

Transportation Planning Study 2026



Prepared For:
City of Bellevue



Prepared By:
FORSGREN
AN APEX COMPANY



Local Highway Technical Assistance Council

CITY OF BELLEVUE

TRANSPORTATION PLANNING STUDY 2026

DRAFT

**THIS PLAN IS STAMPED AND SIGNED BY
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CITY OF BELLEVUE

TRANSPORTATION PLANNING STUDY 2026



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Acknowledgements

This Study is the product of a concerted effort by a team of committed individuals to work in the best interests of the City of Bellevue. It has truly been a collaborative process that has reached beyond the consultant's team of experts to include City Administration, community members, and public input. This broad-based approach has used public input to prioritize technical expertise and build on local knowledge. The result is a document that explores unique and practical solutions to satisfy the specific needs of Bellevue.

Forsgren could not produce this report without the invaluable insight we received from local experts. A debt of gratitude is owed to the entire list of participants below. The time and expertise that they poured into this Study has crafted it into a detailed and focused look at how to serve the interests of citizens and travelers within the City for years to come. Forsgren Associates expresses our most sincere appreciation to the following organizations and individuals for their assistance in the completion of this Study.

STUDY PARTICIPANTS

City of Bellevue

- Brian Parker, Community Development Director
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Executive Summary

This document identifies the processes, alternatives, and conclusions of the City of Bellevue's Transportation Planning Study. The executive summary provides decision makers with a concise way to learn the results of this study.

For this study to be a success, it needs to be a living document. The information and recommendations presented in this study should be analyzed and implemented. Statistically, the majority of Transportation Planning Studies are not implemented and fail in the third or fourth year. We do not want the City of Bellevue to fall into this statistic and hope the guidance provided in this study will launch transportation improvements for the City. This Study is the foundation and a huge investment for the City. Forsgren recommends that long-term support be given to this investment. With this study, and Forsgren's continuing support, Bellevue will be able to use the provided information to meet this challenge.

To develop this study, significant efforts have been made to inventory and analyze the current roadway network. Four (4) items were inspected and analyzed in the data collection process: roadways, posts, signs, and pathways. The following is a brief overview of the condition of Bellevue's current transportation infrastructure. For more in-depth explanation and analysis, reference the individual sections throughout the study.

Roadways: The City maintains approximately 21.75 miles of roadway, 19.10 miles of which are paved. The remaining service life (RSL) is the amount of time before a road reaches an unacceptable condition. Analyzing the current roadway service life can provide direction on which roads require attention first and allow to budget for maintenance or rebuild costs. The City's road network includes pavements at all stages of their service life. A small number of blocks have only 0–4 years of remaining life, while the rest are expected to last between 5 and 20 years. Figure 16 visually shows the locations of the remaining service life of each roadway segment.

Posts: The City maintains 280 posts of which 14 posts are in excellent condition, 234 in acceptable condition, 28 in poor condition, and 4 posts failed.

Signs: The City currently maintains 484 signs. Analysis shows at the time of data collection 71 were listed in excellent condition, 247 in acceptable condition, 82 in poor condition, and 84 in failed condition. Signs were evaluated for sign type, height and width of the sign, mounted height and offset, visibility, sign grade and condition. Major distresses (vandalism, bullet holes, peeling, rusting, and aged) of each sign are used to determine the sign condition.

Sidewalks: The City currently has about 5.5 miles of sidewalks and owns 0.8 miles of the 2.6 miles of paved paths within the City. Analysis of the sidewalks shows that 1.06 miles are in excellent condition, 2.35 miles are in acceptable condition, 1.37 miles are in poor condition, and 0.72 miles are in failed condition. All path conditions were in excellent or acceptable condition.

Bridges: The City has one bridge in acceptable condition, it was constructed in 1980.

This study was structured around cultivating public involvement. A Technical Advisory Committee (TAC) was created and utilized for local ideas and insight for this transportation plan. One public meeting was held gaining feedback from the City residents. Utilizing all of these involvement groups, a list of known problems and list of desired improvements were identified.

Creating a maintenance program is one of the most important services that can come out of this transportation planning study. It is also recommended that the City evaluate intersection sight triangles (see Chapter 3) within its jurisdiction for safety hazards. A full list of recommended roadway treatments is included in Chapter 4. It is recommended to straighten posts and repair/replace traffic posts and signs as identified in Chapter 4.

The Capital Improvement Plan lists prioritized improvement projects that are above general maintenance projects. This CIP list is designed to be a living list in that every 3-5 years it should be reevaluated and updated as projects are completed from this list. To complete all four (4) listed projects requires a total estimated cost of \$2,900,000.

The Multimodal Plan map shows a number of sidewalk and path projects. Three (3) sidewalk projects and one (1) path project were listed on the Multimodal CIP. A current estimate of probable cost is approximately \$1,722,000 to complete all four (4) listed Multimodal CIP projects.

It is safe to say that as time progresses so does an increase in expectations about the level of services that the City should provide. This pressure originates from requests by residents and requirements by distant government agencies. The result is that the revenue for the street department barely covers current operational and maintenance costs. There are no funds available for the expansion of services by using the existing revenue structure. To improve the infrastructure beyond regular maintenance the City administration needs to actively compete for sources of funding from a variety of State and Federal governmental agencies. This study will serve as a tool to prepare for those funding applications.

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Chapter 1: Introduction

The City of Bellevue is located in the Wood River Valley in south-central Idaho, which sits within Blaine County. The City spans about 1.5 square miles at an elevation of 5,200 feet and is home to some 2,500 residents. The city was founded in 1882 as a mining town, but also features rich, fertile soil, and is situated on a beautiful plateau between the Smoky and Pioneer Mountain Ranges. Other nearby cities include Hailey and the resort towns of Ketchum and Sun Valley. The City of Bellevue maintains approximately 19.10 miles of paved roads.

Each transportation system must be finely tuned to match the needs of the people and places that it serves. Therefore, the planning process is not a simple procedure of sequential steps. To be successful in the planning process, citizens' input should be obtained and analyzed alongside that of engineers. The array of ideas, needs, and concerns that are initially gathered must be synthesized into clear strategies and realistic projects. As this plan was being produced, community concerns were constantly received and reevaluated.

The purpose of this study is to identify and recommend maintenance projects, improvement projects, management strategies, and policy recommendations to meet the City's transportation facility needs for the future. In the process of conducting this Study, several tools were developed to aid City management in making informed decisions. These tools include:

- ❖ A detailed database of the City's transportation network
- ❖ A series of GIS maps to communicate conditions and proposed projects
- ❖ A Pavement Management Plan
- ❖ A Sign Management Plan
- ❖ A Multimodal Plan
- ❖ A Capital Improvement Plan

These tools will enable City management to prioritize and optimize the costs of projects, better understand the impact of timing for funding decisions, and quantify the benefit of various maintenance strategies. This clarity of cost/impact/benefit will aid greatly in supporting the City's future funding requests by ensuring the wisest use of transportation-related funds. The quality of community life can be connected to the condition and management of their transportation systems. Well-maintained facilities are needed to support personal business and commercial activities. Inadequately funded maintenance operations would have a negative impact on the community. Limiting maintenance funds would hinder the ability of the City to support local and existing businesses and may delay the development of new business opportunities. Successful management is reliant on effective planning and the ability to control costs. Proper planning can assure the integration of maintenance and future growth with limited funds. The need to coordinate goals and objectives goes beyond internal planning and reaches out to neighboring entities. The process of establishing a Transportation Planning Study sets the foundation that benefits many facets of City management and improves citizen satisfaction.

This study also reflects the ideas and priorities from a Public Involvement Program (PIP). Through the collaboration of the Study Participants, everybody “started on the same page”. Citizens and vested parties were involved in each phase of the process. Clear goals were set at the beginning, specific community concerns were identified, and several options and potential projects were reviewed. Ultimately, priorities were distilled from a list of possibilities, and a proposed course of action was outlined for the future. Analyzing the resulting budget needs has made it clear that some of the proposed projects are not possible without substantial cash contributions from outside the City or a citizen initiative to fund roads through a **general obligation bond**. This study will arm the City with the information and data needed to seek and apply for outside funding dollars.

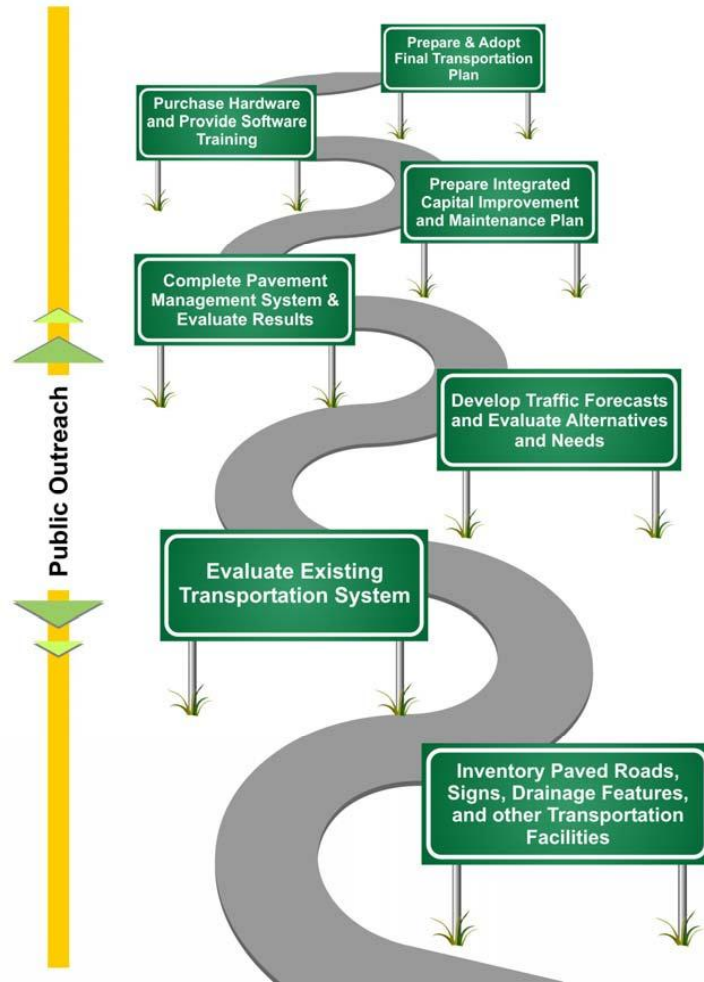


Figure 1: Transportation Planning Study Steps

For this study to be considered a success, it needs to become a living document. The information and recommendations presented should be analyzed and implemented. Sadly, most Transportation Planning Studies are not implemented well and fail in the 3rd or 4th year. We do not want the City of Bellevue to fall into this statistic. The leading cause of failure has been identified as management atrophy. After the flurry of activity to set up this system, management assumes all is done and slowly withdraws support. By the fourth year, waning support has all but choked the chance of success from the maintenance crew. We recommend that long-term support be given to this investment. This study, and Forsgren’s continuing support, will enable Bellevue to meet this challenge.

“Making wise use of limited public funds requires that transportation maintenance improvements be systematically identified and prioritized...”

“There is no better tool to do this than a comprehensive Transportation Planning Study”

This study was funded with a Federal-aid Small Urban Transportation Plan Grant which was administered by the Local Highway Technical Assistance Council (LHTAC). It was completed by Forsgren Associates under the guidance of the City of Bellevue, the General Public participating in public events, and LHTAC.

Chapter 2 includes the foundation of Bellevue's socio-economic information as well as current zoning and land use and roadway classification. Chapter 3 focuses on existing conditions. Chapter 4 discusses Bellevue's infrastructure and plans for pavement management and sign management. Chapter 5 includes a summary of the public involvement that was completed during this transportation study. Chapter 6 plans for the future with the roadway capital improvement plan, and a multimodal plan to incorporate multimodal paths within the City. Chapter 7 provides funding options to financially assist with roadway and sidewalk improvements. Chapter 8 completes the plan with final recommendations.

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Chapter 2: City of Bellevue

The City of Bellevue was established in 1882. It has 21.75 miles of roads within its limits, with approximately 19.10 miles of paved roadway and approximately 2.65 miles of unpaved roadways. The city sits in the Wood River Valley, roughly 18 miles south of the resort communities of Ketchum and Sun Valley. Just a few miles to the north are the cities of Hailey and Friedman Memorial Airport. The Big Wood River runs near Bellevue's downtown area. Notable sites in the city include the Bellevue Historic City and the Henry Miller House, both of which are listed on the National Register of Historic Places.

Socio-Economic Data and Growth

Roadway conditions and travel within a region are a function of socio-economic data. Population and employment within Blaine County and the City of Bellevue directly impact the City's roadways, however the travel through the City by regional users also has a great impact on the roads.

According to the U.S. Census Bureau, the population of Blaine County has increased steadily from 1990 to 2020. This increase is projected to continue. The current increase in development in and around Blaine County also supports the projected population growth. Table 1 provides the historical view of the population changes in Bellevue and Blaine County from 1990 to 2020 and the projected 2040 population.

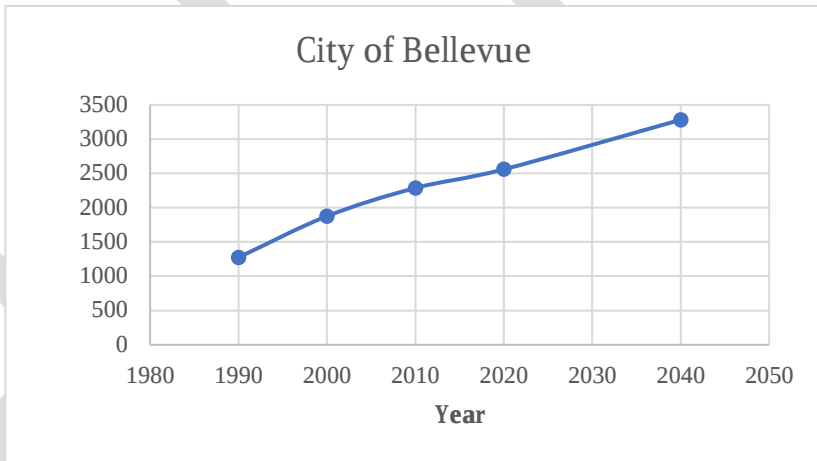


Figure 2: Population

2020 Census data shows that the estimated median household income for the City of Bellevue is above the Idaho median incomes and below the United States median incomes; the estimated median household income in Bellevue is \$64,435. The median household incomes in Idaho and the United States are \$62,603 and \$67,521 respectively.

Table 1: Historical and Projected Population

Area	1990	2000	2010	2020	2040
City of Bellevue	1,275	1,876	2,287	2,560	3,282
Blaine County	13,552	18,991	21,376	24,272	31,118

Source: <https://lmi.idaho.gov/census>

Zoning and Land Use

Zoning is one of the primary tools that local governments use to guide the future growth and development of their communities. Proper zoning gives growth a direction, allowing for populations to increase and land to be developed while minimizing negative impacts to current residents and businesses. Transportation plans should reflect the zoning decisions and desires of local governments.

Figure 3 shows the City of Bellevue Zoning Map which includes Business, General Residential, Light Industrial, Light Industrial Mixed Business, Limited Business Residential, and Transitional zones. The nature and extent of these zones should be used to analyze and predict traffic conditions for the City of Bellevue.

Any zoning changes and/or growth within the City of Bellevue can impact the established transportation network. **As this happens, it is suggested to complete a traffic impact study.**

Roadway Geometry

The main objective of designing a proper roadway and intersection is to produce roads that are both operationally efficient and **safe**. Several factors and variables are considered in the design and improvements of both roadways and intersections. Some of these factors are functional classification, right-of-way, traffic volumes, level of service, and sight distances.

Functional Classifications

Functional classification is the grouping of roads, streets, and highways in a hierarchy based on the type of highway service they provide. Streets and highways are part of an interconnected network, and each one performs a service in moving traffic throughout the system. Streets serve different functions and should be designed in anticipation of accommodating different traffic conditions. The classifications are based on guidelines prepared by the Federal Highway Administration (FHWA).

The functional classification is divided into the following rural classification groups: Principal Arterial, Minor Arterial, Collector (Major or Minor), and Local. Arterial roads carry traffic between two major population bases, Collector roads link the local streets with the arterial streets, and Local streets provide access to residential and business land uses. The functional class designation of a road has long-term ramifications on commercial development and residential traffic flow. ITD has identified Highway 75 as a Minor Arterial, although Highway 75 is not maintained by the City of Bellevue. The City of Bellevue has several Major Collectors: Broadford Road, 2nd Street, Pine Street, Cedar Street, and Slaughterhouse Creek Road. During the time that this transportation plan was developing, the City submitted an application to ITD to update some of the functional classifications of their streets. The City of Bellevue proposed to add Elm St and 5th Street as Major Collectors and add Spruce Street, Birch Street, and Chestnut Street as Minor Collectors. The remaining roads are local roads in the City of Bellevue. These roads are owned and maintained by the City with the classifications shown in Figure 4: Ownership and Functional Classification.

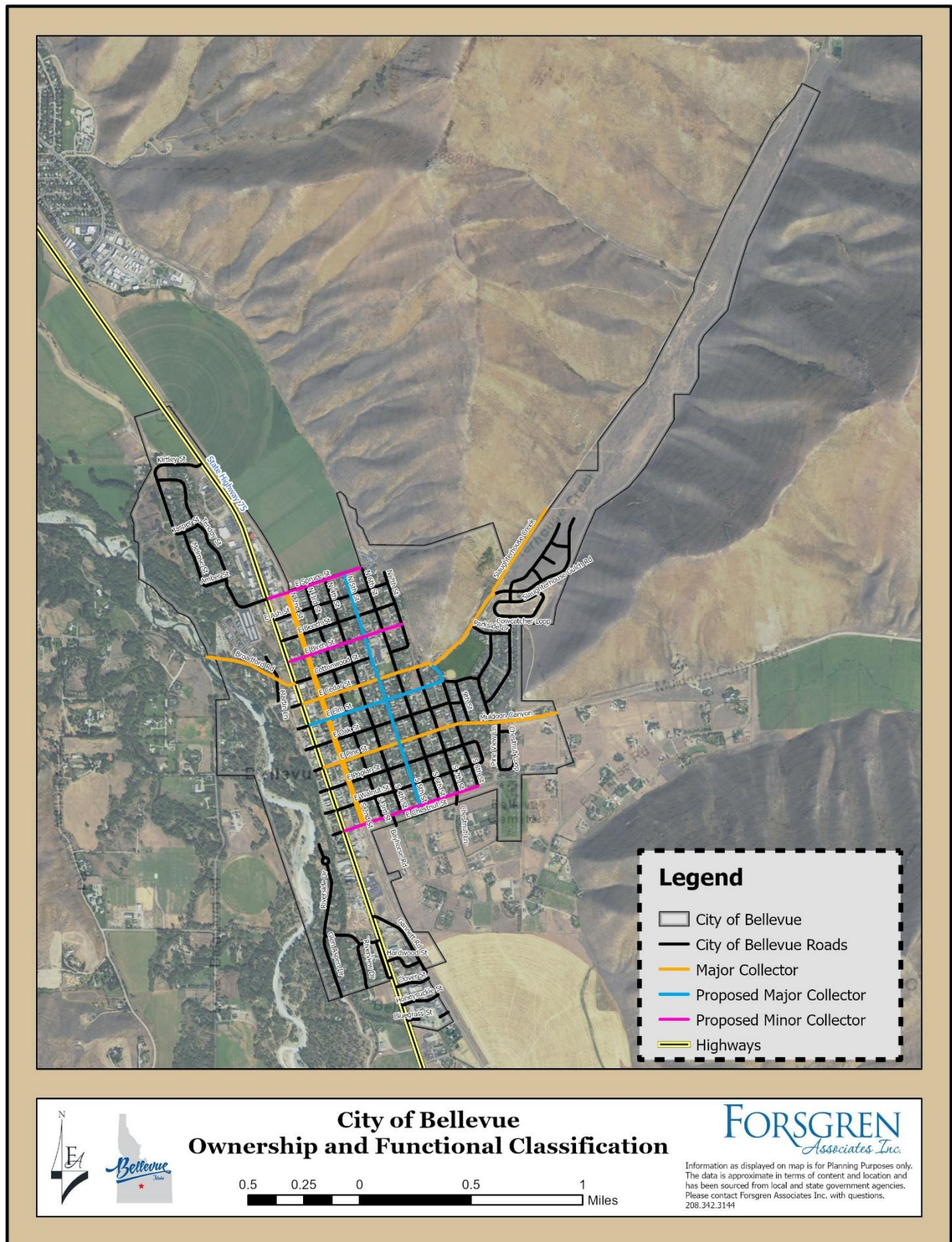


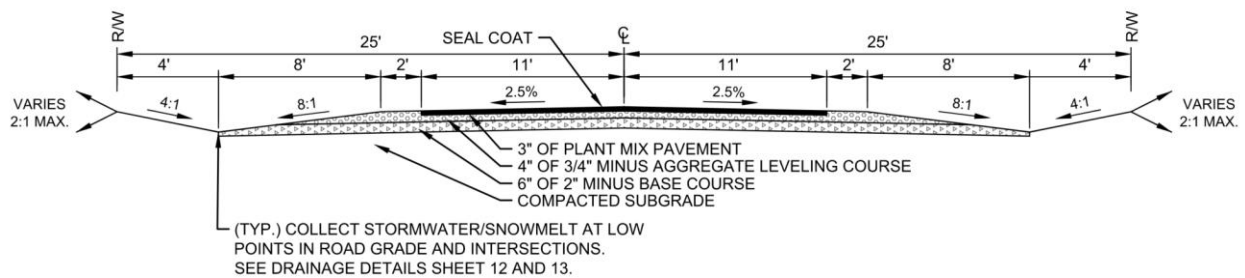
Figure 4: Ownership and Functional Classification

Right-of-Way (ROW) Designations

A public right-of-way (ROW) is an area of land where permission is given to the public to travel over streets, roads, etc. The City of Bellevue Construction Standards have designated roadway standards depending on the amount of ROW and the adjacent property use. Below is a list of those standards as well as shown in Figure 5 - Figure 8.

- 50' ROW residential street without curb & gutter or sidewalk
- 60' ROW residential street with curb & gutter and sidewalk
- 60' ROW commercial street with curb & gutter and sidewalk
- 80' ROW commercial street with curb & gutter and sidewalk

For future development, a 60' ROW residential street with roll curb and gutter is recommended which will require stormwater treatment.



RESIDENTIAL STREET WITHOUT CURB & GUTTER OR SIDEWALK (50' R/W)
(TYPICAL SECTION)
N.T.S.

Figure 5: Residential 50' ROW without Curb & Gutter or Sidewalk

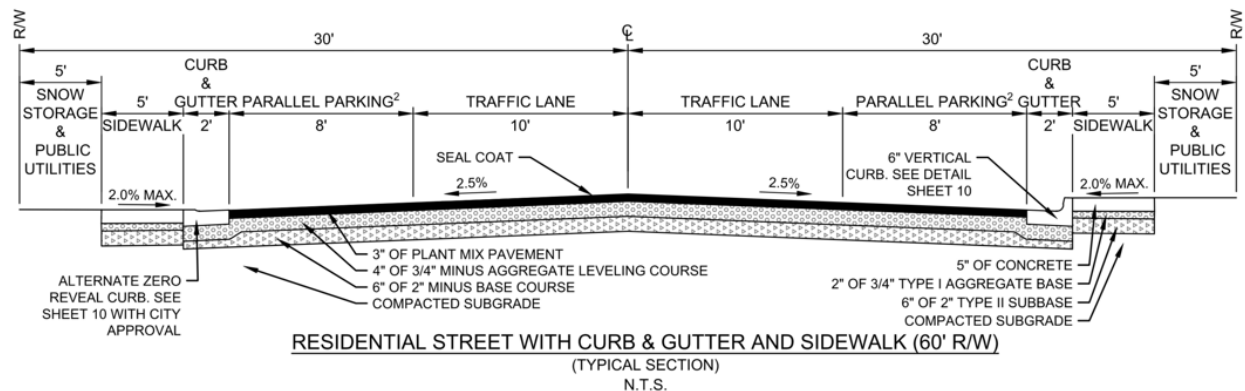


Figure 6: Residential 60' ROW with Curb & Gutter and Sidewalk

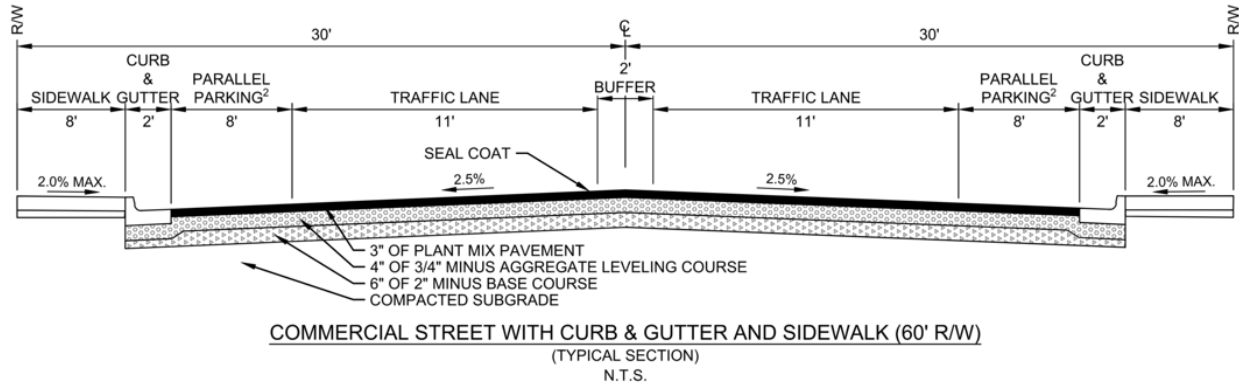


Figure 7: Commercial 60' ROW with Curb & Gutter and Sidewalk

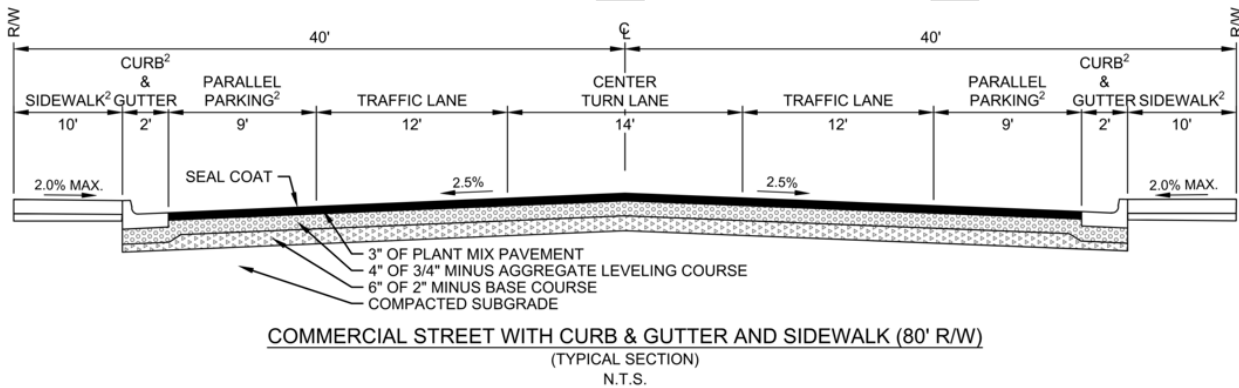


Figure 8: Commercial 80' ROW with Curb & Gutter and Sidewalk

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Chapter 3: Existing Conditions

Existing conditions are the parts of the transportation network that allow movement throughout the city. Traffic data, intersection geometry, and pedestrian/ bicycle corridors are key pieces of the transportation puzzle as well as known safety problems and locations. This chapter will focus on these key items.

Traffic Data

To evaluate the level that the roadways and intersections are operating, the roadway Level of Service (LOS) and the intersection LOS are calculated. The LOS is intended to capture factors such as speed, travel time, freedom to maneuver, and safety to combine them in a qualitative rating level. An LOS of A is the desired level and represents free flow conditions while a LOS of F indicates a breakdown in vehicular flow and is the worst level.

Roadway LOS

According to the 2010 Highway Capacity Manual, the roadway LOS is the average travel speed for through vehicles and the Volume-to-Capacity (v/c) ratio for each segment. Travel speed is the basic service measure for urban streets while the v/c ratio is the ratio of the demand flow rate to the capacity of the traffic facility. If the v/c ratio is greater than or equal to one (1), this indicates that the roadway is operating above capacity. Using a series of equations and condition adjustment factors developed in the Highway Capacity Manual, the v/c ratio can be determined.

Therefore, to aid the City, the following guidelines were developed from the Highway Capacity Manual.

- a.m. peak hour is determined between 7:00 – 9:00
- p.m. peak hour is determined between 4:00 – 7:00
- Maximum roadway capacity for local roadways is 1,200 to 1,700 vehicles per hour
- The roadway LOS must be C or higher; a free flow speed of more than 13 mph or a v/c ratio of 0.00 to 0.79
- A Roadway LOS D – F will require improvements; a free flow speed less than 13 mph or a v/c ratio of 0.80 to 1.00(+)

Intersection LOS

For the intersection LOS, the delay time that vehicles experience dictates the service level. Identical to the roadway LOS, if an intersection has a LOS from D – F; improvements to the intersection must be made. The following is a breakdown of the delay time in seconds for each LOS.

- LOS A: 0 – 10 seconds
- LOS B: 11 – 20 seconds
- LOS C: 21 – 35 seconds
- LOS D: 36 – 55 seconds
- LOS E: 56 – 80 seconds
- LOS F: >80 seconds

To sum up what has been stated in this section, the City can perform a traffic count on a roadway segment during a peak hour time of the day. After this count has been performed, take the traffic volume per hour and divide it by the roadway capacity (1,200 to 1,700 vehicles per hour). If the result is higher than 0.79, improvements need to be made. For intersections, if an individual must wait at an intersection for more than 36 seconds, improvements need to be made.

Intersection Geometry

Intersection geometry (how the intersection is designed) and the intersection sight distance (the line of sight the driver has) are important to maintain safety for drivers and pedestrians. The overall goal of the City of Bellevue for improving the roadway and intersection geometry within city limits is as follows:

“The City of Bellevue will strive to improve the roadways and intersections to a high level of safety while improving traffic flow.”

Designs of new intersections or redesigns of failing intersections can be completed as needed. Another improvement of a failing intersection could be completed by improving the sight distance at an intersection.

Intersection Sight Distance

Intersection site distance standards were developed from a manual known as “A Policy on Geometric Design of Highways and Streets” published by the American Association of State Highway and Transportation Officials (AASHTO). Within this manual, there are several different sight triangle scenarios. The variables involved in determining what distances the sight triangle should include: turning movement, control type, speed limit, approach grade, and whether the roadway is considered the major or minor leg of the intersection.

With these variables, the distances “a” and “b” can be established; see Figure 9: Sight Triangle. The distance “a” is the normal stopping location (also known as the decision point or the position where the driver of the vehicle is stopped) and “b” is the sight distance to the center lane of approaching traffic on the major road. Once the distances are known, the hypotenuse of the triangle can be determined. The area inside of the triangle is the area that should be clear of obstructions.

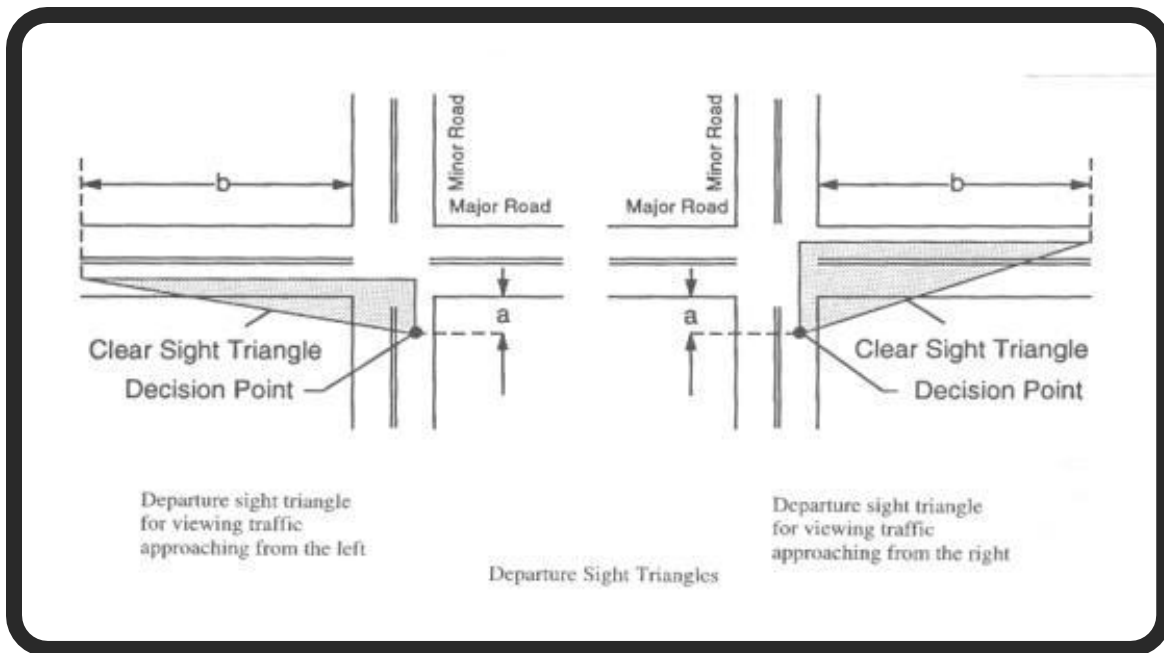


Figure 9: Sight Triangle

There are six (6) scenarios when examining a sight triangle. These scenarios are:

- A. Intersection with no control
- B. Intersections with a stop sign on the minor roadway
 - 1. Left Turn from the minor road
 - 2. Right Turn from the minor road
- C. Intersections with yield control on the minor road
 - 1. Left and right turn from, the minor roadway
- D. Intersection with a traffic signal control
- E. Intersections with all-way stop control
- F. Left turns from a major road

SCENARIO A: INTERSECTION WITH NO CONTROL

The “a” and “b” lengths for this scenario are equal. In addition, there is an adjustment factor for sight distance based on approach grade. Basically, **Error! Reference source not found.** shows a value that is multiplied by the distance established in the following sections to adjust the sight distance accounting for the approach grade.

Table 2: Approach Grade Adjustment Factors

Approach Grade	Approach Speed (mph)													
	15	20	25	30	35	40	45	50	55	60	65	70	75	80
-6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
-5	1	1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2
-4	1	1	1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
-3 to +3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	1	1	1	1	1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
5	1	1	1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
6	1	1	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9

Table 3: Scenario A “a&b” Recommended Sight Distances with Approach Slope Factors Incorporated

Design Speed	"a" & "b" Distances (ft)						
	-6%	-5%	-4%	-3% to +3%	4%	5%	6%
15	77	70	70	70	70	70	70
20	99	90	90	90	90	90	90
25	127	127	115	115	115	115	104
30	154	154	154	140	140	126	126
35	182	182	182	165	165	149	149
40	215	215	215	195	176	176	176
45	242	242	242	220	198	198	198
50	294	270	270	245	221	221	221
55	342	314	314	285	257	257	257
60	390	358	358	325	295	295	295
65	458	458	402	365	329	329	329
70	486	486	446	405	365	365	365
75	554	554	490	445	401	401	401
80	582	582	534	485	457	457	457

Example: An intersection without a yield or stop sign has a major road with a 45-mph speed limit (approach grade is 1%) and a minor road with a 25-mph speed limit (approach grade is -5%). What is the “a” and “b” distance for each road?

Solution: From **Error! Reference source not found.** the “a” & “b” distance for the major road, 45-mph at 1% slope is 220 ft and 127 ft for the minor road (25 mph at -5% slope).

SCENARIO B: INTERSECTION WITH STOP CONTROL ON THE MINOR ROAD

There are two sub-categories in this scenario. These sub-scenarios are: left turn from the minor road and right turn from the minor road (the minor road has a stop sign but the major road does not). It should be noted that for both these sub-scenarios, the “a” distance will be determined in the field while the “b” length is calculated. The sub-scenarios are described in the following sections. Basically, the only difference between the two sub-scenarios is the time gap times for left and right turns.

SUB-SCENARIO B-1: LEFT TURN FROM THE MINOR ROAD WITH A STOP SIGN

The length for “b” is calculated by the equation $b = 1.47 * V_{major} * t_g$. The V_{major} is the speed of the major road and the t_g is the time gap for the vehicle entering the major road. For passenger cars it is 7.5 seconds, 9.5 seconds for a single-unit truck, and 11.5 seconds for a combination truck. There is also an adjustment factor for this scenario for minor road approaches. If the upgrade of the approach exceeds 3%, add 0.2 seconds for each percent grade to the time gap.

Using this equation, the following table shows the “b” distances that should be used for the sight triangle for a given approach grade for each vehicle type.

Table 4: Scenario B-1 “b” Distances with Slope Approach Factors Incorporated

Major Road Speed	Passenger Car "b" Length (ft)				Single Unit Truck "b" Length (ft)				Combination Truck "b" Length (ft)			
	Minor Road Approach Grade				Minor Road Approach Grade				Minor Road Approach Grade			
	-3% to +3%	4%	5%	6%	-3% to +3%	4%	5%	6%	-3% to +3%	4%	5%	6%
15	165	170	174	179	209	214	218	223	254	258	262	267
20	221	226	232	238	279	285	291	297	338	344	350	356
25	276	283	290	298	349	356	364	371	423	430	437	445
30	331	340	348	357	419	428	437	445	507	516	525	534
35	386	396	406	417	489	499	509	520	592	602	612	623
40	441	453	465	476	559	570	582	594	676	688	700	711
45	496	509	523	536	628	642	655	668	761	774	787	800
50	551	566	581	595	698	713	728	742	845	860	875	889
55	606	623	639	655	768	784	800	817	930	946	962	978
60	662	679	697	714	838	856	873	891	1014	1032	1050	1067
65	717	736	755	774	908	927	946	965	1099	1118	1137	1156
70	772	792	813	833	978	998	1019	1039	1183	1204	1225	1245
75	827	849	871	893	1047	1069	1091	1114	1268	1290	1312	1334
80	882	906	929	953	1117	1141	1164	1188	1352	1376	1399	1423

Example: An intersection has a stop sign on the minor road, has a 45-mph speed limit, the largest vehicle is a passenger car, and has a +4% approach grade. What is the “b” distance for this intersection?

