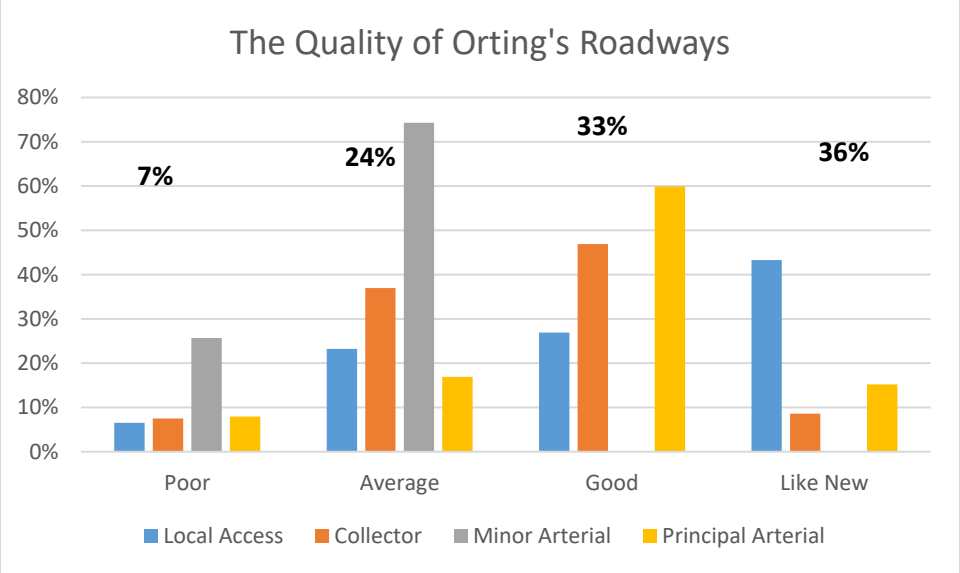

Figure 1. Overall Pavement Condition Ratings Summarized by Functional Class

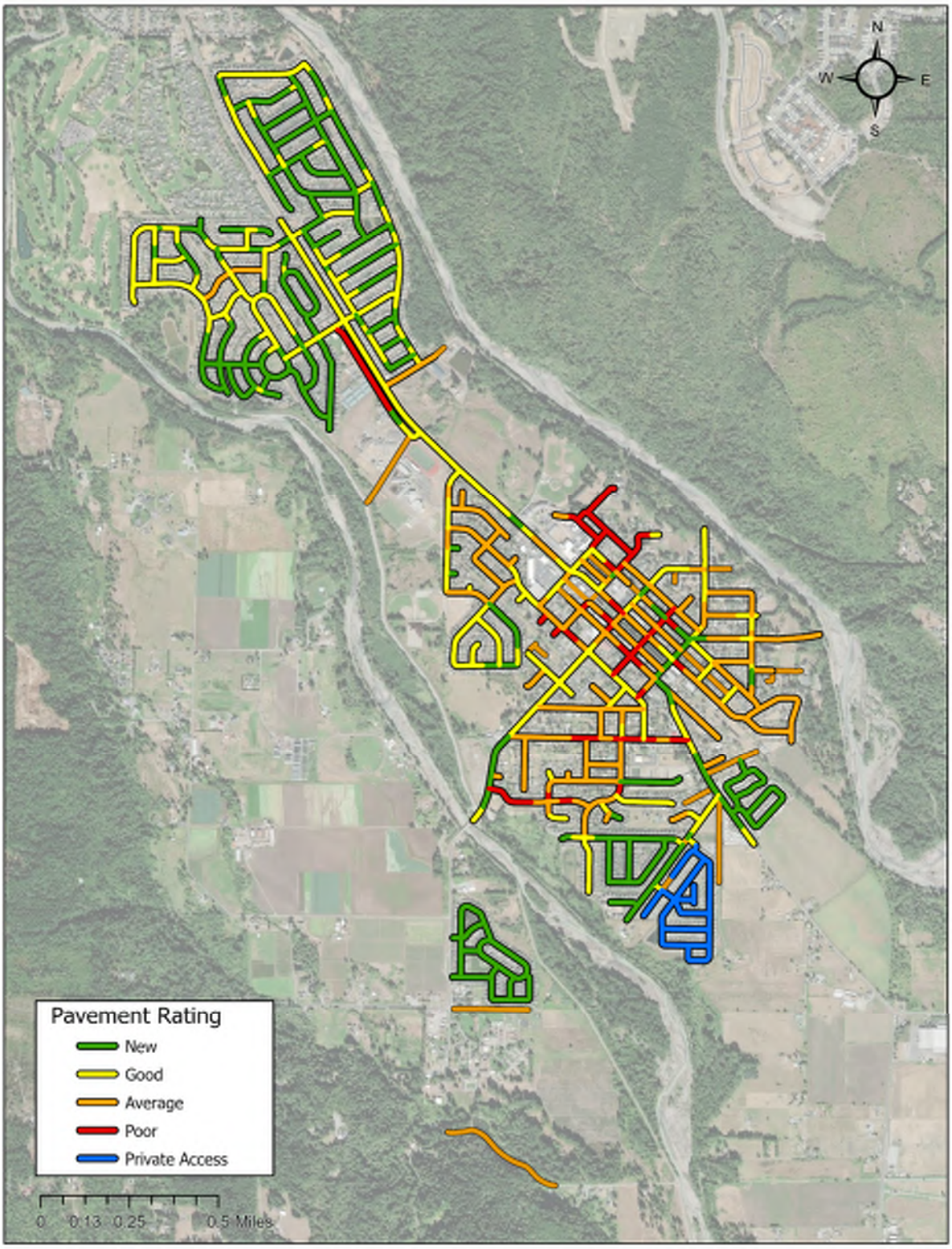

Figure 2. Roadways by Overall Rating

The most significant of the poor segments were along Kansas Street, which is a principal arterial south of downtown. This roadway was observed being used by commercial trucks to bypass downtown and the frequent high loads have deteriorated the pavement to a poor condition. At the time of assessment, a planned reconstruction of Kansas Street is scheduled to begin in 2024.

The other, notably poor roadway is Old Pioneer Way, which is a local access road that starts at State Route 162 (SR 162) and runs parallel for several blocks and dead-ends before reaching Lane Blvd. NW. There were both commercial and residential developments along this roadway and it is a much lower traffic roadway than Kansas Street. These two roads, combined with a few other sporadic segments, make up the roughly 7% of roads in Orting with a poor condition.

In addition, approximately 24% of the roadways were rated average and would also benefit from a variety of pavement and maintenance activities.

2. INTRODUCTION

This report summarizes the methods and results of the pavement condition assessment that were conducted within the City of Orting limits. The report should be used to understand the condition evaluation process for future pavement condition assessments, to understand the current pavement condition ratings, and to understand the data contained in the city's GIS database. This pavement condition assessment was necessary to establish a baseline of the existing condition of the roads within the city. This report will serve as a basis for future projects and on-going pavement maintenance and preservation planning and programming.

This report contains a description of the roads in Orting and a description of the distresses assigned to roads. The roads of Orting are broken down by pavement type and functional classification. The distresses are broken down individually with photographs from the field and maps showing where these distresses were observed. For each segment, the cumulative frequency and severity of distresses were considered and an overall rating was assigned to provide a qualitative and comparative ranking as seen on Figure 1, page 7, and Figure 2, page 8.

3. CITY OF ORTING ROADWAY SYSTEM

3.1 CITY OF ORTING ROADWAY SYSTEM

The City of Orting roadway network includes 62.7 lane-miles of asphalt concrete pavement (ACP), 2.5 lane-miles of gravel, and 0.1 lane-miles of Portland concrete pavement (PCC). This corresponds to the network being 96% ACP, 3.9% gravel, and 0.1% PCC. PCC is found primarily on older, local access roads in the downtown core. Gravel roads were recorded on alleys through downtown as well as some side streets, especially those near the edge of town. The pavement material of each roadway segment is shown in Figure 3 on page 10.

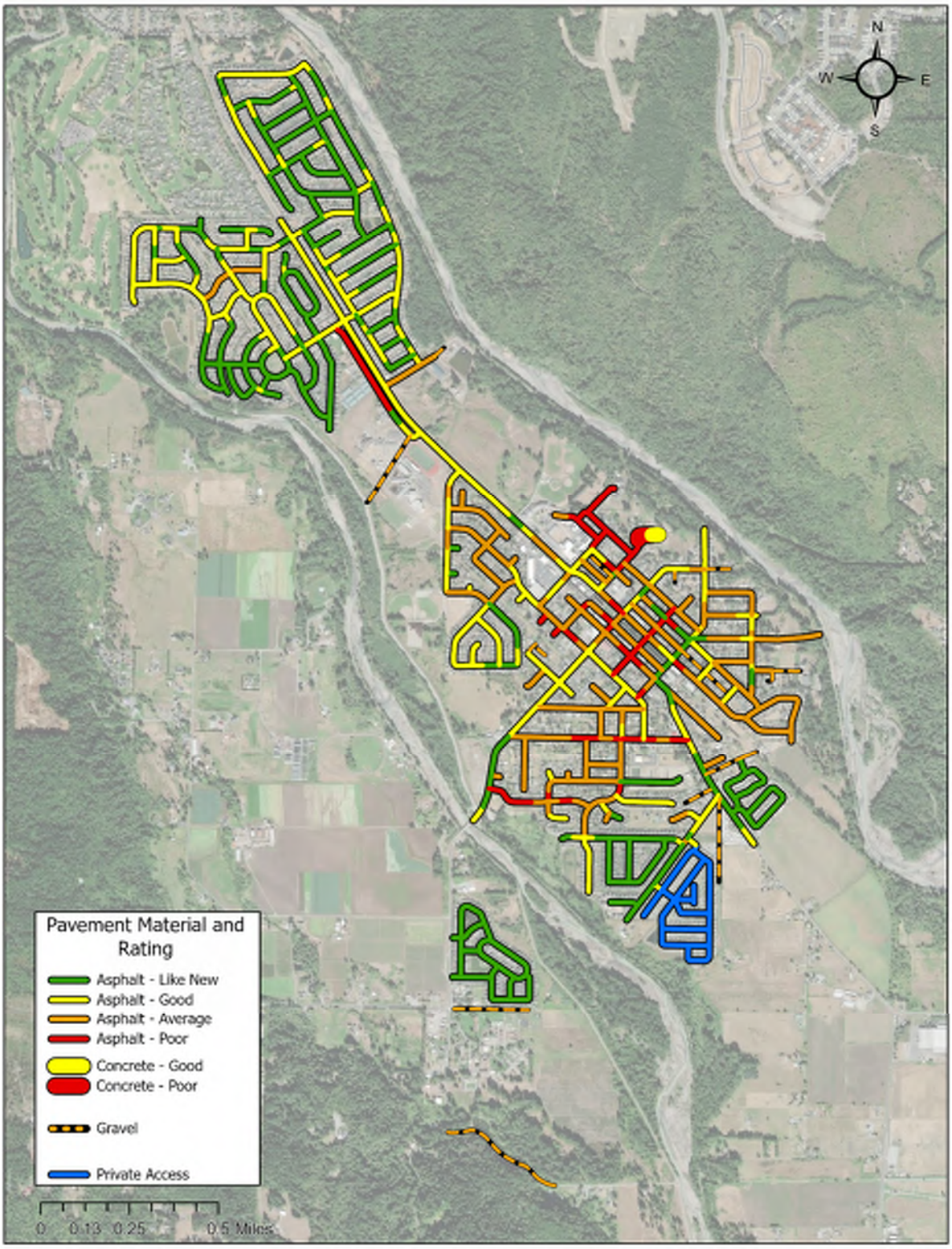

Figure 3. Roadways by Material and Overall Rating

Orting's roads are assigned a functional classification based on the volume of traffic using each roadway and the purpose of the roadway. Orting has 49.7 lane-miles of local access roads (76%), 5.2 lane-miles of collector roads (8%), 0.8 lane-miles of minor arterial roads (1%), and 9.7 lane miles of principal arterial roads (15%). Functional classifications are shown in Figure 4 on page 12.

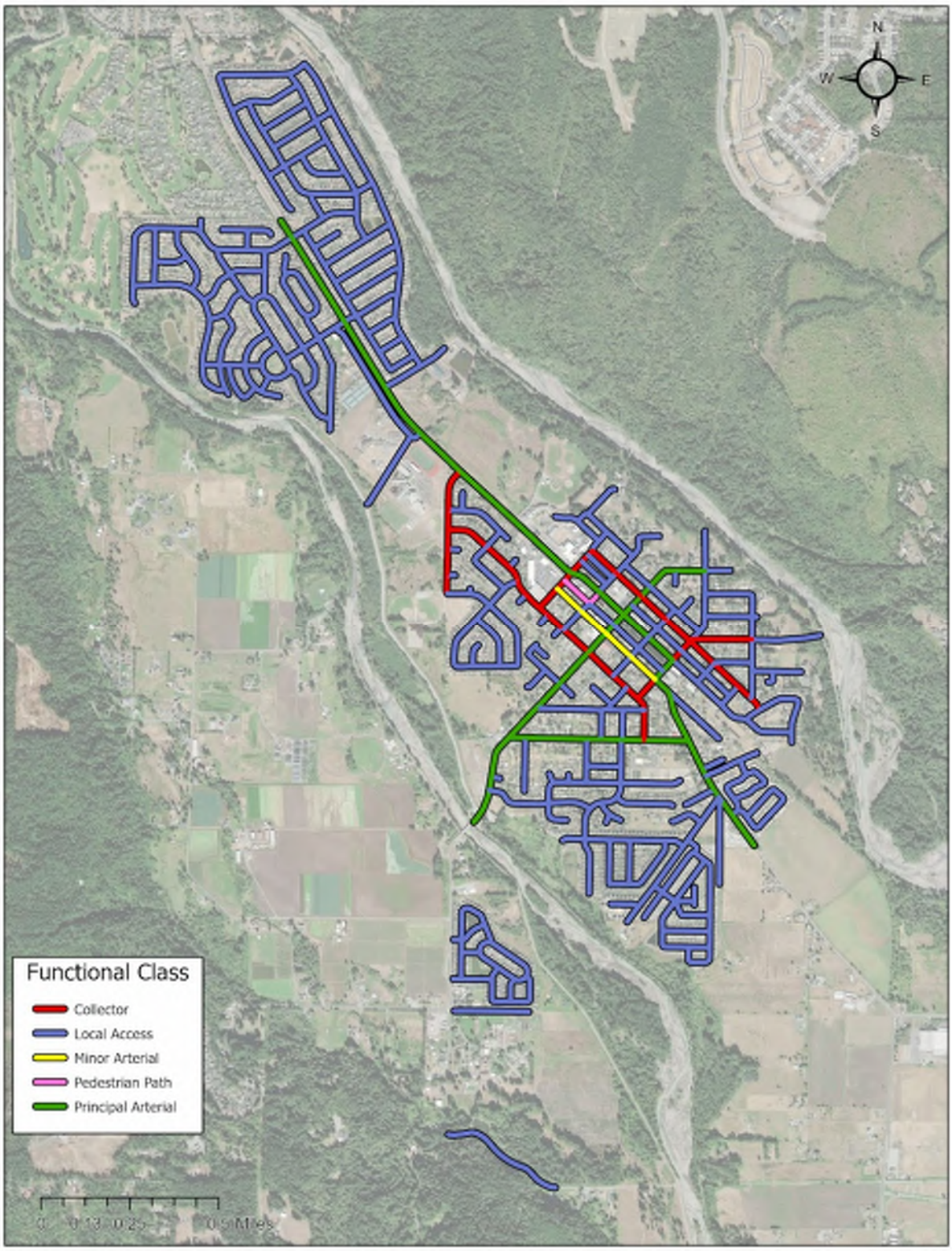

Figure 4. Roadways by Functional Classifications

3.2 GIS DATABASE

One of the priorities of the pavement evaluation was to establish a GIS database for the City of Orting so that a variety of infrastructure data could be better managed within GIS. To begin this effort, available data was pulled from Pierce County's GIS database and trimmed to Orting's city limits. This data was based on GIS nodes at intersections with links (roadways) connecting the appropriate nodes. For the purposes of the pavement condition assessment, these roadway links were further divided into segments that were approximately 250 feet in length to define manageable segments of roadway for the observation of the pavement condition. In general, these segments were recombined to be consistent with the GIS segments pulled from the Pierce County database. Exceptions were made based on significant differences in distresses present.

4. PAVEMENT CONDITION FIELD ASSESSMENT

4.1 INTRODUCTION

The first step in the development of a pavement management system is to inventory the existing roadway system to establish a baseline of the condition in time. From this assessment, a PMS can be developed based on field-collected data. It also sets a precedent by which the PMS can be updated and expanded as future pavement condition assessments are conducted.

This section covers the methods, distresses, segment evaluation, and overall rating process used in the pavement condition assessment. This section of the report includes excerpts from the PSCFRM that were expanded to describe each observable distress, along with photographs from the field and maps of where each of the distresses were present in Orting. This is intended to facilitate an understanding of the pavement condition assessment and provide consistent review data for future pavement condition assessments.

4.2 PAVEMENT CONDITION ASSESSMENT METHODOLOGY

4.2.1 Asphalt Concrete Paved Roadways

This pavement condition assessment followed NWPMA's PSCFRM (Manual) methodology as recommended by WSDOT. The Manual describes potential asphalt concrete pavement distresses, listed in Chapter 4.3, and recommends methods of qualitative and quantitative assessment based on both severity and extent. The PSCFRM lays out two options to qualify these severities and extents. Option A used the worst assigned severity and the total extent of the distress while Option B assigned the extent of each severity individually. For the purposes of this assessment, Option A was always used.

The Manual also discusses best practices for evaluating the roadways. These evaluations were done on foot, or in Phase 2, confirmed while on foot, and they were conducted by a 2-person team over a 2-month period. The observation team recorded the pavement condition for each segment defined in the GIS. Pavement condition overall ratings covered the whole traveled surface of the roadway, not an individual lane or direction of travel. Observed distresses and data that captured the severity and frequency of each distress were entered electronically in a proprietary SCJ software that was developed based on this manual and the use of GIS (see Appendix B).

Due to variability in site conditions or assessors, it is critical to have continuity between both the time of the assessment and assessors, and to collect the data within the same range of time and using the same methodology. The Orting Pavement Condition Assessment covered roadways within Orting's city limits and took place in September and October 2022, in three independent phases conducted by the same 2-person team of engineers. Summer weather conditions were observed in all field visits.

The first phase of three covered principal arterials, minor arterials, and collector streets, as well as some central local access roads with the exception of SR 162, which is maintained by the WSDOT. The second phase covered the remaining local access roads and the third phase covered SR 162 through city limits. The segments observed in each phase are shown in Figure 5 on page 15.

Data collection varied from phase to phase as it was recognized that fewer pictures could cover the entire segment because the pavement condition of segments was nearly always consistent. Therefore, pictures were taken at 125' intervals in Phase 1, but then at 250' intervals in Phase 2. In Phase 3, a video was also taken to assist in the pavement condition observation because the roadway is under significant amounts of vehicular traffic.

4.2.2 Portland Cement Concrete Paved Roadways

WSDOT doesn't make a recommendation for how to assess the condition of PCC roadways, and no equivalent manual exists. Therefore, PCC roadways were evaluated using the PSCFRM distresses and the same methodology because rigid pavement surfaces such as PCC will exhibit similar failure characteristics as flexible, ACP.

4.2.3 Gravel Roadways

Gravel roadways were qualitatively field rated without PSCFRM distress observations or evaluation. Access, maintenance, and service all factor into roadway surface construction materials, gravel while not excluded from the report, is not included in the PSCFRM.

4.2.4 Private Access Roadways

Private access roadways were encountered in gated communities where vehicular access is restricted to property owners only. Each segment of private access roadway was evaluated where possible without disturbing private occupants and photographs only taken on the public portion of these segments.

Majestic View Estates is a private access, gated community located on the southern part of town. With the restricted access, no field assessment was made, and no GIS data collected. If these roadways are maintained by the City, future pavement condition assessments should be performed with coordinated access to these communities.

4.2.5 Pedestrian Paths

Three segments consisting solely of pedestrian path were included as part of the assessment and given qualitative ratings using PSCFRM as a basis of assessment.

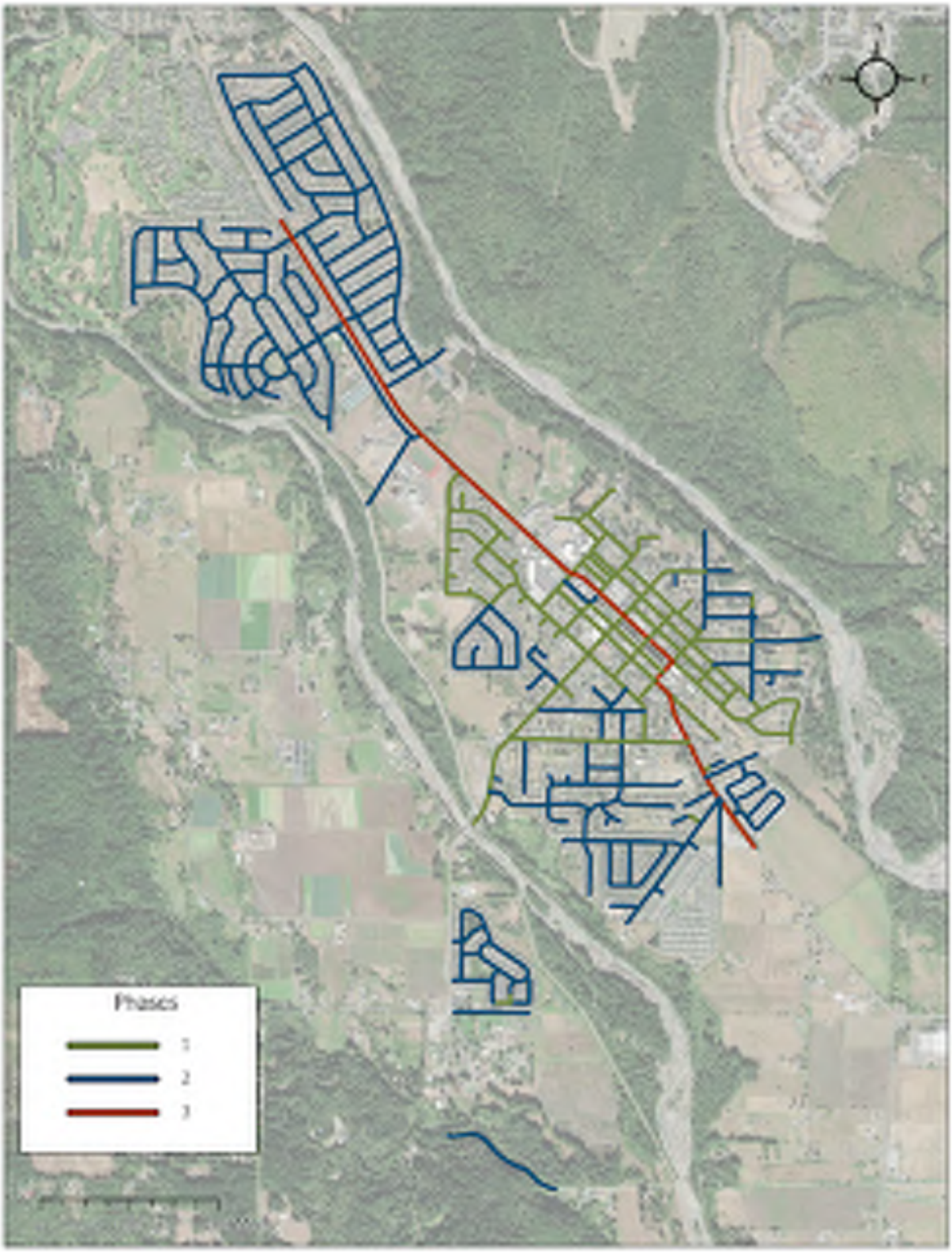

Figure 5. Roadways Assessed in Each Phase of Evaluation

4.3 PAVEMENT CONDITION ASSESSMENT

The distresses that were evaluated in this pavement condition assessment come direction from the PSCFRM. Two distress types were included in the assessment but were not observed as noted below.

1. Rutting
2. Alligator Cracking
3. Longitudinal Wheel Path Cracking
4. Longitudinal Non-wheel Path Cracking
5. Transverse Cracking
6. Raveling and Aging
7. Flushing and Bleeding
8. Patching
9. Corrugation and Waves (not observed)
10. Sags and Humps
11. Block Cracking (not observed)
12. Pavement Edge Condition
13. Crack Seal Condition

Each subsection below describes the distresses evaluated in this pavement condition assessment, information on how the severity and frequency was evaluated for each distress, potential causes for this type of failure, and in some cases, specific methods typically used to address these failures. Much of this information is borrow directly from the NWPMA's PSCFRM and is included here to support the baseline pavement condition assessment and subsequent pavement management planning and programming efforts. An example photo specific to the City of Orting and from this baseline pavement condition assessment has been included to indicate the potential worst case of each distress type assessed.

4.3.1 Rutting

Rutting occurs when vehicle's wheels have forced the wheel path lower than the rest of the road (seen on Kansas Street, Figure 6 on page 2). Although, it can be due to the pavement being worn off, it is generally attributed to base material being displaced. Pavement being worn off can be fixed with a repave, but if the root cause was the base material, a full reconstruction is likely needed. Figure 7 on page 3 shows the locations where rutting was observed during this pavement condition assessment.

Severity

- Low – ¼ inch to ½ inch
- Medium – ½ inch to ¾ inch
- High – over ¾ inch

Frequency

- Not measured for rutting, applied to entire segment, or defined in a comment.

