KELLER ASSOCIATES

ATHOL TRANSPORTATION PLAN

City of Athol, Idaho

September 2019

GROWING POSSIBILITIES

ATHOL TRANSPORTATION PLAN

CITY OF ATHOL, IDAHO

September 2019

KA PROJECT NO. 218140

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EXECUTIVE SUMMARY

The following is a summary of the recommendations made in the Athol Transportation Plan. The listed recommendations also reference the respective chapter and page number to assist you in locating the in-depth discussion and detail of the specific recommendation.

2.3.1, page 9 – Demographics & Future Employment
- Use traffic impact studies to assess new development impacts to existing transportation facilities.

2.4.1, page 10 – Land Use and Zoning
- City and local companies work together to assess traffic, land use, and zoning impacts.
- It is recommended that the City remain involved with potential developers as the City continues to expand with new buildings and businesses.

3.2.1, page 19 – Functional Classification of Roadways
- Reclassify 1st Street (from City limits to Highway 54) from a residential road to major collector to match the rest of 1st Street to the south.
- Reclassify Old Highway 95 (from Highway 54 to 1st Street) from a residential road to major collector to match the portion of Old Highway 95 that is currently classified.
- Update Functional Classification to reflect that Remington Road is no longer a major collector (connected Sylvan to Old Highway 95 previously).
- Work with Kootenai County to reclassify roads as development occurs.
- Update the functional classification map as land use changes and development occurs.

3.4.4, page 21 - Rail Facilities
- Participate in meetings regarding the railroad crossings with local agencies as applicable.
- Participate and work with KMPO and ITD to establish "quiet zones" within the City to minimize some of the impact of the railroads.

3.4.7, page 23 – Multimodal Transportation Recommendations
- Support and voice interest in expansion of the transit system in the community.
- Support the airport, port, and rail facilities through interagency relationships and involvement in adhoc planning groups and the Kootenai MPO.
- Look for opportunities to improve safety and efficiency of freight and truck traffic on through the City in coordination with ITD.
- Maintain, improve, and expand bicycle/pedestrian facilities through grant funding opportunities, coordination with roadway projects, and new development.

4.1.4.1, page 29 – Pavement Management
- Recommended roadway surface treatments – **Figure 18**.

4.1.6, page 40 – Pavement Management Strategy
- Implement 5-year chipseal cycle
- Seek outside funding opportunities to assist in completing more budget intensive projects.
- Prioritize the care of roadways in good condition: "keep the good roads good."

4.2.3, page 48 – Sign Management
- Annual spring inspection of signs.
- Remove "Slow – Children Playing" signs.
- City should adopt one of the assessment or management methods for determining retroreflectivity per MUTCD standards.

4.2.3.1, page 50 – Pedestrian Crossing Recommendations
- All crosswalk and signage meet MUTCD standards
- Crosswalks and signage be added as part of corresponding capital improvement projects.
- Projects including proposed RRFBs should be applied for and receive approval from FHWA in close correspondence with ITD. No RRFBs can be purchased and installed by the City unless approval has been given.

4.2.3.2, page 50 - Speed Limit Signage
- City to look into the purchase of a speed radar feedback sign for use in locations where speeding is a problem.

6.1, page 52 - Capital Improvements Plan (CIP)
- List and description of roadway and pedestrian projects that are prioritized by the following categories:
    - Reconstruction Projects
    - Overlay Projects
    - Preservation Projects
    - Intersection Projects
    - Pedestrian Projects
    - Study Projects

City should pursue these projects through normal funding methods as well as applying for outside funding sources to complete high priority projects.

Chapter 7, page 53 – Funding
- City should familiarize with available funding opportunities in the State and participate in funding workshops and seminars.

Chapter 8, page 57 – Recommendation for Transportation Plan Updates
- CIP should be reviewed on an annual basis, and updated every 3 years at the minimum.
- Pavement condition survey be updated every three years.
- Pavement maintenance records should be updated annually.
- Sign maintenance records should be updated annually.
- Inspect 1/3 of the signs every year and update sign inventory.
- City adopt the most current Idaho Transportation Department design and roadway standards.
- City continue to follow American Public Works Association, 2000 Standard Specifications.
- City review and adopt the most current standards every 2-5 years.

CHAPTER 1 - INTRODUCTION

1.1 PURPOSE

In 2019, LHTAC funded the City of Athol's request for the development of a city-wide transportation plan. The goal was to evaluate the existing transportation network within the City of Athol, identify needs within the transportation system, and present a plan to address those needs.

A transportation plan assists in planning and designing efforts to enable safe access for all users of the transportation system including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. A transportation plan provides the framework for community leadership to how best to address changing community transportation needs, how to fund them, and completing projects based upon the community's priorities and values. A transportation plan is a guide to be used for the improvement of safety and public health, while reducing transportation costs and traffic woes.

A considerable amount of data gathering, data analysis, and discussion went into developing this transportation plan. Specifically, pavement, sign, traffic, and crash data were collected and evaluated. Structured discussions with city officials were held to gain an understanding of the local transportation system and the challenges facing the City of Athol in maintaining and improving the system. This data and subsequent analysis were used to form the basis for the improvements proposed in this study. The Athol Transportation Plan establishes a long-range Capital Improvement Program (CIP) responding to these identified needs.

This Transportation Plan is intended to be a living document that the City of Athol can use to continually identify and prioritize transportation deficiencies within the City. As part of the development of this plan, additional tools were created to assist city officials in making informed decisions on their transportation network. Pavement Management and Sign Management data was updated and retained in a spreadsheet format so that the information can be maintained and updated by the city.

1.2 COMMUNITY ADVISORY COMMITTEE (CAC)

A Citizen Advisory Committee (CAC) was established for this study. The CAC was formed to extend participation in the study to other interests and jurisdictions, to act as a conduit for local information regarding the efficiency of the current transportation system, and to review study findings and documentation to assure that the study is responsive to the actual needs of the City. Members of the CAC include:

Bill Hill – City of Athol
Cindi Denis – City of Athol
Dan Holmes – Business Owner
Bill Steele – Fire Department
Lori Yarbrough – City
Mary Zichko – City of Athol
Anthony Brandt – City of Athol
Brandon Hermenet – Fire Department

Three CAC meetings were held in Athol during the development of this study. The first meeting was a "kick-off" meeting held on March 14, 2019 and its purpose was to introduce members of the Citizen Advisory Committee and to explain the purpose of the Transportation Plan. The planning process and the role of the CAC were discussed. The committee was asked to think about information they felt would be important to the study, to identify problem areas in town, and to extend invitations to other potential stakeholders to be a part of the CAC.

The second meeting was held on May 20, 2019. Keller Associates presented collected data pertaining to Athol's infrastructure including pavement, signs, traffic data, and crash data. The CAC provided information on daily traffic patterns, perception of roadway system condition, the need for alternate transportation modes, and roadway safety and maintenance operations. Following the presentation, the CAC was asked what Capital Improvement needs should be considered.

The third meeting was held on July 16, 2019. The CAC reviewed the Capital Improvement projects based upon needs identified in the Transportation Plan study. The CAC prioritized the projects based upon safety, maintenance needs of current assets, and improvement to the overall transportation system.

A public meeting was held on September 5, 2019 to solicit the plan for questions and comments by the public. Final edits were made to the plan to complete the draft. A presentation of the Transportation Plan was brought to the Athol City Council on September 17, 2019. The Athol City Council approved and adopted the plan (expected).

1.3 A BRIEF HISTORY OF ATHOL AND THE SURROUNDING AREA

Northern Pacific Depot, Athol, Idaho

Athol was founded in 1882 when the Northern Pacific Railroad built a station in present day Athol. In 1895, town residents, mostly railroad workers and homesteaders, petitioned postal authorities for a post office. The location of Athol attracted early settlers for logging, milling, and agriculture prosperity. However, the new community was on state lands, and in 1903, lots in Athol were auctioned by the state. State Surveyors platted the new township but didn't make record of change in ownership. The state would eventually correct the problem.

Athol was first known as Colton, but the town was renamed Athol by a settler who came from Massachusetts. It was said that the town name is Scottish and refers to the Duke of Athol.

In 1900, the Methodist congregation built a church that also served as a school until 1902 when school patrons built their first school building. In December of 1902, Hackett & Wilson opened a sawmill near the city. The mill became the city's largest employer and had the capacity of producing 25,000 board feet of lumber per day. By 1903, there were many businesses opened including the Pacific Hotel, a drugstore, a blacksmith, a jewelry store, restaurants, a mercantile company, and a saloon.

Today, Athol is surrounded by 2 state parks, the 4,000-acre Farragut State Park and the 142-acre Round Lake State Park. Two miles south is also the Silverwood Theme Park, the Northwest's largest theme park and a major seasonal attraction for the area.

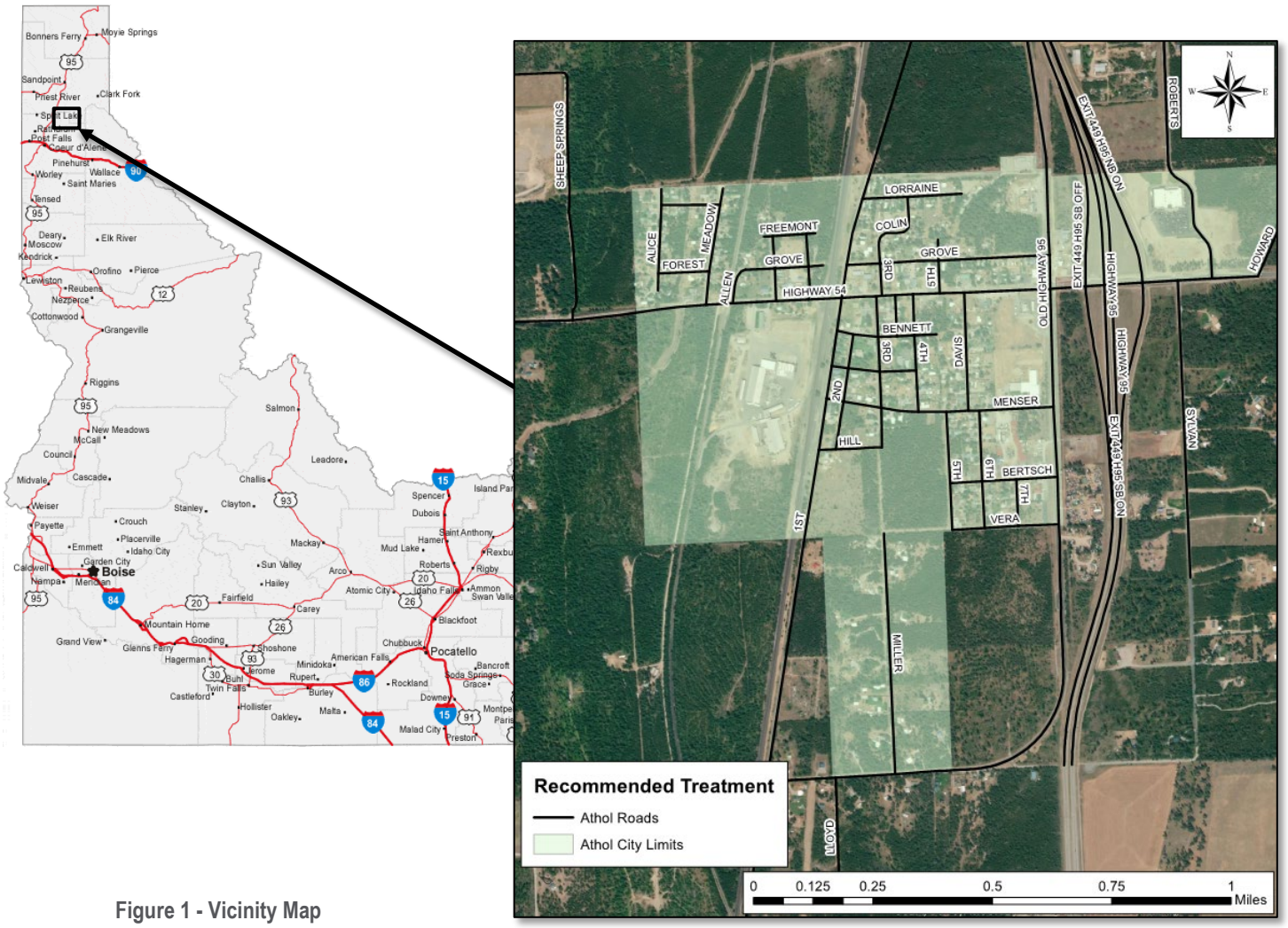


Figure 1 - Vicinity Map

2 CHAPTER 2 - DEMOGRAPHICS

Understanding the location, existing and projected population, and employment is an important element of a transportation plan. Demographic information is the foundation for creating a transportation system that meets the needs of the area and is important for evaluating circulation and safety concerns. Demographics of a surrounding area have both direct and indirect impacts on an area's transportation system. The following sections discuss existing and future demographics in Athol, Idaho.

2.1 POPULATION

The populations of Athol and Kootenai County from the 2010 Census were 722 and 134,851, respectively. The City population from the 2017 census was 963; an increase of 33.4%. The 2010 population density in Athol was approximately 386.1 inhabitants per square mile (149.1 /km^2). The racial makeup of the city was 97.0% White, 0.9% American Indian or Alaska Native, and 2.2% from two or more races. Hispanic or Latino of any race was 0% of the population.

Table 1 lists population and growth rates for Athol and nearby communities as reported by the U.S. Census Bureau.

Table 1 - Population Growth for Athol and Nearby Communities

Community	2000 Population	2017 Population	% Change
Athol	***722***	***963***	***33.4%***
Coeur d'Alene	43,096	48,618	12.8%
Hayden	12,783	14,096	10.3%
Spokane	206,541	212,982	3.1%
Priest River	1,677	1,658	-1.1%
Sandpoint	7,372	7,918	7.4%
Kootenai County	134,851	150,128	11.3%

As noted in the table above, the City of Athol has experienced substantial growth in the past 20 years, even more so than many of the adjacent areas in northern Idaho.

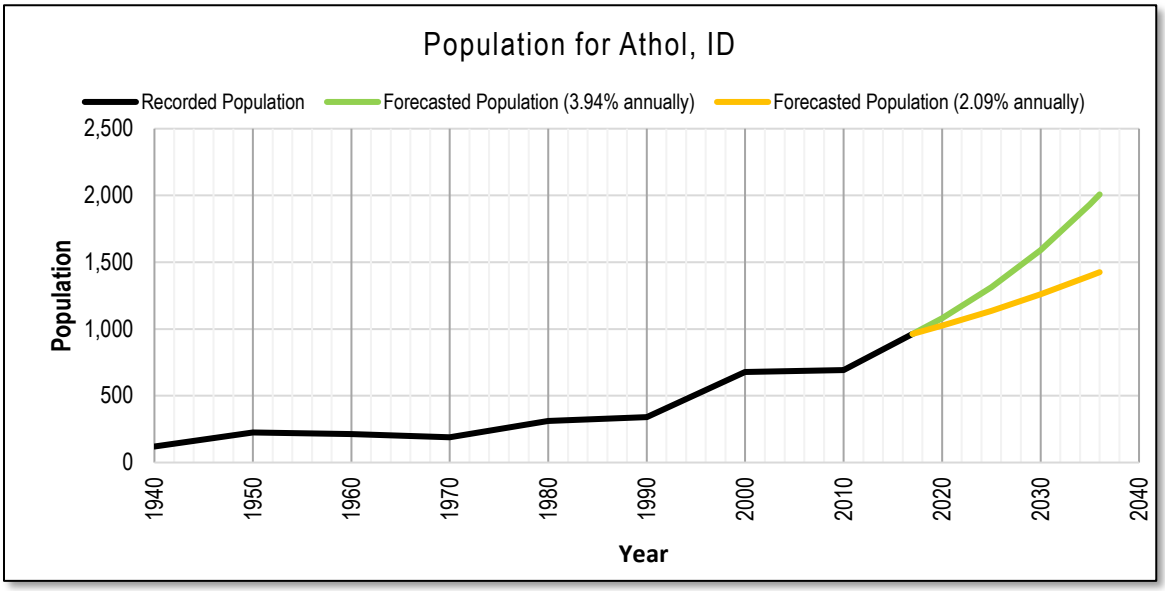


Figure 2 - Historic and Forecasted Population for the City of Athol

Based on the annual exponential growth dynamic from 1990 to 2017 (3.94%) it is anticipated that the Athol Transportation System will be serving approximately 2,008 residents in 2035, a total increase of 97.4% (from the 2010 population). No additional factors have been identified to expect a significant change in population growth trends within Athol city limits, so these projections are considered realistic long-range projections for Athol. The City of Athol has proven to be growing at a high rate for the past 10 years, and this trend does not appear to be changing in the future. City limits have been expanded in two separate occasions in the past couple of years, reflecting the growth and increased population potential of this area.

Using data from the 2017 Census, **Figure 3** was created to show the population age distribution of Athol and the State of Idaho across their respective populations.

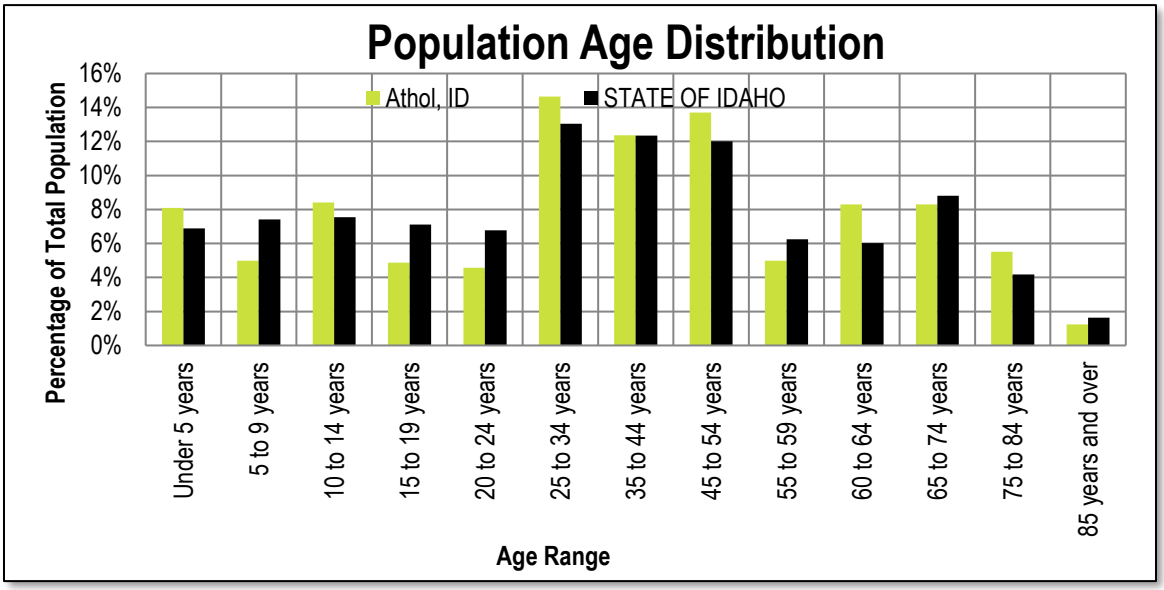


Figure 3 - Athol and Idaho Age Distribution

Athol has a fairly even age distribution across its population, with a larger percent of population in the range of 25 to 54 years of age. Nearly half of the population (439 people or 45.6%) is age 34 or younger while the remaining population (54.4%) is age 35 or older.

In 2017, 21.5% of residents were under the age of 19; 19.2% were between the ages of 20 and 34; 12.4% were from 35 to 44; 18.7% were from 45 to 59; 16.6% were from 60 to 74; and 6.7% were 75 or older. These numbers put the median age in Athol at 37 years. Furthermore, the gender makeup of the city was 58.0% male and 42.0% female.

The 2019 Athol Comprehensive plan states that all planning should be done based on a modest, stable population growth that is consistent with the community's vision and within the city's fiscal and service capabilities.

2.2 HOUSING CHARACTERISTICS

As of the 2010 Census, there were 305 total housing units in Athol, where 282 of these were occupied and 23 were vacant. Of the occupied units, 276 were owner occupied while 6 were renter occupied. Of the 276 owner occupied housing units, 29.4% had individuals under the age of 18 living with them, 47.8% were married couples living together, 8.9% had a female householder with no husband present, 5.7% had a male householder with no wife present, and 37.6% were non-families. 28.0% of all households were made up of single individuals, where 10.3% had someone living alone who was 65 years of age or older. The average household size was 2.45 persons and the average family size was 3.05 persons.

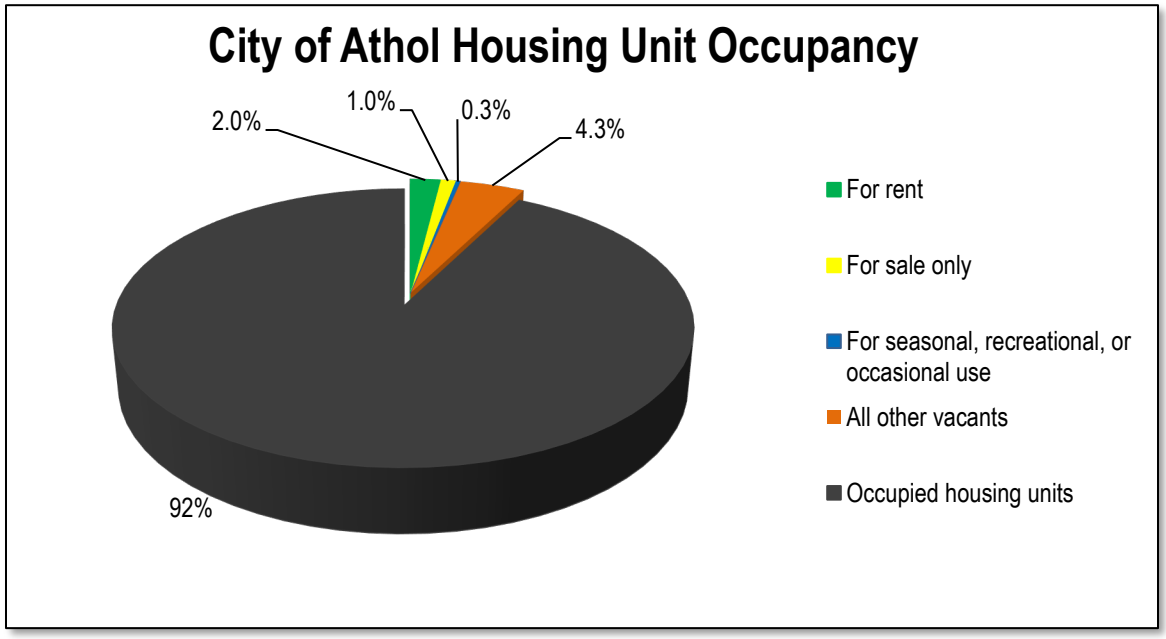


Figure 4 - Housing Occupancy

Figure 4 above shows housing occupancy characteristics in Athol based on data from the 2010 Decennial Census. The majority of housing units (92%) are occupied, while 8% percent are reportedly vacant. Vacancy categories include for rent, for sale only, seasonal, recreational or occasional, other, and occupied.

It is noted in the Comprehensive Plan that a significant portion of the housing units are manufactured homes. The city had recently updated the City Code to simplify regulations related to manufactured housing in the City. Building codes for site-built structures have never been adopted in Athol.

The goals for the housing development are as follows:

1. Apply consistent standard for new subdivisions and residential developments regarding landscaping, street and layout, construction, and utilities that enhance the livability of the community.
2. Residential neighborhoods should be protected from the intrusion of incompatible land use, excessive traffic and other negative housing.
3. Encourage upgrading and rehabilitation of existing housing stock, and preservation of existing historical, neighborhood housing.
4. Evaluate the advantages and disadvantages of adopting and administrating building codes within the City. Consider alternatives for partial adoption if such alternatives are legal under state law.
5. Discourage the use of recreational vehicles as housing in the City.

2.3 CURRENT AND FUTURE EMPLOYMENT CHARACTERISTICS

The mean household income for Athol as provided by the 2017 Census American Community Survey was $41,146 in 2017 dollars. Using an inflation calculator from the U.S. Bureau of Labor, the mean household income for Athol is $42,670 in 2019 dollars. **Table 2** shows the labor force distribution by industry.

Table 2 - 2017 Employment Distribution

Employment Distribution			
Industry	Athol	Idaho	USA
Public administration	2.7%	5.3%	4.9%
Arts, entertainment, and recreation, and accommodation and food services	11.4%	8.7%	9.5%
Educational services, and health care and social assistance	16.7%	22.4%	23.2%
Manufacturing	10.9%	9.9%	10.4%
Agriculture, forestry, fishing and hunting, and mining	6.3%	5.7%	2.0%
Retail trade	8.7%	12.2%	11.6%
Construction	15.0%	7.1%	6.2%
Finance and insurance, and real estate and rental and leasing	4.9%	5.3%	6.6%
Professional, scientific, and management, and administrative and waste management services	10.6%	9.8%	10.9%
Information	4.1%	1.9%	2.1%
Transportation and warehousing, and utilities	2.5%	4.8%	4.9%
Other services, except public administration	4.9%	4.3%	5.0%
Wholesale trade	1.4%	2.6%	2.7%

The education/healthcare/social assistance, construction, arts/entertainment/recreation/food service, and manufacturing industries combined employ 54% of the working population. These categories are all 10% of the population or greater. Unless there are significant changes to the economic development and demographics of Athol, it is believed that the future employment distribution will remain similar to the existing employment distribution. Examples of significant changes include:

- New large employment entity (potential with City expansion)
- Employment entity leaving the area
- Additional housing development (potential with City expansion)

The goal for economic development based on the 2019 Comprehensive plan is to continue to encourage the balance of residential, commercial, and light industrial uses in order to provide a well-balanced tax base. The City seeks to retain and promote healthy existing business and industry and to help attract new business and industry through its regulations and administrations.

2.3.1 FUTURE EMPLOYMENT RECOMMENDATIONS

In 2018, a Super 1 grocery store opened and created approximately 125 new jobs. This was a significant step for Athol and is expected to result in additional future commercial development near this location. It is recommended that the City of Athol coordinates with companies/businesses to perform a traffic impact study as identified by Idaho Board Policy B – 12 – 06 to determine if there are any potential development impacts to the transportation system and identify remediation requirements for the development.

2.4 LAND USE AND ZONING

The Athol Comprehensive Plan was adopted in 2019. It is currently under review and revision by planning and zoning and the city council. The 2019 Comprehensive Plan was used as a reference for this transportation plan since it was the most recently adopted land use document.

The 2019 Comprehensive Plan stated the following goal for future land use: “The Future Land Use Map indicates the desired mix of uses that will foster the community’s goals as expressed within the plan. Land use Recommendation

as set forth in this plan emphasize the importance of planning and cooperation among the jurisdictions and agencies within the area of northern Kootenai County."

The land use designations are based upon the following overall objectives:

1. Encouraging compatible land uses to maintain the quality of community life;
2. Designating sufficient land for residential, commercial and industrial uses;
3. Promoting well planned residential neighborhoods within Athol;
4. Encouraging the development of public and private parks and recreational facilities;
5. Promoting potential land reserves or areas for community services such as schools, public buildings, open space, trails, etc.;
6. Respecting the responsibilities and rights of land ownership.
7. Reinforcing the role of the city in regulating the use of land for the benefit of future generations;
8. Prohibiting uses which violate obscenity statutes and restricting lawful adult oriented businesses so that they will not adversely affect adjacent and neighboring uses and will not initiate or cause deterioration of property values within the neighborhood.

Currently there are 3 different land use types in Athol:

1. Commercial: the commercial designation supports zoning districts for commercial and office use, public buildings, mixed uses in planned unit developments, recreation and park uses, and school uses. Residential may also be permitted.
2. Light Industrial: The light industrial designation supports both light and heavy industrial zoning usually requiring access from a higher order street. This designation may also support zoning for commercial/office uses and public/quasi-public use areas.
3. Residential: This designation reflects lands that are privately owned for normal living purposes. Most of the City falls under this type of land use due to the neighborhoods and housing present.

Figure 5 on the following page shows the overall land use within the City of Athol. It should be noted that this figure does not yet take into account the recent City Limits expansion and the new Super 1 foods grocery store to the east.

2.4.1 LAND USE RECOMMENDATIONS

The land use regulatory authority of Athol is the single most important determinant of where growth will occur. Designation of where future residential and employment growth will be located will determine future needs of the transportation network. At the time of this plan, discussions on a potential development to the northwest of the City are currently occurring. It is recommended that the City continue to work with the developers proposing new building in the City to determine what transportation impacts could be seen by the City's system.

Land use within Athol is expected to expand and change significantly based on population and employment forecasts. This has been the case since the Super 1 food grocery opened and provided more than 100 local jobs. However, if local companies expand operations, or future residential, commercial, or industrial development occurs, it is recommended that Athol and local companies work together to assess traffic, land use, and zoning impacts as part of a traffic impact study according to Idaho Board Policy B – 12 – 06.

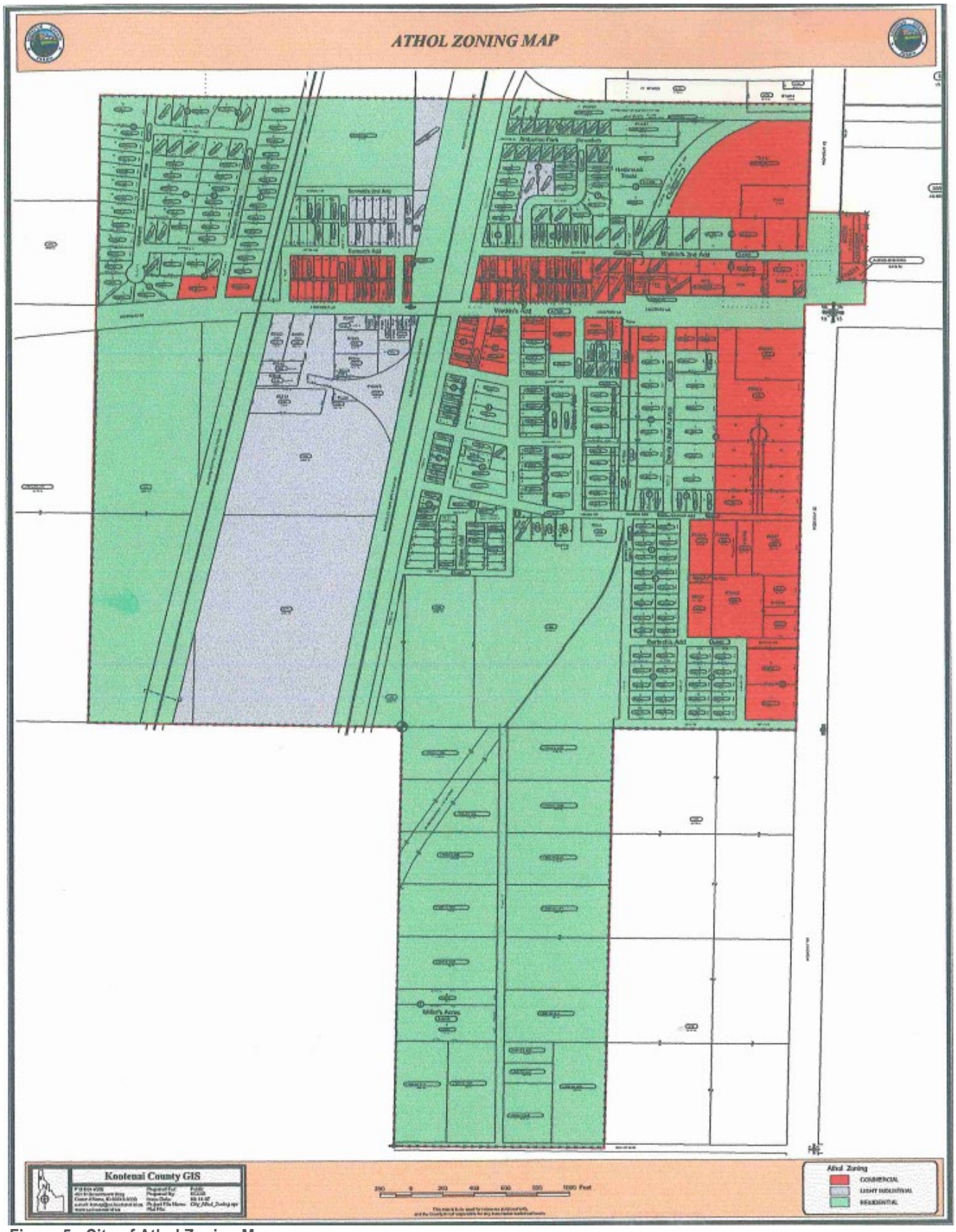


Figure 5 - City of Athol Zoning Map

3 CHAPTER 3 – EXISTING TRANSPORTATION SYSTEM

3.1 ROADWAY INVENTORY

Athol is linked to the rest of southern and northern Idaho from US 95 and to the west and east from Highway 54. Recreational areas are also accessed by Old US Highway 95. Highway 54 provides access to Farragut State Park and other recreational areas to the west. US 95 provides access to the Silverwood Theme park just south of Athol.

The Athol road system consists of approximately 12.27 miles of roadway (including US-54) and approximately 2.21 miles of unpaved surfaces for a total of 14.48 miles of roadway. **Table 3** shows the surface type distribution for Athol's roads.

Table 3 - Road Surface Distribution

City of Athol Roadway Network		
Surface Type	**Miles**	**Percentage**
Asphalt or BST	12.27	78
Dirt or Gravel	2.21	22
Total	14.48	100

All roads within city limits are maintained by Athol with the exception miscellaneous private roads and US-54 which is maintained by the Idaho Transportation Department (ITD). **Figure 7** on the following page shows the surface type of the roadways in Athol.

To determine the needs of the City' roadway system, some existing roads were investigated by the City and reported for documentation by this report. During the investigation, it was found that there is approximately three to four inches of ¾" aggregate base material, which was covered with approximately 2" of asphalt bituminous surface treatment (BST). It did not appear that the City had any typical, flexible asphalt pavement roads. Overall, these roads have appeared to hold up well, but a number of locations experienced severe breakdown and heaving from the winter of 2019. The following section is a rough representation of the existing roadways within the City of Athol (not to scale).

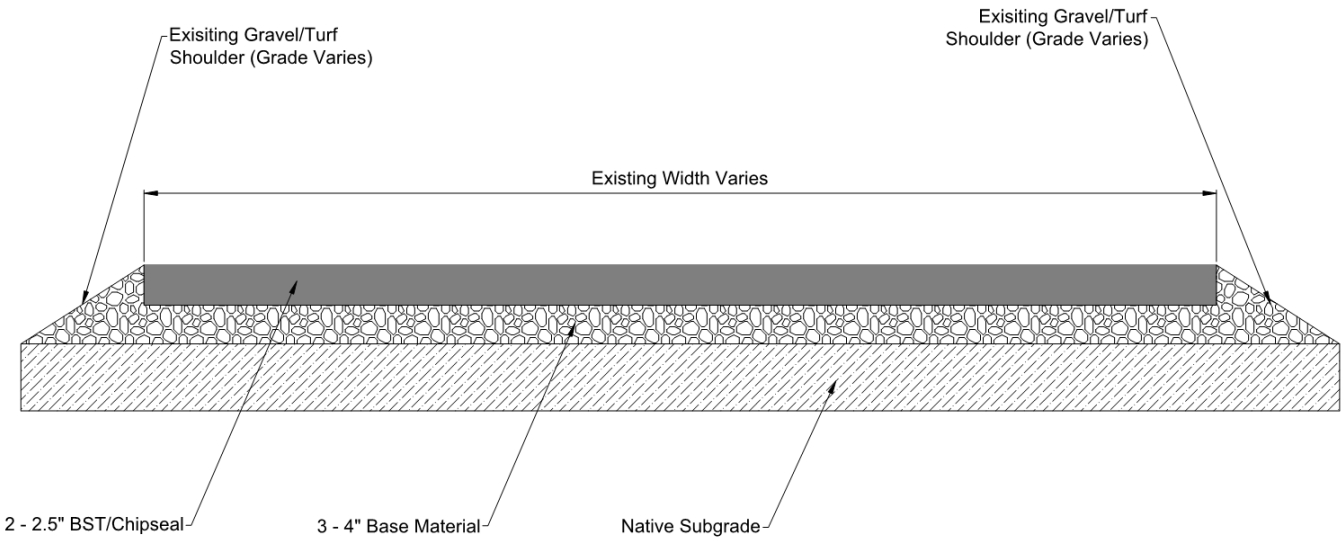


Figure 6 - Athol Typical Roadway Section (Existing)

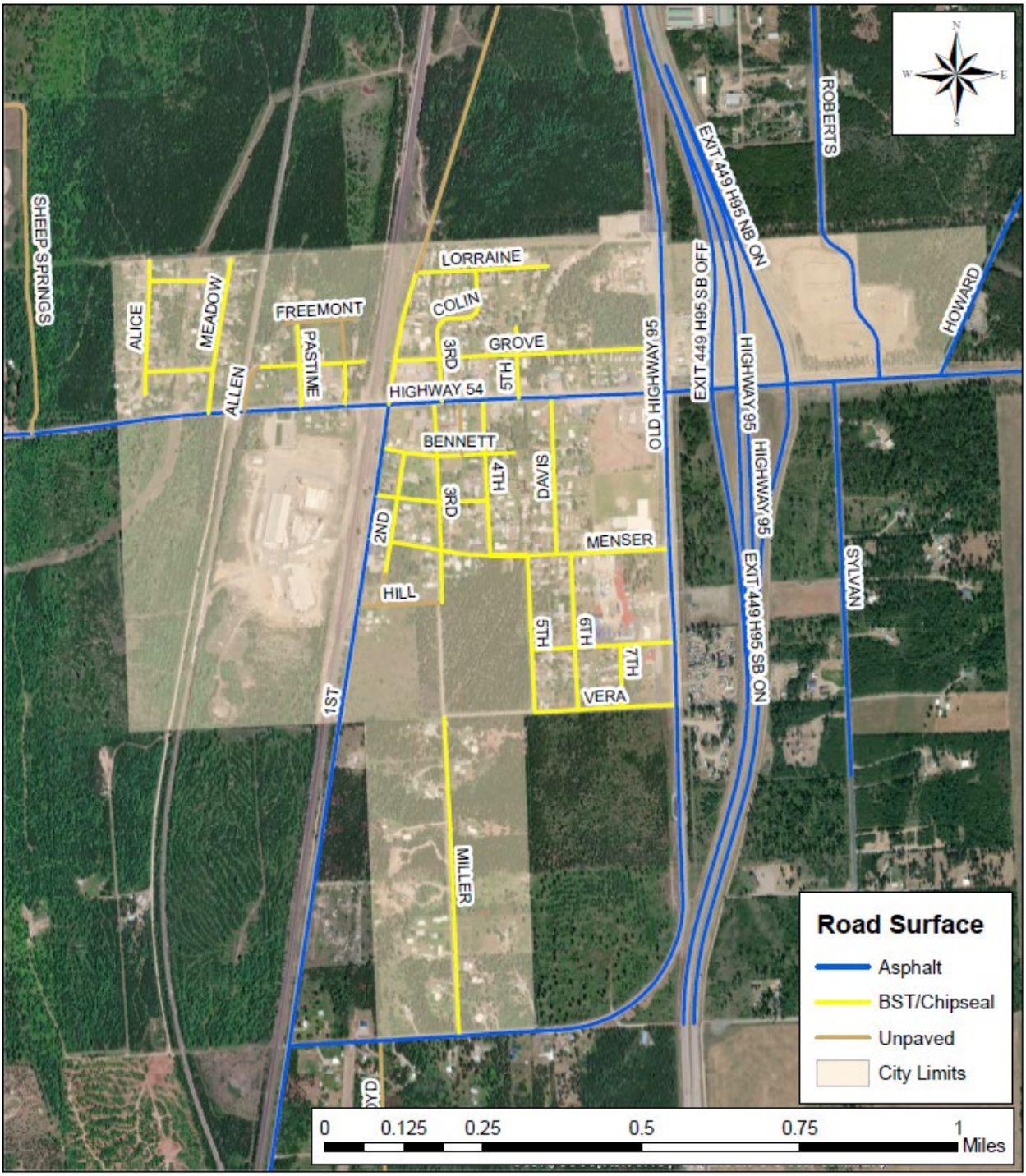


Figure 7 - Road Pavement Surface Type

The City of Athol has varying right-of-way (ROW) depending on the specific roadway and the area of the City. The main corridors (US-54, Old Highway 54, East Menser Avenue, and 3rd Street) all appear to have a right-of-way that varies from 200 feet to 100 feet. The ROW for most of the remaining roads is 60 feet with the exception of certain sections of 1st Street. which has a 50-foot ROW. Pavement width varies from 12 to 100 feet (including nearby Highways and cul-de-sacs). The majority of road surfaces throughout the City are between 15 and 25 feet wide.

Figure 8 shows the general parcel layout for the City of Athol as well as the general available right-of-way on the roadway corridors. The City currently does not have a formal right-of-way map. It is recommended that the city

develop a formal right-of-way map for use and reference in the future. The information shown below is available from Kootenai County upon request. The figure shown is based on what was available from Kootenai County, and is not meant to act as a formal map or to represent precise right-of-way measurements.

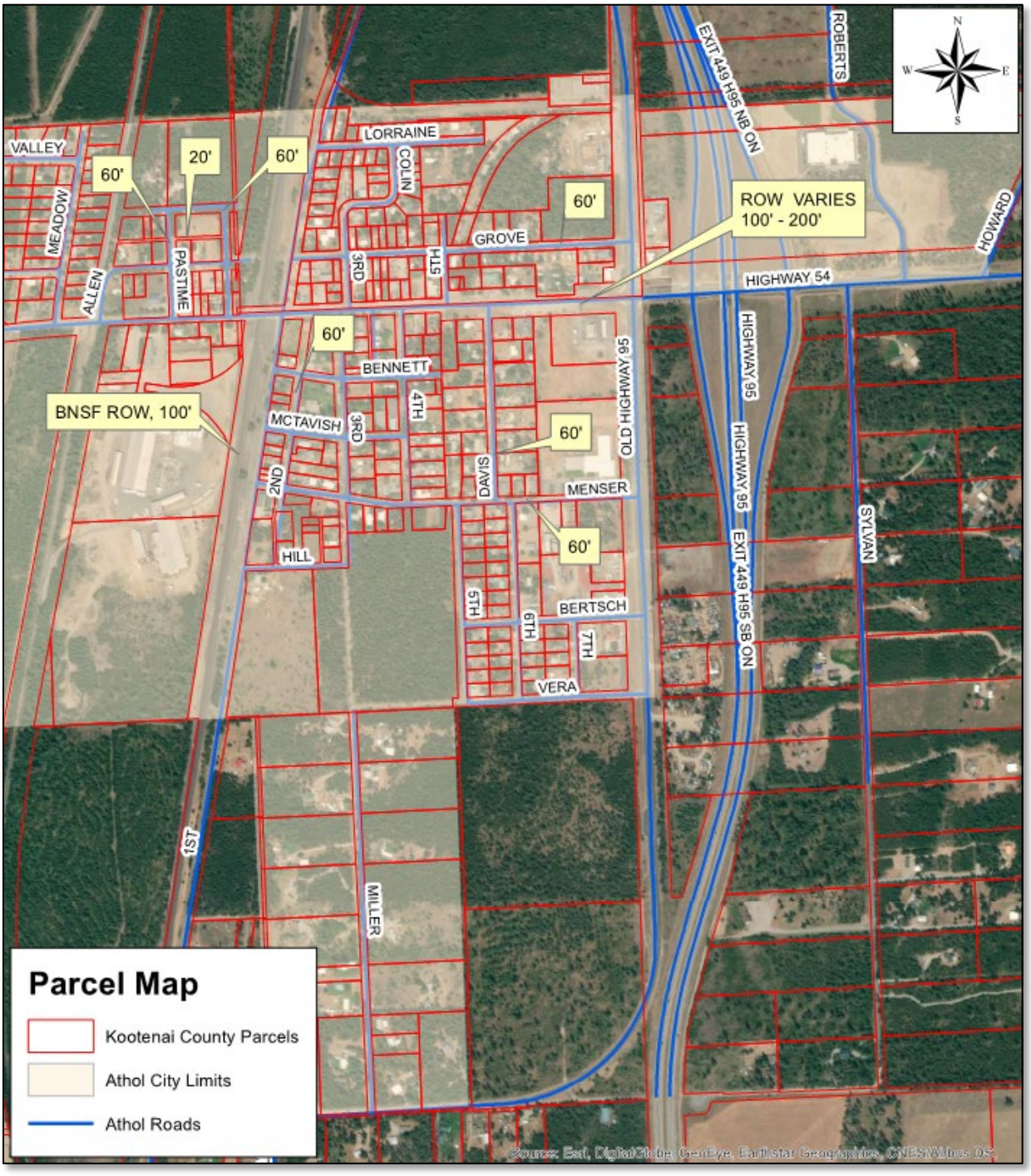


Figure 8 - Parcel and ROW Map

3.1.1 PAVEMENT CONDITION

GIS data was collected for all of Athol's roadways, and a condition inspection was performed in April of 2019. The pavement condition was rated based on varying types of pavement distress which resulted in a Remaining Service Life (RSL) value between 0 and 20 years. The existing pavement was observed to be in fair condition overall but in need of routine maintenance, rehabilitation, or reconstruction (depending on location). The results and details of the pavement analysis are discussed in more detail in Chapter 4 - Asset Management. A complete street inventory and pavement condition report can be found in **Appendix D**.

Picture 1 – Transverse Cracking (1st Street)

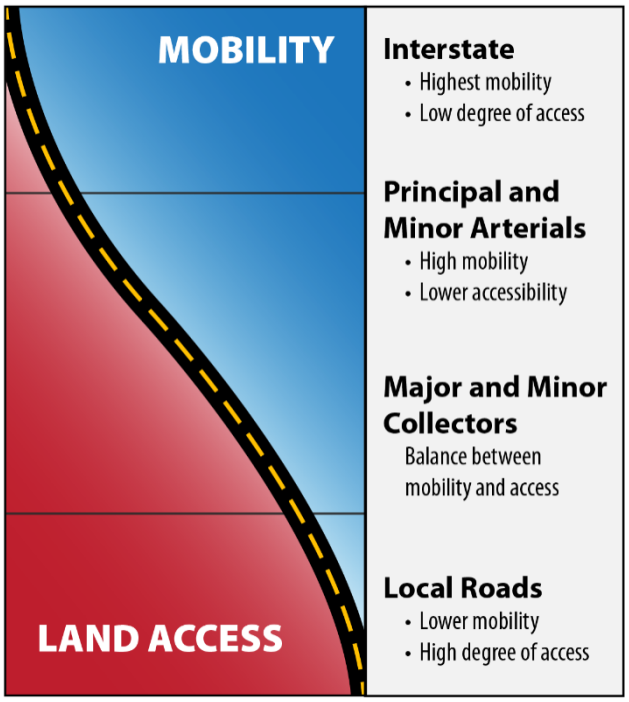
Picture 2 – Fatigue and Block Cracking (3rd Street)

Picture 3 – Fatigue Cracking (Bennett Street)

As mentioned previously, the pictures above show some of the areas of severe asphalt breakdown and heaving that the City witnessed occurring during the winter of 2019. Sections of roadways on 3rd Street and Bennett Street are noted to require repair to prevent these areas from spreading. These types of roadways have responded well to thin overlays (<2") for the City of Athol's neighbor, Spirit Lakes, which had similar issues and blowouts from the last winter. While thin overlays under two inches do not technically provide structural support for the roadway, it has proven to be a successful method to seal the damaged areas and prevent them from spreading. More information about recommended treatments can be found in **Chapter 4**.

3.2 FUNCTIONAL CLASSIFICATION

The Functional Classification System is the process by which streets and highways are grouped into classes according to the type of service they are intended to provide. In simplistic terms, functional classification reflects a roadway's balance between providing land access versus point to point mobility. Generally, roadways fall into one of three broad categories: arterials, collectors, and local roads. Historically urban and rural area functional classification designations differed from one another. In 2013, the Federal Highways Administration (FHWA) changed this policy such that there is no difference between urban and rural classification. The FHWA functional classifications are explained below.