Solution: From Table 4 the “b” distance is 509 feet.

SUB-SCENARIO B-2: RIGHT TURN FROM THE MINOR ROAD WITH A STOP SIGN

The length for “b” is calculated by the equation $b = 1.47 * V_{major} * t_g$. The V_{major} is the speed of the major road and the t_g is the time gap for the vehicle entering the major road. For passenger cars it is 6.5 seconds, 8.5 seconds for a single-unit truck, and 10.5 seconds for a combination truck. There is also an adjustment factor for this scenario for minor road approaches. If the upgrade of the approach exceeds 3%, add 0.1 seconds for each percent grade to the time gap.

Using this equation, Table 5 shows the “b” distances that should be used for the sight triangle for a given approach grade for each vehicle type.

Table 5: Scenario B-2 “b” Distances with Slope Approach Factors Incorporated

Major Road Speed	Passenger Car "b" Length (ft)				Single Unit Truck "b" Length (ft)				Combination Truck "b" Length (ft)			
	Minor Road Approach Grade				Minor Road Approach Grade				Minor Road Approach Grade			
	-3% to +3%	4%	5%	6%	-3% to +3%	4%	5%	6%	-3% to +3%	4%	5%	6%
15	143	146	148	150	187	190	192	194	232	234	236	238
20	191	194	197	200	250	253	256	259	309	312	315	318
25	239	243	246	250	312	316	320	323	386	390	393	397
30	287	291	295	300	375	379	384	388	463	467	472	476
35	334	340	345	350	437	442	448	453	540	545	551	556
40	382	388	394	400	500	506	512	517	617	623	629	635
45	430	437	443	450	562	569	576	582	695	701	708	714
50	478	485	492	500	625	632	639	647	772	779	786	794
55	526	534	542	550	687	695	703	711	849	857	865	873
60	573	582	591	600	750	759	767	776	926	935	944	953
65	621	631	640	650	812	822	831	841	1003	1013	1022	1032
70	669	679	689	700	875	885	895	906	1080	1091	1101	1111
75	717	728	739	750	937	948	959	970	1158	1169	1180	1191
80	764	776	788	800	1000	1011	1023	1035	1235	1247	1258	1270

Example: An intersection has a stop sign on the minor road, has a 35-mph speed limit, the largest vehicle is a combination truck, and has a -3% approach grade. What is the “b” distance for this intersection?

Solution: From Table 5 the “b” distance is 540 feet.

SCENARIO C: INTERSECTION WITH YIELD CONTROL ON THE MINOR ROAD

This scenario uses the equation $b = 1.47 * \frac{V_{minor}^2}{a}$ as well. The only difference is the variable t_g (the travel time required to reach and clear the major road) is not given but needs to be calculated. In order to calculate the t_g , the equation $t_g = t_a + \left(\frac{w + L_a}{V_{minor}} \right)$ where t_a is the travel time to reach the major road, w is the width of the intersection, L_a is the length of the average vehicle, a V_{minor} is the speed limit on the minor road. Similar to Scenario A, there is an adjustment factor for approach grade. Using the same information shown in Table 2: Approach Grade Adjustment Factors, the travel time is adjusted according to the approach grade percentage. Table 6 below shows the calculated travel time with the approach grade adjustment factor.

Table 6: Scenario C Travel Time to Reach the Major Road with Slope Approach Factors Incorporated

Speed Limit (mph)	Travel Time (sec)						
	-6%	-5%	-4%	-3% to +3%	4%	5%	6%
15	3.7	3.4	3.4	3.4	3.4	3.4	3.4
20	4.1	3.7	3.7	3.7	3.7	3.7	3.7
25	4.4	4.4	4	4	4	4	3.6
30	4.7	4.7	4.7	4.3	4.3	3.9	3.9
35	5.1	5.1	5.1	4.6	4.6	4.1	4.1
40	5.4	5.4	5.4	4.9	4.4	4.4	4.4
45	5.7	5.7	5.7	5.2	4.7	4.7	4.7
50	6.6	6.1	6.1	5.5	5	5	5
55	7	6.4	6.4	5.8	5.2	5.2	5.2
60	7.3	6.7	6.7	6.1	5.5	5.5	5.5
65	7.7	7.7	7	6.4	5.8	5.8	5.8
70	8	8	7.4	6.7	6	6	6
75	8.4	8.4	7.7	7	6.3	6.3	6.3
80	8.8	8.8	8	7.3	6.6	6.6	6.6

Using the numbers in the above table, the t_g can now be calculated. In order to calculate this value, take the width of the vehicle and add it to the width of the intersection, divide this value by 0.88 times the speed limit on the minor road, then add it to the t_a value from the above table. The t_g is now calculated and can be multiplied by the speed limit of the major road then multiplied by 1.47.

Example: An intersection has a yield sign on the minor road, the largest vehicle is 25 feet long, the intersection is 40 feet wide, has a 40-mph speed limit, and has a 0% approach grade; the major road has a speed limit of 55-mph. What is the “b” distance for this intersection?

Solution: The length of the vehicle (25 ft) plus the width of the intersection (40 ft) is 65 feet, the speed limit (40-mph) times 0.88 is 35.2. 65 divided by 35.2 equals 1.847. From Table 6, the t_a is determined to be 4.9 seconds (40-mph at 0% approach grade). Therefore, the t_g is 4.9 + 1.85 which equals 6.75 seconds. Lastly to solve for “b”, take the 6.75 seconds and multiply it by the speed limit of the major road and then multiply it by 1.47 which equals $6.75 \times (55) \times 1.47 = 545.7$ ft.

SCENARIO D: INTERSECTION WITH TRAFFIC SIGNAL CONTROL

At signalized intersections, the first vehicle stopped on one approach should be visible to the driver of the first vehicle stopped on each of the other approaches. Left-turning vehicle should have sufficient sight distance to select gaps in oncoming traffic and complete left turns. Apart from these sight conditions, there are generally no other approach or departure sight triangles needed for signalized intersections. Signalization may be an appropriate crash countermeasure for higher volume intersections with restricted sight distance that have experienced a pattern of sight-distance related crashes.

SCENARIO E: INTERSECTION WITH ALL-WAY CONTROL STOP (4-WAY STOP)

For this scenario, the first vehicle stopped on one approach should be visible to the driver of the first vehicle stopped on each of the other approaches. There are no other sight distance criteria applicable to intersections with all-way stop control and all-way stop control may be the best option at a limited number of intersections where sight distance for other control types cannot be attained.

SCENARIO F: LEFT TURN FROM THE MAJOR ROAD

This scenario uses the equation $b = 1.47 * t_g * \sqrt{V}$ as well, the only difference is the variable t_g (the travel time required is less; 5.5 seconds for passenger cars, 6.5 seconds for single unit trucks, and 7.5 seconds for combination trucks). Table 7 shows the recommended “b” length for speed limits on the major road and for the vehicle type.

Table 7: Scenario F “b” Lengths

Major Road Speed	"b" for Passenger Car	"b" for Single Unit	"b" for Combination Truck
15	121	143	165
20	162	191	221
25	202	239	276
30	243	287	331
35	283	334	386
40	323	382	441
45	364	430	496
50	404	478	551
55	445	526	606
60	485	573	662
65	526	621	717
70	566	669	772
75	606	717	827
80	647	764	882

Lastly, the landscape and vegetation around the intersection plays a major role in creating a safe intersection. To create a safe turning movement for intersections, the development of proper sight distances are needed to minimize potential conflicts. Measuring the sight triangle for each intersection is outside the scope of this transportation planning study. It is recommended that City staff follow these guidelines and evaluate the sight triangles throughout the City.

It is recommended to review and address possible obstructions within each intersection’s sight triangle and to improve signage where necessary. Additionally, by improving the roadway and intersection geometry as described, the City will accomplish this goal which may reduce accidents, improve safety, and increase traffic flow. Furthermore, when improvements or new roadways are constructed, roadway standards should be followed.

Existing Bridges

The City of Bellevue has one (1) bridge within their jurisdiction. This bridge is on Riverview Street between Riverview Drive and Riverside Drive and crosses over the Bellevue Canal. This prestressed concrete bridge is 25 feet long and 32 feet wide and was built in 1980. This bridge was last inspected on November 6, 2024, and is listed in fair condition. See Figure 10: Bridge Map for the location of the bridge.

DRAFT

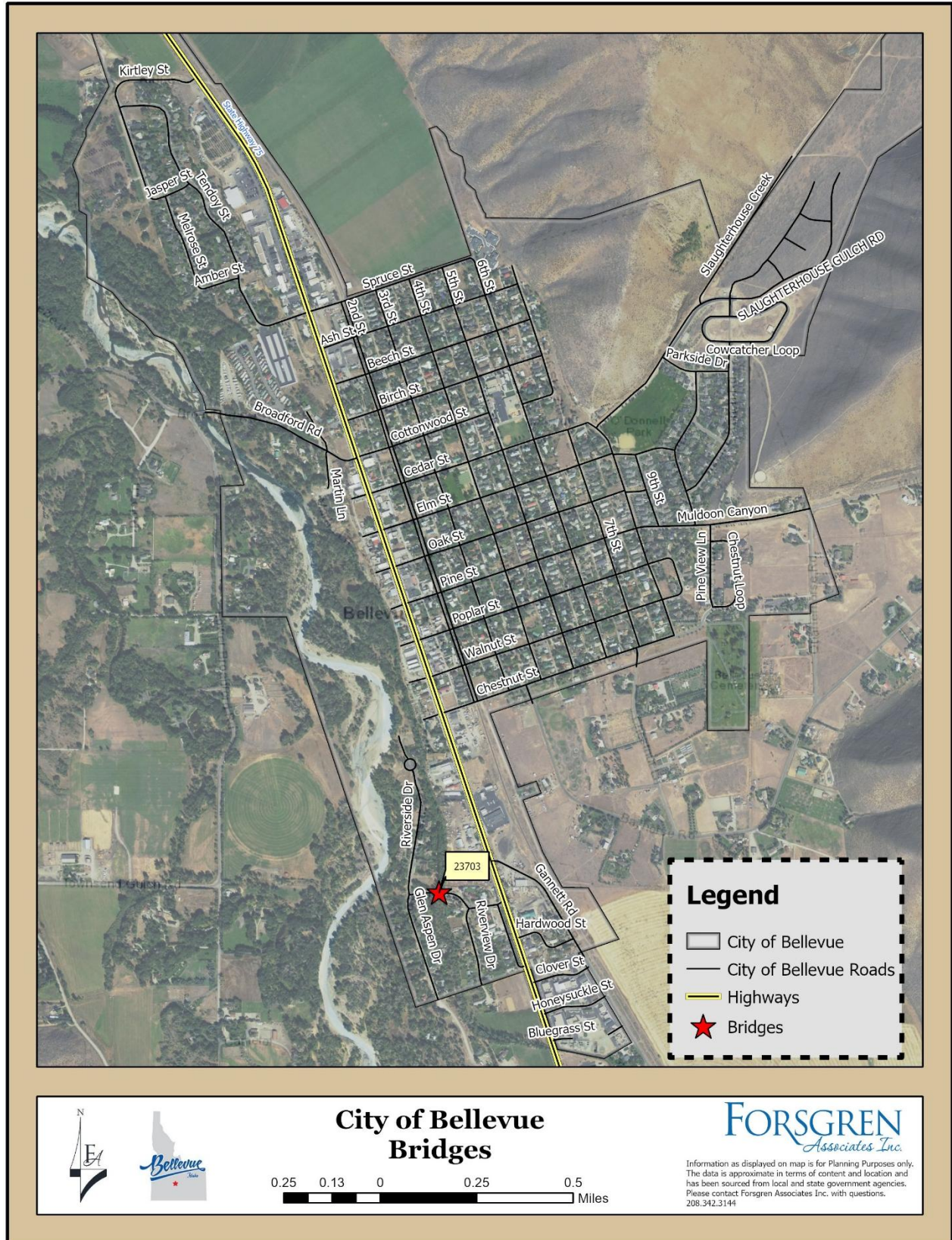


Figure 10: Bridge Map

Existing Transportation Safety Problems and Accidents

Another technique in analyzing traffic related safety concerns is by evaluating if there are any traffic accident patterns in the City. The accident history for Bellevue was obtained and analyzed. Overall, since 2019 there have been a total of 19 accidents on City-maintained roads. There was one (1) accident in 2019, one (1) in 2020, four (4) in 2021, three (3) in 2022, and ten (10) in 2023. These accidents were evenly distributed throughout the City, no locations appear to have a disproportionate amount of accidents. The severities of the accidents were as follows: two (2) Class B injury accidents, one (1) Class C injury accident, and sixteen (16) reported property damage. Here is what can be gleaned from the accident reports:

- 95% of accidents occurred on paved roads
- 53% of accidents occurred when roads were dry, while 47% of accidents occurred on icy, snowy, wet, or muddy roads.
- 42% of accidents were intersection related.
- All but one (1) accident occurred on roads with speed limits of 25 MPH or less
- Only one (1) accident occurred because a driver failed to yield
- Alcohol impairment was a contributing factor in one (1) accident.

Based on this analysis, it does seem that poor surface conditions such as snow and ice contributed to a large proportion of the accidents in the City of Bellevue. It can be difficult to mitigate these conditions given the severe winters that Bellevue typically experiences, but the City should continue to ensure it's winter maintenance is as effective and thorough as possible to provide safe driving conditions and reduce accidents. See Figure 11: Crash Map for the locations and severity of these accidents.

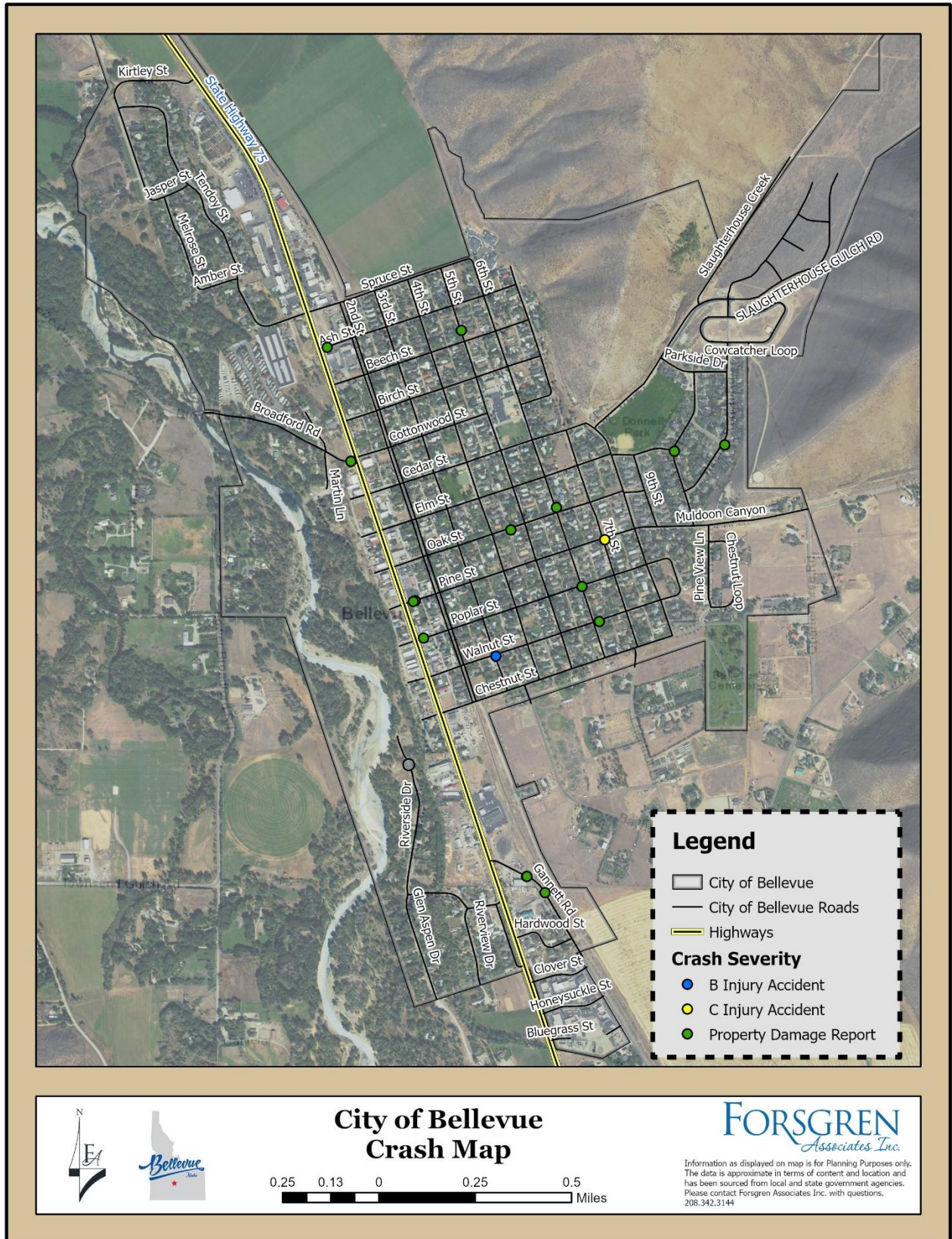


Figure 11: Crash Map

Known Problems and Locations

Public involvement was completed as part of this Transportation Planning Study and is discussed in more detail in Chapter 5. Known Transportation issues that have been brought up from residents and decision makers within the City can be found in Table 8 below.

Table 8: Known Transportation Problems

Problems
Broadford Road – Poor sight distance, steep slopes and unsatisfactory Level of Service
Side Streets – Need curb and gutter
Alleyways – Poor condition, change from gravel to paved.
Drainage – Installing catch basins and mandating curb, gutter, and sidewalks for future development
Sidewalks - Repair and add new sidewalks to connect to school, parks, neighborhoods, bus stops

Chapter 4: Existing Infrastructure Inventory

To aid the City in their endeavors to provide an efficient and sound roadway infrastructure, the existing conditions were collected, a database was created, and mapped to provide the City with the resources required to make the best decisions at the correct time. The existing conditions will be explained in depth throughout this Transportation Planning Study.

Geographic Information Systems (GIS) Mapping

After the data was collected for each road network entity (roads, intersections, posts, signs, sidewalks, and crosswalks) and was validated, maps depicting this information were created in 8½"x11" format for convenience and are scattered throughout this report. It should be noted that the information displayed on these maps is for planning purposes only. These maps are the "beginning of results" and are meant to be the basis from which the City GIS will grow. With this base of information, maps can continue to evolve as needed and remain useful for many years. Bellevue can maintain existing maps, create new maps, or outsource the work to skilled GIS technicians that can produce maps remotely and distribute them on request.

The capability to produce these maps in 11"x17" format for a higher level of clarity is also possible upon request from the City if the 8½"x11" format is not sufficient. The smaller-sized map does well to demonstrate that a considerable amount of data can be displayed using standard office printers.

Collect and Map Land Use Data

An inventory was performed on all roads within Bellevue city limits in the Fall 2024. This included gathering the existing pavement type, width, and condition. Sidewalk conditions as well as traffic signs and sign posts conditions were recorded. This information was then analyzed, and maps were created to visually show information throughout this report.

Pavement Conditions

Existing Roadway Conditions

Roadway conditions were collected and entered into the GIS database in 2024. The City maintains a total of 21.75 miles of roadway. Approximately 19.10 miles are paved, and 2.65 miles are unpaved. In order to collect data on the roadway network, the City streets were divided into segments. These segments were created (most commonly from intersection to intersection) and data was collected for each segment ranging from surface type to cracking. Refer to Figure 12 on the following page for the segment identification map and associated segment lengths.

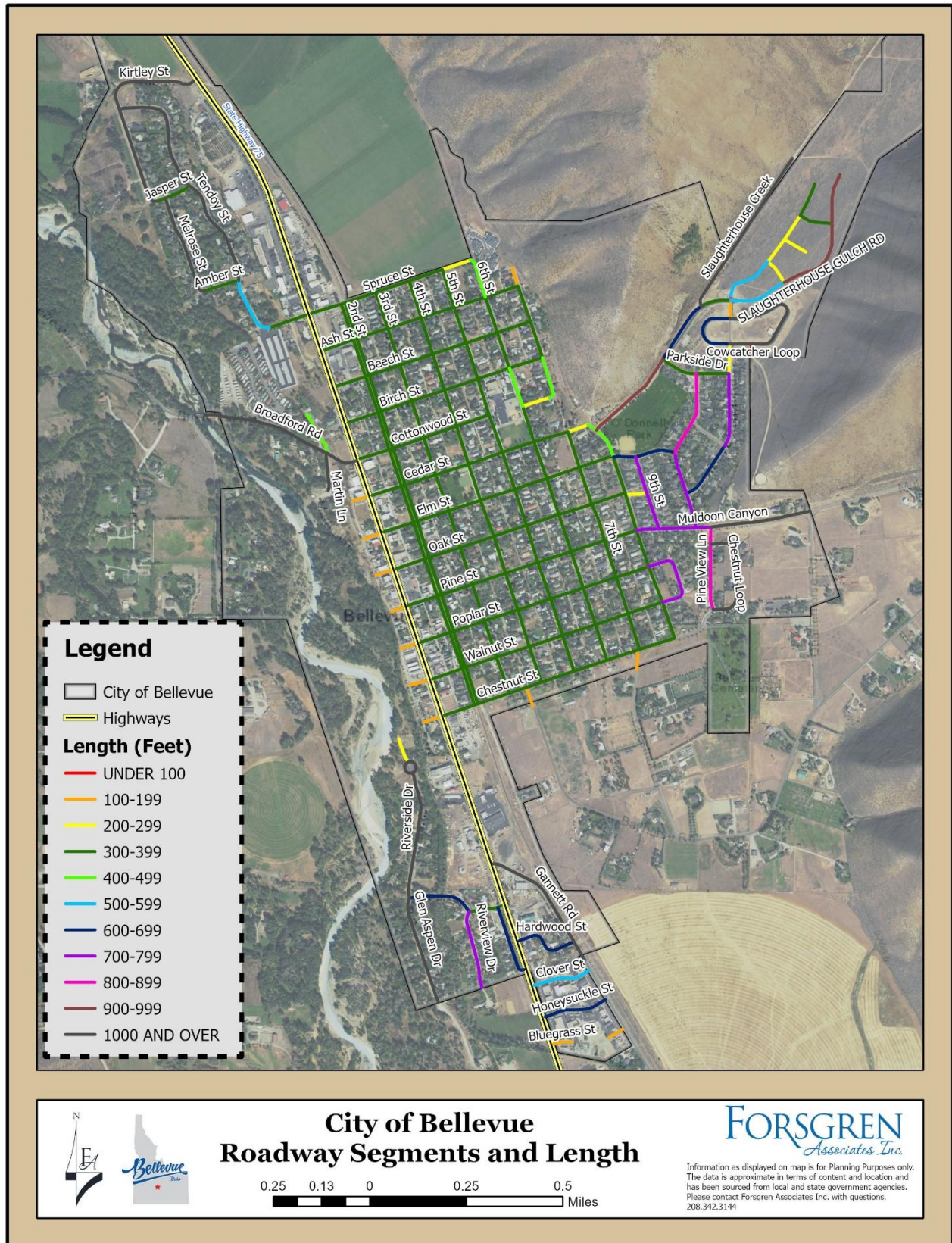


Figure 12: Roadway Segments and Length

Distresses were collected concurrently with the roadway/intersection characteristics (street name, length, width, etc). The distresses that were analyzed to calculate the condition of the road segments and intersections are: fatigue (alligator) cracking, longitudinal cracking, transverse cracking, edge cracking, potholes, patching, trenching, rutting, and ride. The following is a brief description of the distresses.

Fatigue Cracking: Fatigue Cracking is a series of interconnection cracks caused by fatigue failure of asphalt concrete surface under repeated traffic loading. Cracking begins at the bottom of the asphalt surface (base) where tensile stress and strain are highest under a wheel load. The cracks propagate to the surface initially as a series of parallel longitudinal cracks. After repeated traffic loading, the cracks connect, forming many-sided, sharp-angled pieces that develop a pattern resembling chicken wire or the skin of an alligator. Figure 15: Fatigue Cracking Map was created to demonstrate the severity and extent of the fatigue cracking.



Figure 13: Fatigue Cracking

Longitudinal and Transverse Cracking: Longitudinal cracks are cracks that form parallel to the pavement's centerline due to poorly constructed paving joints, shrinkage of the asphalt layer, daily temperature cycling, cracks in an underlying layer that reflect up through the pavement, and/or longitudinal segregation caused by the improper operation of the paver. Transverse cracks are perpendicular to the pavement's centerline or laydown direction. These cracks occur mainly from shrinkage of the HMA surface due to low temperatures or asphalt binder hardening or from reflective cracks caused by cracks beneath the surface layer. Figure 16: Transverse Cracking Map was created to demonstrate the severity and extent of the transverse cracking.



Figure 14: Longitudinal Cracking

Edge Cracking: Edge cracks are cracking that form on the edge of pavement due to a lack of lateral support, settlement of underlying material, shrinking of drying out soil, weak base or subgrade layer, poor drainage, frost heave, and/or heavy traffic or vegetation along the edge. Figure 17: Edge Cracking Map was created to demonstrate the severity and extent of the edge cracking.

Potholes: A pothole is a small, bowl-shaped depression in the pavement surface that has penetrated through the surface layer down to the base of the road. Potholes hold water and cause accelerated deterioration of the road surface and base. Potholes are considered dangerous because they can cause serious damage to a vehicle.

Patching: A patch is defined as the area of pavement that has been replaced with new material to repair the existing pavement. A patch is considered a defect no matter how well it performs. Figure 18: Patching and Pothole Map was created to demonstrate the severity and extent of the patching.

Trenching: A trench is a surface depression that runs perpendicular to the roadway centerline or wheel path. Trenches are created by the improper design of subgrade material or through utility bores and/or road cuts.

Rutting: Rutting is when there is a surface depression in the vehicle's wheel path that develops from poorly designed asphalt for loading conditions. In most rutting cases, the asphalt is not compacted sufficiently, or the subgrade material is of poor quality. Rutting is usually evident after a rainstorm when the ruts fill up with water. Ruts prevent water from running off the road surface causing vehicles to hydroplane creating a dangerous environment for motorists.

Ride: The determining factor for ride quality is the roughness of the road segment. Pavement roughness is when there are irregularities in the road surface that affect the overall ride quality of a vehicle. The roughness of a road is an important characteristic to examine because it affects vehicle operating costs, fuel consumption, and maintenance costs.

Roadway Data Collection Results

Throughout the data collection process, it was evident that each roadway and intersection demonstrated different characteristics and distresses. The data collected differed for the roadway surface (paved or unpaved), the roadway width, and the roadway distress (fatigue cracking, transverse cracking, longitudinal cracking, patching/potholes, and edge cracking).

Figure 15 through Figure 18 on the following pages visually show the severity and extent of the distresses exhibited on each segment of roadway within Bellevue.

Remaining Service Life (RSL)

The purpose of data collection is to obtain enough data to calculate a numerical value known as the Remaining Service Life (RSL) number for each paved roadway segment. In short, the RSL value is the number of years before a road reaches unacceptable condition. The RSL for paved roads is based off a 20-year road design life while the RSL for an unpaved road is based off a 10-year road design life. Analyzing the current roadway remaining service life (RSL) can provide directions on which roads require attention first and allow to budget for maintenance or rebuild costs. Figure 19: Remaining Service Life Map below visually shows the pavement RSL distribution throughout the City.