Figure 6. Rutting on Kansas Street

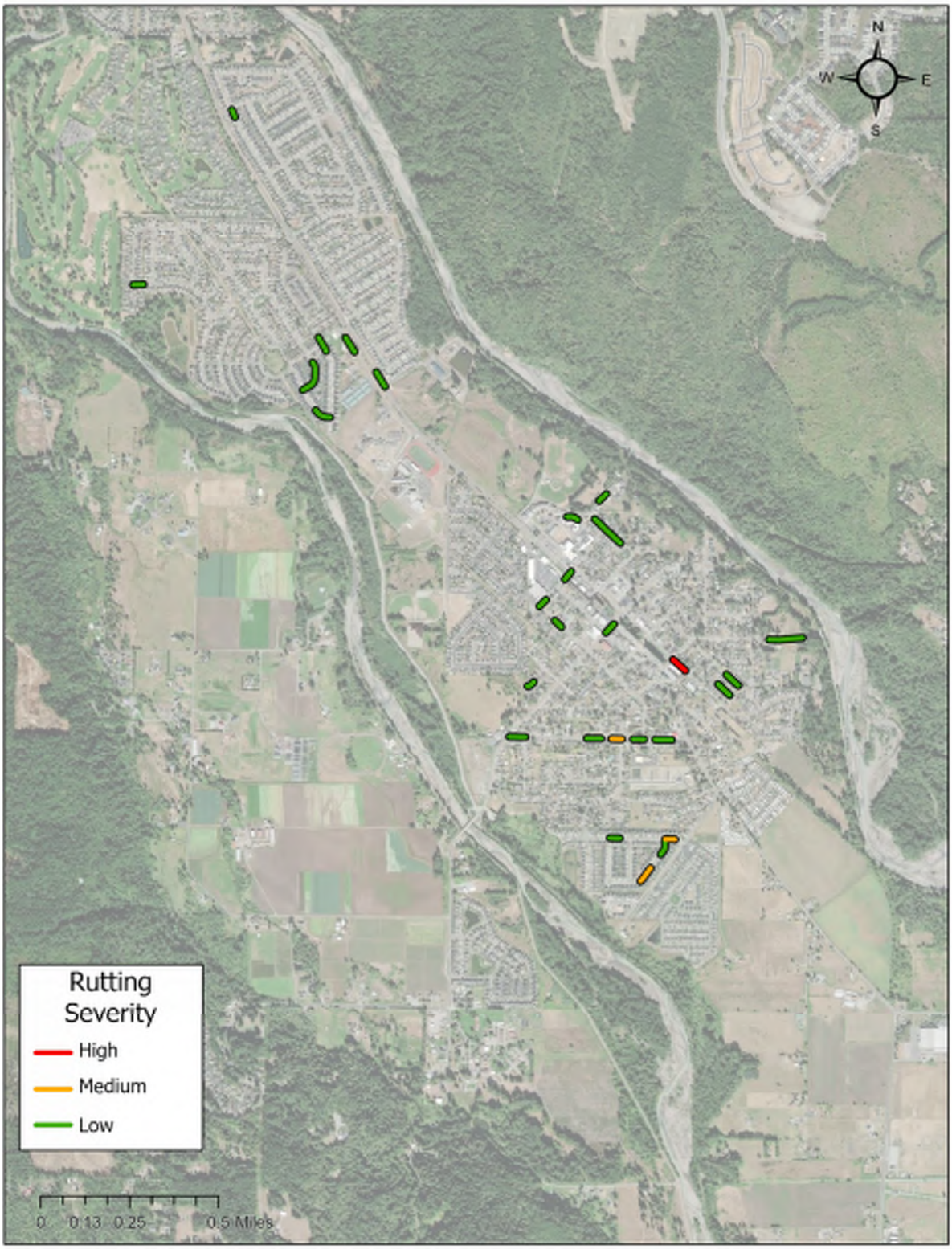

Figure 7. Rutting in Orting

4.3.2 Alligator Cracking

Alligator cracking is a distress due to wear where cracks connect extensively (see Figure 9 below). These interconnected cracks point to material beneath the pavement having settled and show the pavement is not receiving adequate support. This distress requires fixing the base materials as well as the pavement itself. Alligator cracking was mainly observed in the southern section of Orting, as seen in Figure 10 on page 6.

Severity

- Low – Branched, longitudinal, discontinuous thin cracks beginning to interconnect.
- Medium – Cracking is completely interconnected, and some spalling may appear at edge of cracks. Pavement pieces are still in place.
- High – Well developed pattern of cracking, spalling is very apparent, and pieces may be missing.

Figure 8. Alligator Cracking Severities

Frequency

- Percentage of each wheelpath affected per segment evaluated.

Figure 9. Alligator Cracking on Varner Avenue

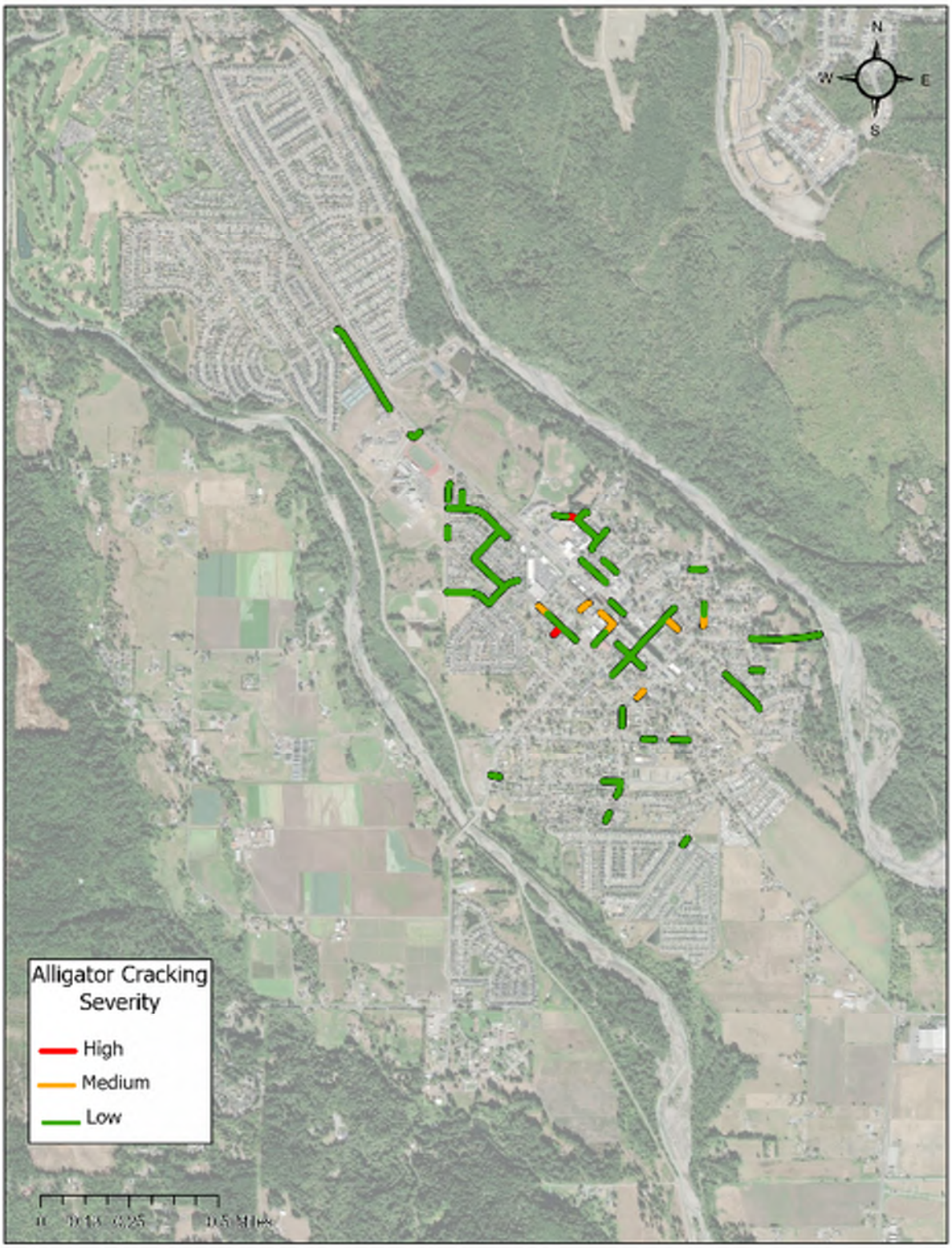

Figure 10. Alligator Cracking in Orting

4.3.3 Longitudinal Wheelpath Cracking

Longitudinal wheelpath cracks run parallel to the roadway centerline and are in the wheel path of traffic (Figure 12 below). Although it is possible that these cracks are from poor joint construction, they may also be the beginning of alligator cracks forming. Depending on the cause, the repair methods vary from crack sealing to repaving. Longitudinal wheel path cracking was only observed in Orting at low severity, as seen in Figure 13 on 9.

Severity

- Low – Cracks have very little or no spalling and are less than ¼" in width
- Medium – Cracks have little or no spalling but are greater than ¼" in width
- High – Cracks are spalled, and pieces are visibly missing

Figure 11. Longitudinal Wheelpath Cracking Severities

Frequency

- Percentage of the length of each segment evaluated.

Figure 12. Longitudinal Wheelpath Crack along Calistoga Street

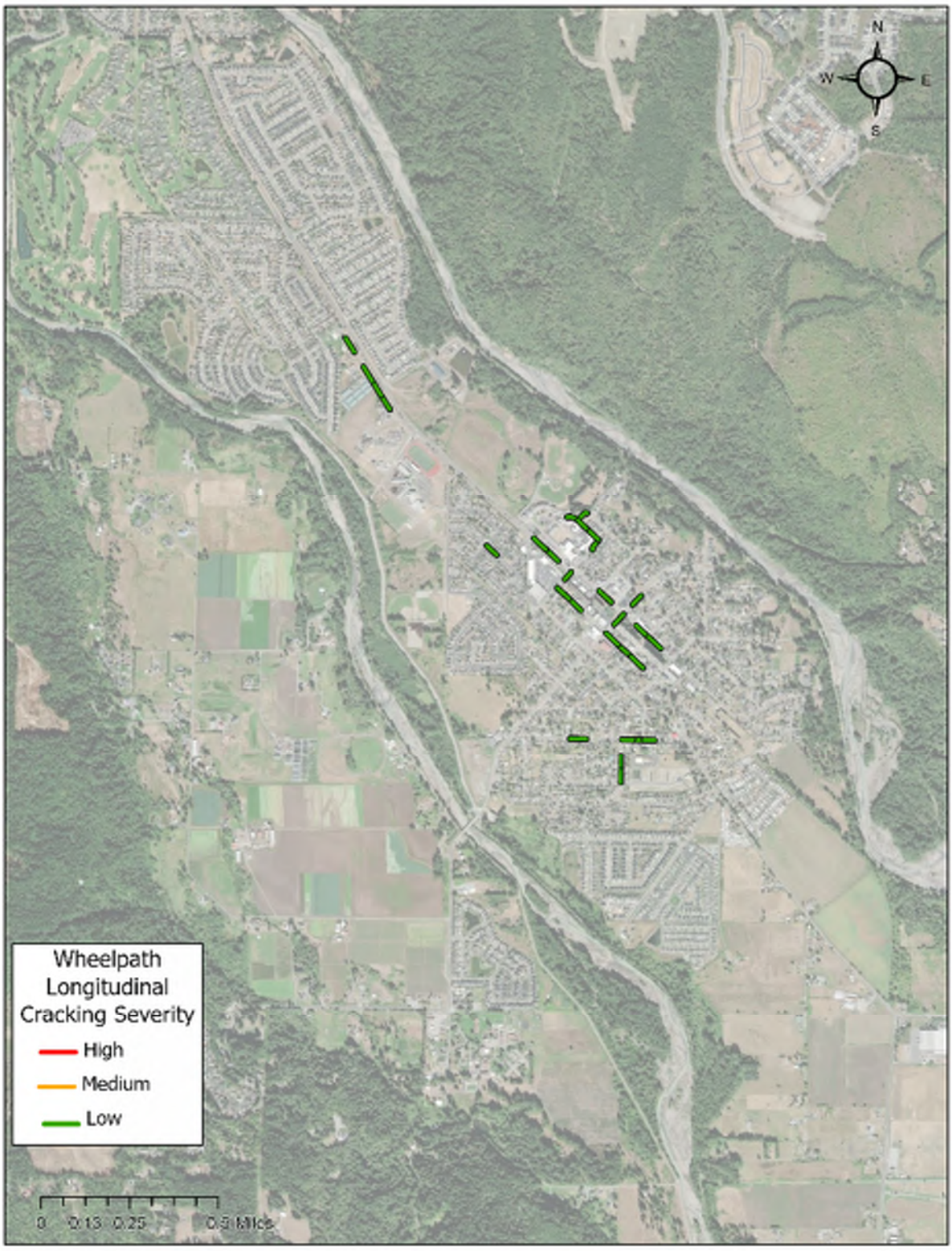

Figure 13. Longitudinal Wheelpath Cracking in Orting

4.3.4 Longitudinal Non-Wheelpath Cracking

Longitudinal non-wheelpath cracks were seen on the centerline of many of Orting's roadways (Figure 15 below). These longitudinal cracks run parallel to the roadway centerline and are not in the wheel path of traffic. They are generally caused by poor joint construction. Crack sealing may be all the maintenance required, however, a repave is needed to truly fix the crack. Figure 16 on page 12 shows this distress was often seen on long stretches of the same road, indicating it was likely due to paving methods.

Severity

- Low – Cracks have very little or no spalling and are less than ¼" in width
- Medium – Cracks have little or no spalling but are greater than ¼" in width
- High – Cracks are spalled and pieces are visibly missing

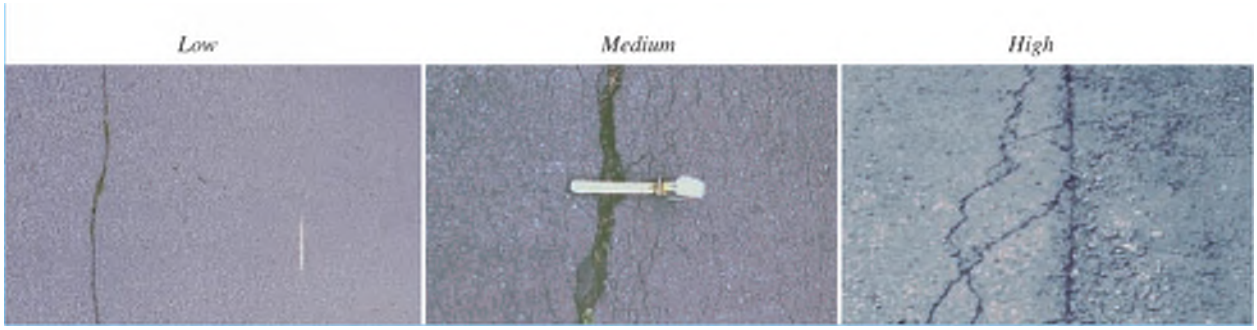

Figure 14. Longitudinal Non-Wheelpath Cracking Severities

Frequency

- Percentage of the length of each segment evaluated.

Figure 15. Longitudinal Non-Wheelpath Cracking along Bridge Street

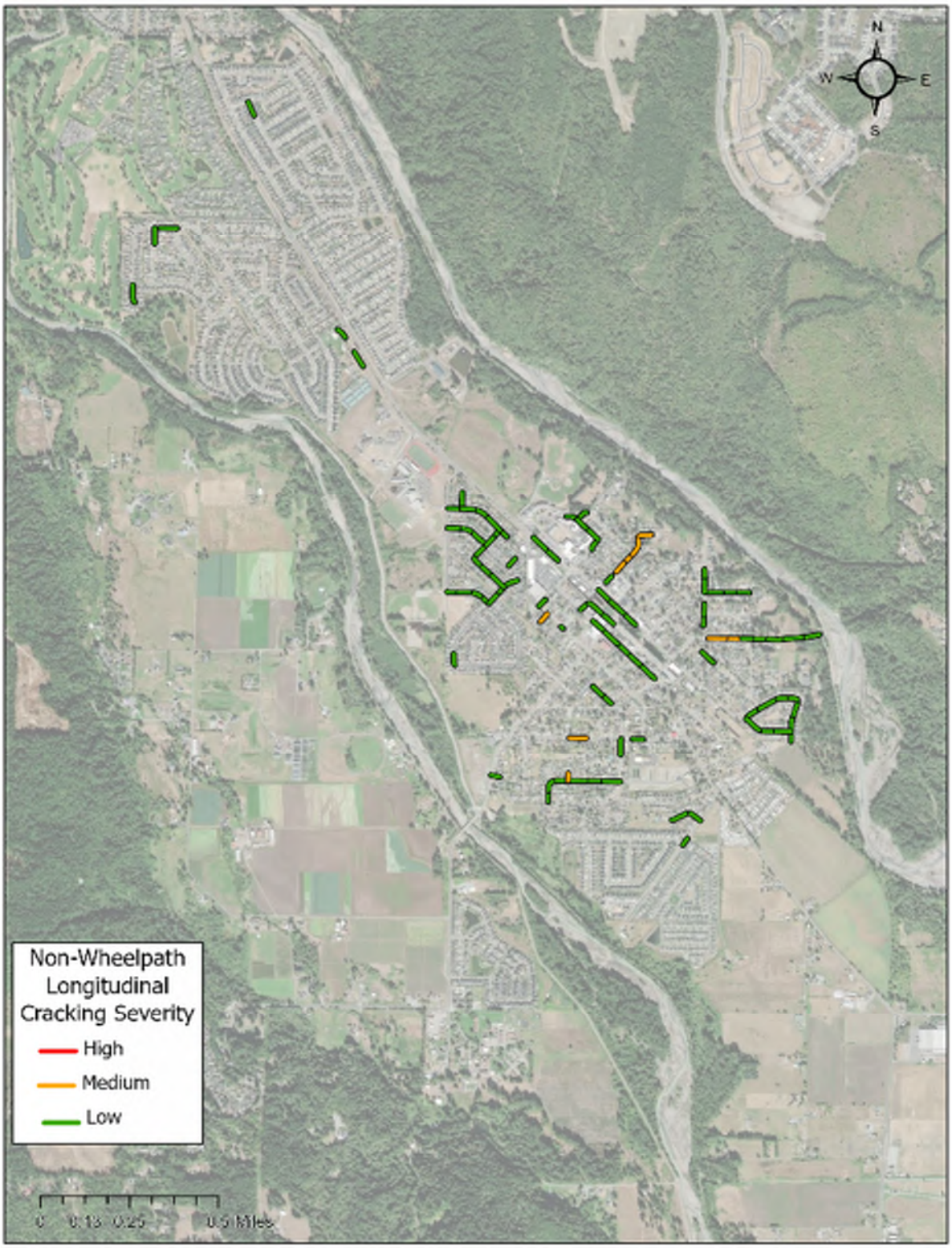

Figure 16. Longitudinal Non-Wheelpath Cracking in Orting

4.3.5 Transverse Cracking

Transverse cracks run perpendicular to the roadway centerline (Figure 18 below). These can be caused by pavement shrinkage at low temperatures, by binder hardening, or by the joints between concrete slabs when pavement is placed on top of concrete. Crack sealing will prevent water infiltration, but to fix the cracks, a repave may be required. Figure 19 on page 15 shows prominent transverse cracking along Washington Ave.

Severity

- Low – Cracks have very little or no spalling and are less than ¼" in width
- Medium – Cracks have little or no spalling but are greater than ¼" in width
- High – Cracks are spalled and pieces are visibly missing

Figure 17. Transverse Cracking Severities

Frequency

- Count of cracks observed per 100-foot section.

Figure 18. Transverse Cracks on Belfair Avenue

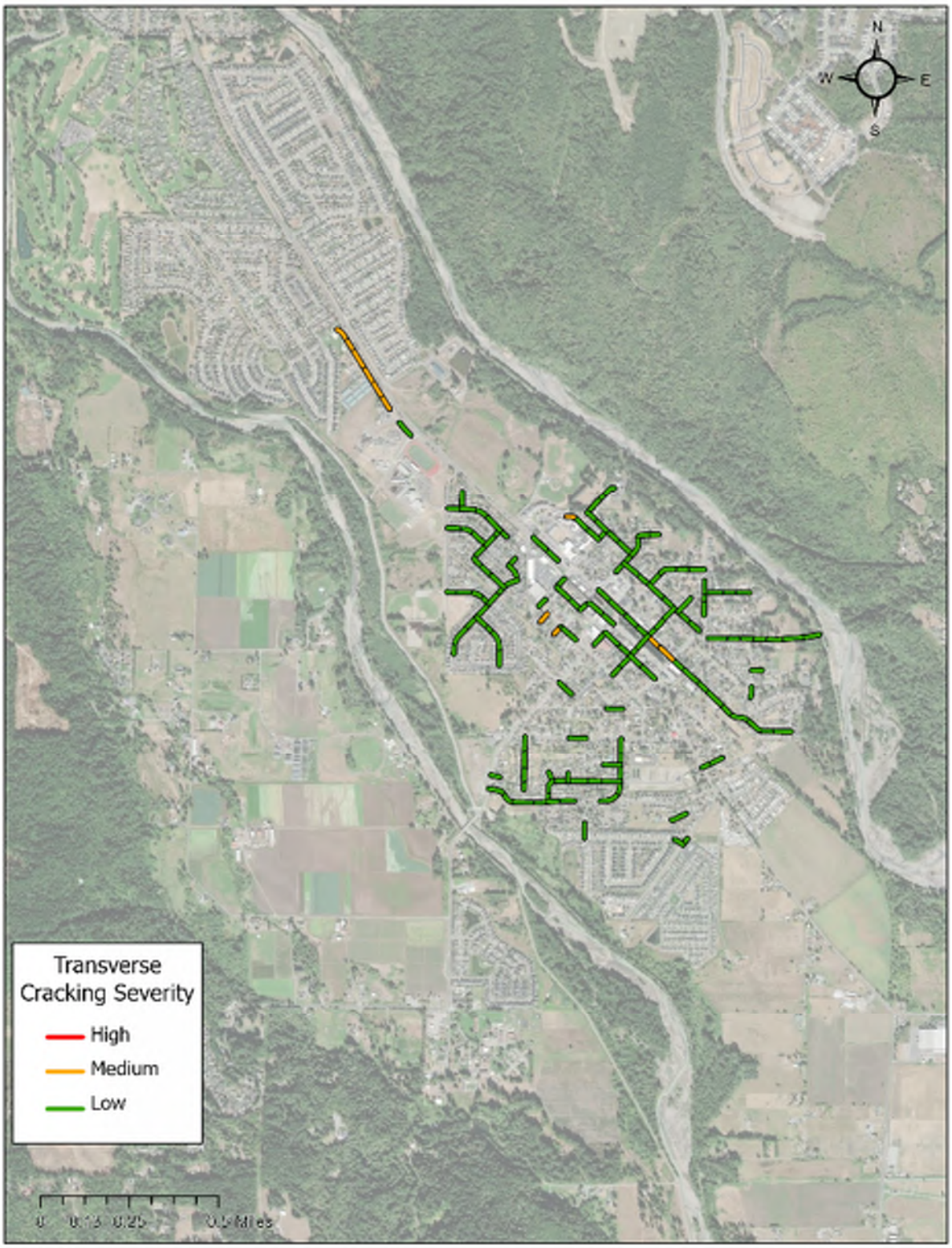

Figure 19. Transverse Cracking in Orting

4.3.6 Raveling and Aging

Raveling and aging can be seen when the roadway looks rough and worn (Figure 21 below). Aging specifically presents itself in the discoloration of a pavement surface and can be present without raveling. Aging is the indication of the beginnings of roadway failure. Raveling happens as aging pavement begins to see the aggregate separating, or the aggregate is no longer present in the pavement. Aging and Raveling are not indicative of any subbase failure. Pavement life and easily be resources or extended by chipseal or other maintenance activities prior to failure. Raveling and aging is the most common distress found during the assessment, as shown in Figure 22 on page 18.

Severity

- Low – Aggregate and/or binder has started to wear away.
- Medium – Aggregate and/or binder has worn away and the surface texture is rough and pitted.
- High – Aggregate and/or binder has worn away significantly and the surface texture is deeply pitted and very rough.

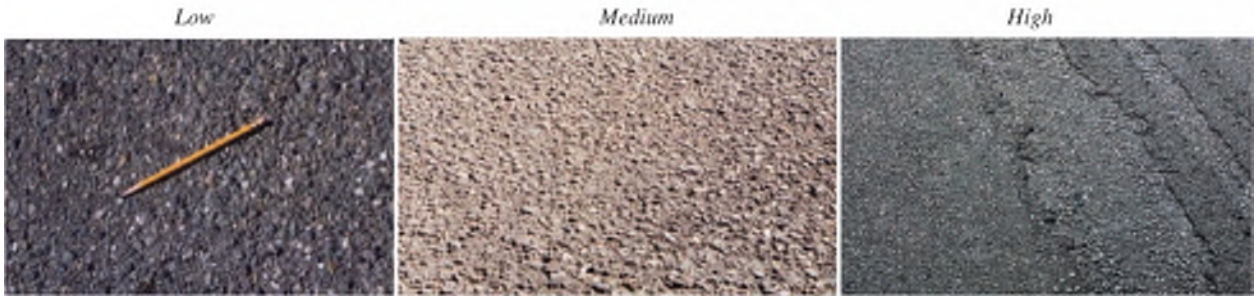

Figure 20. Raveling and Aging Severities

Frequency

- Extent of raveling observed is either localized, confined to the wheelpath, or across the entire lane.

Figure 21. Raveling and Aging along Corrin Avenue

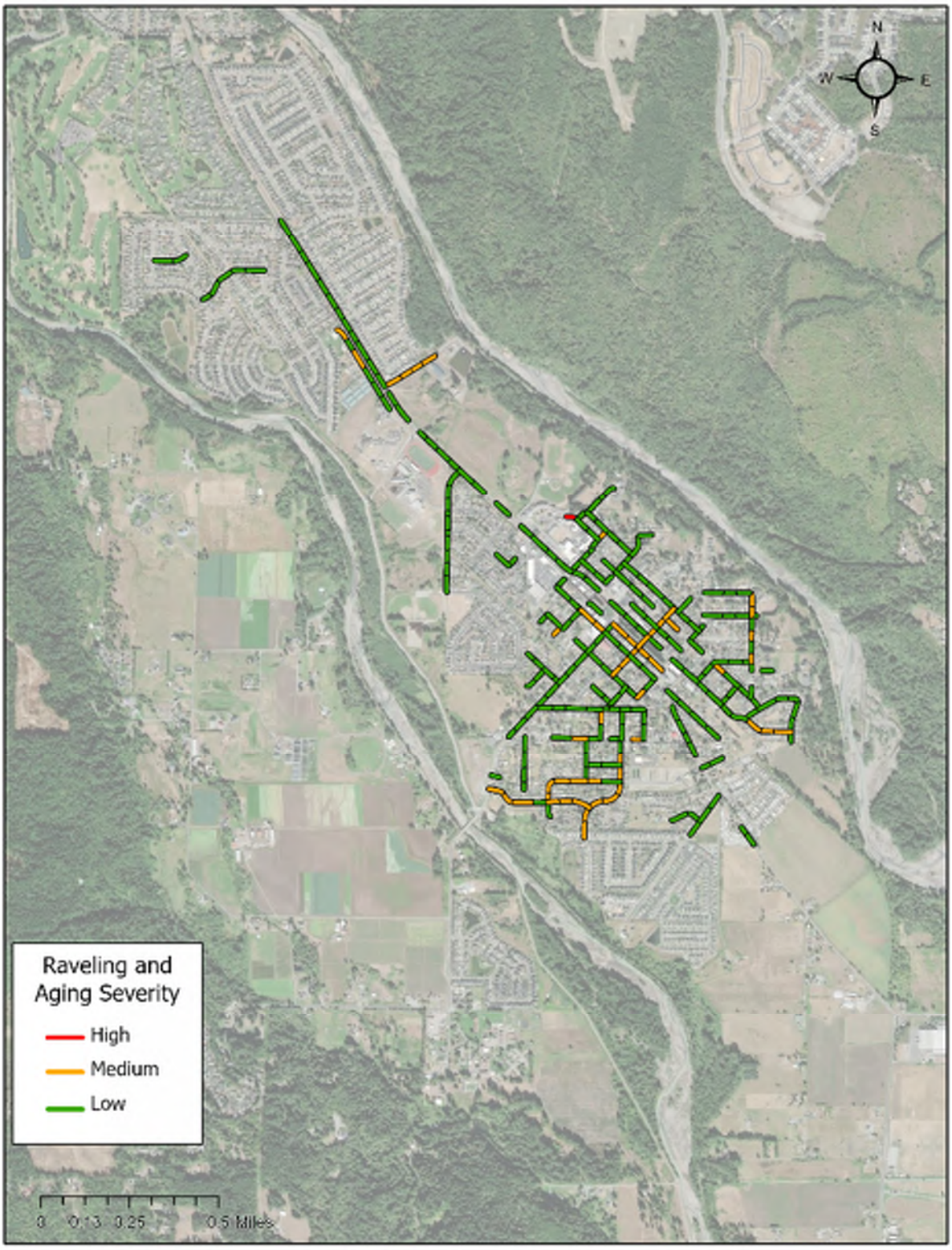

Figure 22. Raveling and Aging in Orting

4.3.7 Flushing and Bleeding

Flushing and bleeding look shiny on colder days and can approach a gooey look on hot days (cold day, ~60 degrees, shown in Figure 24 below). It occurs when there is excess binder in the pavement, causing it to bleed to the surface. Chip seals often lead to this condition as they get older. This distress can be halted by applying sand to soak up excess binder, but it likely needs a repave or slurry seal to permanently fix. Flushing and bleeding in Orting were assessed on limited segments of long of roads and are particularly indicative of a poor binder mix during asphalt roadway construction or asphalt roadway construction during weather elements that negatively impact curing of these binders. (Figure 25 on page 21).