- Principal Arterial
  - Interstate
  - Other Freeways & Expressways (OF&E)
  - Other (OPA)
- Minor Arterial
- Collector
  - Major Collector
  - Minor Collector
- Local

Arterial: These roads have the highest speeds with the goal of providing a high level of mobility with limited access. They are more numerous than interstates and provide a connection between regional areas. Common characteristics of arterials are:

- Moderate to Long Distance
- High Speed
- High Traffic Volume (Can be multilane)
- Link between smaller communities
- Link communities to interstates

Collectors: Collectors gather traffic from local roads and connect them with arterials. They provide the most balance between access and mobility. In rural areas, collectors are often divided into major and minor collectors. Common characteristics of collectors include:

- Moderate distance
- Moderate speeds
- Moderate to high traffic volumes

Local: Local roads, sometimes referred to as residential streets/roads within a city, primarily provide access to land and individual homes but with limited mobility. Common characteristics of local roads include:

- Access to adjacent land
- Shortest distance
- Low speed
- Low volume

These classifications are what are officially recognized by FHWA and ITD. While a local jurisdiction such as Athol may classify their own streets as collectors and arterials relative to local conditions, it is the official FHWA/ITD classifications outlined above that are utilized for funding and planning purposes.

The official Functional Classification of roads in Athol was obtained from the ITD classification website. Most roads are classified as local and serve residential areas, which is typical for small communities. Non-local within Athol's transportation network includes Highway 95 which is a principal arterial, and Highway 54 and Old Highway 95 (depending on the location) which are major collectors. Classifications and known jurisdiction of non-local roads within Athol are summarized in **Table 4**.

Table 4 - Functional Classification of Non-Local Roads

Road	Jurisdiction
Principal Arterial	
US-95	ITD
Major Collector	
Highway 54	ITD
Old Highway 95	Lakes Highway District
1st Street	Lakes Highway District
Sylvan Road	Kootenai County

Figure 9 provides a map of existing functional classifications. Roads classified as major collector, minor arterial, and local are maintained by the city and are in their legal jurisdiction. Private roads are owned and maintained by their respective property owner(s). The city does not have any jurisdiction or responsibility to maintain private roads.

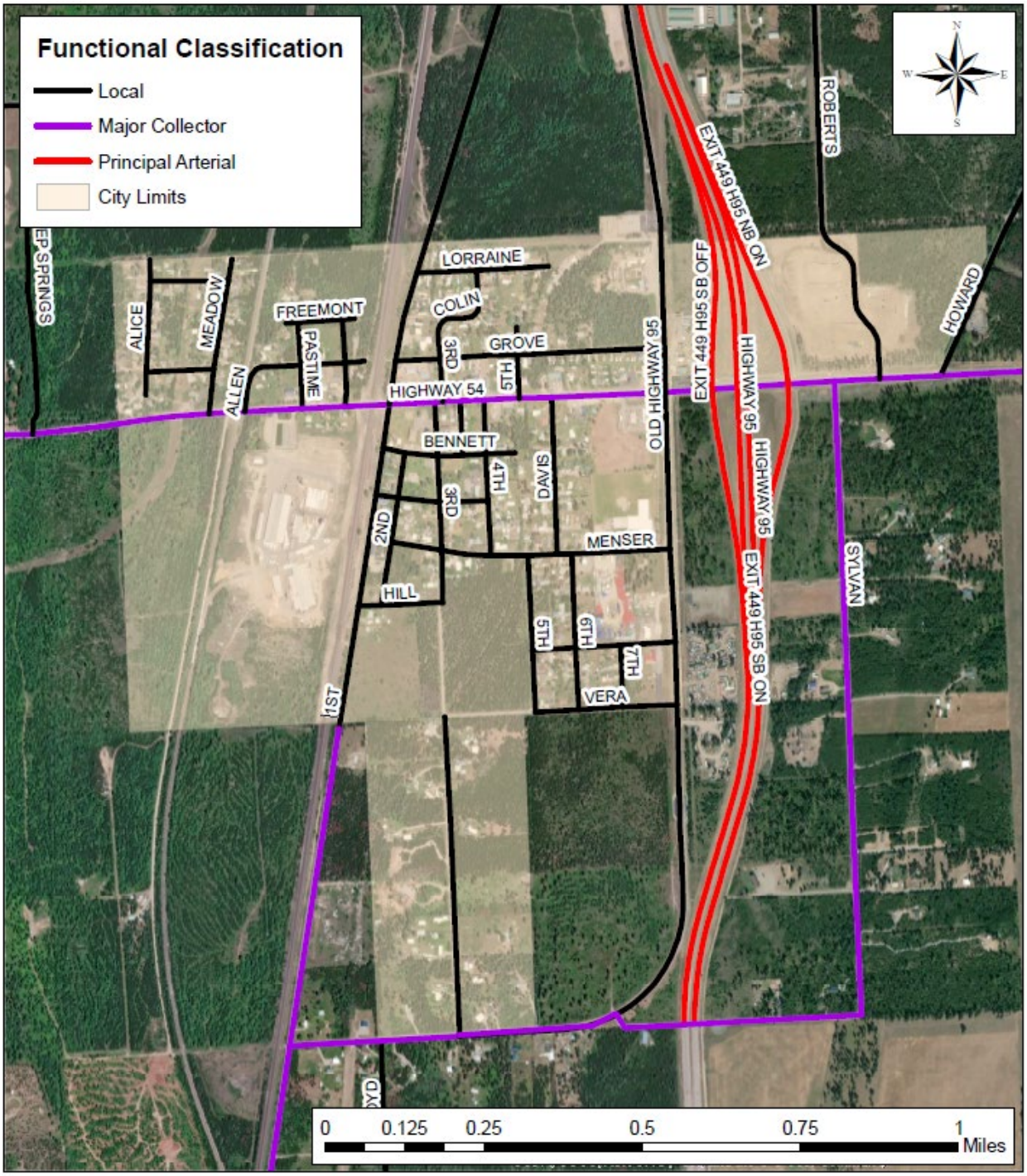


Figure 9 - Existing Functional Classification Map

3.2.1 FUNCTIONAL CLASSIFICATION RECOMMENDATIONS

The CAC expressed little interest in reclassifying any section of roadway and were generally satisfied with the current layout as depicted on **Figure 9**. It is recommended that the City evaluate potentially reclassifying 1st Street (from City limits to Highway 54) to a Major Collector so it matches classification outside of city limits. Some additional coordination will be necessary between the City, the railroad, Lakes Highway District and Kootenai County to determine if this is a feasible option. Also, since the connection between Old Highway 95 and Sylvan Road is no longer existing, it is recommended that the remainder of Old Highway 95 (from 1st Street to Highway 54) be evaluated for the potential reclassification to a Major Collector to match the other portion of the roadway. Similar to 1st Street, this would require some additional coordination with other parties to determine if this is feasible of will add benefit to the City's transportation system.

If development does occur and traffic patterns and volumes do increase, classifications in the area may warrant changes to minor collector or higher. The urbanized area of Kootenai County has traditionally had most of the development activity in the area. The urbanized county is adjacent and connected to the city transportation facilities near Coeur d'Alene. Since the county and city transportation facilities are interconnected, the City of Athol should coordinate with ITD as future development occurs and pursue the reclassification of roads in the area as is warranted. **Figure 10** shows potential future streets and functional classifications.

In general, the functional classification map should be updated as traffic patterns and the functionality of roads within Athol change. It is recommended that the city consult with Kootenai County and Lakes Highway District before submitting a Functional Classification Change Request Form to ITD. This form requires information about the roadway and justification for the request.

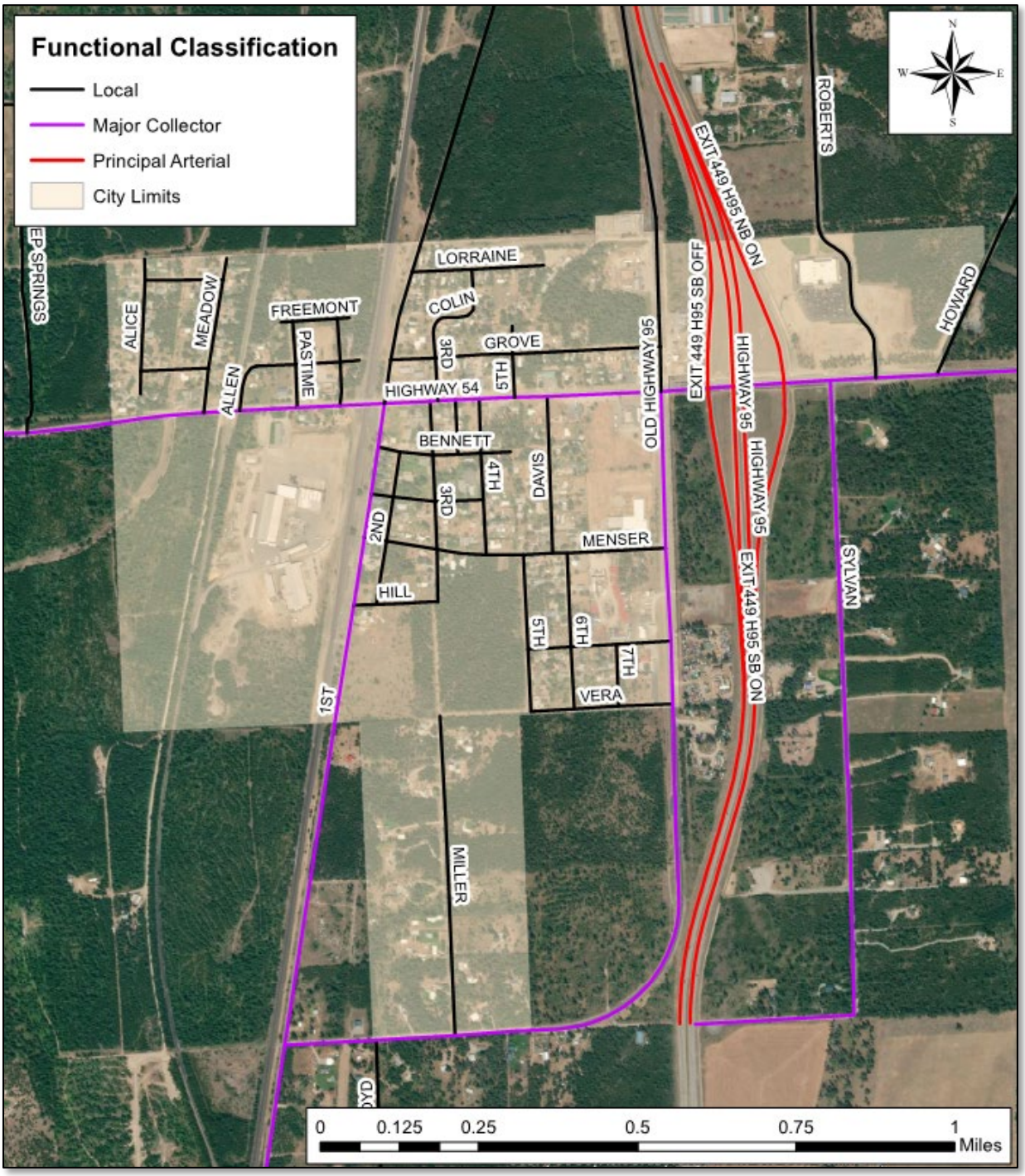


Figure 10 - Proposed Functional Classification Map

3.3 EXISTING TRANSPORTATION STRUCTURES

Athol has two overpasses bridges within the city limits that span US-95. The interstate runs north/south through the east side of the City, roughly parallel to Old Highway 95 on the east side. These structures are maintained by ITD, so they do not require attention from the City of Athol.

There are also two railroad crossing within the City's transportation network, which both cross over Highway 54. The maintenance and operation of these structures are the responsibility of the railroad companies. These crossings are discussed more in-depth in **Section 3.4.4**.

3.4 MULTIMODAL TRANSPORTATION

3.4.1 PUBLIC TRANSIT FACILITIES

The City of Athol currently does not have any consistent public transit facilities (outside of carpooling and typical City travel). It was noted by the CAC that there is a potential for Coeur d'Alene transit services to extend out to Sandpoint in the future. If this project is completed, the City of Athol would like to establish a transit stop in the City. It is recommended that the City continues to remain involved in conversations related to potential transit projects to establish a functional transit stop within City limits.

3.4.2 AIRPORT FACILITIES

The closest airport to Athol, Idaho is the Spokane International Airport (identifier GEG) located southeast along US 95. The Spokane International Airport is jointly owned by the City of Spokane and Spokane County. GEG is the gateway to Inland Northwest including areas such as Seattle, Boise, San Diego, Dallas / Fort Worth, Phoenix, Los Angeles, Minneapolis, Salt Lake City, Las Vegas, Oakland, Sacramento, Denver, and Chicago. The airport is currently serviced by Alaska Airlines, Delta Airlines, American Airlines, Frontier Airlines, Southwest Airlines, and United Airlines. Data available from the Federal Aviation Administration (FAA) shows that there were 1,782,453 enplanements in 2017 and 66,579 enplanements in 2015. Between January 1, 2017 and December 31, 2017 GEG carried out 63,801 airport operations. Of these operations, 40,951 were commercial flights, 7,970 were air taxi, 7,668 were general aviation, and 1,913 were military. The next nearest regional airport is located 109 miles south between Pullman, WA and Moscow, ID. It is serviced by Alaskan Airlines. This airport recently underwent re-construction to bring it up to current FAA standards.

3.4.3 PORT FACILITIES

Athol has no port facilities in proximity to its transportation system. The nearest port facilities are located to the south near the City of Coeur d'Alene.

3.4.4 RAIL FACILITIES

There are currently two rail facilities in Athol, Idaho. The rail facilities in Athol are the Union Pacific Railroad (UP), and the Burlington Northern Sante Fe Railway (BNSF). They provide rail access to the Spokane in Spokane County, Sandpoint, and Newport. These rail facilities haul lumber, grain, fertilizer, paper, fuel, and commercial shipping containers. Contacting BNSF personnel about rail traffic through Athol revealed that there is no exact time schedule. It was noted that rail traffic is liquid, changing every minute, and is largely based off the economy. It was also noted that an average of 55 rail trains will pass through Athol on any given day. This represents a serious impact on the City, both in delaying traffic for minutes at a time, and for the amount of noise that the trains produce each time they pass through town.

Railway traffic has been a primary concern to the City also because it crosses Highway 54 very close to the fire station. When this occurs, the trains will stop traffic along Highway 54 causing traffic to pile up in front of the fire station exit. This is a safety concern as emergency response personnel cannot leave the station due to congestion along the highway. It is recommended that the area in front of the fire station is painted to represent that the roadway in front of the station cannot be blocked at any time by motorists while they wait for the train to clear the tracks in the

event of a fire or emergency within the City or adjacent area (this would require coordination with ITD since it is a main Highway). Trains typically appear to clear the tracks within 5 minutes, but this can still cause backups enough to affect the fire station. At the time of this report, the CAC reported that there had been a pedestrian fatality at the railroad crossing in previous years. It was difficult to find details of this incident due to the method that accidents at railways are usually reported (vehicle related).

3.4.4.1 BRIDGING THE VALLEY

In the past, the "Bridging the Valley" initiative was created to identify railroad crossings that currently cross over highways throughout the Spokane Valley area. The initiative noted that the best way to address grade crossing safety is to reduce the number of at-grade crossings in general. This program originally identified the City of Athol's railroad crossings as one of the crossings that should be addressed in the future. The original brochure and overview of the program can be found in **Appendix H**.

The program proposed that the two existing crossings would be merged into a single crossing, and Highway 54 would be rerouted to an underpass that would cross underneath a concrete railroad structure with three rails. This would eliminate the need for traffic to be stopped and delayed each time a train passed through town. This solution would also provide increased safety for pedestrians that walk along Highway 54 since there would be no conflict with trains.

Figure 11 below shows a preliminary proposed layout of the solution as originally drafted as part of the program. The solution would also create cul-de-sacs on 1st Street and Railroad Street ("A" Street) due to the new highway grade being substantially lower to pass underneath the railroad crossing.

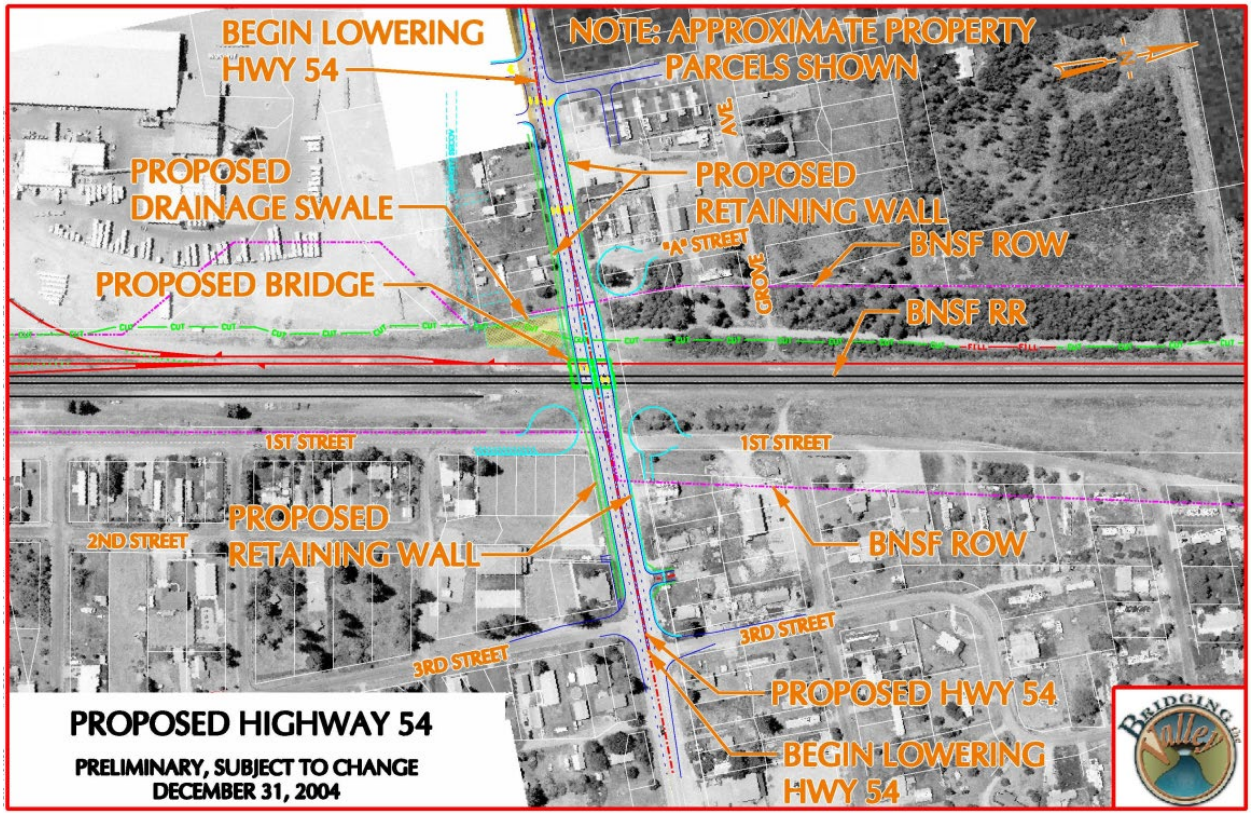


Figure 11 - Proposed Rail Crossing

From recent discussions and coordination with ITD, it was revealed that the program did not appear to be moving forward. The crossing solution would require that the rail companies share the new crossing, which does not sound

feasible at this time. As part of this transportation plan, it is recommended that options such as this crossing continued to be looked at, with support from the City of Athol to pursue an option like this.

In the meantime, it is recommended that the City of Athol pursue establishing "quiet zones" within City limits, which could potentially mitigate some of the noise disturbance that City is consistently experiencing. The City should become actively involved and participate in agencies like the Kootenai Metropolitan Planning Organization and coordinate with ITD to gain support for establishing these zones.

3.4.5 FREIGHT & TRUCK TRAFFIC

Due to the primarily agricultural nature of the Athol area, there is a substantial amount of commercial truck traffic through Athol via US-95 and Highway 54.

Truck traffic on US-95 is not a concern due to the interstate running west of Athol with substantial separation, so trucks do not have to drive through town. However, on Highway 54, there is a large amount of truck and single car traffic that utilizes this roadway which threatens the safety of children walking to and from school who must cross this street every day. To add to this concern, there are only a couple of crosswalks and minimum clear pedestrian crossing signage present on the roadway. It is recommended that more clearly established highway pedestrian crossings are established

3.4.6 BICYCLE/PEDESTRIAN FACILITIES

Athol has no sidewalks within the city but has shoulders on most roadways. From a community survey of Athol written in 2016, it was noted that Athol residents generally expressed dissatisfaction with pedestrian safety. Highway 54 does not have sidewalks, and it was perceived that traffic speeds were generally too high for passing through Athol. Currently, there are also no bike paths or shared lanes within city limits.

It was proposed that the City of Athol would pave the existing gravel trail along the north side of Highway 54 (roughly from Old Highway 95 to Sylvan Road). Since the path is already established, it would require minimal effort and work to pave the path and make it safer for pedestrians and cyclists alike. This is currently a multi-use gravel pathway and coordination with ITD, Lakes Highway District, and Kootenai County is recommended to pursue this project. This pathway would be the first step in establishing an overall pedestrian system in the City of Athol, and would generally allow connection to the Super 1 Foods to the east of the City.

Currently, the City of Athol does not have any existing sidewalks in City Limits. Main Street (Highway 54), Davis Lane, and Menser Avenue are road segments that are established as the busiest within Athol and are also major roadways where school children walk from school to their homes. The CAC also expressed interest in reestablishing old crosswalks on local roads that used to be present. The City would like crosswalks painted across Menser Avenue near 6th Street, across Davis Lane near Menser Avenue, across 3rd Street near Menser Avenue, and across Bennett Avenue near 3rd Street (See **Appendix A** for CIP Map).

3.4.7 MULTI-MODAL TRANSPORTATION RECOMMENDATIONS

It is recommended that, as development and growth occur, the transit system is extended/expanded to meet the community needs for transit service. This expansion of service should consider shifts in population centers in the surrounding community, trend changes in population demographics, and change or addition of traffic generators. The expansion of transit service could include additional routes, extended service hours, and additional transit stops on existing routes.

The closest airport, port, and rail intermodal facilities are not located with the Athol city limits. However, their continued operation has an indirect economic impact on the City of Athol. It is recommended that the City of Athol continues to support the maintenance, upgrade, and expansion of rail and port facilities near the City. This support can be done through the following:

- Developing intergovernmental and inter-agency relationships related to the multi-modal facilities.

- Participation in adhoc committee or planning groups for specific projects related to the airport, port, and rail facilities.

Since Highway 54 passes through the City of Athol, freight and truck traffic have a direct impact on the City. It is recommended that the Highway 54 route through the City of Athol be monitored on a consistent basis to identify opportunities to improve safety, efficiency, and flow of freight and truck traffic through the US-54 corridor within the city limits. This will have to be done in coordination with ITD and their maintenance and roadway improvement projects. Consideration of safety concerns for pedestrian crossings at the school zones must also be considered from possible conflicts with freight and truck traffic. This may include the addition of some type of signalized pedestrian crossing system at the crosswalks within the designated school zone.

The existing bicycle/pedestrian facilities (or lack thereof) have numerous identified deficiencies such as:

- Lack of connectivity from residential and downtown areas.
- Lack of connectivity between parks and residential and downtown areas.

It is recommended that the City of Athol do the following to address the deficiencies in the bicycle/pedestrian facilities:

- Look for grant funding opportunities designated for the maintenance, improvement, and expansion of bicycle/pedestrian facilities.
- Coordinate maintenance, improvement, and expansion of bicycle/pedestrian facilities with corresponding roadway projects.
- As development occurs, ensure connectivity of new bicycle/pedestrian facilities with existing.

Appendix A – Athol Capital Improvements Plan contains a list of proposed bicycle/pedestrian facilities projects with their associated priority.

3.5 EXISTING TRAFFIC VOLUMES

IDT collects traffic data for various roadways throughout the state. Traffic volumes available in Athol were obtained to determine how much traffic is currently using roads in the city. Annual Average Daily Traffic (AADT) is typically the total volume of vehicle traffic on a roadway for a year divided by 365 days. CAADT refers to Commercial AADT (primarily trucks). The existing traffic volumes for the year 2017 are listed in **Table 5** below.

Table 5 – Existing Traffic Volumes

Roadway	AADT	CAADT
Highway 54 (MP 7.38 to MP 8.09)	3,100	10.0%
US-95 (MP 448.03 to 449.08)	16,000	16.1%

Traffic volumes in Athol are well under generally accepted thresholds for traffic volumes on rural, two-lane roads, indicating relatively high levels of service. This is typical for rural roadways. The CAADT however appears to be higher along Highway 54, which is a concern to the City since this route runs directly through town and common pedestrian routes. Highway 54 is a trucking route for the state, so while these higher numbers are expected, they are still not ideal for passing through a small community.

3.6 CRASHES

To better understand the current traffic patterns in the City of Athol, crash data from 2012 to 2017 was analyzed. The source of data was the LHTAC database that contains comprehensive crash locations and causes for all of Idaho. There was a total of 22 crashes reported from 2012 through 2017 in the Athol area. Crashes are categorized by their severity in terms of injury: Fatality, Type A (hospitalization, incapacitating injury), Type B (no hospitalization, non-incapacitating), Type C (possible injury), and Property Damage Only. **Table 6** summarizes the crash severities that occurred in 2012 through 2017.

Table 6 – Crash Severity and Occurrences

Severity	Number of Crashes
Fatality	0
Type A	1
Type B	2
Type C	6
Property Damage	14

The reported crash events and contributing circumstances are listed in **Table 7** and **Table 8**, respectively.

Table 7 – Crash Events

Event	Number of Occurrences	Percentage of Crashes
Head-On / Turning	1	4.35%
Pedalcycle	1	4.35%
Rear-End	9	39.13%
Railroad Train	1	4.35%
Mailbox	1	6.67%
Concrete Traffic Barrier	2	26.67%
Angle Turning	4	13.33%
Light Pole	1	6.67%
Ditch	1	6.67%
Guardrail	1	6.67%

Table 8 – Contributing Circumstances to Crashes

Contributing Circumstance	Number of Occurrences	Percentage Listed
Defective Equipment	3	20.00%
Did not Grant RW to veh.	3	20.00%
Over Center Line	1	6.67%
Failure to Stop (Stop Sign)	1	6.67%
Improper Backing	1	6.67%
Inattention	1	6.67%
Alcohol Impaired	2	13.33%
Distracted in or on veh.	2	13.33%
Operating Electronic Device	1	6.67%

In general, the crashes were spread out across Highway 54. Data shows that 20 of the 23 recorded crashes have occurred on Highway 54 (one (1) with A type evident injury, one (1) with B type, three (3) C type injuries, and eleven (11) with property damage). This is enough evidence to suggest that Highway 54 experiences slightly larger volumes of traffic which has naturally resulted in numerous crashes over the last 5 years. The crash that resulted in an A type

injury was caused by a vehicle's failure to yield for a bicyclist. This type of accident may be mitigated by the establishment of pedestrian and bicycle facilities within the City, which would condition drivers to be aware of this type of traffic.

An intersection worth noting for crashes is 1st Street and Highway 54. There have been multiple accidents within the proximity of this intersection and it should be noted that further study may need to addressed to determine the cause. Since these 3 accidents are property damage crashes (vehicle damage, fence damage, etc.), no injury was documented to the drivers. The crashes appear to be related to either snowy conditions or speeding, which may benefit from additional warning signage before the intersection. Highway 54 is 35 mph while 1st street reduces speed to 25 mph before the intersection, but the higher speeds of the other portions of 1st Street (50 mph) and the Highway may be contributing to accidents at this area. It is recommended that this location is watched carefully by the City and Lakes HD to monitor roadway conditions in the winter, and potentially add additional warning signage. This intersection is also in close proximity to the railroad crossing, so there is a potential that this is contributing to some of these minor accidents.

Other than the intersections mentioned above, there was no more than one accident at any given intersection or along corridors within City limits. With these facts taken into account, it is difficult to draw any relevant conclusions about patterns in the accidents that have occurred. This is typical of small communities like Athol. A map showing the locations of all of reported crashes in Athol between 2012 and 2017 is shown in **Figure 12**.

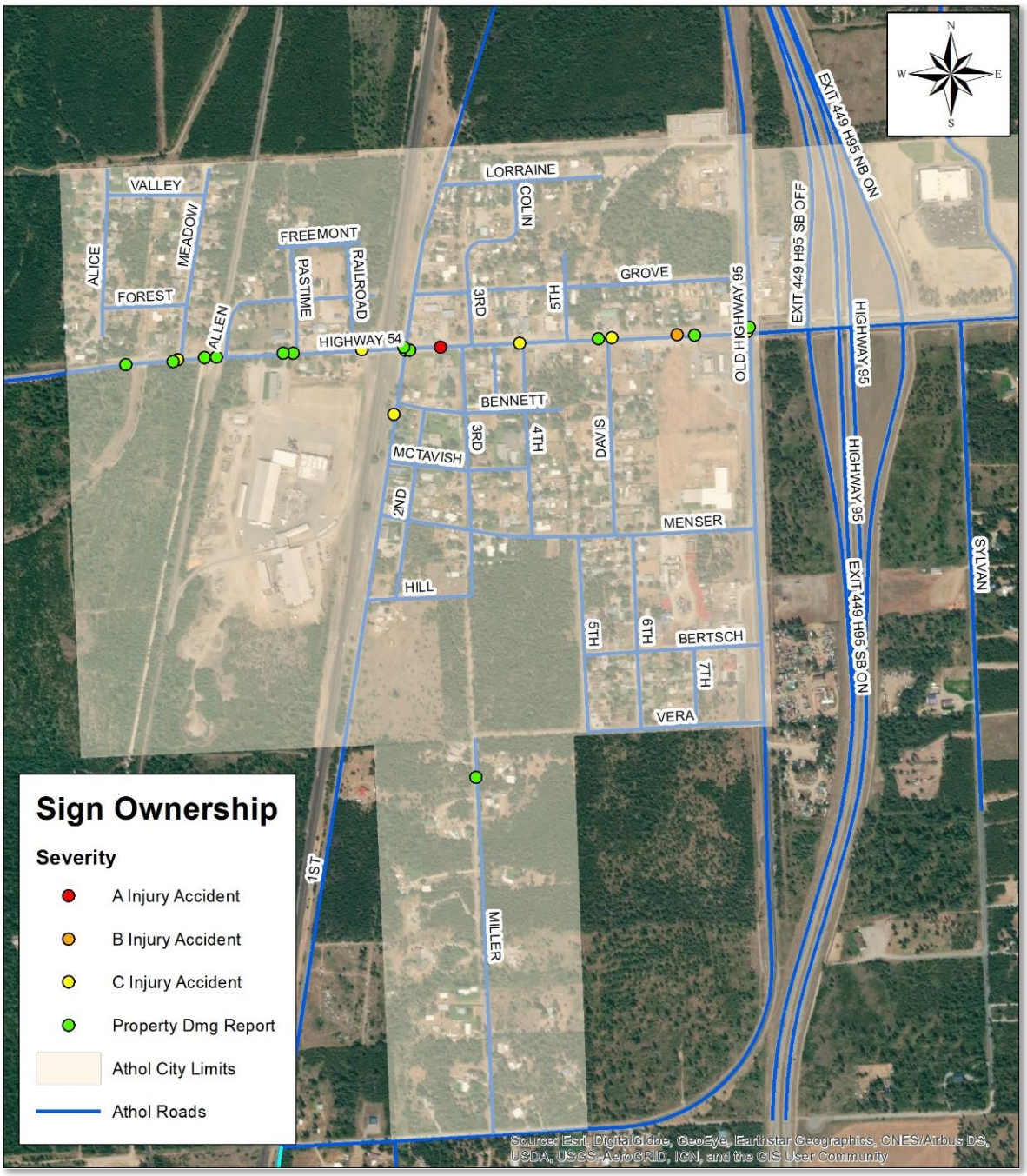


Figure 12 - Crash Data, 2012 - 2017

3.7 SPEED LIMITS

Speed limits throughout the City were recorded and analyzed for consistency. The speed limit in Athol is 25 miles per hour unless otherwise posted. It is posted as 20 miles per hour on certain roadways such as Davis Lane or 6th Street, as it is near the school (school zones). Streets with posted speeds other than 25 miles per hour include various portions of Old Highway 95 and Highway 54.

The posted speed on Highway 54 and Old Highway 95 are 35 mph. The City indicated that there are concerns about vehicles speeding on Highway 54 with no pedestrian facilities such as sidewalks. Currently, there is only one highway crosswalk that children can cross from school, paired with crosswalk identification signs. This is of concern to the community of Athol as children walk along this stretch of road and cross it before and after school. There is also a bus that drops students off on the south side of the highway, so some of these children must cross the highway to get home. It was noted during school hours that an average of 11 students would cross the highway after school finished and the buses dropped them off. It is recommended that established pedestrian crossings with rectangular rapid flashing beacons (RRFBs) be installed at the existing 3rd Street and Highway 54 crossing, as well as at Davis Lane and Highway 54 for a pedestrian crossing near the bus drop-off and the school. This type of project will need to be planned and discussed with ITD directly; ITD can add these signs to Idaho highways, but local jurisdictions need to apply and be approved by FHWA to install this type of signage.

Other roadways that have been reported for frequent speeding include Grove Avenue, Menser Avenue, and 1st Street. The speed limit is currently 25 mph on these roads, but the CAC has discussed options about lowering the overall speed limit within Athol.

The Athol School is located adjacent to Old Highway 95 and Menser Avenue. Posted warning signs in advance of the school indicate school pedestrian crossings and the 20-mph speed limit for the school zone. These warning signs do not have flashing beacon indicators or posted times that the school-zone speed limit is in effect. Without these options, the 20-mph speed limit is difficult to enforce. It is recommended that the City work towards installing flashers for the school-zone signs, or update the signage to include times for the active school-zone speed limits. Athol should work with Lakes Highway District (maintains Old Highway 95) on implementing any future improvements to the school zone or crossings.

The CAC also has expressed interest in acquiring a speed feedback radar sign or two for the City for strategic placement. It is recommended that the City pursue the purchase of this radar feedback sign for use in managing speeding motorists throughout areas of the City.

Additional discussion on signage recommendations and capital improvements can be found in **Chapters 4** and **6** respectively.

4 CHAPTER 4 ASSET MANAGEMENT

An asset management plan is a strategic and systematic process for operating, maintaining, upgrading, and expanding an organization's infrastructure with the goal of maintaining a set standard. In terms of transportation, pavement is typically the most valuable asset an agency possesses. One of the most important programs an agency can implement is a pavement management plan that enables its leadership to make informed decisions on how to allocate resources to best maintain its assets.

The asset management plan detailed in this document involves Athol's pavements and signs. The actual pavement analysis and figures in this report were produced using Transportation Asset Management Software (TAMS), a program produced by the Utah Local Technical Assistance Program at Utah State University.

4.1 PAVEMENT MANAGEMENT

A Pavement Management Program (PMP) consists of the evaluation of existing pavement structures to determine their condition, predict future deterioration, and determine the type of work required to maintain or improve pavements cost effectively. It is a tool that a decision maker can use to improve their decision-making skills. To be used effectively it must be used with good engineering judgment.

4.1.1 PAVEMENT INVENTORY AND CONDITION SURVEY

An existing database of roads in Athol was updated by Keller personnel and linked to a GIS map. The road network is broken into segments, and each segment is assigned a unique identification number in the database. Segments are homogenous management units allowing for a comprehensive inventory with respect to physical features such as width, length, and surface type. Streets are typically segmented whenever they change with respect to physical features, functional classification, or at an intersection.

A pavement condition survey consisting of a visual inspection was conducted in April, 2019 by Keller personnel. Each street segment was inspected to update the inventory. **Appendix E** contains the street inventory and condition data.

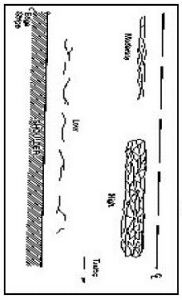
There are multiple methods to evaluate pavement condition. Distress types observed in Athol were rated using a system based on the Strategic Highway Research Program (SHRP) Distress Identification Manual. The SHRP Distress Identification Manual is published by Federal Highway Administration (FHWA) and is a leading resource for pavement condition surveys.

The rating system uses a matrix format that scores the severity of the distress against the extent of the distress. Extent is determined by the amount of road surface area which is affected by the pavement distress. Low extent means the distress appears in less than 10% of the segment. Medium extent means the distress appears in 10-30% of the segment. High extent generally means the distress is present in 30% or more of the segment. Severity refers to how far the cracking has progressed and is often a function of the crack width. For example, a low severity crack is less than ¼ in. wide, a medium severity crack is between ¼ and ¾ in. wide, and a high severity crack is over ¾ in. wide. **Figure 13** shows the distress types and their corresponding rating matrices. More information on the various distress types is discussed in **Chapter 4.1.2**.

The TAMS software uses the results of the condition survey to assign each road segment a Remaining Service Life (RSL). RSL is a value between 0 and 20 that predicts the number of years the pavement has before it reaches the end of its useful life. Based on the RSL and the distress that caused the RSL, a maintenance treatment for each segment is recommended by the software.

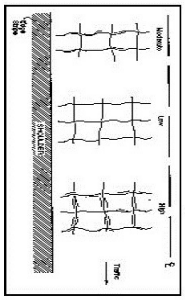
ASPHALT DISTRESS RATING SHEET

FATIGUE CRACKING



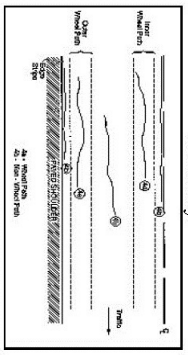
Severity	Extent: Low	Extent: Medium	Extent: High
0 None	1 Crack WP or 1' off C&G Length	2 Crack WP or 1'-2' off C&G Length	>30% of Surface Area or Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

BLOCK CRACKING



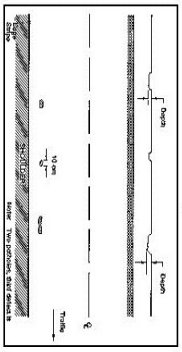
Severity	Extent: Low	Extent: Medium	Extent: High
0 None	> 15'x15' Squares	15'-10'x Squares	< 10'x10' Squares
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

LONGITUDINAL CRACKING



Severity	Extent: Low	Extent: Medium	Extent: High
0 None	1 Crack Full Length	2 Cracks Full Length	> 2 Cracks Full Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

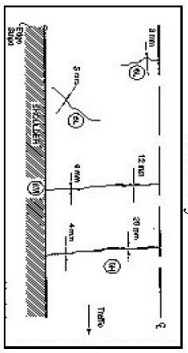
POTHOLES & UTILITY CUTS



Severity	Extent: Low	Extent: Medium	Extent: High
0 None	0-10% of Length	10-30% of Length	>30% of Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

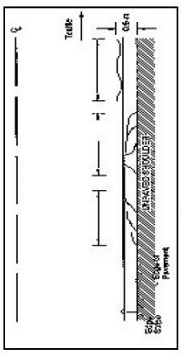
Note: to rate potholes use the same form with the following changes to the severity: **Low** is <1" deep, **Med** is 1"-2" deep and **High** is >2"

TRANSVERSE CRACKING



Severity	Extent: Low	Extent: Medium	Extent: High
0 None	> 100' between Cracks	100'-20' between Cracks	< 20' between Cracks
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

EDGE CRACKING



Severity	Extent: Low	Extent: Medium	Extent: High
0 None	0-10% of Length	10-30% of Length	> 30% of Length
Low 0-6" from Curb	1	2	3
Medium 6-18" from Curb	4	5	6
High 18" from Curb	7	8	9

Drainage / Roughness

Excellent	Good	Fair	Poor

Rutting

Excellent	Low	Med	High
0	<3/8"	1/2"-3/4"	>3/4"

Road Name

From

To

Length

Width

Speed Limit

 # Lanes

Figure 13 - TAMS Asphalt Evaluation Sheet

4.1.2 TYPES OF PAVEMENT DISTRESSES

Below is a discussion of the major types of pavement distresses, including typical causes and repair options. More in-depth information can be found in the SHRP Pavement Distress Identification Manual.

Fatigue Cracking

Fatigue cracking occurs in areas that are subjected to repeated traffic loadings such as in the wheel path. Such wear usually results in a series of interconnected cracks that in later stages will resemble a chicken wire or alligator pattern. Some common causes of fatigue cracking are loss of base support due to poor drainage, increased heavy traffic loading, inadequate structural design, or poor compaction during construction. Due to the failure of the underlying base layer, repair by crack sealing or seal coating is generally ineffective. Fatigue cracking can be repaired by excavating localized areas and replacing the base and sub-base. Large areas of distress require reconstruction of the entire road segment. Improvements to drainage should also be considered during repair.

Longitudinal Cracking

Longitudinal cracks are parallel to the pavement centerline. Centerline or lane cracks are caused by inadequate bonding during construction. They usually start as hairline cracks and widen and erode with age. Longitudinal cracks in the wheel path indicate they may actually be fatigue cracks (see above). If caught early when the severity is low, crack sealing is an excellent repair option. However, if not addressed early they will continue to ravel, widen, develop into multiple cracks, and allow moisture to penetrate and weaken the base and sub-base.

Transverse Cracking

Transverse cracks are perpendicular to the pavement centerline. They are often regularly spaced and generally caused by movement due to temperature changes and hardening of the asphalt with aging. They usually begin as hairline cracks that are widely spaced (over 50' apart). Similar to longitudinal cracks, they will continue to ravel and widen with age and should be treated early by crack sealing.

Block Cracking

Block cracks are interconnected cracks that divide the pavement up into rectangular pieces. Larger blocks are generally classified as longitudinal and transverse cracking. Closer spacing indicates more advanced aging caused by shrinking and hardening of the asphalt over time. Possible causes are usually due to the inability of the asphalt binder to expand and contract. Low severity cracks can be repaired by a crack seal. High severity cracks require a mill and overlay for repair.

Potholes and Utility Cuts

Potholes are small bowl-shaped depressions in the pavement surface that penetrate all the way through to the base course. Most usually occur on roads with thin asphalt surfaces and seldom occur on roads with 4" of asphalt or greater. Generally, potholes are the end result of fatigue cracking often combined with poor drainage. As fatigue cracking becomes severe, small chunks of pavement begin to break away creating the pothole. Utility trenches that exhibit signs of settlement are also a pavement distress. Poor compaction of the trench backfill is usually the underlying cause. Potholes and utility trenches can be repaired by patching, however when the distress becomes extensive, reconstruction is usually the recommended treatment.

Edge Cracking

Edge cracking is the formation of crescent-shaped cracks near the edge of the road. It is caused by lack of support of the road edge, and is sometimes due to poorly drained or weak shoulders. If left untreated, additional cracks will form until it resembles alligator cracking. The appropriate treatment for edge cracking depends on its severity and extent. If caught in the early stages, crack sealing can be very effective. Once the damage has progressed, an overlay or reconstruction becomes necessary.

Rutting

Rutting is a surface depression in the wheel path. There are two basic types of rutting; pavement rutting and subgrade rutting. Pavement rutting is usually the result of insufficient compaction during construction. If not compacted enough initially, the pavement will continue to densify under traffic loads. Subgrade rutting occurs when the subgrade fails due to settlement or lateral movement. In this case, the pavement settles into the subgrade ruts causing the surface depression in the wheel path. The method of repair depends on the type of rutting. Severe pavement rutting should be repaired by a mill and overlay. Subgrade rutting can only be repaired by replacing the entire pavement and failed base.

4.1.3 SUMMARY OF OBSERVED CONDITIONS

Athol maintains approximately 12.27 miles of bituminous surfaced roads. The City has approximately 2.21 miles of roadways with unpaved surfaces. Maintenance performed by the City has typically consisted of asphalt patching, overlays, and seal coats for paved roadways.

Based on the pavement condition survey, Athol's roads were in overall fair condition with a network average remaining service life of 10.0 years as of 2019, and are predicted to deteriorate to an average RSL of 9.0 years by late summer 2020 if no maintenance is performed. The resulting RSL values from the condition survey were broken into five categories or subjective ratings (**Table 9**). A map color-coded to pavement condition is shown in **Figure 14** on the following page.

Table 9 - Subjective Condition Categories

Subjective Rating	RSL Range
Excellent	19 - 20
Very Good	13 - 18
Good	10 - 12
Fair	7 - 9
Poor	0 - 6

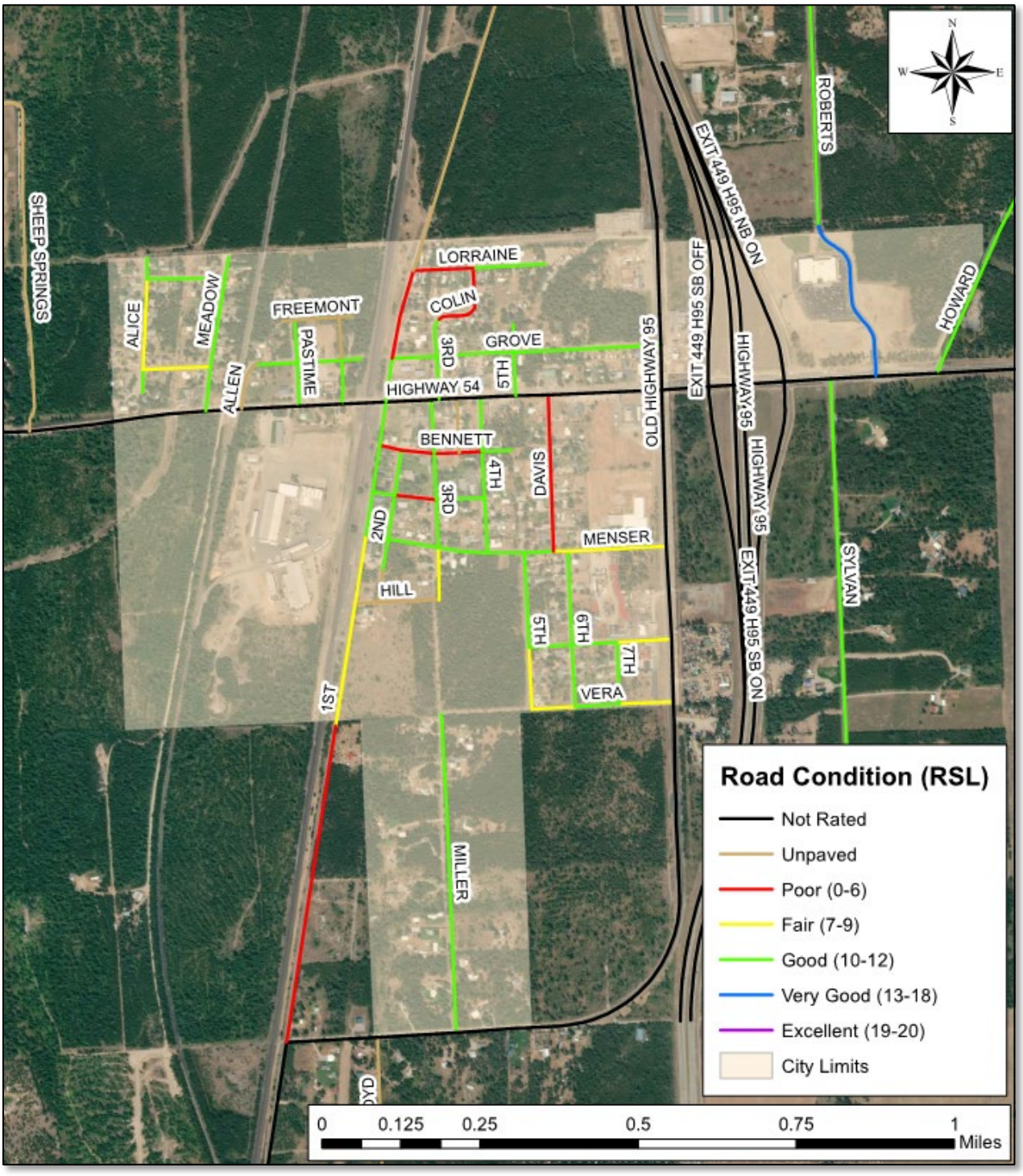


Figure 14 - 2019 Pavement Condition

The pavement condition distribution across RSL categories (years of remaining service life) for the year 2019 is shown graphically in **Figure 15**. This is called a Pavement Condition Distribution Chart.