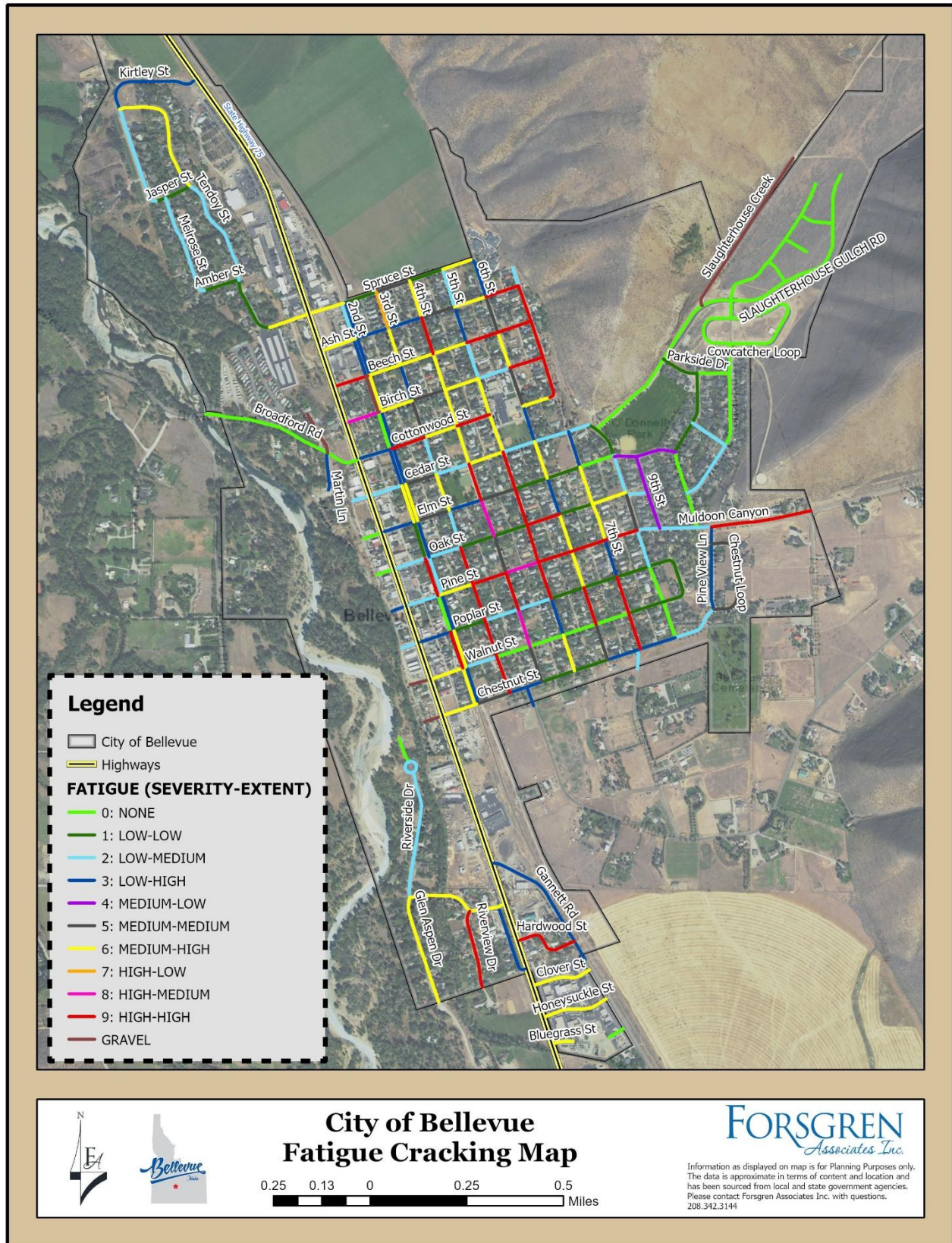


Figure 15: Fatigue Cracking Map

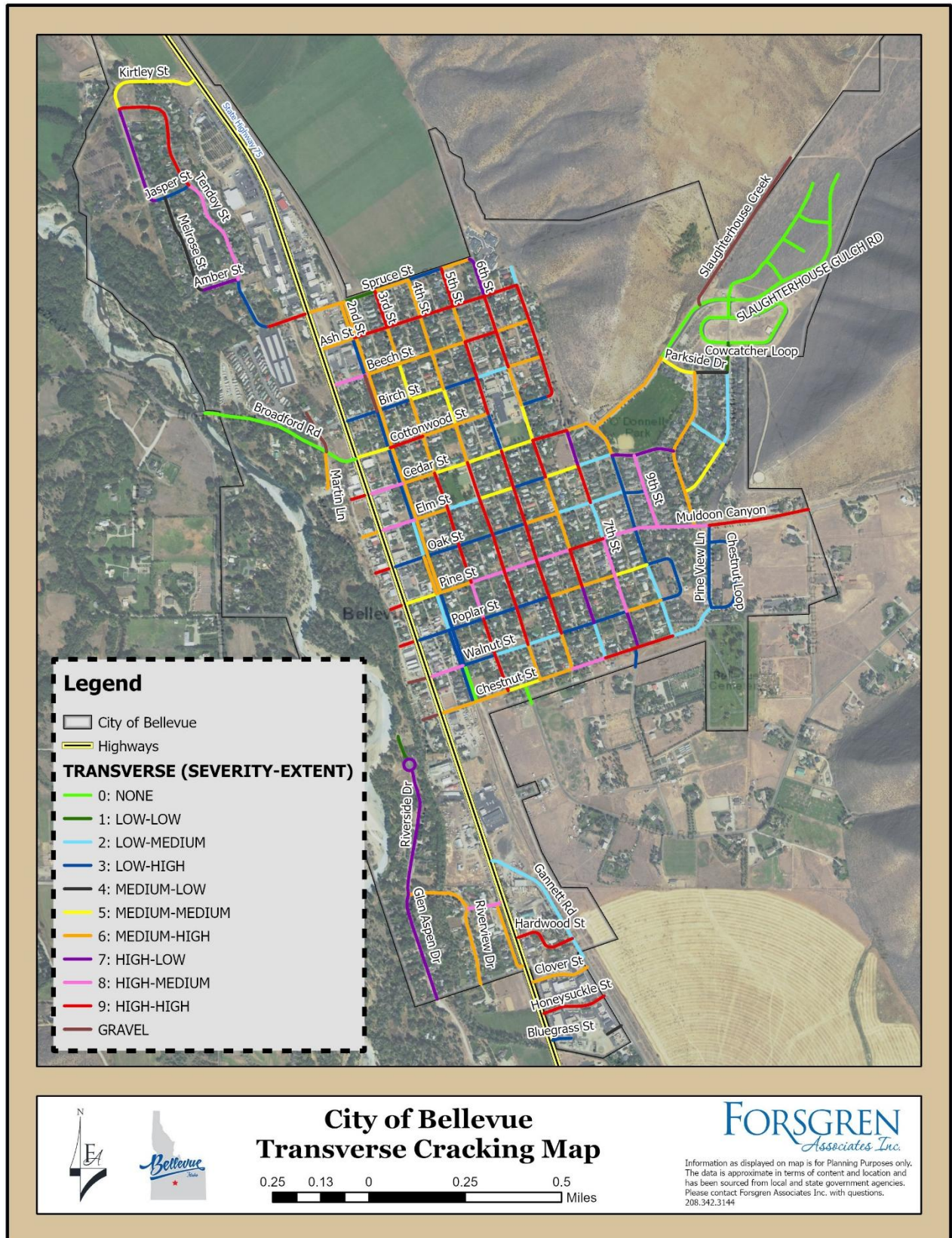


Figure 16: Transverse Cracking Map

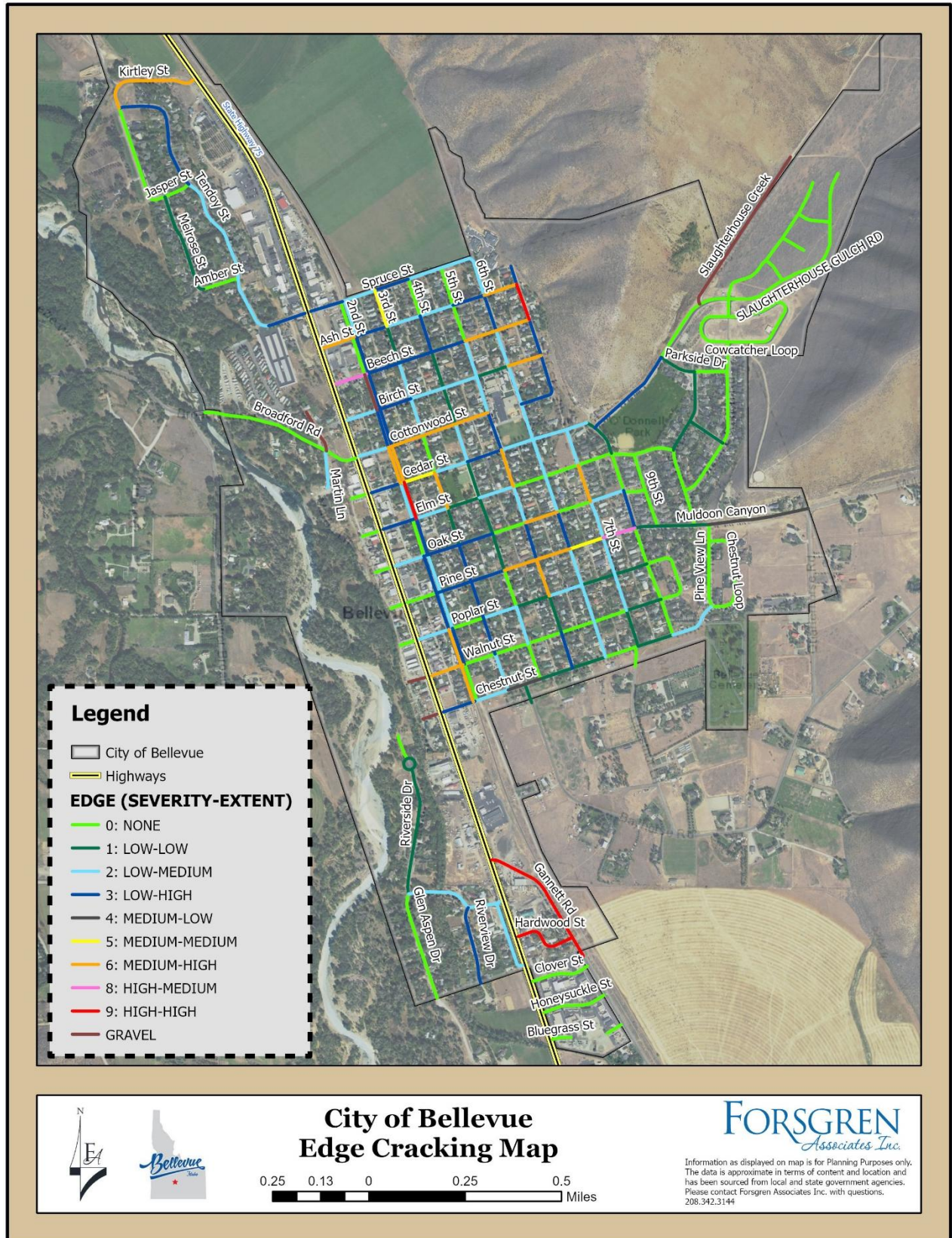


Figure 17: Edge Cracking Map

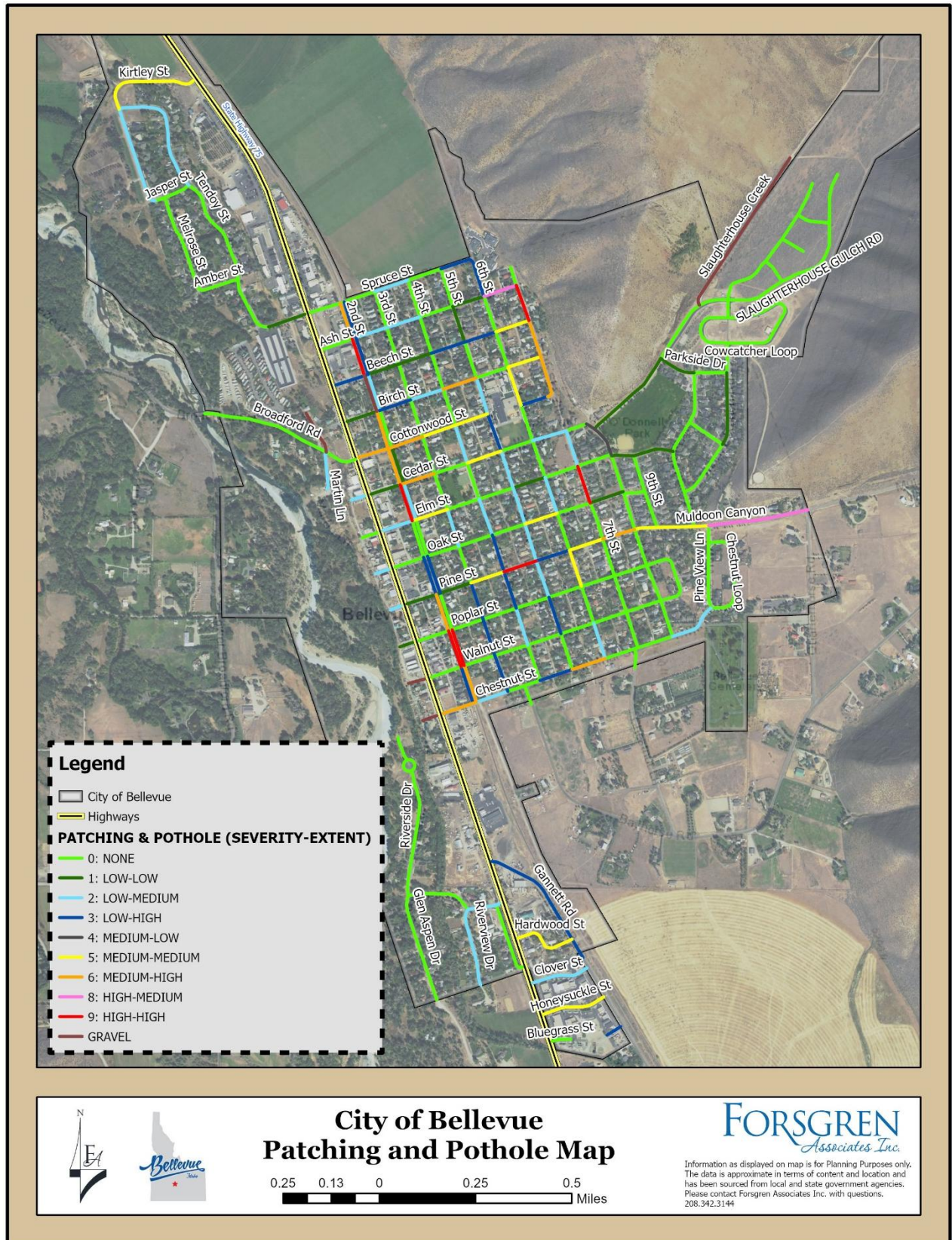


Figure 18: Patching and Pothole Map

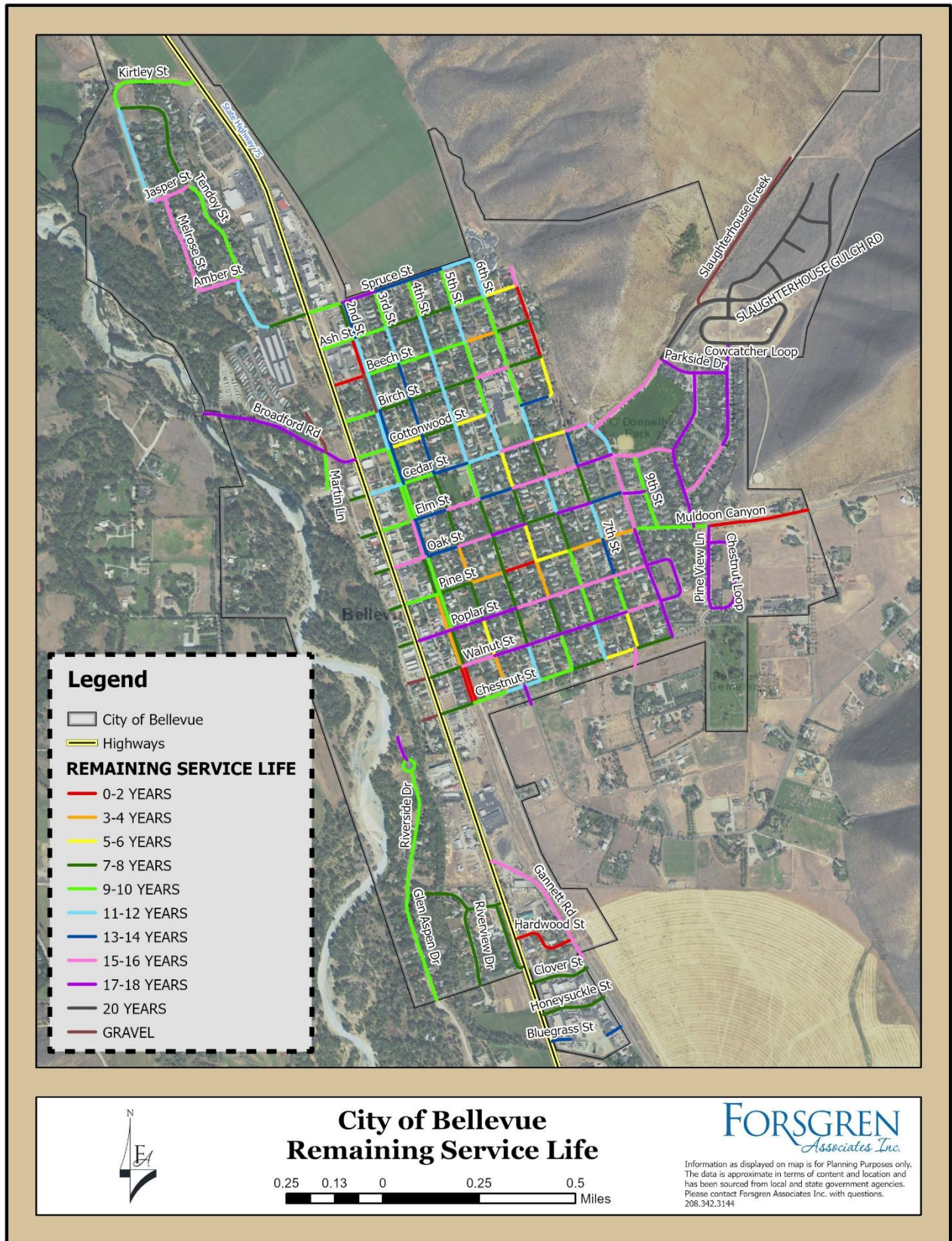


Figure 19: Remaining Service Life Map

Pavement Management Plan

Creating a Maintenance/Pavement Management Plan, also known as a Pavement Management System (PMS), is one of the most important programs a jurisdiction can implement. One of the City's largest investments is in the road infrastructure. The quality of preservation work performed on this road infrastructure directly determines the surface life, future maintenance cost, ride quality, and ultimately user costs. It is the responsibility of those who are involved to ensure that the taxpayers are getting their money's worth.

A new, well-built, paved road should last about 15 years before major rehabilitation is needed. The life of a typical road is shown in Figure 20 below. This figure shows how the condition of the road deteriorates with the age of the road. Once a roadway reaches the poor and failed condition rating a complete road reconstruction is required.

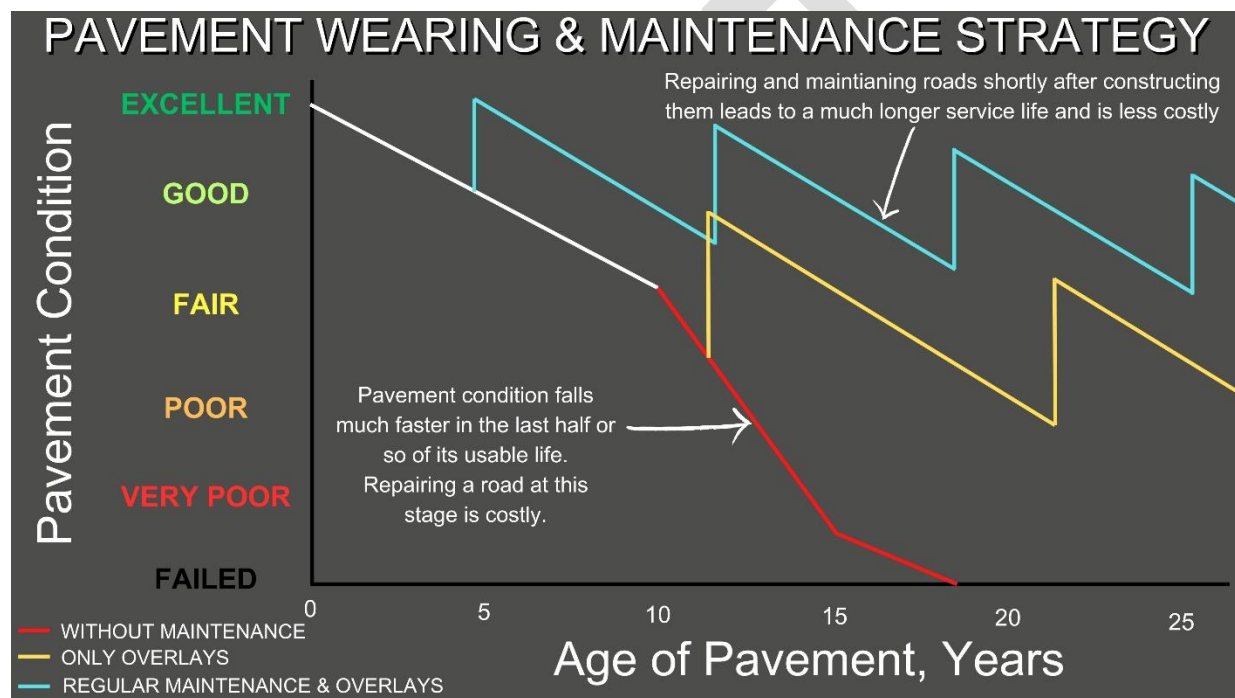


Figure 20: Road Life Cycle & Maintenance

Figure 20 compares maintenance strategies to maintain and elongate roadway life span. The red line represents a roadway with no maintenance and the deterioration of the road. The blue line illustrates the roadway condition with routine preventative maintenance every 5-7 years. Routine maintenance includes filling cracks and potholes, while periodic maintenance can include chip seals and fog seals. A compromise between these two methods would be to first address the road condition with an overlay around year 13. This is the yellow line. This improves the roadway condition from a fair rating back to the good/excellent rating. The roadway condition then would begin to deteriorate similar to the initial deterioration rate. A second overlay between years 25-30 could continue to extend the roadway lifespan. These various maintenance methods should be implemented to preserve the life of the road and decrease the amount of money spent over the life of the road.

The main goal of a pavement maintenance program is to keep the roads from falling into the overlay and reconstruct zones. When a road falls into one of these zones, the cost required to repair these roads increases immensely. Through maintenance activities, the life of a road can be vastly increased. Figure 20 shows the effects of preventative maintenance, an occasional overlay or seal coat, and no maintenance will have on the life of a road.

By implementing a preventative maintenance system, it will cost approximately \$4.35 per square yard for maintenance after the construction of the roadway over 20 years. To mill and overlay is approximately \$43.00 per square yard over the 20-year time period. Total reconstruction of paved roadways is estimated to be \$95.00 per square yard. Gravel roadways also require maintenance including the addition of aggregate to sustain the roadway surface. It will cost approximately \$18.00 per square yard. Preventative maintenance techniques will save up to six to seven times the amount of money it would cost over the do-nothing approach.

To completely reconstruct the City's 19.10 miles of paved roads would cost approximately \$23,419,100 and maintain all 2.65 miles of unpaved road would cost approximately \$615,600. Overall, \$24,034,700 would be needed today to apply all the recommended treatments to each road segment. This is not feasible for Bellevue at this time; therefore, a maintenance plan is needed.

'Well prepared roads will require less money to maintain.'

Roadway Improvements, Maintenance, and Recommendations

The temptation is to "just pave over the existing", which can be characterized as "spending good money, on bad roads". For failed roads, funds spent on anything other than a reconstruction will be a poor investment. Interestingly, the roadway shoulder condition and related drainage deficiencies turn out to have a larger impact on prioritizing street maintenance candidates than many of the existing distresses. The best maintenance outcomes are achieved by first fixing the underlying problems before paving over distressed sections of roads.

To reverse a gradual City-wide decline in street conditions, the focus should not be how many streets can be temporarily improved, rather a more concentrated effort of permanently correcting deficiencies and then repaving one street at a time. Ultimately, additional funding is necessary to achieve any significant change in overall road conditions.

Recommended Maintenance/Treatment

A close look was taken at the condition of the roads across Bellevue. Beyond what is included in the Capital Improvement Plan, a couple of recommended treatments have also been suggested to help the City extend the service life of their roads. **Treatment includes crack and chip sealing each of the City owned roads.** With the current budget, approximately one mile of road can be chip sealed which will take approximately 22 years to complete the existing City owned roads as shown in Figure 21. If more funding becomes available, Figure 22 and Figure 23 advise which roads to chip seal to complete a City wide treatment in 12 years (~ 2 miles per year) and 8 years (~ 3 miles per year).

Pavement Management Plan/System Implementation

Much of the work necessary to implement a pavement management system has been done. A full inventory has been created. A condition survey of Bellevue's roadway network is complete, and the results have been analyzed. Recommendations have been made that will enable Bellevue to maintain and enhance the service life of its street network. To aid the City in their efforts to improve their road network, Forsgren Associates used ArcGIS to create a database and enable personnel at Bellevue to keep accurate and up-to-date records of the street network. The program has been populated with Bellevue's roadway inventory and is now ready for maintenance crews to use. Forsgren Associates will provide training and technical support at the request of the City.

The following steps are suggested to help with the implementation of the pavement management system and ensure that it stays useful:

- ❖ Conduct briefings with appropriate personnel to explain the details and procedures of the pavement management system.
- ❖ Install the computer program on the computers of the personnel who are responsible for maintenance or management of the street network.
- ❖ Train the appropriate personnel on how to implement the recommended pavement preservation program and access the maps.
- ❖ Develop a pavement history database including: structure, layer thicknesses, dates of initial construction and subsequent maintenance and rehabilitation events.
- ❖ Develop basic traffic information and incorporate traffic counts, functional classifications, and axle load data, Level of Service (LOS), and structural capacity.
- ❖ Perform condition inspections with the personnel responsible for the street maintenance, discuss the possible recommendations for treatment and develop a consensus.
- ❖ Fine-tune the pavement management computer program to produce what the City expects. The output should fit the unique methods and needs of the City.

The Capital Improvement Plan in Chapter 6 lists improvement projects for the City.

PAVEMENT MAINTENANCE GOAL:

**APPLY THE CORRECT ROAD TREATMENT AT THE IDEAL TIME THAT WILL INCREASE
THE ROAD QUALITY IN THE MOST EFFICIENT AND EFFECTIVE WAYS POSSIBLE**

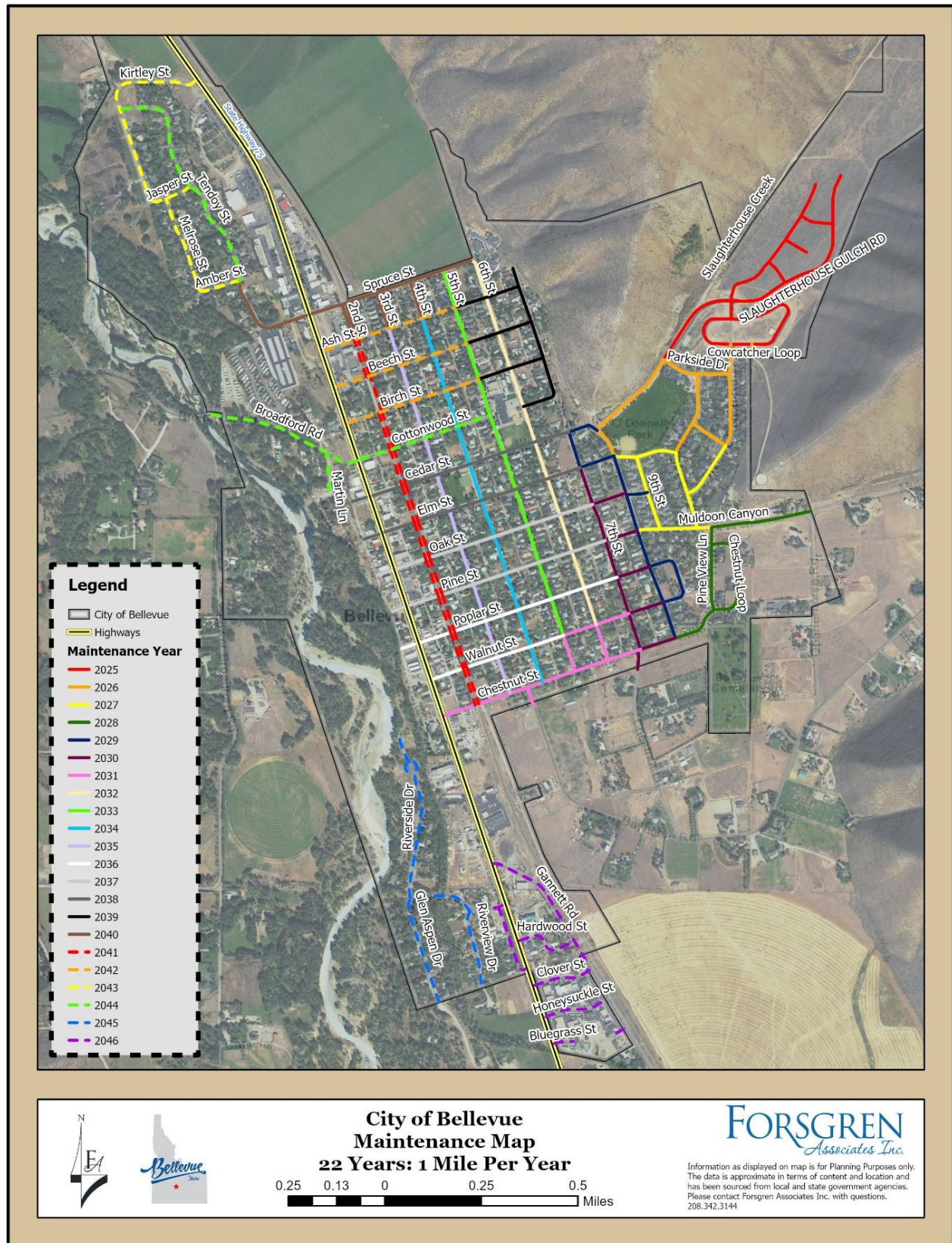


Figure 21: 1 Mile per Year Maintenance Map

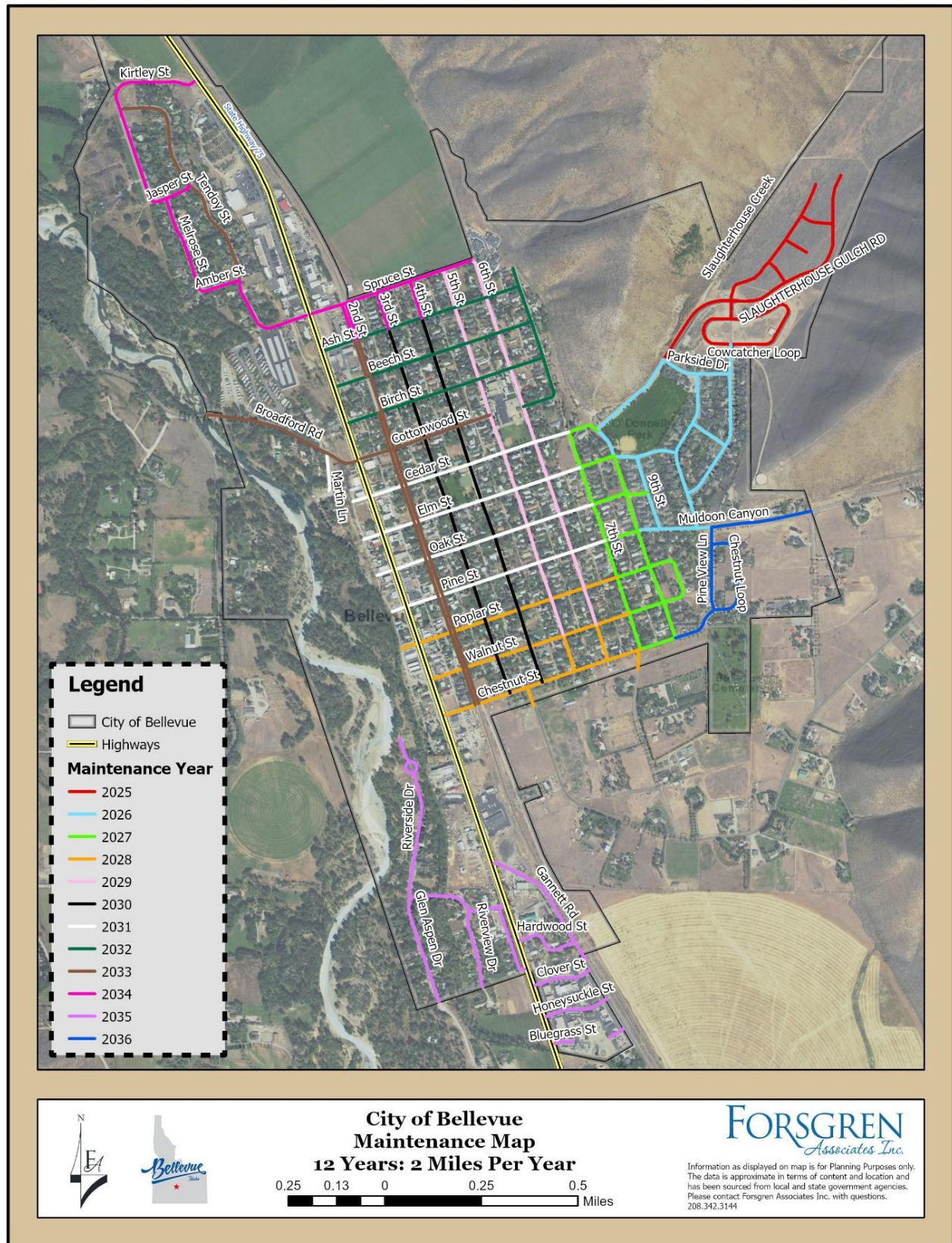


Figure 22: 2 Miles per Year Maintenance Map

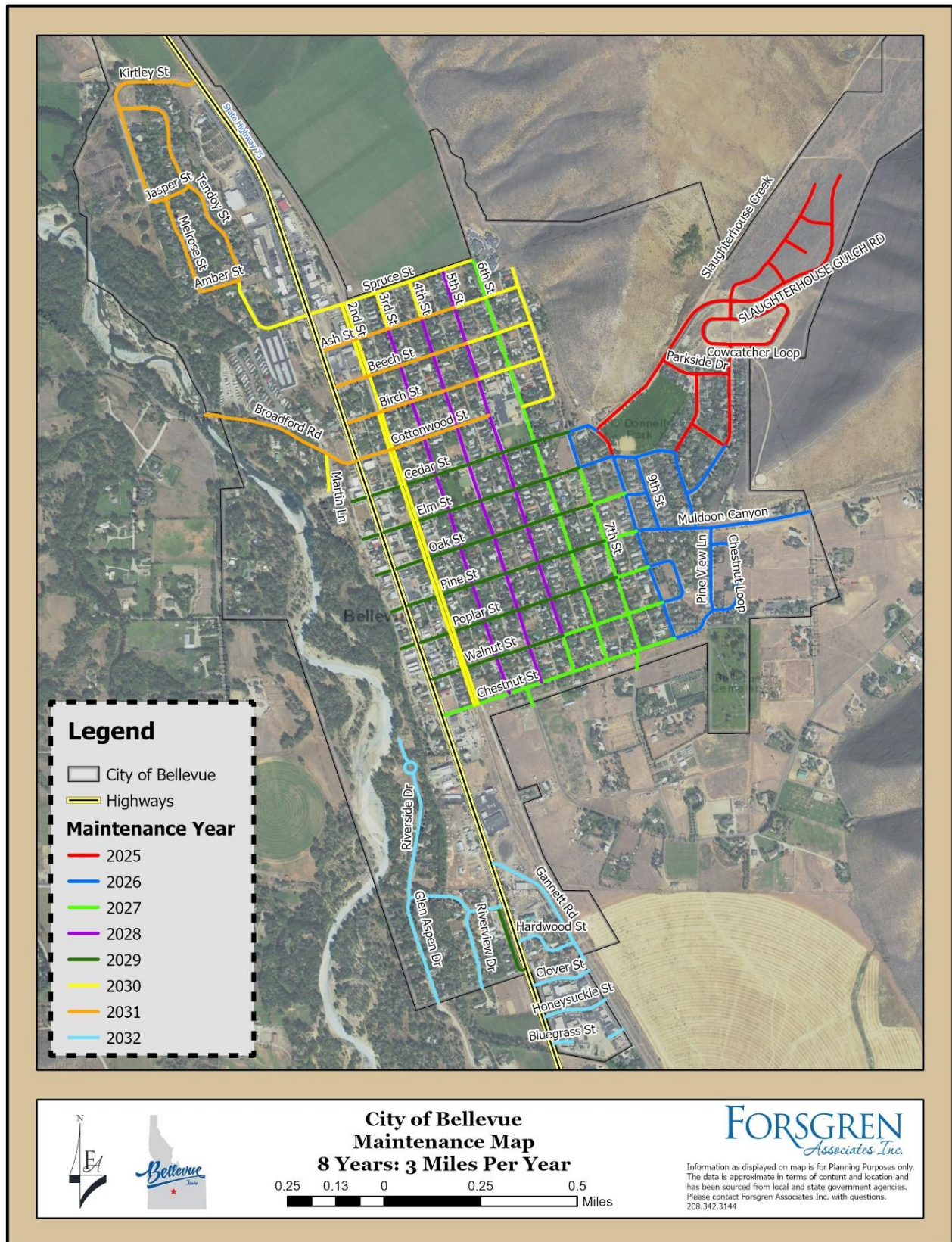


Figure 23: 3 Miles per Year Maintenance Map

Multi-Modal Path Conditions

According to the AASHTO Greenbook, sidewalks are an important feature for pedestrians in cities and rural areas. Their presence can decrease the likelihood of pedestrian vehicle collisions. In general, sidewalks should be provided wherever pedestrian travel is encouraged or observed.

Multi-modal paths are intended for non-automotive traffic like pedestrians and bicyclists. These paths can be located alongside a road or separate from the roadway. They serve many purposes with the main two purposes being to provide a safe separation between pedestrian traffic and auto traffic, and to provide compliance with the Americans with Disabilities Act (ADA).

Sidewalk and Path Inventory and Condition

The City of Bellevue currently has about 5.5 miles of sidewalks and 2.6 miles of paved paths. The City owns approximately 0.80 miles of the paved path and the rest is owned as part of the Wood River Trail system along 2nd Street. Of the sidewalks, 1.06 miles are in excellent condition, 2.35 miles are in acceptable condition, 1.37 miles are in poor condition, and 0.72 miles are in failed condition. All path conditions were listed in excellent or acceptable categories.

Sidewalks and paths were inspected and evaluated for Faulting, Linear Cracking, and Surface Defects to assess an overall condition.

- Faulting is a difference in elevation across the joint of a sidewalk.
- Linear Cracking refers to a sidewalk that has cracked into multiple pieces, generally due to the sidewalk being unduly loaded.
- Surface Defects such as map cracking, popouts, or scaling cause sidewalk surfaces to be uneven, cracked, and deteriorated. It is unsafe and unsightly.

The location and condition of these Sidewalks is shown in Figure 24: Sidewalk and Path Location Map.

Key Pedestrian and Bicycle Corridors/Activities

The **main** pedestrian corridors in the City of Bellevue are those used to get to **Bellevue's K-12 school campus**. Schoolgoers walking to and from school do not currently have a sidewalk and are left to walk on roadways or roadway shoulders. There are a few crosswalks leading to the school already, but there are not a sufficient number of crosswalks to provide convenient and safe crossings for all of the routes that students may walk.

The City of Bellevue is located in the heart of a mountainous region where outdoor recreation is a central part of daily life. A key feature of the area is the Wood River Trail, a 20-mile paved, multi-use path that begins in Bellevue and extends north to Ketchum. The trail supports a wide range of users year-round, including pedestrians, trail runners, and road cyclists, as well as mountain bikers, e-bikes, gravel bikes, and adaptive bikes. In the winter months, it is used for activities such as cross-country skiing, snowshoeing, fat biking, and **snowmobiling**. The trail is also used by equestrians, making it a vital recreational and transportation asset for the community.

Pathway Plan

Improvements, Maintenance, and Recommendations

It is recommended that the City of Bellevue retain and maintain what sidewalks and paths they currently have, as well as continue to place sidewalks and paths where pedestrian traffic is concentrated and frequent.

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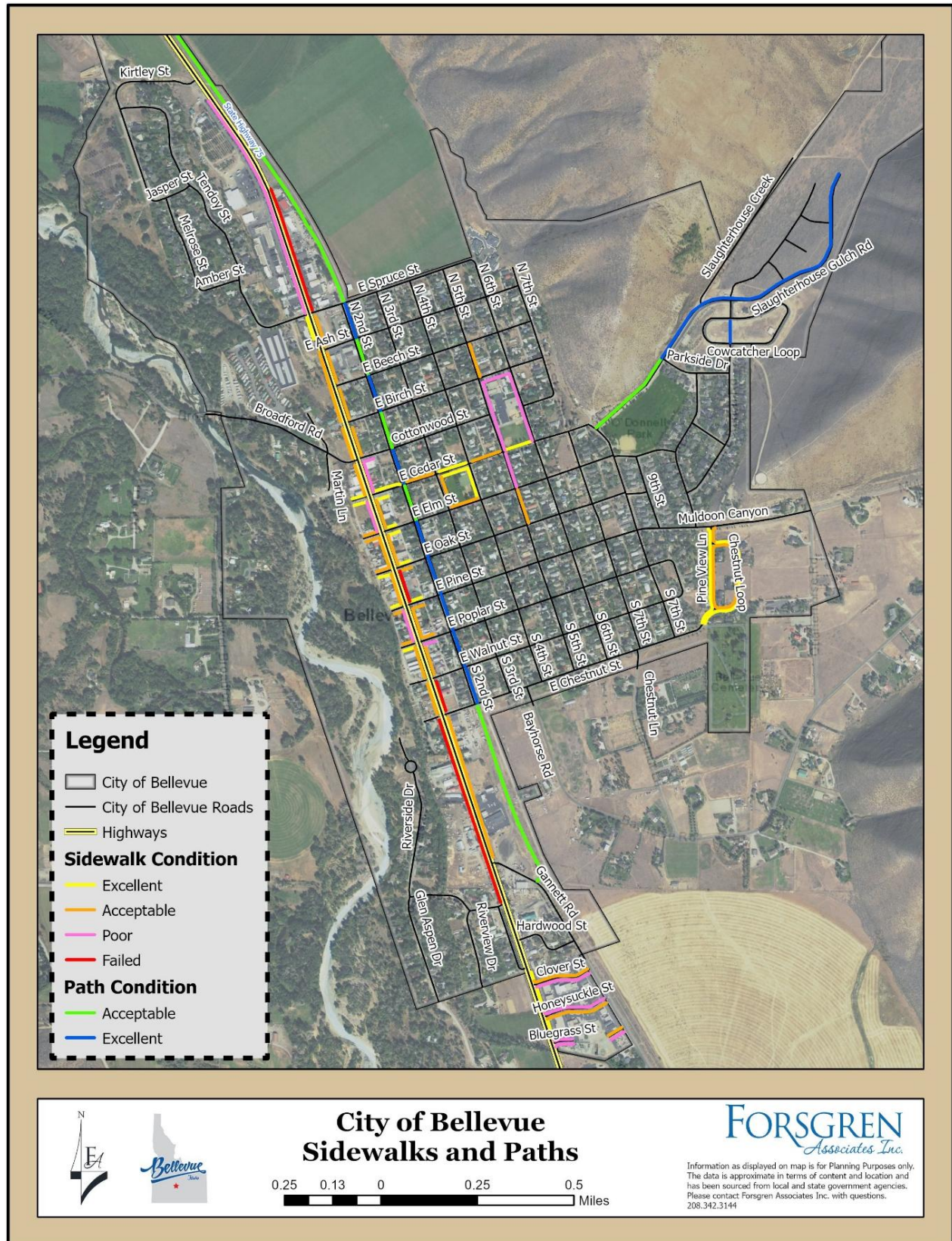


Figure 24: Sidewalk and Path Location Map

Traffic Signs

According to the Manual of Uniform Traffic Control Devices (MUTCD), traffic control devices are critical for safe and efficient transportation of people and goods. The use of traffic control devices helps to reduce crashes and congestion along with improving the efficiency of the transportation system. In Bellevue, the main traffic control devices are road signs. This section will examine both the posts and signs in the Bellevue's road sign network.

Post Inventory and Condition

A post is a long piece of material, usually, wood or metal, set upright into the ground to serve as a marker or support for traffic signs.

Post Data Collection

The post characteristics were inventoried and analyzed with the signs. The data that was entered into the GIS database includes:

- ❖ Location ID
- ❖ Post material (wood, metal, other)
- ❖ Support condition (Excellent, Good, Fair, and Poor)
- ❖ The number of signs on the post
- ❖ Does the post need straightened

Post Data Collection Results

Currently, there are 280 posts maintained by the City that support 484 signs. There are 14 posts in excellent condition, 234 in acceptable condition, 28 in poor condition and 4 in failed condition. Below is a summary of what each of those conditions means.

- Excellent: The post is in like-new condition and does not show any signs of deterioration and is undamaged.
- Acceptable: Though the support may have visible signs of age or damage, the post is fully functional and not in need of replacement.
- Poor: The support may be leaning, bent, twisted, or cut. It needs to be worked on or replaced, as it is close to failing.
- Failed: The post is no longer functioning and is not aiding in the control or guiding of traffic. It needs to be replaced or repaired immediately.

Figure 25: Post Location and Type Map visually demonstrates the location and the type of each post. Figure 26: Post Support Condition Map shows the condition of the post supports.

Post Improvements, Maintenance, and Recommendations

Damaged, vandalized, twisted, and tilted posts are the primary factors effecting post condition. Each year, additional postswill likely demonstrate these distresses. Maintaining posts will enhance safety and extend the useful life.

The recommended maintenance for signs and posts within the City is shown on Figure 31: Sign Maintenance Map. This map simplifies the maintenance effort into straighten post or straighten sign. It is recommended that the City straighten listed supports and upgrade any posts that do not meet MUTCD standards listed as poor or failed on Figure 26: Post Support Condition Map.