Severity

- Low – Minor amounts of aggregate covered by excess asphalt
- Medium – Significant amount of the aggregate covered by excessive asphalt
- High – Most of the aggregate is covered by excessive asphalt

Figure 23. Flushing and Bleeding Severities

Frequency

- Extent of flushing observed is either localized, confined to the wheelpath, or across the entire lane.

Figure 24. Flushing and Bleeding on Park Place

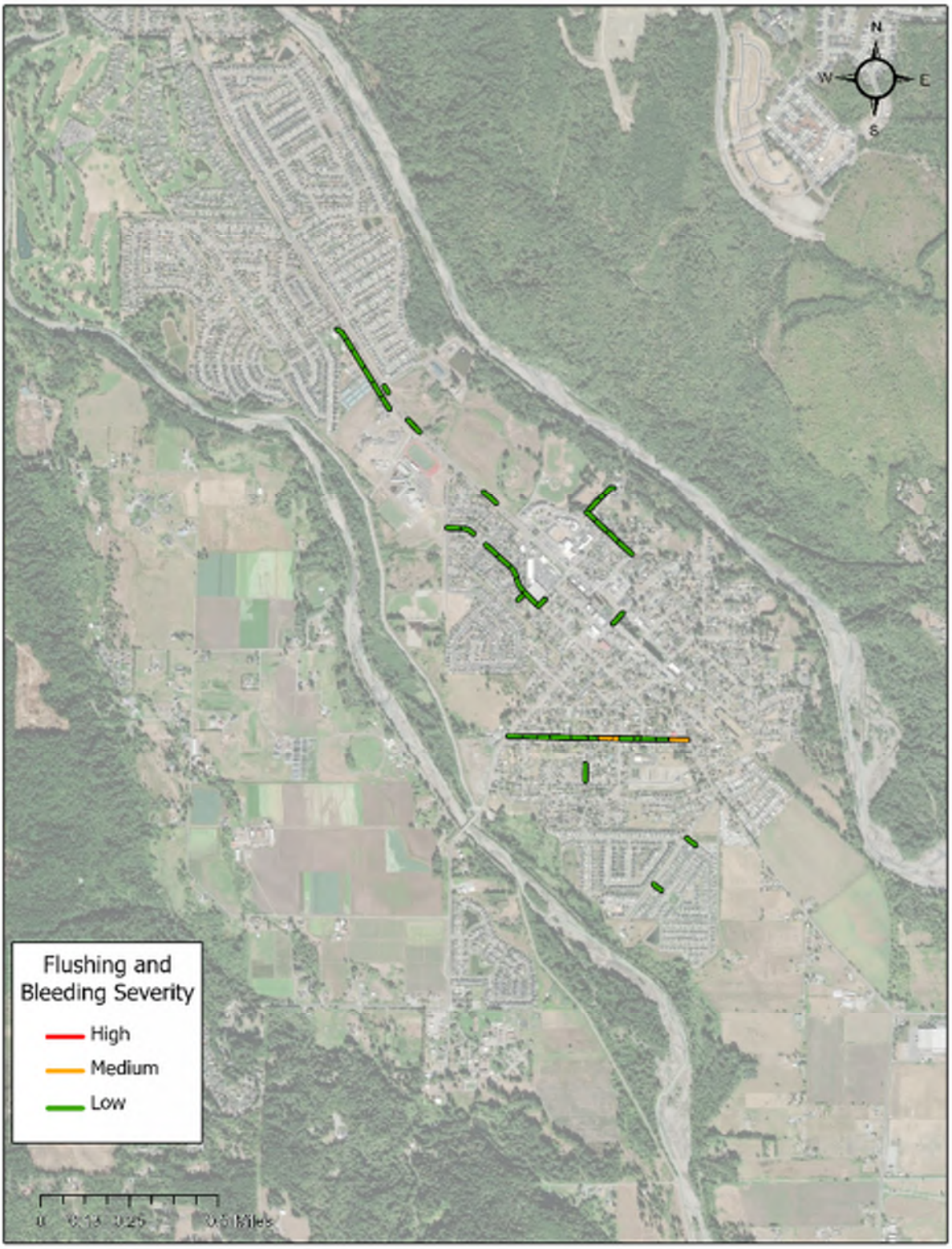

Figure 25. Flushing and Bleeding in Orting

4.3.8 Patching

Roadway patches occur anywhere the original construction of pavement has been cut into (Figure 27 below). Patching is a result of various activities. Patching can be the result of a utility repair below the roadway surface. Patching can occur to repair a failed portion of the roadway either a pothole or excessive cracking that affects a limited section of an otherwise good roadway. Patching can occur to address subgrade failures on the edges of pavement where the roadway width has been compromised. The assessment found a low frequency of patching and a high rate of patching success where patches are present. Patches failed are assessed by the type of failure present within the roadway segment and considered high severity if the patch has otherwise failed. No conditions of severe patching were assessed in the city of Orting. (Figure 28 on page 24).

Severity

- Low – Patch has at most low severity distress of any type.
- Medium – Patch has at most medium severity distress of any type.
- High – Patch has at most high severity distress of any type.

Figure 26. Patching Severities

Frequency

- Percentage of each wheelpath affected.

Figure 27. Patching on Bridge Street

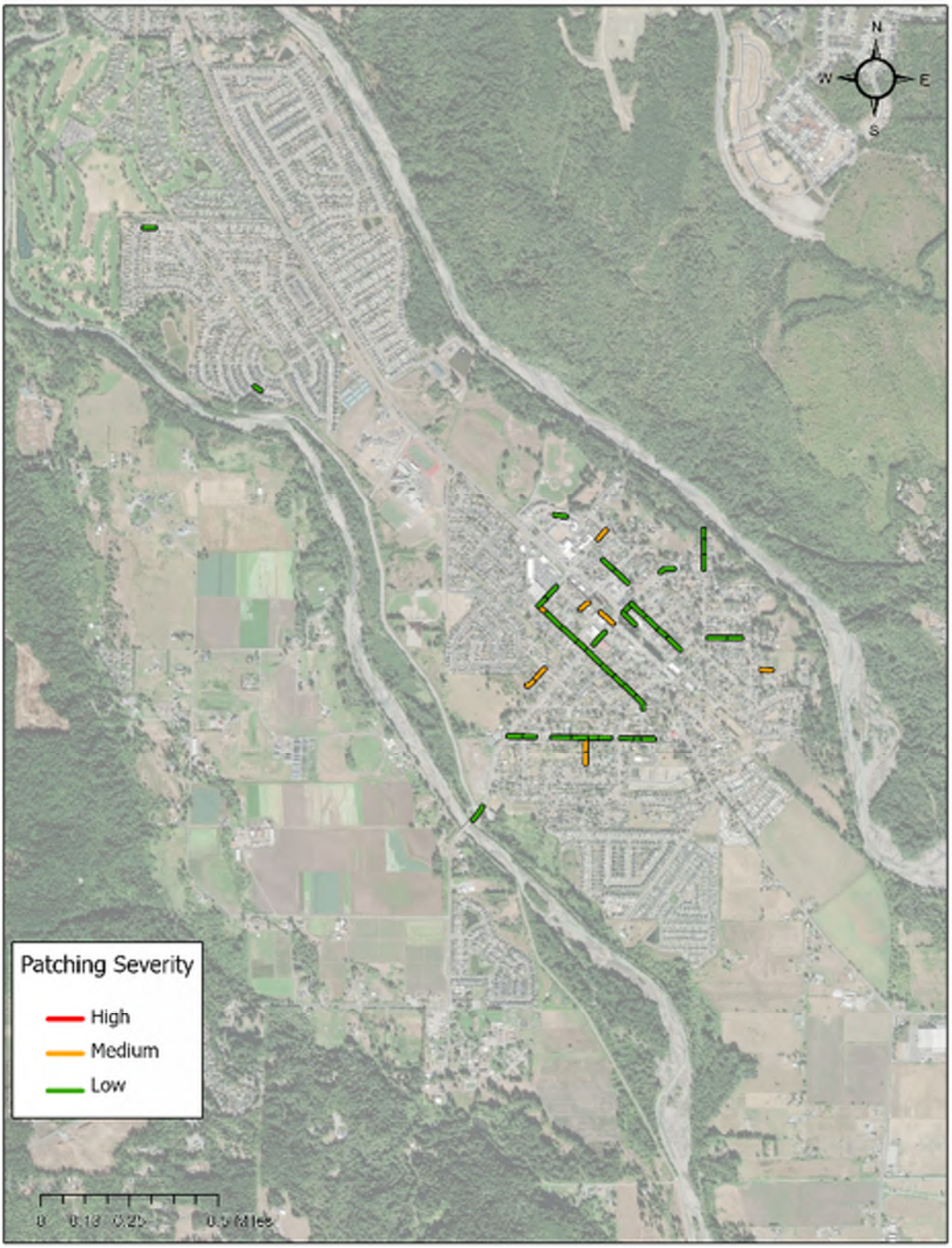

Figure 28. Patching in Orting

4.3.9 Corrugation and Waves

This distress was not significant, although a few cases were noted, in the baseline pavement condition assessment performed for Orting.

Severity

- Low – ½ inch to 2 inches per 10 feet.
- Medium – 2 inches to 4 inches per 10 feet.
- High – Over 4 inches per 10 feet.

Frequency

- Extent of corrugations measured in square feet.

[redacted] Sags and Humps

Sags and humps are localized low or high points in a roadway respectively (see sags in Figure 29 below). These may result from settlement, tree roots, pavement shoving, or subgrade swelling. Patching should fix this condition if it is localized while a repave may be more appropriate if an entire roadway sags and humps. Sags and humps of medium and high severity were present on the lowest rated roads in this assessment, Old Pioneer Way, and Kansas Street (Figure 30 on page 27).

Severity

- Low – ½ inch to 2 inches per 10 feet.
- Medium – 2 inches to 4 inches per 10 feet.
- High – Over 4 inches per 10 feet.

Frequency

- Percentage of the lane-area affected.

Figure 29. Sags along Hays Avenue

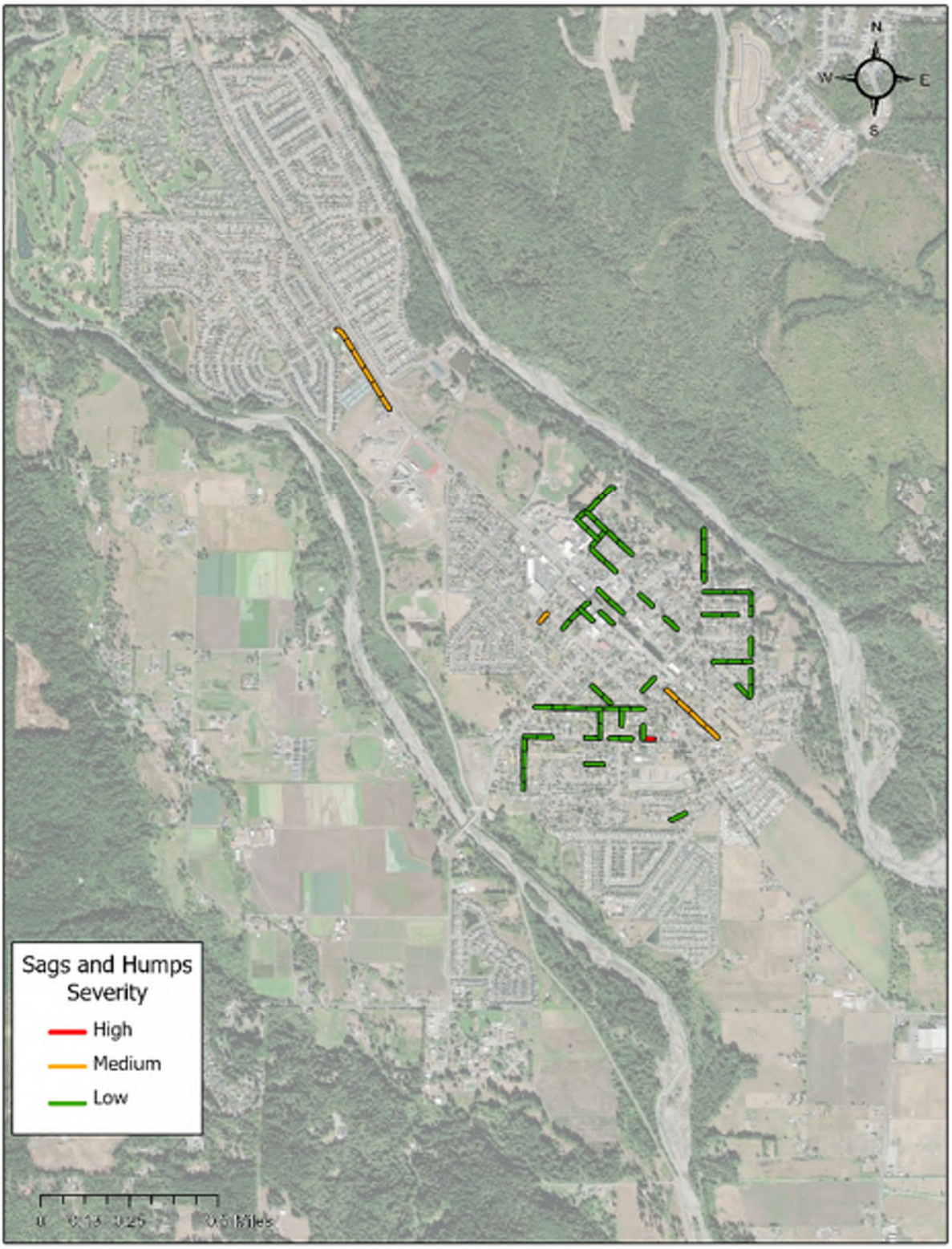

Figure 30. Sags and Humps in Orting

4.3.11 Block Cracking

This distress was not significant, although a few cases were noted, in the baseline pavement condition assessment performed for Orting.

Severity – Block Size

- Low – 9 x 9 feet or greater.
- Medium – 5 x 5 feet to 8 x 8 feet blocks.
- High – 4 x 4 feet blocks or less.

Severity – Crack Size

- Low – Less than ¼ inch.
- Medium – Over ¼ inch.
- High – Spalled.

Frequency

- Not measured for rutting, applied to entire segment.

[redacted] Pavement Edge Condition

Low severity edge condition, or edge raveling, is common and often occurs near gravel driveways as seen in Figure 31 below. It can lead to more severe edge conditions, such as potholes, or very severe conditions where the travel lane is effectively less than 10 feet wide. Treatment for edge raveling and potholing includes patching or half road patching depending on the severity of the patch. Edge conditions were mainly present in a low severity case, but also has some medium severity segments and one high severity segment, as seen in Figure 32 on page 30.

Severity – Crack Size

- Low – Edge Raveling.
- Medium – Edge Patching.
- High – Edge lane less than 10 feet.

Frequency

- Percentage of the length of each segment evaluated.

Figure 31. Edge Raveling on Olive Street

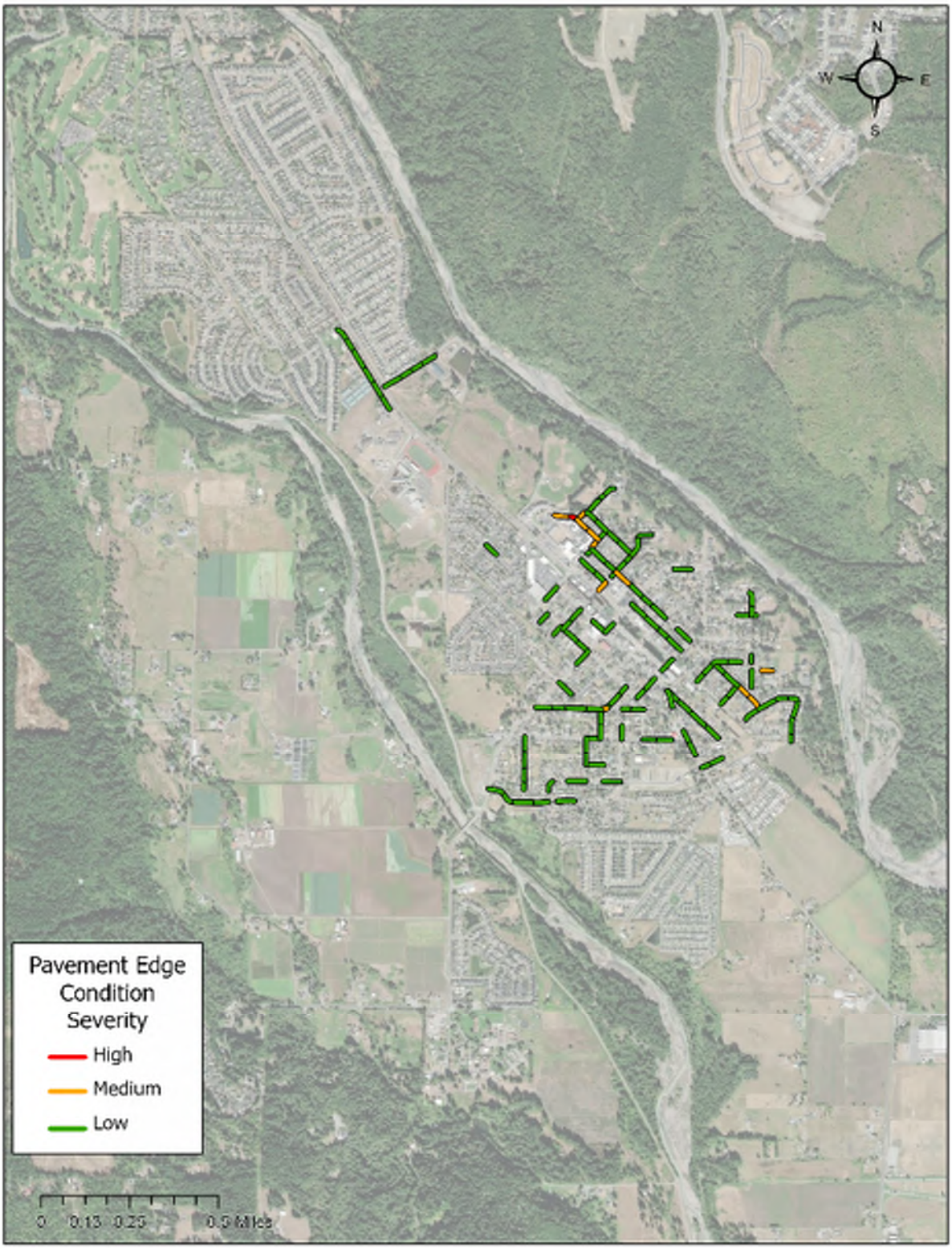

Figure 32. Edge Conditions in Orting

Crack Seal Condition

Crack sealing is a valuable maintenance method for cracks as it limits water infiltrating the base material (see Figure 33 below). This, in turn, delays or prohibits the expensive maintenance methods aimed at fixing the base levels. It is important to know where cracks are present that have not been sealed, so the final condition rated the extent of crack sealing and if there were any new cracks forming through the seal. Figure 34 on page 32 shows all the locations crack sealing was observed in Orting.

Figure 33. Crack Seal down Silvernail Street

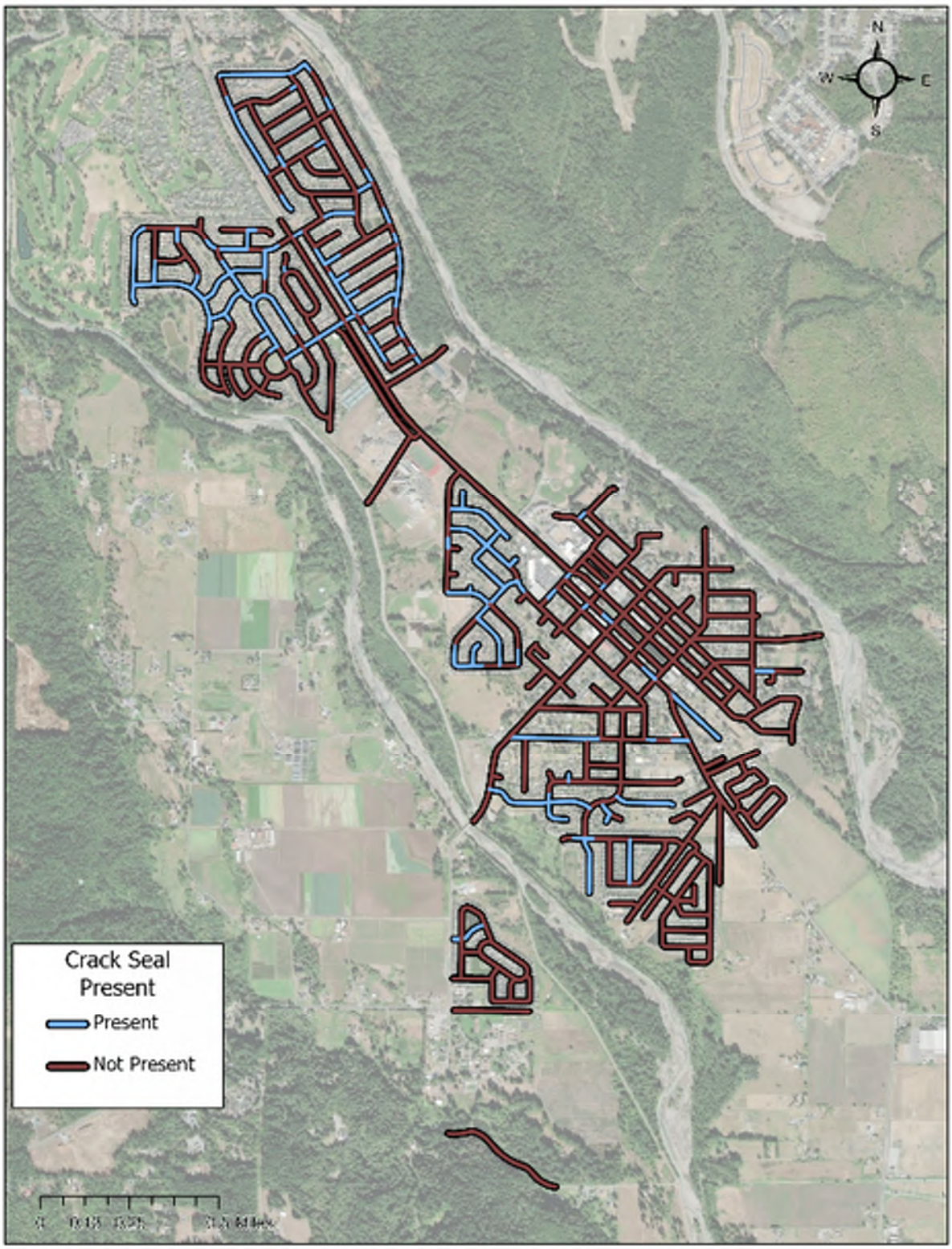

Figure 34. Crack Sealing in Orting

5. OVERALL PAVEMENT CONDITION RATINGS

5.1 INTRODUCTION

In order to compare and prioritize segments for inclusion in the City's pavement management system, it is helpful to have an overall rating of the pavement condition for each segment. With this data, segments can be prioritized for both maintenance and preservation actions and a plan to address them can be developed considering all segments, even though they experience different issues that, at times, have different solutions. This section describes how the overall rating was assigned for each segment and summarizes the condition of the city's roadway network.

5.2 OVERALL PAVEMENT CONDITION RATINGS METHODOLOGY

Based on the cumulative presence or lack-of, the distresses discussed in Section 4 and the severity and frequency of these distresses, we developed a weighted grading of pavement condition. This section describes how the overall rating was determined.

We collected field data for each segment and applied a rating scale based on the distresses found:

Not present (0); Low (1); Medium (2); High (3)

These severities are based on conditions specific to the distress type present, e.g., alligator cracking is rated based on the width of cracks and severity of roadway spalling, 0 being no alligator cracking and 3 being roadway spalling or large intrusive cracking. See individual distress sections for these rating metrics.

We then included a weighting factor on the significance of the distress type:

Alligator Cracking, Rutting (5)

Raveling and Aging, Corrugation and Waves (4)

Block Cracking, Longitudinal Wheel Path Cracking, Transverse Cracking, Crack Seal Condition, Flushing and Bleeding (3)

Patching, Sags and Humps (2)

Pavement Edge Condition, Longitudinal Non-wheel Path Cracking (1)

We included another factor based on the volume of the distress type included:

0 – 10%, 1-4, etc. (1)

11-25%, 4-9, etc. (1.2)

25%+, 10+, etc. (1.5)

The purpose of these modification factors is to quantify the distresses in each segment in a way that allows them to be compared to like segments and compare typical distresses found. From these quantitative ratings, a qualitative rating of Like New, Good, Average, or Poor was determined. This overall rating will help us compare the segments to each other if different types of distresses are present so that we can prioritize maintenance and preservation activities to include in the multi-year pavement management program. A full list of roadway segments, along with their field pavement condition ratings, has been included in Appendix C and is also shown in Figure 2 on page 8.