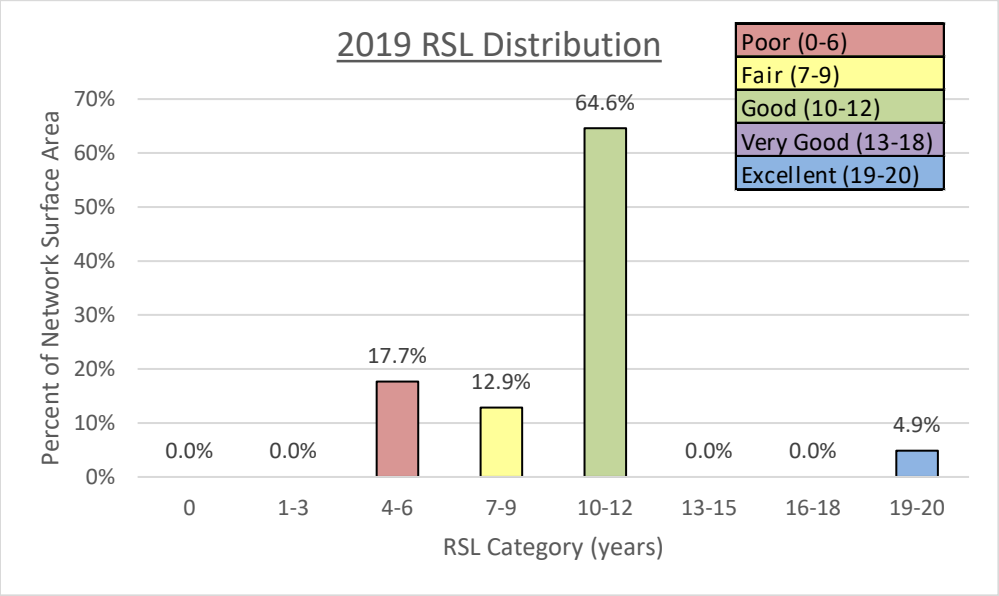


Figure 15 – 2019 Pavement Condition Distribution

The general recommended pavement condition distribution has the following characteristics:

- Average RSL of total network is 10 years or greater
- Less than 3% of the system is at a terminal service level (RSL= 0-3)
- A bell-shaped distribution with the mean falling between 10 and 12 years

Figure 15 shows that Athol's road network currently has a right skew distribution but the mean falls in RSL years of 10-12. As stated, the 2019 average RSL is 10.0 years. In 2020 it is anticipated that there will be approximately 1.5% percent of the entire road network at a terminal service level (three years or less RSL), and approximately 16.2% in the 4-6 RSL range (**Figure 16**). The 2020 average RSL is anticipated to be 9.0 (if maintenance does not occur between now and then).

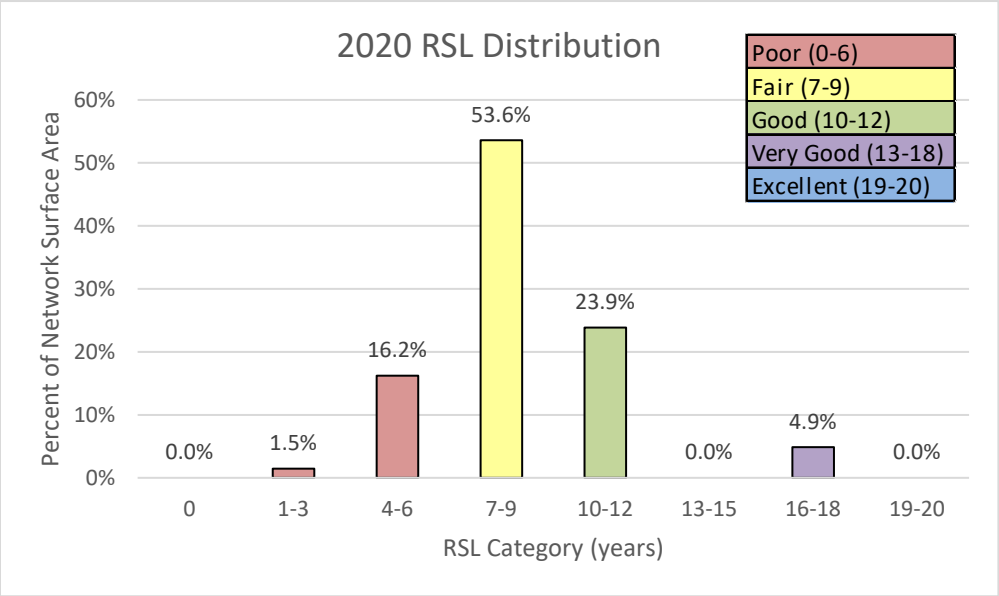


Figure 16 – 2020 Pavement Condition Distribution

4.1.4 IMPORTANCE OF MAINTENANCE

The condition in 2019 presented above indicates a significant financial burden for Athol. The longer maintenance is delayed, the more expensive it becomes. The key to slowing pavement deterioration is to perform maintenance at key intervals. **Figure 17** from FHWA illustrates the general idea behind pavement maintenance.

Performing preventative or routine maintenance early on in the life of a pavement segment betters the condition, and in turn increases the remaining service life. If seal coats and other forms of preventative maintenance are kept up, a pavement segment can generally stay in good condition and prolong its service life above and beyond the design life of the pavement. Major rehabilitation (typically overlays or surface recycling) will also improve the condition and extend the service life of a pavement segment.

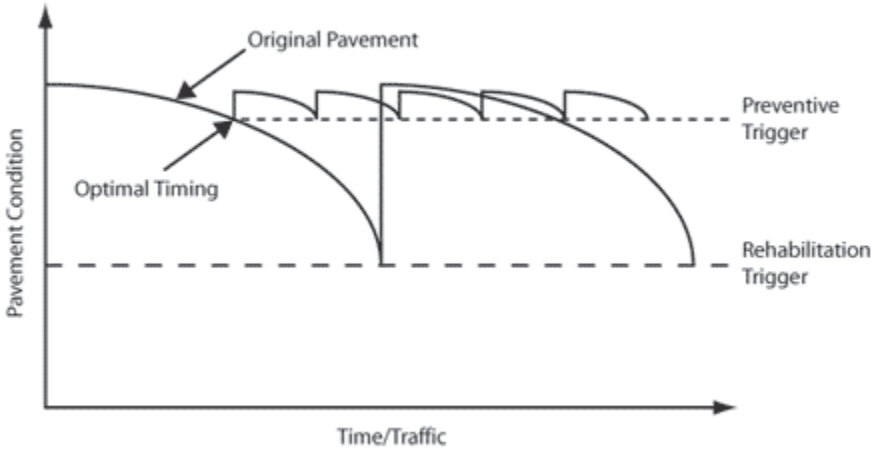


Figure 17 - Generic Pavement Performance Curve

However, timing is critical in regards to performing maintenance activities. **Table 10** shows the effects of treatments applied to pavement in terms of gained service life when applied at various conditions. This chart is useful in determining what treatment to apply and when to apply it. It should be noted that the costs listed in the table are based on state averages, and prices may differ depending on season and location.

Table 10 - Maintenance Performance Chart

Treatment	Maint. Category	Cost/SY	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No Maintenance	None	$ -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Crack Seal	Routine	$ 1.00	0	0	0	0	0	0	0	0	0	0	1	1	1	2	2	2	3	3	3	2	2
Cold Patch	Routine	$ 0.35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Digout and Hot Patch	Routine	$ 0.45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Fog Coat	Routine	$ 0.50	0	0	0	0	0	0	0	1	1	1	1	1	2	2	2	2	2	2	2	2	2
Single Chip Seal	Preventative	$ 3.30	0	1	1	1	3	3	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Slurry Seal	Preventative	$ 2.20	0	1	1	1	3	3	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Microsurfacing	Preventative	$ 3.70	0	2	2	2	3	3	3	5	5	5	5	7	7	7	7	7	7	7	7	7	7
Thin Hot Mix Overlay (<2in)	Rehabilitation	$ 5.90	0	4	4	4	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Rotomill & Inlay (<2in)	Rehabilitation	$ 10.50	0	4	4	4	7	7	7	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Rotomill & Thick Inlay (3in)	Reconstruction	$ 12.00	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
CRABS/Pavement Replacement (8/3 in.)	Reconstruction	$ 12.30	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
Subbase/Base/Pavement Repl. (12/6/3in.)	Reconstruction	$ 31.60	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20

The yellow band on the chart shows the optimal balance of applying a particular treatment at the right time to get the most “bang for your buck”. It is far more cost efficient to perform routine and preventative maintenance than it is to let a road deteriorate to poor condition. The most that can be gained from chip sealing a road is 1 year in RSL if it currently has 3 years RSL. A combination of routine, preventative, and rehabilitative maintenance along with forms of reconstruction will slow the deterioration of the network and extend the remaining service life, however.

Chip seals cost roughly one tenth the cost of full reconstruction. Reconstructing a brand-new road will result in a good condition road for 10 years, at which time you can chip seal and maintain that good condition for several more years. Ideally you would want to chip seal a brand-new road sooner than 10 years after construction, however.

The recommended treatments from the TAMS software program for each road segment as of 2019 are shown in **Figure 18**. These treatments are recommended by the TAMS program based on the distress data collected in Athol and represent the optimal treatment for each road segment. It is important to note that **these treatments are valid only for a short time frame**; this time frame is about 2 years because as maintenance is neglected, the pavement distresses present will worsen in extent and severity, and the treatments recommended here may no longer be cost effective. Performing all recommended maintenance at once is not realistic due to financial constraints.

4.1.4.1 RECOMMENDED TREATMENTS

The pavement management software recommends treatments based on inputted pavement ratings. These treatments are recommended based on the governing distress of a pavement segment. The concept of governing distress is explained as follows: If there were only one type of distress present in a pavement segment, that distress would be the governing distress, and the RSL assigned to that governing distress would be the RSL of the pavement segment as a whole. When there are multiple pavement distresses present, each particular rating corresponds to a particular RSL value; the governing distress is the distress present that results in the lowest RSL. The RSL resulting from the governing distress is the RSL assigned to the pavement segment as a whole.

Recommending treatments this way assumes that the governing distress is the predominant distress that should be addressed. Understanding how the software recommends treatments is important, because there may be more than one cost-effective treatment option. For example, a road may have several transverse cracks and a few locations with edge cracking. TAMS might recommend crack sealing to address the transverse cracks. However, this particular road may also be a good candidate for a chip seal. The best treatment would be to chip seal thus sealing the surface and prolonging the life of the road. It is important to note it is good practice to seal cracks prior to any seal coat.

In general, roads in good condition or better (RSL 10 or greater) are good candidates for seal coats. Minor potholes should be patched and cracks should be sealed prior to a seal coat. Roads in fair condition generally respond well to thin, non-structural (< 2 in.) asphalt overlays. Some fair-condition roads can also be seal coated. Roads in poor condition require major rehabilitation such as milling or recycling and overlay, or reconstruction.

A map showing treatments for roadways in Athol is shown in **Figure 18**. **These recommended treatments are valid only for a short time**, perhaps two years, because as the recommended maintenance is put off, the roads will continue to deteriorate. **A road in good condition now may be in fair or poor condition a few years from now, and may require more extensive and expensive treatments.**

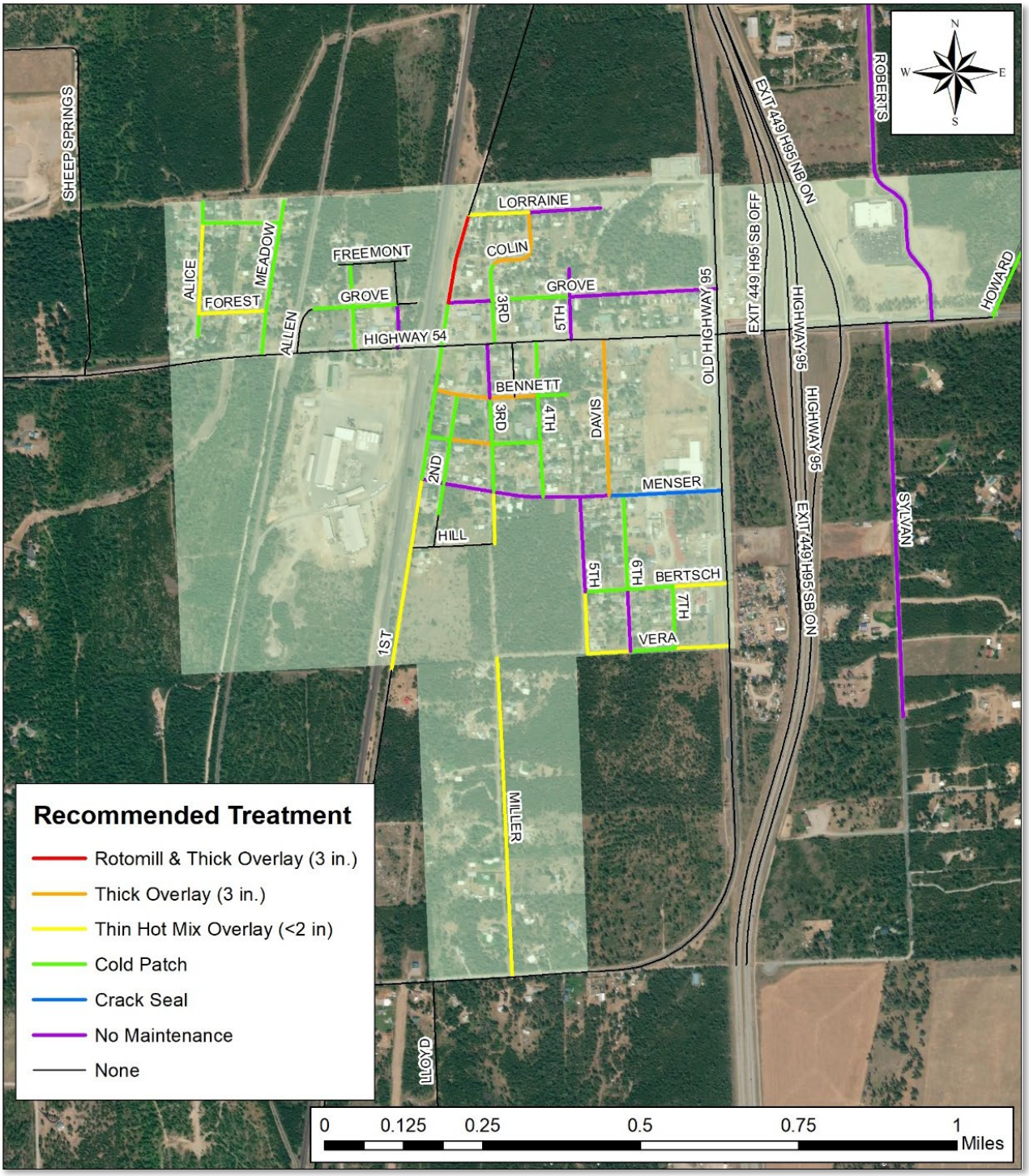


Figure 18 – Recommended Treatments

4.1.5 PAVEMENT ANALYSIS

Several scenarios were analyzed to determine the effects of various maintenance funding levels. These scenarios provide planning-level information for decision makers and are not exact. Pavement can deteriorate faster or slower than assumed in the analyses.

4.1.5.1 SCENARIO 1: PERFORMING NO MAINTENANCE

If roadway maintenance is neglected, the condition of the Athol street network will continue to deteriorate. TAMS condition distribution forecasts for years 2019 and 2023 are shown in the figures below.

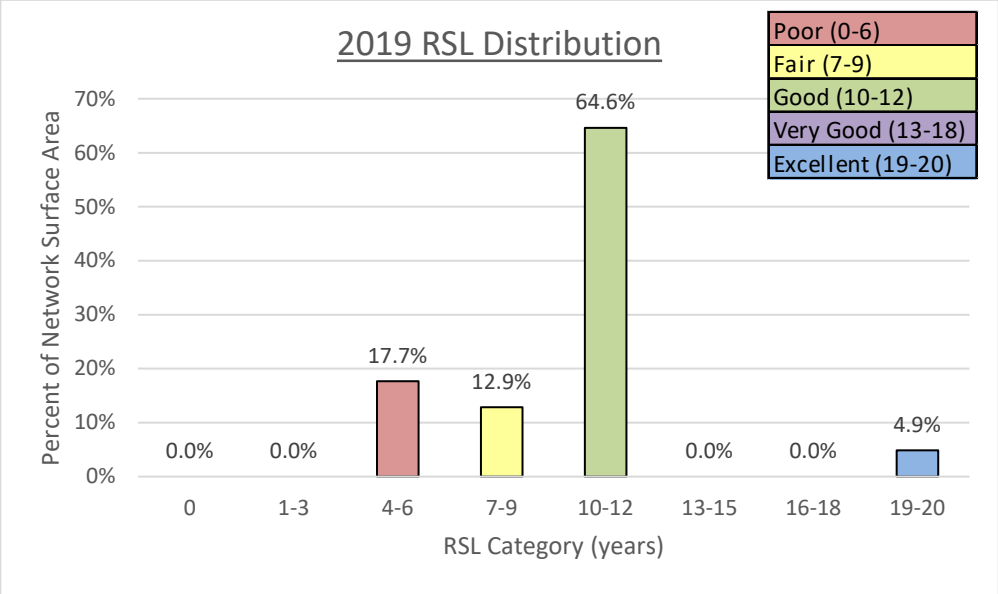


Figure 19 - 2019 Condition Distribution (No Maintenance)

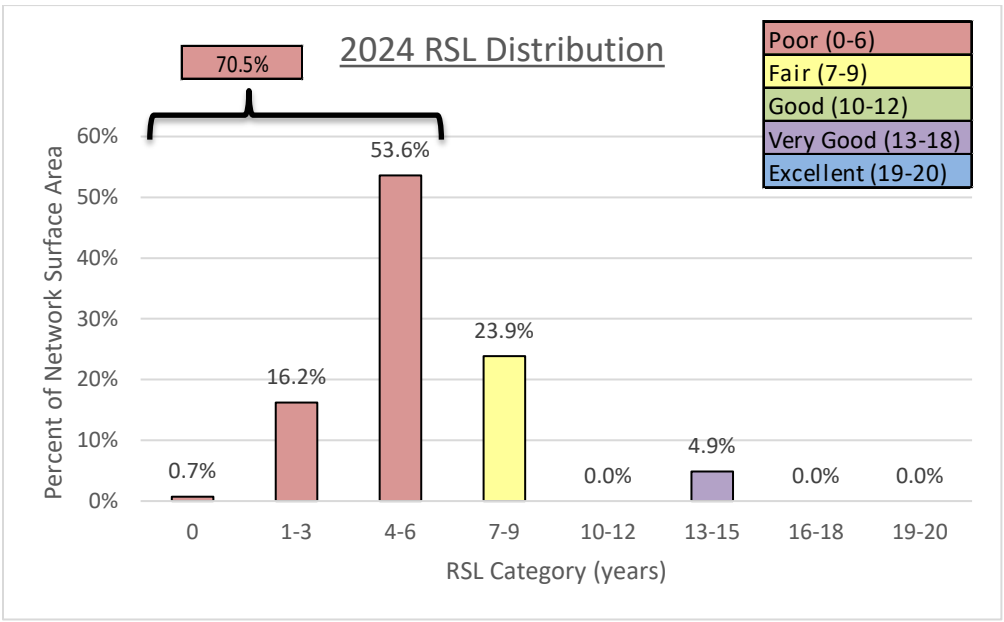


Figure 20 - 2024 Condition Distribution (No Maintenance)

Performing no maintenance will cause the network RSL to deteriorate to 8.0 years by 2021 and 5.0 years by 2024. This would result in an unmanageable condition for Athol. While it is not realistic to assume that absolutely no maintenance will be performed over time, this helps illustrate the needs of the road network and the importance of performing yearly maintenance.

4.1.5.2 EXISTING AVERAGE MAINTENANCE BUDGET EFFECTIVENESS

Athol's Annual Road and Street Financial Budgets and expenditures were discussed with the City. Paved roads have typically been maintained with patching, and seal coats. The amount spent on these activities were used as an annual budget for pavement maintenance. The average over the four-year period was calculated to be approximately $5,000 to 7,000. After Discussion with the Public Works supervisor, the city is able to save around $11,000 annually. With a buildup in savings it was determined that the City of Athol could spend up to $20,000 on roadway repairs. At the time of this report, the unit cost for chip sealing is estimated to be approximately $3.60 per square yard. This cost does not take into consideration the cost of mobilization, traffic control, and incidentals. This price reflects recent increases in construction costs from 2017-2019. If it is discovered that prices have dropped in future years, it is recommended that these numbers are updated to reflect current market prices. $20,000 will chip seal less than 10 percent of Athol's roads.

4.1.5.3 SCENARIO 2: CHIP SEAL ELIGIBLE ROADS WITH AVAILABLE BUDGET

Another scenario was analyzed that focus on chip sealing eligible roadways (in the RSL 7-9 and 10-12 range). Each year beginning in 2019, the City would chip seal as many eligible roadways as budget permits. This would result in a network average RSL of 6.1 years in 2024. The annual cost for this scenario is assumed to be approximately $20,000 as discussed previously. In 2024 approximately 24% of the network would be at RSL 0-3, and almost 51% would fall at RSL 6 or lower. The RSL distribution for this scenario for year 2024 is shown in **Figure 21**.

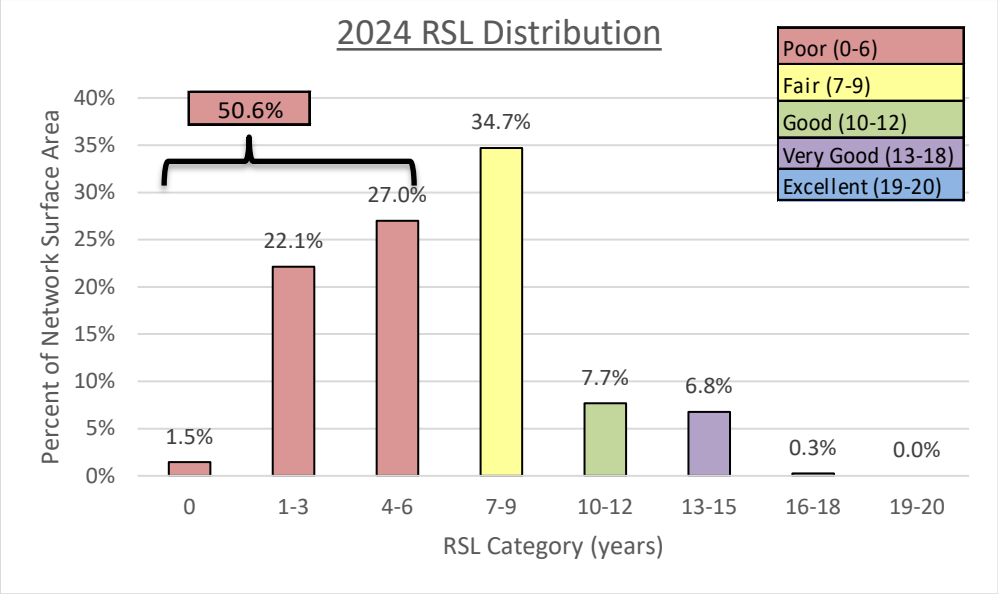


Figure 21 – Scenario 2 RSL Distribution in 2024

While chip sealing eligible roadways with potential City budget would maintain roadways slightly better than the no maintenance scenario, the roadway network would continue to deteriorate to worse conditions. A higher yearly budget will be necessary to maintain the network at current conditions, let alone to increase the average RSL of the roadway network into the future.

4.1.5.4 SCENARIO 3: PRIORITIZE OVERLAYS

Another scenario was analyzed that focused on overlaying eligible roadways. Each year beginning in 2020, roadways eligible for thin and thick overlays (prioritizing roadways with lower RSL values) would have rehabilitation work completed. For the purposes of this scenario, a budget of $80,000 per year was assumed for roadway maintenance to determine if it created a sufficient increase in the City roadway network condition. This scenario would result in a network average RSL of 8.0 years in 2024. In 2024 0% of the network would be at RSL range of 0-3. This scenario would allow the City to maintain the existing roadway conditions, but outside funding sources would

likely be required to aid the City in raising the average RSL of the overall network. The distribution for this scenario for year 2024 is shown in **Figure 22**.

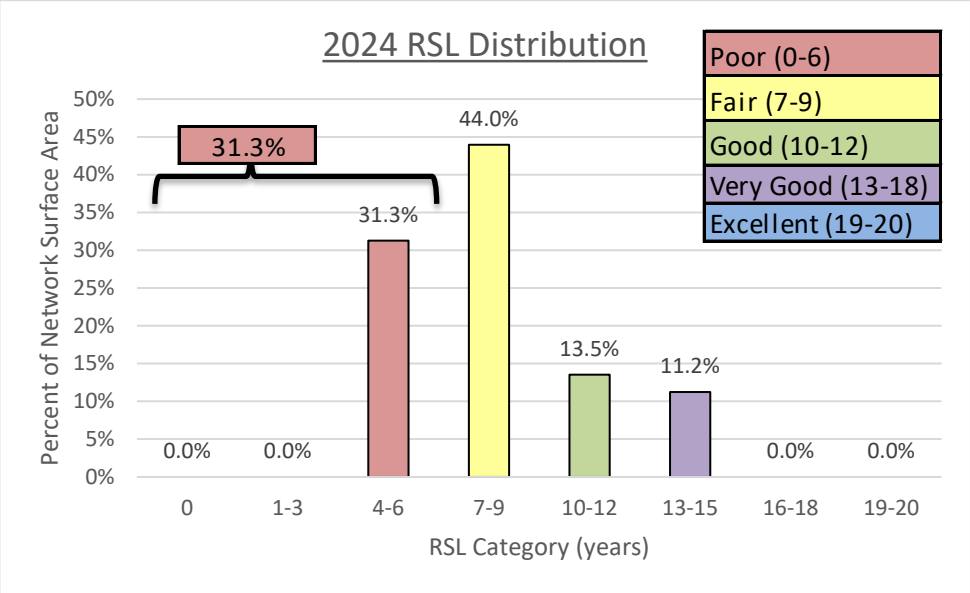


Figure 22 – Scenario 3 RSL Distribution in 2024

The distribution above shows a more favorable RSL situation for the City of Athol. The distribution resembles a more typical bell curve distribution, but is still skewed towards the left (overall lower average RSL). While Scenario 3 carries a much larger financial budget than is currently being implemented in the City of Athol, it demonstrates the current need to bolster the City's roadway maintenance budget to prevent roads from dropping into disrepair.

4.1.5.5 SCENARIO 4: MAINTAIN OR RAISE AVERAGE RSL

The final scenario that was analyzed was the estimation of budget that would be required to allow the City to maintain or begin to raise the roadway network's average RSL value. To determine this budget, overlays and chip seal projects were simulated to take place on the City's roadways to increase the average RSL. Through trial and error, it was discovered that it would require approximately $150,000 of overlay and chip seal work per year to provide the City with a rising average RSL value. While this number is an unrealistic budget for the City of Athol, it demonstrates the need for the City to solicit outside funding resources to maintain and improve the roadway system.

4.1.6 RECOMMENDED PAVEMENT MAINTENANCE STRATEGY

It is recommended that Athol implement a 5-year seal coat cycle, if financially feasible. Each year, one fifth (20%) of roads in Athol should be chip sealed. A typical seal coat will add up to five years of service life when applied to a road in good condition. Streets in Athol could be broken into geographic areas or zones and each year one zone would be chip sealed. With such a cycle, the entire road network would receive a sealcoat within five years and the cycle could start over. Patching and crack sealing should be done prior to applying a chip seal. The cost to chip seal one management zone (roughly 20% of entire road network) is estimated to be approximately $82,000 (based on a chip seal cost of $3.50 per square yard as previously discussed). It is understood that this is well outside of the City's current annual roadway budget, but it will serve as a helpful tool for the City in planning maintenance of roads in the future.

The City of Athol currently budgets approximately $5,000 to $7,000 annually for road maintenance. The management zones may have to be broken up in $7,000 pieces for the next few years until the City of Athol can create a savings cushion and identify additional funding sources such as LHTAC funding opportunities to help generate revenues needed for maintenance and preservation of roads.

Roads in a given zone that require maintenance beyond routine seal coats should be rehabilitated the year before they are scheduled to be chip sealed. Rehabilitation treatments typically involve thin, non-structural overlays (< 2 in.), surface recycling, and leveling courses. If prolonged, reconstructive treatments will be required. It is also recommended that the condition of roadways be rated every two to three years.

It is important to note that the unit costs in the above analyses assumed contracted work. Pavement maintenance costs largely depend on the price of oil which fluctuates year to year, though has overall increased over the years. Savings may be experienced if the City is able to work with the County or other local highway districts, perhaps by paying labor and materials, which could be cheaper than contracting work.

Full reconstruction should be viewed as a worst-case scenario and may not be necessary; geotechnical investigation will determine conditions beneath the asphalt layer including base, subbase, and in situ or native soils. However, many old roads in Idaho don't have adequate base material, and are simply layers of bituminous surface treatments (BST), essentially chip seals, that were applied to dirt roads and have been built up over time to resemble and asphalt mat (much like the City of Athol's). Potentially cheaper alternatives to full reconstruction could be considered. Alternatives include CRABS, RABS, Hot or Cold In-Place Recycling (HIR or CIR), or full depth reclamation (FDR); these methods often require contracted work as local jurisdictions do not have the equipment or expertise to do this type of work. **All road work should be coordinated with utility (water and sewer) work as much as possible and practical.**

The City of Athol has many roads in need of maintenance but too few financial resources to pay for the needed maintenance. The amount of dollars needed for road maintenance and improvements is, and can be, overwhelming for communities such as the City of Athol. **Appendix A – Athol Capital Improvements Plan** (CIP) has the recommended improvements and their associated costs listed in a priority set by the CAC. The CIP is divided between Capital Improvement projects, Preservation projects, and Pedestrian Pathway projects. The CIP provides a road map or plan of what projects to maintain first as funds are available to help the community "*keep the good roads good*" with chip seals and overlays while investigating other funding sources for road reconstruction.

As an example, it is estimated that Davis Lane will cost approximately $245,300 for a reconstruction (reference project R5, **Appendix A**) and $78,700 for an overlay (used for comparison only). If maintenance is taken care of swiftly, then the full reconstruction would likely be able to be avoided (outside of extenuating circumstances such as base material or other geotechnical findings). It is important to focus existing funding on maintenance and surface preservation of the streets that are currently in good condition to prevent more costly repairs in the future.

Funding sources available to the city for road maintenance are generally limited. A pavement maintenance strategy needs to be made keeping in mind additional sources of revenue will need to be developed. These additional sources of revenue are possibly the use of bonds, Local Improvement District (LID), etc. A more detailed discussion of funding sources for road maintenance, preservation, and reconstruction can be found in **Chapter 7 Funding**.

4.2 SIGN MANAGEMENT

A sign management system is a tool to cost effectively inventory, preserve, and improve the sign network. Such a system provides:

- A complete physical inventory of the sign network
- Condition survey
- A needs assessment process
- Compliance with Manual on Uniform Traffic Control Devices (MUTCD) requirements

As part of this Transportation Plan, Athol's sign inventory was updated. The inventory was formatted for the future use by the City of Athol. The sign inventory allows for a detailed inventory of the City's sign network including condition and treatment methods.

4.2.1 INVENTORY AND CONDITION SURVEY

Keller Associates surveyors inventoried traffic sign installations in Athol in April, 2019. A support (post) was rated as follows:

- Acceptable if it was vertical and not bent, if the material of the support was in good condition, if the positioning of the support was correct, and if the support was secured safely.
- Repair was given if the sign support was leaning diagonally, and/or if the support was not safely fastened into the ground. This rating only applied if the support was not bent beyond repair, and if the material of the support (especially at the base) was not deteriorated.
- Replace if it was not positioned correctly, the condition of the material was considerably deteriorated, it was bent beyond repair, or the base attachment was irreparable.

The MUTCD sets forth guidelines and standards for proper sign visibility, condition, and positioning in Rural and Urban locations. A traffic sign was rated as follows:

- Excellent if it appeared to be brand new or without any indication of chips, cracks, rust, bends, or fading.
- Good if it appeared to be in its original excellent condition, with the exception of occasional minor chips, cracks, rust, bends, and/or fading.
- Fair if chips, cracks, rust, bends, and/ or fading were apparent throughout the face of the sign, but not to the point where the sign was difficult to read or understand.
- Poor if the text, numbers, or objects on the sign were defaced to the point that the sign was slightly difficult to read due to its distressed condition.
- Replace if the text, numbers, or object on the sign were defaced to the point that it was difficult to read.

These criteria coincide with MUTCD guidelines for cleanliness and visibility. The condition survey did not evaluate the signs' compliance with MUTCD retroreflectivity standards which are explained in Section 4.2.2. The findings of the inventory and condition survey are summarized in **Table 11** and **Table 12.**

Table 11 - Traffic Sign Condition Summary

Total Signs - 256		
Sign Condition	**Total**	**% Inventory**
Excellent	166	64.8%
Good	58	22.7%
Fair	24	9.4%
Poor	8	3.1%
Replace	0	0%

Table 12 - Traffic Sign Support Condition Summary

Total Supports - 134		
Support Condition	**Total**	**% Inventory**
Acceptable	132	99.2%
Repair	2	0.8%
Replace	0	0%
Support Type	**Total**	**% Inventory**
2 in. Channel	9	6.5%
3 in. Tube	59	44.0%
5 in. Tube	8	6.0%
4x4 Wood	56	42.0%
4x6 Wood	1	0.75%
Telephone Pole	1	0.75%

Overall the sign network in Athol is in good condition. It was noted that the City had replaced a large amount of signage in the past years, so the overall good condition was expected. The condition survey found one support (sign posts) in need of repair or replacement (post was leaning at an angle). Typical data collected for each sign can be seen in **Appendix E**.

There are school-related signs along Menser Avenue to warn motorists of the school. It is assumed that the signs installed on City roads near the school belong to the City of Athol. Any perceived problems with school zone issues should be brought up to the School and coordinated with the City to help resolve motorist concerns.

Figure 23 and **Figure 24** on the following page show the locations of supports and signs, respectively. The location points are color coded to condition.

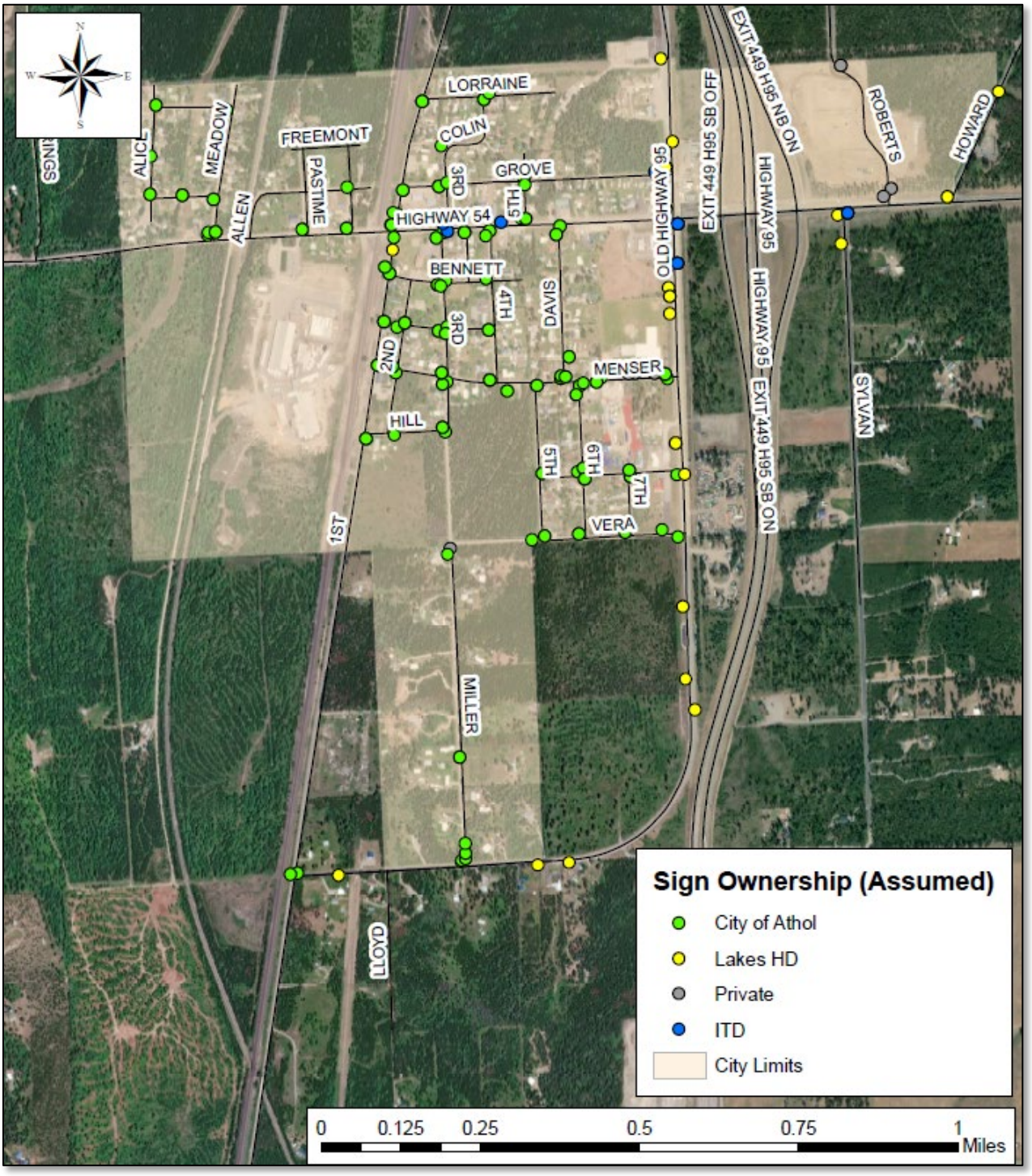


Figure 23 – Sign Ownership (Assumed)

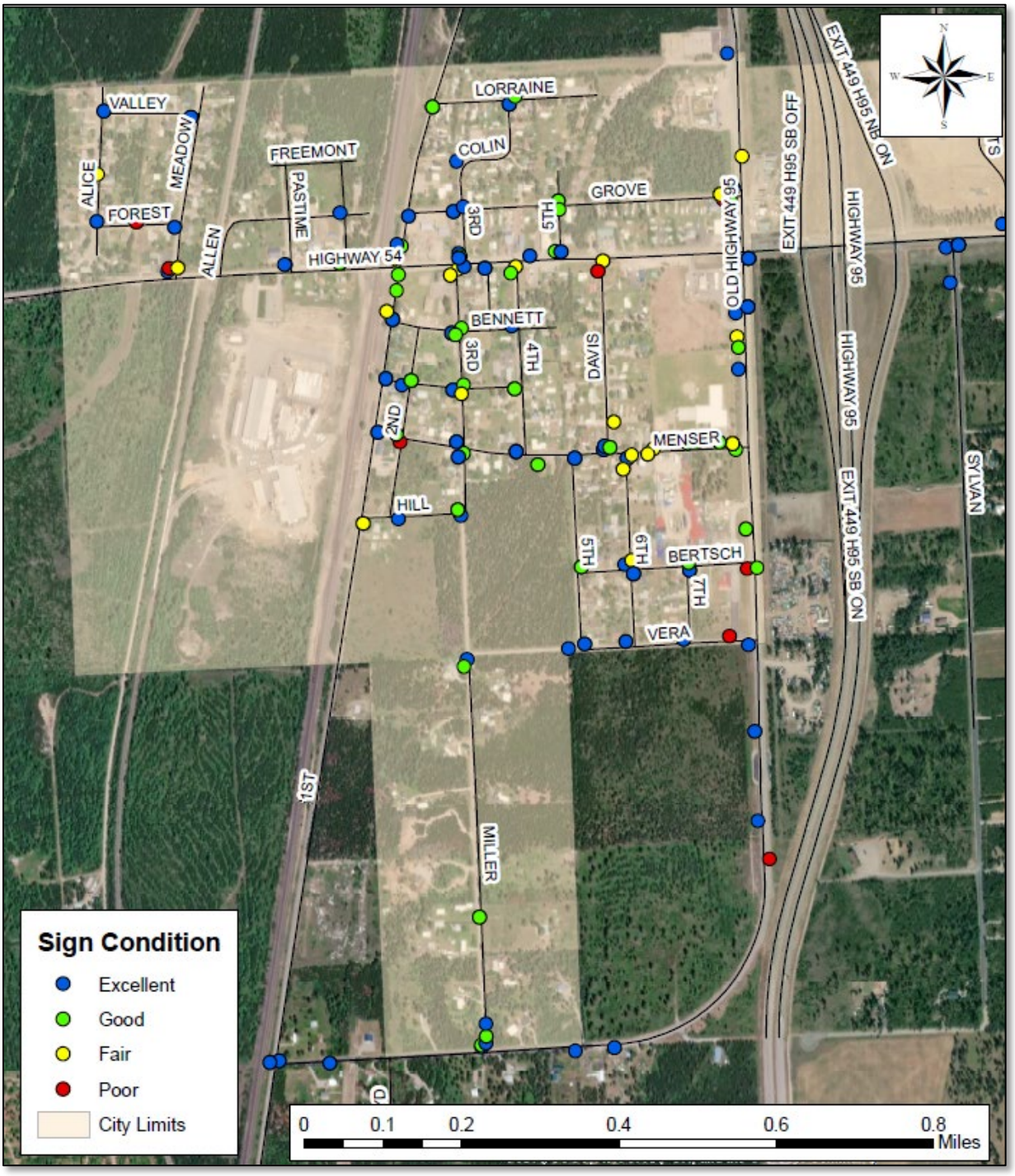


Figure 24 - Sign Locations and Conditions

4.2.2 MUTCD RETROREFLECTIVITY REQUIREMENTS

New standards developed by the Manual on Uniform Traffic Control Devices (MUTCD) require that public agencies adopt a Sign Management Plan to ensure signs meet new minimum retroreflectivity requirements for traffic signs on public roads. Agencies must implement and continue to use a sign management program as of June 14, 2014. This date applies to regulatory and warning signs only. However, agencies are expected to replace guide signs (including street name signs) and other types of signs as resources become available.
The MUTCD outlines two basic assessment methods and three management methods of compliance:

- Measured Retroreflectivity - Assessment
- Nighttime Visual Inspection - Assessment
- Expected Sign Life - Management
- Blanket Replacement - Management
- Control Sign - Management
- Other Methods

Measured retroreflectivity can be taken by a retroreflectometer. A retroreflectometer can be costly to obtain, somewhere in the neighborhood of $9,000 and can range up to $15,000 when equipped with additional features such as GPS and bar code readers.

With the visual nighttime inspection method, the retroreflectivity of an existing sign is assessed by a trained inspector conducting a visual inspection from a moving vehicle during nighttime conditions. With the expected sign life method, individual signs are replaced before they reach the end of their expected service life. The expected service life is based on the time required for the retroreflective material to degrade to the minimum level. The sign life can be based on several different sources of information such as sign sheeting warranties, the performance of control signs, or actual field measurements.

Blanket replacement is similar to the expected sign life method except that all signs grouped in a corridor or area are replaced at specific intervals. This eliminates the need to assess retroreflectivity or track the life on an individual sign. The replacement interval is based on the expected sign life.

With the Control sign method, replacement of signs is based on the performance of a sample of control signs. The control sign might be located in a service yard or be located with a grouping of signs for a particular area. The control sign is monitored to determine the end of retroreflective life. All field signs represented by the control sign must be replaced before the control sign reaches minimum retroreflective levels. Other methods developed based on engineering studies can be used. Refer to **Appendix G** for a FHWA published handout for more information on maintaining retroreflectivity.

LHTAC has made retroreflectivity kits for local jurisdictions available free of charge. These kits contain pieces of sign facing material in various colors (white, yellow, etc.) that can be used as a visual gauge of a sign's reflectivity. Hold up the piece from the kit next to an existing sign and judge the difference between the two. If the existing sign is not as reflective as the control piece from the kit, it is likely out of compliance with retroreflectivity standards. This is an economical solution to maintaining sign retroreflectivity. It is recommended that Athol obtain a kit from LHTAC and perform annual inspections of its traffic sign inventory.

4.2.3 SIGNAGE RECOMMENDATIONS

Athol has approximately 256 signs on 134 posts to maintain. It is recommended that an annual spring inspection of Athol's traffic sign installations be conducted. Though no signs were identified as being completely overgrown by brush or trees, some may become slightly obscured as vegetation continues to grow. Preventing sign overgrowth is an important maintenance task that can be easily overlooked. The overgrowth should be identified and trimmed back during the annual sign inspection. It appears that sign maintenance is being taken care of in a timely fashion. The City should adopt one of the assessment or management methods outlined in the MUTCD to ensure signs have adequate retroreflectivity.

Most street name signs within Athol appear to be consistent; however, some may not meet retroreflectivity standards established by the MUTCD. The following is an excerpt from the 2009 MUTCD, page 162:

> ***Standard:***
> *14 The Street Name sign shall be retroreflective or illuminated to show the same shape and similar color both day and night. The color of the legend (and border, if used) shall contrast with the background color of the sign.*

Recent changes to the MUTCD provide text size requirements for street name signs (MUTCD Section 2D.43). Requirements are based on the speed limit of the road the sign serves, as shown in **Table 13**.

Table 13 - MUTCD Street Name Sign Text Size Requirements

Street Speed Limit (mph)	Upper-Case Minimum Height (inches)	Lower-Case Minimum Height (inches)
25 or less	4	3
25 to 40	6	4.5
40 or greater	8	6

Existing signs are not required to be replaced because of noncompliance with the new text size requirements; however, new signs and signs at the end of their service life being replaced must have the new letter sizes.

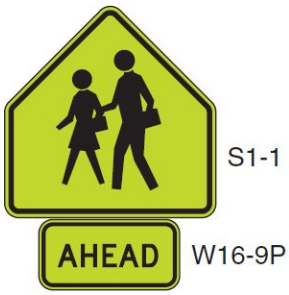
The sign inventory also found several "WATCH FOR CHILDREN" or "CAUTION CHILDREN PLAYING SLOW DOWN" signs placed around the school and park nearby on the corner of Bennet and 3rd Street. It is recommended that these signs be removed. These signs are found in some municipalities and are intended to promote safety; however, they are not recognized by the FHWA's MUTCD or ITD. In fact, several states ban the use of such signs altogether. There are many reasons why such signs should not be permitted. A few reasons include (Sources: FHWA and Wisconsin Department of Transportation):

- "SLOW - CHILDREN AT PLAY" or "SLOW – CHILDREN PLAYING signs are typically designed to look like warning signs (yellow background, black legend)
- Warning signs warn drivers of hazards at specific locations (curve, pedestrian crossing, etc.) but Slow - Children At Play signs do not specify a location
- If installed in one area and not another, drivers may be led to believe that there are no children in areas without signs, thus making children more vulnerable
- Parents and guardians are given a false feeling of security that children are safe when playing in or near the street
- No level of signage can protect a child should an accident occur
- Nearly 30% of tort cases filed against roadway agencies pertain to signs
- It could be implied that Athol approves of streets as playgrounds

- Signs not conformant with the MUTCD increase an agency's liability should an accident occur
- No research supports the effectiveness of such signs

Picture 4 – Existing "CAUTION CHILDREN PLAYING SLOW DOWN" Sign

There are alternatives for these signs. Playground signs (W15-1, Picture 11) should be used if near a playground or park. Pedestrian crossing signs should be used where children and other pedestrians frequently cross the road to warn motorists.



Picture 5 - School Crossing Advance Sign

Picture 6 - Playground Sign

4.2.3.1 PEDESTRIAN CROSSING RECOMMENDATIONS

During the sign and pavement inventory, it was found that there were not many pedestrian signs and crosswalks present outside of the City's school zones. It is recommended that crosswalks and signage be added to the City's larger pedestrian routes as capital improvement projects are completed.

Pedestrian signage at crossings throughout the City is present on streets around the Athol school (Old Highway 95 and Menser Ave). All crosswalk signage, including pavement markings, should meet current MUTCD guidelines.

A crosswalk should have W11-2 signs supplemented with a W16-7P plaque (arrow pointing to crosswalk). Warning signs should be placed in advance of the crosswalk with a supplemental plaque. Supplemental plaques may state the distance to the crossing (W16-2P) or state "AHEAD" (W16-9P). Pedestrian crossing signs and supplemental plaques may be either traditional yellow or fluorescent yellow-green. Pedestrian-actuated flashing beacons can also be used at crosswalks, particularly those located on busier streets (such as Highway 54). Rectangular Rapid Flashing Beacons (RRFBs) can be incorporated into typical crosswalk signage as per new MUTCD guidelines (Picture 7). Instructional plaques for instructing pedestrians how operate the flashing beacons should be R10-25 signs (Picture 8). As mentioned previously by this report, the City of Athol would need to apply and receive approval from FHWA to use RRFB. Without approval, the City would not be able to buy the equipment and install it for local use. ITD currently is able to install RRFB's on any ITD highway, but this does not translate to local jurisdictions.