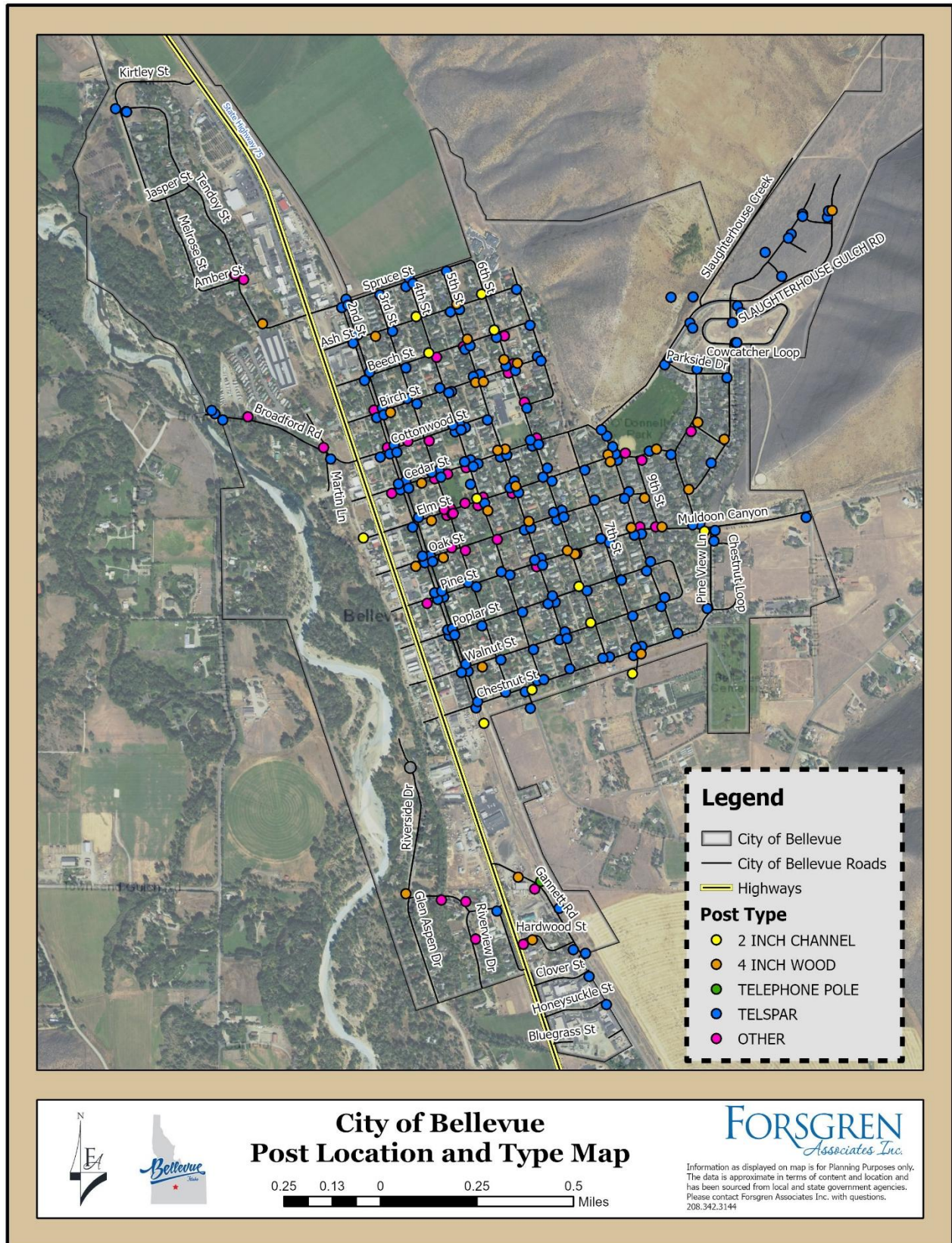


Figure 25: Post Location and Type Map

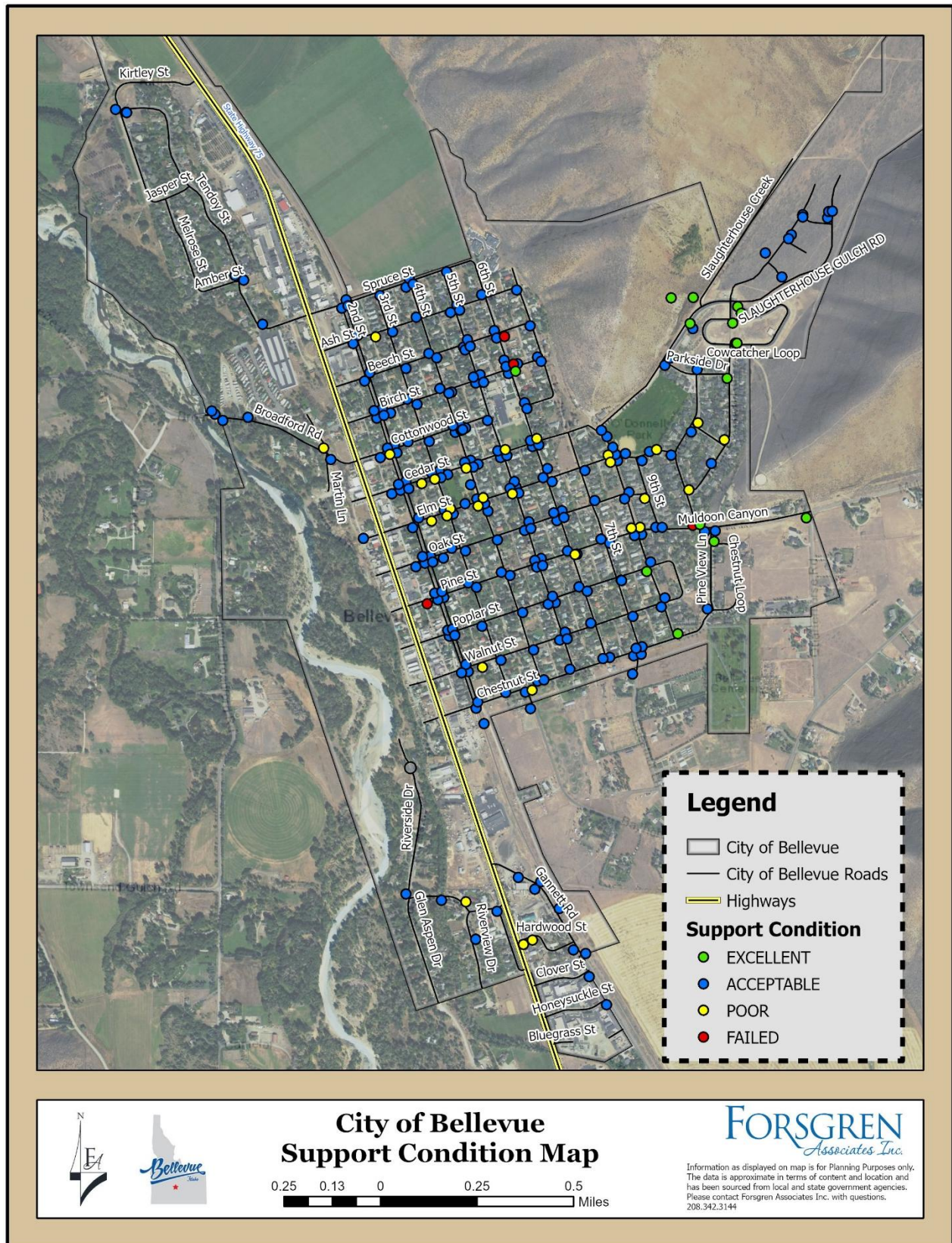


Figure 26: Post Support Condition Map

Sign Inventory and Condition

A sign is defined as “an official device that gives a specific message, either by words or symbols, to the public.”

Sign Data Collection

The sign characteristics were inventoried and analyzed. The data that was entered into the database are:

- ❖ Location ID (this correlates with the post ID)
- ❖ MUTCD Code
- ❖ MUTCD Type
- ❖ Mount Height
- ❖ Mount Offset
- ❖ Sign Height
- ❖ Sign Width
- ❖ Visibility
- ❖ Support Type
- ❖ The Direction the Sign Faces
- ❖ Sign Grade
- ❖ Engineering
- ❖ High Intensity
- ❖ Sign Condition Rating
- ❖ Support Condition Rating

Sign Types

In the sign database, all the signs receive a MUTCD code. Each code represents a sign within a sign category; the main sign categories are Regulatory, Warning, and Information Signs.

Regulatory Signs

Traffic signs are intended to instruct road users on what they must or should do. Examples of regulatory signs are: stop, yield, speed limit, wrong way, bridge load ratings, and one-way signs. The regulatory signs in Bellevue are stop, yield, and speed limit signs. Figure 27: Regulatory Sign Map was created to show the location and type of regulatory signs within the City.

Warning Signs

Warning signs are traffic signs that indicate a hazard on the road ahead. Examples of warning signs are: railroad crossing, right turn, left turn, curve, stop ahead, intersection ahead, and pedestrian signs. In order to show the location and type of each warning sign, Figure 28: Warning Sign Map was generated.

Guide and Informational Signs

Traffic signs do what the names of the category emphasize; they guide and give information to the motorist or pedestrian. Examples of guide and informational signs are: destination, street name, bicycle parking, automobile parking, and bike route signs. In order to show the location and type of each sign, Figure 29: Guide and Informational Sign Map was created and included below.

School Signs

School signs are traffic signs that bring awareness to drivers about schools ahead of them. Examples of school signs are: school crossing, school bus stop ahead, school zone, and speed limit in a school zone. Bellevue has several school signs. These signs are shown on Figure 28: Warning Sign Map.

Sign Data Collection Results

The City currently maintains 484 signs. During the time of data collection, 71 were listed in excellent condition, 247 in acceptable condition, 82 in poor condition and 84 in failed condition. The explanation of each of these ratings is written below.

- **Excellent:** The post is in like-new condition and does not show any signs of deterioration and is undamaged.
- **Acceptable:** Though the support may have visible signs of age or damage, the post is fully functional and not in need of replacement.
- **Poor:** The sign is not only damaged or faded but it also is not working as intended. It needs to be worked on or replaced, as it is close to failing.
- **Failed:** The sign is no longer functioning and is not aiding in the control or guiding of traffic. It needs to be replaced or repaired immediately.

Notes were also made if the sign was obstructed by vegetation at the time of data collection. To demonstrate the locations of these signs and posts that need improvement Figure 30: Sign Condition Map was produced and included with this report.

Sign Improvements, Maintenance, and Recommendations

From the data collection effort, we learn that a few signs in poor or failed condition need to be replaced, some signs need to be straightened, and some signs that were noted as obstructed by vegetation need to have vegetation removed. It is recommended to replace signs that are in poor and failed conditions.

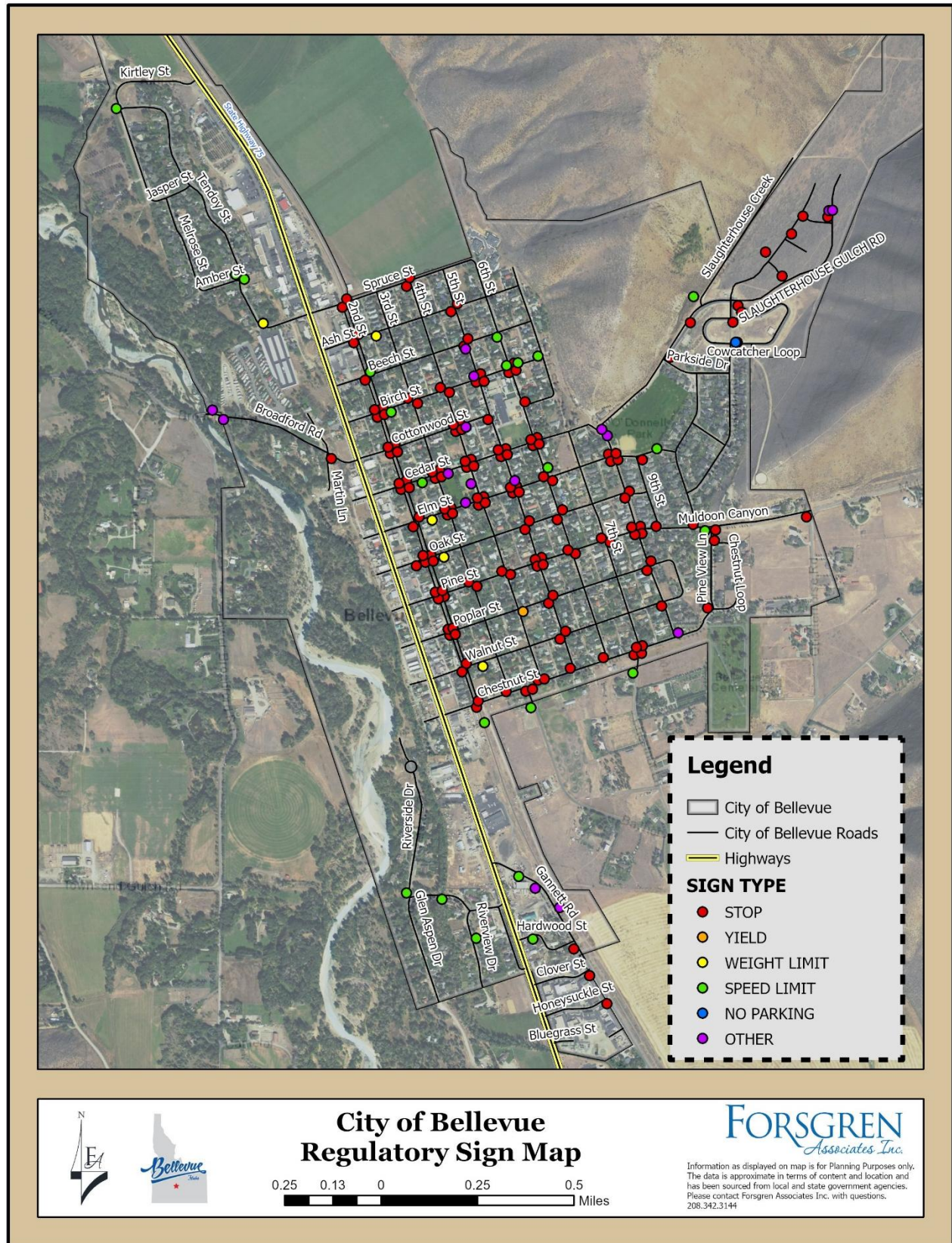


Figure 27: Regulatory Sign Map

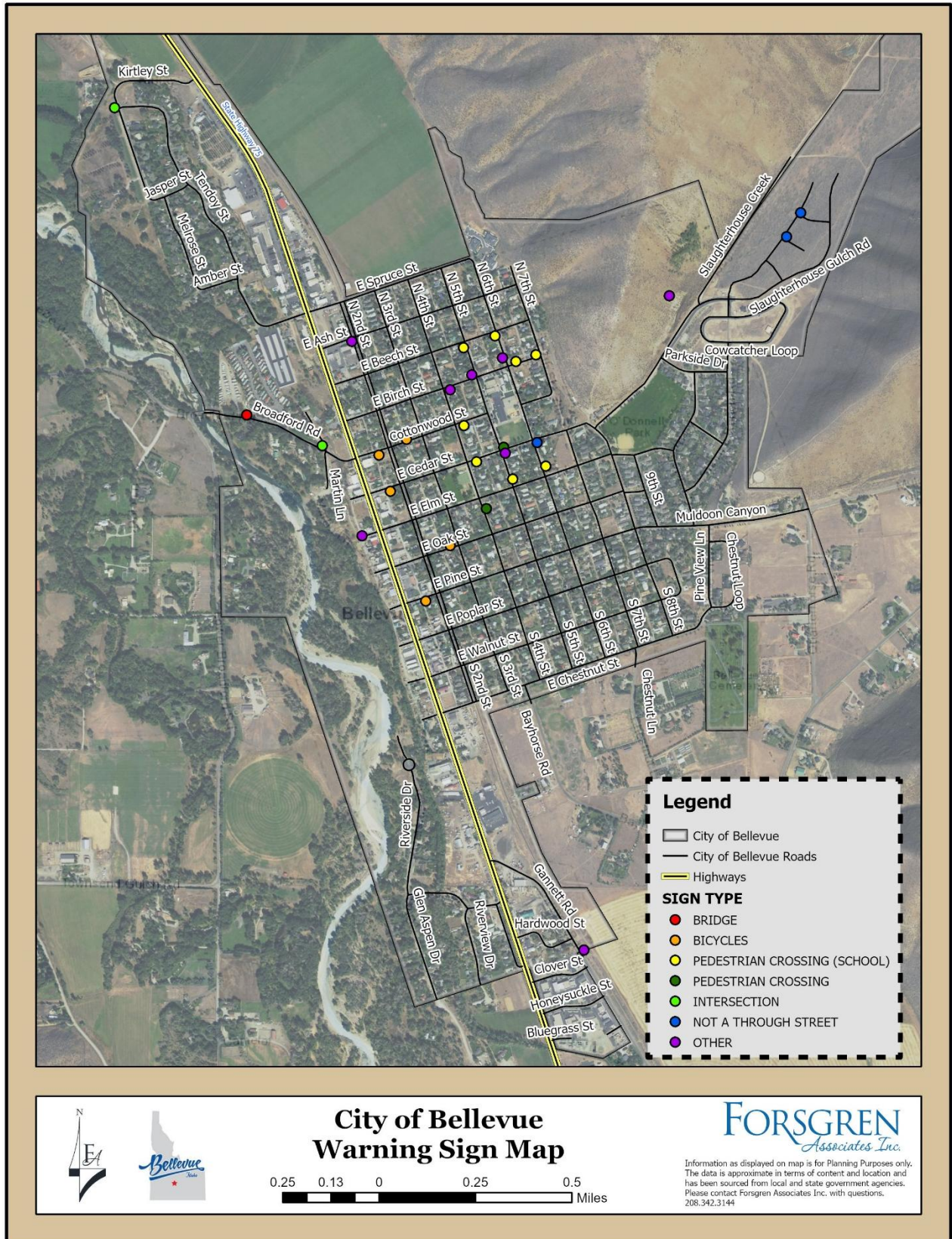


Figure 28: Warning Sign Map

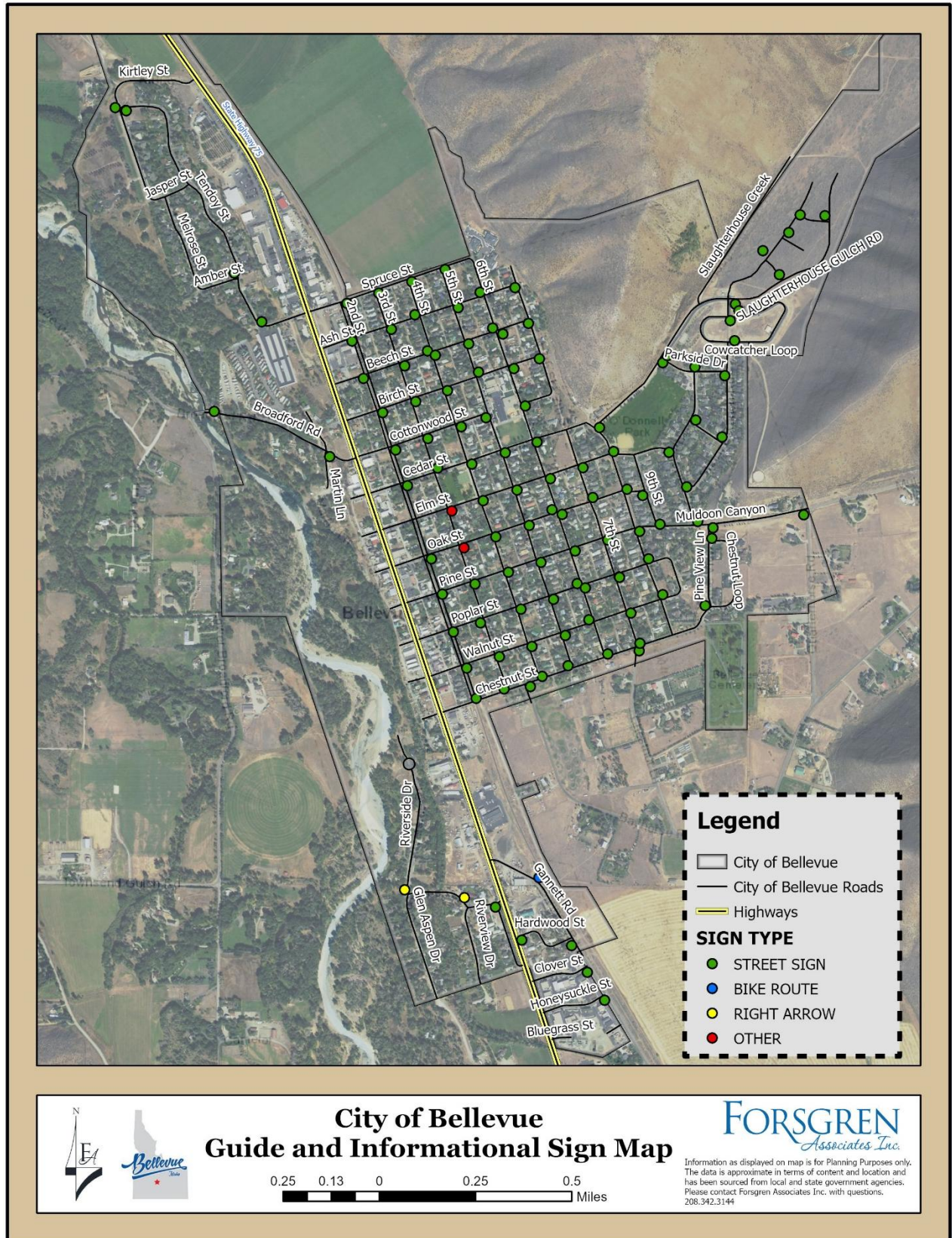


Figure 29: Guide and Informational Sign Map

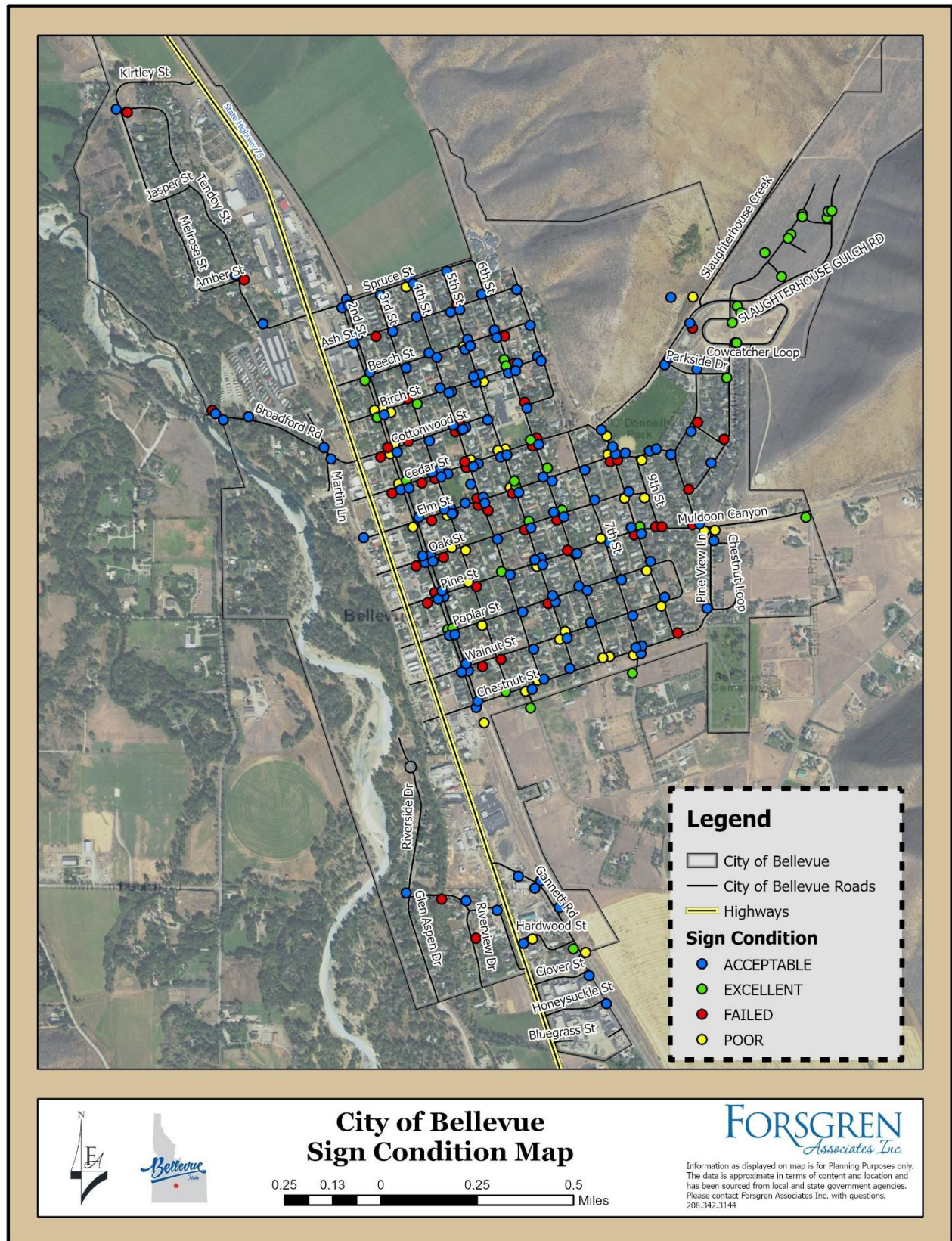


Figure 30: Sign Condition Map

Sign Management Plan

Sign Improvements, Maintenance, and Recommendations

One of the best ways to increase safety in a City is by having a good sign network. According to the Transportation Research Board, sign maintenance programs provide five times the improved safety cost/benefit ratio than other safety programs. By implementing a sign improvement program, a city can reduce liability while creating a safer flow of traffic.

Similar to posts, damaged, vandalized, twisted, and tilted signs are a major concern. Each year, signs randomly demonstrate these deficiencies. Maintenance crews should drive the City each year, inventory the signs for deficiencies, and perform the proper maintenance technique. To give the City a start, this inventory has been performed in this study. Figure 31: Sign Maintenance Map shows the recommended maintenance technique for each sign.

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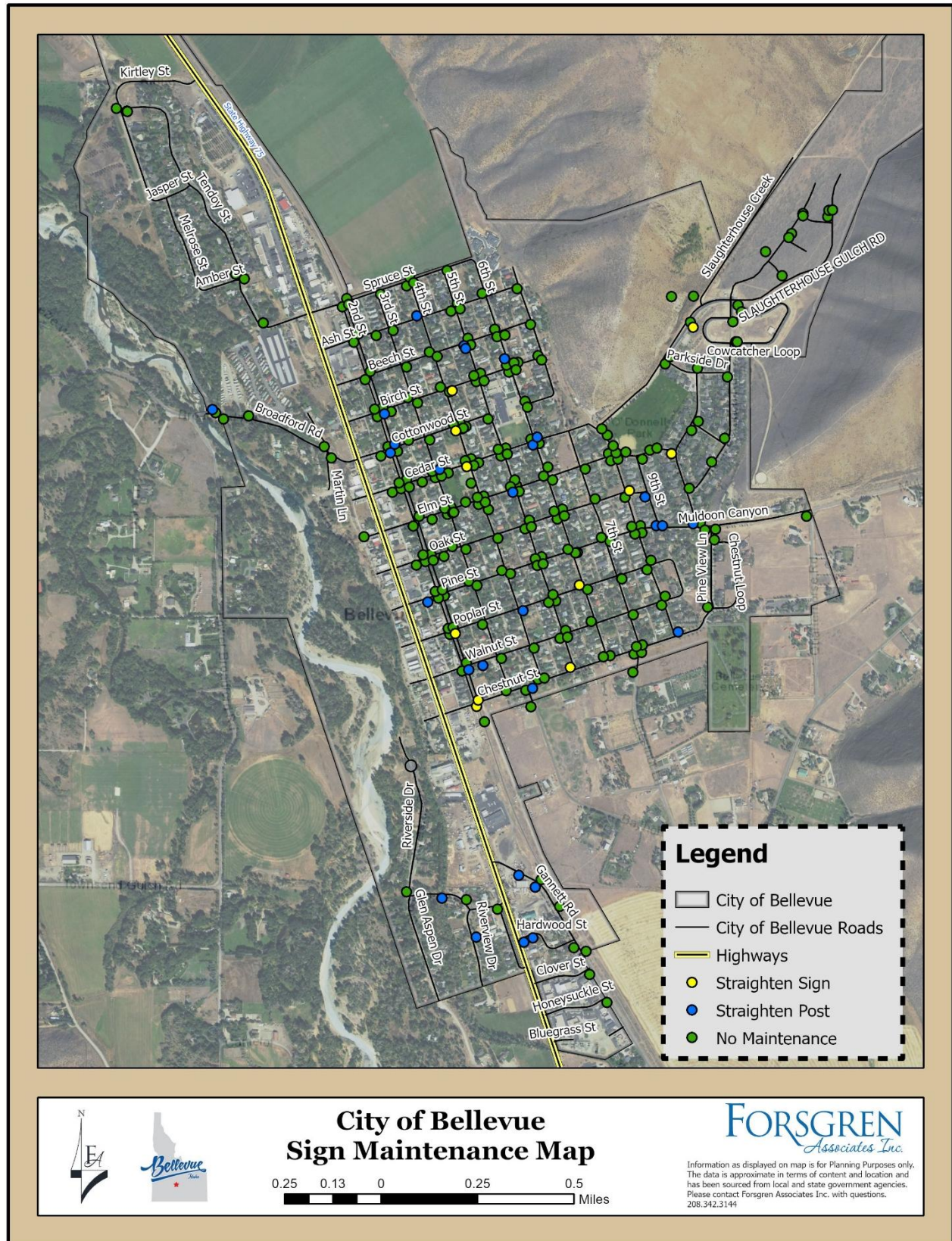


Figure 31: Sign Maintenance Map

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Chapter 5: Public Involvement

The strategy for public involvement includes a variety of public activities to meet the needs of the area's residents and support the overall Transportation Planning process. The goal of the public involvement process is twofold:

1. *To effectively engage the community in the planning process*
2. *To develop strong support for the Plan's final recommendations*

TAC Meetings

This study was structured around cultivating public involvement. A Technical Advisory Committee (TAC) was created that included City of Bellevue officials, community members, an Idaho Transportation Department (ITD) representative, a Local Highway Technical Assistance Council (LHTAC) representative, and the consultant team from Forsgren Associates. TAC meetings were held June and July of 2025. Productive discussions came about from these meetings and provided a clear planning path. The June meeting reviewed the existing conditions data that was collected in November 2024, discussed the ownership and functional classification of the roads, safety concerns including the crash locations, remaining roadway service life, and identified key pedestrian and bicycle corridors. The July meeting discussed roadway standards, projected city growth areas, the roadway maintenance plan, and the Capital Improvement Plans for both roads and pathways.

After each TAC meeting, Forsgren reported at the next City Council meeting as to the progress and discussions at the TAC meetings. A copy of meeting minutes can be found in the Appendix.

Public Meeting

A public information meeting for the City of Bellevue Transportation Plan Study was held on September 10, 2025, from 5:00 to 7:00 p.m. at Bellevue City Hall (115 East Pine Street, Bellevue, Idaho). The meeting was conducted in an open-house format, allowing attendees to arrive at any time during the two-hour period. Notice of the meeting was posted at the library, post office, and City Hall, and was also shared through the city newsletter and on Instagram and Facebook.

Five members of the public, representing five different addresses, attended the open house. A sign-in sheet was provided and is included with this summary. Four city representatives were present: Brian Parker, Community Development Director; Carter Bullock, Planner; Chris Johnson, Public Works Director; and Tom Bergin, City Alderman. John Kurtz attended as a resident. Consultants Steven Yearsley and Mariah Fowler from Forsgren Associates were also in attendance.

The consultants presented five easel displays, including: a pavement remaining service life map; a roadway capital improvement plan; a sign maintenance map; a multi-modal capital improvement map; and a display illustrating three roadway maintenance scenarios based on varying funding levels.

During the open house, consultants explained the transportation planning process, guided attendees through the displays, and answered questions. Participants spent time reviewing the materials and locating their homes or properties on the maps. Discussions focused on pavement remaining service life, anticipated timing for chip sealing, and the costs associated with roadway improvements shown on the maintenance map. Attendees expressed interest in the multi-modal map, particularly the existing and proposed connections throughout the city, including routes near schools and parks. Additional discussion addressed the current functional classification of roadways and the need for updates.

Key concerns raised included the need for safe routes for children traveling to school and securing adequate funding to maintain or reconstruct streets. No written comments were submitted. A copy of the meeting summary can be found in the Appendix.

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Chapter 6: Plans

Capital Improvement Plan

There are two separate types of projects; maintenance and improvement. The maintenance projects have been described for roads, posts, signs, sidewalks, and ramps in Chapter 4 and within their respective sections. When something more than routine maintenance is needed, for example constructing new lanes or safety features, a project is created and added to the Capital Improvement Plan (CIP). The main goal of the CIP is to create a prioritized list of improvement projects that satisfy the goals outlined in the Transportation Plan.

The goal of the Capital Improvement Plan is to:

“Provide a safe, convenient, aesthetic, and economically functional transportation system for the City and region, which includes pedestrians, bicycles, automobiles, trucks, agricultural vehicles, and other modes of transportation for the safe and efficient movement of people, goods and services”

Improvement Projects

After assessing the roadway system in Bellevue and working with the City of Bellevue, several improvement projects have been identified. The City, in cooperation with Forsgren, has assigned priority to each project. The recommended improvement projects are described below with corresponding maps at the end of the section.

Capital Improvement Projects

#1 – Pine Street (~0.8 Miles)

The City of Bellevue would like to fully rebuild Pine Street for its full length within the City, which is approximately 0.8 miles long. The road was poorly constructed to begin with and is not worth rehabilitating. **This full rebuild is estimated to cost \$800,000.**

#2 – 2nd Street (~0.75 miles)

2nd Street needs a full rebuild as it is a poorly built and deteriorating road. The City of Bellevue would like to fully rebuild approximately 0.75 miles from Spruce Street to Chestnut Street. The estimated cost is **\$750,000.**

#3 – Elm Street (~0.6 miles)

Elm Street is an old road and is falling apart. However, the original road base and surface on Elm Street is not worth rehabilitating. The road needs to be fully reconstructed for approximately 0.6 miles. The estimated cost of reconstructing Elm Street is \$600,000.

#4 – 5th Street (~0.75 miles)

Another deteriorated road that has been identified by the City of Bellevue is 5th Street. This street runs east-west across the City of Bellevue for about 0.75 miles. It also runs past Bellevue Elementary School. This road needs full rehabilitation, which is estimated to cost \$750,000.

To complete these four listed improvements, it is estimated to cost \$2,900,000. Although many sections of roadway were identified to rehabilitate or as a new location to pave, it is recommended to also plan for chip sealing 3-5 years after paving to elongate the roadway life. Any of the aforementioned projects should receive regular chip sealing once completed, even if that slows the City in accomplishing the next project in the Capital Improvement Plan.

Table 9 lists the roadway improvement projects outlined in this chapter in an approximate order of priority. It also provides a description of each project, along with the Engineer's Estimate of Probable Cost. Figure 32: Roadway Capital Improvement Plan is a map showing the identified Capital Improvement Project locations.

This CIP list is designed to be a living list in that every 3-5 years it should be reevaluated and updated as projects are completed from this list.

Table 9: Roadway CIP Priority List

Priority	Project Description	Engineer's Estimate of Probable Cost
1	Pine Street Reconstruction	\$800,000
2	2 nd Street Reconstruction	\$750,000
3	Elm Street Reconstruction	\$600,000
4	5 th Street Reconstruction	\$750,000

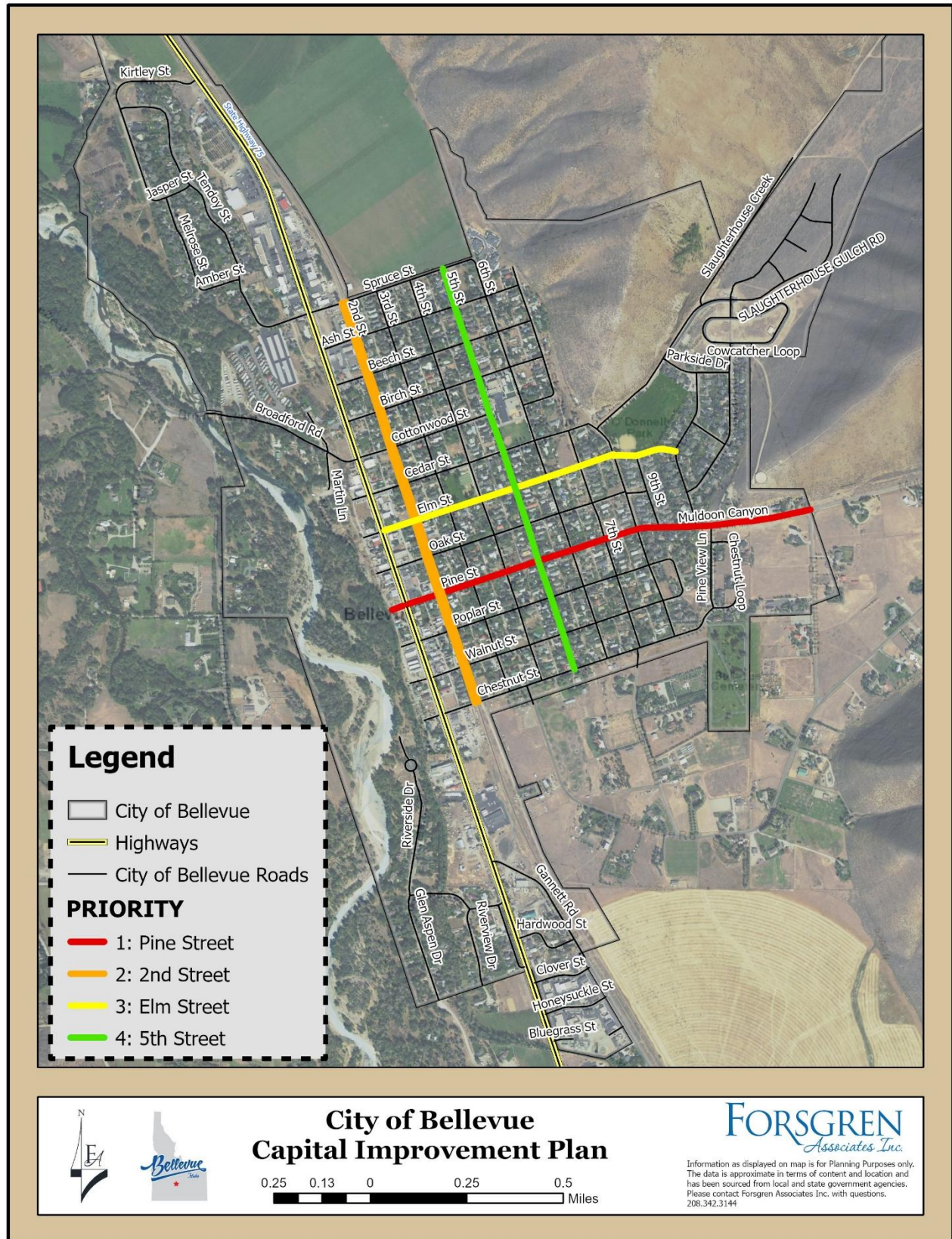


Figure 32: Roadway Capital Improvement Plan

Multimodal Plan

According to the Idaho Transportation Department, Multimodal Transportation Planning is the ability to connect various modes of transportation. The five listed modes of transportation are: aeronautics, bicycle/pedestrian, highway/streets, rail and freight, and public transportation. Bicycle/pedestrian and highway/streets are of the most practical in the City of Bellevue. Since highway/streets are discussed throughout this Transportation Planning Study, this section will only focus on the bicycle/pedestrian facilities within the City.