5.3 Summary of Overall Pavement Condition Ratings

Figure 1 on page 7 shows the overall pavement condition ratings summarized by each roadway's functional classification. This summary shows that 7% of the lane-miles are rated poor, 24% are rated average, 33% are rated good and the last 36% are rated like new (consolidated in Figure 35 below). As these figures demonstrate, the majority of the city's roadway network is in good or new condition and likely does not need any pavement preservation and/or maintenance work at this time.

Approximately 24% of the remaining 31% roadway segments are rated in average condition and would likely benefit from pavement preservation and/or maintenance work to their usable life. Only 7% of the city's network is rated in poor condition which would require more extensive reconstruction or replacement work. The most significant of the poor segments were along Kansas Street, which is a principal arterial south of downtown. This roadway was observed being used by commercial trucks to bypass downtown and the frequent high loads have deteriorated the pavement to a poor condition. At the time of assessment, a planned reconstruction of Kansas Street is scheduled for 2024.

The other, notably poor roadway is Old Pioneer Way, which is a local access road that starts at State Route 162 (SR 162) and runs parallel for several blocks and dead-ends before reaching Lane Blvd. NW. There were both commercial and residential developments along this roadway and it is a much lower traffic roadway than Kansas Street. These two roads, combined with a few other sporadic segments, make up the roughly 7% of roads in Orting with a poor condition.

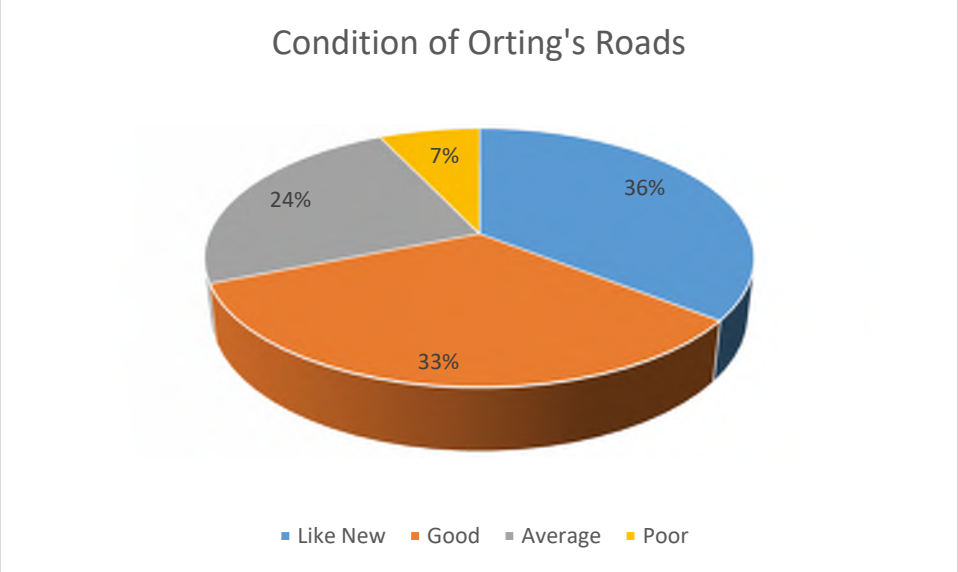

Figure 35. The Majority of Orting's Roadways are in a Good or Like New Condition

6. NEXT STEPS

The next step in the development of the city's Pavement Management System is to prioritize the poor and average sections and identify a list of projects to the programmed annually so that the City can pursue funding for this work. This will be done by considering the overall pavement condition ratings and functional classifications along with other considerations to prioritize each segment and then packaging like work into phases of pavement preservation and maintenance activities. A separate PMS report will include this work.

APPENDIX B
REFERENCES

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APPENDIX C
PRESERVATION TREATMENT UNIT COSTS

FINAL UNIT CONSTRUCTION COSTS

Crack Seal	$2.30	per lf of lane	$12,144	cost per lane mile
Chip Seal	$12.20	per lf of lane	$64,416	cost per lane mile
Mill and Fill	$44.80	per lf of lane	$236,544	cost per lane mile
Reconstruction	$142.10	per lf of lane	$750,288	cost per lane mile

LEGEND

	from uba
	calculation
	user input

Crack Seal		**Chip Seal**		**Mill and Fill (grind and overlay)**		**Reconstruction**	
$4.63	per lf	$10.00	per sy	$36.65	per sy	$116.25	per sy
8%	mobilization		All inclusive cost per prior research and	10%	mobilization	10%	mobilization
$0.33	per lf, mobilization		confirmed with WSDOT UBA	$3.33	per sy, mobilization	$10.57	per sy, mobilization
$4.10	per lf, crack seal			$11.50	per sy, planing bituminous pavement	$45.20	per cy, roadway excavation incl. haul
5%	% of construction cost for traffic control			$175.00	per ton, HMA CL. 1/2 IN. PG 58H-22	15	depth (in)
$0.21	per lf, traffic control			$358.75	per cy, HMA CL. 1/2 IN. PG 58H-22	$18.83	per sy, roadway excavation incl. haul
				2	depth (in)	$41.58	per ton, csbc
				$19.93	per sy, HMA CL. 1/2 IN. PG 58H-22	$76.92	per cy, csbc
				6%	% of construction cost for traffic control	9	depth (in)
				$1.89	per sy, traffic control	$19.23	per sy, csbc
						$175	per ton, HMA CL. 1/2 IN. PG 58H-22
						$358.75	per cy, HMA CL. 1/2 IN. PG 58H-22
						6	depth (in)
						$59.79	per sy, HMA CL. 1/2 IN. PG 58H-22
						8%	% of construction cost for traffic control
						$7.83	per sy, traffic control

Adjusting costs to lane width per LF

11 lf wide lane (average)

1 lf of lane length

9.0 sy/sf

$12.20 per lf of lane

9.0 sy/sf

$44.80 per lf of lane

assumes 6" HMA on 9" CSTC

9.0 sy/sf

$142.10 per lf of lane

Assume, on average, cracking runs 1x the length of the lane

0.5 lf crack per length of lane

$2.30 per lf of lane

APPENDIX D
PROGRAM COSTS

Workplan Table

RECONSTRUCTION PROJECT	**Construction Cost (in 2023 dollars)**	**Linear Feet of La**	**Year Start**	**Year End**	**Yearly Cost**
Train Street Reconstruction (Eldredge Avenue to Ammons Lane)	$415,000	2917	2026	2026	$415,000.00
Skinner Way Reconstruction (Calistoga Street to Belfair Avenue)	$273,000	1,915	2027	2027	$273,000.00
Bowlin Avenue Reconstruction (Parker Lane to Leber Street)	$260,000	1,828	2028	2028	$260,000.00
Old Pioneer Way Reconstruction (North of Chief Emmons Lane)	$404,000	2,842	2029	2029	$404,000.00
Kansas Street Reconstruction (Budgeted Separately)					
Whitehawk Boulevard Extension (Budgeted Separately)					
Annual TBD Reconstruction After 2024 (TBD)	$900,000	NA	2024	2029	$150,000.00
OVERLAY PROJECT	Construction Cost (in 2023 dollars)	Linear Feet of La	Year Schedu	Year End	Yearly Cost
Corrin Avenue Overlay (Whitesell Street to Bridge Street)	$179,000	3,986	2024	2024	$179,000.00
Eldredge Avenue Overlay (Whitesell Street to Calistoga Street)	$90,000	1,990	2024	2024	$90,000.00
Anderson Street Overlay (Williams Street to Boatman Avenue)	$99,000	2,203	2024	2024	$99,000.00
Orting Avenue Overlay (Callendar Street to Whitehawk Boulevard)	$61,000	1,358	2024	2024	$61,000.00
Deeded Lane Overlay (Calistoga Street to Eldredge Avenue)	$145,000	3,216	2025	2025	$145,000.00
Ammons Lane Overlay (Leber Street to River Avenue)	$135,000	2,994	2025	2025	$135,000.00
Corrin Avenue Overlay (South of Harman Way)	$93,000	2,060	2026	2026	$93,000.00
Brown Street and Brown Way Overlay	$134,000	2,983	2027	2027	$134,000.00
Washington Avenue Overlay (South of Bridge Street)	$150,000	3,330	2028	2028	$150,000.00
Annual Overlay After 2026 (TBD)	$240,000	NA	2027	2029	$80,000.00
CHIP SEAL PROJECT	Construction Cost (in 2023 dollars)	Linear Feet of La	Year Schedu	Year End	Yearly Cost
Olive Street Chip Seal	$10,000	749	2025	2025	$10,000.00
Whitehawk Boulevard Chip Seal (Washington Avenue to Orting Avenue)	$69,000	5,617	2025	2025	$69,000.00
Calistoga Street Chip Seal (Kansas Street to Corrin Avenue)	$52,000	4,222	2025	2025	$52,000.00
Tacoma Avenue Chip Seal	$22,000	1,770	2025	2025	$22,000.00
Stone Street Chip Seal (Headley Avenue to Mellinger Avenue)	$12,000	982	2025	2025	$12,000.00
Eldredge Avenue Chip Seal (Calistoga Street to Kansas Street)	$41,000	3,313	2025	2025	$41,000.00
Annual Chip Seal After 2025 (TBD)	$120,000	NA	2026	2029	$30,000.00
CRACK SEAL PROJECT	Construction Cost (in 2023 dollars)	Linear Feet of La	Year Schedu	Year End	Yearly Cost
Boatman Avenue/Cloud Street/Nunnally Avenue Crack Seal (Lane Boulevard to Colorossi Circle)	$9,000	3,871	2024	2024	$9,000.00
Icey Street Crack Seal (East of Grinnell Avenue)	$4,000	1,729	2024	2024	$4,000.00
Grinnell Avenue Crack Seal (South of Balmer Street)	$4,000	1,642	2024	2024	$4,000.00
Williams Boulevard/Avenue/Court Crack Seal (West of Headley Avenue)	$8,000	3,356	2024	2024	$8,000.00
Williams Street Crack Seal (Ozzie Street to Williams Avenue)	$7,000	2,845	2024	2024	$7,000.00
Mellinger Avenue Crack Seal (Williams Street to Williams Boulevard)	$4,000	1,685	2024	2024	$4,000.00
Nunally Avenue Crack Seal (Cloud Street to Williams Boulevard)	$5,000	1,960	2024	2024	$5,000.00
Lane Boulevard Crack Seal (Nunnally Avenue to Washington Avenue)	$5,000	2,086	2024	2024	$5,000.00
Thompson Avenue Crack Seal (Callendar Street to Groff Avenue)	$4,000	1,688	2024	2024	$4,000.00
Calistoga Street Crack Seal (Ammons Lane to River Avenue)	$5,000	1,831	2024	2024	$5,000.00
Callendar Street Crack Seal (Thompson Avenue to Groff Avenue)	$4,000	1,676	2024	2024	$4,000.00
Train Street Reconstruction (Eldredge Avenue to Ammons Lane)*	$7,000	2917	2024	2024	$7,000.00
Skinner Way Reconstruction (Calistoga Street to Belfair Avenue)*	$5,000	1,915	2024	2024	$5,000.00
Bowlin Avenue Reconstruction (Parker Lane to Leber Street)*	$5,000	1,828	2024	2024	$5,000.00
Old Pioneer Way Reconstruction (North of Chief Emmons Lane)*	$7,000	2,842	2024	2024	$7,000.00
Corrin Avenue Overlay (South of Harman Way)**	$5,000	2,060	2024	2024	$5,000.00
Brown Street and Brown Way Overlay**	$7,000	2,983	2024	2024	$7,000.00

Washington Avenue Overlay (South of Bridge Street)**	$8,000	3,330	2024	2024	$8,000.00
Annual Crack Seal After 2024 (TBD)	$125,000	NA	2025	2029	$25,000.00
	$4,132,000.00				

** Crack Seal prior to scheduled reconstruction*

Self-Evaluation and ADA Program Access Plan

City of Orting

Prepared For:
City of Orting

Prepared By:
SCJ Alliance
Lisa M. Reid, PE, PMP
1201 Third Ave, Suite 550
Seattle, WA 98101
206.739.5454

DRAFT July 2023

SCJ ALLIANCE
CONSULTING SERVICES

Self-Evaluation and ADA Program Access Plan

Project Information

Project:	ADA Program Access Plan
Prepared for:	City of Orting John Bielka, PE 104 Bridge St S. Orting, WA 98360

Project Representative

Prepared by:	SCJ Alliance 1201 Third Ave, Suite 550 Seattle, WA 98101 206.739.5454 scjalliance.com
Contact:	Lisa M. Reid, PE, PMP

Project Reference:	SCJ #000383 Path: \\ad.scj.io\Global\Projects\4270 City of Orting\21-000838 Orting 2021-24 On-Call PE Services\Phase 12 - Transportation and Traffic Engineering\12.01 ADA Transition Plan\Program Access Plan Draft\Orting ADA Program Access Plan Rough Draft LMR.docx

Signature

The technical material and data contained in this document were prepared under the supervision and direction of the undersigned, whose seal, as a professional engineer licensed to practice as such, is affixed below.

Prepared by Andrew Armstrong, EIT

Approved by Lisa M. Reid, PE, PMP

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1 Introduction

The City of Orting (City) is committed to providing equal access to its programs, services, and activities to all its residents. This Self-Evaluation and ADA Program Access Plan (Plan) is a living document which will help guide planning and implementation for removing accessibility barriers within the City's jurisdiction. Public comments are always welcome and the City will update the plan periodically.

2 Legal Requirements

The American with Disabilities Act (ADA) and the Rehabilitation Act of 1973, Section 504, requires cities with fewer than fifty employees, that is a recipient, or subrecipient, of federal financial assistance, to prepare a Self-Evaluation and ADA Program Access Plan. The ADA also dictates that public entities must reasonably modify its policies, practices, and procedures to avoid discrimination against people with disabilities. WSDOT discusses these requirements in its Local Agency Guidelines (LAG) Manual.

2.1 Legal Mandate

The ADA is a civil rights law for persons with disabilities that's purpose is to provide a "clear and comprehensive national mandate for the elimination of discrimination against individuals with disabilities." This law, passed in 1990, followed the Rehabilitation Act of 1973, and both combine to describe the City's responsibilities for ADA accessibility. This Program Access Plan is a requirement of the Rehabilitation Act, specifically Section 504, shown below.

No otherwise qualified individual with a disability in the United States shall, solely by reason of his or her disability, be excluded from the participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. This part applies to each recipient of Federal financial assistance from the Department of Transportation and to each program or activity that receives such assistance. (Section 504)

2.1.1 Title I of the ADA

Title I of the ADA addresses employment practices and prohibits discriminating against qualified individuals with disabilities. This discrimination is prohibited in a number of areas, including but not limited to application processes, hiring, employment termination, promotion, compensation, and training. The City is an equal employment opportunity employer and complies with Title I.

2.1.2 Title II of the ADA

Title II of the ADA, which adopts much of Section 504 of the Rehabilitation Act of 1973, is the one addressed in this Plan. It prohibits the City from denying equal opportunity to services, programs, and activities to persons with disabilities. This prohibition applies whether the denial is direct or indirect.

2.2 ADA Self-Evaluation and Program Access Plan Requirements

This Plan is intended to provide a framework for the continuous improvement of City programs and facilities for people with disabilities. This Plan addresses facilities within the public right-of-way, especially curb ramps, and is intended to be updated as barriers are removed, programs change, and/or new facilities come under control of the City. Programs offered by the City must be accessible to all people. The administrative requirements of this plan include:

Commented [LMR1]: John - we need to:
1. Identify an ADA Coordinator (we designated you in 2.4)
2. Develop a grievance process (typically a submittal form online)

- Designation of an ADA Coordinator responsible for overseeing Title II compliance,
- Development of an ADA grievance/complaint procedure,
- Completion of a self-evaluation of facilities, programs, and services,
- Development of a program access plan where the self-evaluation identifies any accessibility deficiencies.

This Plan identifies and makes recommendations to correct practices that result in limitations on access. As part of the self-evaluation, the City:

- Identifies the city's programs, activities, and services
- Reviews the policies, practices, and procedures that govern the administration of the City's programs, activities, and services
- Provides opportunity for public comment
- Makes the report available to the public
- Correct and programs, activities, and services that are not consistent with the requirements

This Plan identifies barriers for people with disabilities and a schedule to remove these barriers over time and includes:

- A list of the physical barriers in the City's facilities that limit the accessibility of its programs, activities, or services to individuals with disabilities
- A detailed outline of the methods to be used to remove these barriers and make the facilities accessible
- A schedule for taking the steps necessary to achieve compliance with ADA Title II
- Provide opportunity for the public to provide comment on the Transition Plan
- The name of the individual responsible for the plan's implementation

This Plan is an assessment of the City's right-of-way facilities to find if there are barriers to City programs for people with disabilities. The facilities with barriers have been identified and summarized in Chapter 3.

2.3 Public Involvement

The ADA requires the involvement of people with disabilities in the development and review of the ADA Self-Evaluation and Program Access Plan. A public grievance policy will be adopted along with the implementation of this plan to address current and on-going ADA related barriers as they are identified and as public infrastructure and policy are updated.

2.4 ADA Coordinator

The City Capital Projects Manager was designated as the ADA Coordinator. This position is responsible for ensuring the accessibility of all programs, services, and activities of the City. The City's ADA Coordinator is:

John Bielka
104 Bridge Street South
Orting, WA 98360

Commented [LMR2]: John - We still need to coordinate with the City on the policies, practices and procedures and discuss with you and the Council how to get public input on this.

Commented [LMR3]: John - Based on the completion of the first two bullets, we'll likely have recommended actions for the second two to implement corrections or adjustments.

Commented [JG4]: Do these apply to our program access plan

Commented [AA5R4]: Yes

Commented [AA6R4]: Per lag manual 29.3, section on program access plan

JBielka@cityoforting.org
(360) 893-9014

2.5 Requesting Accommodation

Requests should be made to the ADA Coordinator as soon as the need for accommodation is known. Requests should be made as follows:

Requests for accommodation at City meetings or events should include:

- The requestor's contact information (name, address, email, and telephone number)
- A description of the program, service, or activity where the accommodation is required
- The location of said program, service, or activity
- A brief description of the reasoning behind the needed accommodation

Requests for materials in alternate formats should include:

- The requestor's contact information (name, address, email, and telephone number)
- A name and description of the City document or materials to be reformatted
- Desired formatting of said materials
- A brief description of the reasoning behind the needed reformatting

Commented [LMR7]: John -
Generally this means readable PDFs and 508 compliant documents. Does not include translation services.

2.6 Filing a Grievance

Commented [LMR8]: John - The City needs to review this and put something in place for public reporting of ADA issues. This is a recommended approach based on other cities.

The City has a formal grievance procedure in place to allow residents a way to file complaints on:

- City policies and how it provides services, activities, and programs to persons with disabilities
- Alleged violations of Title II of the ADA by the City or its representatives

This grievance procedure does not preclude filing a complaint of discrimination with any appropriate state or federal agency. Use of this grievance procedure is not a prerequisite in the pursuit of other remedies.

Step 1: To file a grievance, send a letter or an email to the ADA Coordinator with all of the information below:

- Contact information for the person filing the grievance (full name, address, and phone number)
- Contact information for the person discriminated against, if different than the person filing the grievance (full name, address, and phone number)
- The name and address of the program, service, facility, or activity where the incident took place
- A description of the incident, the date(s) it occurred, and the name(s) of any city employees involved
- Any other information that may support the grievance

The ADA Coordinator will notify the person filing the grievance if any additional information is needed. If the requested information is not provided, the ADA Coordinator will close the grievance.

Step 2: The ADA Coordinator will meet with or contact the person filing within 20 days of receiving the grievance to discuss.

Step 3: Within 30 calendar days of that meeting or discussion, the ADA Coordinator will respond in a format accessible to the person filing the grievance explaining the City's position and offering options for resolution.

If the response does not resolve the issue in a satisfactory manner, the decision may be appealed to the mayor within 10 calendar days of receiving the response. The appeal should be in writing and explain why the City's response is unsatisfactory, at which point steps 1-3 will begin again with the mayor as the primary contact.

All formal grievances received, appeals, and responses from the City will be kept on file for at least 3 years.

2.7 Undue Burden

If the City can demonstrate that an action would result in a fundamental alteration in the nature of its program or activity, would create a direct threat to the participant or others, or would represent an undue financial and administrative burden, it is not required to take it. This determination must be based on an evaluation of all resources available for use in the city and alternative solutions must be examined.

2.8 Public Outreach

This Plan has been posted on the City's website, with the goal of receiving input and comments from the general public. These comments should be directed to the ADA Coordinator. This plan will be updated once per year to show completed projects as well as comments or changes suggested by the public as appropriate.

2.9 State and Local Requirements

Facilities in the public right of way must be compliant with the 2011 Public Right-of-Way Accessibility Guidelines (PROWAG).

2.10 Public Notice Requirements

The City's ADA provisions and grievance/complaint procedures are required to be posted both internally and externally. Posting on the City's website counts as external posting. The ADA provisions shall contain a brief description of how ADA accessibility is addressed in its employment, communications, policies, and resolution of complaints. Both ADA provisions and grievance/complaint procedures must be made available in alternative formats that address the needs of persons with disabilities.

3 Self-Evaluation of Policies, Procedures, and Programs

3.1 Introduction

Programs, services, and activities offered by the City must be accessible for all people. This section details the review of current Public Works policies and programs. The findings and recommendations contained in this section will serve as a basis for the implementation of specific improvements for providing access to City programs as required by the ADA.

3.2 Programmatic Modification

The ADA Coordinator, or designee, will follow-up with department staff to review the recommendations in this section. The ADA Coordinator, or designee, will coordinate with needed parties on the removal of barriers to accessibility when they are found.

3.3 Self-Evaluation Findings

3.3.1 Public Right of Way

3.3.1.1 City Facilities, Streets, and Parks

Publicly accessible facilities evaluated for this plan include:

- Main Park
- North Park
- City Hall
- Old City Hall
- Cemetery Building
- Library Building
- Whitehawk Park
- Rainier Meadows Park
- Gratzer Ballfield
- Skate Park

These facilities were evaluated due to their accessibility to the public, and all were found to be sufficiently accessible.

3.3.1.2 Public Streets and Curb Ramps

Facilities evaluated for this Plan includes curb ramps and pedestrian activated signals throughout the City's public right-of-way. The facilities were evaluated over a month-long period in early 2023 (March to April with additional reviews performed in July 2023) using criteria from the PROWAG. These facilities were evaluated both in the field and using Google Street View, and the results are compiled in a GIS database. Of the City's approximately 605 existing curb ramps, 104 were found to be compliant with the PROWAG as shown in Figure 1. Of the 501 of non-compliant curb ramps, 28 are simply missing the detectable warning strip (DWS), and the remainder, 473, need to be completely replaced because elements of the curb ramp do not meet width or grade standards.

Commented [LMR9]: Andrew - I think compliant ramps should be shown in green, and non-compliant ramps in red in Figure 1. Then in Figure 2 use red or orange for full replacement and orange or yellow for DWS. These colors are more intuitive than what is shown. Also - I think the legends are wrong.

Commented [AA10R9]: This makes sense - will update.

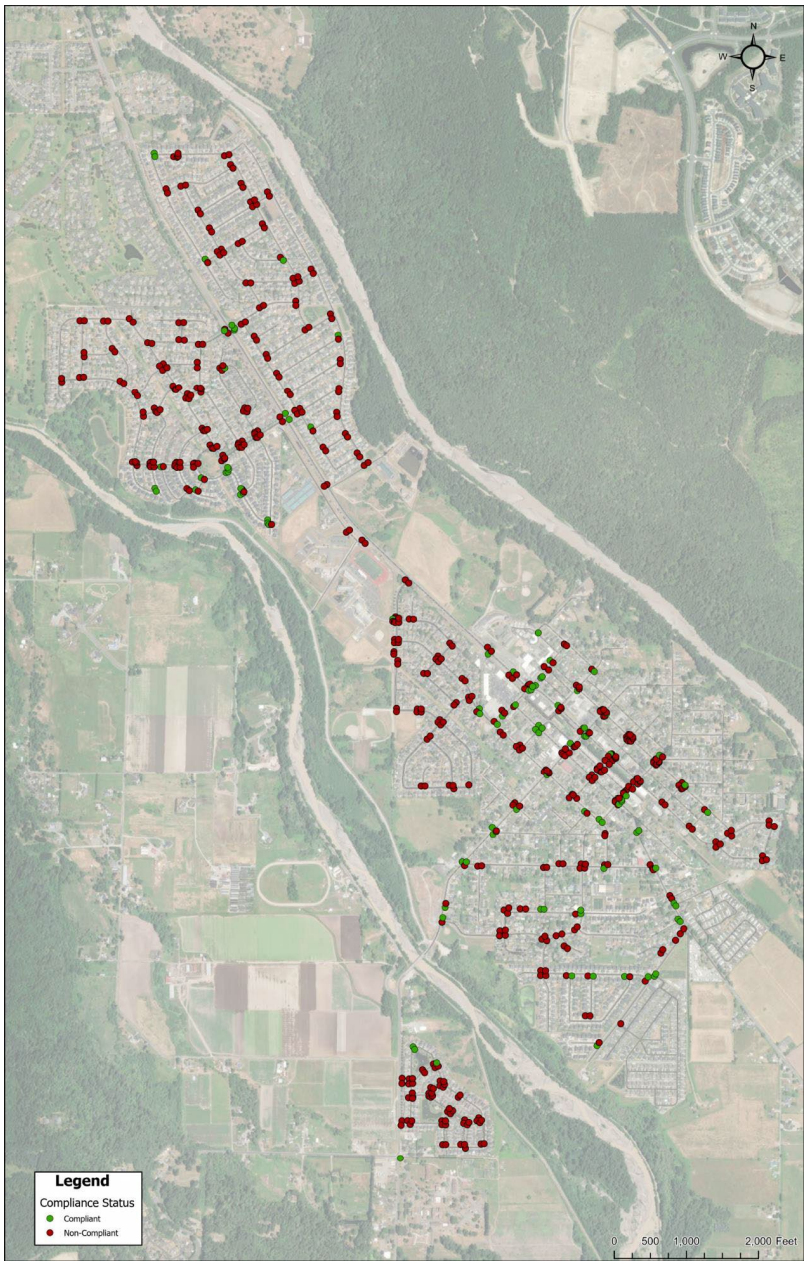

Figure 1. Curb Ramps Labeled by ADA Compliance

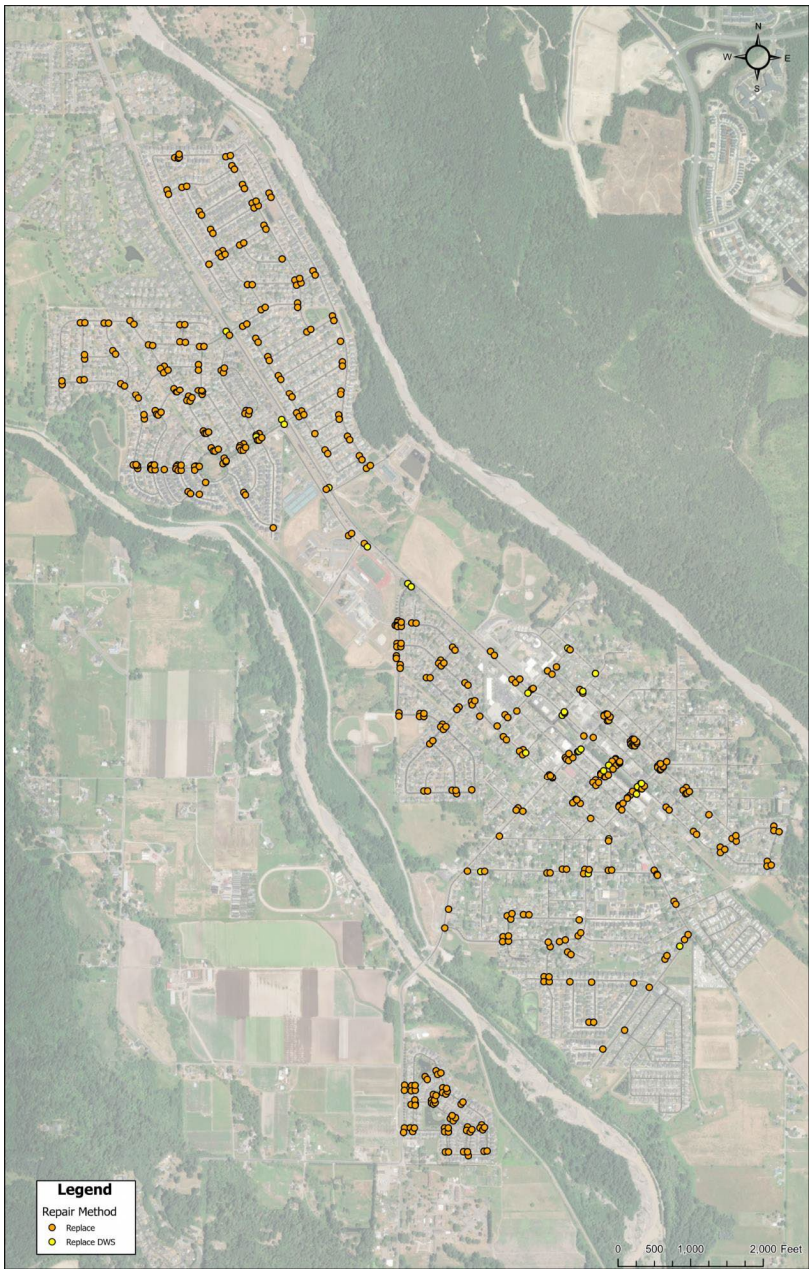

Figure 2. Noncompliant Curb Ramps labeled by Repair Method Needed

Commented [LMR11]: Andrew - it looks like all the blue ones from figure 1 (Compliant) are noted as Replace here (green)??? Is one of these labelled incorrectly?