Picture 7 - RRFB Signage

Picture 8 - RRFB Instructional Plaque

4.2.3.2 SPEED LIMIT SIGNAGE

As discussed previously, the City has experienced issues with speeding on Grove Avenue, Menser Avenue, 3rd Street, and 1st Street. It is recommended that Athol purchase a speed limit radar sign and post it at various locations where speeding is a problem. Depending on the funding availability, two signs are recommended to minimize having to change locations. Such signs are recognized by the MUTCD as a changeable message signs and should conform to requirements and guidelines set forth in Chapter 2L of the MUTCD.

5 CHAPTER 5 – FUTURE CONDITIONS EVALUATION

5.1 FUTURE TRAFFIC VOLUMES

To identify areas that should be improved in terms of capacity, it was necessary to examine future traffic volumes in Athol. Using ITD Annual Traffic Report from 2012 to 2015 it was possible to develop a growth trend for the traffic through Athol. This trend was used to determine what the traffic will look like over the next 5 years in Athol. This data is summarized in **Table 14** below.

Table 14 - Future Traffic Volumes

Roadway	Average Annual Daily Traffic (ITD)					Avg. Yearly Growth (%)	Forecasted Volumes		
	2014	2015	2016	2017	2018		2020	2025	2035
US-95 (South of US-54)	13,000	14,500	15,000	15,500	16,000	5.39	17,725	22,035	30,655
US-95 (North of US-54)	8,300	8,800	8,800	9,200	9,800	4.27	10,640	12,735	16,920
US-54 (East of Highway 95)	2,500	2,700	2,800	2,900	3,600	9.85	4,310	6,085	9,630
US-54 (West of Highway 95; in City Limits)	3,000	3,000	3,000	3,100	3,100	0.83	3,155	3,280	3,540

Based on the data in **Table 14**, traffic on is forecasted to grow by an average total of 14.2% by 2035; approximately 0.83% annually. This is substantially less than the forecasted population growth (approximately 33% total). However, these forecasted volumes are small relative to capacity of the existing roadways and this increase is not expected to cause additional congestion within Athol, especially for the portion of Highway 54 to the west of Highway 95 (in City Limits). The segment of Highway 54 on the east side of Highway 95 appears to be growing much more rapidly according to the available trend data from ITD. This is assumed to be due to the expanding commercial areas to the East of Athol, as well as the lake community to the east, Bayview.

It is important to note that these traffic volume increases do not apply to the local (residential) roads within Athol. Local roads serve specific neighborhoods and neighborhoods typically build out quickly, thus local roads should only see volume increases until a particular neighborhood is done growing. To put a "ballpark" number on it, if the population in Athol increases 33% by 2035, local traffic in the growing neighborhoods can be expected to increase approximately 33% as well. Though no traffic data pertaining to local roads was available at the time of this report, it is apparent that existing traffic volumes are relatively low and future volumes are not expected to require capacity improvements within the next 10 years (provided that a large-scale neighborhood or massive change occurs within the city).

6 CHAPTER 6 – CAPITAL IMPROVEMENT PLAN

6.1 CAPITAL IMPROVEMENT PLAN

This section of the report identifies and details specific projects. These recommended projects are based on the existing and forecasted transportation system conditions, the specific goals and objectives of the City of Athol, and compatibility with the comprehensive plan and city ordinances. During the development of this Transportation Plan, facts and figures were collected, analyzed, evaluated, and displayed; the existing conditions were presented to the Community Advisory Committee (CAC). Armed with an understanding of the information gathered on Athol's infrastructure, the CAC proposed, discussed, contemplated, and prioritized a list of projects as Capital Improvements to be completed within 5 years or as long-range goals.

Projects were broken into capital projects, which include roadway reconstructs and thin and thick overlays; preservation projects, which include chip seal projects; and Pedestrian projects, which include sidewalk projects and pedestrian projects. Capital projects are identified with a "C"; preservation projects are identified with a "P"; and Pedestrian projects are identified with "PED". The recommended projects are outlined and presented in **Appendix A** Detailed cost estimates for each project can be found in **Appendix B**.

7 CHAPTER 7 - FUNDING

Many sources of project funding are available to Athol. These funding opportunities vary by type of project, project size, and local match. Research needs to be done by the city about each grant/funding source to decide if the current project meets the grant/funding requirements. Project funding sources also could change project requirements, funding levels, and local match amounts depending on current state and federal legislation. The city also needs to be aware that just because they have identified and filled out a funding application that the funding may not be awarded.

It is recommended the city actively maintain contact with representatives of the possible funding sources and also network and participate in regional organizations. These groups can be a resource in researching viable funding opportunities and provide technical expertise for the funding application process.

Available funding sources are detailed below:

Local Funding:

- Idaho Users Revenue Fund
- Impact Fees
- Property Taxes

State and Federal Funding:

- Local Rural Highway Investment Program (LRHIP)
- Surface Transportation Program (STP)
- Local Highway Safety Improvement Program (LHSIP)
- Federal Bridge Program
- Federal Lands Access Program (FLAP)
- Transportation Alternatives Program (TAP)
- Recreational Trails
- Congestion Mitigation & Air quality Improvement (CMAQ)

7.1 LOCAL FUNDING

The current forms of funding sources available for local city roadway and bicycle/pedestrian facilities needs are listed below. Each funding source has a discussion on what facilities are eligible and the authorizing agency or legislation.

7.1.1 IDAHO USERS REVENUE FUND

Idaho Users Revenue Fund is the primary source for ongoing roadway maintenance and rehabilitation. The funds are collected by the state in the form of motor fuel taxes and license fees. This money is then distributed annually to all governmental units responsible for roadway maintenance based on a formula that considers population and number of roadway miles in the jurisdiction.

7.1.2 IMPACT FEES

The number of county and city jurisdictions that are imposing impact fees on development is increasing. To do so it is necessary to determine the ultimate (build-out) improvement needs, the proportion related to new development, and a fee schedule based on a rational connection between development-induced needs and fees. This can be an important source of revenue. However, rarely does this source of revenue pay for the full cost of constructing the roadway system and fees are usually not applicable for maintenance functions. Furthermore, it is only effective in areas experiencing sustained growth. Consequently, it may not be a viable option for Minidoka at this time.

7.1.3 PROPERTY TAXES

Property taxes are the primary means by which local governments raise money to provide services. They are also perhaps the most politically unpopular method. It is increasingly clear that all forms of funding (state and local) will need to be increased as roadway needs continue to grow.

7.2 STATE AND FEDERAL FUNDING

Much of the information on State and Federal Funding presented below is available on the Local Highway Technical Assistance Council's (LHTAC's) website. State and Federal funding programs are being updated constantly, so check their website at http://www.lhtac.org for the latest information.

7.2.1 LOCAL RURAL HIGHWAY INVESTMENT PROGRAM (LRHIP)

The Local Rural Highway Investment Program (LRHIP) is financed through an exchange of STP-Rural funds by LHTAC with the Idaho Transportation Department at $0.61 per $1.00 up to a maximum of $2.7 million in state funds. The program has four categories of grant types: Transportation Planning Grants[1] ($50,000 max), Sign Grants ($30,000 max), Construction Grants ($100,000 max), and Federal-Aid Match Grants ($100,000 max). Although these are grants, the program provides funding for road paving, drainage structure replacement, signage upgrades, transportation planning, reconstructing roadways, and most other types of construction on any public road. Matching funds are encouraged but not required. If the project is $50,000 or more, the work must be contracted out or used exclusively for the purchase of materials.

Each September, LHTAC makes the application available to all counties with a road department, highway districts, and cities under 5,000 in population (all outside of urban areas). The application is typically due by early November. The members of the LHTAC board then rank the applications, and the results are made available after the March Council meeting each year. All jurisdictions who are awarded a construction grant is put on a one-year hiatus from applying for new construction grants. This allows LHTAC to award these grants to more jurisdictions throughout the state.

LHTAC reserves $400,000 of this fund annually to help with emergency type projects. Up to $100,000 can be applied for to help with an emergency. If you have an emergency and you need additional information on the LRHIP Program, visit the LHTAC website at http://www.lhtac.org.

7.2.2 SURFACE TRANSPORTATION PROGRAM (STP)

Surface Transportation Program (STP) Local Rural Funds are allocated for projects in rural areas, and in cities with populations below 5,000. They may be used for new construction, reconstruction or rehabilitation of roadways functionally classified with FHWA as **major collectors** or **arterials** with a small percentage allowed for **minor collectors**. STP funds can also be used for activities such as transportation planning and corridor studies. The local match requirement is 7.34 percent. The Idaho Transportation Board has designated approximately $12 million annually for the Program. The funds are awarded through the Local Federal-aid Incentive Program administered by LHTAC. Eligible projects are identified, prioritized, and requested by the Local Highway Jurisdictions through a formal biennial project application process from November through January. Project proposals are reviewed and ranked by LHTAC and a prioritized list of projects, based on funding, is then presented to the Idaho Transportation Board for inclusion in the draft Statewide Transportation Improvement Program (STIP) in June.

7.2.3 LOCAL HIGHWAY SAFETY IMPROVEMENT PROGRAM (LHSIP)

Beginning in 2014, the Idaho Transportation Investment Program (ITIP) has approximately $8.5 million available for the Local Highway Safety Improvement Program (LHSIP). This money is the Local Highway Jurisdictions' (LHJ) portion of the state's Highway Safety Improvement funds. Funds are for projects to improve the safety at single site locations or for utilizing a systemic approach in multiple locations. The local or state match requirement is 7.34 percent.

Funds are distributed based on ITD District and an analysis of highway miles, vehicle miles traveled, and 5-year crash data (requires fatality or serious injury crashes). Eligible jurisdictions are notified in writing by LHTAC staff and receive applications and project identification instructions. Projects are ranked according to individual benefit/cost ratios. Projects are initially funded based on their benefit/cost ratio within their ITD District, and then by their overall benefit/cost ratio throughout the state.
Final project selection is by the Idaho Transportation Board.

7.2.4 FEDERAL LANDS ACCESS PROGRAM (FLAP)

The Federal Lands Access Program (Access Program) was established in 23 U.S.C. 204 to improve transportation facilities that provide access to, are adjacent to, or are located within Federal lands. The Access Program Supplements State and local resources for public roads, transit systems, and other transportation facilities with an emphasis on high-use recreation sites and economic generators.
The Program is designed to provide flexibility for a wide range of transportation projects in the 50 States, the District of Columbia, and the Commonwealth of Puerto Rico.

The Access Program is funded by contract authority from the Highway Trust Fund and subject to obligation limitation. Funds will be allocated among the States using a statutory formula based on road mileage, number of bridges, land area, and visitation. Additional information can be found at:
https://flh.fhwa.dot.gov/programs/flap/

7.2.5 TRANSPORTATION ALTERNATIVES PROGRAM (TAP)

The Transportation Alternatives Program (TAP), formerly known as Community Choices for Idaho (CC4I) including Safe Routes to School, Transportation Enhancement, and Scenic Byways, provides for a variety of alternative transportation projects and advances the ITD strategic goals of Mobility, Safety, and Economic Opportunity while maximizing the use of federal funds. TAP is authorized by FHWA and administered by ITD. TAP projects are selected through a competitive process and included in the Idaho Transportation Investment Program (ITIP) by ITD. Infrastructure projects are limited to a maximum of $500,000 and non-infrastructure projects are limited to $60,000; both types of project require a 7.34% match.

Infrastructure projects eligible for TAP funding include:
Design and construction of the following:

- On and off-road trail facilities for bicyclists, pedestrians, and non-motorized forms of transportation including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting, and other safety related infrastructure and transportation projects to achieve compliance with the ADA.
- Infrastructure related projects and systems that provide safe routes for non-drivers including children, older adults, and individuals with disabilities to access daily needs
- Boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways
- Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other non-motorized transportation users
- Construction of turnouts, overlooks, and viewing areas
- Inventory, control, or removal of outdoor advertising
- Historic preservation and rehabilitation of historic transportation facilities
- Vegetation management practices
- Archaeological activities, relating to impacts from the implementation of transportation projects eligible for federal transportation funds.

Environmental mitigation to:

- Address stormwater management, control, and water pollution prevention or abatement related to highway construction or due to highway runoff, or
- Reduce vehicle-caused wildlife mortality or to restore and maintain connectivity among terrestrial or aquatic habitats

Non-infrastructure projects include:

- Educational, enforcement, evaluation and encouragement for local Safe Routes to School programs which can include funding for a SR2S coordinator position, bike/walk safety related education programs, walk/bike to school events, bicycle rodeos, educational material, etc. for grades K-8. The SR2S Coordinator should be able to engage in the full spectrum of bicycle/pedestrian mobility activities contemplated by the program, including education, encouragement, engineering, evaluation, and enforcement.
- Traffic education and enforcement activities must take place within approximately two miles of a primary or middle school (grades K-8). Other eligible activities under the non-infrastructure portion of the SR2S Program do not have a location restriction. Education and encouragement activities are allowed at private schools as long as other non-infrastructure program criteria are fulfilled.

8 CHAPTER 8 – RECOMMENDATION FOR TRANSPORTATION PLAN UPDATES

This transportation plan is intended to be a living document the City of Athol can use to make decisions regarding transportation related concerns. For it to be most effective, it is recommended that it be revisited on a regular basis by city personnel. As Capital Improvement Projects are carried out, the CIP should be updated. The pavement and sign management plans should be updated on a regular basis.

8.1 CAPITAL IMPROVEMENT PLAN UPDATES

The CIP should be revisited on a yearly basis. At the very least it should be updated every 3 years as projects are completed or changed.

8.2 PAVEMENT MANAGEMENT PLAN UPDATES

The pavement management plan should be updated on a regular basis. Maintenance activities should be recorded as they are performed. Cost information should be kept track of as well. Such information will allow for more accurate budgeting estimates and deterioration predictions. Such information can be tracked using a modified version of the pavement inventory spreadsheet.

The pavement condition survey should be updated at minimum every 3 years. City personnel should be trained to conduct the pavement condition. This training can be done through ITD and its educational programs available to local agencies. It is recommended that each year approximately one third of the Athol street network be inspected. That way the entire network is inspected in 3 years. Such a system enables accurate and up to date records for grant and funding applications.

8.3 SIGN MANAGEMENT PLAN UPDATES

It is important that records in the sign inventory be updated as signs and supports are upgraded, replaced, or removed. As discussed in **Section 4.2.2** agencies are required by FHWA to implement and continue to use a sign management plan. Management of the sign network is facilitated through the sign inventory/condition spreadsheet and the records therein should be updated regularly.

City personnel should conduct visual inspections of signs on an annual basis for maintaining compliance with FHWA and MUTCD mandated retro-reflectivity requirements. The sign management plan should be updated yearly during the spring sign inspection and revisited after no more than 3 years.

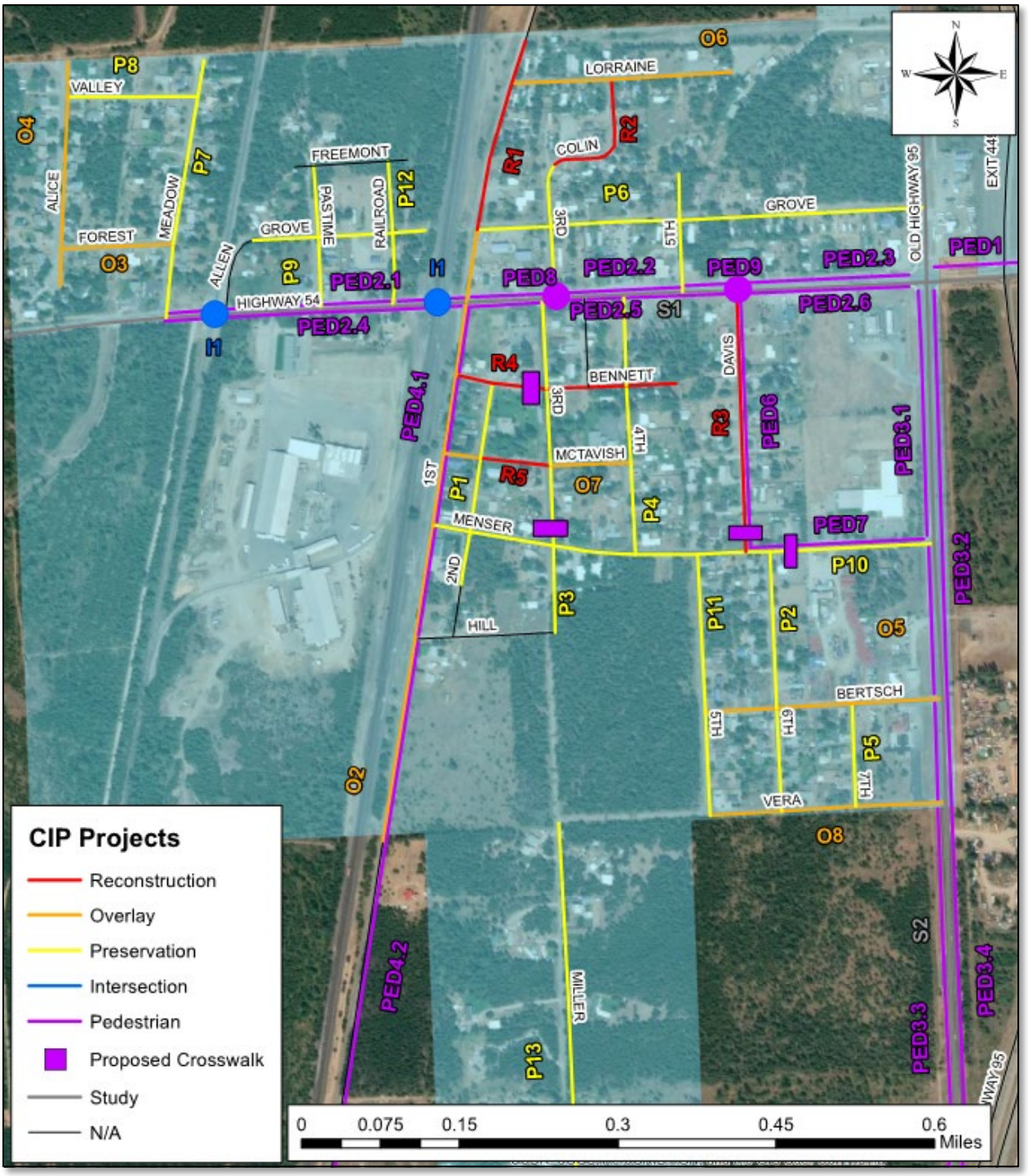
8.4 CITY ORDINANCES AND STANDARDS

Projects listed in the CIP will be designed and inspected by the most current standards of the Idaho Transportation Department for roadway specifications, the Idaho Standards for Public Works Constructions, and the American Public Works Association.

It is recommended the city review the adopted standards every 2-5 years to make sure they have adopted the most current standard(s) published at the time.

APPENDIX A – CAPITAL IMPROVEMENTS PLAN

APPENDIX A – CAPITAL IMPROVEMENT PLAN (CIP)



Athol - CIP Map

Roadway Reconstruction Projects

Capital Improvement Plan (Roadway Reconstruct Projects) - Priority List

Overall Priority	RSL	Project & Description	Estimated Cost	Potential Funding Sources	Related Projects
R1	4	**1st Street**	$ 46,900	Local; LRHIP; STP	O2, I1, PED2, S1
		From Grove Street to Lorraine Drive			
R2	6	**Colin Drive (OPT 1)***	$ 113,500	Local; LRHIP; STP	P3
		From E Lorraine to 3rd St			
	6	**Colin Drive (OPT 2)***	$ 37,400		
		From E Lorraine to 3rd St			
R3	6	**Davis Lane (OPT 1)***	$ 245,300	Local; LRHIP; STP	P10, PED2, S1, (WMP 1.C1**)
		From Hwy 54 to Menser Ave			
	6	**Davis Lane (OPT 2)***	$ 78,700		
		From Hwy 54 to Menser Ave			
R4	7	**Bennett Ave (OPT 1)***	$ 61,200	Local; LRHIP; STP	R1, O1, O2, P1, P3, P4, PED4
		From 1st Street to 4th St			
R5	6	**Mctavish Ave**	$ 7,400	Local; LRHIP; STP	R1, O2, P1, P3, P4, PED4
		From 3rd Street to 2nd Street			
Reconstruction Projects Total				**$474,300**	

Note: Recommended treatments are based on the average pavement analysis software system's judgment from documented pavement distresses. Other treatments can be used to repair these roadways depending on budget and preference. *(EX = Many Thin Overlays can be supplemented with Chip Seals if handled in a timely manner).

* These projects also have a cost estimate included for (OPT 2), which is an overlay rather than a full reconstruction project. If these projects are completed in a timely manner, then an overlay may be a feasible option.

** Denotes that this project has a Water Master Plan (WMP) project directly associated with it.

Funding Key

Local – City Funds
LHRIP – Local Highway Rural Investment Program
LHSIP – Local Highway Safety Improvement Program
LSI – Local Strategic Initiatives
FLAP – Federal Lands Access Program
NHS – National Highway System Program
TAP – Transportation Alternatives Program
SRS – Safe Routes to Schools
STP – Surface Transportation Program OR STBG – Surface Transportation Block Program

R1: 1st Street (From Grove Street to Lorraine Drive)

This section of roadway is a section of 1st Street that was observed to have more distresses than other segments of 1st Street. This section of roadway covers a total area of 1,843 SY and extends from Grove Street (North of Highway 54) to Lorraine Drive. TAMS software recommended a Rotomill and thick overlay (3 inches) to repair this section of roadway. The cost was determined using cold milling, tack coat and 3 inches of asphalt pavement, and is estimated to be approximately $46,900.

R2: Colin Drive OPT 1* (From Lorraine Drive to 3rd Street)

This section of roadway connects Lorraine Drive to 3rd Street and continues south until it intersects with Highway 54. From field observations, complete blowouts of the asphalt was documented. Other distresses included edge cracking and fatigue cracking. TAMS software recommended a full reconstruction of the roadway which includes removal of the current bituminous surface (including excavation), new subbase, base, prime coat, and 3 inches of asphalt. The

cost for this option on this roadway is estimated to be $113,500. This project also has a mill and thick overlay option, which is included in the Overlay CIP table. The cost for a mill and thick overlay in comparison to the reconstruction would be approximately $37,400.

R3: Davis Lane OPT 1* (From Menser Avenue to Highway 54)

This section of roadway runs from Menser Avenue (South) to Highway 54 (North). Davis lane occupies pedestrian traffic from the nearby school to the east. It is the first road that runs north/south west of the school and children walking home from school use this section of roadway. Davis Lane is 1,306 feet in length and covers an area of 3,192 SY. From field observations of fatigue cracking (most predominant) transverse cracking, patching, and rutting. TAMS software recommended a full reconstruction of the roadway including includes removal of the current bituminous surface (including excavation), new subbase, base, prime coat, and 3 inches of asphalt. The cost for this option on this roadway is estimated to be $245,300 (compared with approximately $78,700 for the overlay option).

This road is also in the Pedestrian CIP (See below in the Pedestrian CIP) and the city would like to add sidewalk and curb and gutter to this section of roadway for the safety of children walking home from school. Lighted beacons near pedestrian crossings should also be included so motorists are able to see pedestrians more clearly during the dusk and night hours. This project is also directly related to a proposed project from the City's water master plan.

R4: Bennett Ave OPT 1* (From 1st Street to End)

Bennett Avenue is a section of roadway that stretches from 1st Street till it reaches a dead end just pass 4th Street. This roadway is 1108 feet in length, ranges from 16 feet to 18 feet in width and covers an area of 2025 SY. From Field observations, the pavement distresses included fatigue cracking (most predominant), edge cracking, and patching. TAMS software recommended a full reconstruction of the roadway including includes removal of the current bituminous surface (including excavation), new subbase, base, prime coat, and 3 inches of asphalt. The cost for this option on this roadway is estimated to be $61,200.

R5: Mctavish Avenue (From 2nd Street to 3rd Street)

Mctavish Avenue is a section of roadway stretches from 1st Street to 4th Street. The section of roadway needing rehabilitative work is between 2nd Street and 3rd Street. From field observations, the pavement distresses included fatigue cracking (most predominant), edge cracking, patching, and rutting. TAMS software recommended a Thick overlay consisting of Tack Coat and 3 inches of asphalt for an estimated cost of $7,400.

Roadway Overlay Projects

Capital Improvement Plan (Roadway Overlay Projects) - Priority List

Overall Priority	RSL	Project & Description	Estimated Cost	Potential Funding Sources	Related Projects
O1	7	**Bennett Avenue (OPT 2)**	$ 12,300	Local; LRHIP; STP	R1, R5, PED4
		From 1st St to End			
O2	8	**1st Street**	$ 167,900	Local; LRHIP; STP	R1, PED4
		From Old Highway 95 to Lorraine Dr			
O3	8	**Forest Avenue**	$ 25,900	Local; LRHIP; STP	O4, P7
		From Alice Ct to Meadow St			
O4	9	**Alice Court**	$ 59,200	Local; LRHIP; STP	O3, P8
		From End to End			
O5	9	**Bertsch Street**	$ 32,800	Local; LRHIP; STP	P2, P5, P11, PED3, S2
		From 5th St to Old 95			
O6	9	**Lorraine Drive**	$ 23,800	Local; LRHIP; STP	R1, R2, O2, P3, PED4, (WMP 1.C5**)
		From 1st St to Colin Dr			
O7	9	**McTavish Avenue**	$ 21,700	Local; LRHIP; STP	R1, R6, P1, P3, P4, PED4
		From 1st St to 4th St			
O8	9	**Vera Avenue**	$ 31,800	Local; LRHIP; STP	P2, P5, P11, PED3, S2
		From 5th St to Old 95			
Overlay Projects Total			**$375,400**		

Note: Recommended treatments are based on the average pavement analysis software system's judgment from documented pavement distresses. Other treatments can be used to repair these roadways depending on budget and preference. *(EX = Many Thin Overlays can be supplemented with Chip Seals if handled in a timely manner).
** Denotes that this project has a Water Master Plan (WMP) project directly associated with it.

Funding Key

Local – City Funds
LHRIP – Local Highway Rural Investment Program
LHSIP – Local Highway Safety Improvement Program
LSI – Local Strategic Initiatives
FLAP – Federal Lands Access Program
NHS – National Highway System Program
TAP – Transportation Alternatives Program
SRS – Safe Routes to Schools
STP – Surface Transportation Program OR STBG – Surface Transportation Block Program

O1: Bennet Avenue OPT 2 (From 1st Street to End)

As Stated Previously in R5 above, this section of roadway extends from 1st Street to a dead end just pass 4th Street. This roadway is 1108 feet in length, ranges from 16 feet to 18 feet in width, and covers an area of 2,025 SY. From field observations, the pavement distresses included fatigue cracking (most predominant), edge cracking, and patching. The second option is a thin overlay which includes tack coat and asphalt overlay (2 inches). The estimated cost to repair this section of roadway is $12,300.

O2: 1st Street (From Old Highway 95 to Lorraine Drive)

This section of roadway stretches from Old Highway 95 in the south to Lorraine Drive past Highway 95. This 6,757-foot-long by 22 feet wide section of roadway covers approximately 16,467 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), transverse cracking, and patching. The recommended treatment for this road segment is a thin overlay which includes tack coat and asphalt overlay (2 inches) The estimated cost to repair this section of roadway is $167,900.

O3: Forest Avenue (From Alice Court to North Meadows Street)

This section of roadway extends from Alice Court to North Meadows Street. This 562-foot-long by 28 feet wide section of roadway covers approximately 1,750 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking, transverse cracking (most predominant), and patching. The recommended treatment is a thin overlay which includes tack coat and asphalt overlay (2 inches) The estimated cost to repair this section of roadway is $25,900.

O4: Alice Court (From Alice Court to End)

This section of roadway extends from a dead end just past Valley Avenue to the cul-de-sac just past Forest Avenue. The 1,124-foot-long by 28 feet wide section of roadway covers approximately 5,017 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), transverse cracking, longitudinal cracking, and patching. The recommended treatment is a thin overlay which includes tack coat and asphalt overlay (2 inches). The estimated cost to repair this section of roadway is $59,200.

O5: Bertsch Avenue (From 5th Street to Old Highway 95)

This section of roadway extends from 5th Street to Old Highway 95 in the southeastern part of Athol. The 1,190-foot-long by 24 feet wide section of roadway covers approximately 3,173 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), transverse cracking, longitudinal cracking, and patching. The recommended treatment is a thin overlay which includes tack coat and asphalt overlay (2 inches). The estimated cost to repair this section of roadway is $32,800.

O6: Lorraine Drive (From 1st Street to End)

This section of roadway extends from 1st Street to a dead end just past Colin Drive in the northern part of Athol. The 1,100-foot-long by 20 feet wide section of roadway covers approximately 2,309 SY of area. From field observations, the pavement distresses included fatigue cracking (most predominant), edge cracking transverse cracking, longitudinal cracking, and patching. The recommended treatment is a thin overlay which includes tack coat and asphalt overlay (2 inches). The estimated cost to repair this section of roadway is $23,800. This project is also directly related to a proposed project from the City's water master plan.

O7: Mctavish Avenue (From 1st Street to 4th Street)

This section of roadway extends from 1st Street to 4th Street between Bennet Ave to the north and Menser Avenue to the south. The 940-foot-long by 20 feet wide section of roadway covers approximately 2,089 SY of area. From field observations, the pavement distresses included fatigue cracking (most predominant), edge cracking, transverse cracking, longitudinal cracking, and patching. The recommended treatment is a thin overlay which includes tack coat and asphalt overlay (2 inches). The estimated cost to repair this section of roadway is $21,700.

O8: Vera Avenue (From 5th Street to Old Highway 95)

This section of roadway extends from 5th Street to Old highway 95 in the southern part of Athol. The 1,181 feet long by 24-foot-wide section of roadway covers approximately 3,070 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking transverse cracking, longitudinal cracking, and patching (most predominant). The recommended treatment is a thin overlay which includes tack coat and asphalt overlay (2 inches). The estimated cost to repair this section of roadway is $31,800.

Roadway Preservation Projects

Capital Improvement Plan (Roadway Preservation Projects) - Priority List

Overall Priority	RSL	Project & Description	Estimated Cost	Potential Funding Sources	Related Projects
P1	10	**2nd Street (Chip Seal)**	$ 13,200	Local; LRHIP; STP	R6, O1, O7, P10
		From Bennett Ave to End			
P2	10	**6th Street (Chip Seal)**	$ 14,900	Local; LRHIP; STP	O5, O9, P10
		From Menser Ave to Vera Ave			
P3	10	**3rd Street (Chip Seal)**	$ 28,800	Local; LRHIP; STP	R6, O1, O7, P10, PED2, (WMP 1.C3**)
		From Colin Dr to Hill Ave			
P4	10	**4th Street (Chip Seal)**	$ 16,700	Local; LRHIP; STP	R6, O1, O7, P10, (WMP 1.C2**)
		From Highway 54 to Menser Ave			
P5	10	**7th Street (Chip Seal)**	$ 6,700	Local; LRHIP; STP	O5, O9
		From Bertsch Ave to Vera Ave			
P6	10	**Grove Avenue (Chip Seal)**	$ 8,300	Local; LRHIP; STP	P9, P12, S2, (WMP 1.C4), (WMP Future**)
		From Allen St to Old Highway 95			
P7	10	**Meadow Street (Chip Seal)**	$ 23,500	Local; LRHIP; STP	O3, P8, PED2, S1
		From End to Highway 54			
P8	10	**Valley Avenue (Chip Seal)**	$ 9,200	Local; LRHIP; STP	P7, S1
		From Meadow St to Alice St			
P9	10	**Pastime Street (Chip Seal)**	$ 6,400	Local; LRHIP; STP	P6, PED2, S1
		From Freemont Ave to Highway 54			
P10	11	**Menser Avenue (Chip Seal)**	$ 32,000	Local; LRHIP; STP	R1, O2, P1, P2, P3, P4, P5, P11, PED 3, PED4, S2
		From 1st St to Old Highway 95			
P11	11	**5th Street (Chip Seal)**	$ 15,500	Local; LRHIP; STP	O5, O9, P6, P10, PED2, (WMP 2.B**)
		From End to Vera Ave			
P12	12	**Railroad Street (Chip Seal)**	$ 3,700	Local; LRHIP; STP	P6, I1, PED2, S1
		From Highway 54 to Grove Ave			
P13	12	**Miller Street (Patching)**	$ 3,500	Local; LRHIP; STP	(WMP Future**)
		From Old Highway 95 to End			
Preservation Projects Total			**$178,900**		

Note: Recommended treatments (shown in project parentheses) are based on the average pavement analysis software system's judgment from documented pavement distresses. Other treatments can be used to repair these roadways depending on budget and preference. *(EX = Many Thin Overlays can be supplemented with Chip Seals if handled in a timely manner). Also, the "related projects" column was not included in this table since the County already has a chip seal cycle implemented, and noting related projects is not expected to provide any value to the County's planning efforts.

** Denotes that this project has a Water Master Plan (WMP) project directly associated with it.

Funding Key

Local – City Funds

LHRIP – Local Highway Rural Investment Program

LHSIP – Local Highway Safety Improvement Program

LSI – Local Strategic Initiatives

FLAP – Federal Lands Access Program

NHS – National Highway System Program

STP – Surface Transportation Program OR STBG – Surface Transportation Block Program

P1: 2nd Street (From Bennet Avenue to End)

This section of roadway extends from Bennet Avenue to Hill Avenue (Dead End). The 1,287-foot-long by 20-foot-wide (on average) roadway covers 2,738 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), transverse cracking, and patching. The recommended treatment is a chip seal that is estimated to be $13,200. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $1,700.

P2: 6th Street (From Menser Avenue to Vera Avenue)

This section of roadway extends from Menser Avenue to Vera Avenue lies in the southern part of Athol. The 1,298-foot-long by 22-foot-wide (on average) roadway covers approximately 3,114 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), and patching. The recommended treatment is a chip seal that is estimated to be $14,900. There is a second option which includes cold patching problem areas instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $1,900.

P3: 3rd Street (From Colin Drive to Hill Avenue)

This section of roadway extends from Colin Drive to Hill Avenue and connects north part Athol to the southern. The 2,349-foot-long by 24-foot-wide section of roadway covers 6,042 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), transverse cracking, and patching. The recommended treatment is a chip seal that is estimated to be $28,800. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $3,700. This project is also directly related to a proposed project from the City's water master plan.

P4: 4th Street (From Highway 54 to Menser Avenue)

This section of roadway extends from State Highway 54 to Menser Avenue in the central area of Athol. The 1,301-foot-long by 24-foot-wide section of roadway covers 3,469 SY of area. From field observations, the pavement distresses included fatigue cracking (most predominant), edge cracking, and patching. The recommended treatment is a chip seal that is estimated to be $16,700. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $2,200. This project is also directly related to a proposed project from the City's water master plan.

P5: 7th Street (From Bertsch Avenue to Vera Avenue)

This small section of roadway that runs adjacent to Old Highway 95 extends from Bertsch Avenue to Vera Avenue. The 514-foot-long by 24-foot-wide section of roadway covers 1370 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking, and patching (most predominant). The recommended treatment is a chip seal that is estimated to be $6,700. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $900.

P6: Grove Avenue (From Allen Street to Old Highway 95)

This section of roadway stretches from Allen Street (adjacent to Railroad Tracks) to Old Highway 95 and covers most of northern Athol from east to west. The 3,108-foot-long by 20-foot-wide (on average) section of roadway covers 6,715 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), transverse cracking, and patching. The recommended treatment is a chip seal that is estimated to be $8,300. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $4,000. This project is also directly related to a proposed project from the City's water master plan.

P7: Meadow Street (From Highway 54 to Dead End)

This section of Roadway extends off Highway 54 and runs adjacent to the railroad until it meets a dead end just past Valley Avenue. The 1,302-foot-long by 34-foot-wide section of roadway covers approximately 4,919 SY of area. From

field observations, the pavement distresses included fatigue cracking, edge cracking, longitudinal cracking, transverse cracking (most predominant), and patching. The recommended treatment is a chip seal that is estimated to be $23,500. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $2,900.

P8: Valley Avenue (From Meadow Street to Alice Court)

This section of roadway lies in the northwestern part of Athol and connects Meadow Street and Alice Court. The 651-foot-long by 26-foot-wide section of roadway covers approximately 1,880 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking, longitudinal cracking, transverse cracking (most predominant), and patching. The recommended treatment is a chip seal that is estimated to be $9,200. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is $1,300.

P9: Pastime Street (From Highway 54 to Dead End)

This section of roadway lies in-between the two railroad tracks and extends from Highway 54 until the road reaches a dead end. The 719 foot long by 16 feet wide (on average) covers 1,320 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking, transverse cracking, and patching. The recommended treatment is a chip seal that is estimated to be $6,400. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $900.

P10: Menser Avenue (From 1st Street to Old Highway 95)

This section of roadway connects Athol from 1st Street and Old Highway 95. Athol Elementary School lies on the corner of Old Highway 95 and Menser Avenue. The 2,520-foot-long by 24-foot-wide roadway covers approximately 6,720 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), transverse cracking, and patching. The recommended treatment is a chip seal that is estimated to be $32,000. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $4,000.

P11: 5th Street (From Vera Avenue to Menser Avenue)

This section of roadway connects Menser Avenue and Vera Avenue in the southern part of Athol. The 1,901-foot-long by 22-foot-wide section of roadway covers approximately 3,230 SY of area. From field observations, the pavement distresses included fatigue cracking, edge cracking (most predominant), transverse cracking, and patching. The recommended treatment is a chip seal that is estimated to be $15,500. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $1,900. This project is also directly related to a proposed project from the City's water master plan.

P12: Railroad Street (From State Highway 54 to Grove Avenue)

This small section of roadway extends off Highway 54 and connects to Grove Avenue. The 368-foot-long by 18-foot-wide section of roadway covers 736 SY of area. From field observations, the pavement distresses included edge cracking (most predominant and patching. The recommended treatment is a chip seal that is estimated to be $3,700. There is a second option which includes cold patching instead of chip sealing. The estimated cost to cold patch this section of roadway is roughly $500.

P13: Miller Street (From Old Highway 95 to End)

This small section of roadway extends off Old Highway 95 and dead-ends to the north. The 2,665-foot-long by 20-foot-wide section of roadway covers 3,192 SY of area. From field observations, the pavement distresses included potholes (most predominant) and patching. The recommended treatment is pothole patching that is estimated to be $3,500. This project is also directly related to a proposed project from the City's water master plan.

Intersection Projects

Capital Improvement Plan (Intersection Projects) - Priority List

Overall Priority	Project & Description	Estimated Cost	Potential Funding Sources	Related Projects
I1	**SH 54 Railroad Crossing**	**$ 14,520,000**	Local, STP, LHRIP, LSI	R1, O2, PED2, S1
	RR Crossing Improvements (Underpass)			
Intersection Projects Total		**$14,520,000**		

Funding Key

Local – City Funds
LHRIP – Local Highway Rural Investment Program
LHSIP – Local Highway Safety Improvement Program
LSI – Local Strategic Initiatives
FLAP – Federal Lands Access Program
NHS – National Highway System Program
TAP – Transportation Alternatives Program
SRS – Safe Routes to Schools
STP – Surface Transportation Program OR STBG – Surface Transportation Block Program

I1: SH54 Railroad Crossing (Underpass)

The railroad that runs adjacent to 1st Street is owned by BNSF and is used on daily basis. This railroad is very active and anywhere from 50 to 60 cars pass through on this rail in a single day. This railroad travels right through the City of Athol and the results can cause congestion on Main Street (Highway 54) and prevent emergency vehicles from getting to certain areas of the City. Some other concerning aspects include noise, pedestrian safety, and safety for motorists. The proposed project would create an underpass beneath the existing railroad crossing allowing vehicles, pedestrians, and cyclists to cross under the tracks unimpeded. The cost estimate for this project includes a roadway underpass, retaining walls, curb and gutter, sidewalks, and a separate pedestrian bridge and related construction activities. It is estimated that this project would cost roughly $14,520,000.

Pedestrian Projects

Capital Improvement Plan (Sidewalk & Pedestrian Projects) - Priority List

Overall Priority	Project & Description	Estimated Cost	Potential Funding Sources	Related Projects
PED1	**Paved Pedestrian Pathway (Existing)**	**$ 76,000**	Local; TAP; SRS	S1
	From Old HW 95 to Super 1			
PED2.1	**Highway 54 Sidewalk (North Side)**	**$ 450,000**	Local; TAP; SRS	I1, S1
	From Meadow St to 1st St			
PED2.2	**Highway 54 Sidewalk (North Side)**	**$ 330,000**		
	From 1st St to 5th St			
PED2.3	**Highway 54 Sidewalk (North Side)**	**$ 288,000**		
	From 5th St to Old HW 95			
PED2.4	**Highway 54 Sidewalk (South Side)**	**$ 443,000**		
	From Meadow St to 1st St			
PED2.5	**Highway 54 Sidewalk (South Side)**	**$ 362,000**		
	From 1st St to Davis Ln			
PED2.6	**Highway 54 Sidewalk (South Side)**	**$ 227,000**		
	From Davis Ln to Old HW 95			
PED3.1	**Old HW 95 Pathway (West Side; City Limits)**	**$ 179,000**	Local; TAP; SRS	S2
	From SH 54 to Vera Ave			
PED3.2	**Old HW 95 Pathway (East Side; City Limits)**	**$ 171,000**		
	From SH 54 to Vera Ave			
PED3.3	**Old HW 95 Pathway (West Side; Developer)**	**$ 247,000**	Developer	S2
	From SH 54 to 1st St			
PED3.4	**Old HW 95 PAthway (East Side; Developer)**	**$ 262,000**		
	From SH 54 to 1st St			
PED4.1	**1st Street Sidewalk (East Side)**	**$ 314,000**	Local; TAP; SRS	I1
	From HW 54 to Menser Ave			
PED4.2	**1st Street Sidewalk (East Side)**	**$ 982,000**	Developer	
	From Old HW 95 to HW 54			
PED5	**Shared Use Path Along Old Hwy 95**	**$ 389,000**	Local; TAP; SRS	S2
PED6	**Davis Lane Sidewalk (East Side)**	**$ 312,000**	Local; TAP; SRS	R3
	Entire Length			
PED7	**Menser Avene Sidewalk (North Side)**	**$ 247,000**	Local; TAP; SRS	P10
	From Davis Lane to Old HW 95			
PED8	**Upgraded Ped. Crossing RRFBs**	**$ 26,000**	Local; TAP; SRS	
	SH 54 and 3rd Street			
PED9	**Upgraded Ped. Crossing RRFBs**	**$ 26,000**	Local; TAP; SRS	P10
	Sh 54 and Davis Lane			

Overall Priority	Project & Description	Estimated Cost	Potential Funding Sources	Related Projects
PED10	Radar Speed Limit Sign	$ 18,000	Local; TAP; SRS	N/A
Sidewalk & Ped. Projects Total		$3,840,000		
Developer Sidewalk & Ped. Projects Total		$1,491,000		

According to the Access Management Manual by TRB, sidewalks are recommended on both sides of Principal Arterials, Minor Arterials, Major Collectors, and Minor Collectors. Sidewalks are also recommended on both sides of local streets, but it is noted that continuity of travel path is important to provide a direct connection to sidewalks along arterials and collectors.
** Denotes that this project has a Water Master Plan (WMP) project directly associated with it.

Funding Key

Local – City Funds
LHRIP – Local Highway Rural Investment Program
LHSIP – Local Highway Safety Improvement Program
LSI – Local Strategic Initiatives
FLAP – Federal Lands Access Program
NHS – National Highway System Program
TAP – Transportation Alternatives Program
SRS – Safe Routes to Schools
STP – Surface Transportation Program OR STBG – Surface Transportation Block Program

PED1: Paved Pedestrian Pathway (Existing)

The City of Athol has shown interest in having a paved pedestrian pathway that connects Old Highway 95 to the North Sylvan Road. There is an existing gravel pathway currently at this location. The existing pathway would need to be graded and paved with asphalt (2-inch thickness). The existing pathway covers an area that is estimated to be about 2,500 SY in total area. The cost to construct this pathway is estimated at roughly $76,000.

PED2.1: Highway 54 Sidewalk (North Side; Meadow St to 1st St)

Highway 54 runs east west through the City of Athol. It serves as the City's Main Street and intersects with BNSF railroad that passes through the City of Athol anywhere from 50 to 60 times a day. This section of roadway currently does not have any sidewalks on either the north side or the south side. Additionally, there is only one crosswalk between the Railroad and Old Highway 95.

The City has expressed interest to add sidewalk on the north side of Highway 54 (Main Street). This is the busiest section of roadway in Athol and experiences the highest volume of ADT and CADT. There is also a safety concern as school children must cross Main Street every day. This section of sidewalk would stretch from Meadow Street to 1st Street across. This 1,550-foot-long section of roadway also includes 12 ADA ramps and approximately 5 driveway approaches and has an estimated project cost of $450,000.

PED2.2: Highway 54 sidewalk (North Side; 1st St to 5th St)

This project would be a continuation of project PED2.1, and would continue sidewalk from 1st Street to 5th Street on the north side of Highway 54. This project would include a total of 1,100 feet of sidewalk stretching from 1st Street to 5th Street, along with 8 ADA ramps and 7 driveway approaches, which would bring this project to an estimated cost of $330,000.

PED2.3: Highway 54 sidewalk (North Side; 5th St to Old HW 95)

This project would be a continuation of project PED2.2, and would continue sidewalk from 5th Street to Old Highway 95 on the north side of Highway 54. This project would include a total of 1,100 feet of sidewalk stretching from 5th Street to Old Highway 95, along with 2 ADA ramps and 8 driveway approaches, which would bring this project to an estimated cost of $330,000.

PED2.4: Highway 54 sidewalk (South Side; Meadow St to 1st St)

The south side of Highway 54 just like the north side lacks sidewalk on this stretch of roadway. The city of Athol has expressed interest in adding sidewalk on this side of the Highway in the future as well. Similar to the north side, the south side is in need of a total of 1,550 feet of sidewalk stretching from Meadow St to 1st Street, along with 10 ADA and 7 driveway approaches ramps would bring this project to an estimated $443,000.

PED2.5: Highway 54 sidewalk (North Side; 1st St to Davis Ln)

This project would be a continuation of project PED2.4, and would continue sidewalk from 1st Street to Davis Lane on the south side of Highway 54. This project would include a total of 1,400 feet of sidewalk on this segment, along with 6 ADA ramps and 3 driveway approaches, which would bring this project to an estimated cost of $362,000.

PED2.6: Highway 54 sidewalk (North Side; Davis Ln to Old HW 95)

This project would be a continuation of project PED2.5, and would continue sidewalk from Davis Lane to old Highway 95 on the south side of Highway 54. This project would include a total of 900 feet of sidewalk on this segment, along with 2 ADA ramps and 4 driveway approaches, which would bring this project to an estimated cost of $227,000.

PED3.1: Old Highway 95 Sidewalk (West Side; City Limits)

The City of Athol expressed interest in adding a pedestrian pathway to the west side of Old Highway 95 within City limits. This section of the pathway would stretch from Highway 54 to Vera Avenue. Approximately 2,889 SY of paved asphalt pathway (10 ft wide) would be added as well as 11 ADA ramps implemented at various intersections. The paved pathway would have a grass separation barrier and would not be an extension of the roadway. This is one of four projects planned to establish a pathway along Old Highway 95. The estimated cost to construct this segment of asphalt pathway would be approximately $179,000.

PED3.2: Old Highway 95 Sidewalk (East Side, City Limits)

The City of Athol expressed interest in adding a pedestrian pathway to the east side of Old Highway 95 within City limits. This section of pathway would stretch from Highway 54 to Vera Avenue. Approximately 2,889 SY of paved asphalt pathway (10 ft wide) would be added as well as 10 ADA ramps implemented at various intersections. This is one of four projects to establish a pathway along Old Highway 95. The estimated cost to construct sidewalk would be approximately $171,000.