Both bicycling and walking encourage daily physical activities for children and adults. Existing multimodal paths and sidewalks were identified and discussed in Chapter 4. Figure 33: Multimodal Capital Improvement Plan shows the existing sidewalks and paths in Bellevue and the ideal locations for additional paths and sidewalks. The first priority would be the sidewalk on the south side of Cedar Street from Main Street to 6th Street. The second priority is sidewalk on the south side of Elm Street from Main to 8th Street. The third identified new sidewalk is along Broadford Road from Main Street to the Big Wood River Bridge and can be on either side of the roadway. The fourth priority is the 7th Street path from Cottonwood Street to Cedar Street. These four projects were chosen to increase connectivity to the school, O'Donnell Park, and the path along the Big Wood River.

Many additional sidewalks and paths were identified and are shown in Figure 33 below. These locations were selected to improve connections between areas on the outskirts of the city and key interior destinations, such as schools, parks, and neighborhoods. It is also recommended that the City maintain the existing crosswalks and install new crosswalks at appropriate locations. These proposed improvements will increase the connectivity within the City of Bellevue and make pedestrian travel easier and safer.

As growth occurs it is recommended that more paths be included as part of the developments. These paths can connect future residents with City owned pedestrian pathways to existing sidewalks in Bellevue and further promote multimodal use. Also, as pathway projects are completed, it is recommended that the Multimodal Capital Improvement Plan is updated with more projects. Table 10: Multimodal CIP Priority List shows the proposed improvement projects, their priority, and their estimated cost. An estimated total cost for the listed projects is \$1,722,000.

Table 10: Multimodal CIP Priority List

Priority	Project Description	Engineer's Estimate of Probable Cost
1	Cedar Sidewalk: Main to 6th St (South side) 1,580 Feet	\$435,000
2	Elm Sidewalk: Main to 8th St (South side) 2,950 Feet	\$812,000
3	Broadford Sidewalk: Bridge to Main (one side) 1,580 Feet	\$435,000
4	7th Street Path: Cottonwood St to Cedar St 400 Feet	\$40,000

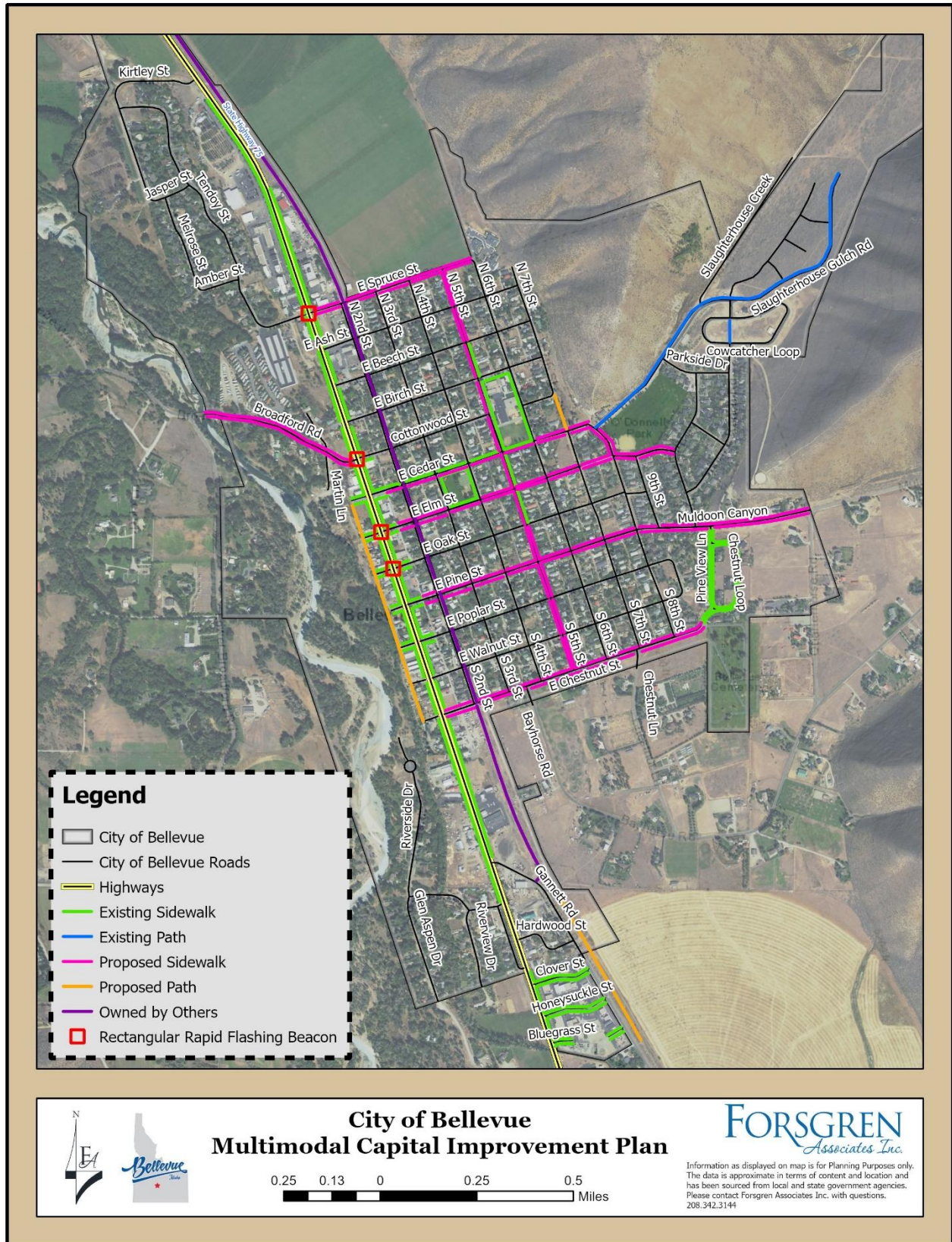


Figure 33: Multimodal Capital Improvement Plan

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Chapter 7: Funding

With the limited budget that Bellevue has for transportation improvement projects, outside funding is a necessity. Currently, the State of Idaho has a number of funding programs that Bellevue can utilize in their endeavors to improve their road network. The programs that can support the City's maintenance and construction needs are:

- **Local Highway Safety Improvement Program (LHSIP):** This program is a federally funded program aimed at eliminating fatal and serious injury crashes on the roadway system. This grant has a maximum project limit of \$1.5 million and is typically submitted in January.
- **Transportation Alternative Program (TAP):** This grant provides funding for projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, and safe routes to school educational projects. Examples include paths/sidewalks along or adjacent to an existing roadway, connecting sidewalks/paths between two terminal points, and curb ramps and other horizontal/vertical barriers to accessibility. TAP awards are capped at \$500,000 and include a 7.34% match provided by the City. Applications are typically submitted in January.
- **Children Pedestrian Safety Program:** This program provides funding for projects related to maintenance and addresses safety and mobility. Examples include paths/sidewalks along or adjacent to an existing roadway, connecting sidewalks/paths between two terminal points, ADA ramps, pedestrian crossing facilities across an existing roadway including signing and/or signalization, or paving an existing pathway. Projects should be "shovel ready". The maximum grant award is \$250,000 and is typically submitted in January.
- **ITD Office of Highway Safety (OHS) Grant:** This grant provides funding for efforts addressing specific behavior-related safety priority areas. These include: impaired driving, aggressive driving, distracted driving, occupant protection, bicycle, pedestrian, motorcycle safety, youthful drivers, and traffic records. Grants may be awarded for assisting OHS in targeting traffic safety deficiencies, expansion of an ongoing activity, or development of a new program. Refer to <https://itd.idaho.gov/safety/> for more information.
- **Americans with Disability (ADA) Curb/Ramp Program:** This program provides funding for projects to address curb ramps on the state highway system. The goal of the program is to provide accessible facilities for pedestrians with disabilities while allowing local jurisdiction flexibility in meeting the required standards. Funds can only be used for construction purposes; the design is provided without compensation. Applicants can qualify for up to \$60,000 in state funding to construct new or alter existing curb ramps on the state highway system to meet the requirements of the ADA.
- **Community Development Block Grant (CDBG):** This program assists Idaho cities and counties with the development of needed public infrastructure. Cities or counties with a

population under 50,000 and are incorporated are eligible to apply. Eligible activities include downtown revitalization and public facilities construction and improvements such as sewer and water systems, streets, and other public infrastructure. Applications are typically due in November.

- **Federal-aid Urban:** Surface Transportation Block Grant (STBG) Urban funds are allocated for projects in urban areas with populations greater than 5,000 and less than 50,000 as determined by the US Census Bureau. Funds may be used for new construction, reconstruction, or rehabilitation of roadways functionally classified with FHWA as urban arterial or urban collectors. It can also be used to create or update a Transportation Plan encompassing the entire urban area. The local match requirement is 7.34 percent. Applications are typically due in January.
- **Better Utilizing Investments to Leverage Development (BUILD) Grant Program:** The U.S. Department of Transportation's (USDOT) Better Utilizing Investments to Leverage Development (BUILD) grant program provides grants for surface transportation infrastructure projects with significant local or regional impact. The eligibility requirements of BUILD allow project sponsors, including state and local governments, counties, Tribal governments, transit agencies, and port authorities, to pursue multi-modal and multi-jurisdictional projects that are more difficult to fund through other grant programs. Refer to <https://www.transportation.gov/BUILDgrants> for more information.

For additional information about funding, reference the Programs tab as well as the “Local Highway Jurisdiction Funding” manual found under the Resources tab on LHTAC’s webpage at www.lhtac.org.

Chapter 8: Final Recommendations

Throughout the course of this study, various methods and techniques have been discussed for the analysis of Bellevue's road network. The street analysis showed that there are many road surfaces that need improvement. The condition of these roadways is directly linked to the City's roadway budget.

The basic roadway preservation program recommended for the City of Bellevue is to concentrate on preserving the good roads until funding can be secured to improve as many of the poor/failed roads as possible. Using the recommended maintenance plan will improve the service life of individual roads and will gradually stabilize basic maintenance needs and costs.

Future funding needs will increase due to inflation, increased pavement surface areas, increased traffic volumes, and increased material costs. The City should plan on an additional **\$0.05/SF** and **\$0.03/SF** to the yearly maintenance budget for the addition of paved and unpaved roadways, respectively.

It is recommended that all **Highway User Revenue (HUR)** monies be allocated to pavement preservation, and outside funding obtained for capital improvements and capacity improvements. It is advised that the City approach its goal of improving all its roads in a modest way. This can be achieved by stabilizing what you have, replace or strengthen the inferior materials and pave roads in a specific order.

As stated earlier, not all Pavement Management Systems are implemented well; many fail in the third or fourth year. We recommend that long-term support be given to this investment. The road network should be reviewed annually with a comprehensive review every three years. A mentor or champion on the commission needs to be assigned oversight responsibilities and be able to measure progress toward the City's transportation system goals. The City should take an active role in finding ways to increase funding and should allocate a portion of the maintenance budget for updating the transportation network.

As the population of the City increases, the traffic volume will increase and make traffic conditions worse. **For future development, the City should require each developer to perform a traffic impact study.** These studies will identify the impacts each development will have on the existing transportation infrastructure. It is recommended that the City set a level of service limit of C as their maximum allowable level. In other words, when the level of service falls from C to D, the developer must improve the road network before the development is approved.

In order to implement recommendations from this Transportation Planning Study, it is proposed that the City of Bellevue:

- Incorporate this plan into City budgets
- Evaluate sight triangles
- Remove obstructions within sight triangles
- **Remove obstructions within sidewalk areas**
- Replace identified traffic signs and posts

- Maintain the existing multimodal path and add new paths to the maintenance plan as those paths are created
- Update the CIP as projects are completed and add new projects when needed

Lastly, Forsgren recommends that this study be analyzed and adjusted regularly. Forsgren representatives will periodically check in with the City to ensure the study stays current and remains useful. Technical support is available to answer questions and to help achieve practical results. Adjusting for unexpected changes can be a useful opportunity to review how modifications can be made quickly and cost effectively. The goal of this document is to enable the City to make informed decisions through the ongoing use of this Transportation Planning Study.

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Appendix

TAC Meeting 1 Minutes
TAC Meeting 2 Minutes
Public Meeting Documents
Bridge Report

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TAC Meeting 1 Minutes

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Transportation Plan, Bellevue
Project No. A022(026); Key No. 22026

Technical Advisory Committee Meeting #1 Agenda

Date: June 25, 2025
Time: 10:00 AM
Place: Bellevue City Hall
Subject: TAC Meeting #1
Attendees: Brian Parker, Chris Johnson, Casey McGehee – City of Bellevue
Tom Blanchard – Community Member
Andrew Young – ITD
Ken Kanownik – LHTAC
Steven Yearsley, Mariah Fowler – Forsgren Associates

Discussion Items

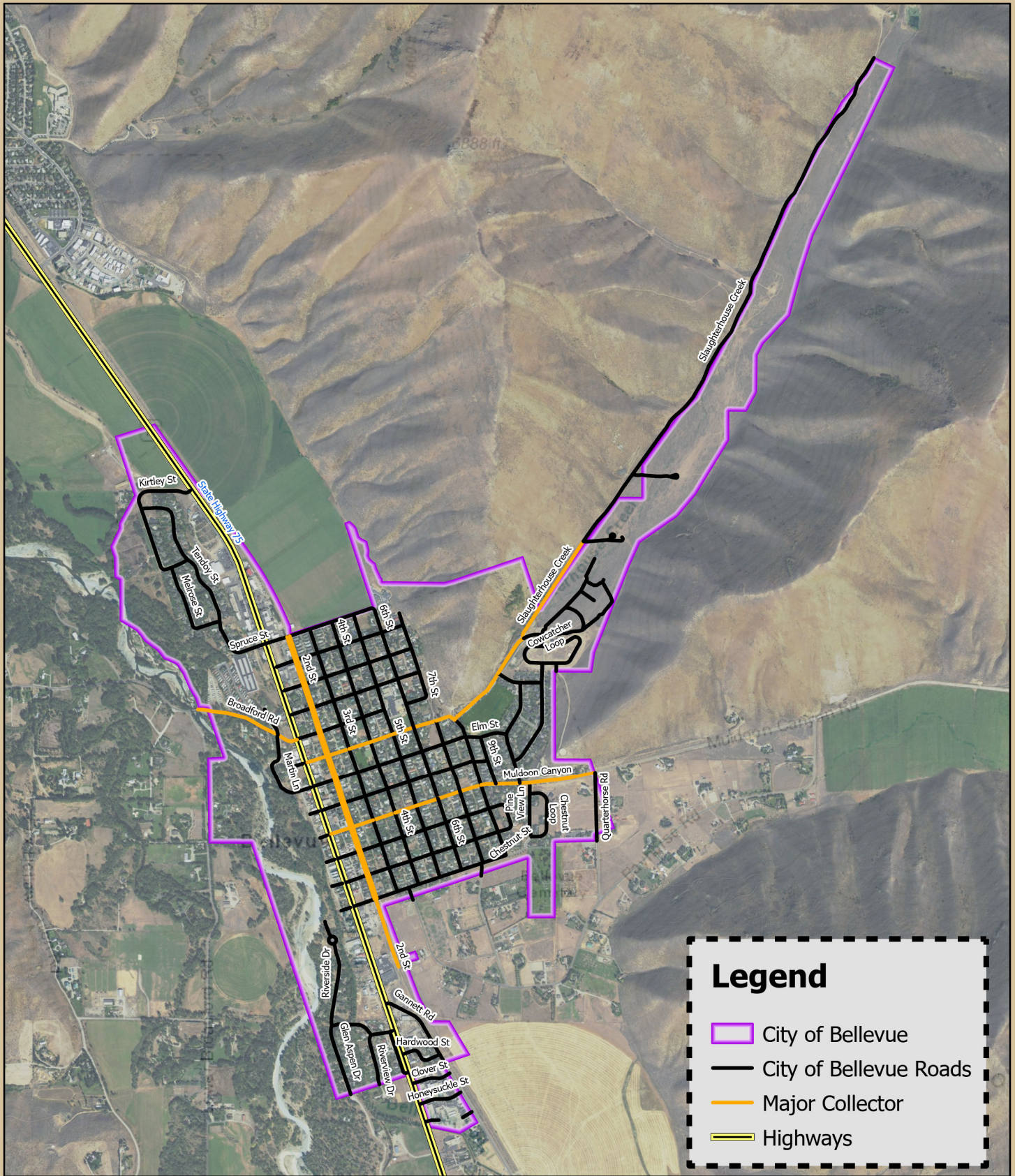
1. Introduction of Meeting Participants
 - Brief Project Overview
2. Existing Conditions
 - Roadway
 - Ownership and Functional Classification
 - Quarter horse road is not maintained by the City
 - Move Cedar to Elm and Slaughterhouse for Major collector
 - Add Chestnut, Spruce, Cedar to 5th Birch, and 5th
 - Add note to push south 2nd Street to Gannett.
 - Add Curtly as a minor collector
 - Crash Map Other Safety
 - Broadford road
 - Sight distance
 - Steep slope
 - Turning movements
 - Potential solutions is no left turn
 - Potential turn lanes on Broadford
 - Remaining Service Life
 - Most of the road on poor conditions – recommend starting a chip seal plan
 - City does not want to chip seal the bad road
 - Most of the core roads are BST Pavement
 -
 - Signs and Supports
 - Each stop sign is \$150 in material
 - Did not do the retro reflectivity analysis.

- o Sidewalks and Multi Modal Pathways
 - Scope did not include ADA Assessment
 - Need to replace sidewalks and lights on Main Street
 - Question as asked if the Main Street roadway can be reduced and widen sidewalks. ITD would have to approve – ITD will evaluate focus is on traffic flow and safety.
- 3. Next Steps – City Improvements
 - o Projected City Growth Areas
 - o Road Locations for Growth
 - o Multi Modal Pathway Plan
 - o Road Improvements
 - o Maintenance Plan
 - o Future Roads
 - o Multi Modal Pathway Plan
 - o Capital Improvement Plan

To be discussed in the next meeting
- 4. Schedule
 - o Second TAC Meeting:
 - More in-depth conversations from Next Steps
 - Next meeting July 22nd 10:00
 - o Public Involvement
 -
- 5. Other

Transportation Plan Study
City of Bellevue, Idaho
Project No. A022(026) Key No. 22026
Kick Off Meeting Sign-in 6/25/2025

Name	Company	Phone #	e-mail
<i>BP</i> Brian Parker	Bellevue		bparker@bellevueidaho.us
<i>CJ</i> Chris Johnson	Bellevue		cjohnson@bellevueidaho.us
<i>CM</i> Casey McGehee	Bellevue		cmcgehee@bellevueidaho.us
<i>TB</i> Tom Blanchard			tjblanchard@svskylan.net
Todd Rubenstein	South valley pizzeria		todd@southvalleypizzeria.com
Jolyon Sawrey	Vitalink Architecture		jolyon@vitalinkarchitecture.com
<i>AY</i> Andrew Young	ITD	<i>208-886-7854</i>	andrew.young@itd.idaho.gov
<i>MF</i> Mariah Fowler	Forsgren	(208) 854-8306	mfowler@forsgren.com
<i>SY</i> Steven Yearsley	Forsgren	(208) 854-8304	syearsley@forsgren.com
<i>online</i> <i>Ken Kanawick</i>	<i>LHTAC</i>		

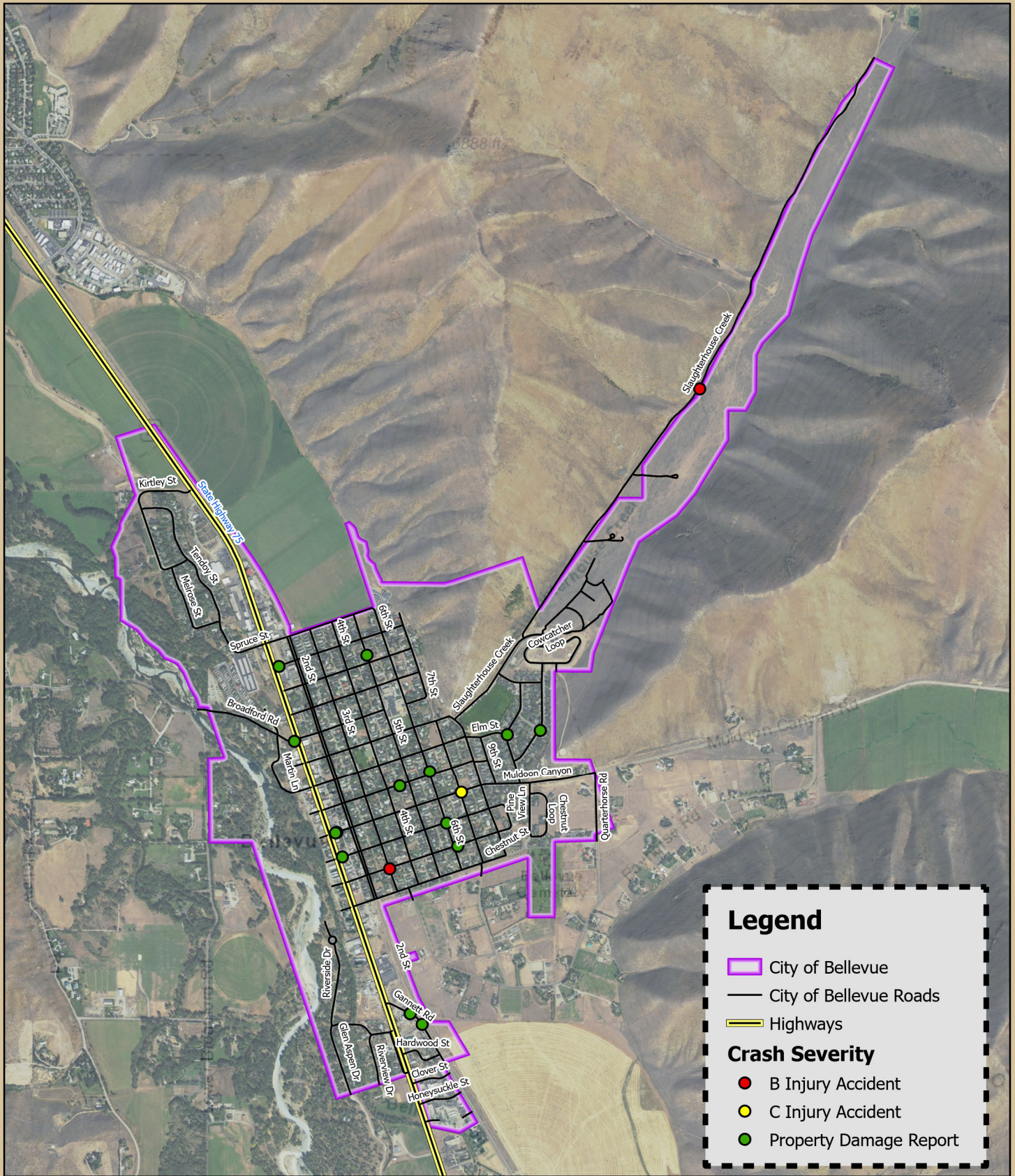


City of Bellevue Ownership and Functional Classification

0.5 0.25 0 0.5 1 Miles

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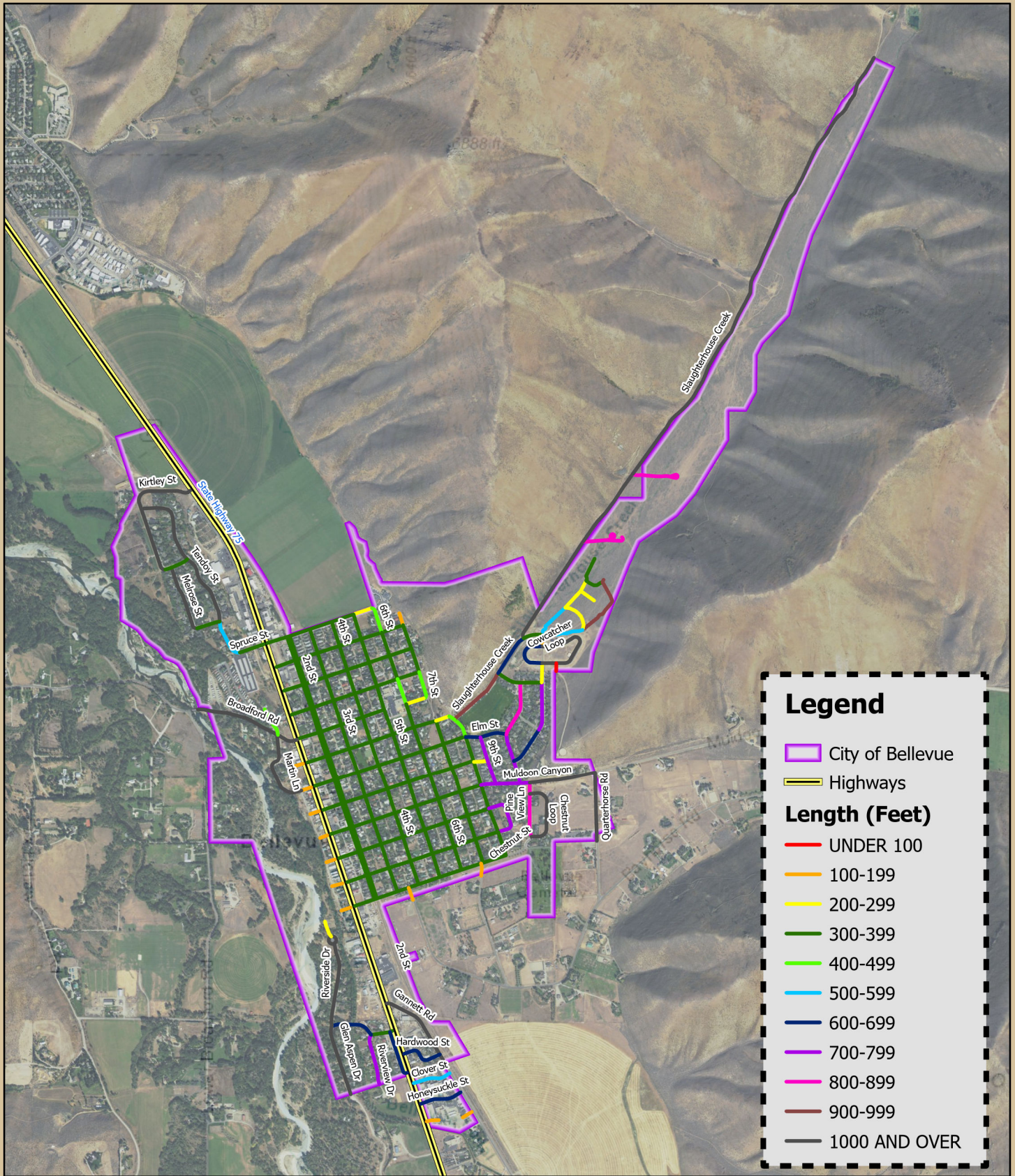


City of Bellevue Crash Map

0.5 0.25 0 0.5 1 Miles

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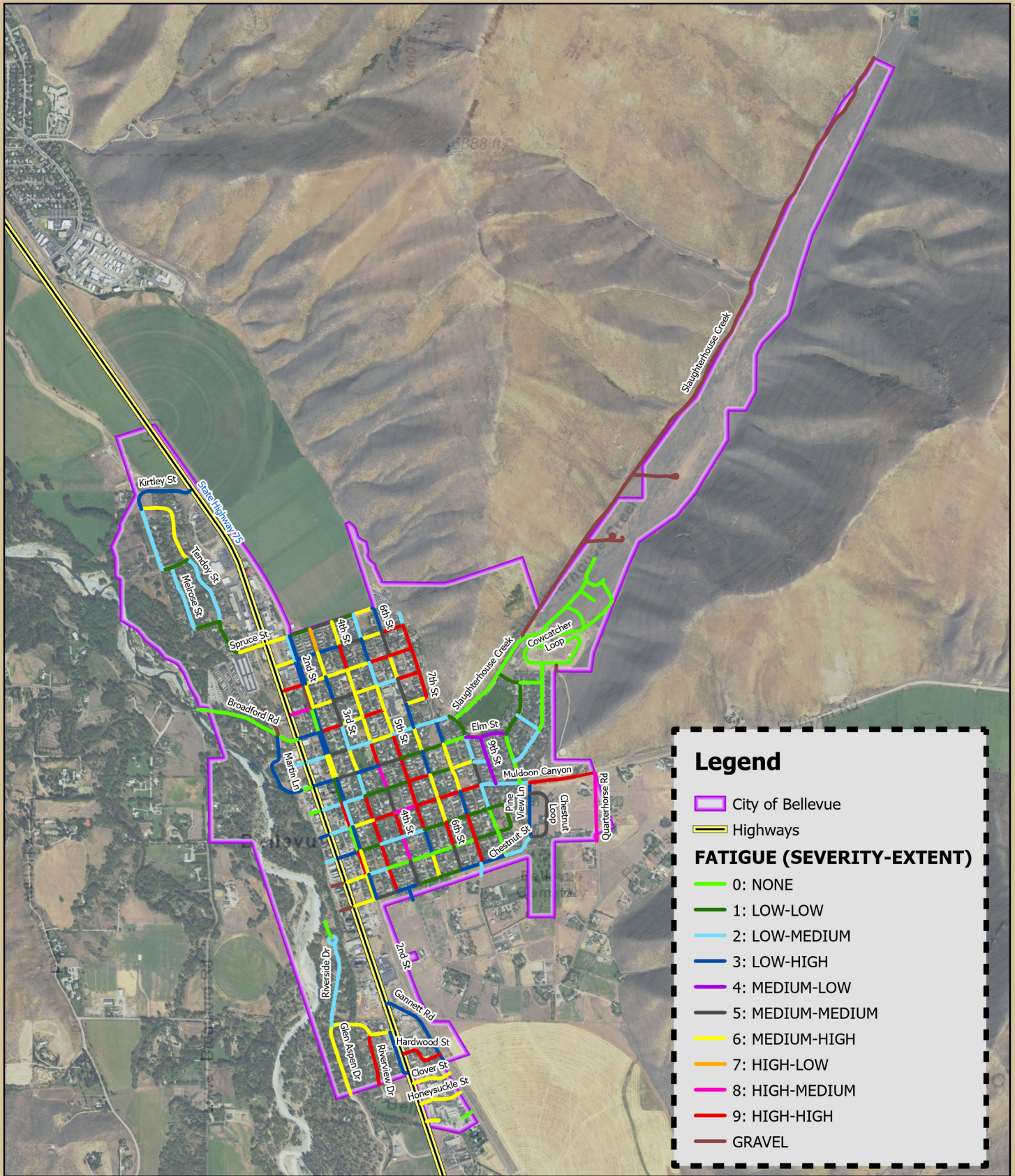


City of Bellevue Roadway Segments and Length

0.5 0.25 0 0.5 1 Miles

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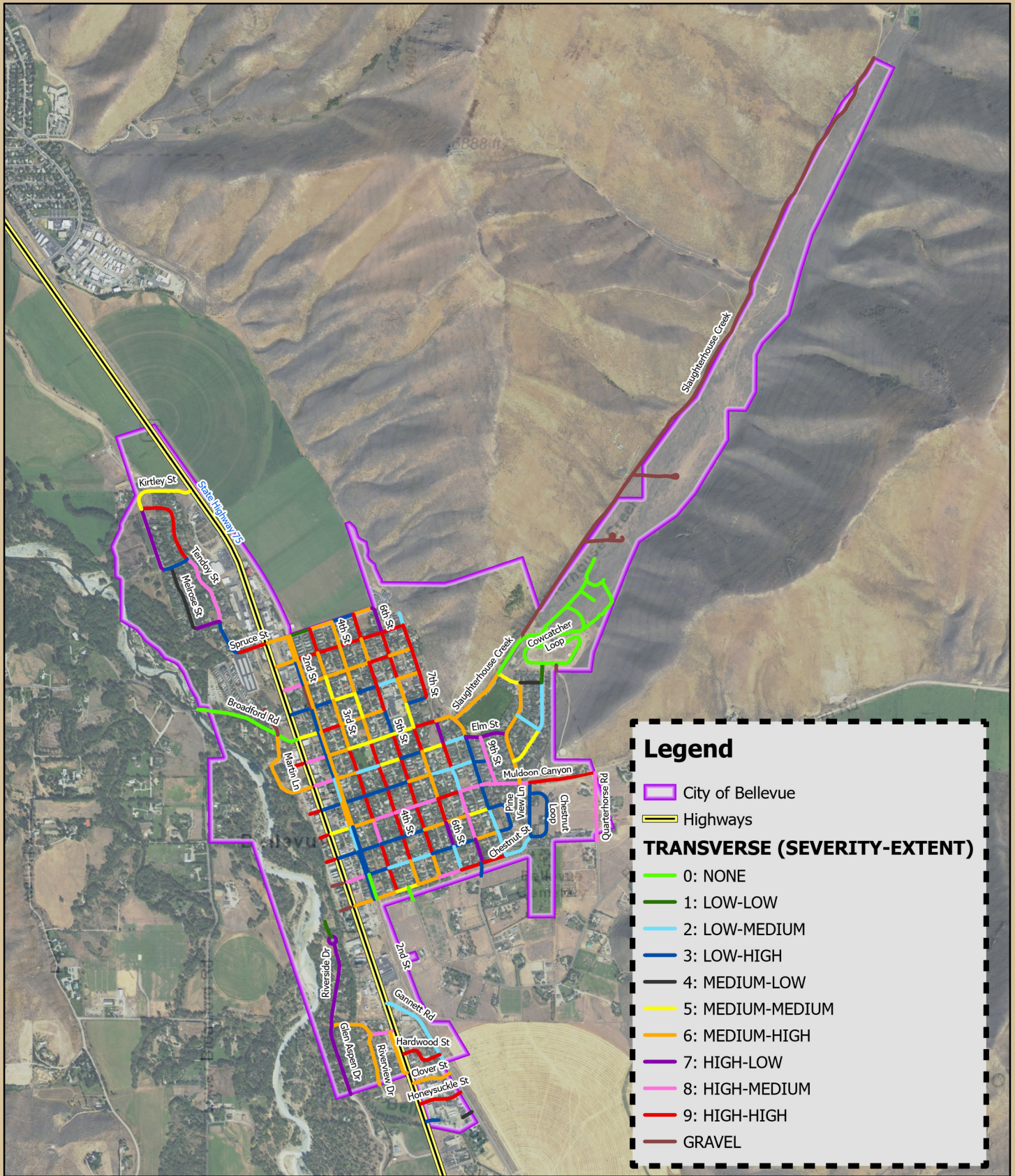


City of Bellevue Fatigue Cracking Map

0.5 0.25 0 0.5 1 Miles

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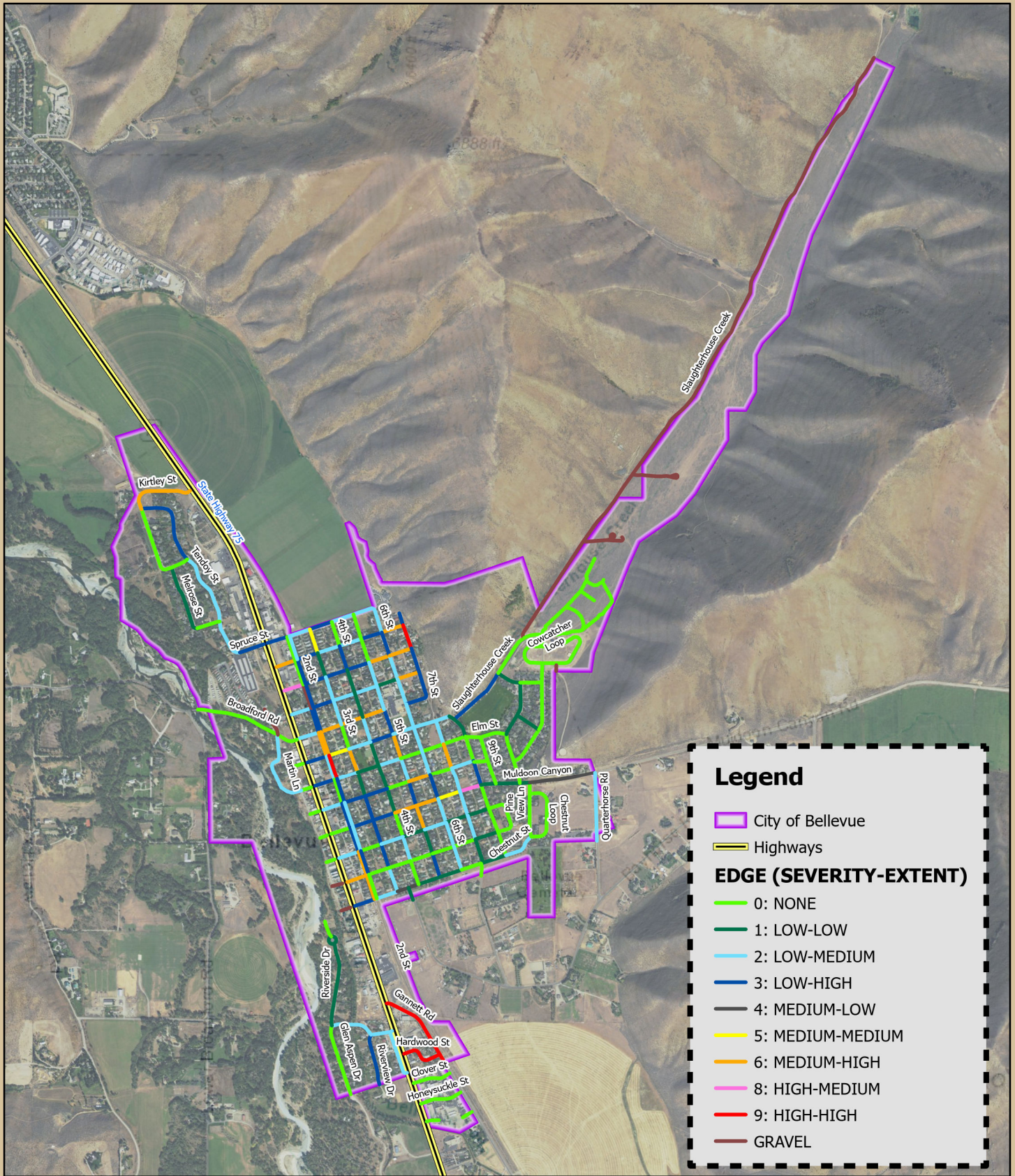