Commented [LMR12]: John -
We need to complete this section considering public engagement with respect to physical disabilities, hearing, sight, etc. May need to just discuss with you.

4 ADA Program Access Plan

4.1 Introduction

According to the ADA, localities that receive financial aid from the federal government and have less than fifty employees are required to create a self-evaluation and an ADA Program Access Plan. Public institutions are required by the ADA to make reasonable modifications to their policies, practices, and procedures in order to prevent discrimination against individuals with disabilities. This Plan is a dynamic document that outlines the programmatic steps the City will take to remove all barriers to accessibility under its purview. This plan complies with Section 504 of the Rehabilitation Act's standards as well as the ADA's requirements for accessibility to public programs, services, and activities.

4.2 Prioritization of Barrier Removal

Removal of barrier prioritization will follow the methods laid out by WSDOT. They are:

Highest Priority

- Priority identified through public input or complaints received, and
- Areas with high concentrations of populations with disabilities (based on Census data),
- Intersections and roadway segments serving facilities including:
    - Government offices
    - Public schools
    - Hospitals, health clinics and health centers
    - Transit facilities (includes bus stops)

Second Highest Priority

- Areas with medium/mid-range concentrations of populations with disabilities (based on Census data)
- Intersections and roadway segments serving facilities including:
    - Public housing
    - sports arenas
    - licensing offices
    - libraries
    - shopping malls

- supermarkets
- strip retail centers
- other major employment sites

Third Highest Priority

- Areas with lower/low-range concentrations of populations with disabilities (based on Census data),
- Intersections and roadway segments serving facilities including:
  - Industrial areas
- Other areas not classified as high or medium priority

4.3 Barrier Removal Schedule

Commented [AA13]: Do we want all projects laid out as shown? If so, I think a table is a cleaner way to show. Let me know if you agree.

The barrier removal schedule includes all noncompliant ramps and is organized by the priority of each curb ramp. Curb ramp reference numbers, locations, repair method(s), and cost ranges are included for each project area, generally an intersection. This schedule should be used as a planning tool and further inspection may be required to determine if a full curb ramp replacement will be necessary based on future degradation. The estimates below include both DWS and curb ramp replacement.

Table 1. Highest Priority Curb Ramps

ID No.	Location (Highest Priority)	Repair Method	Cost Range
165-166	Lane Blvd & Washington Ave	2 DWS replacements	$720 – 960
214-215	Washington Ave N & Rocky Rd NE	2 full replacements	$0*
225-226	Ptarmigan Ridge Elementary	2 DWS replacements	$720 – 960
227-228	Old Pioneer Way & Washington Ave	2 DWS replacements	$720 – 960
229-230	Washington Ave & Whitehawk Blvd	2 DWS replacements	$720 – 960
231-238	Whitehawk Blvd & Corrin Ave	8 full replacements	$32,000 – $48,000
239-242	Whitehawk Blvd & Eldridge Ave	4 full replacements	$16,000 – $24,000
292-293 & 297	Washington Ave & Whitesell St	3 full replacements	$12,000 – $18,000
299	Whitesell St. & Rainer Ln	1 full replacement	$4,000 – $6,000
300-301	Whitesell St. & Varner Ave	2 full replacements	$8,000 – $12,000
588-591	Washington Ave and High School	4 full replacements	$16,000 – $24,000
592 & 594	Washington Ave and High School	2 full replacements	$8,000 – $12,000
598 & 599	Orting City Hall	2 DWS replacements	$720 – 960
600 & 601	Washington Ave and High School	2 full replacements	$8,000 – $12,000

*the curb ramps at this location will be superseded (replaced) by the pedestrian bridge project on Washington Ave.

Table 2. Second Highest Priority Curb Ramps

ID No.	Location (2nd Highest Priority)	Repair Method	Cost Range
285	Whitesell St & Eldredge Ave	1 full replacement	$4,000 – $6,000
287-289	Whitesell St & Corrin Ave	3 full replacements	$12,000 – $16,000
290-291	Whitesell St & Scoyoc Ave	2 full replacements	$8,000 – $12,000
305 – 306	Leber St & Varner Ave	2 full replacements	$8,000 – $12,000
307 – 308	Leber St & Varner Ave	2 DWS replacements	$720 – 960
316 & 318	Leber St & Washington Ave	2 DWS replacements	$720 – 960
321 – 324	Corrin Ave & Leber St	4 full replacements	$16,000 – $24,000
331 – 335	Corrin Ave & Calistoga St	5 full replacements	$20,000 – $30,000
336 – 337	Vanscoyoc Ave & Calistoga St	2 full replacements	$8,000 – $12,000,
338-339	Vanscoyoc Ave & Calistoga St	2 DWS replacements	$720 – 960
341	Washington Ave & Calistoga St	1 full replacement	$4,000 – $6,000
369-370 & 372-376	Washington Ave & Calistoga St	7 full replacements	$28,000 – $42,000
377-386	Varner Ave & Calistoga St	10 full replacements	$40,000 – $60,000
436-441	Washington Ave & River Ave	6 full replacements	$24,000 – $36,000
595	Rainer Lane & Calistoga St	1 full replacement	$4,000 – $6,000

Table 3. Lowest Priority Curb Ramps

ID No.	Location (Lowest Priority)	Repair Method	Cost Range
3-8	Ames St NE Midblock	6 full replacements	$24,000 – $36,000
9-10	Burr St & Riddell Ave	2 full replacements	$8,000 – $12,000
11-12	Burr St & Hardtke Ave	2 full replacements	$8,000 – $12,000
13-14	Burr St & Hansberry Ave	2 full replacements	$8,000 – $12,000
15-16	Fielding St & Hardtke Ave	2 full replacements	$8,000 – $12,000
17-18	Fielding St & Hansberry Ave	2 full replacements	$8,000 – $12,000
19-20	Gipple St & Hardtke Ave	2 full replacements	$8,000 – $12,000
21-24	Gipple St & Hansberry Ave	4 full replacements	$16,000 – $24,000
25-26	Gipple St & Daffodil Ave	2 full replacements	$8,000 – $12,000
28	Johns St & Riddell Ave	1 full replacement	$4,000 – $6,000
29-32	Johns St & Kendall St	4 full replacements	$16,000 – $24,000
33	Johns St & Michell Lane	1 full replacement	$4,000 – $6,000
35-36	Johns St & Hansberry Ave	2 full replacements	$8,000 – $12,000
37	Michell Lane & Hansberry Ave	1 full replacement	$4,000 – $6,000
39-40	Kendall St & Hardtke Ave NE	2 full replacements	$8,000 – $12,000

ID No.	Location (Lowest Priority)	Repair Method	Cost Range
41-44	Kendall St & Hansberry Ave	4 full replacements	$16,000 – $24,000
45-46	Kendall St & Daffodil Ave	2 full replacements	$8,000 – $12,000
47-48	Williams Blvd & Hardtke Ave NE	2 full replacements	$8,000 – $12,000
49-50	Williams Blvd & Hansberry Ave	2 full replacements	$8,000 – $12,000
51-52	Williams Blvd & Washington Ave	2 full replacements	$8,000 – $12,000
56- 57	Williams Blvd & Riddell Ave	2 full replacements	$8,000 – $12,000
58-59	Lawson Ct & Riddell Ave	2 full replacements	$8,000 – $12,000
60-61	Mazza St & Hansberry Ave	2 full replacements	$8,000 – $12,000
62-63	Mazza St & Riddell Ave	2 full replacements	$8,000 – $12,000
64-65	Mazza Sr & Daffodil Ave	2 full replacements	$8,000 – $12,000
66-67	Nelsen St & Riddell Ave	2 full replacements	$8,000 – $12,000
69	Nelsen St & Daffodil Ave	1 full replacement	$4,000 – $6,000
70-71	Roberts St & Riddell Ave	2 full replacements	$8,000 – $12,000
72-73	Roberts St & Daffodil Ave	2 full replacements	$8,000 – $12,000
74-75	Lane Blvd & Daffodil Ave	2 full replacements	$8,000 – $12,000
76-79	Lane Blvd & Riddell Ave	4 full replacements	$16,000 – $24,000
81	Silvernail St & Riddell Ave	1 full replacement	$4,000 – $6,000
82-83	Silvernail St & Daffodil Ave	2 full replacements	$8,000 – $12,000
84-85	Voss St & Riddell Ave	2 full replacements	$8,000 – $12,000
86-87	Voss St & Daffodil Ave	2 full replacements	$8,000 – $12,000
88-89	Weaver St & Daffodil Ave	2 full replacements	$8,000 – $12,000
90-91	Rocky Rd & Daffodil Ave	2 full replacements	$8,000 – $12,000
92-93	Williams Ct & Williams St	2 full replacements	$8,000 – $12,000
94-95	Mellinger Ave & Williams St	2 full replacements	$8,000 – $12,000
96-97	Mellinger Ave & Stone St	2 full replacements	$8,000 – $12,000
98-99	Mellinger Ave & Williams Blvd NW	2 full replacements	$8,000 – $12,000
100-101	Headley Ave & Williams Blvd NW	2 full replacements	$8,000 – $12,000
102-103	Headley Ave & Stone St	2 full replacements	$8,000 – $12,000
104-105	Noble Ave NW & Williams Blvd NW	2 full replacements	$8,000 – $12,000
106-107	Headley Ave & Williams St	2 full replacements	$8,000 – $12,000
108- 109	Nunnally Ave & Williams Blvd NW	2 full replacements	$8,000 – $12,000
110-111	Jurin Ave & Whitley St	2 full replacements	$8,000 – $12,000
112-113	Jurin Ave & Williams Blvd NW	2 full replacements	$8,000 – $12,000
114-117	Anderson St & Nunnally Ave	4 full replacements	$16,000 – $24,000
118-119	Anderson St & Williams St	2 full replacements	$8,000 – $12,000
120-121	Anderson St & Boatman Ave	2 full replacements	$8,000 – $12,000
122-123	Ozzie St & Williams St	2 full replacements	$8,000 – $12,000
124-127	Ozzie St & Vanogle Lane	4 full replacements	$16,000 – $24,000
128-131	Ozzie St & Nunnally Ave	4 full replacements	$16,000 – $24,000
132-135	Cloud St & Nunnally Ave	4 full replacements	$16,000 – $24,000

ID No.	Location (Lowest Priority)	Repair Method	Cost Range
136-139	Cloud St & Nunnally Ave	4 full replacements	$16,000 – $24,000
140 & 143	Sigafoos Ave NW & Ross Ave NW	2 full replacements	$8,000 – $12,000
144-146	Spangler St & Williams St	3 full replacements	$12,000 – $16,000
147	Spangler St & Williams St	1 DWS replacement	$360– $480
148-153	Spangler St & Van Ogle Lane	6 full replacements	$24,000 – $36,000
154-157	Sigafoos Ave & Ross Ave	4 full replacements	$16,000 – $24,000
158-163	Spangler St & O Farrell Lane	5 full replacements	$20,000 – $30,000
168-173	Lane Blvd & Sigafoos Ave	5 full replacements	$20,000 – $30,000
174-179	Lane Blvd & Boatman Ave	6 full replacements	$24,000 – $36,000
180-183	Lane Blvd & Nunnally Ave	4 full replacements	$16,000 – $24,000
184-187	Nunnally Ave & O Farrell Lane	4 full replacements	$16,000 – $24,000
188-191	Nunnally Ave & Colorossi Cir	4 full replacements	$16,000 – $24,000
193	Spangler St & Antonie Lane	1 full replacement	$4,000 – $6,000
194-197	Spangler St & Colorossi Cir	4 full replacements	$16,000 – $24,000
199	Geels Way & Colorossi Cir	1 full replacement	$4,000 – $6,000
206-207	Boatman Ave & Williams Blvd NW	2 full replacements	$8,000 – $12,000
210-211	Antonie Ln & O Farrell Lane	2 full replacements	$8,000 – $12,000
213	Geels Way & O Farrell Lane	1 full replacement	$4,000 – $6,000
216 & 220	Boatman Ave & Louise Wise Ave	2 full replacements	$8,000 – $12,000
224	Sigafoos Ave & Louise Wise Ave	1 full replacement	$4,000 – $6,000
243-244	Whitehawk Blvd & Service Rd	2 full replacements	$8,000 – $12,000
245-246	Corrin Ave & Corrin Ct	2 full replacements	$8,000 – $12,000
247-248	Whitehawk Blvd & Whitehawk Ct	2 full replacements	$8,000 – $12,000
249-250	Whitehawk Blvd & Orting Ave	2 full replacements	$8,000 – $12,000
251-252	Corrin Ave & Rowe St	2 full replacements	$8,000 – $12,000
253-256	Eldredge Ave & Rowe St	4 full replacements	$16,000 – $24,000
257-258	Kensington Ave & Rowe St	2 full replacements	$8,000 – $12,000
259-262	Orting Ave & Orting Ct	4 full replacements	$16,000 – $24,000
263-264	Eldredge Ave & Callendar Ct	2 full replacements	$8,000 – $12,000
265-267	Eldredge Ave & Callendar St	3 full replacements	$12,000 – $16,000
268-269	Kensington Ave & Callendar St	2 full replacements	$8,000 – $12,000
270-273	Orting Ave & Callendar St	4 full replacements	$16,000 – $24,000
274-275	Thompson Ave & Callendar St	2 full replacements	$8,000 – $12,000
276-277	Groff Ave & Burnett Ct	2 full replacements	$8,000 – $12,000
278-280	Groff Ave & Thompson Ave	3 full replacements	$12,000 – $16,000
281	Groff Ave & Orting Ave	1 full replacement	$4,000 – $6,000

ID No.	Location (Lowest Priority)	Repair Method	Cost Range
282-284	Eldredge Ave & Eldredge Ct	3 full replacements	$12,000 – $16,000
302	Bowlin Ave & Parker Lane	1 full replacement	$4,000 – $6,000
303-304	Bowlin Ave & Whitesell St	2 full replacements	$8,000 – $12,000
309	Eldredge Ave & Whitesell Ct	1 DWS replacement	$360 – 480
310	Eldredge Ave & Whitesell Ct	1 full replacement	$4,000 – $6,000
311 & 313	Eldredge Ave & Leber Ct	2 full replacements	$8,000 – $12,000
312 & 314	Eldredge Ave & Leber Ct	2 DWS replacements	$720 – 960
319	Bowlin Ave & Leber St	1 DWS replacement	$360 – 480
320	Bowlin Ave & Leber St	1 full replacement	$4,000 – $6,000
325-326, 328-330	Eldredge Ave & Calistoga St	5 full replacements	$20,000 – $30,000
347	Varner Ave & Calistoga St	1 DWS replacement	$360 – 480
348-351	Varner Ave & Calistoga St	4 full replacements	$16,000 – $24,000
353-354	Varner Ave & Calistoga St	2 full replacements	$8,000 – $12,000
356-357	Eldredge Ave & Train St	2 DWS replacements	$720 – 960
358	Eldredge Ave & Train St	1 full replacement	$4,000 – $6,000
359-362	Corrin Ave & Train St	4 full replacements	$16,000 – $24,000
363-367	Vanscoyoc Ave & Train St	5 full replacements	$20,000 – $30,000
368	Vanscoyoc Ave & Train St	1 DWS replacement	$360 – 480
388	Eldredge Ave & Taylor St	1 full replacement	$4,000 – $6,000
389	Eldredge Ave & Taylor St	1 DWS replacement	$360 – 480
390-391 & 393	Tacoma Ave & Calistoga St	3 full replacements	$12,000 – $16,000
397	Deeded Lane & Calistoga St	1 full replacement	$4,000 – $6,000
398-399	Kansas St & Calistoga St	2 full replacements	$8,000 – $12,000
401-402	Kansas St & Coe Lane	2 full replacements	$8,000 – $12,000
403-404	Kansas St & Ford Lane	2 full replacements	$8,000 – $12,000
405-406	Kansas St & Hays Ave	2 full replacements	$8,000 – $12,000
407-410	Kansas St & Grinnell Ave	4 full replacements	$16,000 – $24,000
411-413	Kansas St & Eldredge Ave	3 full replacements	$12,000 – $16,000
415	Eldredge Ave & River Ave	1 full replacement	$4,000 – $6,000
416	Deeded Lane & Eldredge Ave	1 DWS replacement	$360 – 480
417	Deeded Lane & Eldredge Ave	1 full replacement	$4,000 – $6,000
419	Corrin Ave & Harman Way	1 full replacement	$4,000 – $6,000
420-422	Kansas St & Harman Way	3 full replacements	$12,000 – $16,000
425-427 & 431	Corrin Ave & River Ave	4 full replacements	$16,000 – $24,000
432-435	Vanscoyoc Ave & River Ave	4 full replacements	$16,000 – $24,000
442 & 444	Varner Ave & River Ave	2 full replacements	$8,000 – $12,000

ID No.	Location (Lowest Priority)	Repair Method	Cost Range
443 & 445	Varner Ave & River Ave	2 DWS replacements	$720 – 960
446-449	Varner Ave & River Ave	4 full replacements	$16,000 – $24,000
450-451	Bridge St & River Ave	2 full replacements	$8,000 – $12,000
452-453	Washington Ave & Hardefeldt St	2 full replacements	$8,000 – $12,000
454-458	Varner Ave & Hardefeldt St	5 full replacements	$20,000 – $30,000
460-461	Washington Ave & Olive St	2 full replacements	$8,000 – $12,000
462	Varner Ave & Olive St	1 full replacement	$4,000 – $6,000
464-466	Washington Ave & Brown St	3 full replacements	$12,000 – $16,000
467-469	Varner Ave & Brown St	3 full replacements	$12,000 – $16,000
470-472	Washington Ave & Brown Way	3 full replacements	$12,000 – $16,000
473-475	Brown St & Brown Way	3 full replacements	$12,000 – $16,000
476	Skinner Way & Calistoga St	1 full replacement	$4,000 – $6,000
478-481	Skinner Way & Belfair Ave	4 full replacements	$16,000 – $24,000
482-484	Belfair Ave & Johnson Ct	3 full replacements	$12,000 – $16,000
485-486	Belfair St & Cammarano Ct	2 full replacements	$8,000 – $12,000
487-488	Belfair St & Ford Lane	2 full replacements	$8,000 – $12,000
489	Belfair St & Grinnell Ave	1 full replacement	$4,000 – $6,000
492-494	Skinner Way & Grinnell Ave	3 full replacements	$12,000 – $16,000
495-496	Coplan St & Grinnell Ave	2 full replacements	$8,000 – $12,000
497-498	Coplan St & Coplan Ct	2 full replacements	$8,000 – $12,000
499-500	Icey St & Grinnell Ave	2 full replacements	$8,000 – $12,000
501-504	Balmer St & Grinnell Ave	4 full replacements	$16,000 – $24,000
505	Balmer St & Koehler Ave	1 full replacement	$4,000 – $6,000
507	Balmer St & Carrier Ave	1 full replacement	$4,000 – $6,000
509-510	Buell St & Carrier Ave	2 full replacements	$8,000 – $12,000
515	Park Pl & Beckett Lane	1 DWS replacement	$360 – 480
516	Balmer St & Beckett Lane	1 full replacement	$4,000 – $6,000
519	Maple Lane & Beckett Lane	1 full replacement	$4,000 – $6,000
520-521	McMahon Lane & Beckett Lane	2 full replacements	$8,000 – $12,000
522-523	BTWN McMahon Lane & Harman Way	2 full replacements	$8,000 – $12,000
525-527	Harrison Lane & Harman Way	3 full replacements	$12,000 – $16,000
528-529	Erickson Lane & Harman Way	2 full replacements	$8,000 – $12,000
530	Harman Way & Beckett Lane	1 full replacement	$4,000 – $6,000
531-532	Robin St & Calistoga Ave	2 full replacements	$8,000 – $12,000
534-536	Robin St & Eagle Ave	3 full replacements	$12,000 – $16,000
537-540	Robin St & Blue Jay Ave	4 full replacements	$16,000 – $24,000
541-544	Hawk Ave & Blue Jay Ave	4 full replacements	$16,000 – $24,000
545-547 & 602	Mockingbird St & Eagle Ave	4 full replacements	$16,000 – $24,000

ID No.	Location (Lowest Priority)	Repair Method	Cost Range
548-549	Cardinal St & Calistoga Ave	2 full replacements	$8,000 – $12,000
550-553	Cardinal St & Eagle Ave	4 full replacements	$16,000 – $24,000
556-558	Cardinal St & Phoenix Ave	3 full replacements	$12,000 – $16,000
560-563	Hawk Ave & Goldfinch Ave	4 full replacements	$16,000 – $24,000
564-565	Starling St & Blue Jay Ave	2 full replacements	$8,000 – $12,000
566-568	Starling St & Quail Ave	3 full replacements	$12,000 – $16,000
569-570	Starling St & Goldfinch Ave	2 full replacements	$8,000 – $12,000
571 & 573-575	Hawk Ave & Mockingbird St	4 full replacements	$16,000 – $24,000
576-577	Hawk Ave BTW Phoenix Ave & Mockingbird St	2 full replacements	$8,000 – $12,000
578-581 & 605	Hawk Ave & Phoenix Ave	5 full replacements	$20,000 – $30,000
582-583	Hawk Ave BTW Phoenix Ave & Goldfinch Ave	2 full replacements	$8,000 – $12,000
584	Williams Blvd & Washington Ave	1 full replacement	$4,000 – $6,000
603-604	Cardinal St & Eagle Ave	2 full replacements	$8,000 – $12,000
606-609	Hawk Ave & Quail Ave	4 full replacements	$16,000 – $24,000

4.4 Curb Ramp Barrier Removal Triggers

Curb ramps are sorted first into two categories, compliant and noncompliant. Compliant ramps will remain, while noncompliant ramps are sorted into two further categories, replace or replace detectable warning strip. This is based on if the barrier is due to the characteristics of the ramp or the DWS.

Ramps found to be non-compliant may have elements that are compliant and can be preserved in order to reduce cost. However, the cost to benefit analysis of what elements are to remain should be conducted prior to bidding any ramp reconstruction work, to verify compliance when constructed.

4.5 Barrier Removal Budget

The budget for barrier removal allows for 35 curb ramps to be replaced each year with an annual budget of $311,000 in 2023 dollars (see Appendix B for a detailed breakdown). This budget was set by the amount of curb ramps that need to be replaced and a schedule of fixing all curb ramps within 15 years. Grant opportunities, such as Safe Routes to School, can help with funding for these projects. Additionally, these barriers removals can be included in other roadway project costs. Roadway maintenance projects, in particular reconstruction, should be planned with ADA repairs in mind as they may necessitate reconstruction of ADA facilities.

Commented [LMR14]: Add the annual cost

Commented [LMR15R14]: And note that some may be included in project costs.

Appendix A
References

U.S. Access Board. (2013, February 13). *(Proposed) Public Rights-of-Way Accessibility Guidelines*. U.S. Access Board. Retrieved July 13, 2023, from https://www.access-board.gov/prowag/.

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ADA. *Information and Technical Assistance on the Americans with Disabilities Act, State and Local Governments (Title II)*. United States Department of Justice. Retrieved July 13, 2023, from https://archive.ada.gov/ada_title_II.htm.

Wonch, William. (2022, June). *Local Agency Guidelines*. WSDOT. Received July 13, 2023, from https://www.wsdot.wa.gov/publications/manuals/fulltext/M36-63/LAG.pdf.

Office of the Assistant Secretary for Administration & Management. Section 504, Rehabilitation Act of 1973. U.S. Department of Labor. Received July 13, 2023, from https://www.dol.gov/agencies/oasam/centers-offices/civil-rights-center/statutes/section-504-rehabilitation-act-of-1973

Appendix B

Estimate

Commented [LMR16]: The final line is not Construction Grand Total, it is the Total Cost.

