



TOWN OF EUREKA

Road Assessment Report

Eureka, Montana

September 10, 2026



Table of Contents

Summary of Inspection	4
Summary of Priority Setting	4
Preliminary Priority Recommendations	10
Appendix A. Road Condition Figures	13
Appendix B. Field Investigation Photos and Cost Estimate Summaries	14
Appendix C. Eureka TIF & Levy District Maps	31

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Summary of Inspection

The Town of Eureka's (Town) roadway condition assessment was conducted to establish a maintenance work plan and identify preliminary improvement priorities. HDR visually inspected the selected roadways during the week of July 13, 2026, following coordination with Town leadership. The assessment did not include quantitative testing, such as roughness measurements, traffic counts, or geotechnical evaluation. Roadways were rated using pavement condition, apparent subgrade performance, drainage performance, and apparent compliance with the Americans with Disabilities Act (ADA) and Public Right-of-Way Accessibility Guidelines (PROWAG). Photographs, field notes, ratings, and supporting data informed the analysis and recommendations presented in this report.

Summary of Priority Setting

Roadway Classification

Prioritizing roadway improvements first requires a hierarchy that reflects each roadway's function within the local network. Because municipal classifications do not directly correspond to state highway classifications, HDR considered field observations and discussions with Town personnel and residents to understand local traffic patterns. These observations, together with scaled definitions from the Montana Department of Transportation (MDT), formed the classification system used in this assessment. The classifications represent planning-level professional judgment based on conditions observed at the time of inspection and the Town's operational needs.

For this assessment, the analyzed roadways were assigned to one of three functional classifications: residential, collector, or arterial.

Residential roadways are characterized as having low speeds and traffic volumes while serving as local streets that provide direct access to adjacent properties (Road Design Manual, MDT 2016). An example of a residential roadway is 3rd Ave. E. as it serves to connect private residents to the 11th St. E. collector.

Collector roadways carry lower traffic volumes than arterials and provide intermediate connections between local streets and the arterial network (Road Design Manual, MDT 2016). The Town's 2nd Ave. E. is classified as a collector because it connects residential and local streets to the primary arterials, 3rd St. E. and 6th St. E.

Arterials are generally characterized as road systems that move and provide travel between major points while also serving adjacent properties. These systems play an important role in inter- and intra-urban circulation (A Policy on Geometric Design of Highways and Streets: AASHTO 2018).

Four arterial roadways were identified for planning purposes: 3rd St. E., 6th St. E., Central Ave., and Tobacco Road. Tobacco Road's classification reflects its observed network function and should be confirmed with Town / County staff as to who is obligated for its maintenance.

- 3rd St. E. and 6th St. E. serve as the main east–west connections from US 93 to schools, churches, businesses, local residences, rural residences, and county roads east of the Town limits.
- Central Ave. runs parallel to US 93 along the east edge of Town and serves as the alternative north–south connection to local residences, schools, and downtown when bypassing US 93 is warranted.
- Tobacco Road is the Town’s primary route for traffic entering and leaving to the west and southwest. It is vital to the Town and surrounding community because many residents who work in Town, use Town services, or need access to US Highway 93 live along this corridor.

See the Road Classifications exhibit in Appendix A for a map of the analyzed roadways and their corresponding classifications.

**Roadway classifications were developed in coordination with Town Public Works staff based on the condition assessment and the Town’s operational needs; resulting roadway classifications may deviate from typical MDT definitions.*

Roadway Condition

Roadway classifications were evaluated together with observed conditions to establish improvement priorities. HDR visually assessed pavement condition, apparent subgrade performance, drainage performance, and apparent ADA/PROWAG compliance, then assigned each roadway a severity rating from 1 to 3. The ratings are comparative planning tools rather than results of detailed engineering testing: Rating 1 indicates generally minor deficiencies, Rating 2 indicates moderate deficiencies requiring corrective work, and Rating 3 indicates major deficiencies that may warrant reconstruction.

Table 1 summarizes the characteristics associated with each severity rating. Appendix B provides representative field photographs illustrating the observed conditions. Apparent accessibility observations are screening-level only and do not constitute a formal ADA or PROWAG compliance determination.

Table 1. Severity Characteristics

RATING	PAVEMENT CONDITION	SUBGRADE PERFORMANCE	DRAINAGE PERFORMANCE	ADA COMPLIANCE
1	Minor cracking and pavement deterioration	No evidence of settlement	No evident ponding	Pedestrian ramps, crossings, and walkways meet ADA/PROWAG requirements
2	Moderate cracking and minor potholing	Minor alligator cracking and settlement evident	Minor ponding and lack of adequate drainage features	Pedestrian ramps, crossings, and walkways do not meet ADA/PROWAG requirements
3	Major cracking, potholing, and rutting. Evident failure of the pavement surface	Major settlement with depressed road section.	Major ponding and no drainage features provided	Pedestrian facilities missing where required

See the Overall Road Condition exhibit in Appendix A for the preliminary roadway conditions.

Recommendation Types

Improvement recommendations normally fall into one of two different categories. For this evaluation it is simplest to label them either Maintenance Recommendations or Reconstruction Recommendations.

Maintenance

As their names imply, Maintenance Recommendations aim to simply maintain and extend the life of an existing roadway. Maintenance recommendations include crack sealing, chip sealing, and mill-and-overlay treatments. Figure 2 presents a typical urban roadway section for mill-and-overlay treatment.



Figure 1. Milling Roadway

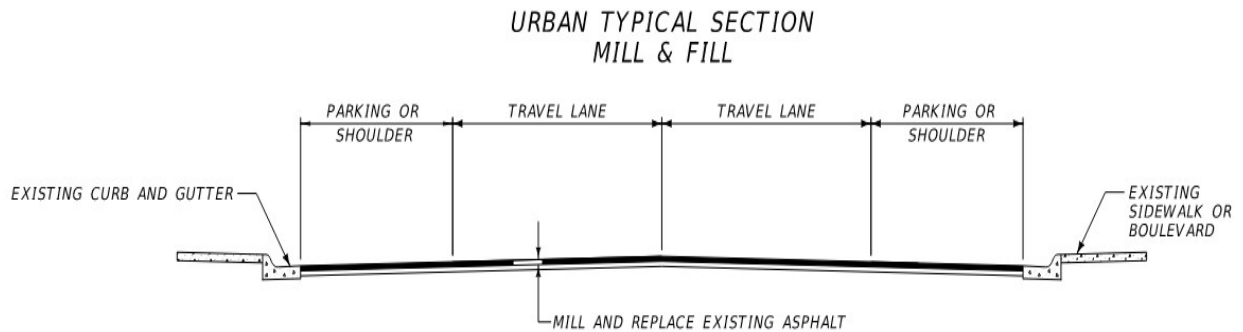


Figure 2. Urban Typical Section—Mill and Overlay

Chip Sealing

Chip sealing is a cost-effective pavement preservation treatment that extends the service life of existing asphalt roads by applying a layer of asphalt emulsion followed by a layer of aggregate chips. The treatment seals minor cracks, restores surface protection, improves skid resistance, and prevents water from infiltrating and damaging the underlying pavement structure. Unlike overlays or reconstruction projects, chip sealing is designed to preserve roads that remain structurally sound but are beginning to show signs of aging and surface deterioration.

For a community such as the Town of Eureka, chip sealing represents one of the most economical and effective maintenance strategies available for managing a local street system. Rural communities often face limited transportation budgets and a growing backlog of roadway maintenance needs. Applying chip seals at the appropriate time can substantially delay more expensive rehabilitation or reconstruction projects, allowing the Town to maximize the value of its transportation infrastructure investments.

Reconstructions

Reconstruction recommendations involve replacing most or all roadway components, as shown in Figure 3. Although reconstruction typically provides a longer service life than maintenance, it also requires substantially greater funding, design, and construction effort. Timely maintenance can preserve pavement condition and defer reconstruction; however, reconstruction may become the most practical long-term solution after structural, or surface deterioration reaches an advanced stage.

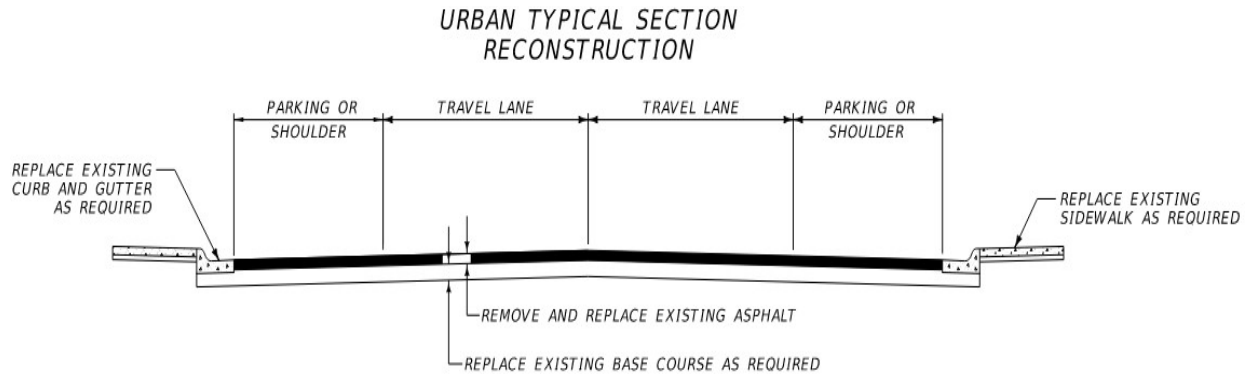


Figure 3. Urban Typical Section Reconstruction

Maintenance Importance

Pavement deterioration is not linear. As a pavement approaches the end of its service life, deterioration generally accelerates and maintenance becomes less effective. Figures 4 through 6 illustrate this relationship and support a practical strategy for Eureka: preserve roadways in fair or better condition with timely maintenance, while programming reconstruction for roadways with advanced structural or surface failure.

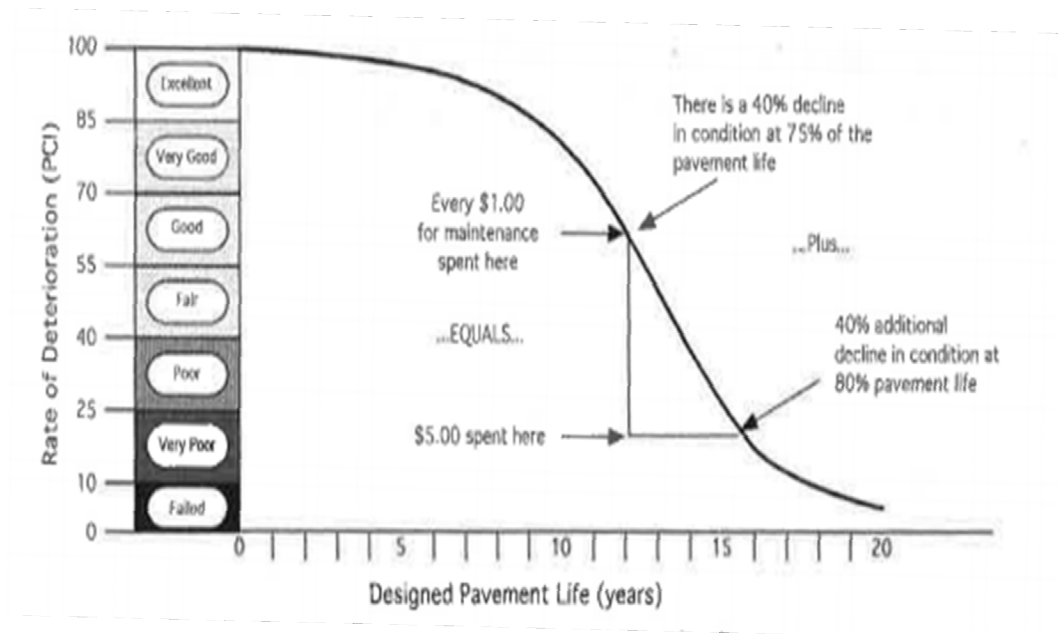


Figure 4. Example of Life Cycle Curve (Source: Guide to Pavement Maintenance)

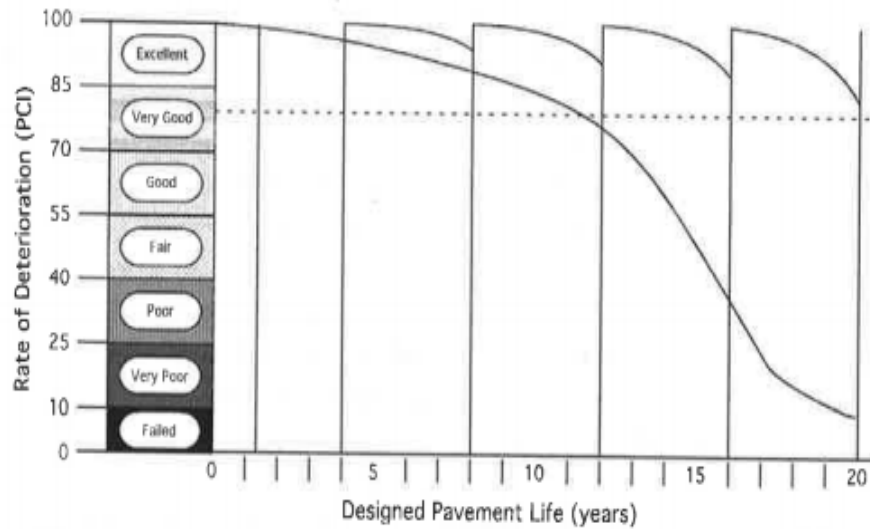


Figure 5. Example of Pavement Life Cycle Curve with Maintenance (Source: Guide to Pavement Maintenance)

Figure 6 compares the relative cost of an actively maintained pavement with one that is allowed to deteriorate without treatment. An appropriately timed preservation program is generally the most cost-effective approach for maintaining serviceable roadway conditions and reducing long-term reconstruction needs.

These principles guide the recommended priorities and help the Town allocate available funding between near-term preservation and longer-term reconstruction.

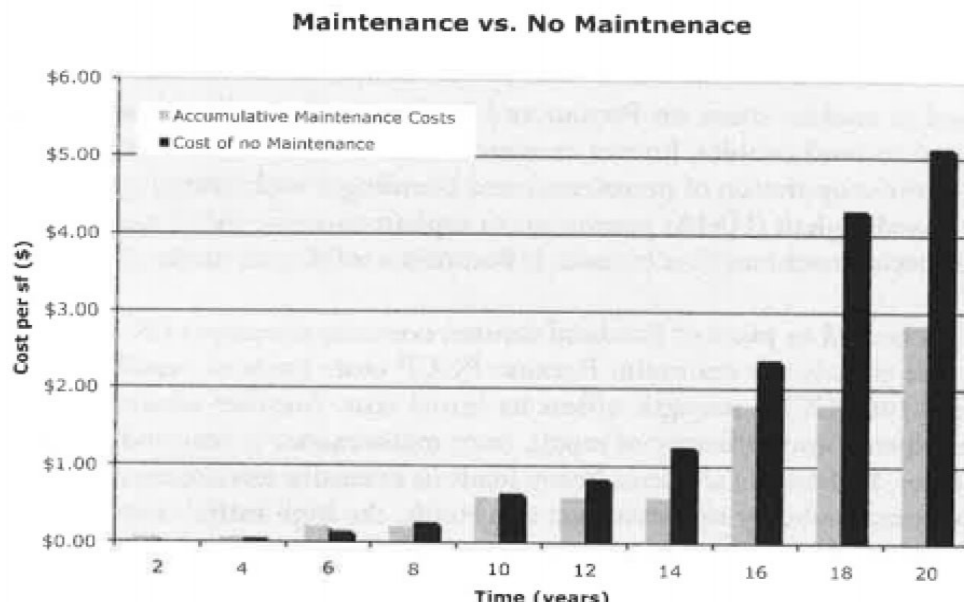


Figure 6. Accumulated Maintenance Cost vs. Cost of No Maintenance (Source: Guide to Pavement Maintenance)

Preliminary Priority Recommendations

In collaboration with the Town, HDR developed a preliminary roadway priority list to support Town budgeting and project programming. Priorities reflect observed roadway condition, functional classification, drainage and accessibility needs, constructability, and planning-level cost. The list should be revisited as field conditions, utility plans, funding opportunities, and Town priorities change. Documenting changes to project scope, sequence, and rationale will help maintain an efficient and transparent capital program.

Maintenance and reconstruction projects are presented separately because they typically rely on different funding and delivery approaches. A recurring annual maintenance budget of approximately \$150,000 to \$350,000 is presented as an initial planning range based on the identified treatment needs and should be refined through annual programming, updated quantities, and current bid prices.

Reconstruction projects are major capital improvements that generally require advanced funding coordination, detailed design, and contract administration. All project costs in Tables 2 and 3 are planning-level estimates based on conceptual scopes and observed conditions; they exclude unknown subsurface conditions, utility conflicts, escalation, and other project-specific contingencies unless noted, and should be updated before budgeting or funding applications. The larger reconstruction projects outlined below will need to be supported by a variety of funding mechanisms, mainly via grants and loans. Funding programs that can be pursued include but are not limited to:

- BUILD (Formerly RAISE)
- MDT Transportation Alternatives Program (TA)
- Community Development Block Grant (CDBG)
- Federal Highway Administration Surface Transportation Block Grant (STBG)

While larger maintenance and reconstruction projects have a significant impact on the Town's financial resources, implementing a systematic chip seal program can help the Town of Eureka preserve roadway assets, improve public safety, and reduce long-term infrastructure costs. By treating streets before significant deterioration occurs, the Town can extend pavement life, maximize available funding, and maintain a higher overall level of service across its transportation network. As part of a comprehensive pavement management strategy, chip sealing is one of the highest-return maintenance investments available to small municipalities.

Finally, the Town also should consider the need for consistent intersection signage. Approximately 70 unique intersections were identified after excluding highway intersections, peripheral connections, dead ends, and discontinuous streets. Table 4 presents a planning-level cost estimate for phased sign replacement.

See the Road Recommendations exhibit in Appendix A for the preliminary project locations.

Any opinions of probable project cost or probable construction cost provided by Engineer are made on the basis of information available to Engineer and on the basis of Engineer's experience and qualifications and represents its judgment as an experienced and qualified professional engineer. However, since Engineer has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s) methods of determining prices, or over competitive bidding or market conditions, Engineer does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost Engineer prepares.

Table 2. Preliminary Roadway Maintenance Recommendations

Maintenance Recommendations				
Priority	Street Name	Estimated Work Type	Estimated Cost	Comments
1	Cliff St / 3 rd Ave E (Julian Dr to 6 th Ave E)	New Base / Mill and Overlay	~\$167,000	Clustered intersection, grade for stormwater, mountable curbs both sides
2	3 rd St E (1 st Ave to Cliff Ave)	New Base / Mill and Overlay / Stormwater Gutter	~\$430,000	Repave after build up with new base, grade to SW inlets, new sidewalk both sides
3	Cliff Ave (GB Intersection to 2 nd St)	New Base / Mill and Overlay / Stormwater Gutter	~\$131,000	Repave after build up with new base, grade to SW inlets
4	10 th St E (1 st Ave E to 2 nd Ave E)	Mill and Overlay	~\$112,000	Mill and overlay
5	5 th St E (US HWY 93 to 2 nd Ave)	Mill and Overlay / Sidewalk Replacement / Stormwater Gutter	~\$762,000	Mill and Fill, new sidewalk on half the project where existing or full length just one side, mountable curb
6	5 th St W (2 nd Ave W to 1 st Ave W)	New Base / Mill and Overlay / Stormwater Gutter	~\$133,000	Clustered intersection, grade for stormwater, mountable curbs both sides
7	6 th St E (3 rd Ave E to 4 th Ave E)	Overlay / Curb and Gutter	~\$70,000	School Parking / Drop Off Zone

Table 3. Preliminary Roadway Reconstruction Recommendations.

Reconstruction Recommendations				
Priority	Street Name	Estimated Work Type	Estimate Cost	Comments
1	School Loop / Vons (2 nd Ave E to 3 rd Ave E)	Full Reconstruction / SW / Sidewalks / Utilities	~\$3.6M	BUILD Grant Consideration
2	Central Ave (US HWY 93 to Mills Springs Loop Rd)	Full Reconstruction / SW / Utilities	~\$7.2M	BUILD Grant Consideration
3	5 th St E (From 5 th Ave E to 6 th Ave E)	Full Reconstruction / SW / Utilities	~\$541,000	Stormwater infiltration management needed
4	1 st Ave W (From 3 rd St to 5 th St)	Full Reconstruction / SW / Utilities	~\$4.1M	Stormwater management and sidewalk replacements
5	3 rd St E (From 1 st Ave E to Central Ave)	Full Reconstruction / SW / Utilities	~\$3.2M	Stormwater management / large grade adjustment
6	Julian Dr (From Riverside Ave to 3 rd Ave)	Full Reconstruction / SW / Utilities	~\$2.2M	Road widening

Table 4. Preliminary Signage Replacement Cost Estimate

Maintenance Recommendations				
Priority	Project	Estimated Work Type	Estimated Cost	Comments
1	Street Signage Replacement x (70)	New support pole and blue street sign / concrete base	~\$60,000	Phased replacement over several years to disperse costs

Appendix A. Road Condition Figures



Appendix B. Field Investigation Photos and Cost Estimate Summaries

1ST AVENUE EAST



1ST AVENUE WEST



2ND AVENUE WEST



3RD AVENUE & JULIAN DRIVE



3RD STREET EAST



5TH STREET WEST



5TH STREET EAST – US HWY 93



5TH STREET EAST – CENTRAL



6TH STREET EAST



8TH STREET EAST



10TH STREET EAST



VFW



CENTRAL AVENUE



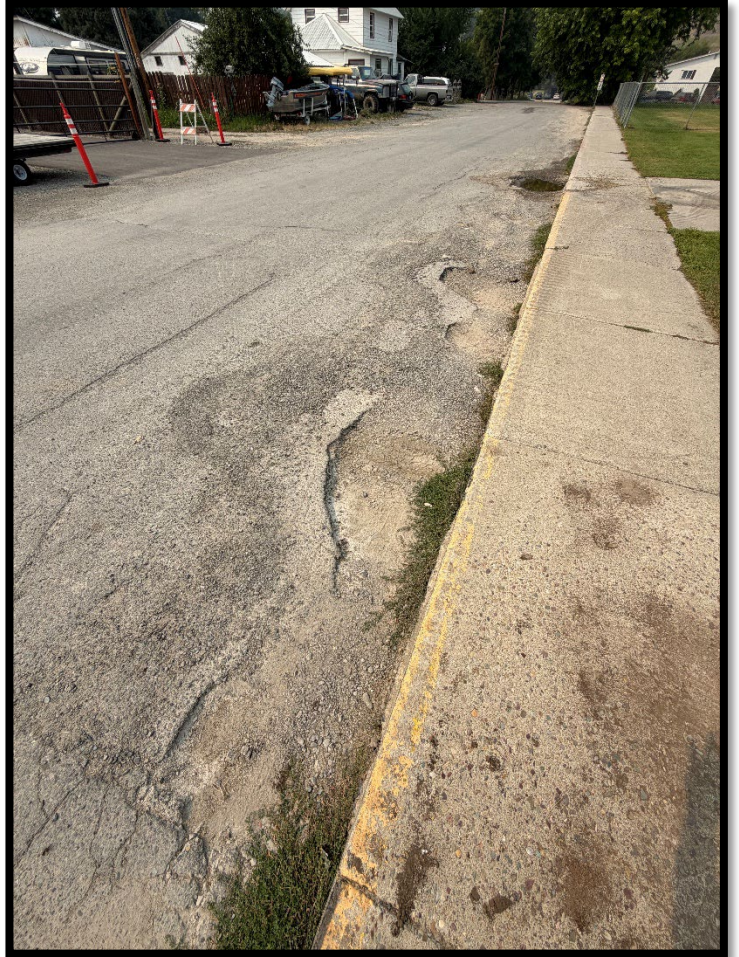
CLIFF STREET



JULIAN DRIVE



SCHOOL LOOP



Appendix C. Eureka TIF & Levy District Maps