PED3.3: Old Highway 95 Sidewalk (West Side; Developer)

Outside of City Limits between Vera Avenue and 1st Street along Old Highway 95, the City of Athol would like a pedestrian pathway to run from Vera Avenue to 1st Street on the west side of Old Highway 95. It is the City of Athol's plan to wait for this area to become developed and have developers implement asphalt pathway infrastructure to this section of roadway. An estimated 5,600 LF of asphalt pathway as well as 6 ADA ramps would be installed along this stretch of roadway. The approximated cost for this project is estimated to be $247,000.

PED3.4: Old Highway 95 (East Side; Developer)

Outside of City Limits between Vera Avenue and 1st Street along Old Highway 95, the City of Athol would like an asphalt pedestrian pathway to run from Vera Avenue to 1st Street on the east side of Old Highway 95. It is the City of Athol's plan to wait for this area to become developed and have developers implement asphalt pathway infrastructure to this section of roadway. An estimated 5,600 LF of asphalt pathway and 8 ADA ramps would be installed along this stretch of roadway. The approximate cost for this project is estimated to be $262,000.

PED4.1: 1st Street Sidewalk (East Side; Highway 54 to Menser Avenue)

From Menser Avenue to State Highway 54, the City of Athol would like to include an asphalt pathway on the east side of 1st Street. This section of roadway would include 4,300 LF of asphalt pathway and about 7 ADA ramps. The estimated cost for this project is approximately $314,000.

PED4.2: 1st Street Sidewalk (East Side; Outside City Limits)

From Menser Avenue to State Highway 54, the City of Athol would like to include sidewalk on the east side of 1st street. This is the final stretch of sidewalk, along with the other projects mentioned previously that would encompass the City of Athol with continuous sidewalk/pedestrian paths around the City. This section of roadway would include 4,300 LF of sidewalk and 7 ADA ramps. The estimated cost for this project is approximately $982,000.

PED5: Bike Path Along Old Highway 95

This project is proposed bike path that will stretch from Highway 54 along Old Highway 95 to 1st Street. This 10-foot-wide section of paved pathway is part of Athol's vision to create a comprehensive path system for biking and walking around the City. The proposed pathway would cover a total area of 17,600 SY including base, prime coat, and asphalt pavement (estimated 3 inches) for a total estimated project cost of approximately $389,000.

PED6: Davis Lane Sidewalk (East Side)

Davis Lane is a road section that is utilized daily for pedestrian traffic. School children from Athol Elementary School use this section of roadway to get to Highway 54. Davis Lane is the first road if heading west that connects the southern party of Athol to Highway 54. The City proposed putting sidewalk on the east side of Davis Lane to give pedestrians and school children a safer means of transportation when walking to and from school. The section of roadway extends from Menser Avenue to Highway 54 for a total length of 1,300 feet. The proposed project would include 1,300 feet of sidewalk and 4 ADA ramps for an estimated project cost of approximately $312,000.

PED7: Menser Avenue Sidewalk (North Side)

This section of roadway shares Athol elementary School and connects Old Highway 95 to 1st Street. This road, along with Davis Lane, experiences the largest pedestrian volume compared to other parts of the City. This project would add sidewalk on the north side of Menser Avenue stretching from Old Highway 95 to Davis Lane. With the addition of sidewalk on Menser Avenue and the before mentioned Davis Lane sidewalk, this would connect Athol Elementary with sidewalk up to Highway 54. The 1,000 foot stretch of roadway would include sidewalk and 4 ADA ramps for a projected estimated cost of $247,000.

PED8: Upgrade Pedestrian Crossing Signage (RRFBs)

The City of Athol expressed concern to add pedestrian crossing signs around Athol in strategic locations to help make motorist more aware of potential pedestrians. The main area of concern is along Highway 54 where heavy truck and vehicle traffic utilize this roadway daily. Highway 54 runs directly through Athol and currently only one striped pedestrian crossing is marked. The City would like to place lighted pedestrian crossings in certain areas for pedestrian safety. The cost to install a lighted pedestrian crossing at 3rd Street and Highway 54 would be approximately $26,000.

PED9: Upgrade Pedestrian Crossing Signage (RRFBs)

The City of Athol expressed concern to add pedestrian crossing signs around Athol in strategic locations to help make motorist more aware of potential pedestrians. The main area of concern is along Highway 54 where heavy truck and vehicle traffic utilize this roadway daily. Highway 54 runs directly through Athol and currently only one striped pedestrian crossing is marked. The City would like to place lighted pedestrian crossings in certain areas for pedestrian safety. The cost to install a lighted pedestrian crossing at Davis Lane and Highway 54 would be approximately $26,000.

PED10: Radar Speed Limit Signage

The City of Athol expressed interest in the purchase of a radar speed limit sign for use in controlling problem areas of high speeds within the City. The cost of a radar is estimated to be approximately $18,000.

As noted by the CIP map, it is also recommended that the City establish crosswalks at the identified locations.

Study Projects

Capital Improvement Plan (Study & Misc Projects) - Priority List

Overall Priority	Project & Description	Estimated Cost	Potential Funding Sources	Related Projects
S1	**Highway 54 Corridor Study**	**$ 60,000**	Local, STP	I1, PED2
	Within City Limits			
S2	**Old Highway 95 Corridor Study**	**$ 60,000**	Local, STP	PED3
	From 1st Street to SH 54			
S3	**Safe Routes to School Program**	**$ 36,000**	Local, STP	N/A
	Within City Limits			
Study & Misc. Projects Total		**$156,000**		

Funding Key

Local – City Funds
LHSIP – Local Highway Safety Improvement Program
FLAP – Federal Lands Access Program
TAP – Transportation Alternatives Program
LHRIP – Local Highway Rural Investment Program
LSI – Local Strategic Initiatives
NHS – National Highway System Program
SRS – Safe Routes to Schools
STP – Surface Transportation Program OR STBG – Surface Transportation Block Program

S1: Highway 54 Corridor Study

The City of Athol's comprehensive plan identified the interest in having a corridor study performed on Highway 54 throughout City limits. It is recommended that this study is completed to create a vision and goal for the future of the Highway 54 corridor. It is estimated a study of this caliber would cost approximately $60,000.

S2: Old Highway 95 Corridor Study

The City of Athol's comprehensive plan identified the interest in having a corridor study performed on Old Highway 95 throughout City limits. It is recommended that this study is completed to create a vision and goal for the future of the Old Highway 95 corridor. It is estimated a study of this caliber would cost approximately $60,000.

S3: Safe Routes to School Program

The City of Athol currently does not have a Safe Routes to school program to follow. It is recommended that the City work towards completing a Safe Routes to School Program to identify pedestrian and child safety, most used routes to school, bus routes, etc. to establish a comprehensive vision for school related transportation. It is estimated that a Safe Routes to School plan would cost approximately $36,000.

Appendix B – CAPITAL IMPROVEMENTS PLAN COSTS

1st Street

RSL	Road Name	From	To	Treatment		
4	1st	Grove	Loraine	Rotomill & Thick Overlay (3 in.)		
Item Description		**Quantity**	**Units**	**Price**		**Total**
Cold Milling		1843	SY	$ 2.50	$	4,700.00
Tack Coat CSS		1843	SY	$ 0.50	$	1,000.00
Asphalt Paving		1843	SY	$ 11.60	$	21,400.00
			Subtotal:		$	27,100.00
Mobilization		15%			$	4,100.00
Engineering		20%			$	6,300.00
Contingency		25%			$	9,400.00
Environmental		0%			$	-
				Total	**$**	**46,900**

Note: Cost estimates provided herein are planning level cost estimates only. Costs for each project should be evaluated once more details are established to create more accurate project estimates.

Colin Drive (OPT 1)

RSL	Road Name	From	To	Treatment		
6	Colin Dr	Lorraine	3rd	Reconstruction		
Item Description		**Quantity**	**Units**	**Price**		**Total**
Rem. Bit Surface		1471	SY	$ 3.10	$	4,600.00
Excavation		1471	SY	$ 4.30	$	6,400.00
Subbase		1471	SY	$ 6.80	$	10,100.00
Base		1471	SY	$ 5.30	$	7,800.00
Prime Coat		1471	SY	$ 1.70	$	2,600.00
Asphalt		1471	SY	$ 11.60	$	17,100.00
			Subtotal:		$	48,600.00
Mobilization		15%			$	7,300.00
Engineering		20%			$	15,200.00
Contingency		25%			$	22,700.00
Environmental		0%			$	-
				Total	**$**	**113,500**

Colin Drive (OPT 2)

RSL	Road Name	From	To	Treatment		
6	Colin Dr	Lorraine	3rd	Mill and Thick Overlay (3-4")		
Item Description		**Quantity**	**Units**	**Price**		**Total**
Cold Milling		1471	SY	$ 2.50	$	3,700.00
Tack Coat		1471	SY	$ 0.50	$	800.00
Asphalt		1471	SY	$ 11.60	$	17,100.00
			Subtotal:		$	21,600.00
Mobilization		15%			$	3,300.00
Engineering		20%			$	5,000.00
Contingency		25%			$	7,500.00
Environmental		0%			$	-
				Total	**$**	**37,400**

Davis Lane (OPT 1)

RSL	Road Name	From	To	Treatment		
6	Davis	Menser	Hwy 54	Reconstruction		
Item Description		**Quantity**	**Units**	**Price**		**Total**
Rem. Bit Surface		3192	SY	$ 3.10	$	9,900.00
Excavation		3192	SY	$ 4.30	$	13,800.00
Subbase		3192	SY	$ 6.80	$	21,800.00
Base		3192	SY	$ 5.30	$	17,000.00
Prime Coat		3192	SY	$ 1.70	$	5,500.00
Asphalt		3192	SY	$ 11.60	$	37,100.00
			Subtotal:		$	105,100.00
Mobilization		15%			$	15,800.00
Engineering		20%			$	32,700.00
Contingency		25%			$	49,100.00
Environmental		0%			$	-
				Total	**$**	**245,300**

Davis Lane (OPT 2)

RSL	Road Name	From	To	Treatment		
6	Davis	Menser	Hwy 54	Mill and Thick Overlay (3-4")		
Item Description		**Quantity**	**Units**	**Price**		**Total**
Cold Milling		3192	SY	$ 2.50	$	8,000.00
Tack Coat		3192	SY	$ 0.10	$	400.00
Asphalt		3192	SY	$ 11.60	$	37,100.00
			Subtotal:		$	45,500.00
Mobilization		15%			$	6,900.00
Engineering		20%			$	10,500.00
Contingency		25%			$	15,800.00
Environmental		0%			$	-
				Total	**$**	**78,700**

Miller Street (OPT 1)

RSL	Road Name	From	To	Treatment
6	Miller	Old 95	End	Reconstruction

Item Description	Quantity	Units	Price	Total
Rem. Bit Surface	5920	SY	$ 3.10	$ 18,400.00
Excavation	5920	SY	$ 4.30	$ 25,500.00
Subbase	5920	SY	$ 6.80	$ 40,300.00
Base	5920	SY	$ 5.30	$ 31,400.00
Prime Coat	5920	SY	$ 1.70	$ 10,100.00
Asphalt	5920	SY	$ 11.60	$ 68,700.00
		Subtotal:		$ 194,400.00
Mobilization	15%			$ 29,200.00
Engineering	20%			$ 60,500.00
Contingency	25%			$ 90,800.00
Environmental	0%			$ -
			Total	**$ 453,700**

Miller Street (OPT 2)

RSL	Road Name	From	To	Treatment
6	Miller	Old 95	End	Mill and Thick Overlay (3-4")

Item Description	Quantity	Units	Price	Total
Cold Milling	5920	SY	$ 2.50	$ 14,800.00
Tack Coat	5920	SY	$ 0.10	$ 600.00
Asphalt	5920	SY	$ 11.60	$ 68,700.00
		Subtotal:		$ 84,100.00
Mobilization	15%			$ 12,700.00
Engineering	20%			$ 19,400.00
Contingency	25%			$ 29,100.00
Environmental	0%			$ -
			Total	**$ 145,300**

Through discussion with CAC, Miller Street simply needs some patching rather than a full reconstruct or overlay (patching/potholes)

Miller Street (Updated)

RSL	Road Name	From	To	Treatment
10	2nd	Bennett	End	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	5920	SY	$ 0.40	$ 2,400.00
		Subtotal:		$ 2,400.00
Mobilization	15%			$ 400.00
Engineering	0%			$ -
Contingency	25%			$ 700.00
Environmental	0%			$ -
			Total	**$ 3,500**

Bennett Avenue (OPT 1)

RSL	Road Name	From	To	Treatment
7	Miller	Old 95	End	Mill and Thick Overlay (3-4")

Item Description	Quantity	Units	Price	Total
Rem. Bit Surface	1157	SY	$ 3.10	$ 3,600.00
Excavation	1157	SY	$ 4.30	$ 5,000.00
Subbase	1157	SY	$ 6.80	$ 7,900.00
Base	1157	SY	$ 5.30	$ 6,200.00
Prime Coat	1157	SY	$ 1.70	$ 2,000.00
Asphalt	1157	SY	$ 11.60	$ 13,500.00
		Subtotal:		$ 16,500.00
Mobilization	15%			$ 2,500.00
Engineering	20%			$ 8,200.00
Contingency	25%			$ 12,300.00
Environmental	0%			$ -
			Total	**$ 61,200**

Bennett Avenue (OPT 2)

RSL	Road Name	From	To	Treatment
7	Bennett	1st	End	Thin Overlay (<2")

Item Description	Quantity	Units	Price	Total
Tack Coat	1157	SY	$ 0.10	$ 200.00
Asphalt Overlay (2")	1157	SY	$ 5.80	$ 6,800.00
		Subtotal:		$ 7,000.00
Mobilization	15%			$ 1,100.00
Engineering	20%			$ 1,700.00
Contingency	25%			$ 2,500.00
Environmental	0%			$ -
			Total	**$ 12,300**

McTavish Avenue

RSL	Road Name	From	To	Treatment
6	McTavish	2nd	3rd	Thick Overlay (3 in.)

Item Description	Quantity	Units	Price	Total
Tack Coat CSS-1	351	SY	$ 0.10	$ 100.00
Asphalt Paving	351	SY	$ 11.60	$ 4,100.00
		Subtotal:		$ 4,200.00
Mobilization	15%			$ 700.00
Engineering	20%			$ 1,000.00
Contingency	25%			$ 1,500.00
Environmental	0%			$ -
			Total	**$ 7,400**

1st Street

RSL	Road Name	From	To	Treatment
8	1st	Old 95	End	Thin Overlay (<2")

Item Description	Quantity	Units	Price	Total
Tack Coat	16467	SY	$ 0.10	$ 1,700.00
Asphalt Overlay (2")	16467	SY	$ 5.80	$ 95,600.00
		Subtotal:		$ 97,300.00
Mobilization	15%			$ 14,600.00
Engineering	20%			$ 22,400.00
Contingency	25%			$ 33,600.00
Environmental	0%			$ -
			Total	**$ 167,900**

Forest Avenue

RSL	Road Name	From	To	Treatment
8	Forest	Alice	Meadow	Thin Overlay (<2")

Item Description	Quantity	Units	Price	Total
Tack Coat	1748	SY	$ 0.10	$ 200.00
Asphalt Overlay (2")	1748	SY	$ 5.80	$ 10,200.00
Manhole Ring Adj	6	EA	$ 750.00	$ 4,500.00
		Subtotal:		$ 14,900.00
Mobilization	15%			$ 2,300.00
Engineering	20%			$ 3,500.00
Contingency	25%			$ 5,200.00
Environmental	0%			$ -
			Total	**$ 25,900**

Alice Street

RSL	Road Name	From	To	Treatment
9	Alice	End	End	Thin Overlay (<2")

Item Description	Quantity	Units	Price	Total
Tack Coat	5017	SY	$ 0.10	$ 600.00
Asphalt Overlay (2")	5017	SY	$ 5.80	$ 29,100.00
Manhole Ring Adj	6	EA	$ 750.00	$ 4,500.00
		Subtotal:		$ 34,200.00
Mobilization	15%			$ 5,200.00
Engineering	20%			$ 7,900.00
Contingency	25%			$ 11,900.00
Environmental	0%			$ -
			Total	**$ 59,200**

Bertsch Street

RSL	Road Name	From	To	Treatment
9	Bertsch	5th	Old 95	Thin Overlay (<2")

Item Description	Quantity	Units	Price	Total
Tack Coat	3173	SY	$ 0.10	$ 400.00
Asphalt Overlay (2")	3173	SY	$ 5.80	$ 18,500.00
		Subtotal:		$ 18,900.00
Mobilization	15%			$ 2,900.00
Engineering	20%			$ 4,400.00
Contingency	25%			$ 6,600.00
Environmental	0%			$ -
			Total	**$ 32,800**

Lorraine Drive

RSL	Road Name	From	To	Treatment
9	Lorraine	1st	End	Thin Overlay (<2")

Item Description	Quantity	Units	Price	Total
Tack Coat	2309	SY	$ 0.10	$ 300.00
Asphalt Overlay (2")	2309	SY	$ 5.80	$ 13,400.00
		Subtotal:		$ 13,700.00
Mobilization	15%			$ 2,100.00
Engineering	20%			$ 3,200.00
Contingency	25%			$ 4,800.00
Environmental	0%			$ -
			Total	**$ 23,800**

McTavish Avenue

RSL	Road Name	From	To	Treatment
9	McTavish	1st	4th	Thin Overlay (<2")

Item Description	Quantity	Units	Price	Total
Tack Coat	2089	SY	$ 0.10	$ 300.00
Asphalt Overlay (2")	2089	SY	$ 5.80	$ 12,200.00
		Subtotal:		$ 12,500.00
Mobilization	15%			$ 1,900.00
Engineering	20%			$ 2,900.00
Contingency	25%			$ 4,400.00
Environmental	0%			$ -
			Total	**$ 21,700**

Vera Avenue

RSL	Road Name	From	To	Treatment
9	Vera	5th	Old 95	Thin Overlay (<2")

Item Description	Quantity	Units	Price	Total
Tack Coat	3070	SY	$ 0.10	$ 400.00
Asphalt Overlay (2")	3070	SY	$ 5.80	$ 17,900.00
		Subtotal:		$ 18,300.00
Mobilization	15%			$ 2,800.00
Engineering	20%			$ 4,300.00
Contingency	25%			$ 6,400.00
Environmental	0%			$ -
			Total	**$ 31,800**

2nd Street (OPT 1)

RSL	Road Name	From	To	Treatment
10	2nd	Bennett	End	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	2738	SY	$ 3.30	$ 9,100.00
		Subtotal:		$ 9,100.00
Mobilization	15%			$ 1,400.00
Engineering	0%			$ -
Contingency	25%			$ 2,700.00
Environmental	0%			$ -
			Total	**$ 13,200**

2nd Street (OPT 2)

RSL	Road Name	From	To	Treatment
10	2nd	Bennett	End	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	2738	SY	$ 0.40	$ 1,100.00
		Subtotal:		$ 1,100.00
Mobilization	15%			$ 200.00
Engineering	0%			$ -
Contingency	25%			$ 400.00
Environmental	0%			$ -
			Total	**$ 2,000**

6th Street (OPT 1)

RSL	Road Name	From	To	Treatment
10	6th	Menser	Vera	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	3114	SY	$ 3.30	$ 10,300.00
		Subtotal:		$ 10,300.00
Mobilization	15%			$ 1,600.00
Engineering	0%			$ -
Contingency	25%			$ 3,000.00
Environmental	0%			$ -
			Total	**$ 14,900**

6th Street (OPT 2)

RSL	Road Name	From	To	Treatment
10	6th	Menser	Vera	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	3114	SY	$ 0.40	$ 1,300.00
		Subtotal:		$ 1,300.00
Mobilization	15%			$ 200.00
Engineering	0%			$ -
Contingency	25%			$ 400.00
Environmental	0%			$ -
			Total	**$ 2,000**

3rd Street (OPT 1)

RSL	Road Name	From	To	Treatment
10	3rd	Colin	Hill	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	6042	SY	$ 3.30	$ 20,000.00
		Subtotal:		$ 20,000.00
Mobilization	15%			$ 3,000.00
Engineering	0%			$ -
Contingency	25%			$ 5,800.00
Environmental	0%			$ -
			Total	**$ 28,800**

3rd Street (OPT 2)

RSL	Road Name	From	To	Treatment
10	3rd	Colin	Hill	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	6042	SY	$ 0.40	$ 2,500.00
		Subtotal:		$ 2,500.00
Mobilization	15%			$ 400.00
Engineering	0%			$ -
Contingency	25%			$ 800.00
Environmental	0%			$ -
			Total	**$ 4,000**

4th Street (OPT 1)

RSL	Road Name	From	To	Treatment
10	4th	SH 54	Menser	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	3469	SY	$ 3.30	$ 11,500.00
		Subtotal:		$ 11,500.00
Mobilization	15%			$ 1,800.00
Engineering	0%			$ -
Contingency	25%			$ 3,400.00
Environmental	0%			$ -
			Total	**$ 16,700**

4th Street (OPT 2)

RSL	Road Name	From	To	Treatment
10	4th	SH 54	Menser	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	3469	SY	$ 0.40	$ 1,400.00
		Subtotal:		$ 1,400.00
Mobilization	15%			$ 300.00
Engineering	0%			$ -
Contingency	25%			$ 500.00
Environmental	0%			$ -
			Total	**$ 3,000**

7th Street (OPT 1)

RSL	Road Name	From	To	Treatment
10	7th	Bertsch	Vera	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	1371	SY	$ 3.30	$ 4,600.00
		Subtotal:		$ 4,600.00
Mobilization	15%			$ 700.00
Engineering	0%			$ -
Contingency	25%			$ 1,400.00
Environmental	0%			$ -
			Total	**$ 6,700**

7th Street (OPT 2)

RSL	Road Name	From	To	Treatment
10	7th	Bertsch	Vera	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	1371	SY	$ 0.40	$ 600.00
		Subtotal:		$ 600.00
Mobilization	15%			$ 100.00
Engineering	0%			$ -
Contingency	25%			$ 200.00
Environmental	0%			$ -
			Total	**$ 1,000**

Grove Avenue (OPT 1)

RSL	Road Name	From	To	Treatment
10	Grove	Allen	Old 95	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	1724	SY	$ 3.30	$ 5,700.00
Subtotal:				$ 5,700.00
Mobilization	15%			$ 900.00
Engineering	0%			$ -
Contingency	25%			$ 1,700.00
Environmental	0%			$ -
Total				**$ 8,300**

Grove Avenue (OPT 2)

RSL	Road Name	From	To	Treatment
10	Grove	Allen	Old 95	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	1724	SY	$ 0.40	$ 700.00
Subtotal:				$ 700.00
Mobilization	15%			$ 200.00
Engineering	0%			$ -
Contingency	25%			$ 300.00
Environmental	0%			$ -
Total				**$ 2,000**

Meadow Street (OPT 1)

RSL	Road Name	From	To	Treatment
10	Meadow	End	SH 54	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	4919	SY	$ 3.30	$ 16,300.00
Subtotal:				$ 16,300.00
Mobilization	15%			$ 2,500.00
Engineering	0%			$ -
Contingency	25%			$ 4,700.00
Environmental	0%			$ -
Total				**$ 23,500**

Meadow Street (OPT 2)

RSL	Road Name	From	To	Treatment
10	Meadow	End	SH 54	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	4919	SY	$ 0.40	$ 2,000.00
Subtotal:				$ 2,000.00
Mobilization	15%			$ 300.00
Engineering	0%			$ -
Contingency	25%			$ 600.00
Environmental	0%			$ -
Total				**$ 3,000**

Valley Avenue (OPT 1)

RSL	Road Name	From	To	Treatment
10	Valley	Meadow	Alice	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	1881	SY	$ 3.30	$ 6,300.00
Subtotal:				$ 6,300.00
Mobilization	15%			$ 1,000.00
Engineering	0%			$ -
Contingency	25%			$ 1,900.00
Environmental	0%			$ -
Total				**$ 9,200**

Valley Avenue (OPT 2)

RSL	Road Name	From	To	Treatment
10	Valley	Meadow	Alice	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	1881	SY	$ 0.40	$ 800.00
Subtotal:				$ 800.00
Mobilization	15%			$ 200.00
Engineering	0%			$ -
Contingency	25%			$ 300.00
Environmental	0%			$ -
Total				**$ 1,300**

Pastime Street (OPT 1)

RSL	Road Name	From	To	Treatment
10	Pastime	Freemont	SH 54	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	1320	SY	$ 3.30	$ 4,400.00
Subtotal:				$ 4,400.00
Mobilization	15%			$ 700.00
Engineering	0%			$ -
Contingency	25%			$ 1,300.00
Environmental	0%			$ -
Total				**$ 6,400**

Pastime Street (OPT 2)

RSL	Road Name	From	To	Treatment
10	Pastime	Freemont	SH 54	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	1320	SY	$ 0.40	$ 600.00
Subtotal:				$ 600.00
Mobilization	15%			$ 100.00
Engineering	0%			$ -
Contingency	25%			$ 200.00
Environmental	0%			$ -
Total				**$ 1,000**

Menser Avenue (OPT 1)

RSL	Road Name	From	To	Treatment
11	Menser	1st	Old 95	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	6720	SY	$ 3.30	$ 22,200.00
Subtotal:				$ 22,200.00
Mobilization	15%			$ 3,400.00
Engineering	0%			$ -
Contingency	25%			$ 6,400.00
Environmental	0%			$ -
Total				**$ 32,000**

Menser Avenue (OPT 2)

RSL	Road Name	From	To	Treatment
11	Menser	1st	Old 95	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	6720	SY	$ 0.40	$ 2,700.00
Subtotal:				$ 2,700.00
Mobilization	15%			$ 500.00
Engineering	0%			$ -
Contingency	25%			$ 800.00
Environmental	0%			$ -
Total				**$ 4,000**

5th Street (OPT 1)

RSL	Road Name	From	To	Treatment
11	5th	End	Vera	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	3230	SY	$ 3.30	$ 10,700.00
Subtotal:				$ 10,700.00
Mobilization	15%			$ 1,700.00
Engineering	0%			$ -
Contingency	25%			$ 3,100.00
Environmental	0%			$ -
Total				**$ 15,500**

5th Street (OPT 2)

RSL	Road Name	From	To	Treatment
11	5th	End	Vera	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	3230	SY	$ 0.40	$ 1,300.00
Subtotal:				$ 1,300.00
Mobilization	15%			$ 200.00
Engineering	0%			$ -
Contingency	25%			$ 400.00
Environmental	0%			$ -
Total				**$ 2,000**

Railroad Street (OPT 1)

RSL	Road Name	From	To	Treatment
12	Railroad	SH 54	Grove	Chipseal

Item Description	Quantity	Units	Price	Total
Chipseal	736	SY	$ 3.30	$ 2,500.00
		Subtotal:		$ 2,500.00
Mobilization	15%			$ 400.00
Engineering	0%			$ -
Contingency	25%			$ 800.00
Environmental	0%			$ -
			Total	**$ 3,700**

Railroad Street (OPT 2)

RSL	Road Name	From	To	Treatment
12	Railroad	SH 54	Grove	Cold Patch

Item Description	Quantity	Units	Price	Total
Cold Patching	736	SY	$ 0.40	$ 300.00
		Subtotal:		$ 300.00
Mobilization	15%			$ 100.00
Engineering	0%			$ -
Contingency	25%			$ 100.00
Environmental	0%			$ -
			Total	**$ 500**

Note: Cost estimates provided herein are planning level cost estimates only. Costs for each project should be evaluated once more details are established to create more accurate project estimates.

I1: SH 54 RR Crossing

PSC	Project Area	Treatment
N/A	SH 54 & RR Crossing	Highway Underpass

Item	Quantity	Units	Price	Total
Demolition	1	LS	$ 35,000.00	$ 35,000.00
Excavation & Gradir	1	LS	$ 300,000.00	$ 300,000.00
Retaining Wall	2300	SY	$ 1,350.00	$ 3,105,000.00
Sidewalk & C+G	2450	LF	$ 125.00	$ 306,250.00
Backfill	2400	CY	$ 40.00	$ 96,000.00
Asphalt Paving (4")	7100	SY	$ 30.00	$ 213,000.00
Railroad Crossing	100	LF	$ 20,000.00	$ 2,000,000.00
Concrete Columns	40	CY	$ 750.00	$ 30,000.00
Pedestrian Bridge	570	SY	$ 1,750.00	$ 997,500.00
		Subtotal:		$ 7,082,750.00
Mobilization	15%			$ 1,062,500.00
Engineering	20%			$ 1,629,100.00
Contingency	35%			$ 3,421,100.00
Environmental	10%			$ 1,319,600.00
			Total	**$ 14,520,000**

This cost estimate is based on the layout originally planned through the "Bridging the Valley" project. The project includes a RR bridge that the Highway will pass under, including retaining walls, curb, gutter, and sidewalks, a separate pedestrian bridge, and related construction activities.

PED1: Paved Pedestrian Path (Highway 54)

PSC	Project Area	Treatment
N/A	From Old HW 95 to N Sylvan Rd	Pave Existing Gravel Pathway

Item	Quantity	Units	Price	Total
Exc & Grading	2500	SY	$ 5.00	$ 12,500.00
Asphalt Pathway	2500	SY	$ 12.50	$ 31,250.00
		Subtotal:		$ 43,750.00
Mobilization	15%			$ 6,600.00
Engineering	20%			$ 10,100.00
Contingency	25%			$ 15,200.00
Environmental	0%			$ -
			Total	**$ 76,000**

PED2.1: Highway 54 Sidewalks (North Side)

PSC	Project Area	Treatment
N/A	Meadow St to 1st St	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
Sidewalk	1550	LF	$ 125.00	$ 193,750.00
ADA Ramps	12	EA	$ 4,500.00	$ 54,000.00
DW Approaches	5	EA	$ 2,500.00	$ 12,500.00
		Subtotal:		$ 260,250.00
Mobilization	15%			$ 39,100.00
Engineering	20%			$ 59,900.00
Contingency	25%			$ 89,900.00
Environmental	0%			$ -
			Total	**$ 450,000**

PED2.2: Highway 54 Sidewalks (North Side)

PSC	Project Area	Treatment
N/A	1st St to 5th St	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
Sidewalk	1100	LF	$ 125.00	$ 137,500.00
ADA Ramps	8	EA	$ 4,500.00	$ 36,000.00
DW Approaches	7	EA	$ 2,500.00	$ 17,500.00
		Subtotal:		$ 191,000.00
Mobilization	15%			$ 28,700.00
Engineering	20%			$ 44,000.00
Contingency	25%			$ 66,000.00
Environmental	0%			$ -
			Total	**$ 330,000**

PED2.3: Highway 54 Sidewalks (North Side)

PSC	Project Area		Treatment		
N/A	5th St to Old HW 95		New Sidewalk, C+G, Ped Ramps		
Item	**Quantity**	**Units**	**Price**		**Total**
Sidewalk	1100	LF	$ 125.00	$	137,500.00
ADA Ramps	2	EA	$ 4,500.00	$	9,000.00
DW Approaches	8	EA	$ 2,500.00	$	20,000.00
		Subtotal:		$	166,500.00
Mobilization	15%			$	25,000.00
Engineering	20%			$	38,300.00
Contingency	25%			$	57,500.00
Environmental	0%			$	-
			Total	**$**	**288,000**

PED2.4: Highway 54 Sidewalks (South Side)

PSC	Project Area		Treatment		
N/A	Meadow St to 1st St		New Sidewalk, C+G, Ped Ramps		
Item	**Quantity**	**Units**	**Price**		**Total**
Sidewalk	1550	LF	$ 125.00	$	193,750.00
ADA Ramps	10	EA	$ 4,500.00	$	45,000.00
DW Approaches	7	EA	$ 2,500.00	$	17,500.00
		Subtotal:		$	256,250.00
Mobilization	15%			$	38,500.00
Engineering	20%			$	59,000.00
Contingency	25%			$	88,500.00
Environmental	0%			$	-
			Total	**$**	**443,000**

PED2.5: Highway 54 Sidewalks (South Side)

PSC	Project Area		Treatment		
N/A	1st St to Davis Lane		New Sidewalk, C+G, Ped Ramps		
Item	**Quantity**	**Units**	**Price**		**Total**
Sidewalk	1400	LF	$ 125.00	$	175,000.00
ADA Ramps	6	EA	$ 4,500.00	$	27,000.00
DW Approaches	3	EA	$ 2,500.00	$	7,500.00
		Subtotal:		$	209,500.00
Mobilization	15%			$	31,500.00
Engineering	20%			$	48,200.00
Contingency	25%			$	72,300.00
Environmental	0%			$	-
			Total	**$**	**362,000**

PED2.6: Highway 54 Sidewalks (South Side)

PSC	Project Area	Treatment
N/A	Davis Ln to Old HW 95	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units		Price		Total
Sidewalk	900	LF	$	125.00	$	112,500.00
ADA Ramps	2	EA	$	4,500.00	$	9,000.00
DW Approaches	4	EA	$	2,500.00	$	10,000.00
		Subtotal:			$	131,500.00
Mobilization	15%				$	19,800.00
Engineering	20%				$	30,300.00
Contingency	25%				$	45,400.00
Environmental	0%				$	-
			Total		**$**	**227,000**

PED3.1: Old Highway 95 Pathway (West Side; City Limits)

PSC	Project Area	Treatment
N/A	From SH 54 to Vera Ave	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units		Price		Total
ADA Ramps	11	EA	$	4,500.00	$	49,500.00
Base	2889	SY	$	5.30	$	15,311.11
Prime Coat	2889	SY	$	1.70	$	4,911.11
Asphalt Paving	2889	SY	$	11.60	$	33,511.11
		Subtotal:			$	103,233.33
Mobilization	15%				$	15,500.00
Engineering	20%				$	23,800.00
Contingency	25%				$	35,700.00
Environmental	0%				$	-
			Total		**$**	**179,000**

PED3.2: Old Highway 95 Pathway (East Side; City limits)

PSC	Project Area	Treatment
N/A	From SH 54 to Vera Ave	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
ADA Ramps	10	EA	$ 4,500.00	$ 45,000.00
Base	2889	SY	$ 5.30	$ 15,311.11
Prime Coat	2889	SY	$ 1.70	$ 4,911.11
Asphalt Paving	2889	SY	$ 11.60	$ 33,511.11
		Subtotal:		$ 98,733.33
Mobilization	15%			$ 14,900.00
Engineering	20%			$ 22,800.00
Contingency	25%			$ 34,200.00
Environmental	0%			$ -
			Total	**$ 171,000**

PED3.3: Old Highway 95 Pathway (West Side; Developer)

PSC	Project Area	Treatment
N/A	From Vera to 1st St	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
ADA Ramps	6	EA	$ 4,500.00	$ 27,000.00
Base	6222	SY	$ 5.30	$ 32,977.78
Prime Coat	6222	SY	$ 1.70	$ 10,577.78
Asphalt Paving	6222	SY	$ 11.60	$ 72,177.78
		Subtotal:		$ 142,733.33
Mobilization	15%			$ 21,500.00
Engineering	20%			$ 32,900.00
Contingency	25%			$ 49,300.00
Environmental	0%			$ -
			Total	**$ 247,000**

PED3.4: Old Highway 95 Pathway (East Side; Developer)

PSC	Project Area	Treatment
N/A	From Vera to 1st St	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
ADA Ramps	8	EA	$ 4,500.00	$ 36,000.00
Base	6222	SY	5.3	$ 32,977.78
Prime Coat	6222	SY	1.7	$ 10,577.78
Asphalt Paving	6222	SY	11.6	$ 72,177.78
		Subtotal:		$ 151,733.33
Mobilization	15%			$ 22,800.00
Engineering	20%			$ 35,000.00
Contingency	25%			$ 52,400.00
Environmental	0%			$ -
			Total	**$ 262,000**

PED4.1: 1st Street Sidewalk (East Side; City Limits)

PSC	Project Area	Treatment
N/A	From SH 54 to Menser Ave	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
Sidewalk	1200	LF	$ 125.00	$ 150,000.00
ADA Ramps	7	EA	$ 4,500.00	$ 31,500.00
		Subtotal:		$ 181,500.00
Mobilization	15%			$ 27,300.00
Engineering	20%			$ 41,800.00
Contingency	25%			$ 62,700.00
Environmental	0%			$ -
			Total	**$ 314,000**

PED4.1: 1st Street Sidewalk (East Side; Outside City)

PSC	Project Area	Treatment
N/A	From SH 54 to Menser Ave	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
Sidewalk	4300	LF	$ 125.00	$ 537,500.00
ADA Ramps	7	EA	$ 4,500.00	$ 31,500.00
		Subtotal:		$ 569,000.00
Mobilization	15%			$ 85,400.00
Engineering	20%			$ 130,900.00
Contingency	25%			$ 196,400.00
Environmental	0%			$ -
			Total	**$ 982,000**

PED5: Bike Path Along Old Highway 95

PSC	Project Area	Treatment
N/A		Separated asphalt pathway

Item	Quantity	Units	Price	Total
Base	17600	SY	$ 5.30	$ 93,280.00
Prime Coat	17600	SY	$ 1.70	$ 29,920.00
Asphalt Paving	17600	SY	$ 5.80	$ 102,080.00
		Subtotal:		$ 225,280.00
Mobilization	15%			$ 33,800.00
Engineering	20%			$ 51,900.00
Contingency	25%			$ 77,800.00
Environmental	0%			$ -
			Total	**$ 389,000**

PED6: Davis Lane Sidewalk (East Side)

PSC	Project Area	Treatment
N/A	Sh 54 to Menser Ave	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
Sidewalk	1300	LF	$ 125.00	$ 162,500.00
ADA Ramps	4	EA	$ 4,500.00	$ 18,000.00
		Subtotal:		$ 180,500.00
Mobilization	15%			$ 27,100.00
Engineering	20%			$ 41,600.00
Contingency	25%			$ 62,300.00
Environmental	0%			$ -
			Total	**$ 312,000**

PED7: Menser Ave Sidewalk (North Side)

PSC	Project Area	Treatment
N/A	Meadow St to Super 1	New Sidewalk, C+G, Ped Ramps

Item	Quantity	Units	Price	Total
Sidewalk	1000	LF	$ 125.00	$ 125,000.00
ADA Ramps	4	EA	$ 4,500.00	$ 18,000.00
		Subtotal:		$ 143,000.00
Mobilization	15%			$ 21,500.00
Engineering	20%			$ 32,900.00
Contingency	25%			$ 49,400.00
Environmental	0%			$ -
			Total	**$ 247,000**

PED8: Upgraded Ped Crossing Signage

PSC	Project Area	Treatment
N/A	SH 54 and 3rd	RRFBs

Item	Quantity	Units	Price	Total
RRFBs	1	LS	$ 15,000.00	$ 15,000.00
		Subtotal:		$ 15,000.00
Mobilization	15%			$ 2,300.00
Engineering	20%			$ 3,500.00
Contingency	25%			$ 5,200.00
Environmental	0%			$ -
			Total	**$ 26,000**

PED9: Upgraded Ped Crossing Signage

PSC	Project Area	Treatment
N/A	SH 54 and Davis	RRFBs

Item	Quantity	Units	Price	Total
RRFBs	1	LS	$ 15,000.00	$ 15,000.00
		Subtotal:		$ 15,000.00
Mobilization	15%			$ 2,300.00
Engineering	20%			$ 3,500.00
Contingency	25%			$ 5,200.00
Environmental	0%			$ -
			Total	**$ 26,000**

PED9: Radar Speed Sign

PSC	Project Area	Treatment
N/A		Radar Signage

Item	Quantity	Units	Price	Total
Radar Speed Sign	1	LS	$ 10,000.00	$ 10,000.00
		Subtotal:		$ 10,000.00
Mobilization	15%			$ 1,500.00
Engineering	20%			$ 2,300.00
Contingency	25%			$ 3,500.00
Environmental	0%			$ -
			Total	**$ 18,000**

S1: Highway 54 Corridor Study

PSC	Project Area	Treatment
N/A	Entire Length	Corridor Study

Item	Quantity	Units		Price		Total
Study/Report	1	LS	$	50,000.00	$	50,000.00
		Subtotal:			$	50,000.00
Mobilization	0%				$	-
Engineering	20%				$	10,000.00
Contingency	0%				$	-
Environmental	0%				$	-
			Total		**$**	**60,000**

S2: Old Highway 95 Corridor Study

PSC	Project Area	Treatment
N/A	Entire Length	Corridor Study

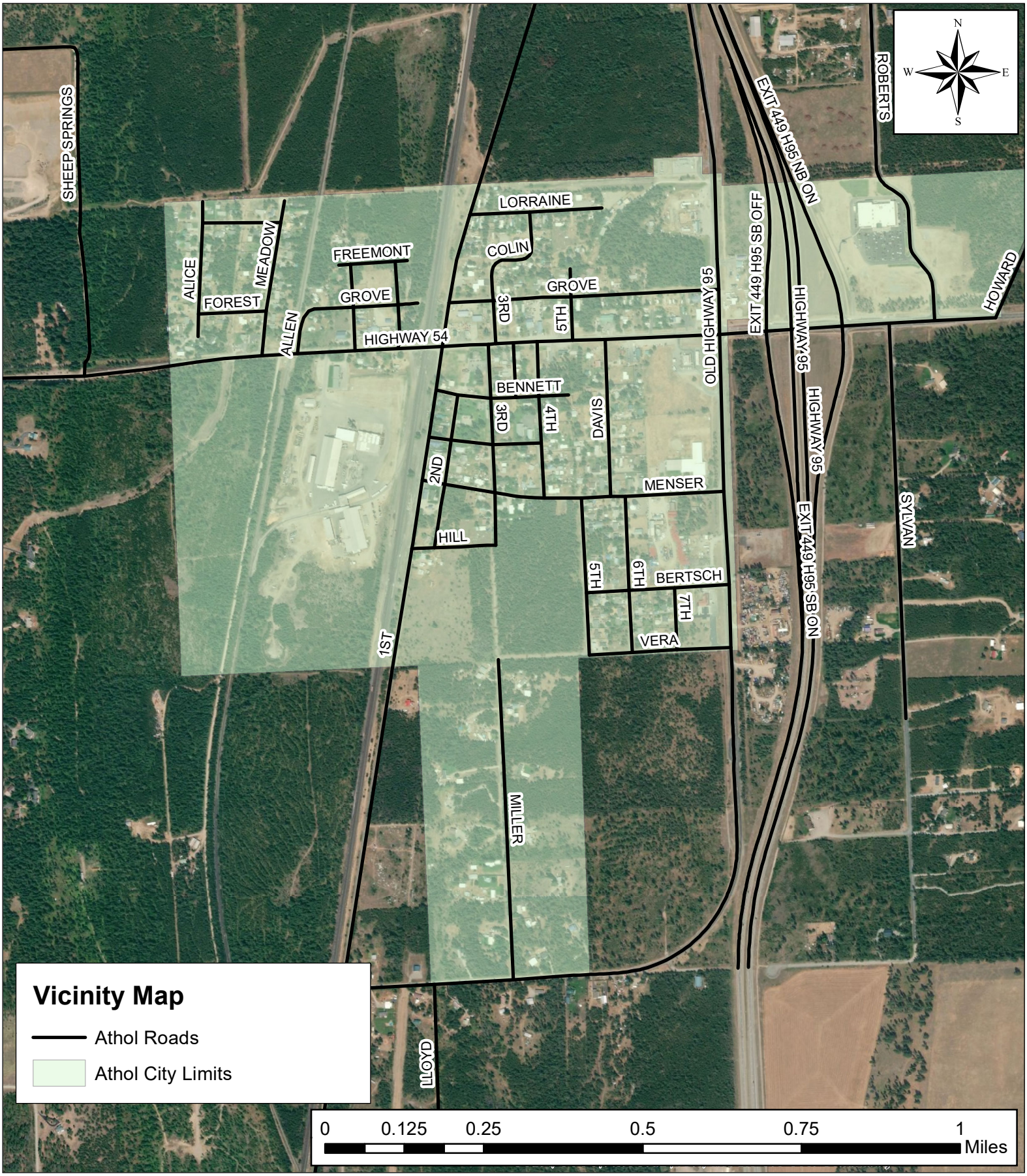
Item	Quantity	Units		Price		Total
Study/Report	1	LS	$	50,000.00	$	50,000.00
		Subtotal:			$	50,000.00
Mobilization	0%				$	-
Engineering	20%				$	10,000.00
Contingency	0%				$	-
Environmental	0%				$	-
			Total		**$**	**60,000**

S3: Safe Routes to School Study

PSC	Project Area	Treatment
N/A	Entire Length	Corridor Study

Item	Quantity	Units		Price		Total
Study/Report	1	LS	$	30,000.00	$	30,000.00
		Subtotal:			$	30,000.00
Mobilization	0%				$	-
Engineering	20%				$	6,000.00
Contingency	0%				$	-
Environmental	0%				$	-
			Total		**$**	**36,000**