City of Orting - 2023 ADA Replacement Estimate
Costs per Year

Year #	Year	Cost
1	2024	$320,000
2	2025	$330,000
3	2026	$340,000
4	2027	$350,000
5	2028	$360,000
6	2029	$371,000
7	2030	$382,000
8	2031	$394,000
9	2032	$410,000
10	2033	$420,000
11	2034	$430,000
12	2035	$440,000
13	2036	$460,000
14	2037	$470,000
15	2038	$480,000

TOTAL COST	$5,957,000

City of Orting - 2023 ADA Replacement Estimate
Costs per Year

ITEM #	DESCRIPTION	UNIT	UNIT PRICE (2023)	TOTAL QTY.	SUBTOTAL
1	Curb Ramp (removal and replacement)	EA	35	5,000.00	$175,000

CONSTRUCTION SUBTOTAL (2023)	$175,000
DESIGN CONTINGENCY (20%)	$35,000
SUBTOTAL	$210,000

PERMITTING (5%)	$10,500
DESIGN (15%)	$31,500
CITY PM/ADMINISTRATION (3%)	$6,300
CONSTRUCTION MANAGEMENT (15%)	$31,500
MANAGEMENT RESERVE (10%)	$21,000

TOTAL COST	**$311,000**

**Total Curb Ramps = 521 → 35 per year*

City of Orting - 2023 ADA Replacement Estimate
Costs per Year

Project Development Level	Design Contingency	Inflation/yr	Permitting	Design	City PM/Admin	Construction Management	Management Reserve
Planning (<$250k)	50%	3%	5%	25%	5%	25%	10%
Planning ($250k-$1M)	30%	3%	5%	15%	3%	15%	10%
Planning (>$1M)	30%	3%	5%	12%	3%	15%	10%
30% Design (<$250k)	30%	3%	5%	25%	5%	25%	10%
30% Design ($250k-$1M)	20%	3%	5%	15%	3%	15%	10%
30% Design (>$1M)	20%	3%	5%	12%	3%	15%	10%
60% Design (<$250k)	20%	3%	N/A	N/A	5%	25%	10%
60% Design ($250k-$1M)	10%	3%	N/A	N/A	3%	15%	10%
60% Design (>$1M)	10%	3%	N/A	N/A	3%	15%	10%
90% Design (<$250k)	N/A	3%	N/A	N/A	5%	25%	10%
90% Design ($250k-$1M)	N/A	3%	N/A	N/A	3%	15%	10%
90% Design (>$1M)	N/A	3%	N/A	N/A	3%	15%	10%
Final Design (<$250k)	N/A	3%	N/A	N/A	5%	25%	10%
Final Design ($250k-$1M)	N/A	3%	N/A	N/A	3%	15%	10%
Final Design (>$1M)	N/A	3%	N/A	N/A	3%	15%	10%

Appendix C

Zoomed In Maps

Commented [LMR17]: Can we show the ramp number on the blown up maps?? Otherwise - we need to have some correlation between the numbered ramps and the actual locations. Also - check the legends. Complaint vs non compliant should be labeled "Compliance Status".