City of Bellevue Transverse Cracking Map

0.5 0.25 0 0.5 1 Miles

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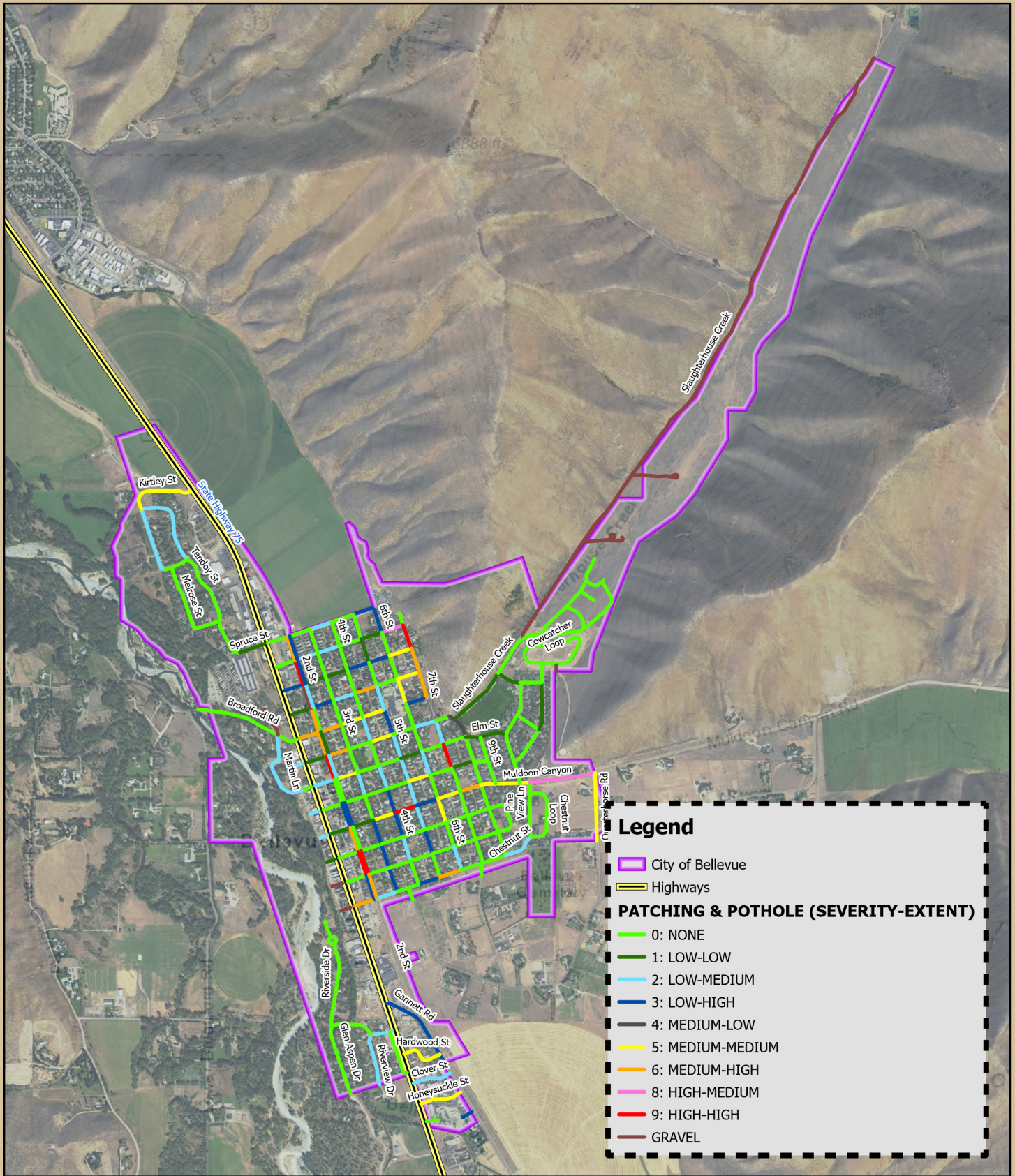


City of Bellevue Edge Cracking Map

0.5 0.25 0 0.5 1 Miles

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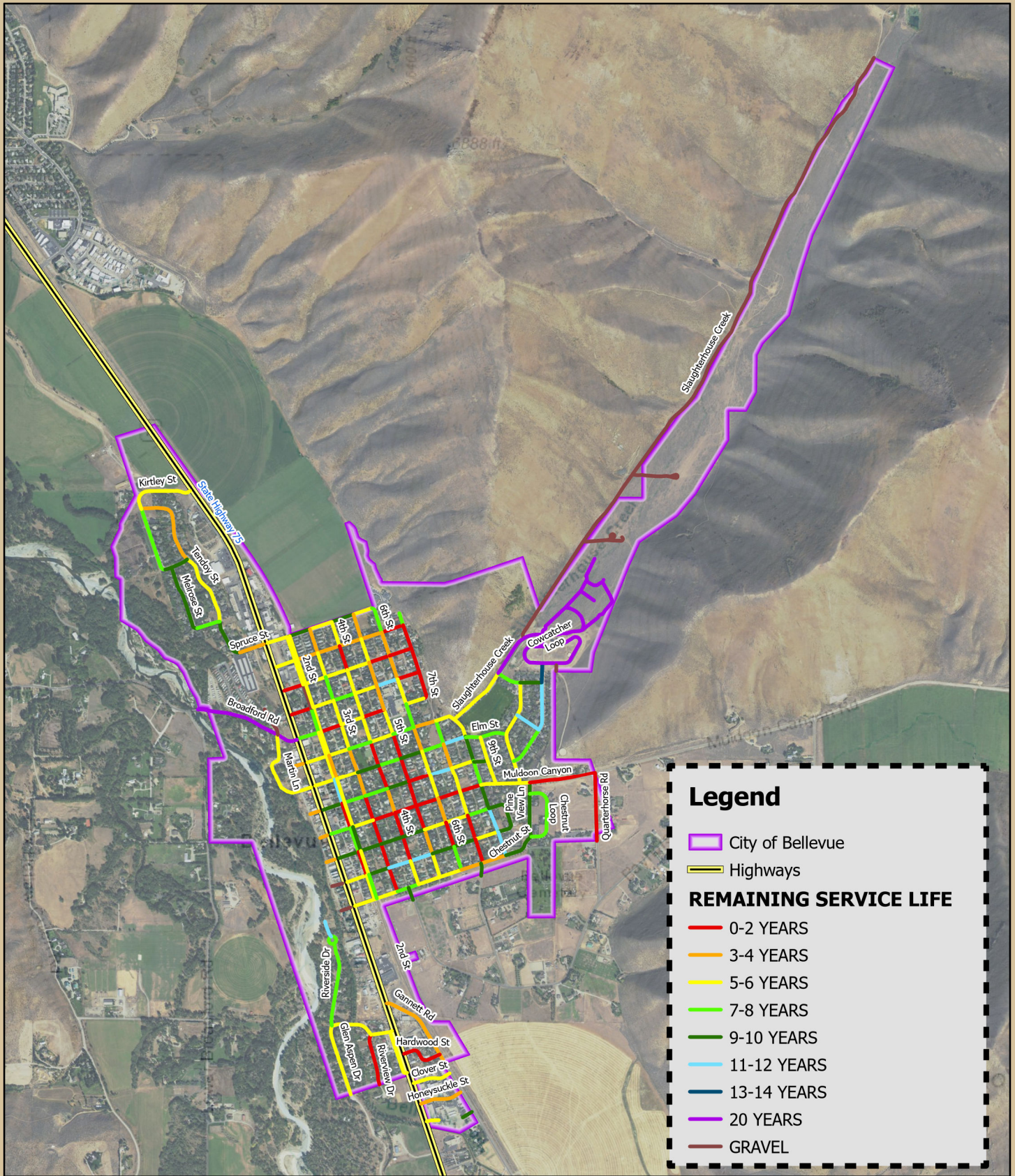


City of Bellevue Patching and Pothole Map

0.5 0.25 0 0.5 1 Miles

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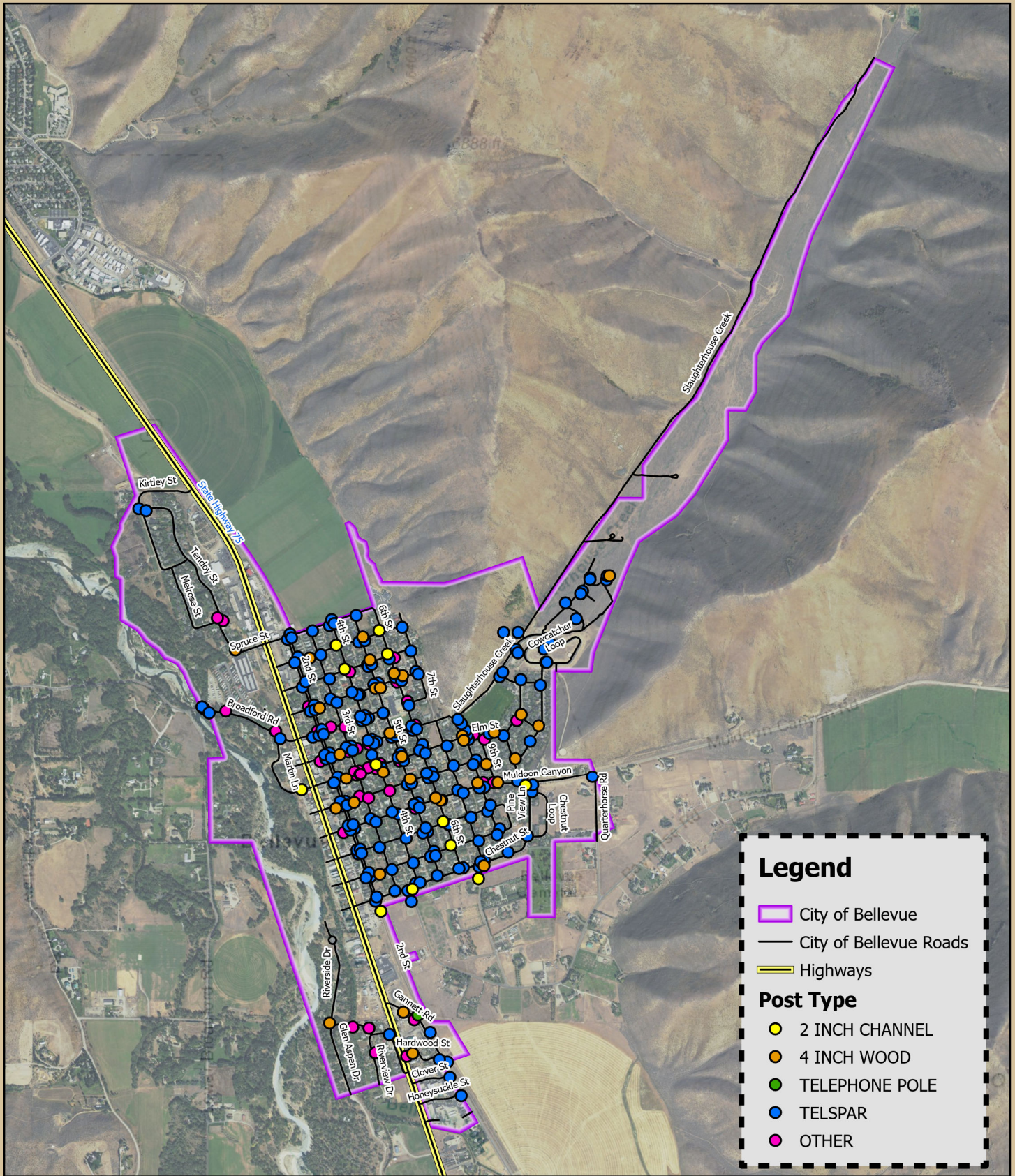


City of Bellevue Remaining Service Life

0.5 0.25 0 0.5 1 Miles

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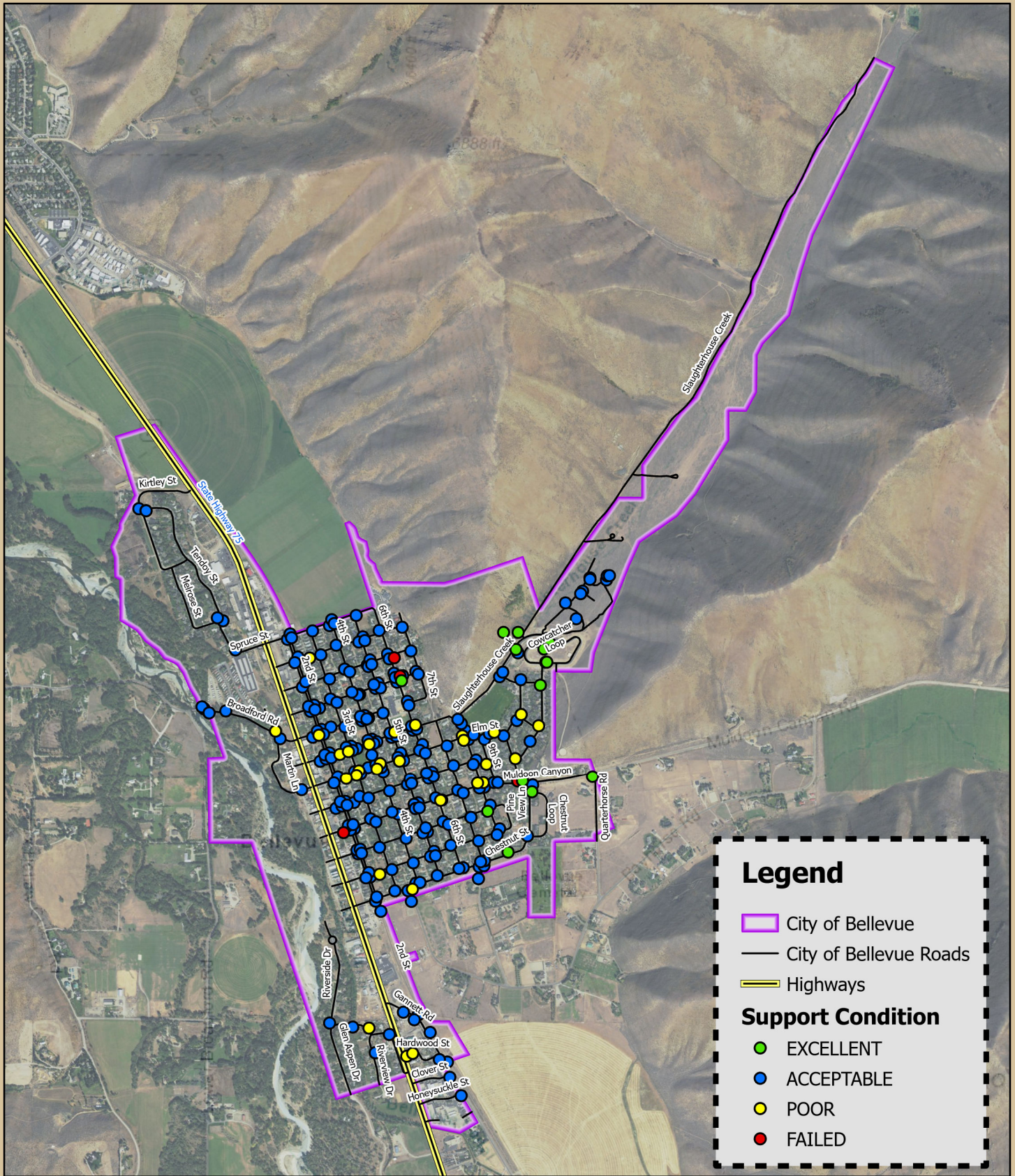


City of Bellevue Post Location and Type Map

0.5 0.25 0 0.5 1 Miles

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Legend

- City of Bellevue
- City of Bellevue Roads
- Highways
- Support Condition**
- EXCELLENT
- ACCEPTABLE
- POOR
- FAILED

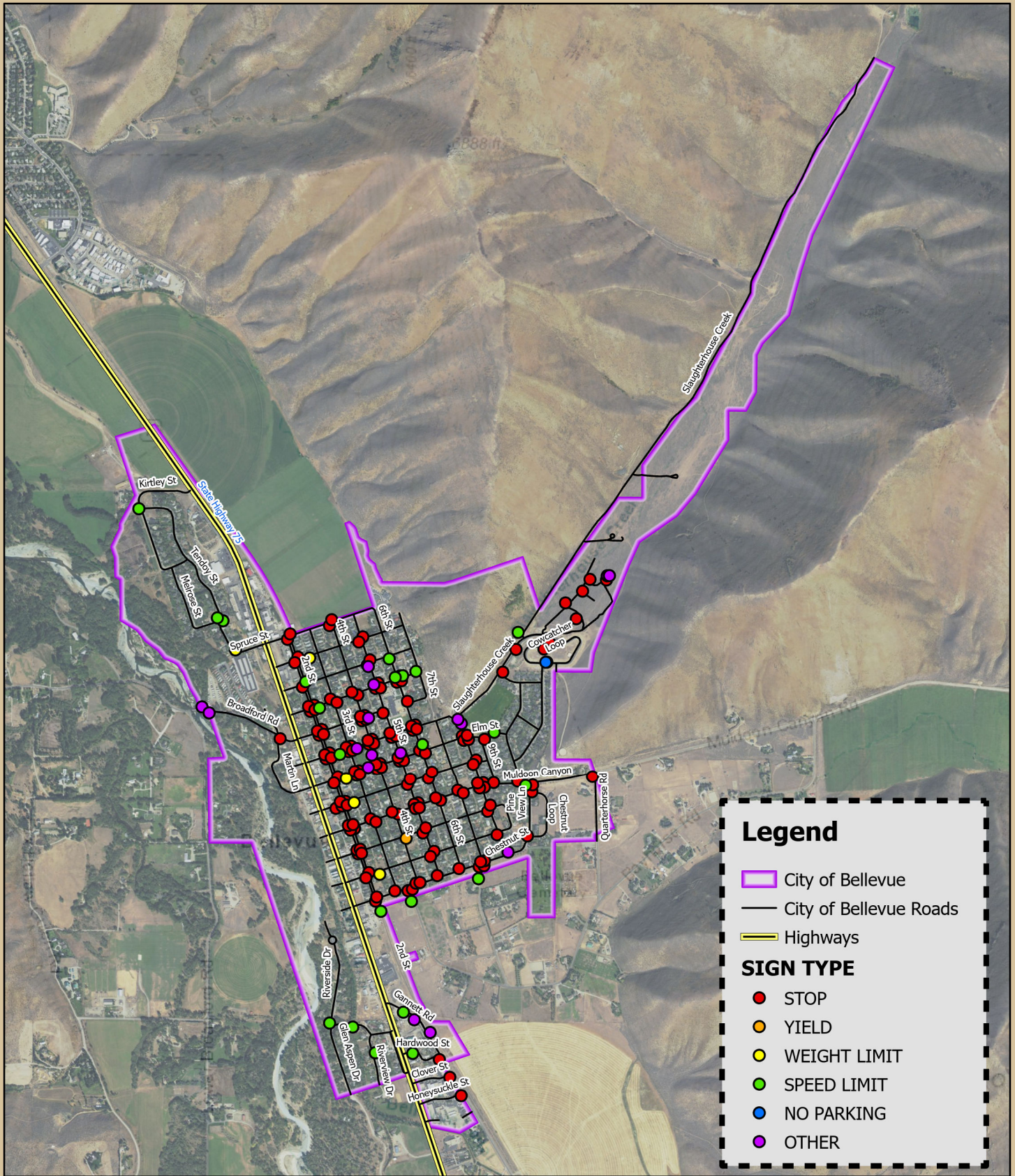


City of Bellevue Support Condition Map

0.5 0.25 0 0.5 1 Miles

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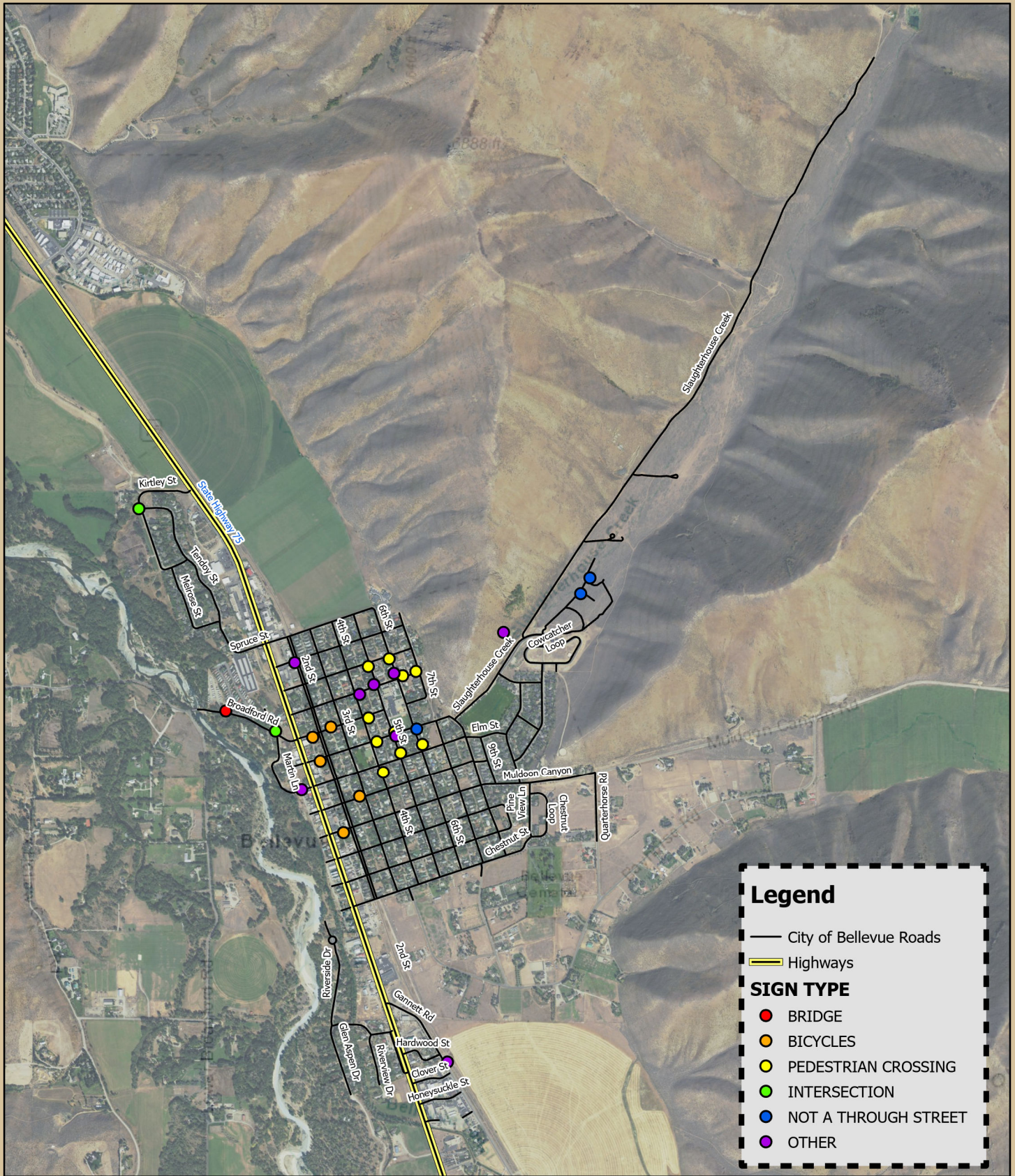


City of Bellevue Regulatory Sign Map

0.5 0.25 0 0.5 1 Miles

FORSYTH
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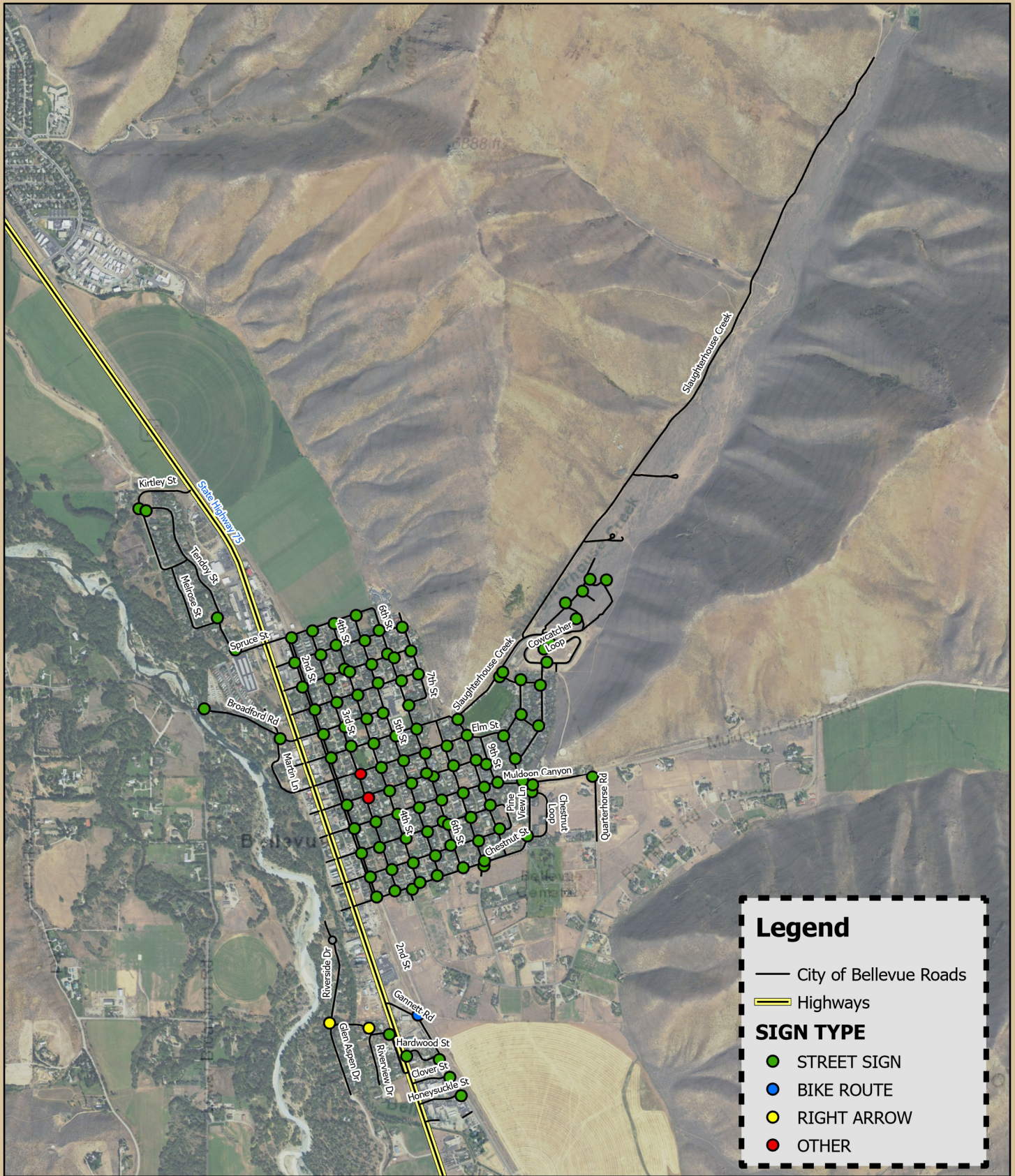


City of Bellevue Warning Sign Map

0.5 0.25 0 0.5 1 Miles

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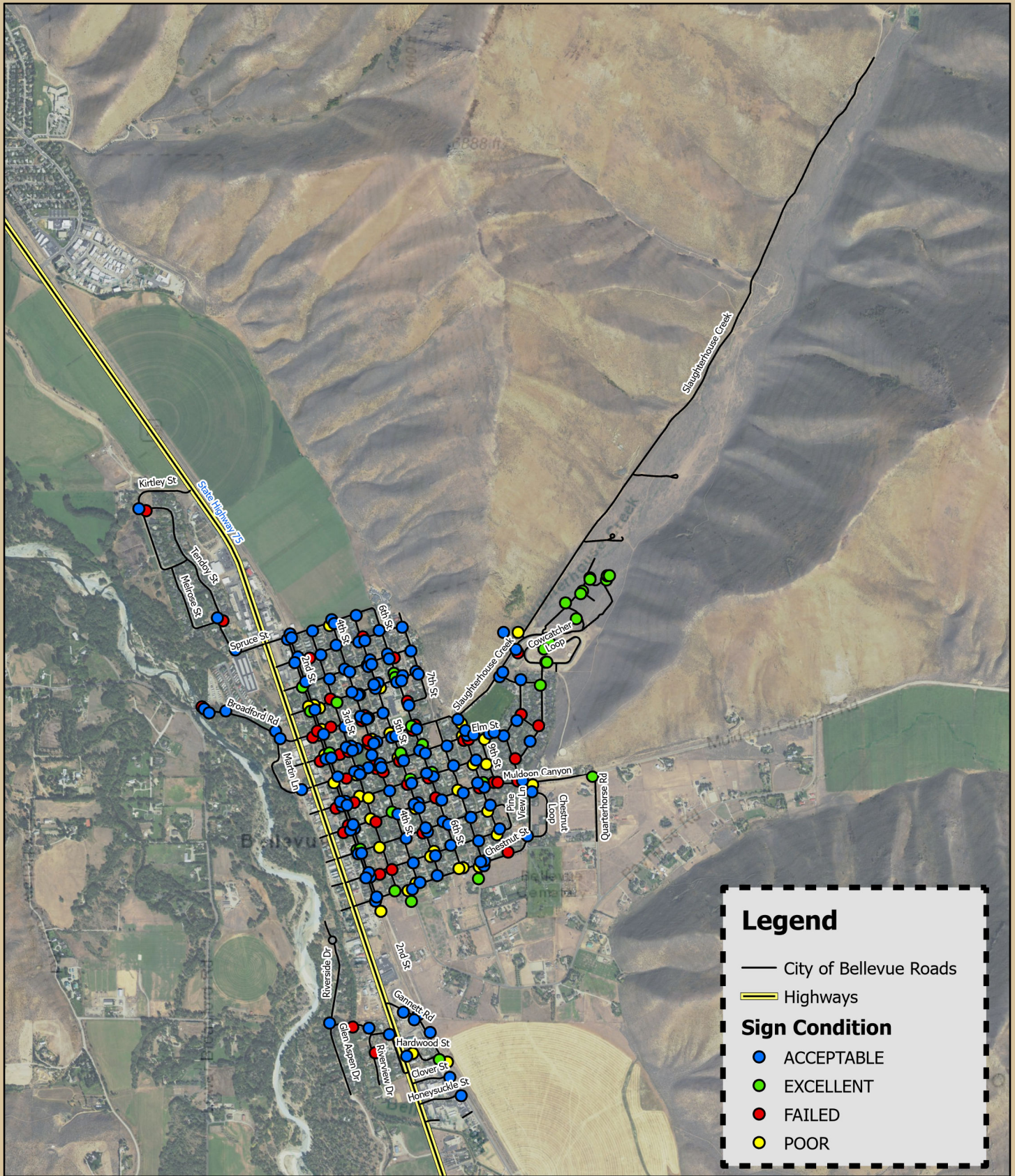


City of Bellevue Guide and Informational Sign Map

0.5 0.25 0 0.5 1 Miles

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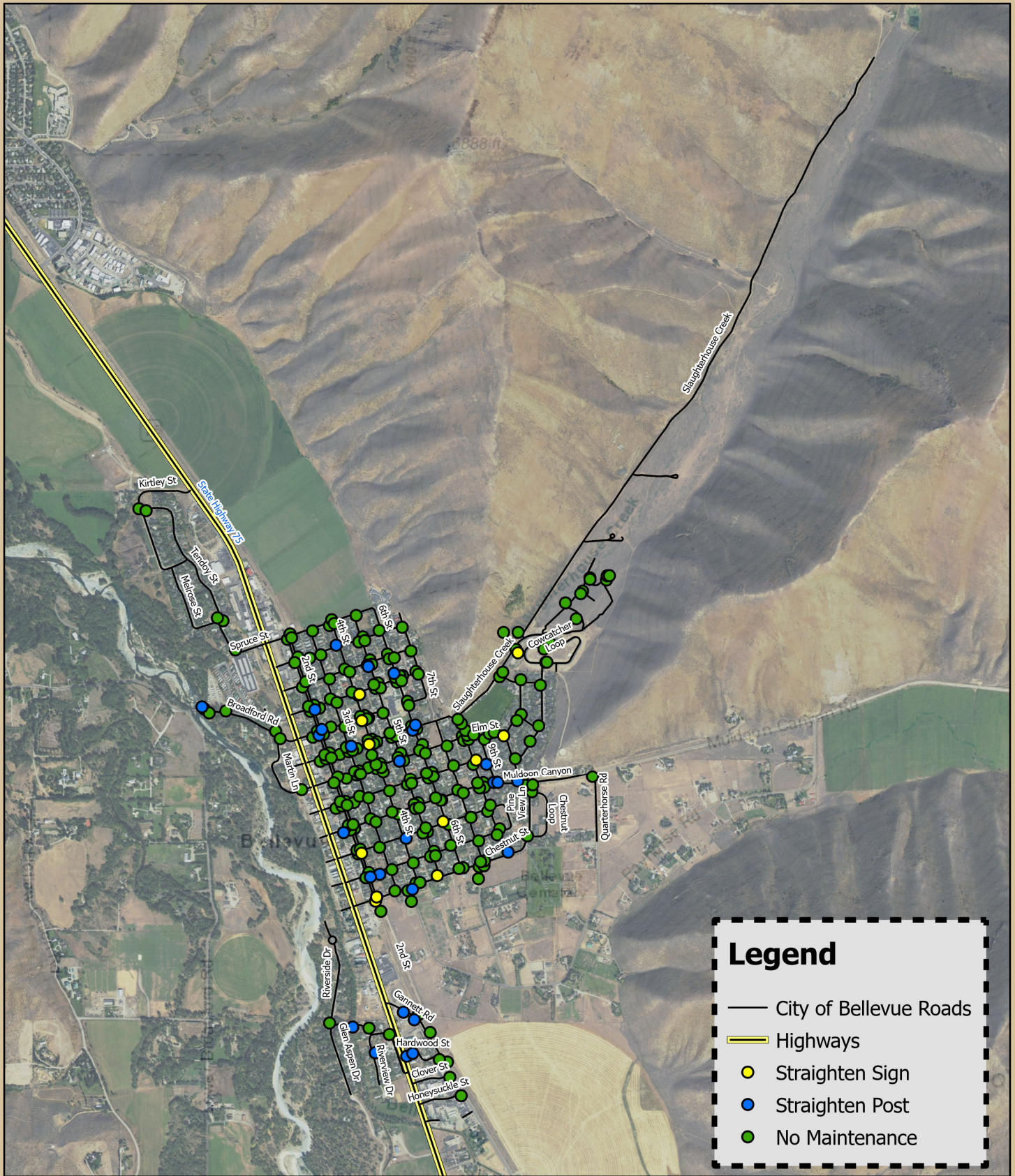


City of Bellevue Sign Condition Map

0.5 0.25 0 0.5 1 Miles

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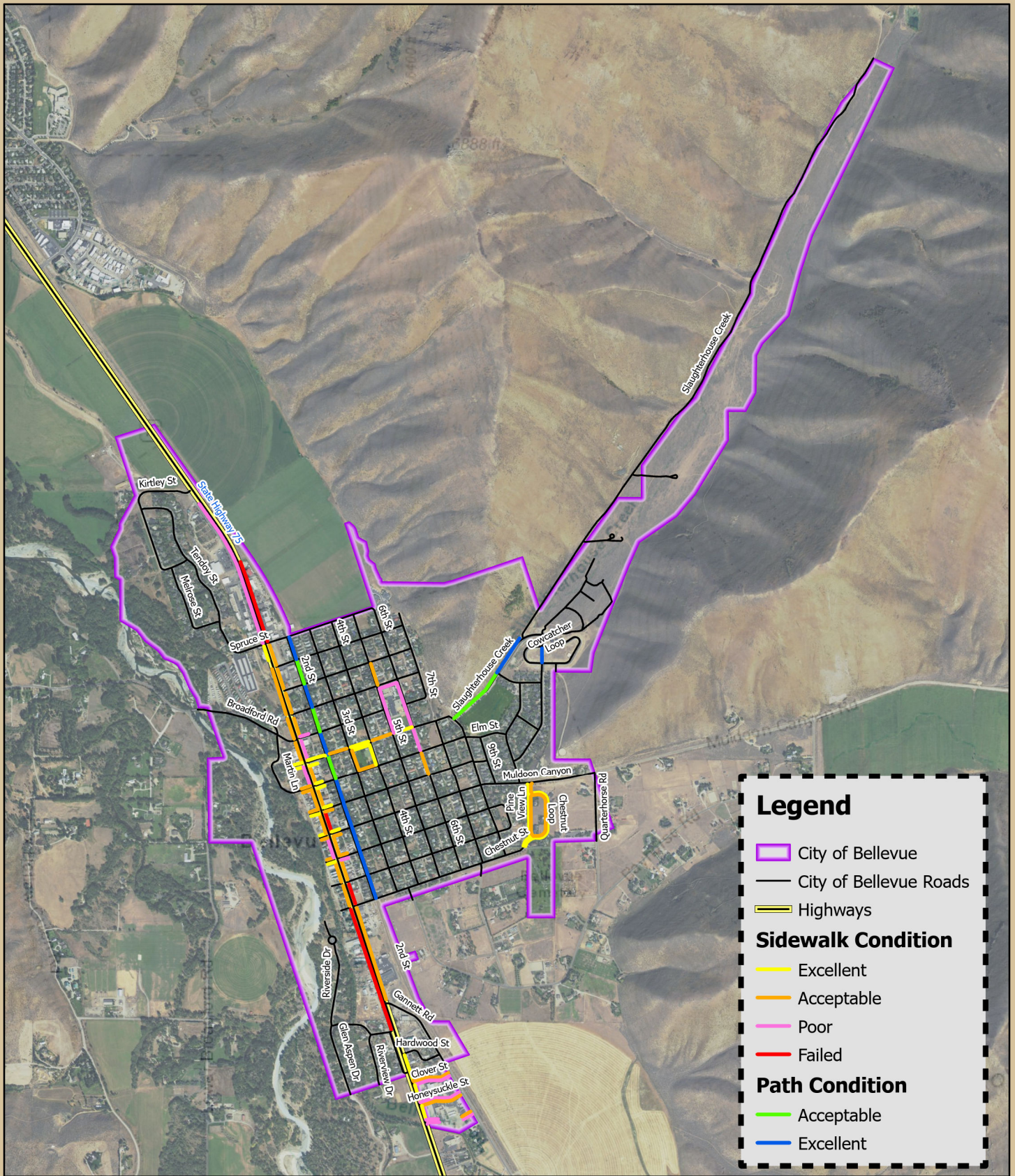


City of Bellevue Sign Maintenance Map

0.5 0.25 0 0.5 1 Miles

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City of Bellevue Sidewalks and Paths

0.5 0.25 0 0.5 1 Miles

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TAC Meeting 2 Minutes

DRAFT

Transportation Plan, Bellevue
Project No. A022(026); Key No. 22026

Technical Advisory Committee Meeting #2 Minutes

Date: July 22, 2025
Time: 10:00 – 11:30 AM
Place: Bellevue City Hall
Subject: TAC Meeting #2
Attendees: Brian Parker, Chris Johnson, Casey McGehee – City of Bellevue
Tom Blanchard – Community Member
Andrew Young – ITD
Ken Kanownik – LHTAC
Mariah Fowler, Tyler Smith – Forsgren Associates

Discussion Items

1. Introduction of Meeting Participants
2. Review Last Meeting Minutes
 - o Functional Classification
 - Keep designation same as last meeting
3. Next Steps – City Improvements
 - o Typical Section – City of Bellevue Street Construction Standards have typical sections. See attached.
 - 50' ROW residential street without curb & gutter or sidewalk
 - 60' ROW residential street with curb & gutter and sidewalk
 - 60' ROW commercial street with curb & gutter and sidewalk
 - 80' ROW commercial street with curb & gutter and sidewalk
 - For future development, a 60' ROW residential street with roll curb and gutter is recommended. Will require stormwater treatment
 - o Road Improvements
 - City core roads need slopes
 - We will need to include or update stormwater treatment system
 - Main Street as 8-10 ft deep dry wells
 - Spruce Street floods because of open space
 - o Projected City Growth Areas (Figure 1 below)
 - Area 1 – once access from Kirtley Street
 - Area 2 – growth north of Spruce Street and will connect to Spruce Street. Grid streets are better for plowing.
 - Area 3 – Phase 2 of the Strahorn subdivision
 - Area 4 – one access along 2nd Street and one access along Gannet Rd.
 - o Road Locations for Growth / Future Roads

- 80' ROW could plan for 60' ROW residential standard and then have 20' for stormwater treatment
 - Maintenance Plan
 - Current maintenance is focused on fixing potholes/managing community complaints.
 - Issues/current conditions are identified by roadway crew driving roads and taking inventory
 - Want to focus on preserving roads that are known/verified to have been built with proper standards and robust sections. (See Figure 2)
 - Hesitant to chip seal degraded roads
 - Chestnut was chip sealed in 2018, everything below the canal was fog sealed
 - Capital Improvement Plan
 - Priority and Projects: **1)** Pine St, **2)** 2nd St, **3)** Elm St, **4)** 5th St.
 - Multi Modal Pathway Plan
 - Path on 2nd Street is not owned by the City
 - Not conclusive, but some main ideas like getting sidewalks connected and a loop around the city
 - Cedar and Elm could be priorities, as well as a path along Broadford.
4. Schedule
- Public Involvement
 - September 10th with posterboards as well as rotating slides/presentation on screens
 - Can survey people asking what streets they would like sidewalks on
 - Ask for known transportation problems

Transportation Plan Study
City of Bellevue, Idaho
Project No. A022(026) Key No. 22026
Kick Off Meeting Sign-in 7/22/2025

Name	Company	Phone #	e-mail
Brian Parker <i>BP</i>	Bellevue		bparker@bellevueidaho.us
Chris Johnson <i>CJ</i>	Bellevue		cjohnson@bellevueidaho.us
Casey McGehee <i>CMG</i>	Bellevue		cmcgehee@bellevueidaho.us
Tom Blanchard <i>TB</i>			tjblanchard@svskylan.net
Todd Rubenstein	South valley pizzeria		todd@southvalleypizzeria.com
Jolyon Sawrey	Vitalink Architecture		jolyon@vitalinkarchitecture.com
Andrew Young <i>AY</i>	ITD		andrew_young@itd.idaho.gov
Mariah Fowler <i>MF</i>	Forsgren	(208) 854-8306	mfowler@forsgren.com
Steven Yearsley	Forsgren	(208) 854-8304	syearsley@forsgren.com
Ken Kanownik <i>online</i>	LHTAC	(208) 344-0565	kkanownik@lhtac.org
<i>Tyler Smith online</i>			

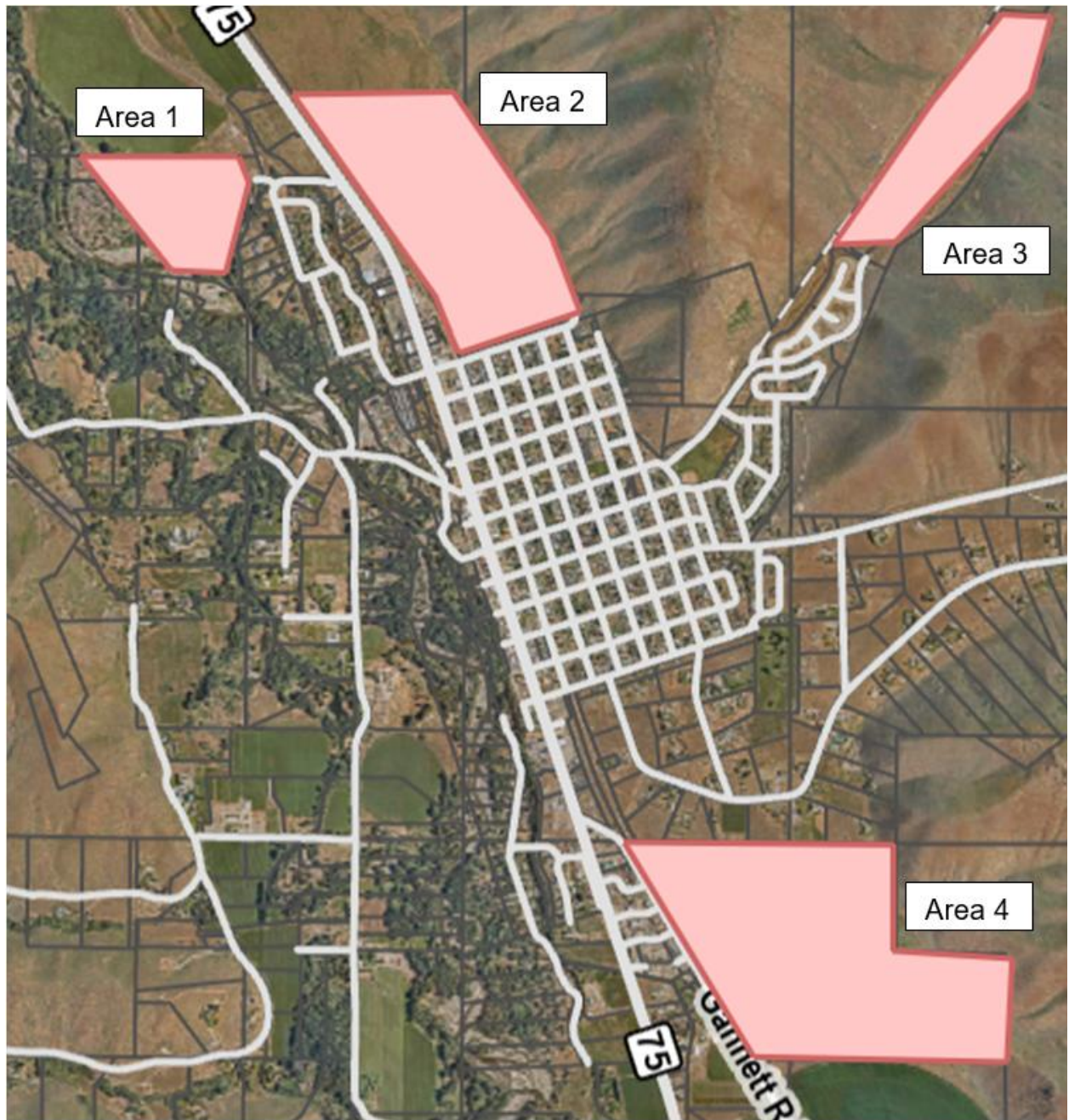


Figure 1 - Growth Areas

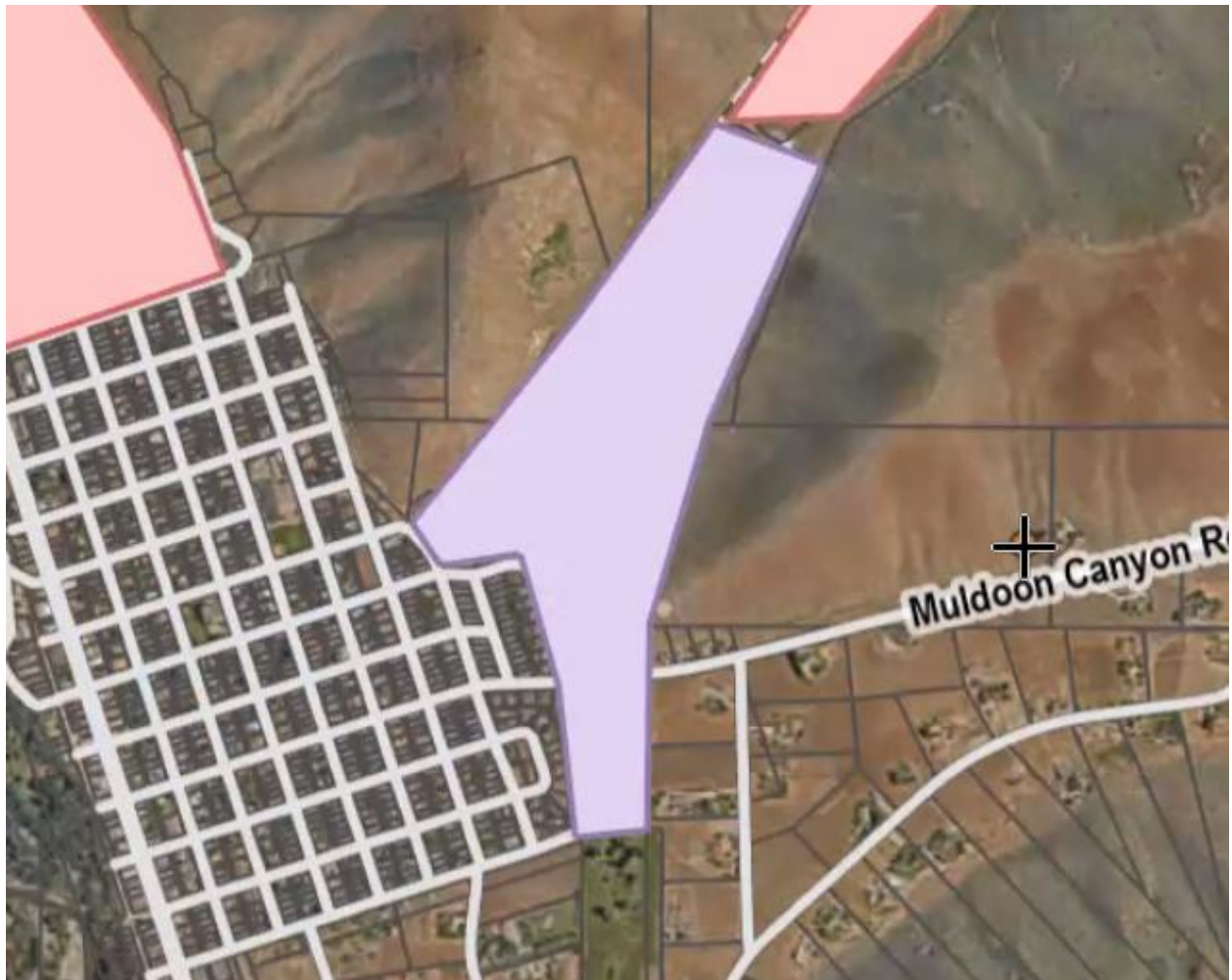


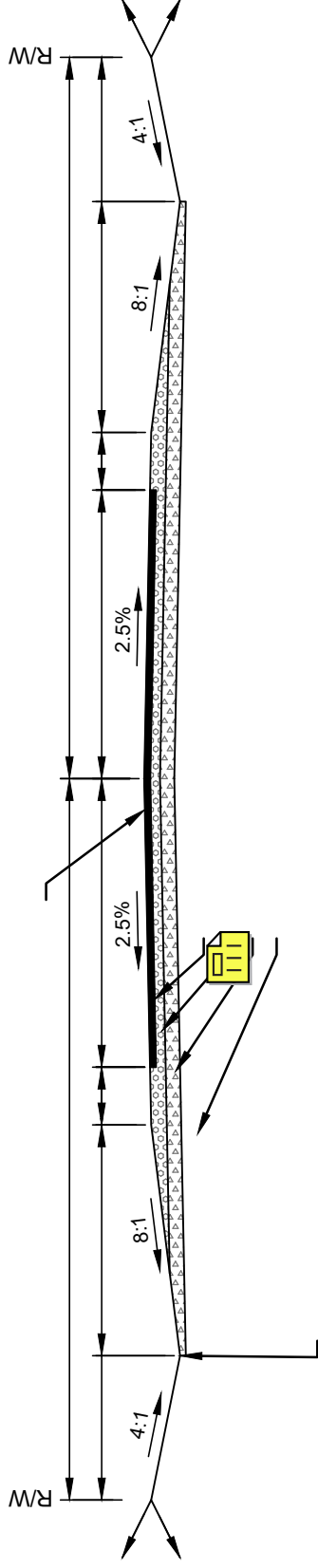
Figure 2 - Roads to Maintain (purple)

Functional Classification updates



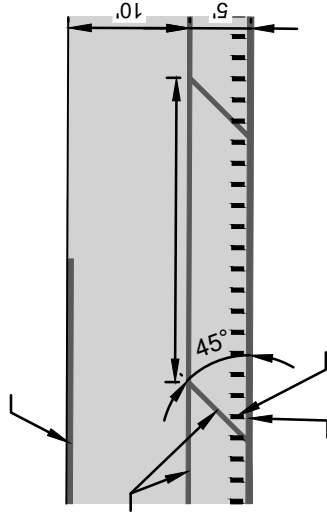
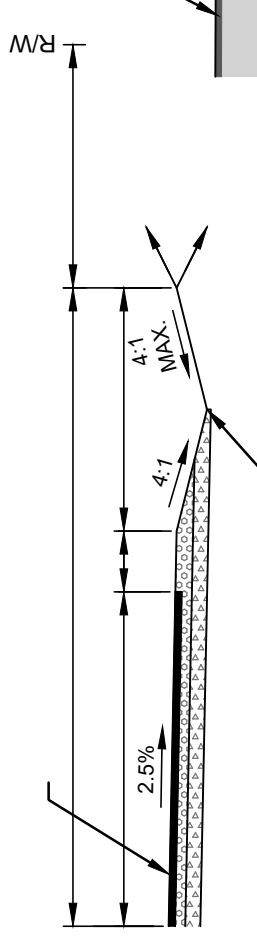
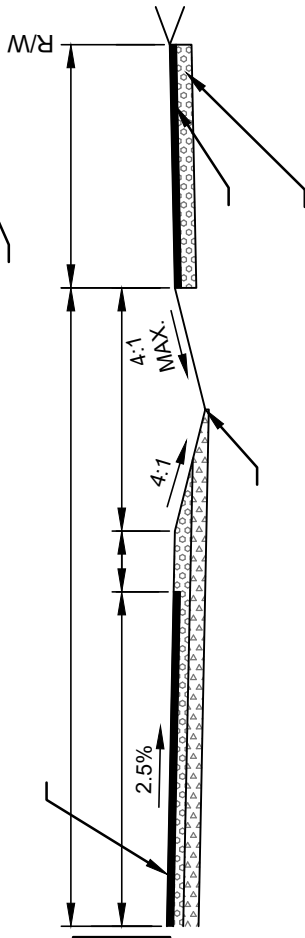
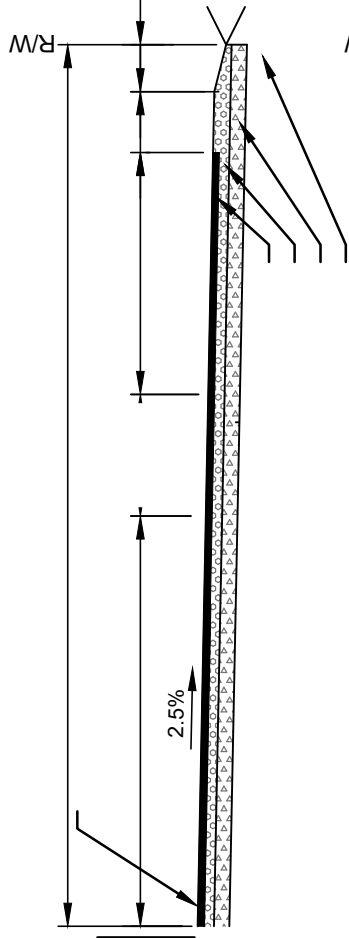
Orange – proposed Major Collector

Green – proposed Minor Collector

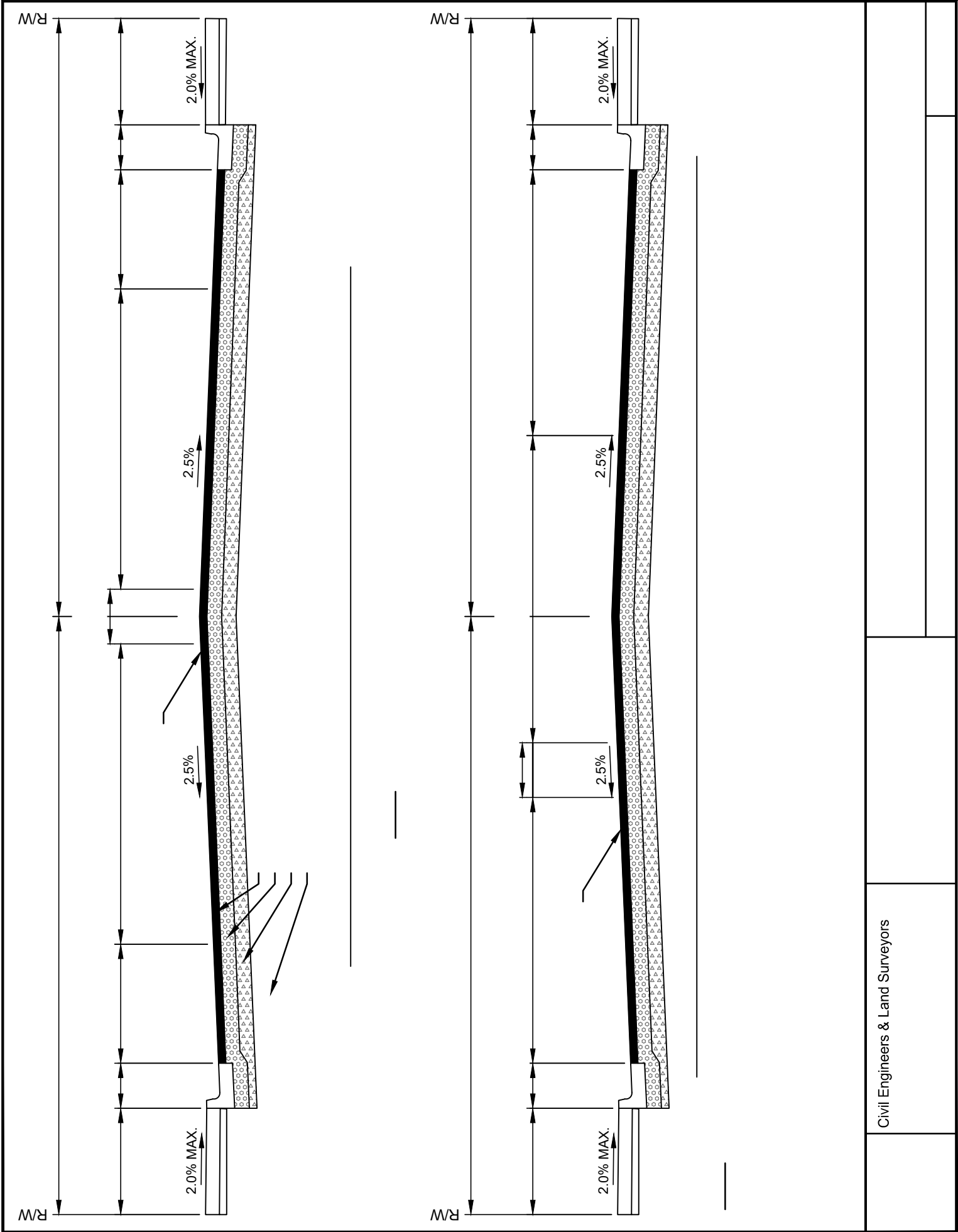


Civil Engineers & Land Surveyors

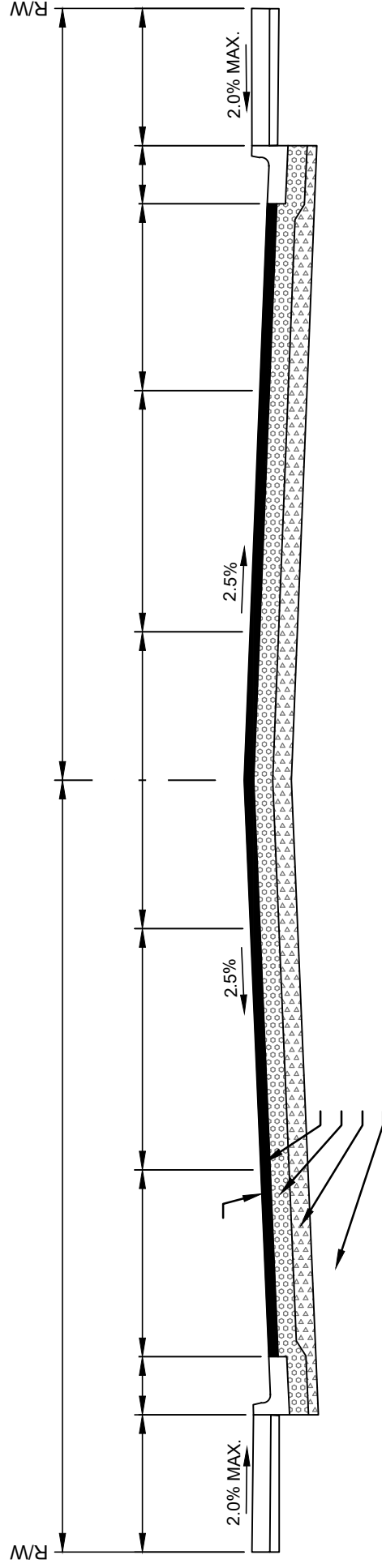
Diagram showing a cross-section of a road shoulder. The shoulder has a 2.5% slope. The top layer is labeled 2.0% MAX. The diagram includes dimensions for the shoulder width and the slope. The road width (RW) is indicated on both sides. Diagram showing a cross-section of a road shoulder. The shoulder has a 2.5% slope. The top layer is labeled 2.0% MAX. The diagram includes dimensions for the shoulder width and the slope. The road width (RW) is indicated on both sides.	Civil Engineers & Land Surveyors
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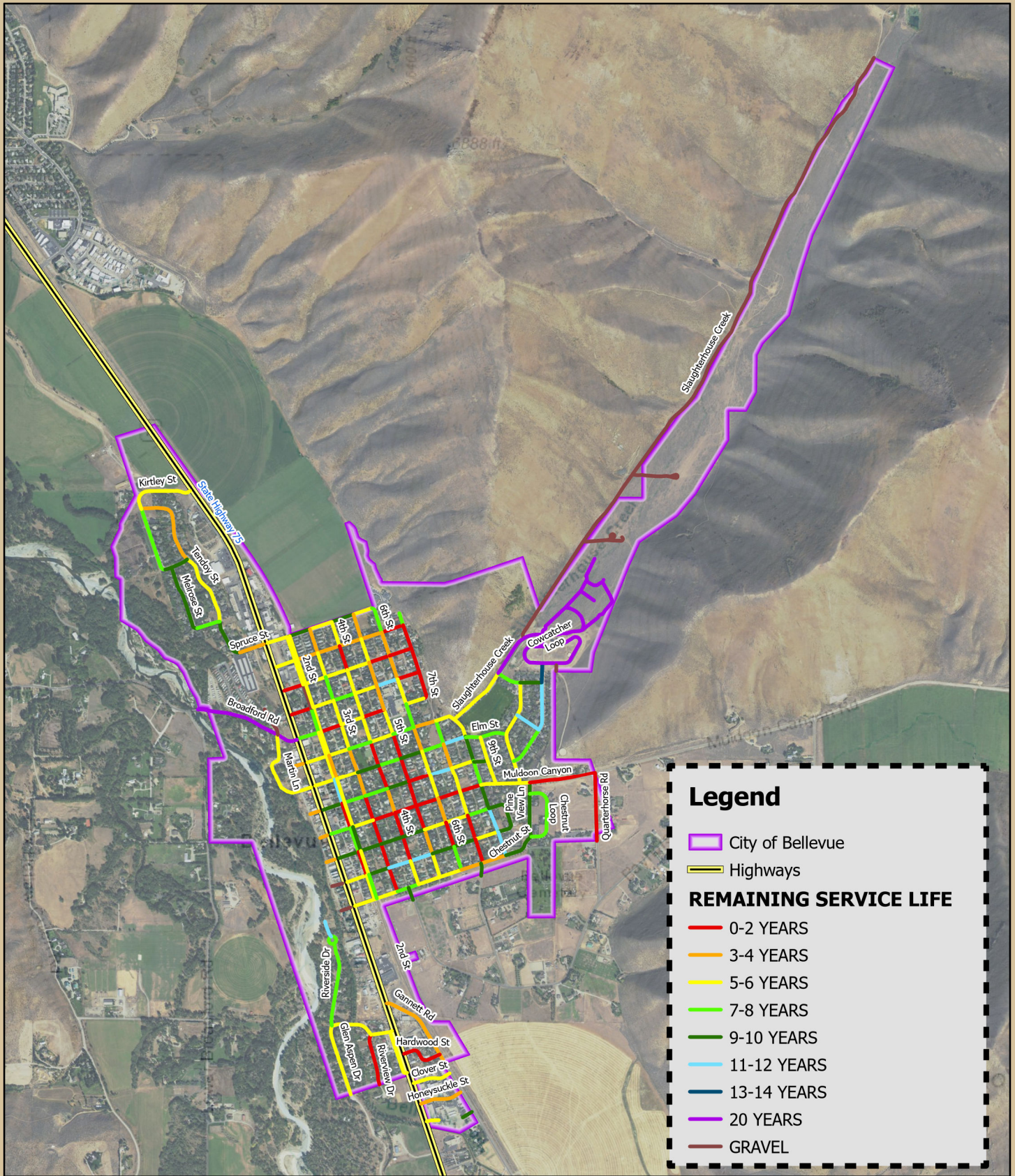
Civil Engineers & Land Surveyors



Civil Engineers & Land Surveyors



Civil Engineers & Land Surveyors



City of Bellevue Remaining Service Life

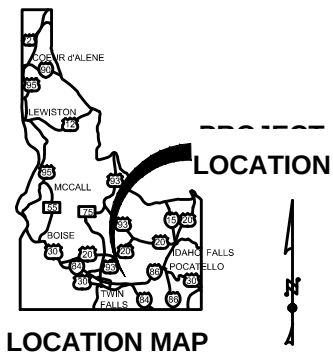
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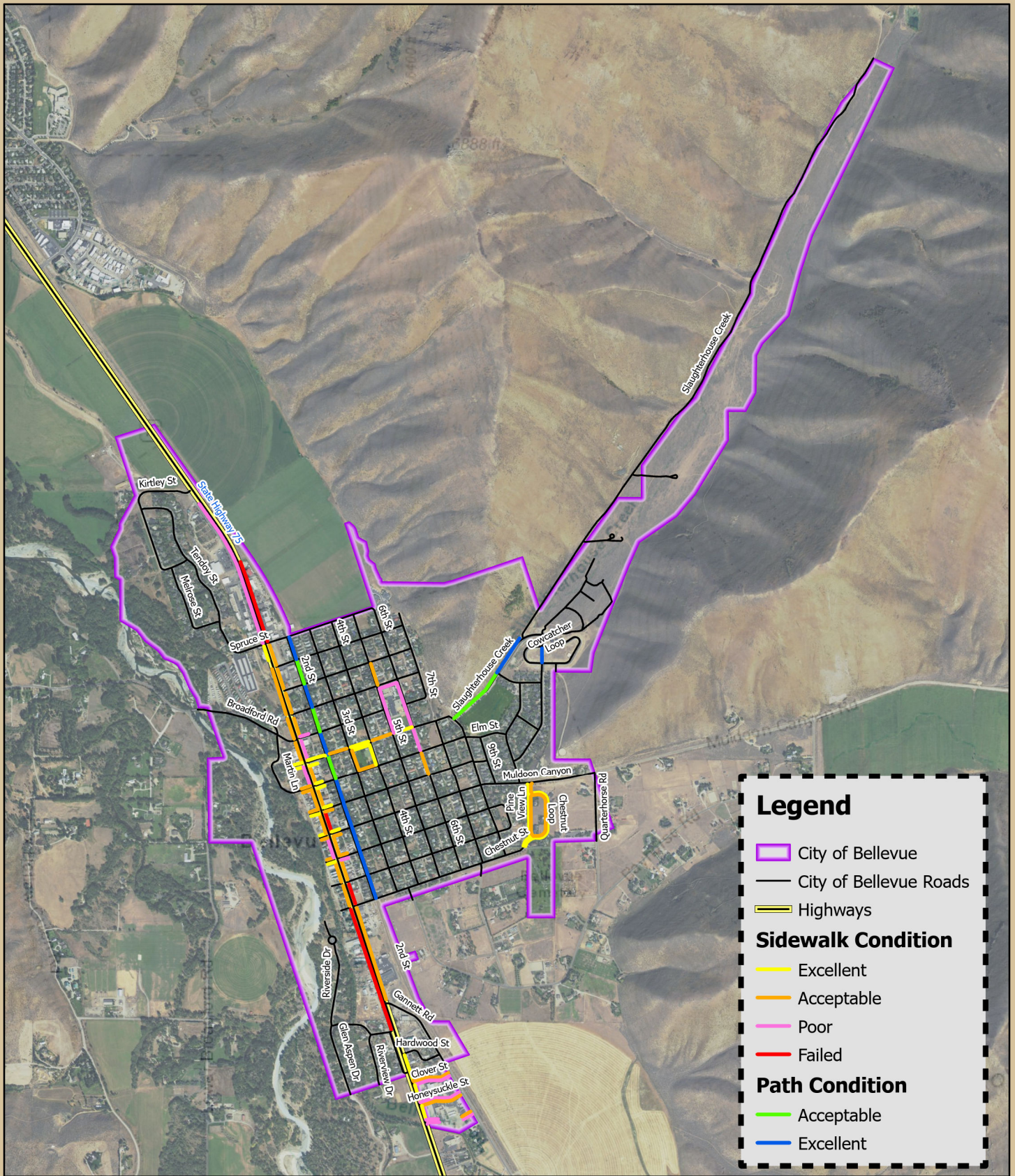
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NAME

FY 2025 LOCAL FEDERAL-AID STBG-RUAL PROGRAM



	NAME	PROJECT NO
	VICINITY MAP	FIGURE



City of Bellevue Sidewalks and Paths

0.5 0.25 0 0.5 1 Miles

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Public Meeting Documents

DRAFT

PUBLIC INFORMATIONAL MEETING

Transportation Planning Study City of Bellevue

**PROJECT NO. A022(026)
KEY NO. 22026**



Uhtact2

FORSGREN
Associates Inc.

City of Bellevue Transportation Plan Study

Project No. A022(026); Key No. 22026

A public information meeting regarding the City of Bellevue Transportation Plan Study was held on September 10, 2025, from 5 to 7 pm at the Bellevue City Hall located at 115 East Pine Street in Bellevue, Idaho. The open house format allowed for people to attend at any time between 5:00 and 7:00 pm. Invitation to the meeting was posted at the library, the post office, and at City Hall. It was also included in the city newsletter and posted on Instagram and Facebook (attached).

Five members of the public from five different addresses attended the open house. A sign-in-sheet was provided for the public and is included with this summary. Four members of the city were present including: Brian Parker – Community Development Director, Carter Bullock – Planner, Chris Johnson – Public Works Director, Tom Bergin – City Alderman. John Kurtz attended as a resident. Also attending was Steven Yearsley and Mariah Fowler as consultants from Forsgren Associates.

The consultant provided five easel displays showing the pavement remaining service life map, the roadway capital improvement plan, a sign maintenance map, a multi-modal capital improvement map, and a display depicting 3 roadway maintenance maps that could be achieved depending on budget/funding amounts. All displays are attached with this summary.

During the open house the consultants provided the public explanations of the transportation planning process as well as utilizing the displays and allowed any questions at will. All individuals spent some time looking over the displays and finding where their homes or property were on the maps. Discussions included what remaining service life of pavement is, when roads would be chip sealed, and the cost of road improvements listed on the maintenance map. Residents like the multi-modal map with existing and proposed connections in and around the city as well as the school and parks. Discussion included the current functional classification of the roads and the need to update the classifications.

Concerns included safe paths for kids going to school and funding to maintain and/or rebuild streets.

No written comments were submitted.

At 7:10 pm the meeting was concluded with no additional attendees present.



TRANSPORTATION PLAN OPEN HOUSE

**WEDNESDAY, SEPTEMBER 10, 5-7
BELLEVUE CITY HALL
115 EAST PINE STREET**

**THIS OPEN HOUSE WILL SHOWCASE THE ROAD AND SIGN
ASSESSMENTS, ROAD IMPROVEMENTS, AND THE CAPITAL
IMPROVEMENT PLAN. WE ARE ASKING FOR PUBLIC INPUT.**

SEE YOU THERE!



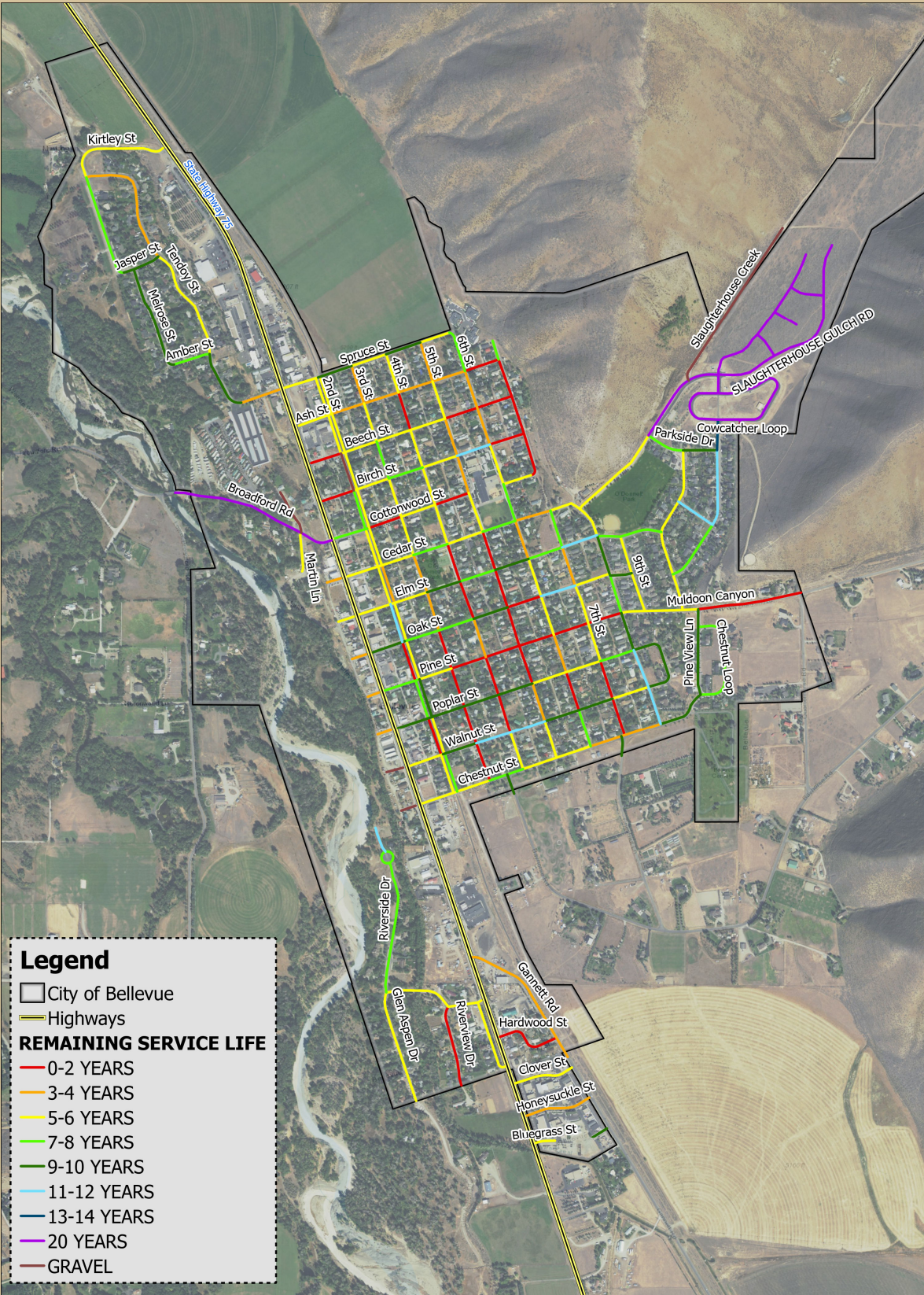
TRANSPORTATION PLAN OPEN HOUSE

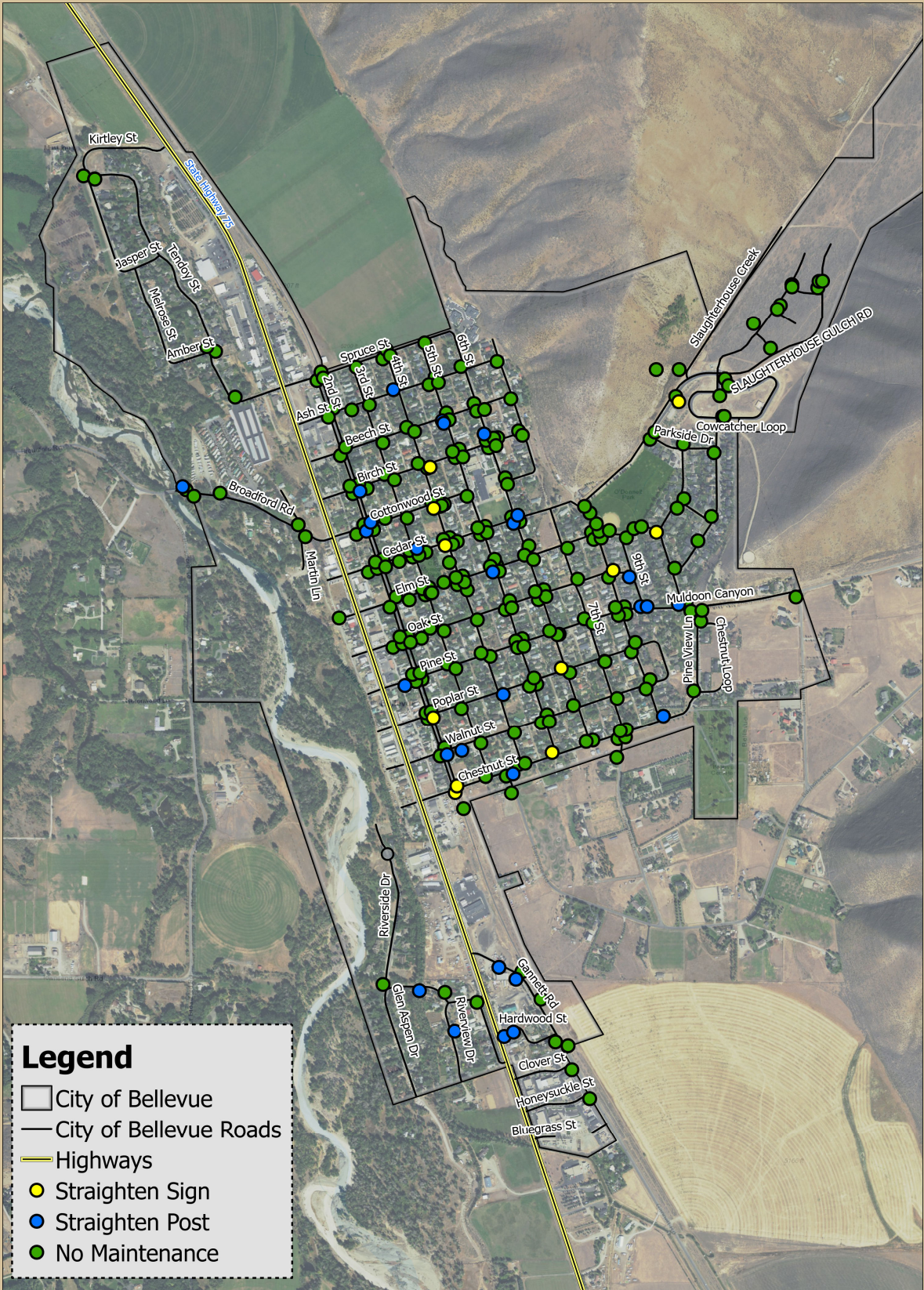
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BELLEVUE CITY HALL
115 EAST PINE STREET**

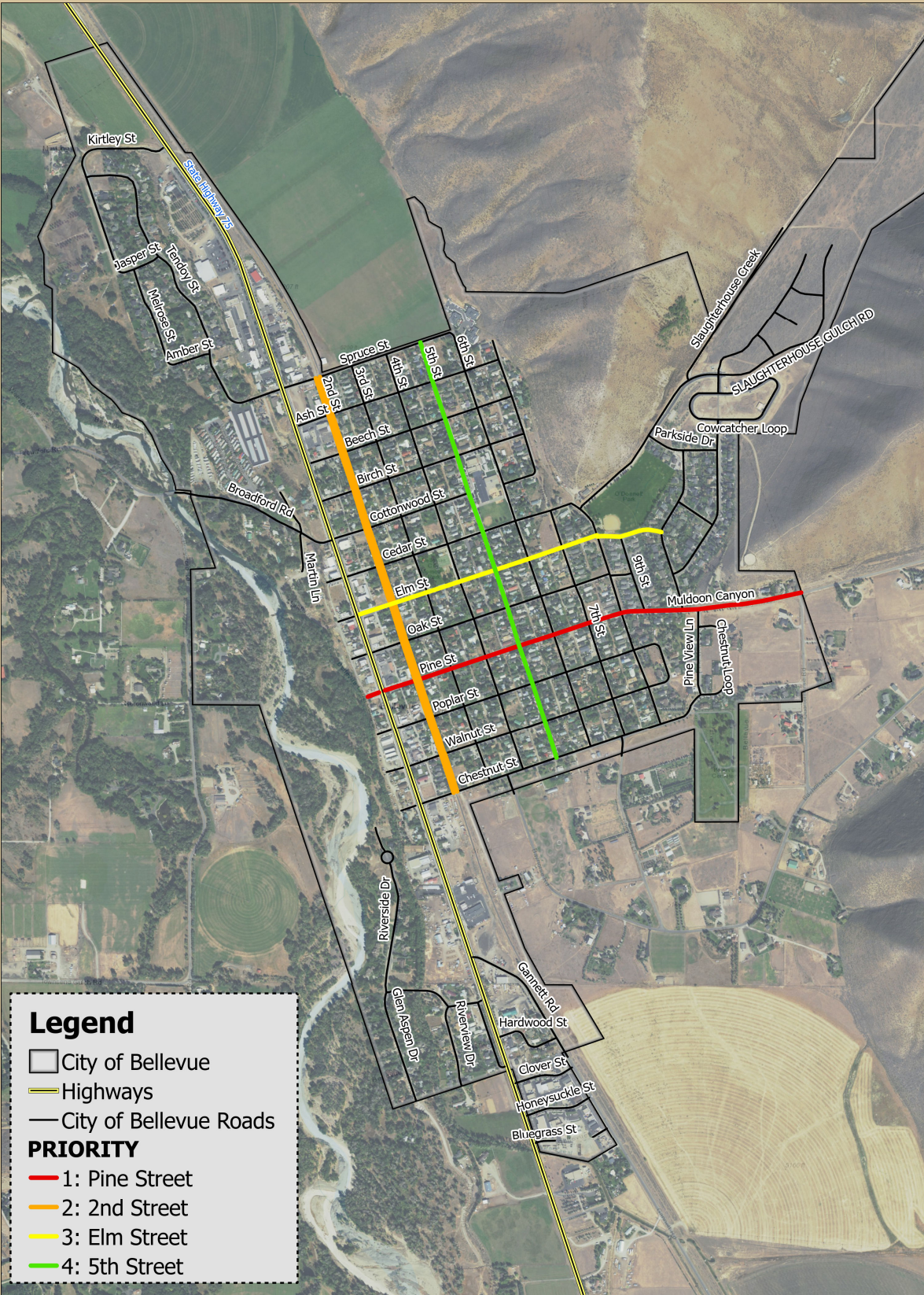


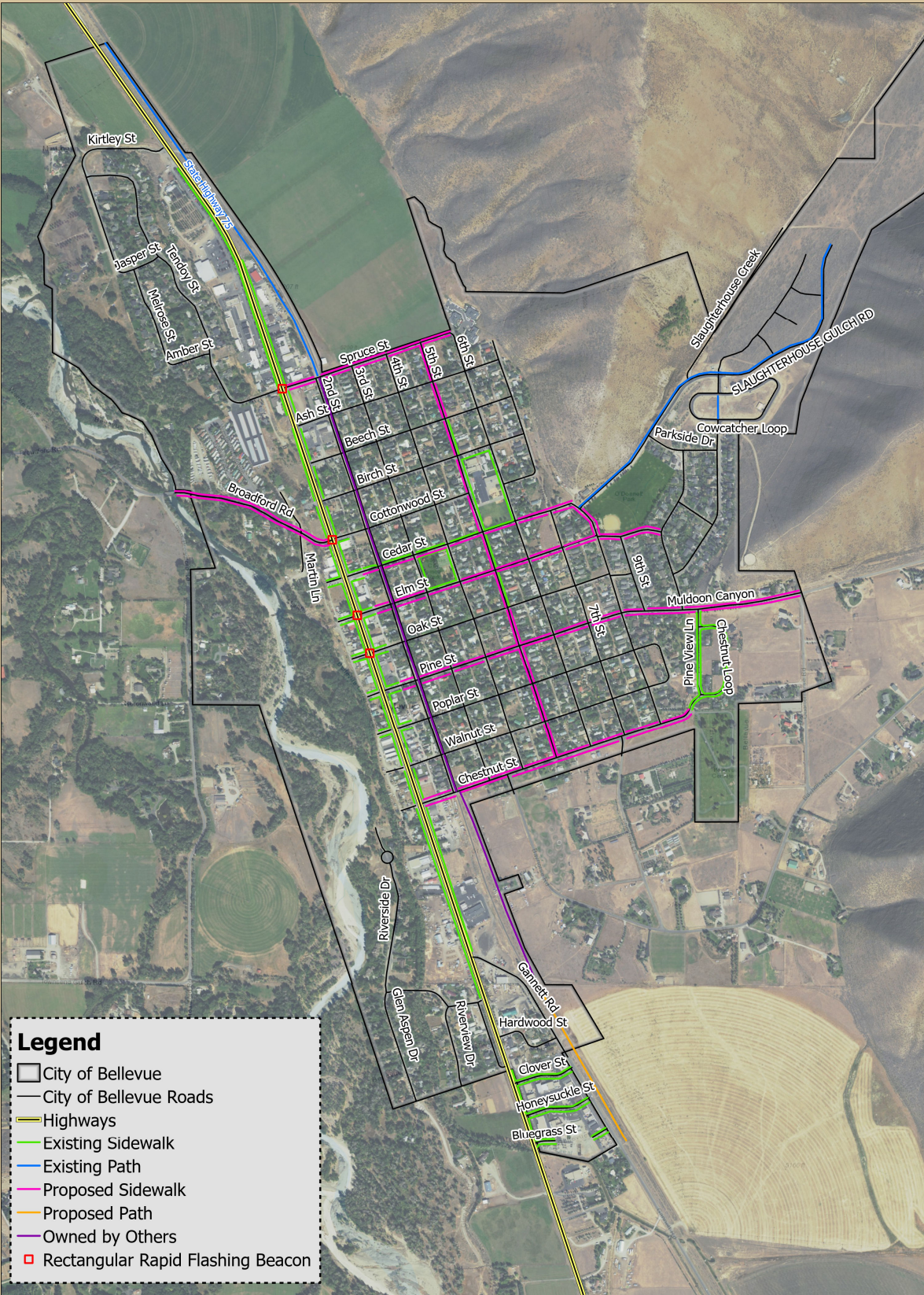
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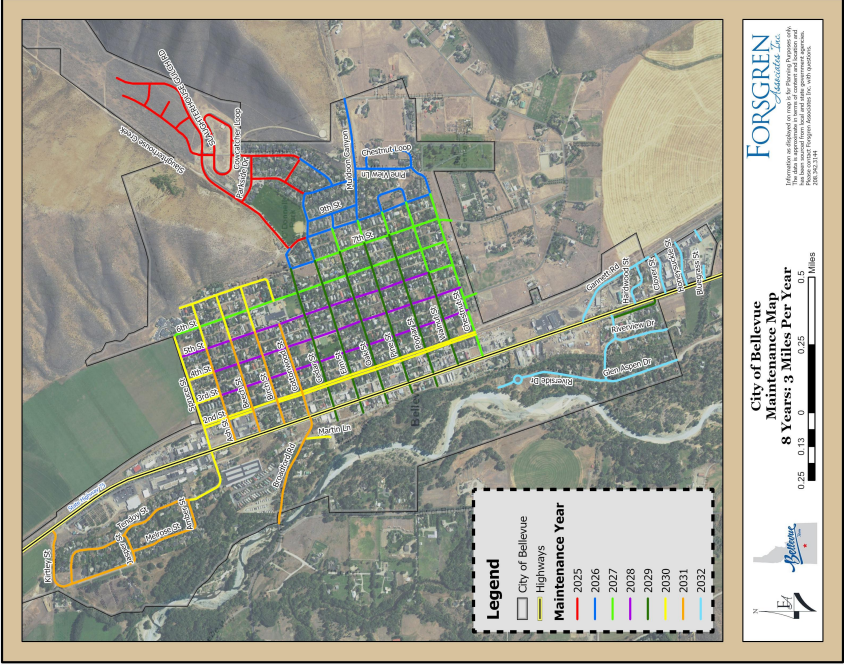
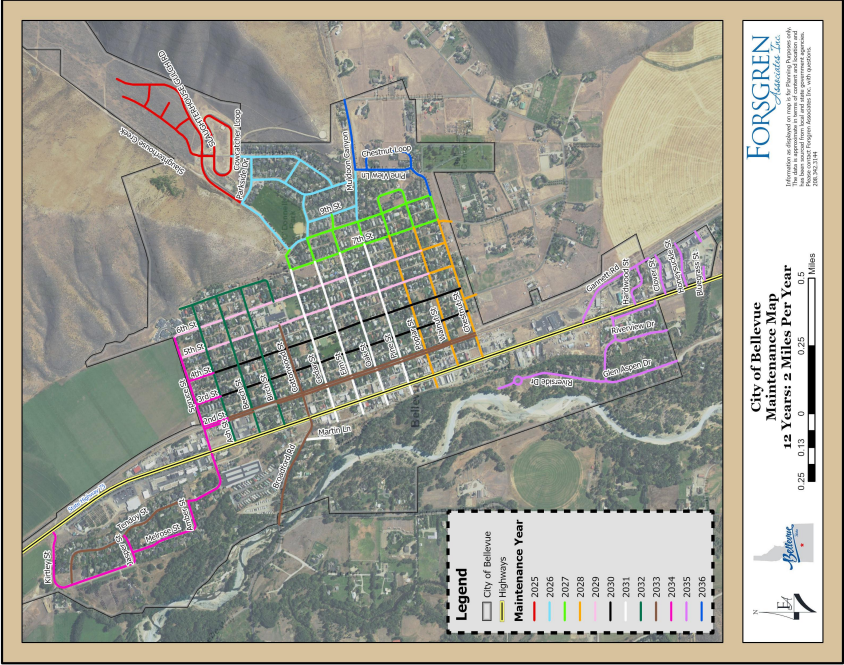
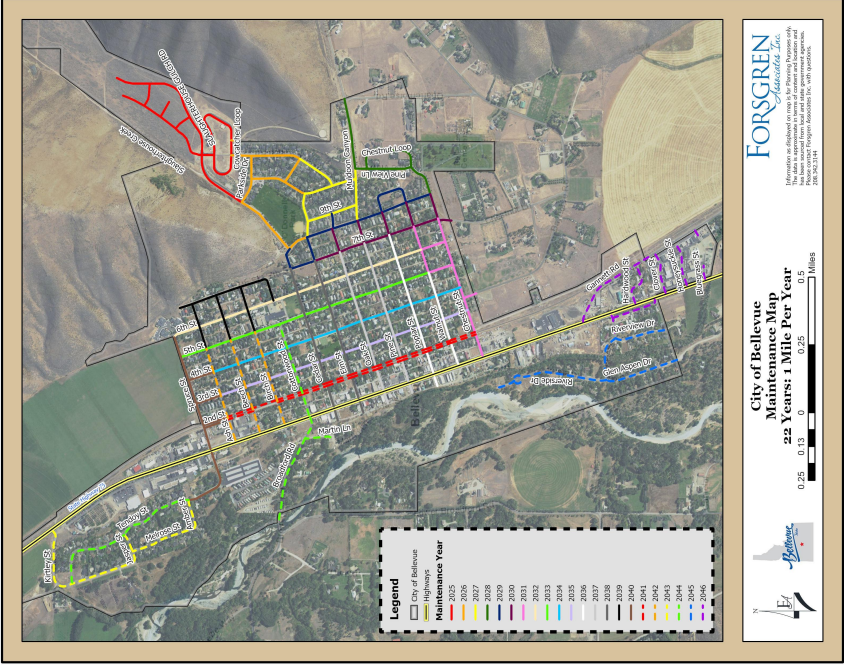
SEE YOU THERE!



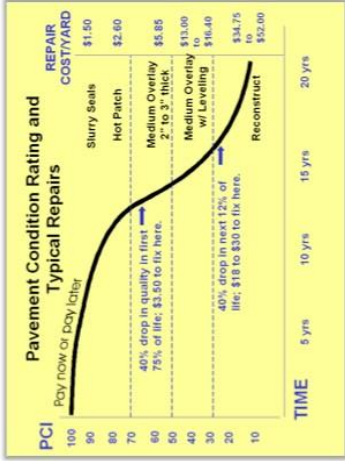








Chip Seal Maintenance Cost Estimate	
1 road mile per year	\$ 50,000
2 road miles per year	\$ 100,000
3 road miles per year	\$ 150,000
Contract snow plowing per year cost	\$ 60,000



Bridge Report

DRAFT



Elm/Env	Element Description	Total Qty	Units	State 1	State 2	State 3	State 4
12/3	Reinforced Concrete Deck	800	sq.ft	800	0	0	0
	Reinforced concrete deck is in very good condition with some inherent defects. Deck has an asphalt wearing surface with a chip seal overlay preventing direct observation, but does not show any signs of deficiencies that would indicate defects in the surface of the deck.						
510/3	Wearing Surfaces	800	sq.ft	800	0	0	0
	<i>Asphalt wearing surface with a chip seal overlay in very good condition.</i>						
109/2	Prestressed Concrete Open Girder/Beam	100	ft	54	1	45	0
	(4) Prestressed double tee beam girders are in fair condition with some moderate cracking in the fillets and top flange. (CS3) Girder 2 near web 2 at the west abutment has a 2 foot moderate diagonal crack in the corner of top flange up to 0.013. (CS3) Girder 2 has moderate longitudinal cracks down the center of the middle top flange between both webs up to 0.013 wide. (CS3) Girder 3 has moderate longitudinal cracks down the center of the middle top flange between both webs up to 0.013 wide. (CS3) Girder 3 has 9 feet of moderate longitudinal cracking along the fillet up to 0.013 wide.						
1080/2	Delamination/Spall/Patched Area	1	ft	0	1	0	0
	<i>Girder 4, first web has a minor spall on bottom of the stem near the west abutment.</i>						
1110/2	Cracking (PSC)	45	ft	0	0	45	0
	<i>(CS3) Girder 2 near web 2 at the west abutment has a 2 foot moderate diagonal crack in the corner of top flange up to 0.013.</i>						
	<i>(CS3) Girder 2 has moderate longitudinal cracks down the center of the middle top flange between both webs up to 0.013 wide.</i>						
	<i>(CS3) Girder 3 has moderate longitudinal cracks down the center of the middle top flange between both webs up to 0.013 wide.</i>						
	<i>(CS3) Girder 3 has 9 feet of moderate longitudinal cracking along the fillet up to 0.013 wide.</i>						
215/3	Reinforced Concrete Abutment	97	ft	63	30	4	0
	Reinforced concrete abutments with integral wingwalls are in satisfactory condition, with isolated moderate cracking. Both abutments have minor hairline to 0.050 inch vertical cracks and 25 feet of 0.030 horizontal cracking on eastern abutment. (CS3) One moderate 1/4 inch vertical crack under web 2 on Girder 1. (CS3) Moderate cracking at corner of northeast wingwall.						
1130/3	Cracking (RC and Other)	34	ft	0	30	4	0
	<i>Both abutments have minor hairline to 0.050 inch vertical cracks and 25 feet of 0.030 horizontal cracking on eastern abutment.</i>						
	<i>(CS3) One moderate 1/4 inch vertical crack under web 2 on Girder 1.</i>						
	<i>(CS3) Moderate cracking at corner of northeast wingwall.</i>						
330/3	Metal Bridge Railing	50	ft	50	0	0	0
	W-Beam guardrail on painted steel posts in very good condition. Steel posts are mounted to the bridge.						
515/3	Steel Protective Coating	118	sq.ft	118	0	0	0
	<i>Galvanizing is fully effective on W-beam guardrail. Paint on post is substantially effective.</i>						



Idaho Transportation Department Bridge Inspection Report

Bridge Key:	23703	Structure Name:	X992070 0.59
(6)Features Intersected:	BELLEVUE CANAL	(9)Location:	IN BELLEVUE
Facility Carried(Route):	RIVERVIEW STREET	Admin Jurisdiction:	1320 City of Bellevue
Xref Structure Name:		District:	04

Additional Information

ROADWAY APPROACHES: Asphalt roadway with a chip seal overlay, in satisfactory condition with random transverse cracking, some cracks are sealed. Last chip seal was in 2020. West approach has 2 inch of settlement. East approach has 1 inch of settlement.

CURBS: Concrete curbs under W-beam bridge rail are in satisfactory condition, with hairline cracks. Curb has a minor spall at the northwest corner. There is gravel and debris built up along the curbs.

EMBANKMENT: Roadway fill is retained behind the wingwalls and is in satisfactory condition, with some minor erosion.

CHANNEL: Tree and vegetation lined channel, with a river rock bottom through the structure in good condition.

SIGNS: None

GUARDRAIL: W-Beam bridge rail continues off the bridge mounted on wooden posts with no blocks, in fair condition.

UTILITIES: Buried cable along the north shoulder and (3) 2 1/2 inch steel pipes and (1) 1 1/4 inch poly conduit spans the canal not attached to the north side of the bridge.

NOTES: Existing structure added to inventory after LHTAC review in 2020. Actual year built is unknown. Casey McGehee from the City of Bellevue attended the 11/24 inspection. Deck condition changes from 6 to 8 to reflect the new SNBI requirements.

SCOUR REVIEW: SC reviewed 3/24/21, item 113 changed to 8, single span, canal.

INSPECTION INTERVAL: N/A

WORK ACCOMPLISHED: None.

LOAD RATING: There are no plans available at City of Bellevue.

Maintenance Recommendations

Recommendation	Priority	Suggested Work Assignment
Epoxy inject crack on east abutment.	Low	Local Agency

Inspector's Signature: _____		11/06/2024
Inspector Number and Name: 161077 - Jasper Heckman, DEA, Inc.		



Idaho Transportation Department

Bridge Inspection Report

Bridge Key: 23703
(6)Features Intersected: BELLEVUE CANAL
Facility Carried(Route): RIVERVIEW STREET
Xref Structure Name:

Structure Name: X992070 0.59
(9)Location: IN BELLEVUE
Admin Jurisdiction: 1320 City of Bellevue
District: 04

IDENTIFICATION

(1)State: 16 Idaho
(2)District: (3) District 4
County: 013 Blaine
(4)Place Code: Bellevue
(5)Inventory Route: 150000000
(7)Facility Carried: RIVERVIEW STREET
(11)Milepoint: 0.599009 Agency Milepost: 000.599
(12)Base Hwy Network: Not on Base Network
(13a)LRS Inventory Route:
(13b)LRS Sub Route:
(16)Latitude: 43° 27' 17.9"
(17)Longitude: 114° 15' 32.1"
(98)Border Bridge Code:
(99)Border Bridge ID:
Segment Code: 040042
Segment Under Rte:
Segment Other Rte:
Drawing Number:
Project Key Number:
Inspection Area: 941
MPO: N/A

CLASSIFICATION

(112)NBIS Length: (104) Long Enough
Highway System: 0 Not on NHS
(26)Functional Class: 09 Rural Local
(100)Defense Highway: 0 Not a STRAHNET hwy
(101)Parallel Structure: No || bridge exists
(102)Direction of Traffic: 2 2-way traffic
(103)Temporary Structure:
(105)Federal Lands Highway: 0 N/A (NBI)
(110)Design Natl Network: 0 Not part of natl netwo
(20)Toll Facility: 3 On free road
(21)Custodian: City/Municipal Hwy Agenc
(22)Owner: City/Municipal Hwy Agenc
(37)Historical Significance: 4 Hist sign not determin

GEOMETRIC DATA

(48)Maximum Span Length: 23.0 ft
(49)Structure Length: 25 ft
Total Length: 25 ft
(50a)Curb/Sidewalk Width Lt: 0.7 ft
(50b)Curb/Sidewalk Width Rt: 0.7 ft
(51)Width Curb to Curb: 30.5 ft
(52)Width Out to Out: (32) 32.0 ft
App Roadway Width: 28 ft
(33)Median: 0 No median
(34)Skew: 0°
(35)Structure Flared: (10) 0 No flare
Vertical Clearance: (47)Total 99.99 ft
Horiz Clearance: (53)Min Vert 31.5 ft
Clr Over Deck: (54a)Min Vert 99.99 ft
Underclr Ref: (54b)Min Vert N Feature not hwy or RR
Underclr: 0.00 ft
(55a)Min Lat Underclr Ref Rt: N Feature not hwy or RR
(55b)Min Lat Underclr Rt: 0.0 ft
(56)Min Lat Underclr Lt: 0.0 ft

STRUCTURE TYPE AND MATERIALS

(43a/b)Main Span Material/Design:
5 Prestressed Concrete 2 Stringer/Girder
(44a/b)Approach Span Material/Design:
(45)No. of Spans Main Unit: 1
(46)No. of Approach Spans: 0
(107)Deck Type: 2 Concrete Precast Panel
(108a)Wearing Surface: 1 Monolithic Concrete
(108b)Membrane: (108c) 8 Unknown
Deck Protection: 8 Unknown

Deck Applications

LRS

Route ID: 40042AOH000
Measure: 0.59900923
Route ID Under Rte:
Measure Under Rte:
Route ID 2nd Rte Under:
Measure 2nd Rte Under:



Idaho Transportation Department

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LOAD RATING

(31)Design Load: 5 MS 18 (HS 20)
(64)Operating Rating: 38 tons / HS21.1
(66)Inventory Rating: 23 tons / HS12.8
(70)Posting: 5 At/Above Legal Loads
(41)Posting Status: A Open, no restriction

CONDITION

(58)Deck: 8 Very Good
(59)Superstructure: 5 Fair
(60)Substructure: 6 Satisfactory
(61)Channel/Protection: 7 Minor Damage
(62)Culvert: N N/A (NBI)

AGE AND SERVICE

(27)Year Built: 1980
(106)Year Reconstructed:
(42a)Type of Service On: 1 Highway
(42b)Type of Service Under: 5 Waterway
(28a)Lanes On: 2 (28b)Lanes Under: 0
(29)ADT: 40
(30)Year of ADT: 2023
(109)Truck ADT: 0%
(19)Detour Length: 99 miles
Speed Limit: 25 MPH

APPRAISAL

(67)Structure Condition: 5 Above Min Tolerable
(68)Deck Geometry: 7 Above Min Criteria
(69)Undrclear,Vert and Horiz: N Not applicable (NBI)
(71)Waterway Adequacy: 8 Equal Desirable
(72)Approach Alignment: 8 Equal Desirable Crit
(36)Traffic Safety Features:
(a)Bridge Rail: 0 Substandard
(b)Transition: 0 Substandard
(c)Approach Rail: 0 Substandard
(d)Approach Rail Ends: 0 Substandard
(113)Scour Critical: 8 Stable Above Footing

PROPOSED IMPROVEMENTS

(75a)Type of Work: (75b)
Work Done By:
(76)Length of Improvement:
(94)Bridge Improvement Cost:
(95)Rdwy Improvement Cost:
(96)Total Project Cost:
(97)Year of Cost Estimate:
(114)Future ADT: 60
(115)Year of Future ADT: 204
0
YEAR PROGRAMMED:

NAVIGATION DATA

(38)Navigation Control: Permit Not Required
(39)Vertical Clearance:
(40)Horizontal Clearance:
(111)Pier Protection:
(116)Lift Bridge Vert Clr:

ENVIRONMENTAL

Environmental Concerns: Yes
Mud swallows

INSPECTION

(90)Inspection Date: 11/6/2024 (91)Inspection Interval: 24 months
(92)Supplemental Inspections Interval: (93)Date of Inspections:
(a)NSTM Inspection: NA (a)NSTM Inspection Date:
(b)Underwater Inspection: NA (b)UW Inspection Date:
(c)Fatigue Detail (OS) Inspection: NA (c)Fatigue Detail (OS) Date:
(d)In-Depth Inspection: NA (d)In-Depth Date:
(e)Confined Space Inspection: NA (e)Confined Space Date:
Channel Cross Section: 96 months Cross Section Completed: 2024 Cross Section Next Due: 2032
Equipment Needed: None



Idaho Transportation Department Bridge Inspection Report

Bridge Key:	23703	Structure Name:	X992070 0.59
(6)Features Intersected:	BELLEVUE CANAL	(9)Location:	IN BELLEVUE
Facility Carried(Route):	RIVERVIEW STREET	Admin Jurisdiction:	1320 City of Bellevue
Xref Structure Name:		District:	04

WEARING SURFACE and DEAD LOAD INFORMATION

Asphalt:	1.5 <i>inches</i>	Concrete:	0. <i>inches</i>
Granular:	0.0 <i>inches</i>	Timber:	0. <i>inches</i>
			0

POSTING INFORMATION

WEIGHT

Load Analysis Date: 06/29/2021
Load Analysis Required:

Bridge Factor:
Route Color:

Load Rating Analysis

IR (tons)

OR (tons)

Recommended
Posting(tons)

Actual
Posting(tons)

H Truck

HS Truck

Type3

Type 3S2

Type 3-3

23

38

Type3

Type 3S2

Type 3-3

Axle Limit

HEIGHT

Recommended

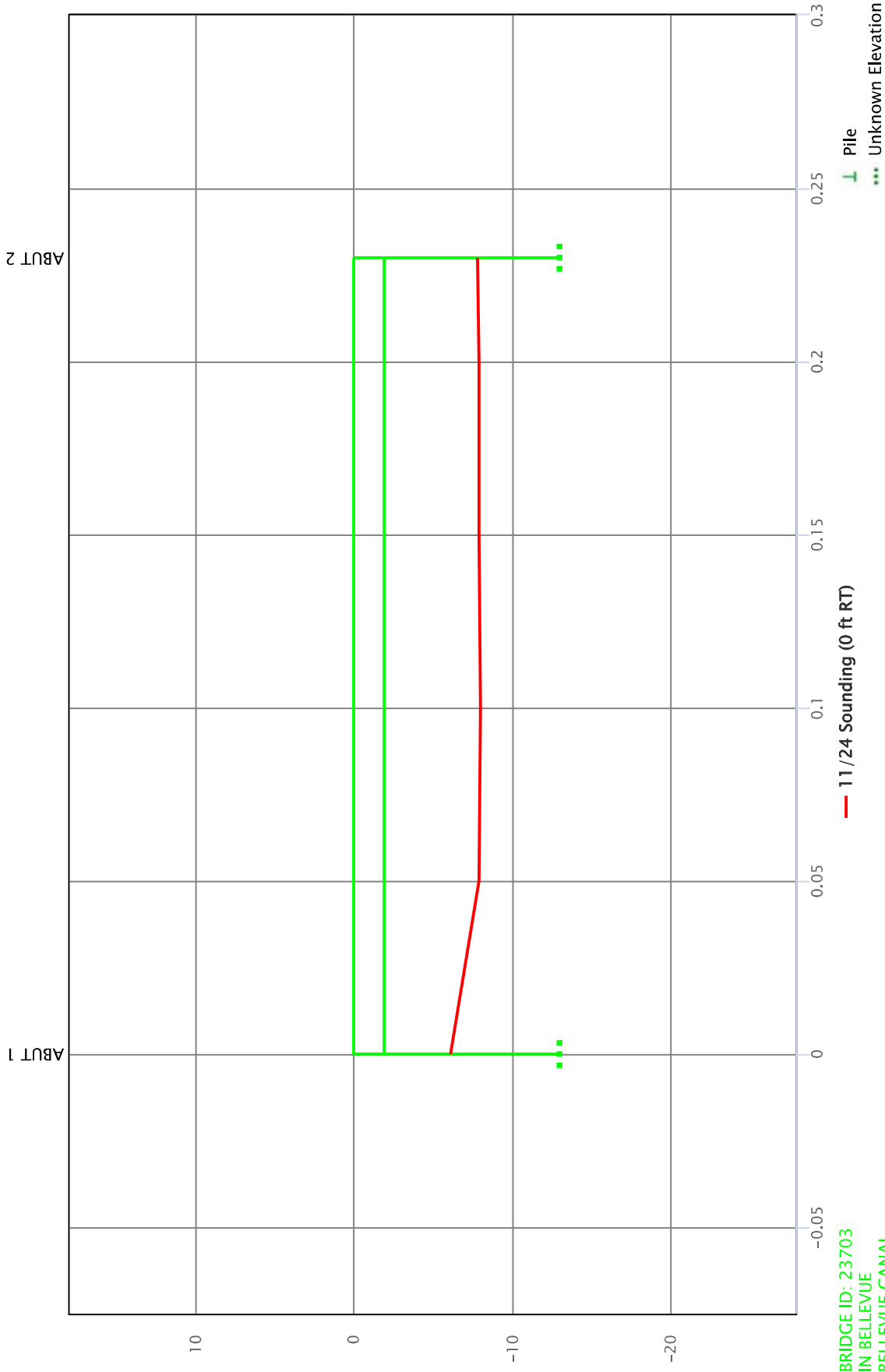
Actual

Height Posting:

ACTUAL WIDTH POSTING

Single Lane All Vehicles: N

Single Lane Trucks/Buses: N



BRIDGE ID: 23703
IN BELLEVUE
BELLEVUE CANAL
BLAINE COUNTY
RIGHT SIDE OF THE BRIDGE
DATA SOURCE: Field Measurements
DRAW STATIONS FROM: 0 ft TO: 23 ft
STATION SCALE 10 ft:1 in ELEVATION SCALE 10 ft:1 in



Idaho Transportation Department Bridge Inspection Report

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Xref Structure Name:		District:	04



Approach Roadway Looking West



Elevation View Looking South

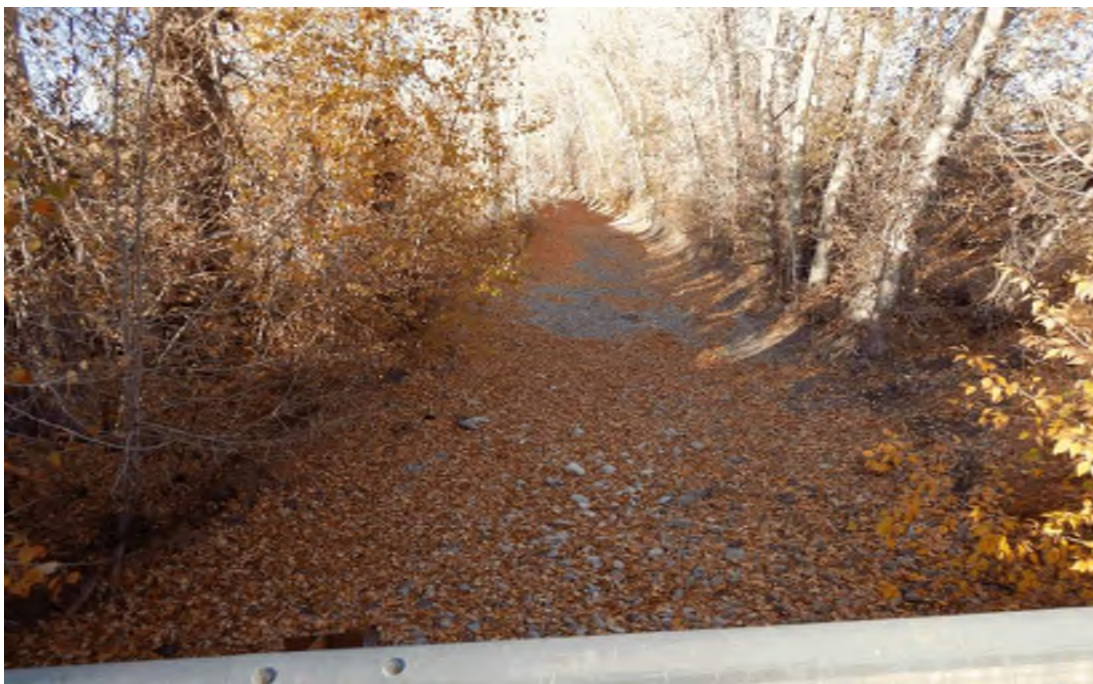


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Upstream Channel Looking North



Downstream Channel Looking South



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General Underside Condition



General Topside Condition



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General Abutment Condition



(CS3) Longitudinal Crack in Girder 4 Soffit at Abutment 1



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(CS3) Cracks in Top Flange of Girder 2 near Abutment 2



(CS3) Cracks in Top Flange of Girder 2 near Abutment 2



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Xref Structure Name:		District:	04



(CS3) Cracks in Top Flange of Girder 2 near Abutment 2



(CS3) Crack in Abutment 1 at Girder 3



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Xref Structure Name:		District:	04



(CS3) Crack in Abutment 2 under Girder 1



(CS3) Crack in Abutment 2 under Girder 1



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(CS3) Cracks in Northeast Wingwall