Appendix C – FULL SIZE FIGURES



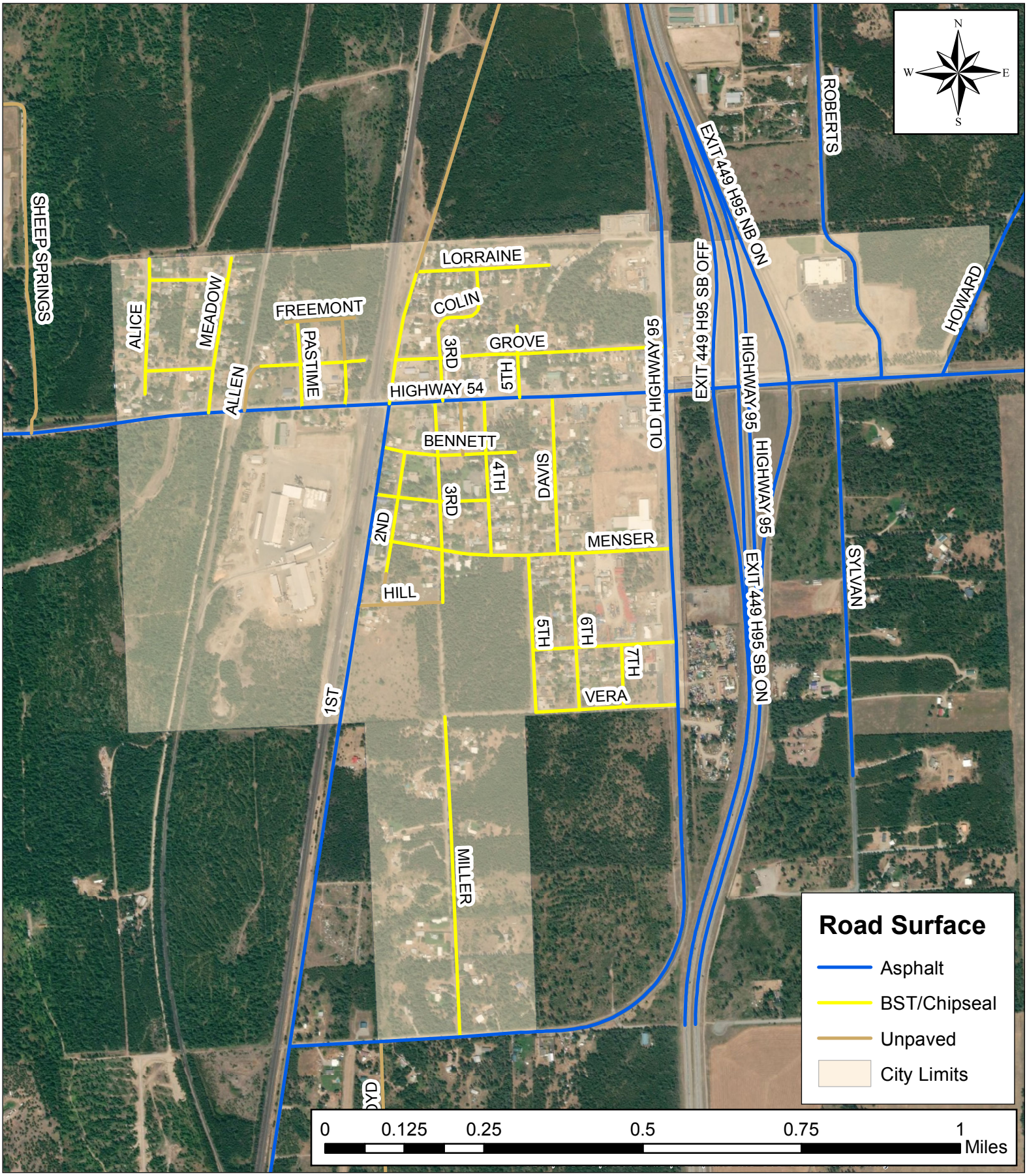
KELLER ASSOCIATES

Athol - Vicinity Map

Athol Transportation Plan

Figure 1

City of Athol , ID



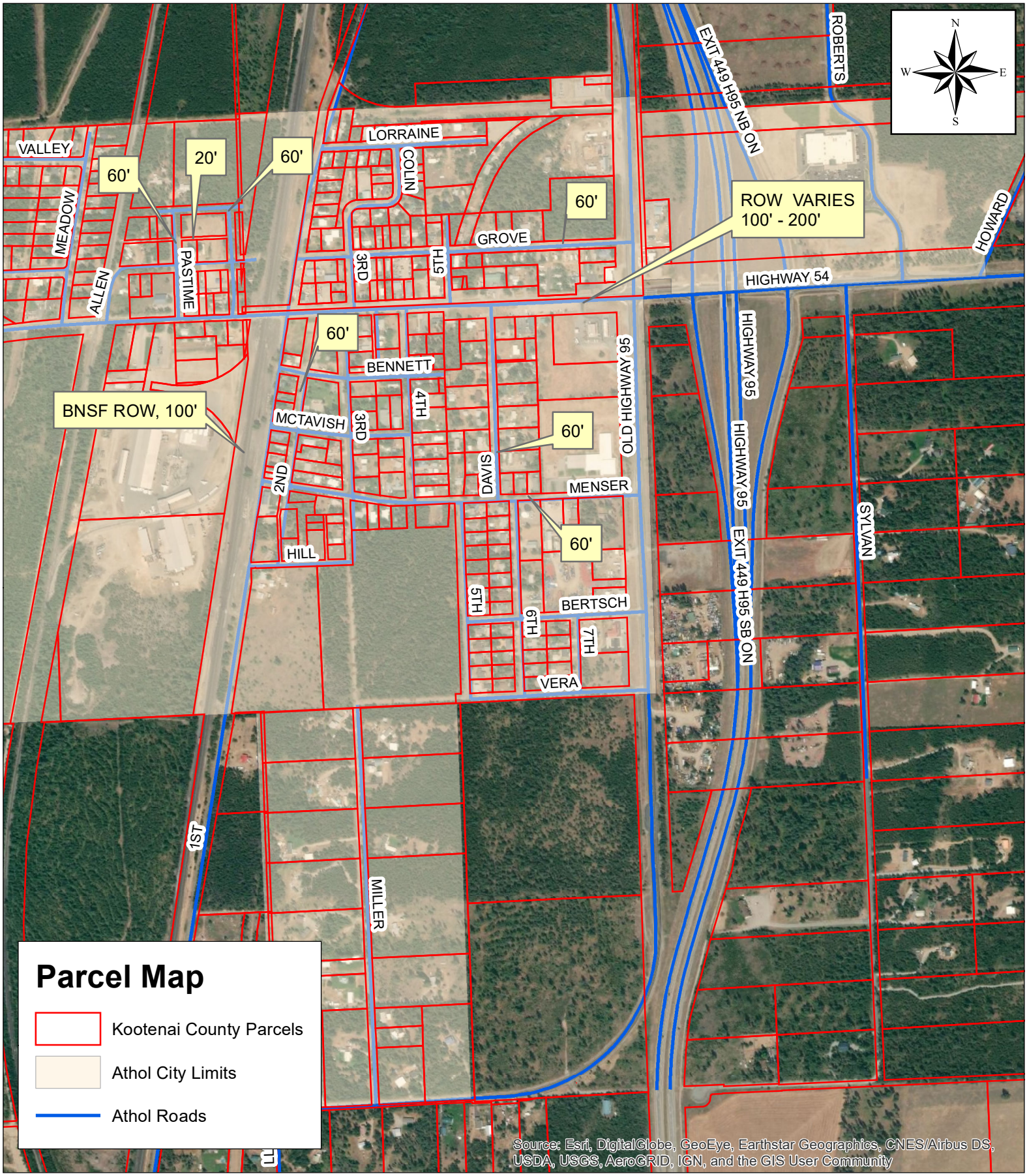
KELLER ASSOCIATES

Athol - Roadway Surface

Athol Transportation Plan

Figure 7

City of Athol , ID



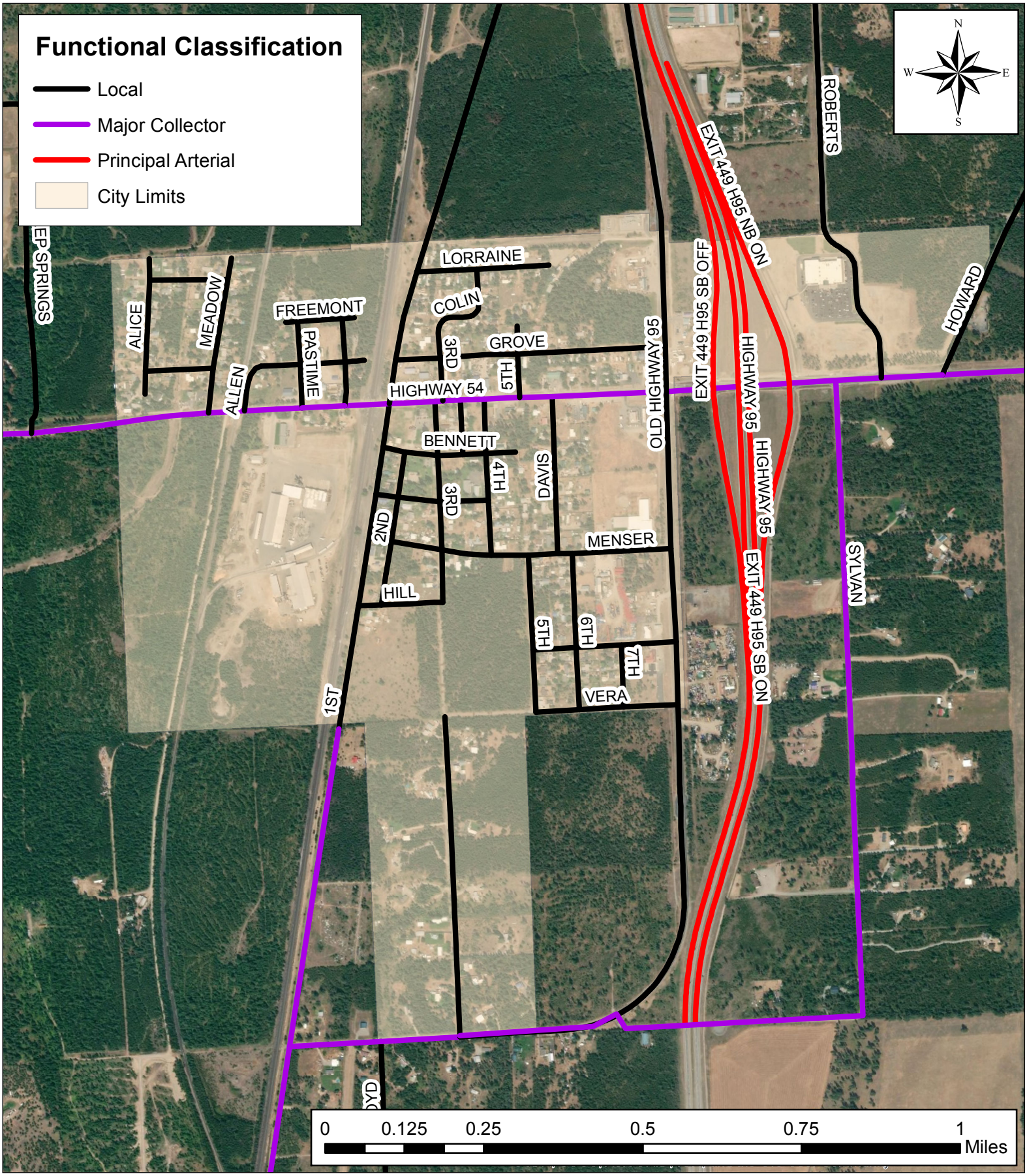
KELLER ASSOCIATES

Athol - Parcel Map

Athol Transportation Plan

Figure 8

City of Athol, ID



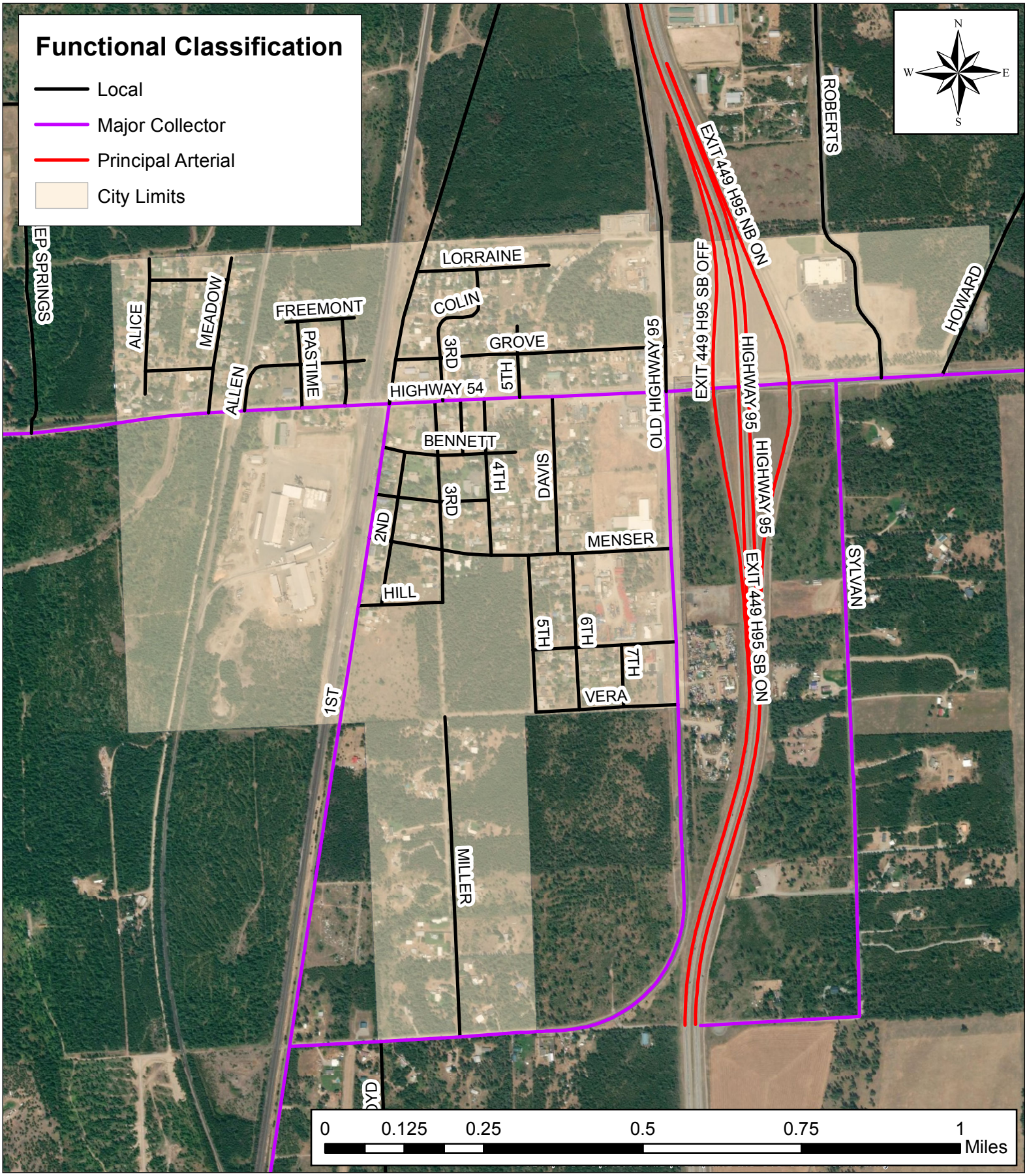
KELLER ASSOCIATES

Athol - Functional Classification

Athol Transportation Plan

Figure 9

City of Athol , ID



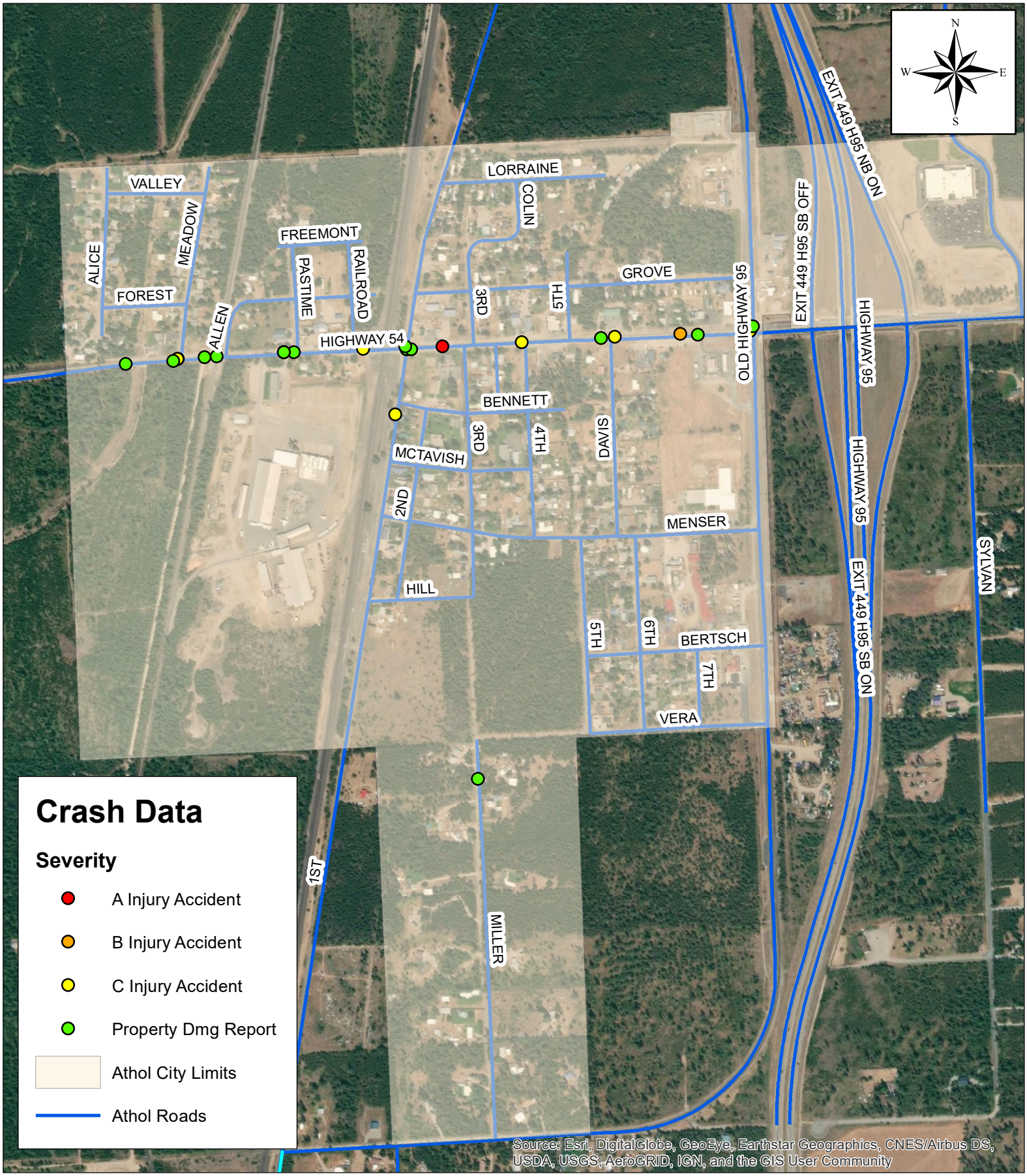
Athol - Proposed Functional Classification

Athol Transportation Plan

Figure 10

City of Athol , ID

KELLER ASSOCIATES



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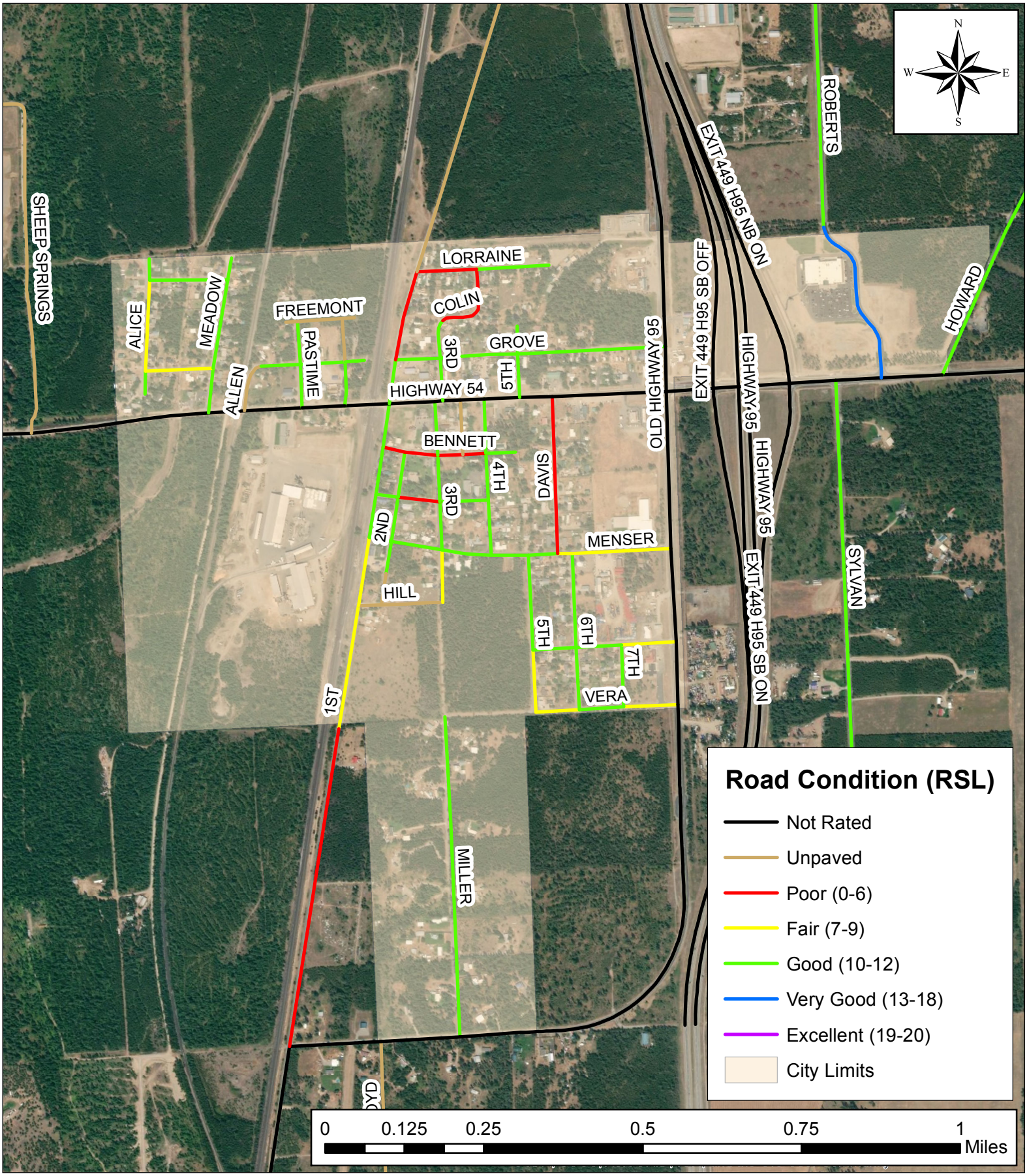
Athol - Crash Data

Athol Transportation Plan

Figure 12

City of Athol, ID



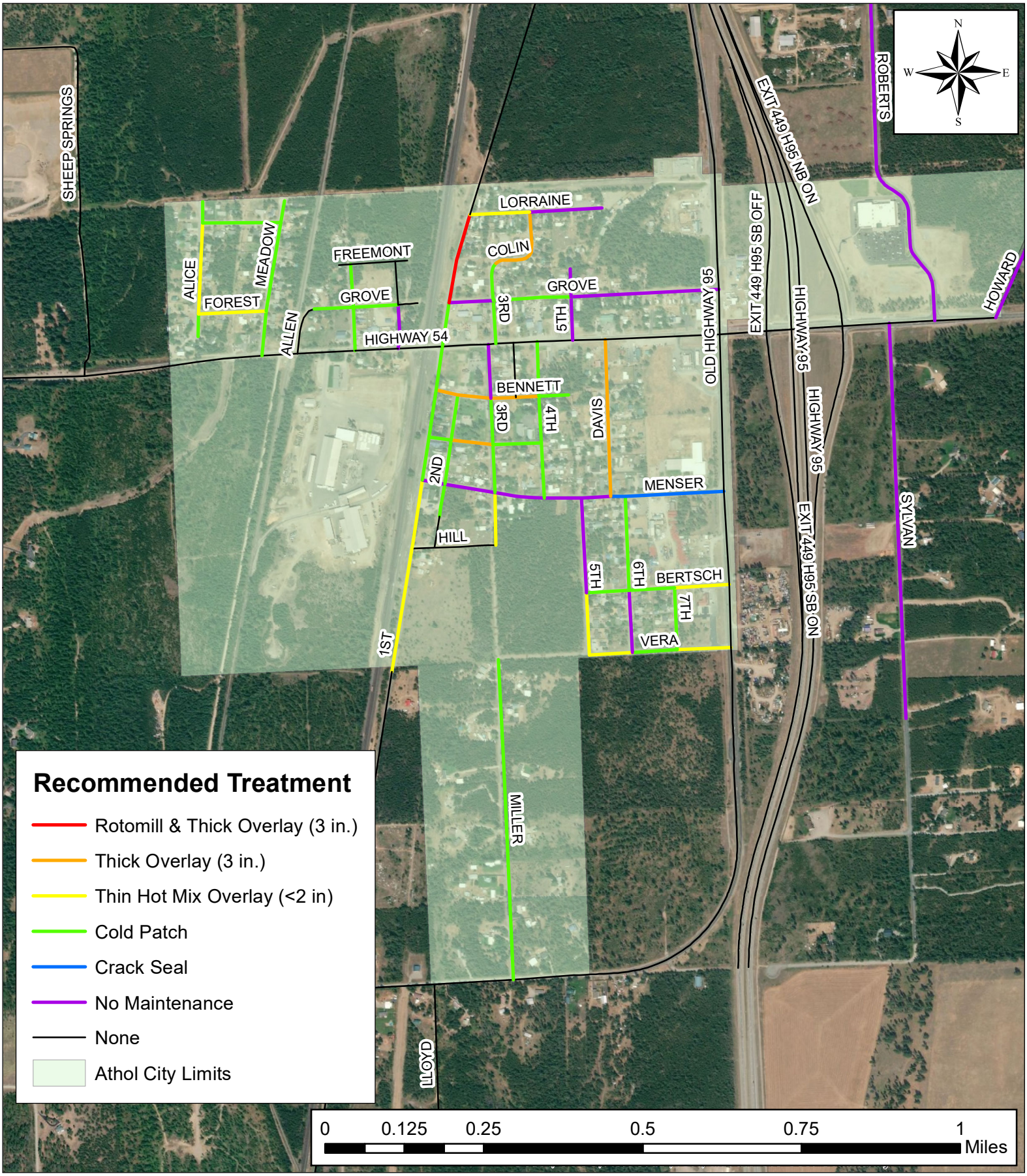
KELLER ASSOCIATES

Athol - Pavement Condition

Athol Transportation Plan

Figure 14

City of Athol , ID



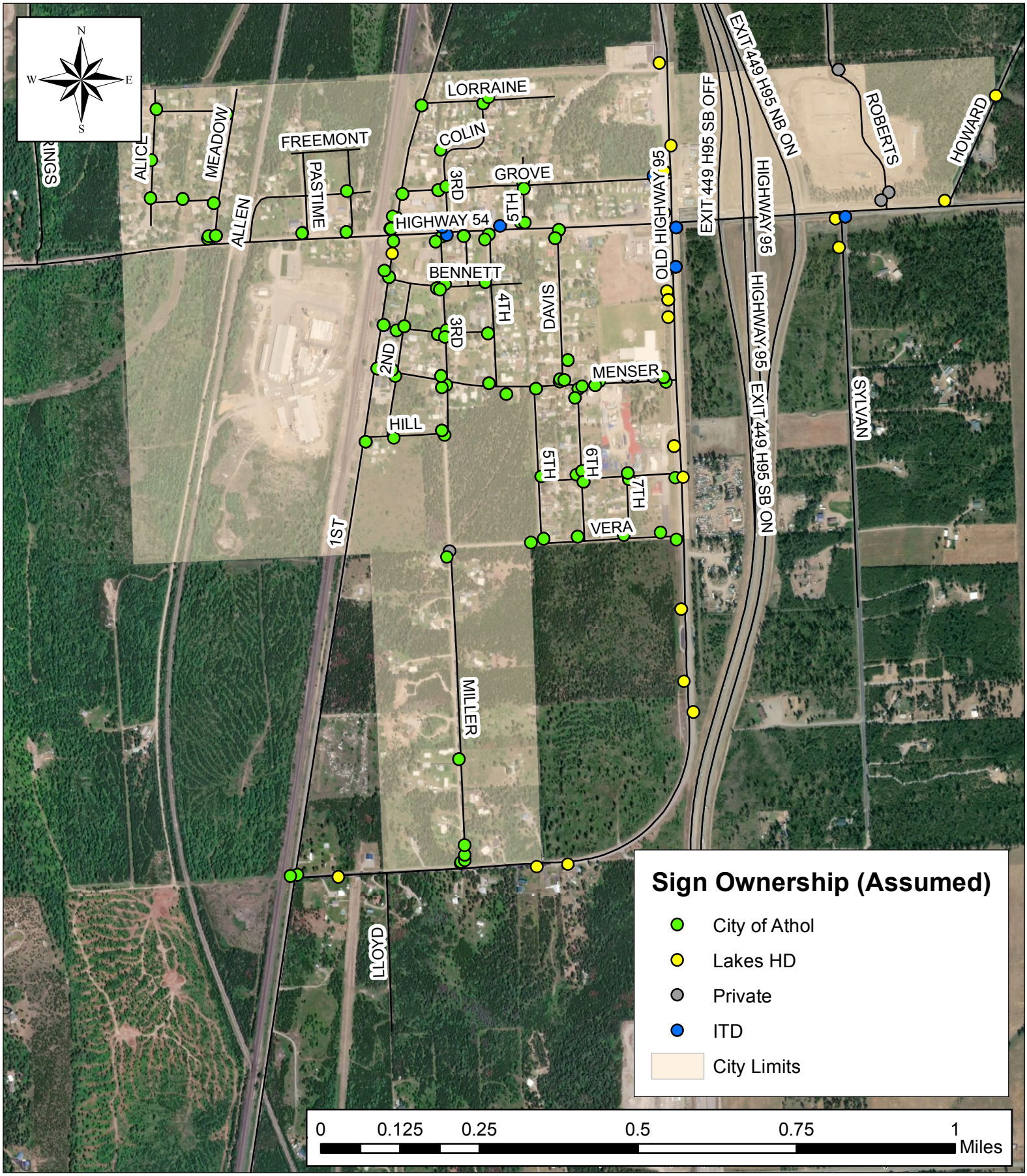
KELLER ASSOCIATES

Athol - Recommended Treatment

Athol Transportation Plan

Figure 18

City of Athol , ID



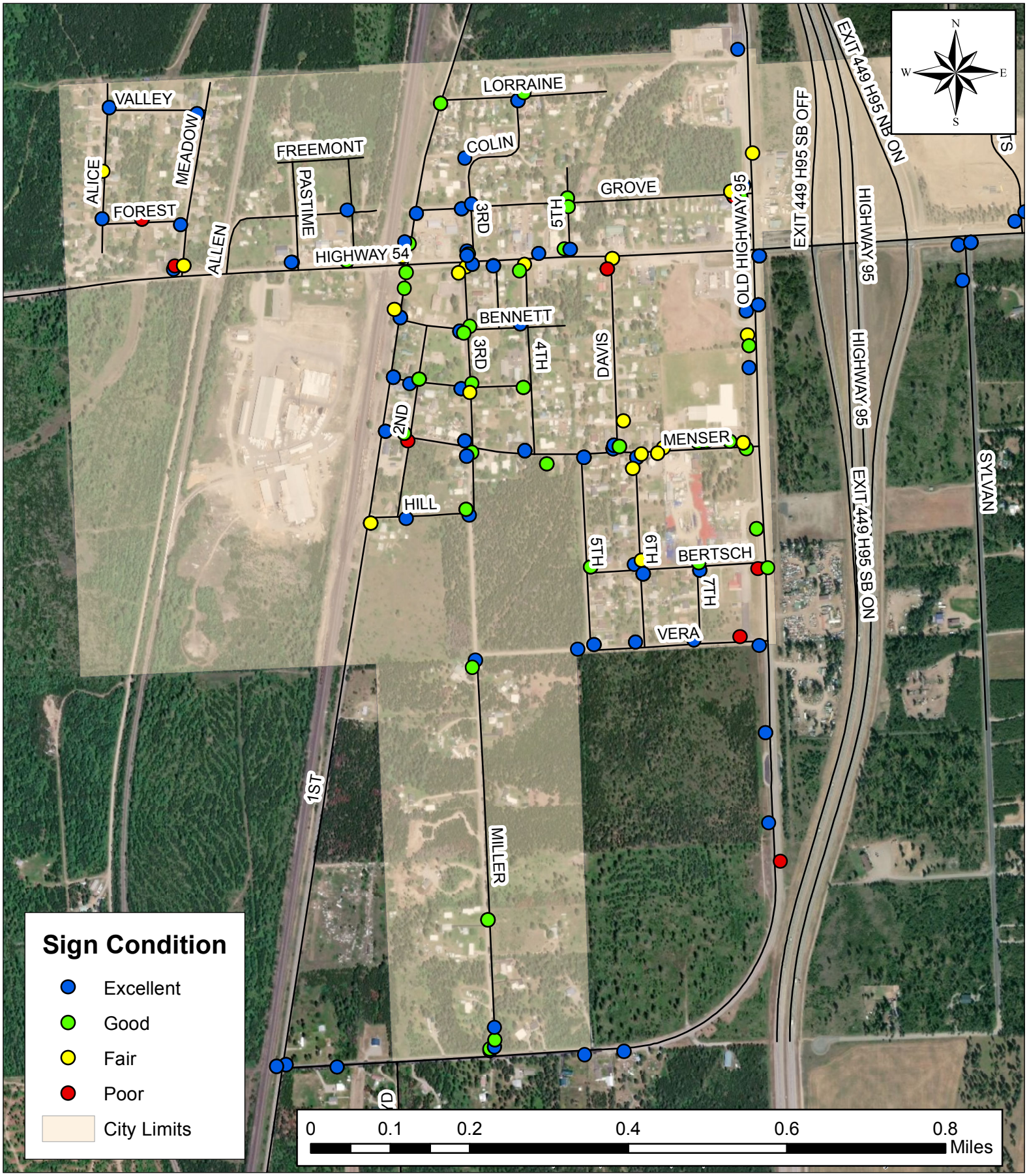
Athol - Sign Ownership (Assumed)

Figure 4

Athol Transportation Plan

City of Athol , ID

KELLER ASSOCIATES



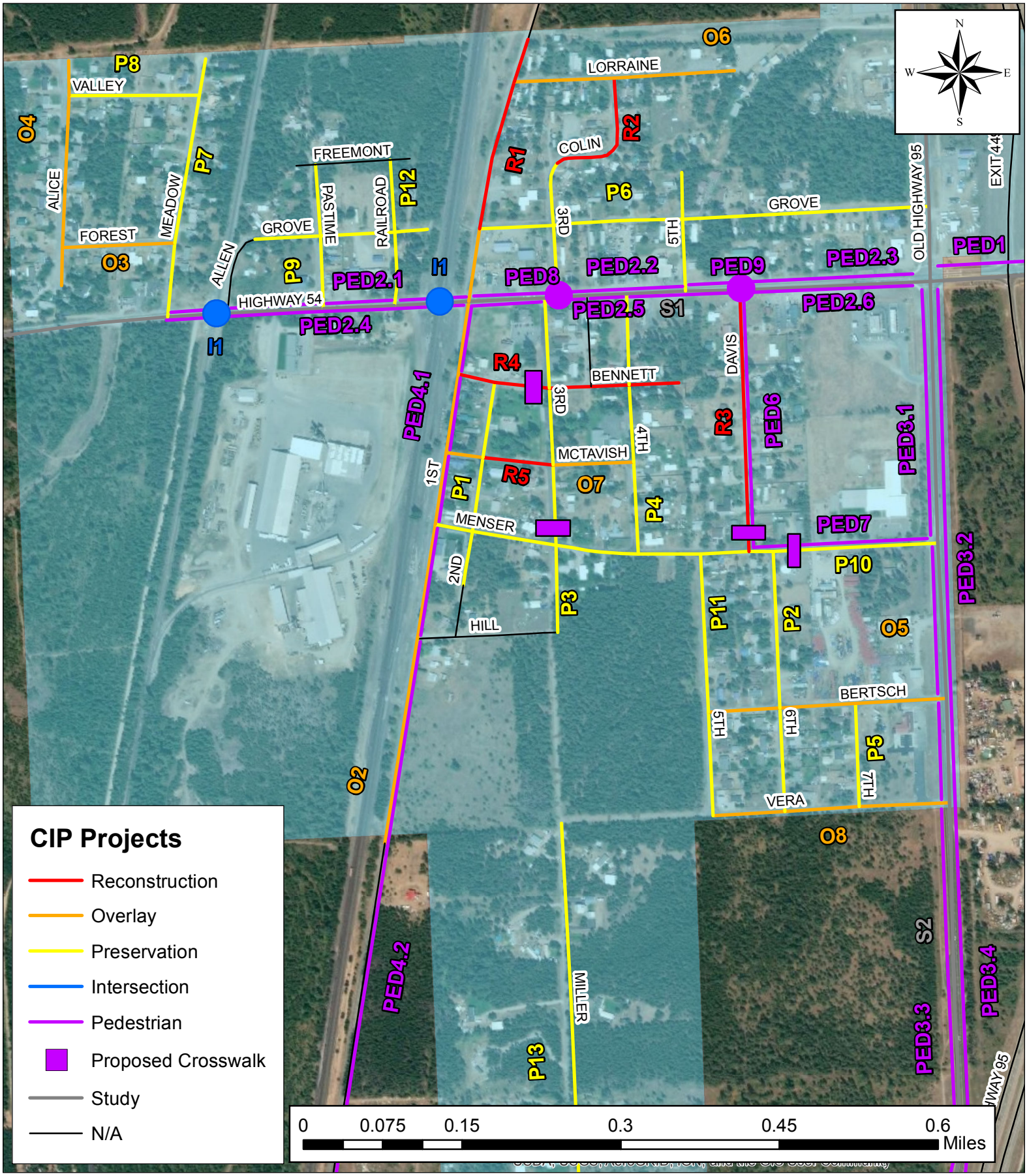
KELLER ASSOCIATES

Athol - Sign Condition

Athol Transportation Plan

Figure 3

City of Athol , ID



KELLER ASSOCIATES

Athol - CIP Map

Athol Transportation Plan

CIP Map

City of Athol , ID

Appendix D – ROAD INVENTORY

Distress ID	Seg #	Road Name	From	To	Lanes	Width	Length	Area	Speed	Surface	Owner	Drainage	Fatigue	Longitu	Transv	Edge	Patchi	Rutting	Rough	Draina	Block	Governing Di	RSL	Optimal_Treatment
1	2	LLOYD	OLD HIGHWAY 95	END	2	16	1319	2344.889	25 mph	Unpaved	City	Turf Shoulder										No Distress	10	
14	3	MILLER	OLD HIGHWAY 95	END OF MILLER	2	20	2664	5920	25 mph	Asphalt	City	Turf Shoulder	3	0	0	1	2	0	1	2	1	Fatigue	6	Thin Hot Mix Overlay (<2 in)
83	4	VERA	7TH	OLD HW 95	2	24	451	1202.667	25 mph	Asphalt	City	Turf Shoulder	2	0	0	4	1	1	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
81	5	VERA	6TH	7TH	2	24	371	989.3333	25 mph	Asphalt	City	Turf Shoulder	1	0	0	1	2	1	1	2	0	Fatigue	10	Cold Patch
80	6	VERA	5TH	6TH	2	22	359	877.5555	25 mph	Asphalt	City	Turf Shoulder	2	1	2	1	3	1	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
84	7	7TH	VERA	BERSTCH	2	24	514	1370.667	25 mph	Asphalt	City	Turf Shoulder	1	0	0	2	1	0	1	2	0	Fatigue	10	Cold Patch
85	8	6TH	BERTSCH	VERA	2	24	517	1379	25 mph	Asphalt	City	Turf Shoulder	0	0	0	2	1	1	1	2	0	Edge	10	No Maintenance
75	9	5TH	BERTSCH	VERA	2	22	516	1261.333	25 mph	Asphalt	City	Turf Shoulder	2	0	1	1	2	0	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
71	10	BERTSCH	OLD HW 95	7TH	2	24	455	1213.333	25 mph	Asphalt	City	Turf Shoulder	2	0	1	4	1	0	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
72	11	BERTSCH	7TH	6TH	2	24	378	1008	25 mph	Asphalt	City	Turf Shoulder	1	0	0	2	0	0	0	2	0	Fatigue	10	Cold Patch
73	12	BERTSCH	6TH	5TH	2	24	357	952	25 mph	Asphalt	City	Turf Shoulder	1	0	0	1	1	0	1	2	0	Fatigue	10	Cold Patch
19	13	1ST	HALFWAY	HILL	2	22	1034	2527.556	50 mph	Asphalt	City	Gravel Shoulder	2	0	1	4	1	0	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
54	14	SYLVAN	HW 54	END	2	30	3290	10966.67	35 mph	Asphalt	City	Gravel Shoulder	0	1	0	1	0	0	1	2	0	Edge	12	No Maintenance
86	15	6TH	BERTSCH	MENSER	2	20	781	1735.556	25 mph	Asphalt	City	Turf Shoulder	1	0	0	1	1	0	1	2	0	Fatigue	10	Cold Patch
74	16	5TH	BERTSCH	MENSER	2	22	792	1936	25 mph	Asphalt	City	Turf Shoulder	0	0	0	2	1	0	1	2	0	Edge	10	No Maintenance
3	17	HILL	2ND	3RD	2	18	510	1020	15 mph	Unpaved	City	Turf Shoulder										No Distress	10	
2	18	HILL	1ST	2ND	2	18	190	380	15 mph	Unpaved	City	Turf Shoulder										No Distress	10	
95	19	2ND	MENSER	ASPHALT END	2	18	534	1068	15 mph	Asphalt	City	Turf Shoulder	1	0	1	4	1	0	1	2	0	Fatigue	10	Cold Patch
94	20	3RD	MENSER	HILL	2	24	436	1162.667	25 mph	Asphalt	City	Turf Shoulder	2	0	2	4	1	0	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
70	21	MENSER	HALFWAY	OLD HW 95	2	24	347	925.3333	20 mph	Asphalt	City	Turf Shoulder	2	1	1	3	2	0	1	2	0	Edge	8	Crack Seal
68	22	MENSER	DAVIS	HALFWAY	2	24	596	1589.333	20 mph	Asphalt	City	Turf Shoulder	2	0	0	3	2	0	1	2	0	Edge	8	Crack Seal
63	23	MENSER	DAVIS	5TH	2	24	242	645.3333	20 mph	Asphalt	City	Turf Shoulder	2	0	0	1	0	1	1	2	0	Edge	12	No Maintenance
20	24	1ST	HILL	MENSER	2	22	578	1412.889	25 mph	Asphalt	City	Gravel Shoulder	2	0	2	4	1	0	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
64	25	MENSER	5TH	4TH	2	24	310	826.6667	20 mph	Asphalt	City	Turf Shoulder	2	0	0	1	0	1	1	2	0	Edge	12	No Maintenance
65	26	MENSER	4TH	3RD	2	24	413	1101.333	20 mph	Asphalt	City	Turf Shoulder	2	0	0	1	0	1	1	2	0	Edge	12	No Maintenance
66	27	MENSER	3RD	2ND	2	24	423	1128	20 mph	Asphalt	City	Turf Shoulder	2	0	0	1	0	1	1	2	0	Edge	12	No Maintenance
87	28	4TH	MENSER	MCTAVISH	2	24	458	1221.333	25 mph	Asphalt	City	Turf Shoulder	2	0	0	1	0	0	1	2	0	Fatigue	10	Cold Patch
67	29	MENSER	2ND	1ST	2	24	189	504	20 mph	Asphalt	City	Turf Shoulder	2	0	0	1	1	1	1	2	0	Edge	12	No Maintenance
93	30	3RD	MCTAVISH	MENSER	2	24	400	1066.667	25 mph	Asphalt	City	Turf Shoulder	2	0	0	1	1	0	1	2	0	Fatigue	10	Cold Patch
96	31	2ND	MENSER	MCTAVISH	2	24	373	994.6667	25 mph	Asphalt	City	Turf Shoulder	2	0	0	1	0	0	1	2	0	Fatigue	10	Cold Patch
21	32	1ST	MENSER	MCTAVISH	2	22	362	884.8889	25 mph	Asphalt	City	Gravel Shoulder	2	0	2	2	2	0	1	2	0	Fatigue	10	Cold Patch
105	33	MCTAVISH	4TH	3RD	2	20	403	895.5555	25 mph	Asphalt	City	Turf Shoulder	2	0	1	1	1	0	1	2	0	Fatigue	10	Cold Patch
106	34	MCTAVISH	3RD	2ND	2	20	351	780	25 mph	Asphalt	City	Turf Shoulder	2	0	0	1	1	1	1	2	0	Fatigue	6	Thick Overlay (3 in.)
107	35	MCTAVISH	2ND	1ST	2	20	186	413.3333	25 mph	Asphalt	City	Turf Shoulder	2	0	0	2	0	0	1	2	0	Fatigue	10	Cold Patch
62	36	DAVIS	HW 54	MENSER	2	22	1306	3192.444	25 mph	Asphalt	City	Turf Shoulder	2	0	1	1	2	1	1	2	0	Fatigue	6	Thick Overlay (3 in.)
88	37	4TH	MCTAVISH	BENNETT	2	24	388	1034.667	25 mph	Asphalt	City	Turf Shoulder	2	0	0	1	0	0	1	2	0	Fatigue	10	Cold Patch
92	38	3RD	BENNETT	MCTAVISH	2	24	384	1024	25 mph	Asphalt	City	Turf Shoulder	2	0	1	1	1	0	1	2	0	Fatigue	10	Cold Patch
97	39	2ND	MCTAVISH	BENNETT	2	16	380	675.5555	25 mph	Asphalt	City	Turf Shoulder	2	0	0	2	1	0	1	2	0	Fatigue	10	Cold Patch
104	40	BENNETT	4TH	END	2	18	248	496	25 mph	Asphalt	City	Turf Shoulder	2	0	0	2	1	0	1	2	0	Fatigue	10	Cold Patch
103	41	BENNETT	3RD	HARMS	2	16	191	339.5555	25 mph	Asphalt	City	Turf Shoulder	2	0	0	4	4	2	1	2	0	Fatigue	6	Thick Overlay (3 in.)
101	42	BENNETT	HARMS	4TH	2	16	209	371.5555	25 mph	Asphalt	City	Turf Shoulder	2	0	0	4	4	2	1	2	0	Fatigue	6	Thick Overlay (3 in.)
100	43	BENNETT	2ND	3RD	2	16	274	487.1111	25 mph	Asphalt	City	Turf Shoulder	2	0	0	4	2	0	1	2	0	Fatigue	6	Thick Overlay (3 in.)
98	44	BENNETT	1ST	2ND	2	16	186	330.6667	25 mph	Asphalt	City	Turf Shoulder	2	0	0	2	1	0	1	2	0	Fatigue	6	Thick Overlay (3 in.)
89	45	4TH	BENNETT	HW 54	2	24	455	1213.333	25 mph	Asphalt	City	Turf Shoulder	2	0	0	1	1	0	1	2	0	Fatigue	10	Cold Patch
9	46	HARMS	HW 54	BENNETT	2	15	454	756.6667	15 mph	Unpaved	City	Turf Shoulder										No Distress	10	
90	47	3RD	HW 54	BENNETT	2	24	451	1202.667	25 mph	Asphalt	City	Turf Shoulder	0	0	1	1	1	0	1	2	0	Edge	12	No Maintenance
23	49	1ST	BENNET	HW 54	2	22	366	894.6667	25 mph	Asphalt	City	Gravel Shoulder	1	0	1	4	4	0	1	2	0	Fatigue	10	Cold Patch
108	50	HIGHWAY 54	OLD HW 95	DAVIS	2	50	951	5283.333	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	1	1	1	0	0	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
110	51	HIGHWAY 54	DAVIS	5TH	2	50	272	1511.111	35 mph	Asphalt	State DOT	Paved Shoulder	1	1	1	1	1	0	0	2	0	Fatigue	10	Cold Patch
111	52	HIGHWAY 54	5TH	4TH	2	50	294	1633.333	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
112	53	HIGHWAY 54	4TH	HARMS	2	50	199	1105.556	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
113	54	HIGHWAY 54	HARMS	3RD	2	50	146	811.1111	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
114	55	HIGHWAY 54	3RD	3RD	2	50	64	355.5555	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
115	56	HIGHWAY 54	3RD	1ST	2	50	379	2105.556	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)

116	57	HIGHWAY 54	1ST	RAILROAD	2	50	371	2061.111	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
118	58	HIGHWAY 54	PASTIME	ALLEN	2	50	480	2666.667	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
119	59	HIGHWAY 54	ALLEN	MEADOW	2	50	298	1655.556	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
37	60	5TH	GROVE	HW 54	2	22	359	877.5555	25 mph	Asphalt	City	Turf Shoulder	0	0	0	1	1	0	1	2	0	Edge	12	No Maintenance
120	61	HIGHWAY 54	MEADOW	SHEEP SPRINGS	2	50	1484	8244.444	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
61	62	3RD	HW 54	GROVE	2	22	358	875.1111	25 mph	Asphalt	City	Turf Shoulder	1	0	1	4	1	0	1	2	0	Fatigue	10	Cold Patch
24	63	1ST	HW 54	GROVE	2	22	367	897.1111	25 mph	Asphalt	City	Turf Shoulder	1	0	0	1	4	0	1	2	0	Fatigue	10	Cold Patch
39	65	RAILROAD	HW 54	GROVE	2	18	368	736	25 mph	Asphalt	City	Turf Shoulder	0	0	0	1	1	0	1	2	0	Edge	12	No Maintenance
42	66	PASTIME	HW 54	ALLEN	2	19	362	764.2222	25 mph	Asphalt	City	Turf Shoulder	1	0	2	1	1	0	1	2	0	Fatigue	10	Cold Patch
33	67	GROVE	5TH	OLD HW 95	2	20	1231	2735.556	25 mph	Asphalt	City	Turf Shoulder	0	0	1	1	1	0	1	2	0	Edge	12	No Maintenance
46	68	MEADOW	HW 54	FOREST	2	34	372	1405.333	25 mph	Asphalt	City	Turf Shoulder	1	0	3	1	4	0	1	2	0	Fatigue	10	Cold Patch
6	69	ALLEN	GROVE	HW 54	2	18	421	842	15 mph	Unpaved	City	Turf Shoulder										No Distress	10	
32	70	GROVE	3RD	5TH	2	20	644	1431.111	25 mph	Asphalt	City	Turf Shoulder	1	0	1	1	0	0	1	2	0	Fatigue	10	Cold Patch
31	71	GROVE	3RD	1ST	2	20	371	824.4445	25 mph	Asphalt	City	Turf Shoulder	0	0	1	2	1	0	1	2	0	Edge	10	No Maintenance
40	72	GROVE	RAILROAD	PASTIME	2	18	372	744	25 mph	Asphalt	City	Turf Shoulder	1	0	0	2	1	0	1	2	0	Fatigue	10	Cold Patch
38	73	5TH	GROVE	END	2	16	234	416	15 mph	Asphalt	City	Turf Shoulder	0	0	1	1	0	0	1	2	0	Edge	12	No Maintenance
41	74	GROVE	PASTIME	BEGINNING OF CUR	2	18	327	654	25 mph	Asphalt	City	Turf Shoulder	1	0	1	1	1	0	1	2	0	Fatigue	10	Cold Patch
52	75	ALICE	FOREST	END	2	100	190	2111.111	25 mph	Asphalt	City	Turf Shoulder	1	3	3	1	1	0	1	2	0	Fatigue	10	Cold Patch
30	76	3RD	SECOND CURVE	GROVE	2	20	320	711.1111	25 mph	Asphalt	City	Turf Shoulder	1	0	1	4	1	0	1	2	0	Fatigue	10	Cold Patch
53	77	FOREST	ALICE	MEADOW	2	28	562	1748.444	25 mph	Asphalt	City	Turf Shoulder	2	1	3	2	1	0	2	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
43	79	PASTIME	ALLEN	FREEMONT	2	14	357	555.3333	25 mph	Asphalt	City	Turf Shoulder	1	0	0	2	0	0	1	2	0	Fatigue	10	Cold Patch
29	80	COLIN	CURVE	CURVE	2	20	242	537.7778	25 mph	Asphalt	City	Turf Shoulder	7	1	1	1	1	0	1	2	1	Fatigue	6	Thick Overlay (3 in.)
25	81	1ST	GROVE	LORAINE	2	22	754	1843.111	25 mph	Asphalt	City	Turf Shoulder	6	1	1	1	4	0	1	2	0	Fatigue	4	Rotomill & Thick Overlay (3 in.)
7	83	FREEMONT	PASTIME	END	1	12	373	497.3333	15 mph	Unpaved	Private	Turf Shoulder										No Distress	10	
47	85	MEADOW	FOREST	VALLEY	2	34	746	2818.222	25 mph	Asphalt	City	Turf Shoulder	1	1	4	1	1	0	1	2	0	Fatigue	10	Cold Patch
28	86	COLIN	LORAINE	CURVE	2	20	420	933.3333	25 mph	Asphalt	City	Turf Shoulder	7	1	2	1	1	0	2	2	0	Fatigue	6	Thick Overlay (3 in.)
51	87	ALICE	FOREST	VALLEY	2	28	758	2358.222	25 mph	Asphalt	City	Turf Shoulder	2	4	5	1	1	0	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
27	88	LORRAINE	COLIN DR	END	2	18	601	1202	25 mph	Asphalt	City	Turf Shoulder	0	0	0	1	1	0	1	2	0	Edge	12	No Maintenance
26	89	LORRAINE	1ST	COLINS DR	2	20	498	1106.667	25 mph	Asphalt	City	Turf Shoulder	3	0	1	1	1	0	1	2	0	Fatigue	6	Thin Hot Mix Overlay (<2 in)
49	90	VALLEY	MEADOW	ALICE	2	26	651	1880.667	25 mph	Asphalt	City	Turf Shoulder	1	1	5	1	1	0	1	2	1	Fatigue	10	Cold Patch
48	91	MEADOW	VALLEY	END	2	34	184	695.1111	25 mph	Asphalt	City	Turf Shoulder	1	4	4	1	1	0	1	2	1	Fatigue	10	Cold Patch
50	92	ALICE	VALLEY	END	2	28	176	547.5555	25 mph	Asphalt	City	Turf Shoulder	1	1	5	1	1	0	1	2	1	Fatigue	10	Cold Patch
56	93	HOWARD	HW 54	END	2	30	5721	19070	50 mph	Asphalt	County	Gravel Shoulder	1	0	0	0	1	0	1	2	0	Fatigue	10	Cold Patch
8	94	SHEEP SPRING:	HW 54	END	2	16	8028	14272	15 mph	Unpaved	County	Turf Shoulder										No Distress	10	
22	95	1ST	MCTAVISH	BENNET	2	22	397	970.4445	25 mph	Asphalt	City	Gravel Shoulder	1	0	3	2	1	0	1	2	0	Fatigue	10	Cold Patch
117	96	HIGHWAY 54	RAILROAD	PASTIME	2	50	357	1983.333	35 mph	Asphalt	State DOT	Paved Shoulder	2	1	2	1	1	0	0	2	1	Fatigue	8	Thin Hot Mix Overlay (<2 in)
5	97	1ST	RAILROAD	END	2	18	163	326	15 mph	Unpaved	City	Turf Shoulder										No Distress	10	
121	98	HIGHWAY 54	OLD HW 95	HIGHWAY (OFF RAM	2	50	390	2166.667	35 mph	Asphalt	State DOT	Concrete Curb an	1	1	1	1	1	0	0	2	0	Fatigue	10	Cold Patch
123	99	HIGHWAY 54	OVERPASS, EAST SID	SYLAN	2	50	389	2161.111	35 mph	Asphalt	State DOT	Concrete Curb an	1	1	1	1	1	0	0	2	0	Fatigue	10	Cold Patch
122	100	HIGHWAY 54	OVERPASS, WEST SI	OVERPASS, EAST SID	2	50	634	3522.222	35 mph	Asphalt	State DOT	Concrete Curb an	1	1	1	1	1	0	0	2	0	Fatigue	10	Cold Patch
17	107	OLD HIGHWAY	LLOYD	1ST	2	26	764	2207.111	35 mph	Asphalt	Lakes HD	Gravel Shoulder	0	1	0	0	0	0	1	2	0	Longitudinal	14	Crack Seal
16	108	OLD HIGHWAY	MILLER	LLOYD	2	25	657	1825	35 mph	Asphalt	Lakes HD	Gravel Shoulder	0	1	0	0	0	0	1	2	0	Longitudinal	14	Crack Seal
4	109	OLD HIGHWAY	VERA	MILLER	2	35	4120	16022.22	35 mph	Asphalt	Lakes HD	Gravel Shoulder	1	1	0	1	0	0	1	2	0	Fatigue	10	Cold Patch
18	110	1ST	OLD HIGHWAY 95	HALFWAY	2	22	2675	6538.889	50 mph	Asphalt	City	Gravel Shoulder	3	1	0	4	4	0	1	2	0	Fatigue	6	Thin Hot Mix Overlay (<2 in)
2	112	OLD HIGHWAY	MENSER	BERSCH	2	60	775	5166.667	35 mph	Asphalt	Lakes HD	Gravel Shoulder	1	1	0	2	1	0	1	2	0	Fatigue	10	Cold Patch
3	113	OLD HIGHWAY	BERTSCH	VERA	2	60	522	3480	35 mph	Asphalt	Lakes HD	Gravel Shoulder	1	1	0	2	1	0	1	2	0	Fatigue	10	Cold Patch
1	114	OLD HIGHWAY	HIGHWAY 54	MENSER	2	60	1308	8720	35 mph	Asphalt	Lakes HD	Gravel Shoulder	2	0	0	2	1	1	1	2	0	Fatigue	8	Thin Hot Mix Overlay (<2 in)
36	115	OLD HIGHWAY	5TH	CITY LIMITS	2	52	251	1450.222	35 mph	Asphalt	Lakes HD	Gravel Shoulder	0	1	0	0	1	0	1	2	0	Longitudinal	14	Crack Seal
34	117	OLD HIGHWAY	5TH	CITY LIMITS	2	52	820	4737.778	35 mph	Asphalt	Lakes HD	Gravel Shoulder	0	1	0	1	1	0	1	2	0	Edge	12	No Maintenance
4	119	1ST	LORAINE	END	2	20	224	497.7778	25 mph	Unpaved	City	Turf Shoulder										No Distress	10	
60	124	ROBERTS	CITY LIMITS	END	2	36	2062	8248	25 mph	Asphalt	County	Gravel Shoulder	0	2	1	1	1	0	1	2	0	Edge	12	No Maintenance
124	125	HIGHWAY 54	SYLVAN	ROBERTS	2	50	379	2105.556	35 mph	Asphalt	State DOT	Concrete Curb an	1	1	1	1	1	0	0	2	0	Fatigue	10	Cold Patch
125	126	HIGHWAY 54	ROBERTS	HOWARD	2	50	507	2816.667	35 mph	Asphalt	State DOT	Concrete Curb an	1	1	1	1	1	0	0	2	0	Fatigue	10	Cold Patch
59	127	ROBERTS	HW 54	CITY LIMITS	2	50	1417	7872.222	20 mph	Asphalt	City	Gravel Shoulder	0	2	1	1	0	0	1	2	0	Edge	12	No Maintenance

Appendix E – TRAFFIC SIGN INVENTORY & PHOTOS

TRAFFIC SIGN INVENTORY (ELECTRONIC VERSION WILL BE SUPPLIED FOR EASIER VIEWING AND EDITING)

ID	Support	MUTCD	Facing	Backing	Face	Illumina	Delinea	Visibili	NightVis	Condition	Photo #	Text	Length	Width	Dim	Height	NumText	NumSize	TextSize	DateBuilt	DateSurv	Owner	Offset	Inspector	Road	Address	Direction	PostType	PostSize	PostBase	PostPos	PostMat	DateInsp	Rating	Breakaway	LATITUDE	LONGITUDE
1	0	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	1	N MEADOW ST	6	24	0.08	7		4	4		4/22/2019	City	10	SL/AB	MEADOW ST	MEADOW &	East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9479066047222	-116.7145627216670
2	1	R1-1	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Poor	2	STOP	30	30	0.08	6		0	8		4/22/2019	City	10	SL/AB	MEADOW ST	MEADOW &	South	Single Post	4x4	Soil	Right	Wood	4/22/2019	Acceptable	None	47.9479689641667	-116.7145268533330
3	2	R5-2A1	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	3	NO TRUCKS LOCAL DELIVERY ONLY	18	24	0.08	7		0	3		4/22/2019	City	10	SL/AB	MEADOW ST	MEADO & S	South	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9479693630555	-116.7142864580560
5	2	R16-X12	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	3	NEIGHBORHOOD CRIME WATCH	18	24	0.08	2		0	3		4/22/2019	City	10	SL/AB	MEADOW ST	MEADO & S	South	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9479693630555	-116.7142864580560
4	2	R2-1-25	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	3	SPEED LIMIT	18	24	0.08	4	25	8.5	4		4/22/2019	City	10	SL/AB	MEADOW ST	MEADO & S	South	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9479693630555	-116.7142864580560
6	3	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	4	E FOREST AVE	6	24	0.08	8.5		0	4		4/22/2019	City	7.5	SL/AB	MEADOW ST	MEADOW &	South-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9487124311111	-116.7143085350000
7	3	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	4	N MEADOW ST	6	24	0.08	8		0	4		4/22/2019	City	7.5	SL/AB	MEADOW ST	MEADOW &	South-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9487124311111	-116.7143085350000
9	4	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	5	N MEADOW ST	6	24	0.08	8.5		0	4		4/22/2019	City	7.5	SL/AB	MEADOW ST	MEADOW &	South-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9507227263889	-116.7137249608330
8	4	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	5	E VALLEY AVE	6	24	0.08	9		0	4		4/22/2019	City	7.5	SL/AB	MEADOW ST	MEADOW &	South-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9507227263889	-116.7137249608330
10	5	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	6	N ALICE CT	6	24	0.08	7.5		0	4		4/22/2019	City	7	SL/AB	ALICE CT	ALICE & VAL	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9509139769444	-116.7160927266670
11	5	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	6	E VALLEY AVE	6	24	0.08	7		0	4		4/22/2019	City	7	SL/AB	ALICE CT	ALICE & VAL	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9509139769444	-116.7160927266670
12	6	R16-X12	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	7	NEIGHBORHOOD CRIME WATCH	18	24	0.08	6		0	3		4/22/2019	City	7	SL/AB	ALICE CT	ALICE CT	East	Single Post	4x4	Soil	Right	Wood	4/22/2019	Acceptable	None	47.9497576033333	-116.7163437508330
13	7	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	8	N ALICE CT	6	24	0.08	9		0	4		4/22/2019	City	7	SL/AB	ALICE CT	ALIC & FORI	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9488897225000	-116.7164346177780
14	7	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	8	E FOREST AVE	6	24	0.08	8.5		0	4		4/22/2019	City	7	SL/AB	ALICE CT	ALIC & FORI	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9488897225000	-116.7164346177780
17	8	R2-1-25	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	9	SPEED LIMIT	18	24	0.08	2.5	25	8	3		4/22/2019	City	3.5	SL/AB	FOREST AVE	FOREST AVE	North	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9488435600000	-116.7153508177780
16	8	R16-X12	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	10	NEIGHBORHOOD CRIME WATCH	18	24	0.08	4		0	3		4/22/2019	City	3.5	SL/AB	FOREST AVE	FOREST AVE	North	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9488435600000	-116.7153508177780
15	8	R16-X12	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Poor	10	NEIGHBORHOOD CRIME WATCH	18	24	0.08	4		0	0		4/22/2019	City	9	SL/AB	FOREST AVE	FOREST AVE	North	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9488435600000	-116.7153508177780
18	9	R1-1	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Excellent	11	STOP	30	30	0.08	7.5		0	10		4/22/2019	City	5	SL/AB	PASTIME	PASTIME &	North-West	Single Post	4x4	Soil	Right	Wood	4/22/2019	Acceptable	None	47.9479365288889	-116.7113367269440
19	10	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	12	N PASTIME ST	6	24	0.08	8		0	4		4/22/2019	City	8.5	SL/AB	PASTIME	PASTIME &	North-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9479331233333	-116.7113581552780
20	11	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	13	E GROVE AVE	6	24	0.08	8.5		0	4		4/22/2019	City	20	SL/AB	GROVE	GROVE	North	Single Post	3 in. Tube	Soil	Right	Aluminum	4/22/2019	Acceptable	None	47.9488360347222	-116.7097752850000
21	12	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	14	N RAILROAD ST	6	24	0.08	9.5		0	4		4/22/2019	City	6	SL/AB	RAILROAD ST	RAILROAD &	North-West	Single Post	4x4	Soil	Right	Wood	4/22/2019	Acceptable	None	47.9479099733333	-116.7098527375000
22	12	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	14	STOP	30	30	0.08	6		0	10		4/22/2019	City	6	SL/AB	RAILROAD ST	RAILROAD &	North-West	Single Post	4x4	Soil	Right	Wood	4/22/2019	Acceptable	None	47.9479099733333	-116.7098527375000
23	13	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	15	N 1ST ST	6	18	0.08	9		0	4		4/23/2019	City	6	SL/AB	1ST ST	1ST & SH 54	North-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9479379166667	-116.7083557980560
24	14	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Fair	16	STOP	30	30	0.08	6		0	10		4/23/2019	City	8	SL/AB	1ST ST	1ST & SH 54	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479404502778	-116.7083332655560
25	15	R2-1-25	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	17	SPEED LIMIT	18	24	0.08	6	25	8	3		4/23/2019	City	10	SL/AB	1ST ST	1ST ST	East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9481754330556	-116.7081276341670
26	16	W8-6	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	18	RECREATIONAL CROSSING	36	36	0.08	6		0	8		4/23/2019	City	10	SL/AB	1ST ST	1ST ST	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9482065602778	-116.7082566744440
27	17	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	19	N 1ST ST	6	18	0.08	10		0	4		4/23/2019	City	13	SL/AB	1ST AVE	1ST & GROV	South-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9487145630556	-116.7078978063890
28	17	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	19	E GROVE AVE	6	24	0.08	9.5		0	4		4/23/2019	City	13	SL/AB	1ST AVE	1ST & GROV	South-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9487145630556	-116.7078978063890
29	18	D3	West	Aluminum	Diamond Grade	None	None	Tree Ol	Not Rated	Excellent	20	E LORRAINE DR	6	24	0.08	8		0	4		4/23/2019	City	12	SL/AB	1ST ST	1ST & LORR	South-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9507028313889	-116.7071012988890
30	18	D3	West	Aluminum	Diamond Grade	None	None	Tree Ol	Not Rated	Excellent	20	N 1ST ST	6	18	0.08	8		0	4		4/23/2019	City	12	SL/AB	1ST ST	1ST & LORR	South-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9507028313889	-116.7071012988890
31	18	R2-1-25	West	Aluminum	Engineer Grade	None	None	Partiall	Not Rated	Good	20	SPEED LIMIT	18	24	0.08	4	25	8	3		4/23/2019	City	12	SL/AB	1ST ST	1ST & LORR	South-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9507028313889	-116.7071012988890
32	19	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	21	N COLIN DR	6	24	0.08	8.5		0	4		4/23/2019	City	9	SL/AB	LORRAINE DR	LORRAINE &	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9506883277778	-116.7050038369440
33	19	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	21	E LORRAINE DR	6	24	0.08	8		0	4		4/23/2019	City	9	SL/AB	LORRAINE DR	LORRAINE &	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9506883277778	-116.7050038369440
34	19	R16-X12	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Excellent	21	NEIGHBORHOOD CRIME WATCH	18	24	0.08	6		0	3		4/23/2019	City	9	SL/AB	LORRAINE DR	LORRAINE &	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9506883277778	-116.7050038369440
35	20	W14-1	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	22	DEAD END	30	30	0.08	8		0	8		4/23/2019	City	8.5	SL/AB	LORRAINE DR	LORRAINE &	North-East	Single Post	3 in. Tube	Soil	Left	Aluminum	4/23/2019	Acceptable	None	47.9508165372222	-116.7048287094440
36	21	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	23	N COLIN DR	6	24	0.08	7		0	4		4/23/2019	City	25	SL/AB	COLIN DR	COLIN & 3R	North-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9496820766667	-116.7065158544440
37	22	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	24	N 3RD ST	6	18	0.08	9		0	4		4/23/2019	City	6.5	SL/AB	3RD ST	3RD ST & SH	North-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9479832322222	-116.7065736394440
38	23	R1-1	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	25	STOP	30	30	0.08	6		0	10		4/23/2019	City	6.5	SL/AB	3RD ST	3RD & SH54	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479293838889	-116.7065531252780
39	24	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	26	3RD ST	6	24	0.08	9		0	4		4/23/2019	City	12	SL/AB	GROVE AVE	GROVE & 3R	South-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9487588294444	-116.7066743450000
40	24	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	26	E GROVE AVE	6	24	0.08	8.5		0	4		4/23/2019	City	12	SL/AB	GROVE AVE	GROVE & 3R	South-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9487588294444	-116.7066743450000
41	24	R1-1	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	26	STOP	30	30	0.08	6		0	10		4/23/2019	City	12	SL/AB	GROVE AVE	GROVE & 3R	South-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9487588294444	-116.7066743450000
42	25	R1-1	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	27	STOP	30	30	0.08	5		0	10		4/23/2019	City	8	SL/AB	GROVE AVE	GROVE & 3R	North-East	Single Post	5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9488375944444	-116.7063951622220
43	26	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	28	N 5TH ST	6	24	0.08	8		0	4		4/23/2019	City	12.5	SL/AB	GROVE AVE	GROVE & 5T	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9488588241667	-116.7037878088890
44	26	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	28	E GROVE AVE	6	24	0.08	7.5		0	4		4/23/2019	City	12.5	SL/AB	GROVE AVE	GROVE & 5T	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9488588241667	-116.7037878088890
45	26	W14-1	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	28	DEAD END	24	24	0.08	5.5		0	6		4/23/2019	City	12.5	SL/AB	GROVE AVE	GROVE & 5T	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9488588241667	-116.7037878088890
46	27	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	29	STOP	30	30	0.08	5.5		0	10		4/23/2019	City	6.5	SL/AB	GROVE AVE	GROVE & 5T	South-East	Single Post	5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9487029316667	-116.7037739797220
47	28	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	30	E GROVE ST	6	24	0.08	8.5		0	4		4/23/2019	City	15	SL/AB	GROVE AVE	GROVE & O	South-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9487442272222	-116.6990957616670
48	28	R1-1	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	30	STOP	30	30	0.08	6		0	10		4/23/2019	City	15	SL/AB	GROVE AVE	GROVE & O	South-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9487442272222	-116.6990957616670
49	29	D3	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Poor	31	GROVE AVE	6	18	0.08	8		0	4		4/23/2019	City	9	SL/AB	GROVE AVE	GROVE AVE	South	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9487437669444	-116.6992761277780
50	30	R2-1-25	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	32	SPEED LIMIT	18	24	0.08	7	25	8	3		4/23/2019	City	10	SL/AB	GROVE AVE	GROVE AVE	North	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9488421161111	-116.6993445263890
51	30	M-06	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	32	CITY OF ATHOL NOW REQUIRES SITI	24	18	0.08	6		0	3		4/23/2019	City	9	SL/AB	GROVE AVE	GROVE AVE	North	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9488421161111	-116.6993445263890
52	30	R5-2A1	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	32	NO THRU TRUCKS	12	18	0.08	3		0	6		4/23/2019	State DOT	9	SL/AB	GROVE AVE	GROVE AVE	North	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9488421161111	-116.6993445263890
53	31	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	33	STOP	30	30	0.08	6.5		0	10		4/23/2019	City	5	SL/AB	5TH ST	5TH & SH 5	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479375108333	-116.7039419288890
54	32	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	34	N 5TH ST	6	18	0.08	7.5		0	10		4/23/2019	City	12	SL/AB	5TH ST	5TH & SH 5	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9479216722222	-116.7037759661110
55	32	R16-X12	East	Aluminum	Super Engineer Gra	None	None	Clear	Not Rated	Excellent	34	NEIGHBORHOOD CRIME WATCH	18	24	0.08	5		0	3		4/23/2019	City	12	SL/AB	5TH ST	5TH & SH 5	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9479216722222	-116.7037759661110
56	33	R2-1-35	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Fair	35	SPEED LIMIT	24	30	0.08	7	35	10	4		4/23/2019	County	12	SL/AB	OLD HW 95	OLD HW 95	East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9495239822222	-116.6987098786110
57	34	R3-9B	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	36	CENTER LANE ONLY	24	36	0.08	8		0	4		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9514167944444	-116.6989644922220
58	35	M4-5	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	37	TO	12	24	0.08	12		0	6		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9489404283333	-116.6989864347220
59	35	M1-4	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	37		24	24	0.08	10	95	18	0		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9489404283333	-116.6989864347220
60	35	M6-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	37		15	20	0.08	8		0	0		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9489404283333	-116.6989864347220
61	35	M1-4	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	37	IDAHO	24	24	0.08	10	54	12	4		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9489404283333	-116.6989864347220
62	35	M6-4	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	37		15	20	0.08	8		0	0		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9489404283333	-116.6989864347220
65	36	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	38	STATE HWY 54	8	48	0.08	11		0	6		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479991738889	-116.6990539425000
67	36	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	38	STOP	36	36	0.08	7		0	12		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479991738889	-116.6990539425000
63	36	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	38	N. OLD HWY 95	8	48	0.08	12		0	6		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479991738889	-116.6990539425000
64	36	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	39	N. OLD HWY 95	8	48	0.08	12		0	6		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479991738889	-116.6990539425000
66	36	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	39	STATE HWY 54	8	48	0.08	11		0	6		4/23/2019	County	10.5	SL/AB	OLD HW 95	OLD HW 95	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479991738889	-116.6990539425000
68	37	R2-1-35	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	40	SPEED LIMIT	24	30	0.08	8	35	10	4		4/23/2019	City	12	SL/AB	OLD HW 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9467543852778	-116.6990683980560
69	38	S1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	41		30	30	0.08	7		0	0		4/23/2019	City	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9466435697222	-116.6990912036110
70	39	R3-9B	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	42	CENTER LANE ONLY	36	48	0.08	6		0	6		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9462100491667	-116.6990839100000
71	40	ADOPT-1	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	43	ADOPT A HIGHWAY	18	24	0.08	8		0	4		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9460081575000	-116.6990558263890
72	40	ADOPT-1	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	43	COUNTY CRITTERS	12	24	0.08	7		0	4		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9460081575000	-116.6990558263890
73	41	R2-1-35	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	44	SPEED LIMIT	18	24	0.08	9	35	8	3		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9456127619444	-116.6990792525000
74	42	R5-X4	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	45	NO ACCES TO US 954	24	24	0.08	8		0	0		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9426768058333	-116.6990925697220
75	42	D5-5	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	45	POST OFFICE	18	24	0.08	5		0	4		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9426768058333	-116.6990925697220
76	43	R1-1	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Poor	46	STOP	30	30	0.08	8		0	10		4/23/2019	City	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9419461486111	-116.6991005022220
78	44	R5-X4	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	47	NO ACCESS TO US 95	24	24	0.08	8		0	4		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9389483644444	-116.6991177011110
77	44	R16-X12	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	47	TRUCK TURN AROUND	30	30	0.08	12		0	8		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9389483644444	-116.6991177011110
79	45	W1-2R	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	48		30	30	0.08	8		0	0		4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9	West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9373040252778	-116.6991485069440
80	46	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	49	N MILLER RD	6	24	0.08	9		0	4		4/23/2019	City	8	SL/AB	MILLER RD	MILLER & O	North-East	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9334012700000	-116.7070024638890
81	47	R1-1	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	50	STOP	30	30	0.08	4		0	10		4/23/2019	City	6	SL/AB	MILLER RD	MILLER & O	North-West	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9334318175000	-116.7069962350000
82	48	W14-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	51	DEAD END	30	30	0.08	5		0	8		4/23/2019	City	8	SL/AB	MILLER RD	MILLER & O	North-East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9334683255556	-116.7068661361110
83	48	W14-1P	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	51	NO TRUCK TURNAROUND	18	24	0.08	4		0	4		4/23/2019	City	8	SL/AB	MILLER RD	MILLER & O	North-East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9334683255556	-116.7068661361110
84	49	R2-1-25	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	52	SPEED LIMIT	18	24	0.08	6	25	8	3		4/23/2019	City	12	SL/AB	MILLER RD	MILLER RD	West	Single Post	5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9335903219444	-116.7068448519440
85	49	M-06	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	52	CITY OF ATHOL NOW REQUIRES SITI	24	24	0.08	4		0	3		4/23/2019	City	12	SL/AB	MILLER RD	MILLER RD	West	Single Post	5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9335903219444	-116.7068448519440
86	50	W14-2	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	53	NO OUTLET	30	30	0.08	4		0	4		4/23/2019	City	8.5	SL/AB	MILLER RD	MILLER RD	East	Single Post	4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9338172183333	-116.7068438572220
88	51	R2-1-25	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	54	SPEED LIMIT	18	24	0.08	6	25	8	3		4/23/2019	City	8.5	SL/AB	MILLER RD	MILLER RD	East	Single Post	5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9357812016667	-116.7068908216670
87	51	R2-1-25	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	55	SPEED LIMIT	18	24	0.08	6	25	8	3		4/23/2019	City	8.5	SL/AB	MILLER RD	MILLER RD	East	Single Post	5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9357812016667	-116.7068908216670
89	52	W14-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	56	DEAD END	30	30	0.08	2.5		0	8		4/23/2019	Private	8.5	SL/AB	MILLER RD	END	North	Single Post	Unknown	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9405238105556	-116.7068856233330
90	53	R2-1-25	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	57	SPEED LIMIT	18	24	0.08	6	25	8	3		4/23/2019	City	11	SL/AB	MILLER RD	END	South-West	Single Post	3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9403968652778	-116.7069708916670

91	54	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	58	OLD HWY 95	6	24	0.08	11		0	4	4/23/2019	City	5.5	SL/AB	OLD HWY 95	OLD HWY 9!	North-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9333220833333	-116.7125541055560
92	54	R1-1	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	58	STOP	30	30	0.08	8.5		0	10	4/23/2019	City	5.5	SL/AB	OLD HWY 95	OLD HWY 9!	North-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9333220833333	-116.7125541055560
93	55	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	59	1ST ST	6	30	0.08	9		0	4	4/23/2019	City	6	SL/AB	1ST ST	1ST ST & OL	West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9332993469444	-116.7128022811110
94	55	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	59	OLD HWY 95	6	36	0.08	8		0	4	4/23/2019	City	6	SL/AB	1ST ST	1ST ST & OL	West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9332993469444	-116.7128022811110
95	56	ADOPT-1	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Excellent	60	ADOPT A HIGHWAY	18	24	0.08	8		0	6	4/23/2019	County	6	SL/AB	OLD HWY 95	OLD HWY 9!	South-West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9332331033333	-116.7111674263890
96	56	ADOPT-1	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Excellent	60	COUNTY CRITTERS	12	24	0.08	6		0	4	4/23/2019	County	6	SL/AB	OLD HWY 95	OLD HWY 9!	South-West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9332331033333	-116.7111674263890
97	57	W1-2L	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	61		30	30	0.08	7		0	0	4/23/2019	County	8	SL/AB	OLD HWY 95	OLD HWY 9!	South	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9332421791667	-116.7044333444440
98	58	R2-1-35	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	62	SPEED LIMIT	18	24	0.08	8	35	8	3	4/23/2019	County	8	SL/AB	OLD HWY 95	OLD HWY 9!	South	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9332682486111	-116.7033718508330
99	59	R3-9B	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Poor	63	CENTER LANE ONLY	24	36	0.09	8		0	6	4/23/2019	County	20	SL/AB	OLD HWY 95	OLD HWY 9!	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9365953833333	-116.6988733311110
100	60	S1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	64		30	30	0.08	8		0	0	4/23/2019	City	15	SL/AB	OLD HWY 95	OLD HWY 9!	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9419495308333	-116.6988352288890
101	61	M4-5	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	65	TO	12	24	0.08	12		0	8	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9467516366667	-116.6987539538890
102	61	M1-4	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	65		24	24	0.08	10	95	12	0	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9467516366667	-116.6987539538890
103	61	M6-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	65		15	20	0.08	9		0	0	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9467516366667	-116.6987539538890
104	61	M1-4	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	65	IDAHO	24	24	0.08	10	54	8	4	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9467516366667	-116.6987539538890
105	61	M6-4	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	65		15	20	0.08	9		0	0	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9467516366667	-116.6987539538890
107	62	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	67	N OLD HWY 95	8	48	0.08	13		0	6	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476403027778	-116.6986647141670
108	62	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	66	STATE HWY 54	8	48	0.08	12		0	6	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476403027778	-116.6986647141670
109	62	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	67	STATE HWY 54	8	48	0.08	12		0	6	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476403027778	-116.6986647141670
110	62	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	66	STOP	36	36	0.08	8		0	12	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476403027778	-116.6986647141670
106	62	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	66	N OLD HWY 95	8	48	0.08	13		0	6	4/23/2019	State DOT	12	SL/AB	OLD HWY 95	OLD HWY 9!	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476403027778	-116.6986647141670
111	63	W14-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	68	DEAD END	30	30	0.08	9		0	8	4/23/2019	City	6	SL/AB	SYLVAN RD	SYLVAN & S	South-West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476694350000	-116.6932503175000
112	64	R2-1-35	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	69	SPEED LIMIT	18	24	0.08	7	35	8	3	4/23/2019	City	6	SL/AB	SYLVAN RD	SYLVAN RD	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9470140491667	-116.6931783263890
116	65	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	71	STATE HWY 54	8	48	0.08	12		0	6	4/23/2019	State DOT	6	SL/AB	SYLVAN RD	SYLVAN RD	South-East	Single Post 4x6	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477031061111	-116.6929100561110
113	65	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	70	SYLVAN RD	8	36	0.08	13		0	6	4/23/2019	State DOT	6	SL/AB	SYLVAN RD	SYLVAN RD	South-East	Single Post 4x6	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477031061111	-116.6929100561110
114	65	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	71	SYLVAN RD	8	36	0.08	13		0	6	4/23/2019	State DOT	6	SL/AB	SYLVAN RD	SYLVAN RD	South-East	Single Post 4x6	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477031061111	-116.6929100561110
115	65	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	70	STATE HWY 54	8	48	0.08	12		0	6	4/23/2019	State DOT	6	SL/AB	SYLVAN RD	SYLVAN RD	South-East	Single Post 4x6	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477031061111	-116.6929100561110
117	65	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	70	STOP	36	36	0.08	8		0	12	4/23/2019	State DOT	6	SL/AB	SYLVAN RD	SYLVAN RD	South-East	Single Post 4x6	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477031061111	-116.6929100561110
118	66	W9-2	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	72	LANE ENDS MERGE LEFT	30	30	0.08	8		0	4	4/23/2019	City	6	SL/AB	ROBERTS RD	ROBERTS &	East	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9482120236111	-116.6913949133330
119	67	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	73	STOP	30	30	0.08	8		0	10	4/23/2019	City	6	SL/AB	ROBERTS RD	ROBERTS &	North-East	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9480406422222	-116.6916762658330
120	68	W11-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	74		30	30	0.08	9		0	0	4/23/2019	City	6	SL/AB	ROBERTS RD	ROBERST &	East	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9510682858333	-116.6929085133330
121	68	W11-1P	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	74	TRAIL X-ING	24	18	0.08	5		0	8	4/23/2019	City	6	SL/AB	ROBERTS RD	ROBERST &	East	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9510682858333	-116.6929085133330
123	69	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	75	STOP	30	30	0.08	6.5		0	10	4/23/2019	City	6	SL/AB	HOWARD RD	HOWARD &	North-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479655994444	-116.6895104750000
122	69	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	75	HOWARD RD	6	24	0.08	9		0	4	4/23/2019	City	6	SL/AB	HOWARD RD	HOWARD &	North-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479655994444	-116.6895104750000
124	70	R2-1-50	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	76	SPEED LIMIT	18	24	0.08	7	50	8	3	4/23/2019	County	8	SL/AB	HOWARD RD	HOWARD RI	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9502972416667	-116.6876190566670
125	71	R1-1	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	77	STOP	30	30	0.08	8		0	10	4/23/2019	City	8	SL/AB	VERA AVE	VERA & OLD	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9405460852778	-116.6991670633330
126	72	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Poor	78	VERA AVE	6	24	0.08	6		0	4	4/23/2019	City	15	SL/AB	VERA AVE	VERA & PAR	North	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9407178097222	-116.6996860675000
128	73	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	79	E VERA AVE	6	24	0.08	5.5		0	4	4/23/2019	City	15	SL/AB	VERA AVE	VERA & 7TH	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9406999755556	-116.7009336002780
127	73	D3	West	Aluminum	Diamond Grade	None	None	Tree Ol	Not Rated	Excellent	79	N 7TH ST	6	18	0.08	6		0	4	4/23/2019	City	15	SL/AB	VERA AVE	VERA & 7TH	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9406999755556	-116.7009336002780
129	74	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	80	N 6TH ST	6	18	0.08	7		0	4	4/23/2019	City	15	SL/AB	VERA AVE	VERA & 6TH	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9407133077778	-116.7025135258330
130	74	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	80	E VERA AVE	6	24	0.08	6.5		0	4	4/23/2019	City	15	SL/AB	VERA AVE	VERA & 6TH	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9407133077778	-116.7025135258330
131	75	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	81	N 5TH ST	6	24	0.08	7		0	4	4/23/2019	City	8	SL/AB	VERA AVE	VERA & 5TH	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9407034680556	-116.7036550125000
132	75	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	81	E VERA AVE	6	24	0.08	6.5		0	4	4/23/2019	City	8	SL/AB	VERA AVE	VERA & 5TH	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9407034680556	-116.7036550125000
133	76	W14-1	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	82	DEAD END	24	24	0.08	2.5		0	6	4/23/2019	City	20	SL/AB	VERA AVE	VERA & 5TH	East	Single Post Unknown	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9406337988889	-116.7041032733330
135	77	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	83	E MENSER AVE	6	24	0.08	7.5		0	4	4/23/2019	City	5	SL/AB	5TH ST	5TH & MEN!	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9441235880556	-116.7036793622220
136	77	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	83	STOP	30	30	0.08	5.5		0	10	4/23/2019	City	5	SL/AB	5TH ST	5TH & MEN!	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9441235880556	-116.7036793622220
134	77	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	83	N 5TH ST	6	24	0.08	8		0	4	4/23/2019	City	5	SL/AB	5TH ST	5TH & MEN!	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9441235880556	-116.7036793622220
137	78	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	84	N 6TH ST	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	6TH ST	6TH & MEN!	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9440798525000	-116.7022435847220
138	78	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	84	E MENSER AVE	6	24	0.08	8		0	4	4/23/2019	City	6	SL/AB	6TH ST	6TH & MEN!	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9440798525000	-116.7022435847220
139	78	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	84	STOP	30	30	0.08	6		0	10	4/23/2019	City	6	SL/AB	6TH ST	6TH & MEN!	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9440798525000	-116.7022435847220
140	79	S4-3	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	85	SCHOOL	6	24	0.08	7		0	4	4/23/2019	City	6	SL/AB	6TH ST	6TH ST	West	Single Post 5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9438775738889	-116.7023720511110
141	79	R2-1-20	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	85	SPEED LIMIT	18	24	0.08	4	20	8	3	4/23/2019	City	6	SL/AB	6TH ST	6TH ST	West	Single Post 5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9438775738889	-116.7023720511110
142	80	R1-1	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	86	STOP	30	30	0.08	6		0	10	4/23/2019	City	6	SL/AB	MENSER AVE	MENSER & (	South-West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9441393758333	-116.6992608855560
143	81	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	87	E MENSER AVE	6	24	0.08	8		0	4	4/23/2019	City	6	SL/AB	MENSER AVE	MENSER & (	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442501847222	-116.6993393650000
144	81	S4-3	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	87	SCHOOL	6	24	0.08	7.5		0	4	4/23/2019	City	6	SL/AB	MENSER AVE	MENSER & (	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442501847222	-116.6993393650000
145	81	R2-1-20	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	87	SPEED LIMIT	18	24	0.08	5	20	8	3	4/23/2019	City	6	SL/AB	MENSER AVE	MENSER & (	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442501847222	-116.6993393650000
146	81	R5-X4	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	87	NO THRU TRUCKS	18	30	0.08	3		0	4	4/23/2019	City	6	SL/AB	MENSER AVE	MENSER & (	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442501847222	-116.6993393650000
148	82	M-11	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	89	ENTER ONLY	12	18	0.08	5		0	4	4/23/2019	Private	6	SL/AB	MENSER AVE	MENSER & !	North-West	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442868241667	-116.6996936344440
147	82	M-11	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	88	ENTER ONLY	12	18	0.08	5		0	4	4/23/2019	Private	6	SL/AB	MENSER AVE	MENSER & !	North-West	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442868241667	-116.6996936344440
150	83	M-10	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	91	EXIT ONLY	12	18	0.08	5		0	4	4/23/2019	Private	6	SL/AB	MENSER AVE	MENSER & !	North-West	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443047194444	-116.7003392344440
149	83	M-10	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	90	EXIT ONLY	12	18	0.08	5		0	4	4/23/2019	Private	6	SL/AB	MENSER AVE	MENSER & !	North-West	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443047194444	-116.7003392344440
152	84	M-10	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	93	EXIT ONLY	12	18	0.08	5		0	4	4/23/2019	Private	6	SL/AB	MENSER AVE	MENSER & !	North-West	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443002338889	-116.7005730513890
151	84	M-10	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	92	EXIT ONLY	12	18	0.08	5		0	4	4/23/2019	Private	6	SL/AB	MENSER AVE	MENSER & !	North-West	Single Post 2 in. Chanr	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443002338889	-116.7005730513890
153	85	S1-1	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	94		30	30	0.08	6		0	0	4/23/2019	City	6	SL/AB	MENSER AVE	MENSER & !	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442289244444	-116.7015052858330
154	86	S1-1	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	95		30	30	0.08	6		0	0	4/23/2019	City	7	SL/AB	MENSER AVE	MENSER & !	South	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9441368636111	-116.7016708469440
155	86	S3-3	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	95	SLOW SCHOOL ZONE	30	30	0.08	4		0	4	4/23/2019	City	7	SL/AB	MENSER AVE	MENSER & !	South	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9441368636111	-116.7016708469440
156	87	S3-1	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	96	SCHOOL CROSSING AHEAD	30	30	0.08	4		0	4	4/23/2019	City	7	SL/AB	MENSER AVE	MENSER & (	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9441354258333	-116.7021113175000
157	88	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	97	STOP	30	30	0.08	7		0	10	4/23/2019	City	15	SL/AB	6TH ST	6TH & BERT	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9421292594444	-116.7024537113890
158	89	S4-3	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	98	SCHOOL	6	24	0.08	7		0	4	4/23/2019	City	10	SL/AB	6TH ST	6TH & BERT	North-East	Single Post 5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9422002919444	-116.7022556355560
159	89	R2-1-20	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	98	SPEED LIMIT	18	24	0.08	5	20	8	3	4/23/2019	City	10	SL/AB	6TH ST	6TH & BERT	North-East	Single Post 5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9422002919444	-116.7022556355560
161	90	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	99	E BERTSCH AVE	6	24	0.08	8.5		0	4	4/23/2019	City	10	SL/AB	6TH ST	6TH & BERT	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9419514305556	-116.7022266297220
162	90	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	99	STOP	30	30	0.08	6		0	10	4/23/2019	City	10	SL/AB	6TH ST	6TH & BERT	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9419514305556	-116.7022266297220
160	90	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	99	N 6TH ST	6	24	0.08	9		0	4	4/23/2019	City	10	SL/AB	6TH ST	6TH & BERT	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9419514305556	-116.7022266297220
163	91	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	100	N 5TH ST	6	24	0.08	9		0	4	4/23/2019	City	10	SL/AB	BERTSCH AVE	BERTSCH &!	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9421240052778	-116.7036467338890
164	91	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	100	E BERTSCH AVE	6	24	0.08	8.5		0	4	4/23/2019	City	10	SL/AB	BERTSCH AVE	BERTSCH &!	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9421240052778	-116.7036467338890
165	91	R1-2	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	100	YIELD	24	24	0.08	7		0	3	4/23/2019	City	10	SL/AB	BERTSCH AVE	BERTSCH &!	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9421240052778	-116.7036467338890
166	92	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	101	N 7TH ST	6	24	0.08	9		0	4	4/23/2019	City	6	SL/AB	BERTSCH AVE	BERTSCH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9419615580556	-116.7006796588890
167	92	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	101	E BERTSCH AVE	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	BERTSCH AVE	BERTSCH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9419615580556	-116.7006796588890
168	92	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	101	STOP	30	30	0.08	6		0	10	4/23/2019	City	6	SL/AB	BERTSCH AVE	BERTSCH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9419615580556	-116.7006796588890
169	93	R2-1-25	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	102	SPEED LIMIT	18	24	0.08	6	25	8	3	4/23/2019	City	8	SL/AB	BERTSCH AVE	BERTSCH &	North	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9421020872222	-116.7007075863890
170	93	R5-X4	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	102	NO THRU TRUCKS	18	24	0.08	4		0	4	4/23/2019	City	8	SL/AB	BERTSCH AVE	BERTSCH &	North	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9421020872222	-116.7007075863890
171	94	S4-3	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	103	SCHOOL	6	24	0.08	8.5		0	4	4/23/2019	State DOT	8	SL/AB	MENSER AVE	MENSER AV	South	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9440385138889	-116.7047001677780
172	94	R2-1-20	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	103	SPEED LIMIT	18	24	0.08	5.5	20	8	3	4/23/2019	City	8	SL/AB	MENSER AVE	MENSER AV	South	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9440385138889	-116.7047001677780
174	95	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	104	E MENSER AVE	6	24	0.08	8.5		0	4	4/23/2019	City	8	SL/AB	MENSER AVE	MENSER & :	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9447676613889	-116.7090273347220
175	95	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	104	STOP	30	30	0.08	6		0	10	4/23/2019	City	8	SL/AB	MENSER AVE	MENSER & :	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9447676613889	-116.7090273347220
173	95	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	104	N 1ST ST	6	18	0.08	9		0	4	4/23/2019	City	8	SL/AB	MENSER AVE	MENSER & :	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9447676613889	-116.7090273347220
176	96	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	105	N 1ST ST	6	18	0.08	9		0	4	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9457498505556	-116.7087387891670
178	96	R1-1	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	105	STOP	30	30	0.08	6.5		0	10	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9457498505556	-116.7087387891670
177	96	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	105	E MCTAVISH AVE	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9457498505556	-116.7087387891670
179	97	R1-1	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	106	STOP	30	30	0.08	6.5		0	10	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	South-West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9456149491667	-116.7083082927780
182	98	R1-1	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	107	STOP	30	30	0.08	6.5		0	10	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9456925441667	-116.7080435447220
181	98	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	107	E MCTAVISH AVE	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9456925441667	-116.7080435447220

180	98	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	107	N 2ND ST	6	24	0.08	9		0	4	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9456925441667	-116.7080435447220
183	98	W11-X5	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	108	WATCH FOR CHILDREN	30	30	0.08	5		0	6	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9456925441667	-116.7080435447220
184	99	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	109	N 3RD ST	6	24	0.08	9		0	4	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9454829875000	-116.7069164050000
185	99	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	109	E MCTAVISH AVE	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9454829875000	-116.7069164050000
186	99	R1-1	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	109	STOP	30	30	0.08	6.5		0	10	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9454829875000	-116.7069164050000
187	100	R1-1	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	110	STOP	30	30	0.08	6		0	10	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	North-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9455680230556	-116.7066205652780
189	101	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	111	E MCTAVISH AVE	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9454459002778	-116.7052260947220
188	101	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	111	N 4TH ST	6	24	0.08	9		0	4	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9454459002778	-116.7052260947220
190	101	R1-2	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	111	YIELD	24	24	0.08	6.5		0	3	4/23/2019	City	6	SL/AB	MCTAVISH AVE	MCTAVISH &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9454459002778	-116.7052260947220
192	102	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	112	E BENNETT AVE	6	24	0.08	7.5		0	4	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9466186497222	-116.7052268758330
191	102	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	112	N 4TH ST	6	24	0.08	8		0	4	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9466186497222	-116.7052268758330
193	103	R1-1	East	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	113	STOP	30	30	0.08	7		0	10	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	North-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9466122491667	-116.7065999161110
194	104	D3	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	114	N 3RD ST	6	24	0.08	9		0	4	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9465286691667	-116.7068809508330
195	104	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	114	E BENNETT AVE	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9465286691667	-116.7068809508330
196	104	R1-1	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	114	STOP	30	30	0.08	6		0	10	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	South-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9465286691667	-116.7068809508330
199	105	R1-1	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	115	STOP	30	30	0.08	6		0	10	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9468311705556	-116.7084825180560
198	105	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	115	E BENNETT AVE	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9468311705556	-116.7084825180560
197	105	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	115	N 1ST ST	6	18	0.08	9		0	4	4/23/2019	City	6	SL/AB	BENNETT AVE	BENNETT &	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9468311705556	-116.7084825180560
200	106	R2-1-25	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	116	SPEED LIMIT	18	24	0.08	7	25	8	3	4/23/2019	City	6	SL/AB	1ST ST	1ST & BENN	West	Single Post 5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9469823672222	-116.7086278822220
201	106	R2-1-25	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	117	SPEED LIMIT	18	24	0.08	7	25	8	3	4/23/2019	City	6	SL/AB	1ST ST	1ST & BENN	West	Single Post 5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9469823672222	-116.7086278822220
202	107	W11-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	118	RECREATIONAL CROSSING	30	30	0.08	8		0	4	4/23/2019	County	6	SL/AB	1ST ST	1ST ST	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9473593375000	-116.7083272061110
203	108	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	119	STOP	30	30	0.08	6.5		0	10	4/23/2019	City	6	SL/AB	1ST ST	1ST ST & SH	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476488844444	-116.7082619541670
204	109	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	120	N DAVIS LN	6	24	0.08	9		0	4	4/23/2019	City	6	SL/AB	DAVIS LN	DAVIS & SH	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477191613889	-116.7026542000000
205	109	R1-1	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	120	STOP	6	24	0.08	6.5		0	10	4/23/2019	City	6	SL/AB	DAVIS LN	DAVIS & SH	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477191613889	-116.7026542000000
206	110	R2-1-20	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	121	SPEED LIMIT	24	30	0.08	5	20	10	4	4/23/2019	City	6	SL/AB	DAVIS LN	DAVIS LN	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9475384627778	-116.7027954191670
207	110	R5-2A1	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Poor	121	NO THRU TRUCKS	18	24	0.08	3		0	4	4/23/2019	City	6	SL/AB	DAVIS LN	DAVIS LN	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9475384627778	-116.7027954191670
209	111	R2-1-20	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	122	SPEED LIMIT	18	24	0.08	6	20	8	3	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS LN	East	Single Post 5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9447517219444	-116.7025533372220
208	111	S4-3	South	Aluminum	Engineer Grade	None	None	Tree Ol	Not Rated	Fair	122	SCHOOL	6	24	0.08	8.5		0	4	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS LN	East	Single Post 5 in. Tube	Soil	Right	Steel	4/23/2019	Acceptable	None	47.9447517219444	-116.7025533372220
210	112	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	123	E MENSER AVE	6	24	0.08	9		0	4	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS & ME	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442616161111	-116.7028714241670
212	112	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	123	STOP	30	30	0.08	7		0	10	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS & ME	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442616161111	-116.7028714241670
211	112	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	123	N DAVIS LN	6	24	0.08	8.5		0	4	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS & ME	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442616161111	-116.7028714241670
213	113	S1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	124		30	30	0.08	7		0	0	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS LN &	North-West	Single Post 2 in. Chan	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443228627778	-116.7028475897220
214	113	S2-P2	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	124		12	24	0.08	5		0	0	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS LN &	North-West	Single Post 2 in. Chan	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443228627778	-116.7028475897220
215	114	S1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	125		30	30	0.08	7		0	0	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS & ME	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442950175000	-116.7027026127780
216	114	S2-P2	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	125		12	24	0.08	6		0	0	4/23/2019	City	8	SL/AB	DAVIS LN	DAVIS & ME	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9442950175000	-116.7027026127780
218	115	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	126	E MENSER AVE	6	24	0.08	8.5		0	4	4/23/2019	City	8	SL/AB	4TH ST	4TH & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443022205555	-116.7052620416670
219	115	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	126	STOP	30	30	0.08	6		0	10	4/23/2019	City	8	SL/AB	4TH ST	4TH & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443022205555	-116.7052620416670
217	115	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	126	N 4TH ST	6	24	0.08	9		0	4	4/23/2019	City	8	SL/AB	4TH ST	4TH & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443022205555	-116.7052620416670
220	115	R16-X12	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Excellent	127	NEIGHBORHOOD CRIME WATCH	18	24	0.08	4		0	3	4/23/2019	City	8	SL/AB	4TH ST	4TH & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443022205555	-116.7052620416670
221	116	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	128	N 4TH ST	6	18	0.08	10		0	4	4/23/2019	City	4	SL/AB	4TH ST	4TH & SH 5	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476944672222	-116.7050349591670
222	116	R1-1	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	128	STOP	30	30	0.08	7		0	10	4/23/2019	City	4	SL/AB	4TH ST	4TH & SH 5	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476944672222	-116.7050349591670
223	117	R2-1-25	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	129	SPEED LIMIT	18	24	0.08	5	25	8	3	4/23/2019	City	4	SL/AB	4TH ST	4TH ST	East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9475831861111	-116.7051744555560
225	118	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	130	HWY 54	6	24	0.08	8.5		0	4	4/23/2019	City	4	SL/AB	HARMS WAY	HARMS & SI	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9476941291667	-116.7058818586110
224	118	D3	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	130	HARMS WAY	6	24	0.08	9		0	4	4/23/2019	City	4	SL/AB	HARMS WAY	HARMS & SI	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9476941291667	-116.7058818586110
226	119	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	131	STOP	30	30	0.08	7		0	10	4/23/2019	City	4	SL/AB	HARMS WAY	HARMS & SI	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476843994444	-116.7058898394440
227	120	R1-1	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	132	STOP	30	30	0.08	6.5		0	10	4/23/2019	City	4	SL/AB	3RD ST	3RD & MEN	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9443150258333	-116.7067086552780
228	121	W14-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	133	DEAD END	30	30	0.08	6		0	8	4/23/2019	City	4	SL/AB	3RD ST	3RD & MEN	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9442541025000	-116.7068611383330
229	121	W14-1P	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	133	NO TRUCK TURNAROUND	12	24	0.08	4		0	4	4/23/2019	City	4	SL/AB	3RD ST	3RD & MEN	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9442541025000	-116.7068611383330
230	122	W14-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	134	DEAD END	30	30	0.08	3		0	8	4/23/2019	City	4	SL/AB	HILL AVE	HILL & 3RD	South	Single Post Unknown	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9431678247222	-116.7068654644440
233	123	R5-3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	135	PRIMITIVE ROAD NOT MAINTAINED	18	24	0.08	5		0	3	4/23/2019	City	4	SL/AB	HILL AVE	HILL & 3RD	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9432805558333	-116.7069407691670
232	123	D3	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	135	HILL AVE	6	24	0.08	9.5		0	4	4/23/2019	City	4	SL/AB	HILL AVE	HILL & 3RD	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9432805558333	-116.7069407691670
231	123	D3	West	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	135	THIRD ST	6	24	0.08	10		0	4	4/23/2019	City	4	SL/AB	HILL AVE	HILL & 3RD	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9432805558333	-116.7069407691670
234	124	R5-3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	136	PRIMITIVE ROAD NOT MAINTAINED	18	24	0.08	5		0	3	4/23/2019	City	4	SL/AB	HILL AVE	MILL AVE &	South	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9431644530556	-116.7085786000000
235	125	D3	West	Aluminum	Diamond Grade	None	None	Tree Ol	Not Rated	Excellent	137	N 1ST ST	6	18	0.08	10		0	4	4/23/2019	City	4	SL/AB	HILL AVE	HILL & 1ST	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9431104019444	-116.7095434186110
236	125	D3	West	Aluminum	Diamond Grade	None	None	Tree Ol	Not Rated	Excellent	137	E HILL AVE	6	24	0.08	10.5		0	4	4/23/2019	City	4	SL/AB	HILL AVE	HILL & 1ST	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9431104019444	-116.7095434186110
237	125	R2-1-25	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	137	SPEED LIMIT	18	24	0.08	6	25	8	3	4/23/2019	City	4	SL/AB	HILL AVE	HILL & 1ST	North-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9431104019444	-116.7095434186110
238	126	R1-1	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Poor	138	STOP	30	30	0.08	7		0	10	4/23/2019	City	4	SL/AB	2ND ST	2ND & MEN	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9445750086111	-116.7084350725000
239	127	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	139	N 2ND ST	6	24	0.08	9		0	4	4/23/2019	City	4	SL/AB	2ND ST	2ND & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9447184008333	-116.7085196233330
240	127	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	139	E MENSER AVE	6	24	0.08	8.5		0	4	4/23/2019	City	4	SL/AB	2ND ST	2ND & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9447184008333	-116.7085196233330
241	127	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Good	139	STOP	30	30	0.08	6.5		0	10	4/23/2019	City	4	SL/AB	2ND ST	2ND & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9447184008333	-116.7085196233330
244	128	R1-1	North	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	140	STOP	30	30	0.08	6		0	10	4/23/2019	City	6	SL/AB	3RD ST	3RD & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9445242938889	-116.7068794047220
243	128	D3	South	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	140	E MENSER AVE	6	24	0.08	8.5		0	4	4/23/2019	City	6	SL/AB	3RD ST	3RD & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9445242938889	-116.7068794047220
242	128	D3	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	140	N 3RD ST	6	24	0.08	9		0	4	4/23/2019	City	6	SL/AB	3RD ST	3RD & MEN	North-West	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9445242938889	-116.7068794047220
246	129	W11-X5	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	141	CAUTION CHILDREN PLAYING SLOW	30	30	0.08	4		0	4	4/23/2019	City	6	SL/AB	3RD ST	3RD & MCT	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9454040727778	-116.7066815588890
245	129	R2-1-25	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	141	SPEED LIMIT	18	24	0.08	7	25	4	4	4/23/2019	City	6	SL/AB	3RD ST	3RD & MCT	South-East	Single Post 3 in. Tube	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9454040727778	-116.7066815588890
247	130	W11-X5	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Good	142	CAUTION CHILDREN PLAYING SLOW	30	30	0.08	6		0	4	4/23/2019	City	6	SL/AB	3RD ST	3RD & BEN	South-West	Single Post Telephone	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9464935505556	-116.7067716400000
248	131	R1-1	South	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	143	STOP	30	30	0.08	7		0	10	4/23/2019	City	6	SL/AB	3RD ST	3RD & SH 5	South-East	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9476965266667	-116.7066257372220
250	132	R16-X12	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Excellent	144	NEIGHBORHOOD CRIME WATCH	18	24	0.08	6		0	3	4/23/2019	City	8	SL/AB	3RD ST	3RD & SH 5	South-West	Single Post 2 in. Chan	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9475959691667	-116.7068348838890
249	132	R2-1-25	North	Aluminum	Engineer Grade	None	None	Clear	Not Rated	Fair	144	SPEED LIMIT	18	24	0.08	8	25	4	4	4/23/2019	City	8	SL/AB	3RD ST	3RD & SH 5	South-West	Single Post 2 in. Chan	Soil	Right	Aluminum	4/23/2019	Acceptable	None	47.9475959691667	-116.7068348838890
251	133	S1-1	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	145		30	30	0.08	9		0	0	4/23/2019	State DOT	8	SL/AB	SH 54	SH 54	South	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477348291667	-116.7064461252780
252	133	S2-P2	West	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	145		12	24	0.08	7		0	0	4/23/2019	State DOT	8	SL/AB	SH 54	SH 54	South	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9477348291667	-116.7064461252780
253	134	S1-1	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	146		30	30	0.08	11		0	0	4/23/2019	State DOT	8	SL/AB	SH 54	SH 54	North-West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479033919444	-116.7065859811110
254	134	S2-P2	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	146		12	24	0.08	7		0	0	4/23/2019	State DOT	8	SL/AB	SH 54	SH 54	North-West	Single Post 4x4	Soil	Right	Wood	4/23/2019	Acceptable	None	47.9479033919444	-116.7065859811110
255	135	S1-1	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	147		30	30	0.08	11		0	0	4/23/2019	State DOT	8	SL/AB	SH 54	SH 54	North	Single Post 4x4	Soil	Right	Wood	4/23/2019	Repair	None	47.9478730200000	-116.7046330197220
256	135	S2-P2	East	Aluminum	Diamond Grade	None	None	Clear	Not Rated	Excellent	147		12	24	0.08	7		0	0	4/23/2019	State DOT	8	SL/AB	SH 54	SH 54	North	Single Post 4x4	Soil	Right	Wood	4/23/2019	Repair	None	47.9478730200000	-116.7046330197220

TRAFFIC SIGN PHOTOS

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

Picture 6

TRAFFIC SIGN PHOTOS

Picture 7

Picture 8

Picture 9

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Picture 77

Picture 79 (Photo 78 was corrupted)*

TRAFFIC SIGN PHOTOS

Picture 80

Picture 81

Picture 82

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Picture 89

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Picture 93

Picture 94

Picture 95

Picture 96

Picture 97

TRAFFIC SIGN PHOTOS

Picture 99 (Photo 98 was corrupt)

Picture 100

Picture 101

Picture 102

Picture 103

Picture 104

TRAFFIC SIGN PHOTOS

Picture 105

Picture 106

Picture 107

Picture 108

Picture 109

Picture 110

TRAFFIC SIGN PHOTOS

Picture 111

Picture 112

Picture 113

Picture 114

Picture 115

Picture 116

TRAFFIC SIGN PHOTOS

Picture 116 (Picture 117 was of other side)

Picture 118

Picture 120 (picture 119 was corrupt)

Picture 121

Picture 122

Picture 123

TRAFFIC SIGN PHOTOS

Picture 124

Picture 125

Picture 126

Picture 127

Picture 128

Picture 129

TRAFFIC SIGN PHOTOS

Picture 130

Picture 131

Picture 132

Picture 133

Picture 134

Picture 135

TRAFFIC SIGN PHOTOS

Picture 136

Picture 137

Picture 138

Picture 139

Picture 140

Picture 141

TRAFFIC SIGN PHOTOS

Picture 142

Picture 143

Picture 144

Picture 145

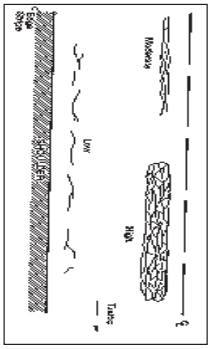
Picture 146

Picture 147

Appendix F – ASPHALT DISTRESS RATING SHEET

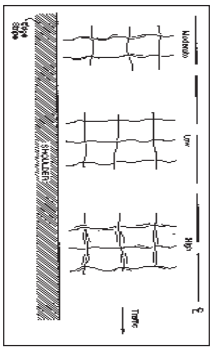
ASPHALT DISTRESS RATING SHEET

FATIGUE CRACKING



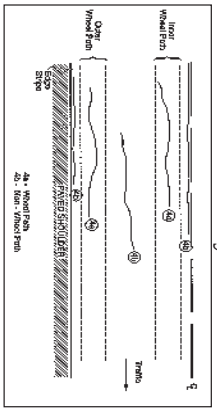
Severity	Extent: Low	Extent: Medium	Extent: High
0 None	1 Crack WP or 1' off C&G Length	2 Crack WP or 1'-2' off C&G Length	>30% of Surface Area or Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

BLOCK CRACKING



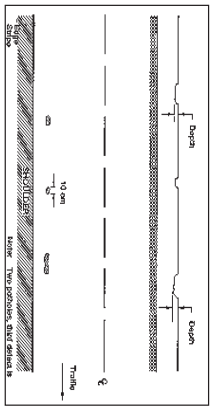
Severity	Extent: Low	Extent: Medium	Extent: High
0 None	> 15'x15' Squares	15'-10'x Squares	< 10'x10' Squares
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

LONGITUDINAL CRACKING



Severity	Extent: Low	Extent: Medium	Extent: High
0 None	1 Crack Full Length	2 Cracks Full Length	> 2 Cracks Full Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

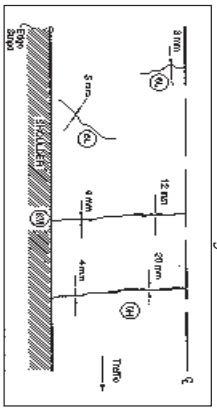
POTHOLES & UTILITY CUTS



Severity	Extent: Low	Extent: Medium	Extent: High
0 None	0-10% of Length	10-30% of Length	>30% of Length
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

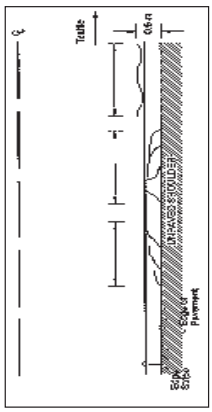
Note: to rate potholes use the same form with the following changes to the severity: **Low** is <1" deep, **Med** is 1"-2" deep and **High** is >2"

TRANSVERSE CRACKING



Severity	Extent: Low	Extent: Medium	Extent: High
0 None	> 100' between Cracks	100'-20' between Cracks	< 20' between Cracks
Low Cracks < 1/4"	1	2	3
Medium Cracks 1/4"to 3/4"	4	5	6
High Cracks > 3/4"	7	8	9

EDGE CRACKING



Severity	Extent: Low	Extent: Medium	Extent: High
0 None	0-10% of Length	10-30% of Length	> 30% of Length
Low 0-6" from Curb	1	2	3
Medium 6-18" from Curb	4	5	6
High 18" from Curb	7	8	9

Drainage / Roughness

Excellent	Good	Fair	Poor

Rutting

Excellent	Low	Med	High
0	<3/8"	1/2"-3/4"	>3/4"

Road Name _____

From _____

To _____

Length _____

Width _____

Speed Limit _____

 # Lanes _____

Appendix G – MAINTAINING RETROREFELCTIVITY (FHWA)

U.S. Department of Transportation
Federal Highway Administration

Maintaining Traffic Sign Retroreflectivity

**updated in 2013 to reflect current MUTCD compliance dates*

FHWA-SA-07-020 *(Revised 2013)*

This document is referenced in **Section 2A.08** of the *Manual on Uniform Traffic Control Devices* (MUTCD). Please be sure to review the methods discussed on pages two and three, along with the related procedures that make each method reliable and meaningful in its use to maintain signs above the minimum retroreflectivity levels. A full report on these methods can be found at www.fhwa.dot.gov/retro.

SCHEDULE

Method:

Agencies have until June 14, 2014 to implement and continue to use an assessment or management method that is designed to maintain regulatory and warning sign retroreflectivity at or above the minimum levels in Table 2A–3 of the 2009 MUTCD.

Although guide signs are included in the minimum retroreflectivity levels table, there is not a specified compliance date for guide signs (including street name signs) to be addressed by an agency's method. Guide signs are to be added to an agency's management or assessment method as resources allow.

Sign Replacement:

Agencies need to replace any sign they identify as not meeting the established minimum retroreflectivity levels. Agencies' schedules for replacing signs are based on resources and relative priorities rather than specific compliance dates.

Traffic signs provide important information to road users. To be effective, traffic sign visibility must be maintained during daytime and nighttime conditions. In addition to Section 2A.08, the MUTCD addresses sign visibility in several other places, including Sections 1A.03, 1A.04, 1A.05, 2A.06, 2A.07, and 2A.22. These sections address factors such as uniformity, design, placement, operation, and maintenance.

The Standard in Section 2A.08 requires agencies to use a maintenance method that is designed to maintain traffic signs at or above minimum levels of retroreflectivity in Table 2A-3. Including Table 2A-3 in the MUTCD does not imply that an agency must measure the retroreflectivity of every sign. Rather, the MUTCD summarizes five methods that agencies can use to maintain traffic sign retroreflectivity at or above the minimum levels. These methods are listed in Section 2A.08 and are discussed on pages two and three of this document. The Standard promotes safety while providing sufficient flexibility for agencies to choose one or more maintenance methods that best match their specific conditions.

This Standard does NOT imply all signs need to be replaced. The intent is to identify and replace signs that no longer meet the needs of nighttime drivers.

The MUTCD language recognizes that there may be some individual signs that do not meet the minimum retroreflectivity levels at a particular point in time. Reasons for this include vandalism, weather, or damage due to a crash. As long as the agency is using one of the methods (with appropriate procedures) to maintain their signs, they are considered to be in compliance with this Standard.

The methods recommended in the MUTCD are broken into two categories: management methods and assessment methods. Assessment methods involve sending personnel out to examine and assess the retroreflective performance of signs. Some agencies may find this approach to be more labor intensive and turn to management methods as an alternative. Management methods may require less field work (or none at all in some cases) but may also result in replacing some signs that still have useful life left in terms of retroreflectivity. These recommended methods are discussed on pages two and three of this document and are described in detail in a full report entitled "Methods for Maintaining Traffic Sign Retroreflectivity," available at www.fhwa.dot.gov/retro.

ASSESSMENT METHODS

Assessment methods involve evaluating individual signs within an agency's jurisdiction. There are two basic assessment methods identified in the 2009 MUTCD: visual nighttime inspection and measured sign retroreflectivity.

1. VISUAL NIGHTTIME INSPECTION METHOD

In the visual nighttime inspection method, on-the-fly assessments of retroreflectivity are made by an inspector during nighttime conditions. The following are keys to successfully implementing the visual nighttime inspection method:

A. Develop guidelines and procedures for inspectors to use in conducting the nighttime inspections and train inspectors in the use of these procedures.

B. Conduct inspections at normal speed from the travel lane(s).

C. Conduct inspections using low-beam headlights while minimizing interior vehicle lighting.

D. Evaluate signs at typical viewing distances so that adequate time is available for an appropriate driving response.

One or more of the following procedures should be used to properly implement this method:

Calibration Signs Procedure (for Visual Nighttime Inspection Method)

Calibration signs have known retroreflectivity levels at or above minimum levels. These calibration signs are set up so the inspector views the calibration signs in a manner similar to nighttime field inspections. A trained inspector views calibration signs prior to conducting the nighttime inspection described in 1 A-D above. The inspector uses the visual appearance of the calibration signs to establish the evaluation threshold for that night's inspection. During the nighttime drive-through inspection of in-service signs, if the inspector believes a sign appears to be less bright than the calibration signs viewed earlier, the in-service sign should be replaced. The following factors provide additional information on the use of this procedure:

- Calibration signs are needed for each color of sign in Table 2A-3 of the 2009 MUTCD.
- Calibration signs are viewed at typical viewing distances using the inspection vehicle.
- Calibration signs need to be properly stored between inspections so that their retroreflectivity does not deteriorate over time.

Comparison Panels Procedure (for Visual Nighttime Inspection Method)

Comparison panels are fabricated with retroreflectivity levels at or above the minimum levels. The trained inspector makes an initial nighttime visual inspection described in 1 A-D above to identify signs that are obviously above or below the minimum retroreflectivity values as well as those the inspector considers to be marginal. Those signs designated as obviously below the minimum retroreflectivity values are scheduled for replacement. For signs considered marginal, a supplementary nighttime inspection is conducted by attaching a comparison panel to the in-service sign. With a flashlight, the inspector views the in-service sign along with the comparison panel to determine whether the in-service sign appears brighter or less bright than the comparison panel. If the in-service sign appears less bright than the comparison panel, the in-service sign should be replaced.

Consistent Parameters Procedure (for Visual Nighttime Inspection Method)

For this procedure, nighttime inspections described in 1 A-D above are conducted by a trained inspector under similar factors that were used in the research to develop the minimum retroreflectivity levels. These traits include:

- Using an inspector who is at least 60 years old.
- Using a sport utility vehicle or pick-up truck from which to make the observations.
- Using a model year 2000 or newer vehicle.

The trained inspector makes a judgment call as to whether an in-service sign meets their nighttime driving needs. Those signs judged not to meet the visual driving needs should be replaced. Note, the three factors listed here are specific to this procedure and are not required for visual nighttime inspections using the calibration signs procedure or the comparison panels procedure.

2. MEASURED SIGN RETROREFLECTIVITY METHOD

In this method the retroreflectivity of a sign is measured with a handheld or mobile retroreflectometer and directly compared to the minimum level appropriate for that sign. ASTM E1709, Standard Test Method for Measurement of Retroreflective Signs Using a Portable Retroreflectometer, provides the standard method for measuring sign retroreflectivity with handheld instruments. If the measured sign retroreflectivity value is less than the appropriate level in Table 2A-3, the sign should be replaced.

MANAGEMENT METHODS

Management methods provide an agency with the ability to maintain sign retroreflectivity without having to physically inspect each individual sign. While it is not required by the MUTCD, some agencies have chosen to determine the sheeting type and age or retroreflectivity levels of existing signs before using a management method. This is done by those agencies to prevent signs currently near or below minimum levels from being left in place several additional years. The 2009 MUTCD identifies three management methods:

1. EXPECTED SIGN LIFE METHOD

In this method, the agency monitors the age of individual signs and replaces them before they are expected to degrade below the minimum levels in Table 2A-3 of the 2009 MUTCD. The retroreflectivity life of a sign may vary by such factors as type of sheeting, geographic location, color, and direction the sign faces. This method depends on knowing the age and type of sheeting used for the signs. Agencies may choose to consider weathering deck results, measurements of field signs, sign sheeting warranties, or other criteria as the basis for the expected sign life. A common approach for identifying the age of individual signs uses a label on the sign to mark the year of fabrication or installation. Agencies can also use sign management systems to track the age of individual signs.

2. BLANKET REPLACEMENT METHOD

In this method, an agency manages signs in groups rather than as individual signs. An agency may choose to group signs by geographic area, roadway corridor, type of sheeting, or sign category (e.g., warning signs). The sign replacement interval is based on the expected sign life for the sign sheeting in the group with the shortest expected life. This method typically obligates an agency to replace all of the designated signs within a group, even if a sign was recently replaced due to issues such as vandalism or damage.

3. CONTROL SIGNS METHOD

In this method, agencies monitor the performance of a control sample of signs that represent a larger group of signs. Agencies track the retroreflectivity of the control signs to determine when replacement of the larger group is necessary based on the performance of the control signs.

- Agencies should develop a sampling plan to determine the appropriate number and type of control signs needed to represent the larger group of signs. Samples should represent the entire group, including such factors as sign sheeting type and color.
- Control signs may be actual signs in the field or signs in a maintenance yard (for convenience).
- Agencies should monitor the retroreflectivity of the control signs using an assessment method.

OTHER METHODS

Other assessment or management methods that are developed based on engineering studies can be used as long as they are designed to maintain minimum levels in Table 2A-3 of the 2009 MUTCD, as stated in the MUTCD Standard statement in Section 2A.08.

Excerpt from Part 2 of the 2009 MUTCD

Section 2A.08 Maintaining Minimum Retroreflectivity

Support:

01 Retroreflectivity is one of several factors associated with maintaining nighttime sign visibility (see Section 2A.22).

Standard:

02 **Public agencies or officials having jurisdiction shall use an assessment or management method that is designed to maintain sign retroreflectivity at or above the minimum levels in Table 2A-3.**

Support:

03 Compliance with the Standard in Paragraph 2 is achieved by having a method in place and using the method to maintain the minimum levels established in Table 2A-3. Provided that an assessment or management method is being used, an agency or official having jurisdiction would be in compliance with the Standard in Paragraph 2 even if there are some individual signs that do not meet the minimum retroreflectivity levels at a particular point in time.

Guidance:

04 *Except for those signs specifically identified in Paragraph 6, one or more of the following assessment or management methods should be used to maintain sign retroreflectivity:*

A. Visual Nighttime Inspection—The retroreflectivity of an existing sign is assessed by a trained sign inspector conducting a visual inspection from a moving vehicle during nighttime conditions. Signs that are visually identified by the inspector to have retroreflectivity below the minimum levels should be replaced.

B. Measured Sign Retroreflectivity—Sign retroreflectivity is measured using a retroreflectometer. Signs with retroreflectivity below the minimum levels should be replaced.

C. Expected Sign Life—When signs are installed, the installation date is labeled or recorded so that the age of a sign is known. The age of the sign is compared to the expected sign life. The expected sign life is based on the experience of sign retroreflectivity degradation in a geographic area compared to the minimum levels. Signs older than the expected life should be replaced.

D. Blanket Replacement—All signs in an area/corridor, or of a given type, should be replaced at specified intervals. This eliminates the need to assess retroreflectivity or track the life of individual signs. The replacement interval is based on the expected sign life, compared to the minimum levels, for the shortest-life material used on the affected signs.

E. Control Signs—Replacement of signs in the field is based on the performance of a sample of control signs. The control signs might be a small sample located in a maintenance yard or a sample of signs in the field. The control signs are monitored to determine the end of retroreflective life for the associated signs. All field signs represented by the control sample should be replaced before the retroreflectivity levels of the control sample reach the minimum levels.

F. Other Methods—Other methods developed based on engineering studies can be used.

Support:

05 Additional information about these methods is contained in the 2007 Edition of FHWA's "Maintaining Traffic Sign Retroreflectivity" (see Section 1A.11).

Option:

06 Highway agencies may exclude the following signs from the retroreflectivity maintenance guidelines described in this Section:

A. Parking, Standing, and Stopping signs (R7 and R8 series)
B. Walking/Hitchhiking/Crossing signs (R9 series, R10-1 through R10-4b)
C. Acknowledgment signs
D. All signs with blue or brown backgrounds
E. Bikeway signs that are intended for exclusive use by bicyclists or pedestrians

Note: The referenced document is actually this four-page brochure you are reading.

Table 2A-3. Minimum Maintained Retroreflectivity Levels[1]

Sign Color	Sheeting Type (ASTM D4956-04)				Additional Criteria
	Beaded Sheeting			Prismatic Sheeting	
	I	II	III	III, IV, VI, VII, VIII, IX, X	
White on Green	W*; G ≥ 7	W*; G ≥ 15	W*; G ≥ 25	W ≥ 250; G ≥ 25	Overhead
	W*; G ≥ 7	W ≥ 120; G ≥ 15			Post-mounted
Black on Yellow or Black on Orange	Y*; O*	Y ≥ 50; O ≥ 50			[2]
	Y*; O*	Y ≥ 75; O ≥ 75			[3]
White on Red	W ≥ 35; R ≥ 7				[4]
Black on White	W ≥ 50				–

[1] The minimum maintained retroreflectivity levels shown in this table are in units of cd/lx/m² measured at an observation angle of 0.2° and an entrance angle of -4.0°.
[2] For text and fine symbol signs measuring at least 48 inches and for all sizes of bold symbol signs
[3] For text and fine symbol signs measuring less than 48 inches
[4] Minimum sign contrast ratio ≥ 3:1 (white retroreflectivity ÷ red retroreflectivity)
* This sheeting type shall not be used for this color for this application.

2009 MUTCD Section Number(s)	2009 MUTCD Section Title	Specific Provision	Compliance Date
2A.08	Maintaining Minimum Retroreflectivity	Implementation and continued use of an assessment or management method that is designed to maintain regulatory and warning sign retroreflectivity at or above the established minimum levels (see Paragraph 2)	**June 14, 2014** (date established in Revision 2 to 2009 MUTCD)*

** Types of signs other than regulatory or warning are to be added to an agency's management or assessment method as resources allow.*

Appendix H – BRIDGING THE VALLEY

Final design begins in 2005

HDR submitted 22 Design Reports on crossings, grade separations, and a pedestrian crossing as of December 2004. Track plans are currently under review by both BNSF and UPRR with completion scheduled for March 2005.

The Design Reports are based on guidance generated from a preliminary study done in 2001, which determined, based on traffic analysis and other issues, which crossings should be closed and which should be grade-separated. They incorporate comments from the committee, the railroads, the Washington and Idaho Departments of Transportation and the counties and cities affected. HDR has met with local highway district officials to refine the grade separations and continue with preliminary engineering.

Upon the approval of BNSF, UPRR and the partnering government agencies, and subject to available funding, work on the final design is expected to begin in 2005. Construction would start in 2007 with rail operations commencing as early as 2009.

Contact Information

Persons wanting general information about the project or to request to be added to the project mailing list should call the Project Information Line at 208-765-6799, or toll free: 877-BTV -1200 (877-288-1200), or visit the project web page at www.bridgingthevalley.org.

Project Management:
Glenn Miles, Spokane Regional Transportation Council: 509/343-6370

Bridging the Valley

Bridging the Valley is a major redesign of the heavily traveled Burlington Northern Santa Fe (BNSF) and Union Pacific Railroad (UPRR) rail corridor between Spokane, Wash., and Athol, Idaho.

The **Bridging the Valley** project focuses on the 42-mile rail route through the Spokane Valley, a strategic rail corridor for east-west trade across the northern tier of the nation and north-south trade with Canada. Roadway safety will be *substantially enhanced with the completion of this project to reduce grade separations along a heavily traveled rail route in the Pacific Northwest.*

Bridging the Valley is a major redesign of the heavily traveled Burlington Northern Santa Fe (BNSF) and Union Pacific Railroad (UPRR) rail corridor between Spokane, Wash., and Athol, Idaho. Primary project goals include:

- Motor vehicle traffic safety at grade separations,
- Economic growth,
- Improved traffic mobility, and
- Train whistle noise abatement.

Today there are 75 crossings along 42 miles

Freight rail traffic over these routes has continued to increase with the steady expansion of North American and regional rail shipping, a scenario that is stepping up the pressure to manage local traffic congestion, train noise, safety hazards, and other issues associated with the 75 at-grade crossings on the two railroads.

Growing public concern

Separation of the freight corridor from local vehicular traffic has become a priority for many regional agencies and community groups. Public concern has grown along with the steady increase of train traffic, prompting surrounding communities to initiate a rail consolidation project to ease congestion. This proposal was for the creation of a common rail
corridor and elimination of nearly all at-grade crossings through the Spokane Valley.

The Bridging the Valley project was created in response to these concerns and to accommodate the growing rail traffic. At the heart of the design, developed by the Spokane Regional Transportation Council (SRTC) and HDR Engineering, is the elimination of most of the at-grade crossings.

Background

The **Bridging the Valley** Study was conducted between August 2000 and July 2002 to analyze the potential for reducing the number of highway/rail at-grade crossings between Spokane, Washington and Athol, Idaho. The study was sponsored by the Spokane Regional Transportation Council in cooperation with:

- Washington Department of Transportation
- Idaho Department of Transportation
- Local Jurisdictions
- Spokane Valley Chamber of Commerce
- Union Pacific Railroad (UPRR)
- Burlington Northern Santa Fe Railway (BNSF)

The study area is part of the Spokane Valley rail corridor for east-west trade across the northern section of the U.S. and north-south trade with Canada. Most of the BNSF's domestic, import, and export rail freight to and from Seattle, Tacoma, Portland, and Vancouver pass through the Spokane Valley rail corridor. UPRR's main concern was the ability to maintain service to existing rail served customers.

The study outcome favored the alternative which combines the BNSF and UPRR railroad mainlines and grade-separations between railroad and roadways in the BNSF corridor. The Spokane Regional Transportation Council and Bridging the Valley (BTV) Steering Committee approved preliminary engineering on May 23, 2003 for the new and to-be modified existing grade separations.

Grade Crossing Safety

One of the best ways to address grade crossing safety is to reduce the number of at-grade crossings. The BNSF corridor handles 65 to 70 trains per day, with 19 at-grade crossings on this 42-mile stretch. Just two to six miles south is Union Pacific's Spokane International Mainline, which runs 12 to 15 trains per day and has 56 at-grade crossings.

- Virtually 100 percent the BNSF domestic import and export rail traffic to and from Seattle and Tacoma, Portland, and Vancouver, B.C., passes through the Spokane Valley. All three BNSF corridors in the Pacific Northwest — Stevens Pass, Stampede Pass and the Columbia River route — converge at Spokane.
- Nearly all of UPRR's burgeoning North American Free Trade Agreement (NAFTA) traffic between the United States and Canada passes through the Spokane Valley. UPRR's only western U.S. connection to Canada converges at Spokane.

Consolidating the UPRR mainline operations into the BNSF corridor resulted in an immediate reduction of mainline at-grade crossings by **56**. The project identified the best BNSF crossings to be consolidated into single grade separated crossings reducing the number of mainline at-grade crossings by an additional **19**. Plans call for modifying eight existing grade separated crossings within the BNSF corridor and creating 11 additional grade-separated crossings.

Double-tracking UPRR and BNSF

The study looked beyond eliminating high exposure UPRR crossings (or equipping them with other safety devices), and examined the feasibility of elimination of the UPRR corridor by combining UPRR's operations into the BNSF corridor.

Because the current BNSF mainline consists of both single and double mainline track, additional track capacity must be constructed. The area will be expanded by generally adding one track — with occasional need for two additional tracks in some locations — to the existing mainline within the railroad right-of-way.

BNSF and UPRR currently operate together on a single viaduct through the City of Spokane. Consequently, this is in reality an extension of what already exists.

Description of Crossing Changes

Pleasant View Road Overpass, Harvard Road Overpass, Barker Road Overpass: construct new bridges over multiple railroad tracks and new diamond interchanges above Trent Avenue (State Route 290) with on/off ramps. In all cases, Trent Avenue is adjacent and parallel to the railroad tracks. For the Barker Road project, eliminate a nearby flyover of Wellesley Avenue at Trent by realigning Wellesley parallel to Trent and the railroad tracks.

Sullivan Road Overpass: rebuild bridges across existing and new tracks and Trent Avenue using staged construction to minimize closure to vehicle traffic and widen roadway to accommodate future projected traffic.

Starr Road Underpass: rebuild railroad bridges over existing Starr Road using staged construction to minimize closure to vehicle traffic and widen roadway to accommodate future projected traffic.

Ramsey Road Overpass: raise two-lane Ramsey Road over three railroad tracks and Diagonal Road. Northeast of the new bridge, a new connector road will be built between Ramsey Road and Diagonal Road. Shoulder bikeways will be provided on both sides of Ramsey Road, Diagonal Road, and the Northeast Connector Road. Private driveways will be modified to provide access.

Park Road Overpass: raise four-lane Park Road over the existing and new railroad tracks, realigning adjacent roads and modifying driveways for private properties to provide access. As the proposed alignment swings to the west and intersects Trent Avenue (SR 290) at Coleman Road, approximately ¼ mile west of the existing Park Road / SR 290 intersection, a pedestrian / bicycle ramp will connect the existing Park Road / SR 290 intersection with the overpass.

Havana Street Overpass: raise four-lane Havana Street, widened to accommodate future projected traffic, to clear the railroad yard tracks which, at present, block Havana approximately 18 hours per day. The bridge will include sidewalks on both sides and 15-ft wide outside travel lanes.

Highway 41/53 over BNSF tracks: staged construction to replace a 3-span Cast-In-Place concrete bridge over one track with a new bridge over 3 tracks (2 new tracks). The roadway will be widened to accommodate future projected traffic. A 10-ft wide pedestrian / bikeway will be constructed on both sides of the highway.

Pines Road Undercrossing: four-lane Pines Road will be depressed approximately 20 ft to cross under a concrete girder railroad bridge carrying 4 tracks. By realigning the road to the east, most construction can take place without disruption to existing traffic and the roadway will cross at a right angle to the bridge.

Rathdrum Main Street Undercrossing: three-lane Main Street will be extended west and will be depressed approximately 20 ft to cross under a concrete girder railroad bridge carrying 3 tracks and a raised Highway 53. Highway 53 will be widened to 4-lanes and raised 10-feet.

Rathdrum Pedestrian Undercrossing: replace the existing 5-ft by 8-ft box culvert undercrossing with a new 10-ft by 10-ft box culvert meeting current bicycle / pedestrian standards.

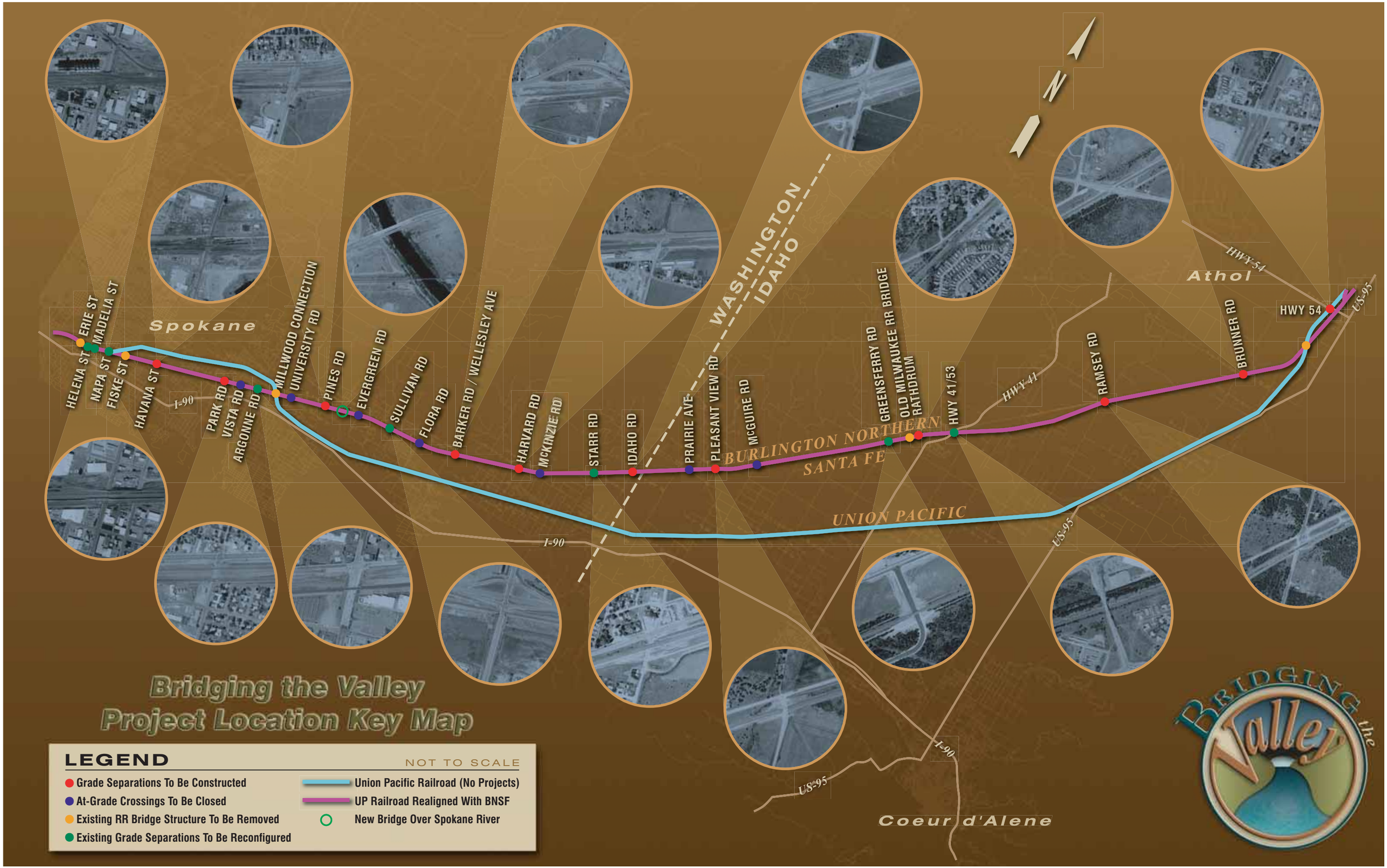
Brunner Road Undercrossing: four-lane Brunner Road, widened to accommodate future projected traffic and bikeways, will be depressed approximately 20 ft to cross under a concrete girder railroad bridge carrying 3 tracks. Diagonal Road and Clagstone Road will be realigned slightly to the west, and both will be lowered to match the new elevation of Brunner Road.

Highway 54 Undercrossing: four-lane Highway 54 will be depressed approximately 20 ft to cross under a concrete girder railroad bridge carrying 3 tracks. A 10-ft wide pedestrian/bicycle walkway will be constructed along the south side of the highway, elevated above the roadway but passing under the new bridge.

Erie Street, Helena Street, Madelia Street, Napa Street Undercrossings: A new bridge to carry a new track will be constructed adjacent to existing bridges at each of these downtown Spokane sites. Steel girders will support the tracks and a concrete fascia girder and piers with similar appearance to the existing bridge columns will be used.

Argonne Road and Greensferry Road: A new railroad bridge to carry a new track will be constructed adjacent to existing railroad bridges. No changes to the roadway is required.

Idaho Road Undercrossing: four-lane Idaho Road, widened to accommodate future projected traffic, will be depressed approximately 20 ft to cross under a concrete girder railroad bridge carrying 3 sets of tracks. By realigning the road to the west, most construction can take place without disruption to existing traffic and the roadway will cross at a right angle to the bridge.



Bridging the Valley Project Location Key Map

LEGEND

NOT TO SCALE

- Grade Separations To Be Constructed
- At-Grade Crossings To Be Closed
- Existing RR Bridge Structure To Be Removed
- Existing Grade Separations To Be Reconfigured
- Union Pacific Railroad (No Projects)
- UP Railroad Realigned With BNSF
- New Bridge Over Spokane River

BRIDGING the Valley

Project Description

The Spokane Regional Transportation Council (SRTC) is proposing to improve traffic safety in Spokane County, Washington and Kootenai County, Idaho, through the implementation of the Bridging the Valley (BTV) project. BTV is a highway traffic safety project that eliminates 75 at-grade rail crossings in the 42-mile corridor between Spokane, Washington, and Athol, Idaho. It consists of the following major elements:

- Construction of one (in some locations, two) new railroad track(s) parallel to the existing rail line within existing Burlington Northern Santa Fe (BNSF) right of way to allow the transfer of UPRR traffic to the BNSF main line.
- Construction of a new rail yard for the UPRR in Spokane Valley along the BNSF corridor, between Barker Road and Flora Road, to allow UPRR to service its trains in the new location. (The current UPRR yard in Spokane does not include refueling facilities or fuel storage, and the new yard would not include these activities either.)
- Construction of separated grade crossings at 11 locations (Havana Street, Park Road, Pines Road, Barker Road, Harvard Road, Idaho Road, Pleasant View Road, Rathdrum - Main Street, Ramsey Road, Brunner Road and Highway 54).
- Improvement of existing separated grade crossings at nine locations (Erie Street, Helena Street, Madelia Street, Napa Street, Argonne Road, Sullivan Road, Starr Road, Greensferry Road, and Highway 41/53).
- Construction of a new railroad bridge over the Spokane River.
- Improvement or removal of existing railroad-only bridges at four locations (Fiske Street, Old Milwaukee Bridge, and BNSF over UPRR bridge at Athol and Millwood).
- Proposed closure of seven road crossings along the BNSF corridor (Vista Road, University, Road Evergreen Road, Flora Road, McKinzie Road, Prairie Avenue, and McGuire Road).

A description of the proposed work for each of the new and modified grade separation crossings and the new crossing of the Spokane River is included in the crossing change descriptions.

Environmental Review

Evaluation of environmental issues for the Bridging the Valley Project as a whole is presently underway. Environmental documentation, written in a Washington State Department of Transportation (WSDOT) Documented Categorical Exclusion format will evaluate the project effects.

Technical reports that support the environmental document will be completed and summarized in the environmental document. The Washington and Idaho Departments of Transportation and the Federal Highway Administration (FHWA) will review the environmental document for conformance with NEPA. The FHWA Washington Division Office will have the authority of approving the environmental document for the project as a whole.

Public Involvement

The public involvement plan for the project includes making contacts with properties and/or businesses adjacent to or potentially impacted by the project, newsletters and mailings sent, and public meetings were held. A website for the project is at www.BridgingTheValley.org.

The first building phase in the project will include complete construction of a new double track bridge over the Spokane River, double tracking of the BNSF mainline, the relocation of an isolated UPRR staging yard, and the completion of high priority grade separation such as Havana Street, Park Road, Pines Road, and Rathdrum Main Street.

The second phase will include completion of the grade separations as well as completion of triple tracking, with crossovers of the BNSF mainline.

Upon completion of the improvements, UPRR will move its traffic onto the BNSF corridor to operate between Spokane and Athol. Service on the UPRR mainline paralleling the corridor will then cease, and only the portion of that line required to serve existing customers will be retained.

Economic Benefits

In addition to creating a more efficient freight rail operating environment for UPRR, BNSF and local rail shippers, Bridging the Valley will provide widespread benefits to the surrounding communities.

The project will increase economic activity in the region in two ways, through near-term construction spending and long-term enhancement of development opportunities with a single rail corridor served by the region's largest railroads. The resulting increase in final demand for regional goods and services will result in new job creation in the directly effected businesses, plus jobs in supporting and ancillary industries. It will generate higher federal and local tax revenues through corporate taxes, income taxes from the newly created jobs, and other fiscal impacts.

The project quantified both the regional and national economic benefits to the public from consolidating the BNSF and UPRR into a single corridor and eliminating railroad-highway grade crossings between Spokane, Washington and Athol, Idaho. In addition, a wide variety of public benefits were evaluated and quantified, including reducing highway delays at grade crossings, reducing air emissions in the area, enhancing rail related economic development opportunities, and changes in land use and property values.

The health of the economy is tied to the transportation system's ability to move people and good's. Railroad crossing delays impact not just the vehicles and people waiting, but also businesses whose competitive edge depends on their ability to deliver goods and services efficiently. Railroad crossing delays lengthen travel times, increase vehicle operating costs and decrease productivity due to additional labor costs. With this project, travel time benefits to the general public will exceed $470 million over the next 30 years.

Bi-State Cooperation Among Stakeholders

The project has been a collaborative effort between various stakeholders in Washington and Idaho.

- Idaho Transportation Department
- City of Rathdrum
- City of Athol
- City of Post Falls
- City of Hauser
- City of Coeur d'Alene
- Idaho Public Utilities Commission
- Northern Lakes Fire Protection District
- Hauser Lake Fire District
- Coeur d'Alene Fire District
- Kootenai County Fire and Rescue
- Mica Kidd Island Fire Protection District
- Spirit Lake Fire District
- CDC Interagency Emergency Dispatch
- Post Falls Highway District
- Lakes Highway District
- East Side Highway District
- KMPO
- Stimson Lumber
- Kootenai County Perspectives Group
- Local Emergency Planning Committee
- Kootenai County Office of Emergency Management
- Rathdrum Transportation Committee
- Kootenai County Area Transportation Team
- Kootenai County Planning and Building Department
- Kootenai County Air Patrol
- Kootenai County Commissioner Rick Currie
- Panhandle Health District
- Coeur d'Alene Police Department
- Coeur d'Alene School District
- Post Falls School District
- Lakeland School District
- Washington State Department of Transportation
- Washington Utilities and Transportation Commission
- City of Spokane
- City of Spokane Valley
- Spokane County
- Irvin Water District
- EPA
- FHWA
- East Valley School District
- West Valley School District
- Avista
- Yellowstone Pipeline
- Sunrise Trucking

Appendix I – REFERENCES

The following documents and plans were referenced in the creation of this Transportation Plan, and they are available at the following locations online:

City of Athol Comprehensive Plan:
http://www.cityofathol.us/documents/2019%20Athol%20Comprehensive%20Plan%20-%20adopted%205.21.19.pdf

Kootenai Metropolitan Planning Organization (KMPO) – Metropolitan Transportation Plan :
https://www.kmpo.net/metropolitan-transportation-plan/

KMPO – Complete Human Services Transportation Plan:
http://www.kmpo.net/wp-content/uploads/2018/09/Complete-Human-Services-Transportation-Plan_2018.pdf

KMPO – Regionalized Non-Motorized Transportation Plan:
http://www.kmpo.net/wp-content/uploads/2018/09/2018RNMTP-FINAL-reduced.pdf

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