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AMES ST
BURR ST
FIELDING ST
GIPPLE ST
RIDDELL AVE
HARDTKE AVE
JOHNOK ST
HANSBERRY AVE
PAFFORD AVE
MICHELL LN
KENDALL ST
WHITLEY ST
JURIN AVE
WILLIAMS BLVD
LAWSON CT
MAZZA ST
NELSEN ST
ROBERTS ST
ANDERSON ST
NUNNALLY AVE
CLOUD ST
OZZIE ST
VAN OGLE LN
O FARRELL LN
SIGAFOOS AVE
ROSS AVE
WASHINGTON AVE
BOATMAN AVE
LANE BLVD
OLD PIONEER WAY
SILVERNAIL ST
Legend
Compliance Status
Compliant
Non-Compliant
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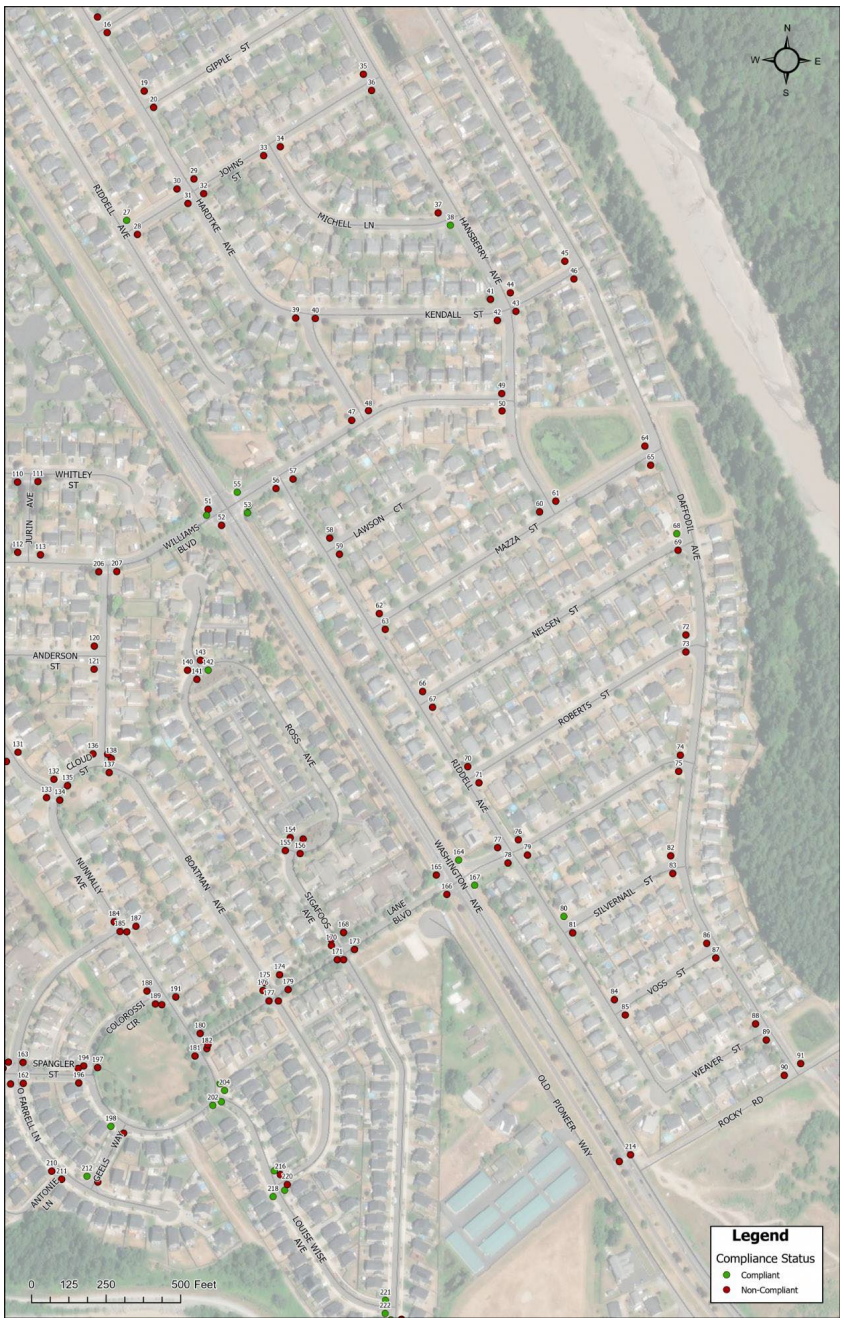
250
500 Feet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JURIN AVE
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LAWSON CT
MAZZA ST
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NELSEN ST
ANDERSON ST
ROBERTS ST
ROSS AVE
CLOUD ST
RIDDELL AVE
NEWNALLY AVE
BOATMAN AVE
SIGAROOS AVE
LANE BLVD
WASHINGTON AVE
SILVERNAIL ST
VOSS ST
COLOBOSSI CIR
SPANGLER ST
FARRELL LN
WEAVER ST
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OLD PIONEER WAY
ANTONIE LN
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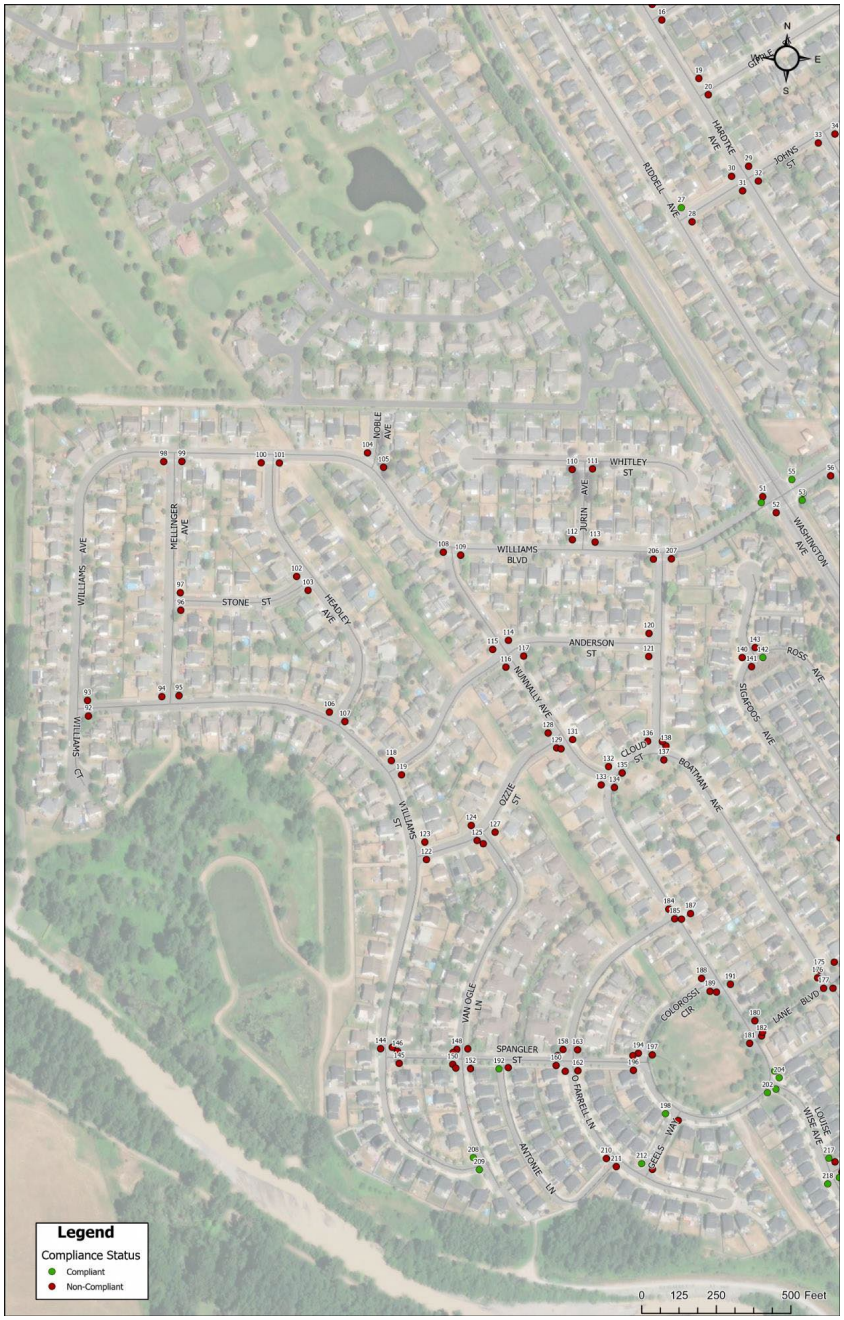
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HEADLEY AVE
ANDERSON ST
ROSS AVE
SIGAFOOS AVE
RUNNALS AVE
CLOUD ST
BOATMAN AVE
OZZIE ST
WILLIAMS ST
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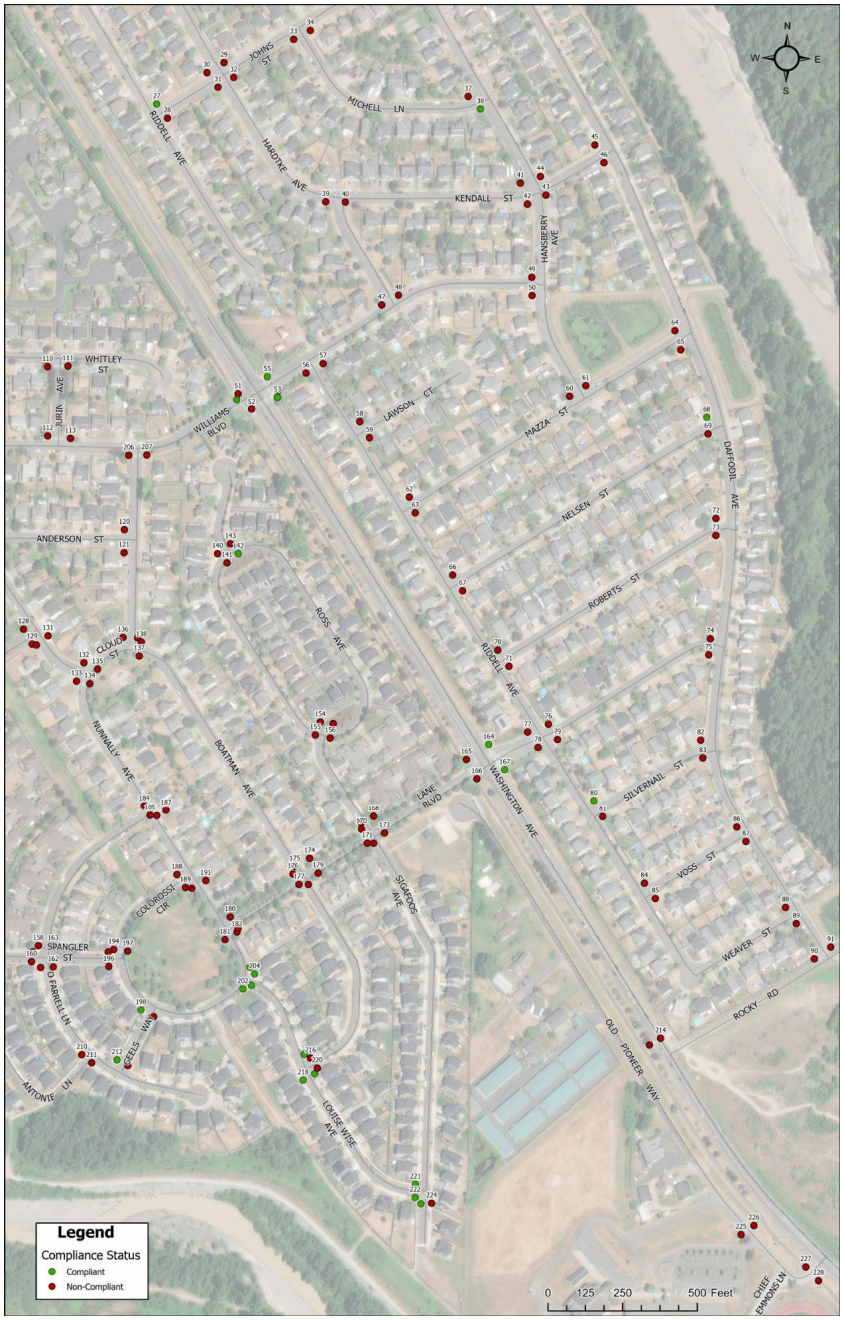
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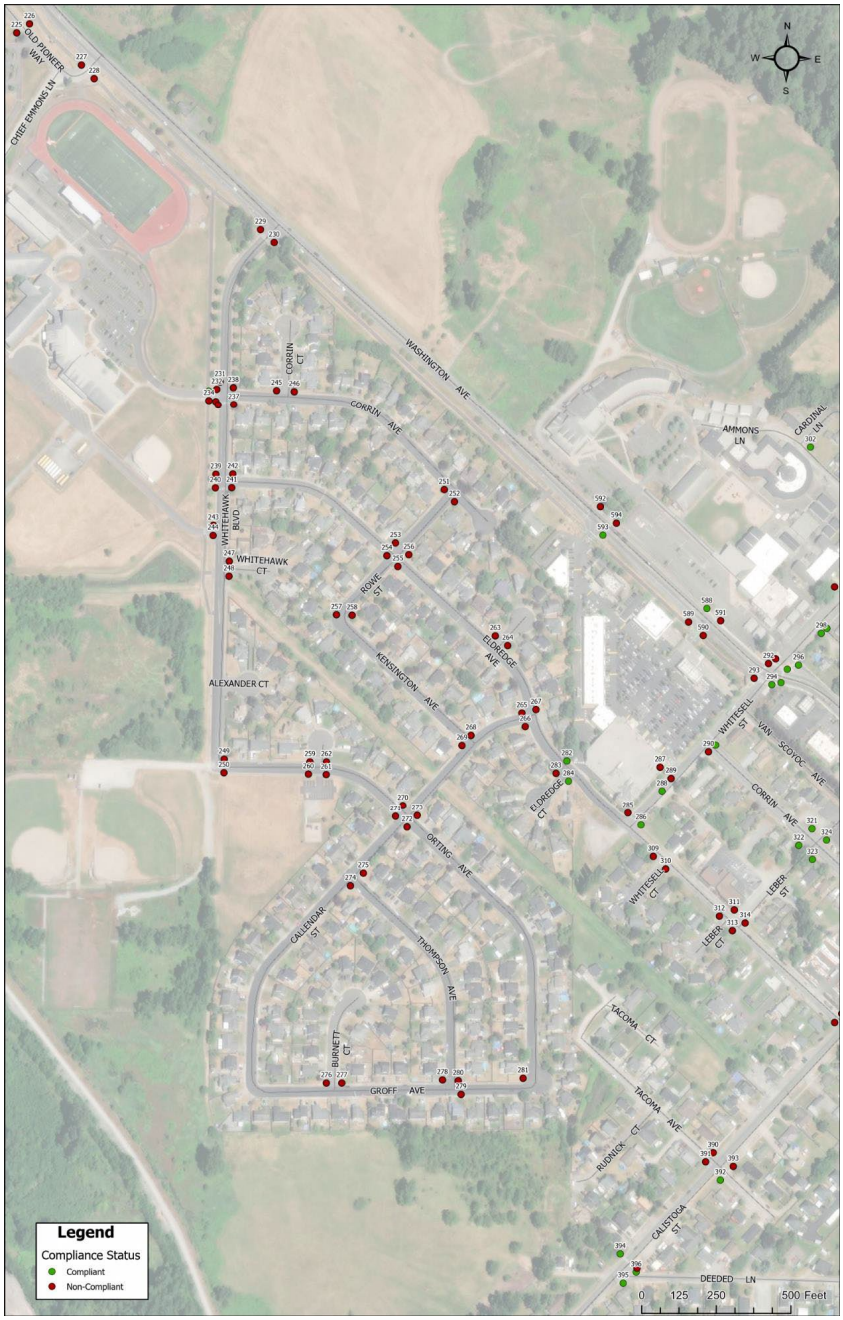
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ALEXANDER CT
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VAN SCOYOC AVE
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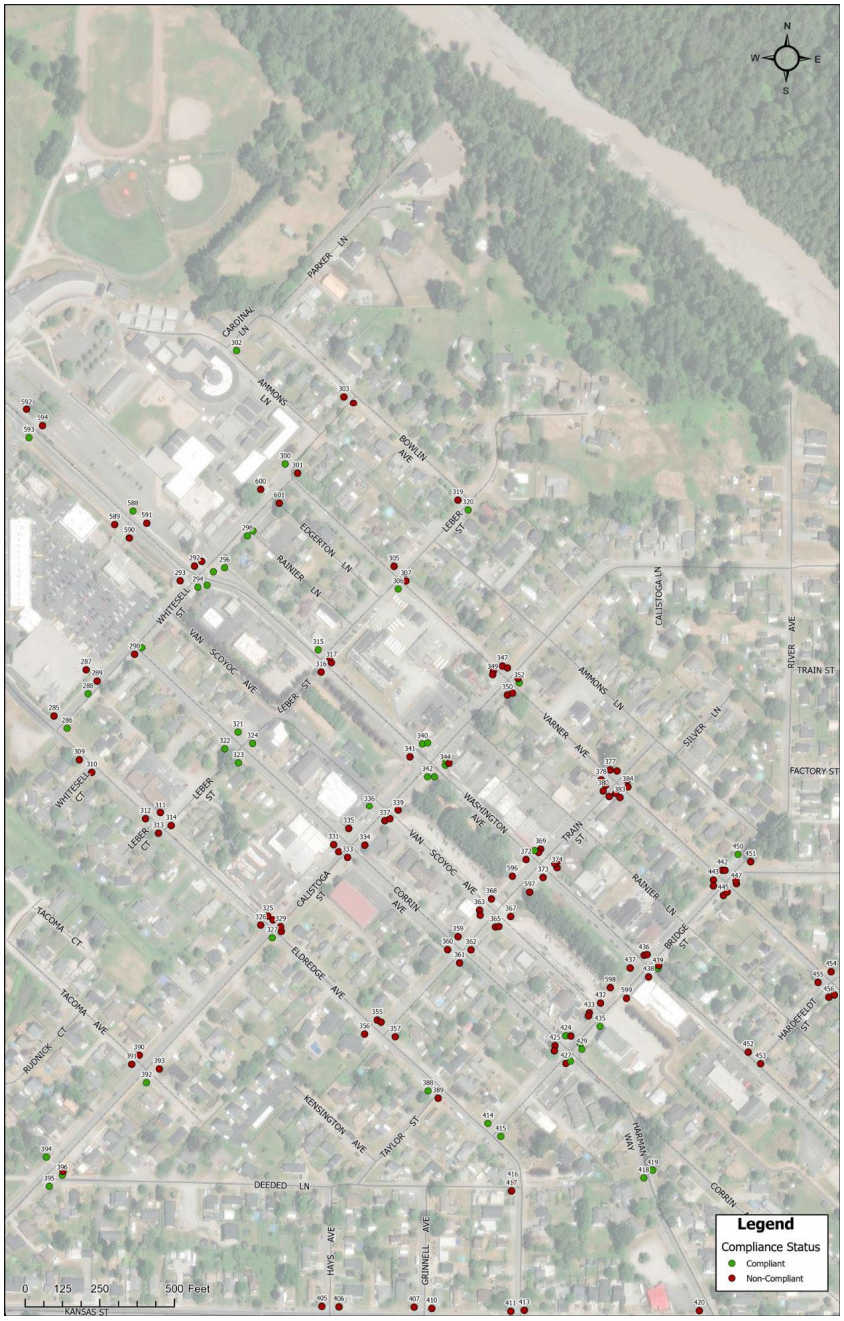
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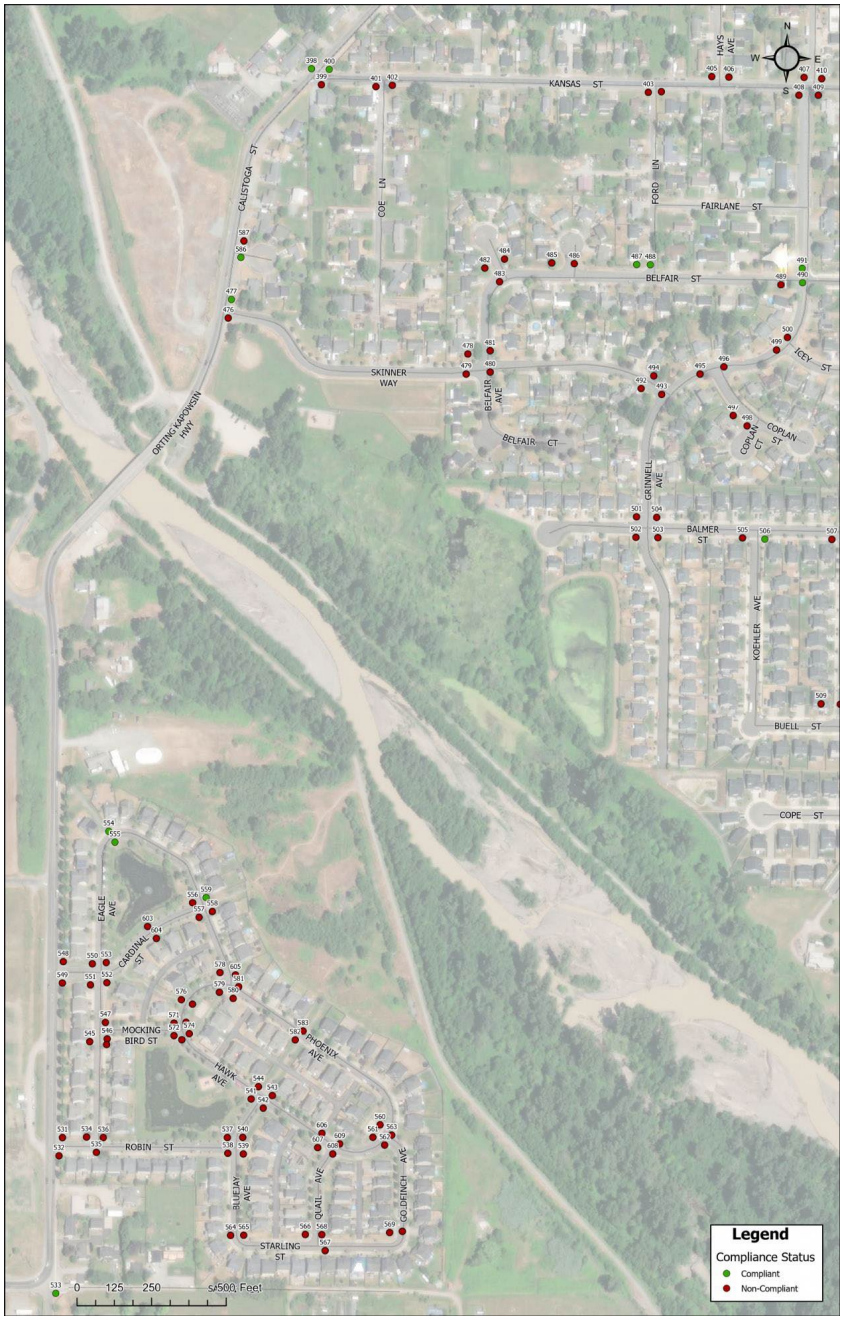
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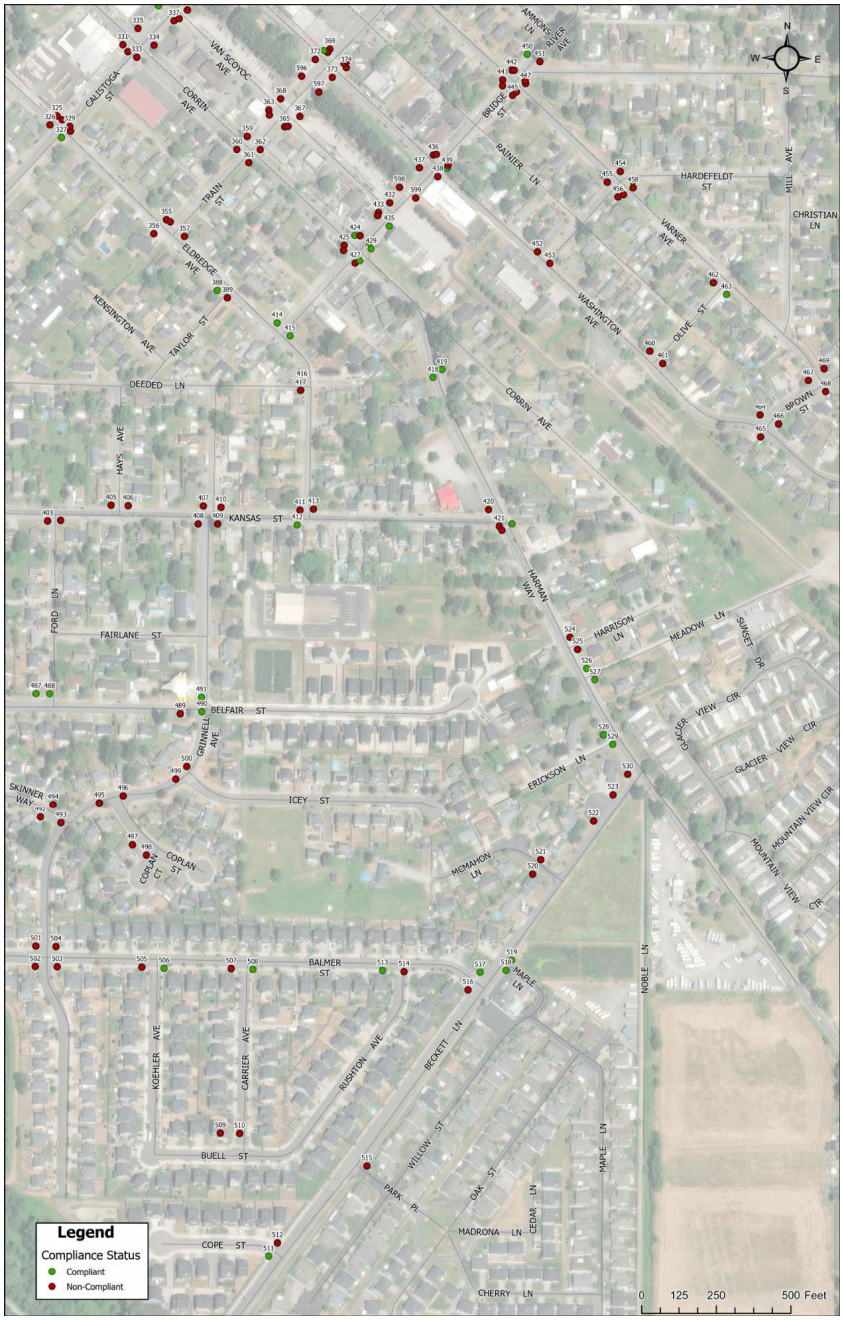
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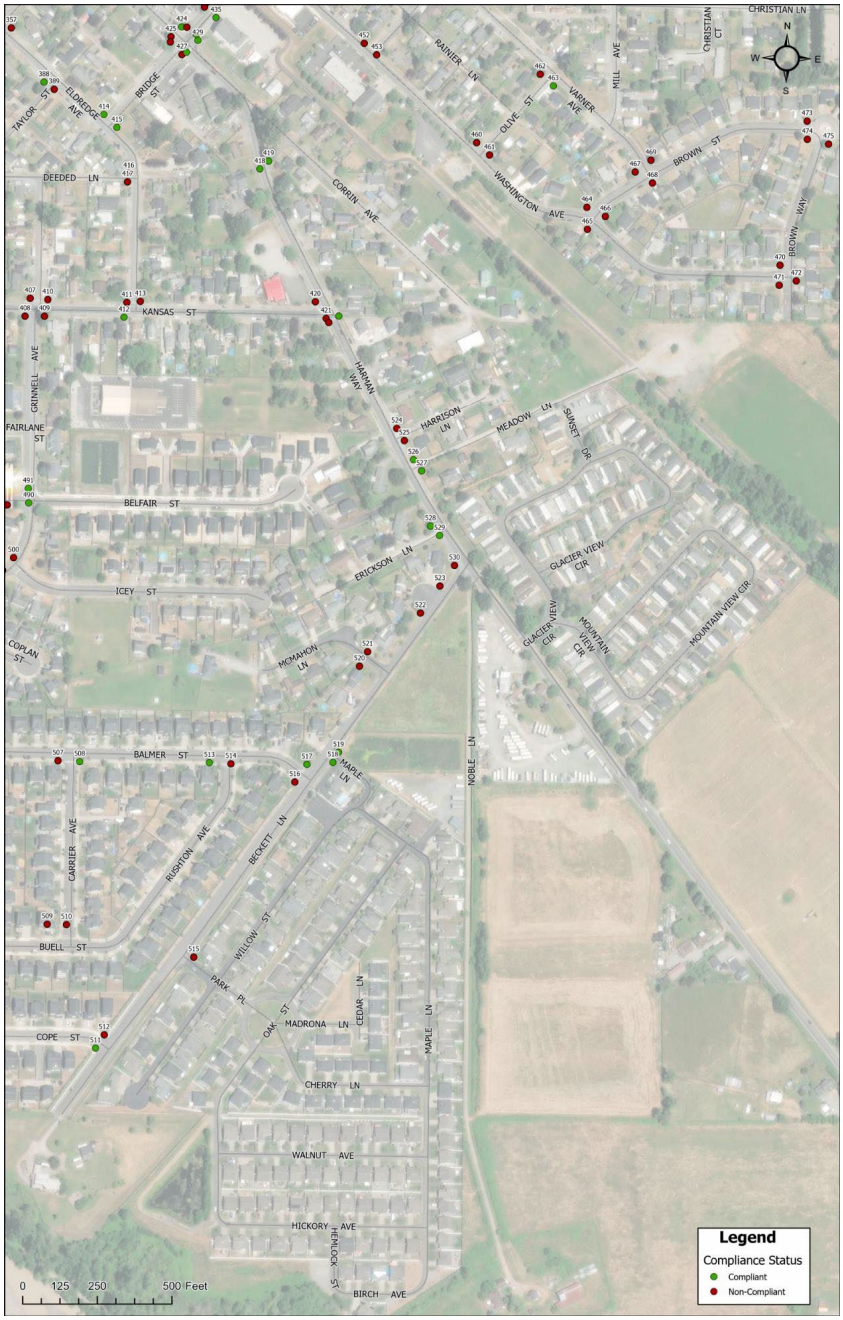
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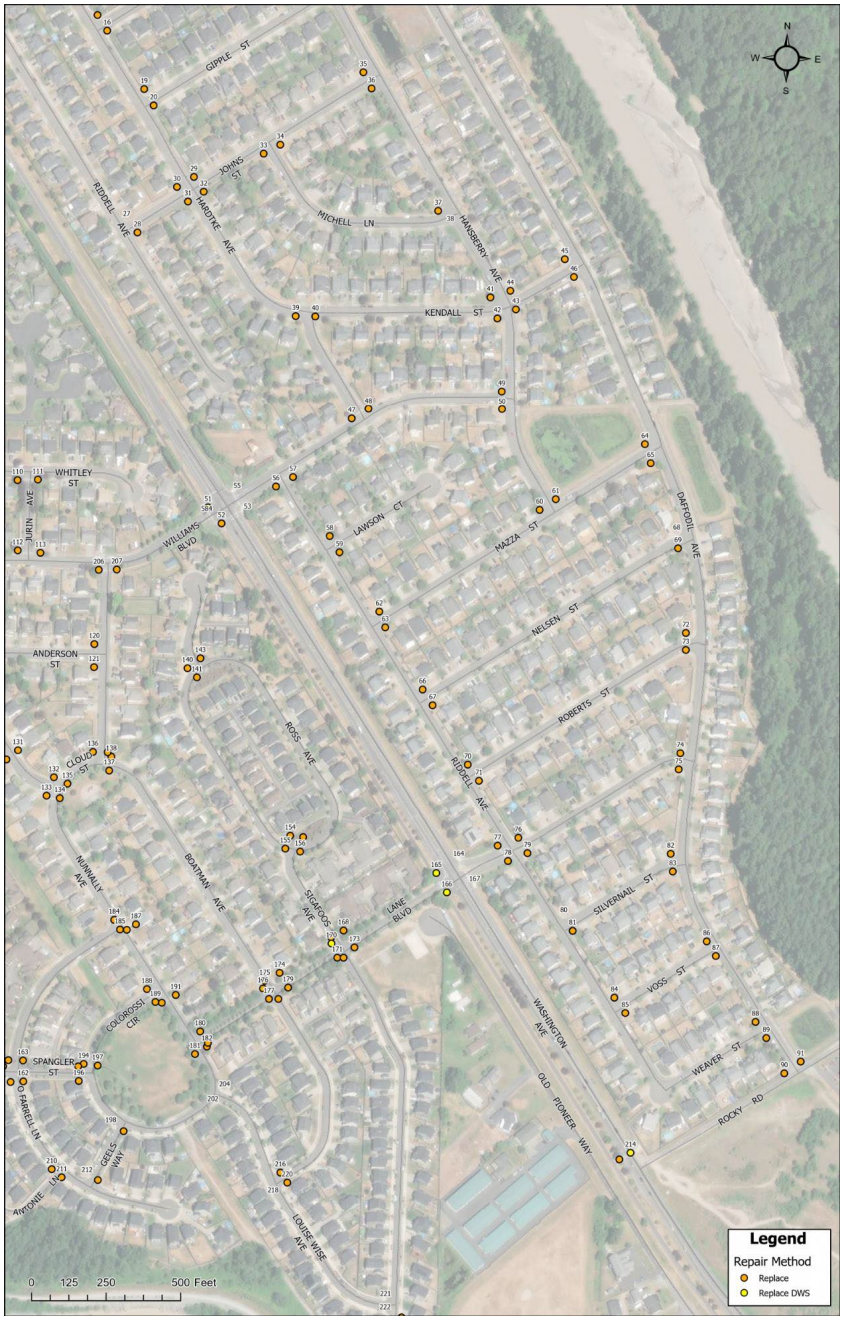
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RIDDELL AVE
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BOATMAN AVE
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SILVERNAIL ST
VOSS ST
WASHINGTON AVE
COLORROSSI CIR
WEAVER ST
SPANGLER ST
FARRELL LN
GEELS WAY
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OLD PIONEER WAY
ANTONIE LN
LOUISE WISE AVE
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Repair Method
Replace
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Repair Method
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ANDERSON ST
STONE ST
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SPANGLER ST
MELLINGER AVE
HEADLEY AVE
WILLIAMS AVE
WILLIAMS CT
WILLIAMS ST
MOBILE AVE
DURIN AVE
WASHINGTON AVE
RIDDELL AVE
GIPPLE ST
HAROLYN AVE
JOHNS ST
ROSS AVE
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CLOUD ST
BOATMAN AVE
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LANE BLVD
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ANTONIE LN
GEILS WAY
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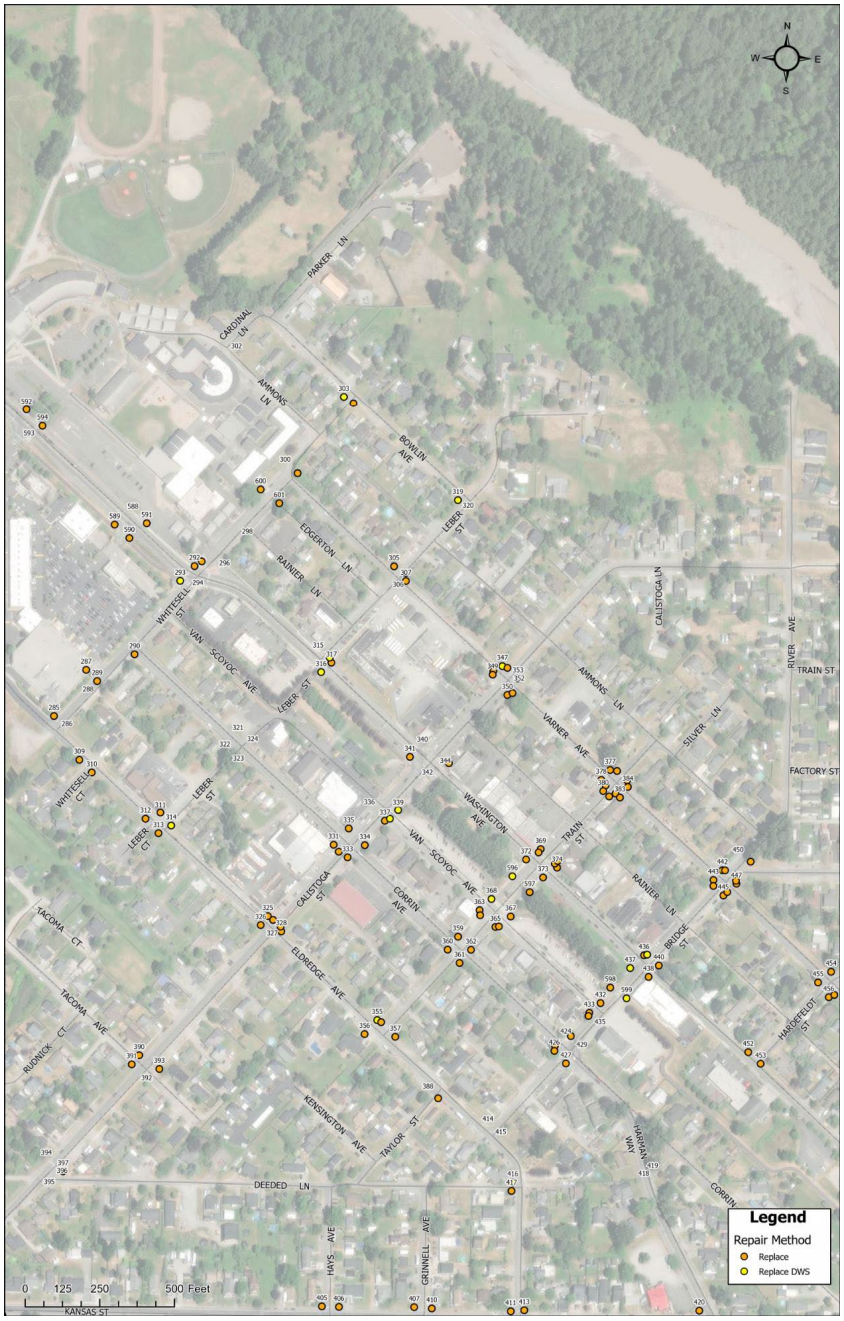
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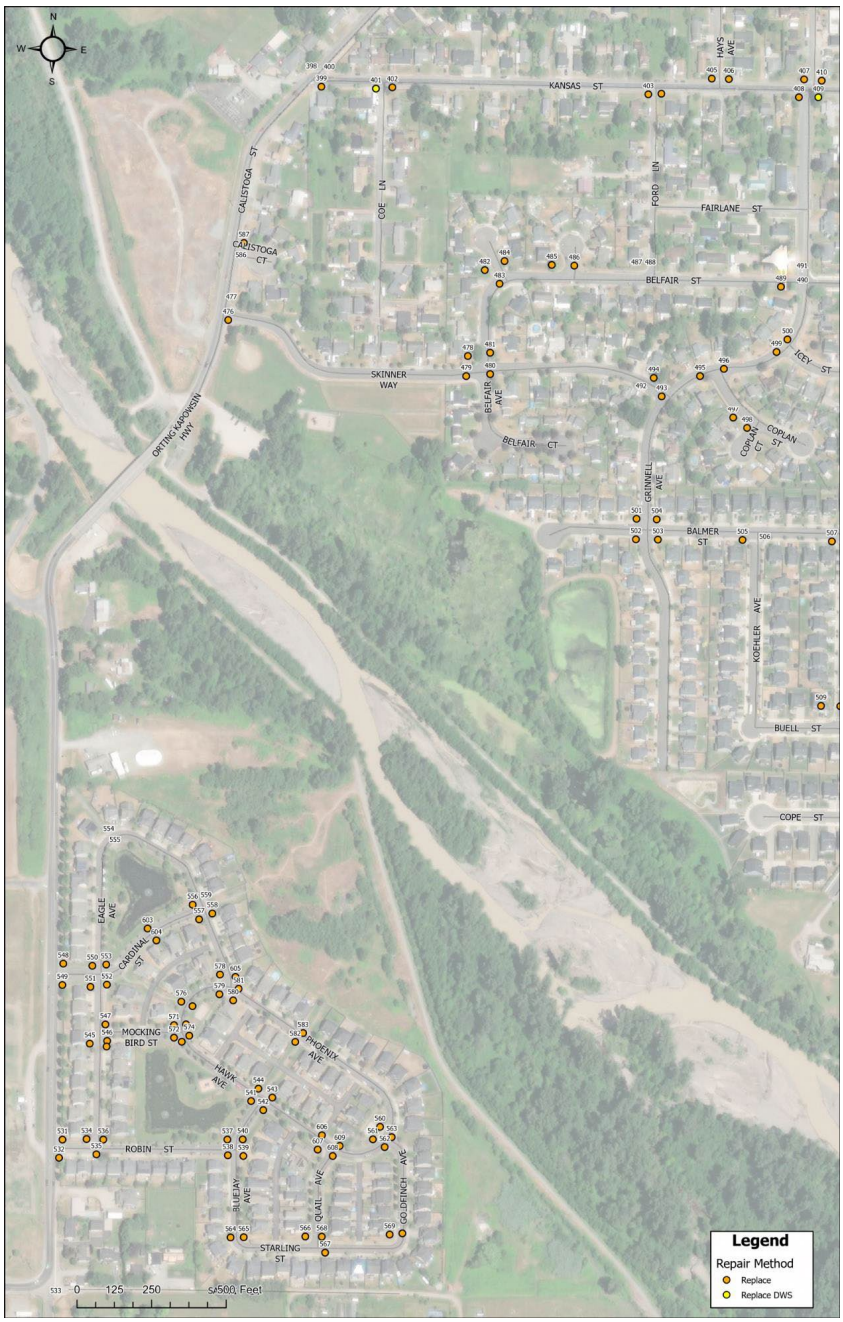
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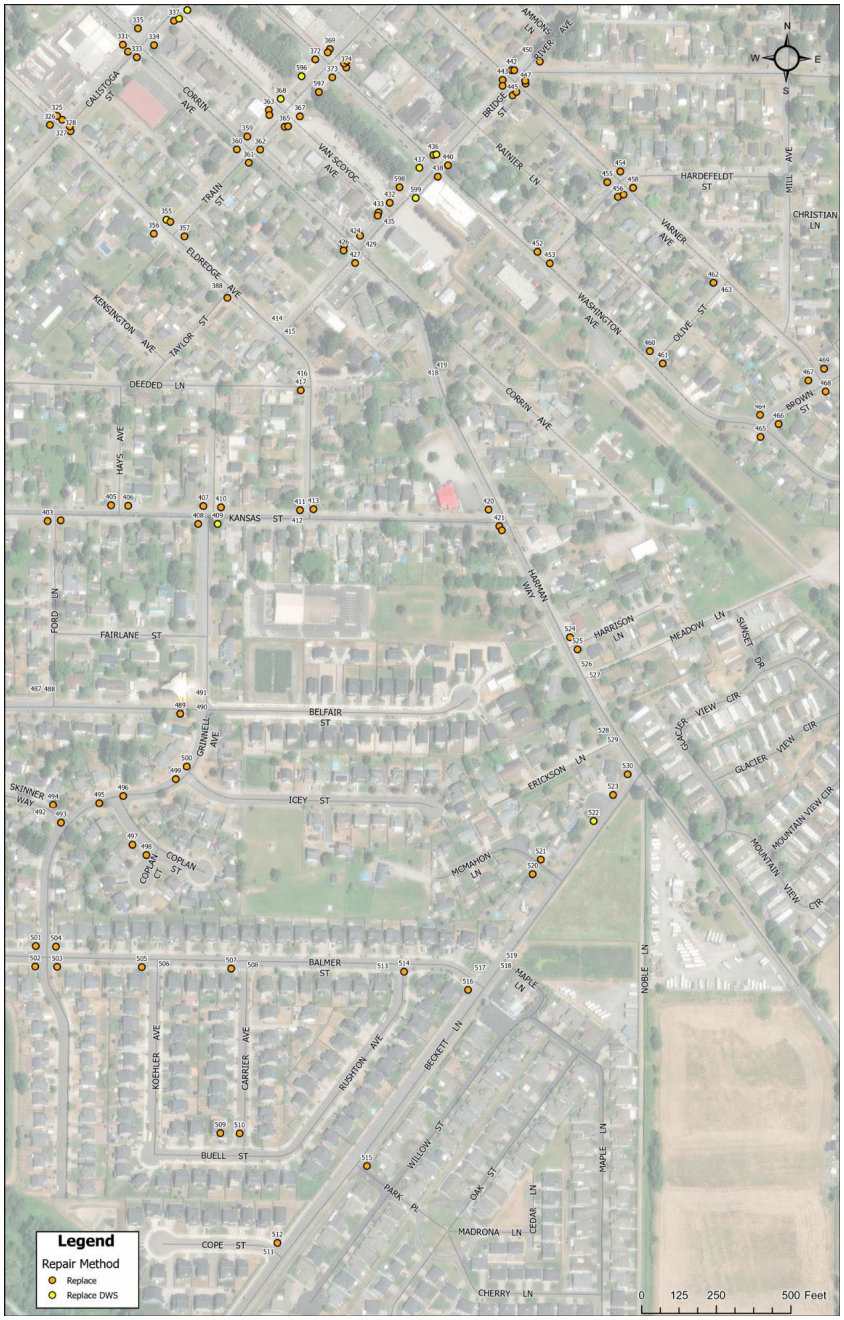
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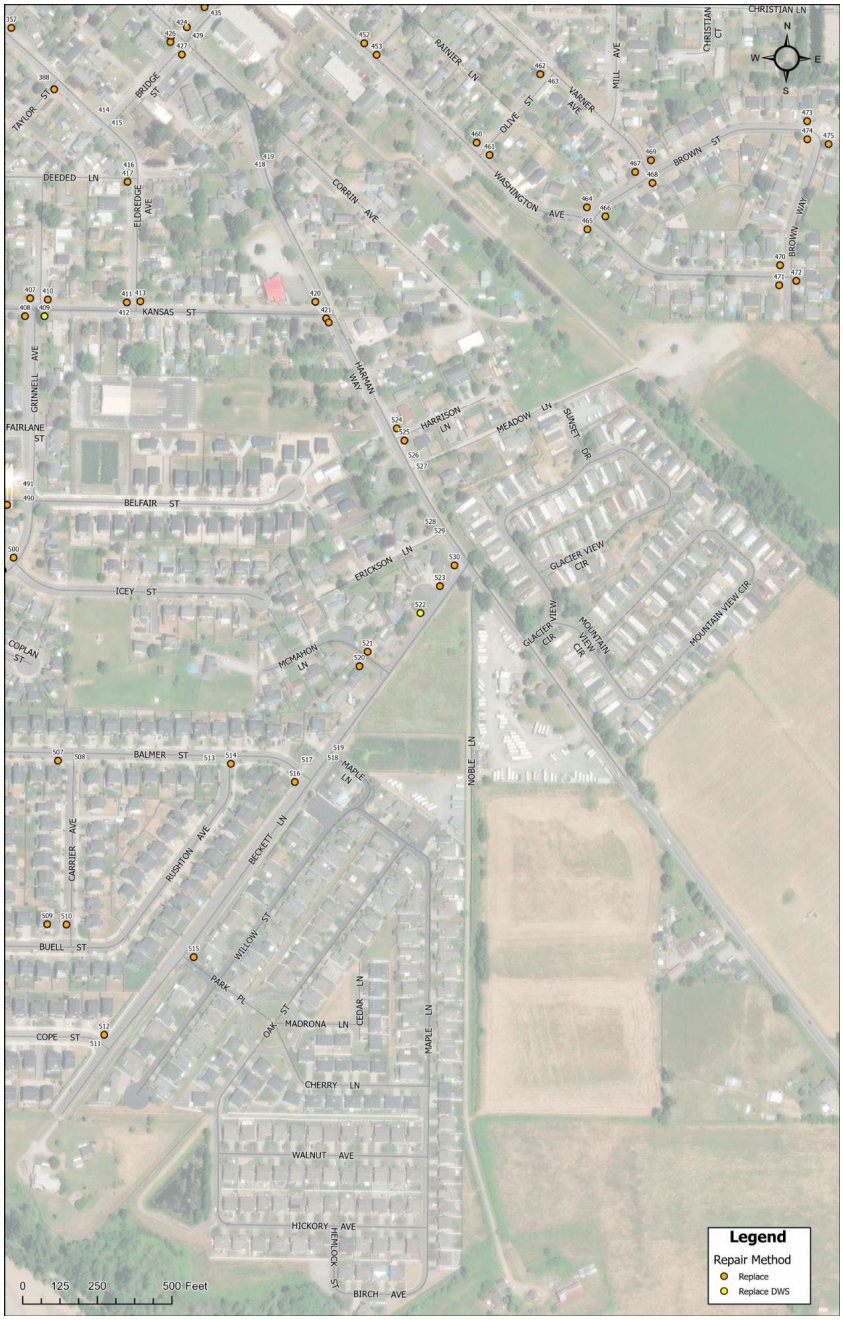
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CITY OF ORTING
WASHINGTON

RESOLUTION NO. 2011-13

A RESOLUTION OF THE CITY OF ORTING, WASHINGTON, ADOPTING AND AUTHORIZING EXECUTION OF AN INTERLOCAL AGREEMENT WITH THE ORTING TRANSPORTATION BENEFIT DISTRICT

WHEREAS, in Ordinance No. 2011-13, the City Council of the City of Orting established the Orting Transportation Benefit District (the "District") as authorized by RCW 35.21.225 and subject to the provisions of RCW 36.73; and

WHEREAS, the District includes the entire City of Orting as the boundaries currently exist; and

WHEREAS, pursuant to RCW 36.73.020(3), the members of the City Council, acting ex officio and independently, constitute the governing body of the District; and

WHEREAS, Chapter 39.34 RCW (Interlocal Cooperation Act) permits local governmental units to make the most efficient use of their powers by enabling them to cooperate on the basis of mutual advantage;

WHEREAS, the City of Orting is empowered to operate, maintain, construct, and reconstruct, public street infrastructure within its city limits in accordance with the powers granted pursuant to RCW 35A.11.020 and Chapter 35A.47 RCW;

WHEREAS, the Governing Board of the District is authorized pursuant to City Ordinance No. 2011-13 to establish an annual vehicle license fee in the amount of twenty dollars ($20), consistent with RCW 36.73.065, to be collected by the Washington Department of Licensing on qualifying vehicles, set forth in RCW 82.80.140 and Chapters 36.73 and 46.16 RCW and to be used for the purpose of preservation and maintenance of public transportation infrastructure; and

WHEREAS, the City Council finds it in the best interests of the City to enter into an Interlocal agreement with the District to provide a mechanism for the coordination of efforts with the District in order to better pursue the District's and the City's individual, joint and mutual rights and obligations to maintain and preserve streets and related transportation infrastructure within the City of Orting;

NOW, THEREFORE THE CITY COUNCIL OF THE CITY OF ORTING, WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. Interlocal Agreement with the Orting Transportation Benefit District. The Mayor of the City of Orting is hereby authorized to execute the Interlocal Agreement with the Orting Transportation Benefit District in substantially the form of the Interlocal agreement on file with the City Clerk.

PASSED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE 30TH DAY OF NOVEMBER, 2011.

CITY OF ORTING

_____
Cheryl M. Temple, Mayor

ATTEST/AUTHENTICATED:

_____
Mark Bethune, City Clerk

Approved as to form:

_____
Chris Bacha
Kenyon Disend, PLLC,
City Attorney

Passed by the City Council:11/30/11
Resolution No.:2011-13

CITY OF ORTING
WASHINGTON

RESOLUTION NO. 2011-13

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WHEREAS, the District includes the entire City of Orting as the boundaries currently exist; and

WHEREAS, pursuant to RCW 36.73.020(3), the members of the City Council, acting ex officio and independently, constitute the governing body of the District; and

WHEREAS, Chapter 39.34 RCW (Interlocal Cooperation Act) permits local governmental units to make the most efficient use of their powers by enabling them to cooperate on the basis of mutual advantage;

WHEREAS, the City of Orting is empowered to operate, maintain, construct, and reconstruct, public street infrastructure within its city limits in accordance with the powers granted pursuant to RCW 35A.11.020 and Chapter 35A.47 RCW;

WHEREAS, the Governing Board of the District is authorized pursuant to City Ordinance No. 2011-13 to establish an annual vehicle license fee in the amount of twenty dollars ($20), consistent with RCW 36.73.065, to be collected by the Washington Department of Licensing on qualifying vehicles, set forth in RCW 82.80.140 and Chapters 36.73 and 46.16 RCW and to be used for the purpose of preservation and maintenance of public transportation infrastructure; and

WHEREAS, the City Council finds it in the best interests of the City to enter into an Interlocal agreement with the District to provide a mechanism for the coordination of efforts with the District in order to better pursue the District's and the City's individual, joint and mutual rights and obligations to maintain and preserve streets and related transportation infrastructure within the City of Orting;

NOW, THEREFORE THE CITY COUNCIL OF THE CITY OF ORTING, WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. Interlocal Agreement with the Orting Transportation Benefit District. The Mayor of the City of Orting is hereby authorized to execute the Interlocal Agreement with the Orting Transportation Benefit District in substantially the form of the Interlocal agreement on file with the City Clerk.

PASSED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE _____ DAY OF _____, 2011.

CITY OF ORTING

_____
Cheryl M. Temple, Mayor

ATTEST/AUTHENTICATED:

_____
Mark Bethune, City Clerk

Approved as to form:

_____
Chris Bacha
Kenyon Disend, PLLC,
City Attorney

Filed with the City Clerk:
Passed by the City Council:
Resolution No.:
Date Posted:

ORTING TRANSPORTATION BENEFIT DISTRICT

WASHINGTON

TBD RESOLUTION NO. 2014-1

A RESOLUTION OF THE ORTING TRANSPORTATION BENEFIT DISTRICT; AMENDING TBD RESOLUTION NO. 2012-1; AUTHORIZING CONTINUED COLLECTION OF THE TWENTY DOLLAR ($20.00) VEHICLE LICENSE FEE; AUTHORIZING FUNDING OF TRANSPORTATION IMPROVEMENT PROJECTS APPROVED BY THE CITY COUNCIL PURSUANT TO RESOLUTION NO. 2014-9; REQUESTING THE ORTING CITY ADMINISTRATOR TO NOTIFY THE WASHINGTON STATE DEPARTMENT OF LICENSING OF THE AMENDMENTS HEREIN; PROVIDING FOR SEVERABILITY; AND, ESTABLISHING AN EFFECTIVE DATE

WHEREAS, RCW 36.73.065 authorizes transportation benefits districts to impose, by majority vote of the transportation benefit district Board, an annual vehicle license fee of up to twenty dollars ($20.00) as authorized in RCW 82.80.140 and Ch. 46.16 RCW; and

WHEREAS, pursuant to TBD No. 1 Resolution No. 2012-1, the TBD No. 1 approved imposition of an annual vehicle license fees of twenty dollars ($20.00) for a limited period of twenty-four (24) months to fund approved transportation improvement projects; and

WHEREAS, following a properly noticed public hearing on May 14, 2014, the Orting City Council pursuant to Resolution No. 2014-9, authorized an amendment to the projects approved for funding by TBD No. 1 as set forth in Exhibit "A" and further recommended that the TBD Board extend imposition of the $20.00 vehicle license fee for the purpose of continued funding of approved transportation improvement projects; and

WHEREAS, upon recommendation of the City Council and after consideration of all relevant matters and having been in all other matters fully advised, the TBD No. 1 Board finds that the list of projects to be funded by the TBD No. 1 should be amended as set forth in Exhibit "A" to City Council Resolution No. 2014-9 and that the time limitation upon imposition of vehicle license fees should be removed in order to provide funding for the approved transportation improvement projects and that the TBD No. 1 Board should periodically, but no less than every two (2) years, review the necessity of continued imposition of vehicle license fees to fund the approved transportation improvement projects;

NOW, THEREFORE, THE BOARD OF THE ORTING TRANSPORTATION BENEFIT DISTRICT DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. Amendment of Section 3 of TBD Resolution No 2012-1. Section 3 of TBD Resolution No. 2012-1 is hereby amended as follows:

> Section 3. Transportation Improvements Funded. The funds collected from the vehicle license fees shall be used exclusively to fund those transportation improvement projects as set forth in City Council Resolution No. 2012-8 and City Council Resolution No. 2014-9, and consistent with Chapter 36.73 RCW; provided that, the DOL shall deduct a percentage amount, as provided by contract, not to exceed one percent of the fees collected, for administration and collection expenses incurred by it.

Section 2. Amendment of Section 4 of TBD Resolution No 2012-1. Section 4 of TBD Resolution No. 2012-1 is hereby amended as follows:

> Section 4. Monitoring of Expenditures. The TBD Board further requests that the City cause its City Administrator, or designee, to monitor the collection of the annual vehicle license fees and the progress of the approved transportation improvements, and work cooperatively with DOL to ensure ~~that~~ the collection of the annual vehicle license fees that are timely paid does not exceed the ~~twenty-four (24) month time-period estimated to be~~ the time-period necessary to fund completion of the approved transportation improvements; provided that, the vehicle license fee shall cease no later than dissolution of the TBD.

Section 3. Effect of Amendments. The TBD Board intends that the effect of this amendment to TBD Resolution No. 2012-1 is to remove the time-limitation upon collection of the annual vehicle license fee in the amount of twenty dollars ($20.00) imposed pursuant to TBD Resolution No. 2012-1 and to authorize use of the collected vehicle license fees to fund the projects approved pursuant to City Council Resolution No. 2012-8 and City Council Resolution No. 2014-9.

Section 4. Notification to the Department of Licensing. The TBD Board requests that the City cause its City Administrator, or designee, to notify the Department of Licensing as soon as practical of the amendments herein that remove the time limit imposed upon the collection of the annual vehicle license fee in the amount of twenty dollars ($20.00) imposed pursuant to TBD Resolution No. 2012-1.

Section 5. Periodic Review. The TBD Board shall periodically, but no less than every two (2) years, review the necessity of continued imposition of vehicle license fees to fund the approved transportation improvement projects.

Section 6. Severability. If a section, subsection, paragraph, sentence, clause, or phrase of this resolution is declared unconstitutional or invalid for any reason by any court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of this resolution.

Section 7. Effective Date. This Resolution shall take effect and be in full force immediately upon its passage.

PASSED BY THE BOARD AT A REGULAR MEETING THEREOF ON THE 14th DAY OF MAY, 2014.

ORTING TRANSPORTATION BENEFIT DISTRICT:

_____
Graham Hunt, Chair

ATTEST/AUTHENTICATED:

_____
Mark Bethune, District Treasurer

TBD Resolution No. 2014-1
Passed by the City Council: 5/14/14

Memo

To: CM Williams, CM Moore

From: Scott Larson, City Administrator

cc: Marshal Mauer, Public Works Director; John Bielka, Capital Projects Manager

Date: August 24, 2023

Re: Funding for Pavement Preservation and ADA Transition Plan

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Street Condition Assessment:

1. In 2011 the council adopted Ordinance No. 920, establishing a Transportation Benefit District for the purpose of a stable funding source to maintain existing motorized transportation facilities, as existing resources were found to be inadequate for this purpose, by assessing a $20 per vehicle tax paid at the time of vehicle license renewal.
2. In 2015 the council adopted Ordinance No. 2015-972 which dissolved the District and absorbed it under the "City" government continuing with established plan and goals of street preservation and maintenance.
3. In 2016 council adopted Resolution No. 2016-29 modifying permissible uses of TBD funding to include non-motorized transportation facilities.
4. In 2020 Council adopted Ordinance No. 2020-1058 which reduced the TBD fee to $0.00 following passage of I-976.
5. In October of 2020 the Washington State Supreme Court found I-976 unconstitutional, allowing cities to continue assessing transportation benefit district fees.
6. In 2022, the council adopted a goal of completing a street assessment and coming up with a plan to pay for said maintenance.

The TBD fee was the city's primary source of revenue for street maintenance (chip seal/grind & overlay) of our city streets. In 2022 council approved a scope and budget for SCJ Alliance to complete a street assessment and propose a maintenance program for council to consider. The tenants of this program would be consistent cost over time with the goal of addressing pavement maintenance over a 7-10-year timeframe.

SCJ Alliance proposed a 6-year schedule to complete recommended street maintenance which would cost more than is annually feasible. Staff recommend looking to spend about $100 thousand internal dollars (funding to be determined) and leverage those funds with Transportation Improvement Board pavement preservation grant funds.

ADA Self Assessment

SCJ alliance completed an ADA self-assessment of city facilities within the Right of Way. To maintain eligibility for federal transportation funds, the city has to demonstrate progress on addressing non-compliant facilities. The assessment determined that there are a large portion of the city's pedestrian ramps that do not meet the 2012 standards, which are the most current standards. SCJ shows in their assessment what a 10-year replacement timeline would look like, which would cost approximately $400 thousand per year. This amount is not feasible for the city to collect and spend internally. Staff believe that committing $50,0000 per year to ramp replacements, along with grant funds for the same, we can make adequate progress on this by starting with areas that are most used, or areas that the public identifies as being a hinderance to their mobility.

Funding Options

With the assumption that we are looking at funding these projects through mechanisms allowed under Chapter 36.73 RCW, the Transportation Benefit Districts statute, the two primary options are, as outlined by the Municipal Research and Service Center (MRSC):

Sales and Use Taxes

The most common TBD funding source is a sales and use tax of up to 0.3% (RCW 82.14.0455, RCW 36.73.040(3)(a)).

Effective July 1, 2022, 0.1% of this sales tax may (optionally) be imposed councilmanically (by a majority vote of the governing board), as long as the TBD includes all of the territory within the jurisdiction(s) forming the TBD. Otherwise, the sales tax must be approved by a simple majority of voters.

These sales tax may generally not exceed 10 years, but they may be renewed for additional 10-year periods with voter approval or a vote of the governing board, as appropriate. The TBD sales tax may only exceed 10 years for the repayment of debt, in which case the ballot measure should state the intended use and duration of the debt service.

In recent years, voters have approved the vast majority of all proposed TBD sales and use taxes…

Vehicle License Fees

Another common TBD funding source is a vehicle license fee (RCW 82.80.140, RCW 36.73.040(3)(b)). Initiative 976, approved by voters in 2019, would have eliminated the ability to impose any TBD vehicle license fees. However, this initiative was ruled unconstitutional by the state Supreme Court in 2020 (Garfield County Transp. Auth. et al. v. State et al.).

TBDs may impose councilmanic vehicle license fees up to $50 without voter approval, subject to the following conditions, or may impose fees up to $100 with voter approval.

A TBD may impose a nonvoted vehicle license fee up to $20 at any time, but a TBD may only impose a nonvoted vehicle license fee above $20 as follows:

- Up to $40, but only if a $20 fee has been in effect for at least 24 months.
- Up to $50, but only if a $40 fee has been in effect for at least 24 months. Any nonvoted fee higher than $40 is subject to potential referendum, as provided in RCW 36.73.065(6).

Any license fees over these amounts, up to a maximum of $100, must be approved by a simple majority of voters. However, most jurisdictions have opted for the councilmanic (nonvoted) fees. The only TBD to successfully pass a voted vehicle license fee is the Seattle TBD, where voters approved a $60 fee increase in 2014 after rejecting a similar increase in 2011. A handful of other jurisdictions have attempted voted TBD license fees without success, including Bremerton, Burien, and Edmonds (all in 2009) and King County (in 2014).

Based on the city's prior experience with TBD fees and sales taxes here are the estimated revenues each source would raise:

Fee	Estimated Revenue
Tab Fee ($20)[1]	$140,000
Sales Tax (0.1%)	$100,000
Voter Approved Sales Tax (up to 0.3%)	$300,000

The table below shows TBD revenue since 2015:

Year	Revenue	Population	$/capita
2015	127,848.60	7,501	17.04
2019	132,580.80	7,785	17.03
2017	135,991.35	8.126	16.74
2018	138,512.55	8,415	16.46
2019[2]	140,898.45	8,735	16.13
2020	42,995.70	9,041	-
2021	178.20	9,010	-
2022	19.80	9,055	-
2023	0.00	9,110	-
Grand Total	719,025.45		

[1] It is estimated that the city would receive approximately $15.50 per capita for license tab fees of $20 per registered vehicle.
[2] 2019 was the city's last full year of TBD fees.

City Of Orting
Council Agenda Summary Sheet

	Agenda Bill #	Recommending Committee	Study Session Dates	Regular Meeting Dates
Subject: Side Sewer Policy and Procedure	**AB19-XX**	Public Works	11/15/2023	11/1/2023
	Department:	Public Works Department		
	Date Submitted:			
Cost of Item:		$ N/A		
Amount Budgeted:		$ N/A		
Unexpended Balance:		$ N/A		
Bars #:		N/A		
Timeline:		Q4 2023		
Submitted By:		Marshall Maurer, Public Works Director		
Fiscal Note: N/A				
Attachments:				

SUMMARY STATEMENT:

Existing side sewer verbiage in city code may be improved to clarify standard, reduce future conflicts and confusion, and align with regional municipal best practices.

RECOMMENDED ACTION: Based on MRSC best practices, staff recommends code adoption of side sewer repair and replacement as responsibility of home owner, as it could potentially be considered gift of public funds for a public utility to maintain side sewers benefiting private property interest, except when private benefit of side sewer maintenance is incidental to overall public benefit (see AGO 2009 No.5).
Staff recommends City of Orting follow lead of City of Tacoma and that real estate professionals be required by city code to provide side sewer educational flyers to property buyers and sellers they are representing, prior to closing.

FUTURE MOTION: Motion to adopt following language into City of Orting municipal code: “Side sewer repair and replacement are sole responsibility of home owner, including in municipal right-of-way. Exceptions may be granted at City discretion when private benefit of side sewer maintenance is incidental to overall public health.

CITY OF ORTING
WASHINGTON
ORDINANCE NO. 2018-XXXX

AN ORDINANCE OF THE CITY OF ORTING, WASHINGTON, RELATING TO BUILDING SIDE SEWERS; AMENDING ORTING MUNICIPAL CODE SECTIONS 9-2A-1 AND ARTICLE 9-2C; PROVIDING FOR SEVERABILITY; AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, the City of Orting is a non-charter optional municipal code city as provided in Title 35A RCW, incorporated under the laws of the state of Washington; and

WHEREAS, the City of Orting has codified its regulations concerning its sanitary sewer system in Chapter 9-2 of the Orting Municipal Code ("OMC"); and

WHEREAS, a recent audit of the City's regulations for building sewers, commonly referred to as "side sewers" uncovered that some of the regulations pertaining to repair and maintenance thereof are outdated and do not adequately address current needs; and

WHEREAS, this ordinance and the amendments therein will clarify the City's regulations pertaining the ownership and maintenance of side sewers within the public right of way and on private property; and

WHEREAS, the City Council intends by this ordinance to protect the public health, safety, and welfare by clarifying the City's existing regulations related to side sewers, and to update the City's regulations to reflect the current needs of the City; and

WHEREAS, City Council has determined that the proposed regulations are in accord with the Comprehensive Plan, will not adversely affect the public health, safety, or general welfare, and are in the best interest of the citizens of the City;

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ORTING, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. OMC Title 9, Chapter 2, Article A, Section 1, Amended. Orting Municipal Code Title 9, Chapter 2, Article A, Section 1, is hereby amended to read as follows:

9-2A-1: DEFINITIONS:

Unless the context specifically indicates otherwise, the meaning of terms and words used in this chapter shall be as follows:

AFTERHOURS. The phone number to call only in emergency situations, where City Hall is closed afterhours and weekends.

BOD (Biochemical Oxygen Demand): The quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure as described in the most current edition of "Standard Methods For The Examination Of Water And Wastewater" in five (5) days at twenty degrees Celsius (20°C) expressed in milligrams per liter.

BUILDING DRAIN: That part of the lowest horizontal piping of a drainage system which receives the discharge from sanitary waste floor drains and other drainage pipes inside the walls of the building and conveys it to the inner face of the building wall.

BUILDING SEWER, CONNECTING SEWER OR HOUSE LATERAL: "Building Sewer" means that part of the lowest horizontal piping of the building sewer system which receives the discharge from wastewater pipes inside of the building footprint and conveys it to the side sewer at 5' outside of the building footprint. Building sewers are private sewers and are not part of the public system. ~~The private extension from the building drain to the public sewer, STEP tank or other place of disposal. A.~~

CITY: The city of Orting, Washington.

CITY CLERK: The city clerk of the city of Orting.

CITY ENGINEER: The engineer of the city of Orting or the person authorized by the mayor to act as such.

CITY TREASURER: The city treasurer of the city of Orting.

COLLECTION SYSTEM: The system of public sewers to be operated by the city designed for the collection of sanitary sewerage.

COMMERCIAL USER: Any premises used for commercial or business purposes which is not a residential user and not an industry as defined in this article. A commercial user is one who introduces primary domestic wastes and wastes from sanitary conveniences into the sewer system.

CONNECTION CHARGE: That charge levied on sewer customers for connecting to the sewage works and consists of an inspection fee.

COUNCIL: The council of the city of Orting.

COUNTY: Pierce County, Washington.

DOMESTIC WASTE: Any wastewater (sewage) emanating from a residence or from domestic activities performed outside the place of residence (in lieu of a home activity) by or for private citizens. The wastewater concentrations shall not exceed two hundred fifty milligrams per liter (250 mg/l) BOD5 and two hundred fifty milligrams per liter (250 mg/l) TSS.

EQUIVALENT RESIDENTIAL UNIT: The domestic waste usually generated by a residential user. The daily average concentration shall not exceed two hundred fifty milligrams per liter (250 mg/l) BOD5 and two hundred fifty milligrams per liter (250 mg/l) TSS.

GARBAGE: Solid wastes from the domestic and commercial preparation, cooking and dispensing of food, and from the handling, storage and sale of produce.

GENERAL FACILITY CHARGE: That charge levied on sewer customers for connecting to the sewage works which represents the property owner's pro rata share of the capital costs of the sewer utility facilities.

INDUSTRIAL USER: A nongovernmental user of the public treatment works identified in the "Standards Industrial Classification Manual", 1972, office of management and budget, as amended or supplemented.

INDUSTRIAL WASTE: That portion of wastewater emanating from an industrial user which is not domestic waste or waste from sanitary conveniences.

INSPECTOR: The person assigned by the city to inspect building sewer installation between the building and the public sanitary sewer line within the street. Inspectors shall operate under the direction of the mayor or his designee.

LATERAL: A public sewer which receives flow from one or more side sewers and discharges into a trunk or interceptor.

MAYOR: The mayor of the city of Orting, Washington.

NATURAL OUTLET: Any outlet into a watercourse, pond, ditch, lake or other body of surface or ground water.

NEW CONNECTION: Any new physical connection to the sewage works or a discontinued connection where the periodic user charges are not paid for a one year period.

OCCUPANT: Any person or owner in physical possession of a structure to which sewer service is available.

OPERATION AND MAINTENANCE: All activities, goods and services which are necessary to maintain the proper capacity and performance of the sewage works for which such works are designed and constructed.

PERMIT: An application for a printed and serially numbered form issued by the city prior to construction of any side sewer.

PERSON: Any individual, firm, company, association, society, corporation or group.

pH: The logarithm of the reciprocal of the weight of hydrogen ions.

PROCEDURE: A policy and procedure adopted by the City, through the City Engineer and/or Public Works Director, to implement this code or to carry out other responsibilities as may be required by this code, engineering standards, related manuals, or other codes, ordinances, or resolutions of the City or other agencies.

PRIVATE SEWERAGE SYSTEM: An individual sewer line and disposal system that is privately owned and not connected to the city of Orting sewerage system. A private sewer shall be allowed only when connection to a city of Orting sewer is not required by this chapter.

PROPERLY SHREDDED GARBAGE: The wastes from the preparation, cooking and dispensing of foods that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half (1/2) centimeter in any dimension.

PUBLIC SEWER: A sewage conveyance facility, which is owned, operated and controlled by public authority. ~~A sewer in which all owners of abutting properties have equal rights, and is controlled by public authority.~~

RESIDENTIAL USER: Those persons using the sewage works who reside in a single-family or multi-family structure.

STEP: Septic tank effluent pumping system and is more particularly described in the standards and specifications of the city of Orting.

SANITARY SEWER: A sewer which carries sewage and to which stormwater, surface water, groundwater and other unpolluted waters are not intentionally admitted.

SERVICE CONNECTION: Refers to the "side sewer" or pipeline with its appurtenances that branches off or connects the public lateral or trunk sewer in the right of way extending to the property line.

SEWAGE: Residential, business, industrial and institutional wastewater. ~~A combination of the water carried wastes from residences, business buildings, institutions and industrial establishments.~~

SEWAGE TREATMENT PLANT: Any arrangement of devices and structures used for treating sewage.

SEWAGE WORKS: All facilities for collecting, pumping, treatment and disposing of sewage.

SEWER: A facility for conveying sewage. ~~A pipe or conduit for carrying sewage~~.

SHALL/MAY: "Shall" is mandatory. "May" is permissive.

SIDE SEWER: The extension from the building sewer to the connector on the public sewer mainline. Side sewers may be public and or private sewers. ~~The service connection.~~

SLUG: Any discharge of water, sewage or industrial waste which, in concentration of any given constituent or in quantity of flow, exceeds for any period of duration longer than fifteen (15) minutes more than five (5) times the average twenty four (24) hour concentration of flows during the normal operation.

STORM DRAIN (Sometimes Termed STORM SEWER): A sewer which carries stormwaters and surface waters and drainage, but excludes sewage and industrial wastes, other than unpolluted cooling water.

TOTAL SUSPENDED SOLIDS (TSS): All solids which are physically suspended in a sample of wastewater under standard laboratory procedures as required by the department of ecology of the state of Washington.

USER: Every person using any part of the public sewage works of the city of Orting.

USER CHARGE: The periodic charges levied on all users of the public sewage works and shall, at a minimum, cover each user's proportionate share of the cost of operation and maintenance to include replacement.

Section 2. OMC OMC Title 9, Chapter 2, Article C, Section 2, Amended. Orting Municipal Code Title 9, Chapter 2, Article C, Section 2, is hereby amended to read as follows:

9-2C-2: OWNER LIABLE FOR CONSTRUCTION COSTS, SIDE SEWER OWNERSHIP AND REPAIRS:

All costs and expenses incident to the installation, connection and disconnection of a building sewer and service connection shall be borne by the owner. The owner shall indemnify the city from any loss or damage that may directly or indirectly be occasioned by the installation or disconnection of the building sewer and service connection.

It shall be the responsibility of the property owner to own and maintain the side sewer from the connection at the main to the building. In the event that more than one property is served by a single side sewer, it shall be the responsibility of all property owners using the side sewer to jointly maintain that portion of the side sewer serving more than one property. The property owner is expressly obligated to pay all costs of repairs when:

1. There is a break or blockage in the side sewer within private property or within the building plumbing.

2. The blockage is located within the public right-of-way or easement and is caused by one (1) or more of the following:

a. Roots from trees or shrubs located outside public rights-of-way or easements.

b. Side sewer or mainline is blocked from sewage contents originating from private property.

c. Side sewer within the public right-of-way or easement is blocked by debris originating from a break in the side sewer within private property.

d. An investigation revealed that the source of the blockage originated from private property including adjacent private properties.

In any case where a jointly maintained side sewer line is approved by the city engineer, a joint maintenance agreement supplied by the department of public works shall be recorded with the Pierce County assessor's office prior to issuance of any side sewer permits for the subject properties.

Section 3. Authorization. The City Engineer or Public Works Director, or his or her designee, is hereby tasked with developing and implementing a procedure for Side Sewer Maintenance, consistent with the Orting Municipal Code, as amended herein.

Section 4. Severability. Should any section, paragraph, sentence, clause or phrase of this Ordinance, or its application to any person or circumstance, be declared unconstitutional or otherwise invalid for any reason, or should any portion of this Ordinance be pre-empted by state or federal law or regulation, such decision or pre-emption shall not affect the validity of the remaining portions of this Ordinance or its application to other persons or circumstances.

Section 5. Codification. The City Council authorizes the City Clerk to correct any non-substantive errors herein, codify the above, and publish the amended code.

Section 6. Effective Date. This Ordinance shall be published in the official newspaper of the City, and shall take effect and be in full force five (5) days after the date of publication.

ADOPTED BY THE CITY COUNCIL AT A REGULAR MEETING THEREOF ON THE __ DAY OF _____, 2019.

CITY OF ORTING

_____
Joshua Penner, Mayor

ATTEST/AUTHENTICATED:

_____
Jane Montgomery, City Clerk, CMC

Approved as to form:

_____
Charlotte A. Archer, City Attorney
Inslee Best, PS

Filed with the City Clerk:
Passed by the City Council:
Date of Publication:
Effective Date: