# BRYANT MASTER TRANSPORTATION PLAN



South Dakota Department of Transportation

City of Bryant

August 2025

Prepared by
Emalee Larson – Intern





## Acknowledgements

The preparation of this report has been financed in part through grant(s) from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the State Planning and Research Program, Section 505 of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

The preparation of this report has also been financed through the South Dakota Department of Transportation's SPR Funding for Local Agencies program. The contents and recommendations of this report do not necessarily reflect the official views, policy, or endorsement of the South Dakota Department of Transportation.

The South Dakota Department of Transportation provides services without regard to race, color, gender, religion, national origin, age or disability, according to the provisions contained in SDCL 20-13, Title VI of the Civil Rights Act of 1964, the Rehabilitation Act of 1973, as amended, the Americans With Disabilities Act of 1990 and Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations, 1994. To request additional information on the SDDOT's Title VI/Nondiscrimination policy or to file a discrimination complaint, please contact the Department's Civil Rights Office at 605-773-3540.

## **Study Advisory Team**

Members	Organizations
Kristie Sikkink	City of Bryant
Ryan Sikkink	City of Bryant
Steve Gramm	SDDOT – Project Development
Katrina Burckhard	SDDOT – Project Development
Emalee Larson	SDDOT – Project Development



# **Table of Contents**

Introduction	
Project	1
Historical context	4
Geographical context	6
Method and Process	7
Goals and Objectives	10
Inventory of Existing Conditions	12
Transportation System	12
Analysis of Traffic Safety	19
Assessment of Pedestrian Infrastructure	22
Sidewalks	22
Curb Ramps	26
Drainage System	29
Signage	32
Public Participation	35
Survey Results	37
Future Conditions	42
Recommended System Projects	43
Transportation Roadway	43
Transportation Pedestrian	46
Ordinance and Policy	50
Example Priority Plans	51
Cost Estimates for Recommended Projects	58
Funding Availability.	62

## **Appendix on USB Drive**



# **List of Figures**

Figure 1. Study Area Map.	
Figure 2. Historic Population change for Bryant	
Figure 3. Age Structure of Bryant (ACS 2020)	
Figure 4. Geographical Context Map	6
Figure 5. Research Methodology	9
Figure 6. Goals and Objectives.	.11
Figure 7. Travel Mobility	.13
Figure 8. Road Jurisdiction Map	.14
Figure 9. Federal Functional Class Map	15
Figure 10. Road Type Distribution Within Study Area	16
Figure 11. Road Jurisdiction Distribution Within Study Area	17
Figure 12. Average Daily Traffic Map on Roads Within Study Area	
Figure 13. Reported Crash Type Frequency Within Study Area	
Figure 14. Road Type Distribution of Reported Crashes Within Study Area	20
Figure 15. Crash Map.	21
Figure 16. Existing Sidewalk Condition Distribution.	
Figure 17. Existing Sidewalk Condition Map	
Figure 18. Curb Ramp Condition Distribution.	26
Figure 19. Curb Ramp Condition Map	27
Figure 20. Curb and Gutter Condition Distribution.	29
Figure 21. Curb and Gutter Condition Map	30
Figure 22. Current Signage Map	33
Figure 23. Traffic Conflicts Map	.36
Figure 24. Means of Transportation Survey Result	37
Figure 25. Views on Traffic Safety Survey Results	38
Figure 26. Views on Pedestrian Infrastructure Survey Results	
Figure 27. Top Priority Survey Results	40
Figure 28. Lowest Priority Survey Results	41
Figure 29. An Aerial Photo of the intersection of 5th St. & Main Ave. in Downtown Brookings	3.46
Figure 30.Suggested Walking/Biking Trail	
Figure 31. Example Road Pavement Priority Plan	.55
Figure 32.Example Sidewalk Pavement Priority Plan	
List of Tables	
	<b>.</b>
Table 1. Short-Term Recommendations	
Table 2. Mid-Term Recommendations	
Table 3. Long-Term Recommendations	. 61

## Introduction

## **Project**

Under the Infrastructure Investment and Jobs Act (IIJA) signed into law on November 15, 2021, a percentage of the federal transportation funds received by South Dakota must be designated for transportation planning and research activities through the State Planning and Research Program (SPR). Historically, the South Dakota Department of Transportation (SDDOT) used a portion of the SPR funds for transportation planning studies for counties and Class 1 cities (>5000) not within a Metropolitan Planning Area.

Transportation Alternatives (TA) is authorized by the Infrastructure Investment and Jobs Act (IIJA) and is a set-aside of Surface Transportation Block Grant (STBG) program funding. TA includes the Safe Routes to School, Scenic Byways and Recreation Trails Programs. These set-aside funds include all projects and activities that were previously eligible under the Transportation Alternatives Program (TAP), encompassing a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school projects, community improvements such as historical preservation and vegetation management, and environmental mitigation related to stormwater and habitat connectivity.

It became apparent during the first round of TAP applications that many of the small communities applying for the grant funds are lacking an overall community transportation plan. The absence of a community transportation plan may be a detriment in obtaining TAP and other transportation-related funds. It may also be a detriment to the community as a whole as it grows and changes. Not only will a community transportation plan be a benefit in many funding

situations, but it will also help aid a community in developing a transportation network that provides better access to schools, business districts, residential districts, agricultural and industrial facilities, and parks and recreation attractions.

With that in mind, the SDDOT started dedicating a portion of its SPR funds to establish the Small Community Transportation Planning Program in 2014. The City of Bryant was selected as the 2025 project for this program. The City of Bryant Master Transportation Plan intends to lay out a vision and set the direction for how people and goods move throughout the community. The transportation planning process has been a collaborative effort between the City of Bryant and the SDDOT. The Plan's study team has worked with the Bryant community to identify the expectations and goals of citizens, system stakeholders, and local officials for their multi-modal transportation system. The Plan addresses the study area in **Figure 1.** The Transportation Plan report provides the City of Bryant with a blueprint for achieving its vision for the transportation system through a series of recommended projects, programs, and policies.

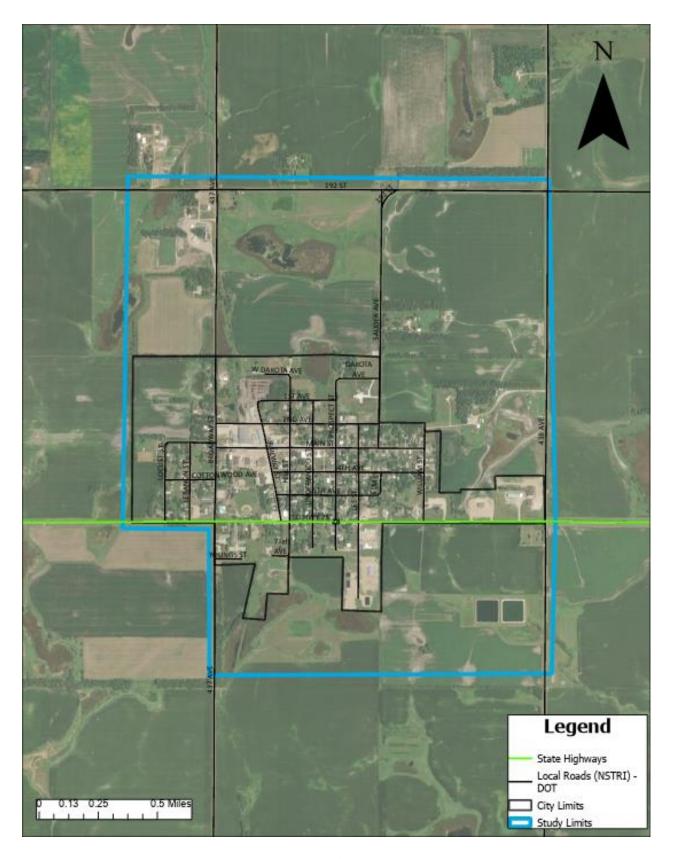


Figure 1. Study Area Map

## **Historical Context**

The City of Bryant (See Figure 1) was founded in 1886 and laid out in 1887 after the completion of the Chicago, Milwaukee, and St. Paul Railroad. Bryant is a part of the Watertown, South Dakota Micropolitan Statistical Area, and was named after a local railroad official to acknowledge and embrace its origins. The unification of several of the railroads under the Chicago, Milwaukee, and St. Paul Railroad Company, boosted the midwestern economy and the growth of states such as Iowa, Minnesota, Michigan, and South Dakota, and led to the founding of Bryant. The population of Bryant grew rapidly in the 30 years following its founding and remained stable till the 1940's where the population peaked at 658. The population has since fluctuated, reaching a low in 1990, and has been rebounding steadily over the last few decades. The 2020 US Census recorded the population at 471 and estimated Bryant to grow to 761 by 2028 (ACS 2023) with a margin of 168 for error. Bryant's historic population trend is shown in Figure 2. Bryant's southern area is split from the rest of the town by South Dakota Highway SD-28, which extends from US Highway 281 to the Minnesota state line.

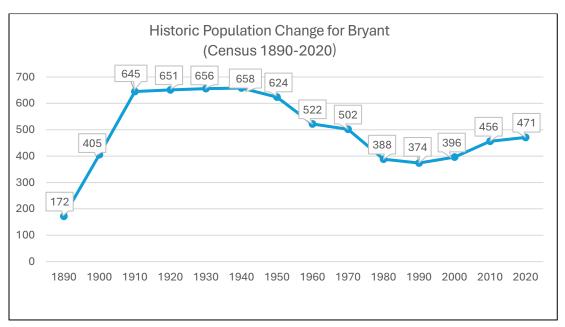


Figure 2. Historic Population Change for Bryant

The age structure of Bryant is diverse (see Figure 3), with community members of all age groups. This means that Bryant's transportation system must strive to adequately serve all members of the community safely, with a diverse age structure in mind. Other factors for the community of Bryant, is the agricultural industry that surrounds the town. Bryant's transportation system is used by agricultural equipment from nearby farms, commercial semi-trucks and vehicles stopping in or passing through the town.

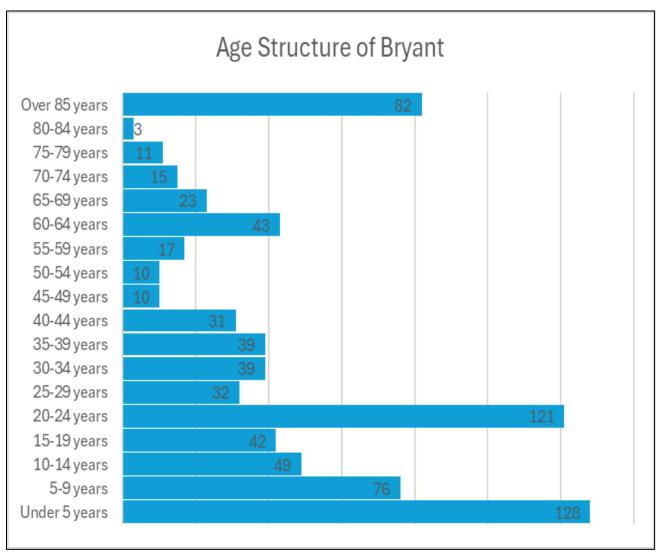


Figure 3. Age Structure of Bryant (ACS 2020)

# Geographical Context

Bryant is located in the Northeastern region of South Dakota. With Watertown,
Brookings, and Huron, all located within 50 miles of Bryant, it appears to be well connected to
cities that contain amenities that are not avalible in Bryant. Several more Class 1 Cities are
located winthin 100 miles of Bryant: Mitchell, Aberdeen, Sioux Falls, and Marshal, MN. Figure
4 displays Bryant's geographical context to other major cities in South Dakota as well as relevant
cities in North Dakota and Minnesota.

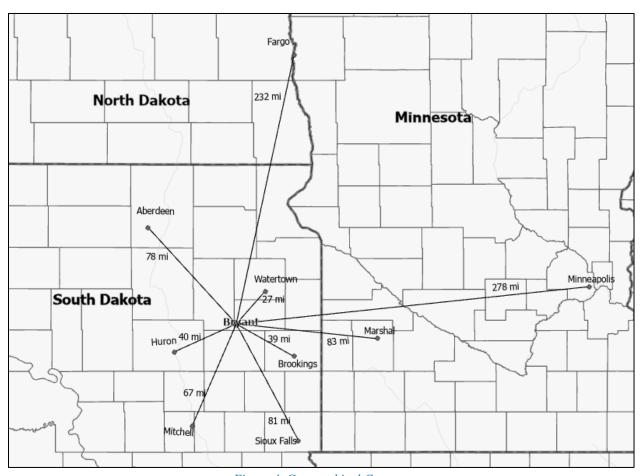


Figure 4. Geographical Context

### Method and Process

Moving forward, the City of Bryant's need for a transportation plan will intensify as the City's trajectory continues to change and develop. The central purpose of this transportation master plan is to provide recommendations that the City of Bryant could implement to address identified issues, concerns, and needs. The methodology behind this study is embedded in a data driven process that revolves around the inventoried analysis of data within the study area, public input, and historical data maintained by SDDOT (see Figure 5).

First, to achieve an in-depth understanding of how the transportation system operates and performs as is; data was collected to create an inventory of information representing Bryant. This data gathering created a database of baseline information on the study area that was utilized to assess and understand the transportation system in conjunction to meeting with the public and getting input. Specific data that was collected during this stage includes: sidewalk connectivity and quality, pedestrian crosswalk locations, traffic sign locations, historical crashes, road quality and type, speed limits, American Disabilities Act (ADA) compliance, and average daily (including projected future) traffic flows.

The next step in understanding the transportation system in Bryant was perhaps the most important. This was gathering public input and direction on how the public uses the transportation system and any issues that they have with it. To do this, the study used an online survey that contained closed and open-ended questions pertaining to the transportation system that the public was encouraged to complete. In addition to the survey, two public meetings with open discussions were held where the public was encouraged to attend and contribute. At the first meeting, there was a brief presentation on the study itself and what the purpose was, which then opened the floor to the public for an open discussion on the Bryant transportation system.

The second meeting was used to present the preliminary findings and recommendations to the public and then getting to feedback on possible projects and alternatives to issues identified by the study in Bryant.

After these major steps, the final part in the process of this study was to blend all the information produced and gathered in this study. This stage curated analysis utilizing public input and inventoried data, which together produced the data-driven results of this study. From the results of this synthesizing stage, different alternatives and projects were finalized for the City of Bryant. These alternatives and projects represent the recommendations at the heart of this transportation plan.

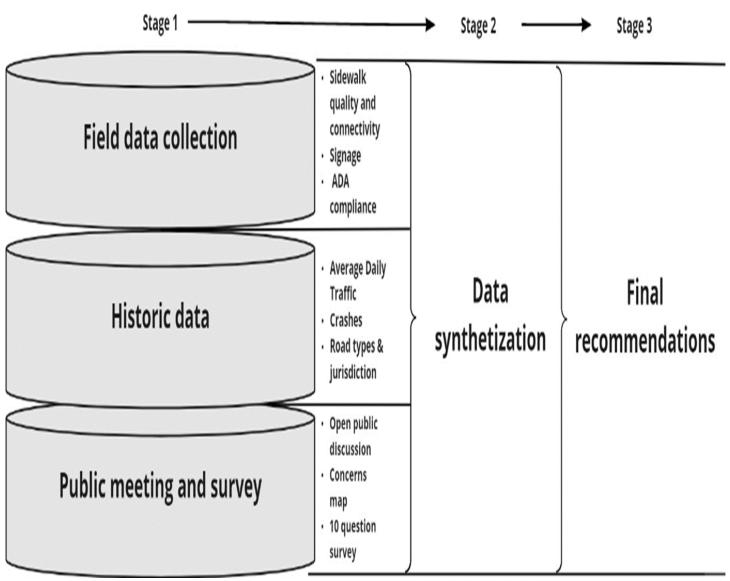


Figure 5. Research Methodology

# Goals and Objectives

The goals and their respective objectives (see Figure 6) are center to the motivation of this study.

As mentioned in the methods section, the central purpose of this study is to provide recommendations for the City of Bryant to implement, that are recognized as solutions to improve and provide a plan for their transportation system through the identification of distinct opportunities and issues. To achieve this central purpose, a set of goals with objectives were established that were based off the visions and concerns of Bryant's residents and the data acquired the inventory stage of this study. In practice, goals and objectives create the combination of broad arching visions and the methods that will be used to get there.



Figure 6. Goals and Objectives

# **Inventory of Existing Conditions**

## **Transportation System**

The City of Bryant's existing transportation system serves as the baseline source of information for this study from which we determine actions, policies, and improvements that might be desirable to the community and best for increasing the system's overall performance. The issues identified that currently create problems for the transportation system are the impetus for future transportation system improvements in Bryant.

The primary traffic routes in Bryant are SD Highway 28 and Broadway Street. The highway is by far the most travelled road in Bryant. The city streets mostly follow a grid, with a few dead-end streets on the South side of the highway. Other important roads in Bryant are Main Street and Railway Street, which are both truck routes. Commercial trucks from local companies and nearby farms and businesses pass through Bryant on SD Highway 28. Truck traffic has noticeably increased in recent years, believed to be due to locally based businesses and three large dairy farms in the area surrounding Bryant. Trucks hauling goods from these locations use the truck routes and SD Highway 28 that passes through Bryant. The increase in traffic volumes has led to concerns surrounding the way that traffic moving through Bryant interacts with the community. The lack of pedestrian accessible pathways and marked crosswalks along SD Highway 28 contributes to the concern for a lack of safety by the citizens of Bryant.

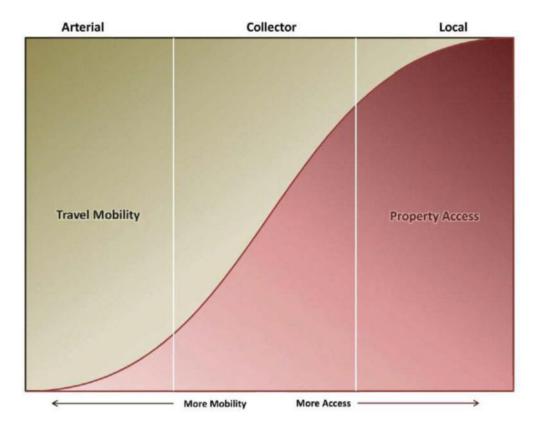


Figure 7. Travel Mobility

The mobility and access of the types of roads and how they measure up compared to each other based on their classification is graphically represented in Figure 7. Figure 7 shows that local roads provide more property access and less travel mobility whereas arterial and collector roads offer more travel mobility and less property access. The types of roads in Bryant and who has jurisdiction over them is displayed in the following two maps below (see Figure 8 and Figure 9).

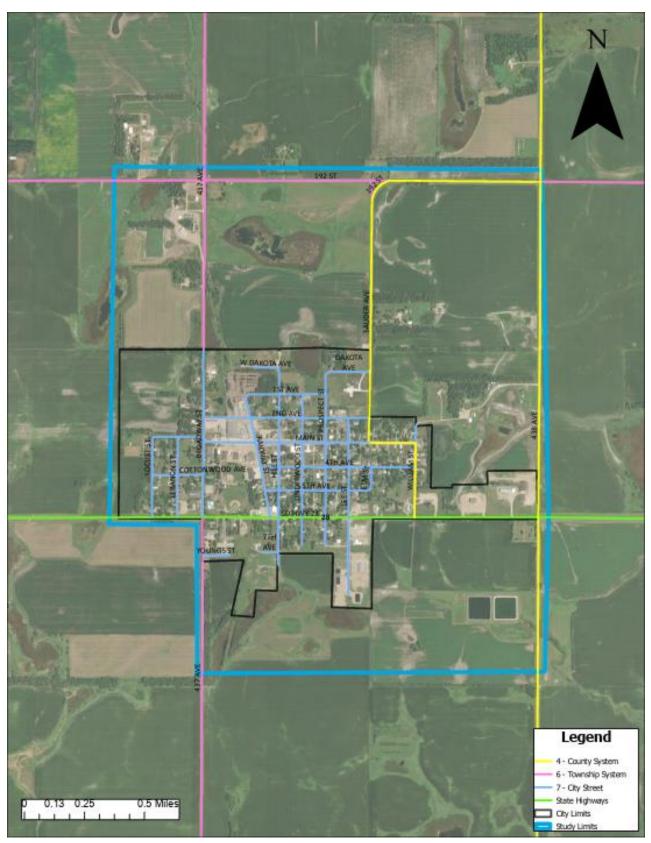


Figure 8. Road Jurisdiction Map

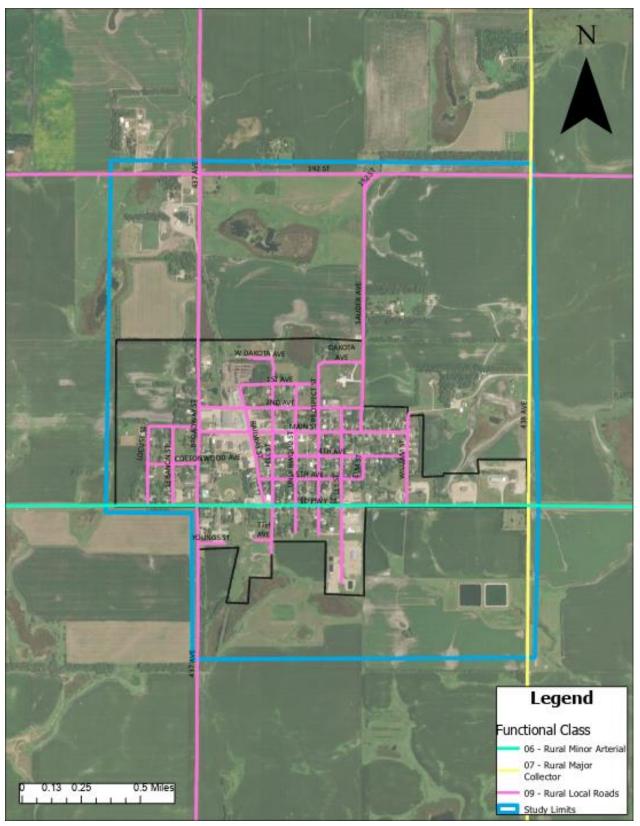


Figure 9. Federal Functional Class Map

The distribution of jurisdiction and road surface types in Bryant is alternatively displayed in **figures 10 and 11**. These two figures demonstrate the dynamic at play for the roads within Bryant and the study area. A majority of the roads in Bryant are controlled by the city, however, SD Highway 28, which is controlled by the state, plays a key role in Bryant's transportation system. Projects will require a greater degree of planning and cooperation to accomplish some improvements if they include state owned roads.

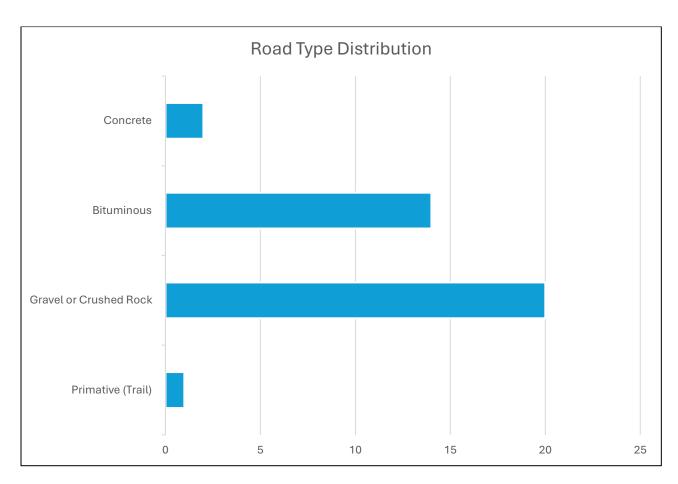


Figure 10. Road Type Distribution Within Study Area

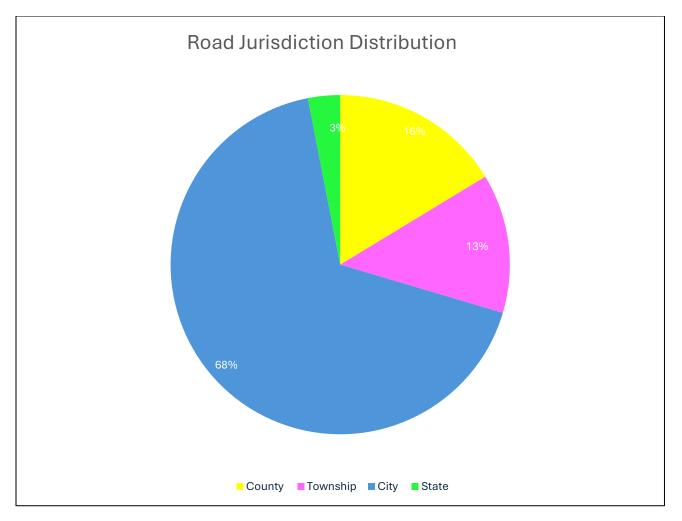


Figure 11. Road Jurisdiction Distribution Within Study Area

While the majority of roads within the study area are local roads, the most frequently traveled road in terms of Daily Average Traffic (ADT) is by far SD Highway 28. Traffic counts are not available for local city streets in the study area; however, SD Highway 28 does have traffic counts available. SD Highway 28 is estimated to have between 551-1500 vehicles traveling on it each day.

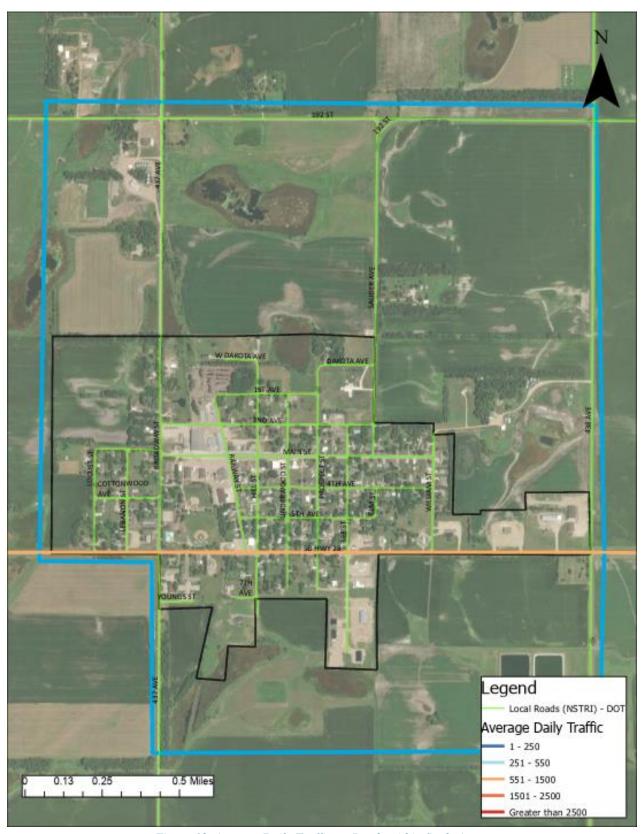


Figure 12. Average Daily Traffic on Roads within Study Area

# Analysis of Traffic Safety

To analyze traffic safety for motorist in the City of Bryant, crash data was analyzed from 2020 to the most up to date records in 2025 at the time of this report's creation. In this 5-year span there were 10 crashes reported (see Figure 13) within the study area. The vast majority of these crashes occurred on SD Highway 28, with many of these concentrating at intersections throughout town.

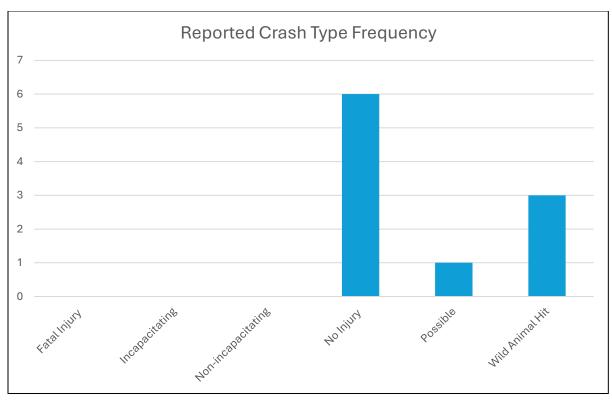


Figure 13. Reported Crash Type Frequency Within Study Area

SD Highway 28 had the highest frequency and number of crashes reported (see Figure 14). These crashes were typically minor crashes resulting in no injuries. City streets make up the next most frequent area for crashes, but these crashes are not concentrated at any specific area

and are mostly no injury crashes. County roads were the least frequent area for crashes and are mainly crashes involving wild animals.

An important caveat to this crash data is that these numbers only represent reported crashes. This means that there could have been more crashes that happened but were not reported to authorities or the crashes were determined not to meet the minimum property damage amount required to be reported to the South Dakota Department of Public Safety. It is common for minor crashes to occur, like running off the road driving during inclement weather or crashes with no property damage, where authorities are not contacted.

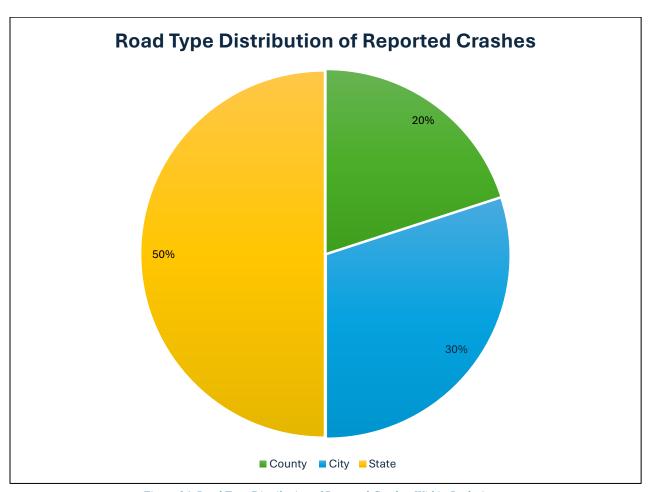


Figure 14. Road Type Distribution of Reported Crashes Within Study Area

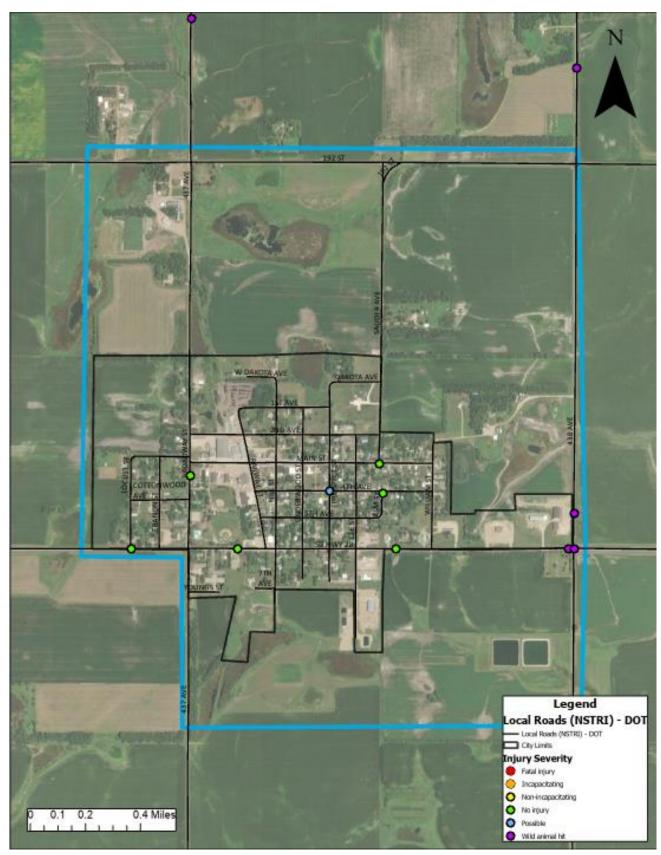


Figure 15. Crash Map

## Assessment of Pedestrian Infrastructure

#### Sidewalks

The ability for pedestrians to safely move through any transportation system is vital to its performance, as everyone at some point is a pedestrian in their community. Safe crossings and maintained sidewalks that are connected in a cohesive and consistent manner to major community resources are key to high pedestrian mobility and safety. This is especially important in Communities like the City of Bryant where there is a high percentage of children.

The assessment began by identifying every section of public sidewalk within the city limits of Bryant to create an inventory of the current extent of the network. After identifying the current network, the entire network was walked to refine the data on location as well as to assess condition. A map and corresponding chart were created displaying the results from rating the entire sidewalk network in Bryant (See Figure 16 and Figure 17).

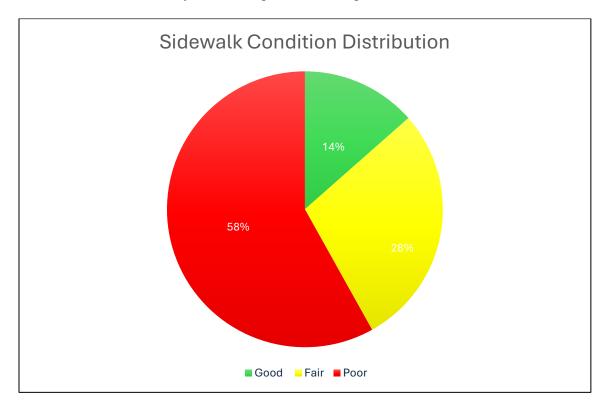


Figure 16. Existing Sidewalk Condition Distribution

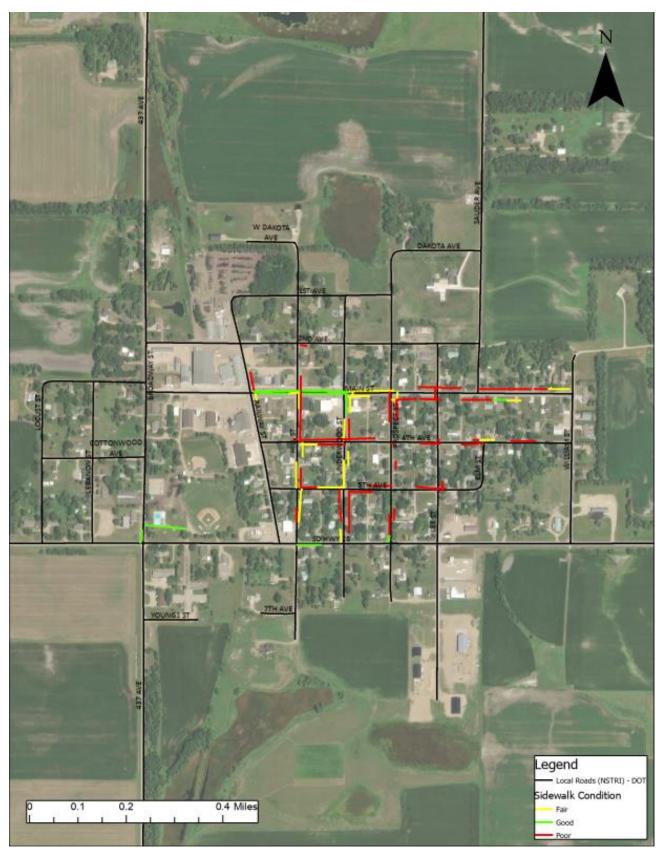


Figure 17. Existing Sidewalk Condition Map

This map demonstrates the relatively limited sidewalk network in Bryant, and the gaps within the network. The existing network was observed to be poorly maintained with very few sidewalks being easily traversed and adequately serving residential areas. It should be noted for purposes of this report, that Bryant has no ordinances that pertain to sidewalk installation or maintenance.

The sidewalks were rated to three levels:

1) Good (14%) – Appears to be in compliance with or is close to standards set by the Americans with Disabilities Act (ADA). All panels are in new or slightly worn conditions. Easily



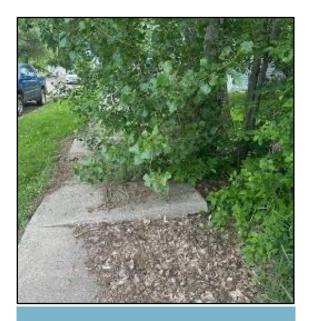
2) Fair (28%) – Some maintenance required to meet ADA standards. Some panels are starting to distress, crack, or heave. Maintenance issues are not enough to prevent most people from using sidewalk, albeit with some extra effort.



3) Poor (58%) – Does not Comply with ADA standards in almost any category. Many panels are severely distressed, cracked, or heaved. The best maintenance option would likely be the replacement of most of, if not all, or the sidewalk. Traversal is difficult for many users.



As shown on the map, the sidewalk network is more present near Main Street but quickly becomes disconnected as it nears SD Highway 28. The network also has smaller issues that are prevalent even on the most well-maintained sections of sidewalks: tripping hazards, lack of streetlights, and some sidewalks that are obstructed by trees or other objects.



Objects blocking sidewalk



Tripping hazard



Poorly maintained

## **Curb Ramps**

Curb ramps are a vital part of ensuring that all areas of the city are accessible to all users by giving pedestrians an easy and accessible way to reach street level and to cross the street.

The assessment of these curb ramps was a similar process to the sidewalks with minor differences in rating. Curb ramps were rated as Good, No ADA warning panel, No Ramp, and Dangerous. An explanation for these ratings is below. The map and corresponding chart display these results.

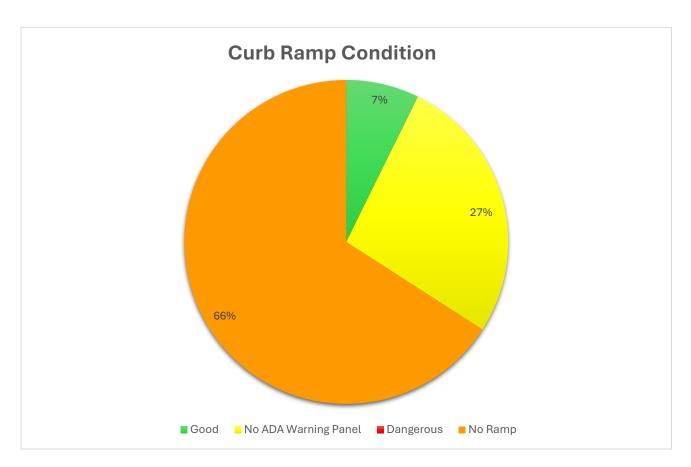


Figure 18. Curb Ramp Condition Distribution

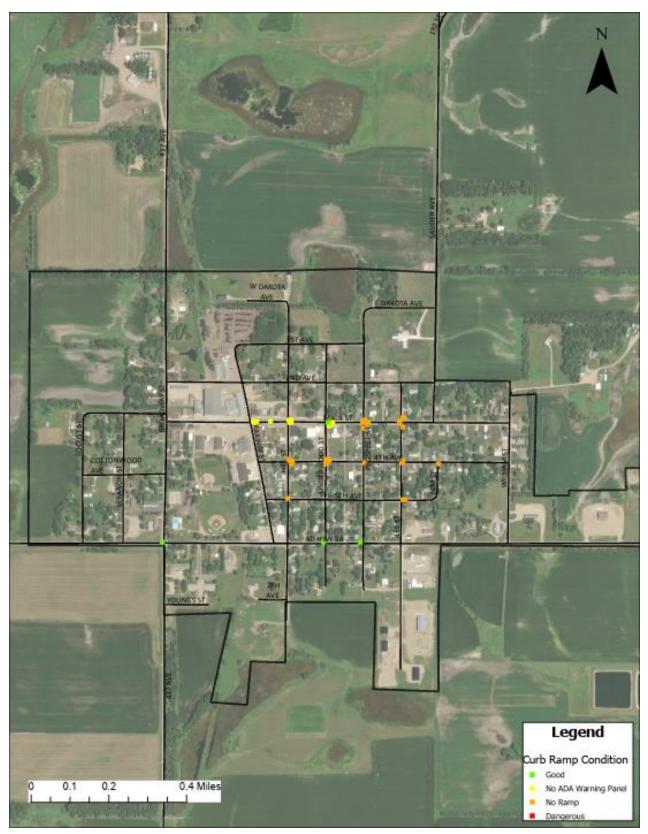


Figure 19. Curb Ramp Condition Map

The map displays conditions of the curb ramps at the time of making this report. The curb ramps are aligned with the sidewalk network and show the same quality of degradation. Many curb ramps were not present or did not meet street level, making them difficult to traverse.

The curb ramps are rated to three levels:

1) Good (7%) – In good condition, not broken or in need of replacement. In compliance with ADA standards.



2) No ADA Panel (27%) – Panel was either partially broken or completely missing. Panels are in need of replacement and no longer meet ADA standards.



3) No Ramp (66%) – Ramp was either not installed, or did not come down to street level, Ramp is in need of replacement and does not meet ADA standards.



# Drainage System

The drainage system in Bryant is responsible for efficiently handling stormwater flows and keeping sitting water off the transportation system. Much of the city has a paved curb and gutter system, with relatively few of the paved roads in town not having a curb and gutter system, as seem on Figure 21. The overall quality of this system reflects the sidewalk network, as seen in Figure 20, with a majority of poorly maintained curb and gutter. The areas of concern also contribute to concerns for drainage that negatively affect the quality and accessibility of roads in town.

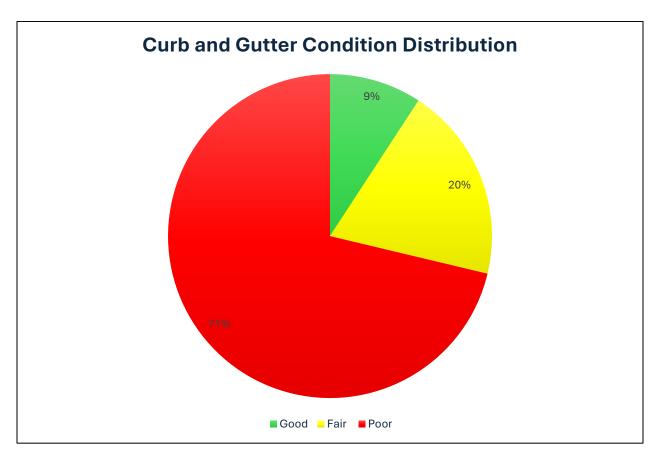


Figure 20. Curb and Gutter Condition Distribution

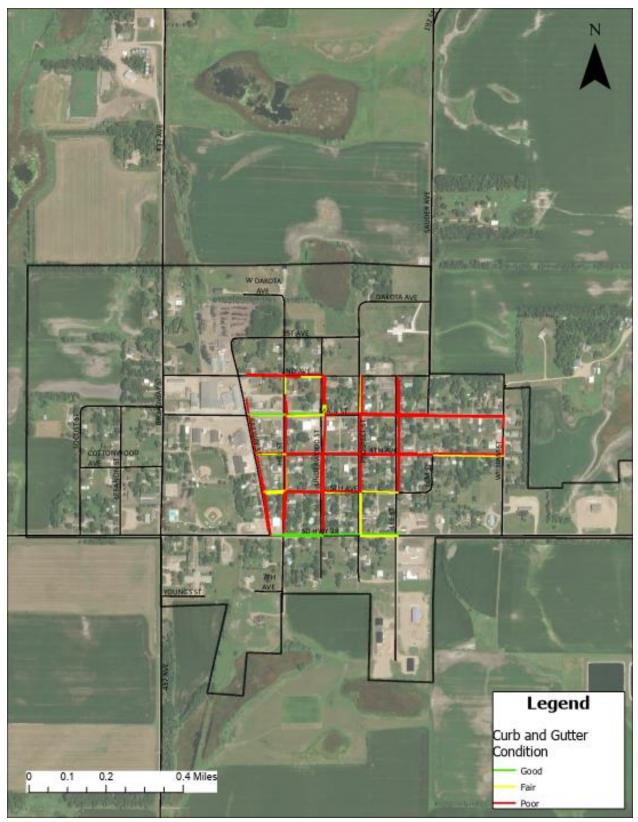


Figure 21. Curb and Gutter Condition Map

Figure 21 displays the condition of the current drainage system in Bryant, with much of the city lacking curb and gutter service.

Curb and gutter was rated to three levels:

1) Good (9%) – Curb and gutter have little to no damage visible. No scouring present and no debris blocking the path of water.



2) Fair (20%) – Curb showing obvious signs of wear.

Damage does not significantly interfere with drainage.



3) Poor (71%) – Curb shows obvious signs of damage and damage significantly impairs drainage. Curb is blocked by debris that impedes drainage.



# Signage

Signs are an important aspect of municipal transportation systems, as they contribute heavily to how the transportation system is interpreted and operated within. Signs are equally important to the usual operators of the transportation system as they are to travelers moving through the area.

The Manual of Uniform Traffic Control Devices (MUTCD), published by the Federal Highway Administration(FHWA), is the American standard for specifications regarding signage, signals, and other traffic control devices. These specifications include height, distance from roadway and intersection, size, color, light reflectivity, and more. It is important that all roadways follow the same specifications so that motorists are more readily aware of their surroundings and can make safer traffic decisions.

An integral part of this report was an inventory and analysis of the current signage in the City of Bryant. This was done by walking and driving through the city and marking locations on the map showing what signs were where. See Figure 22.

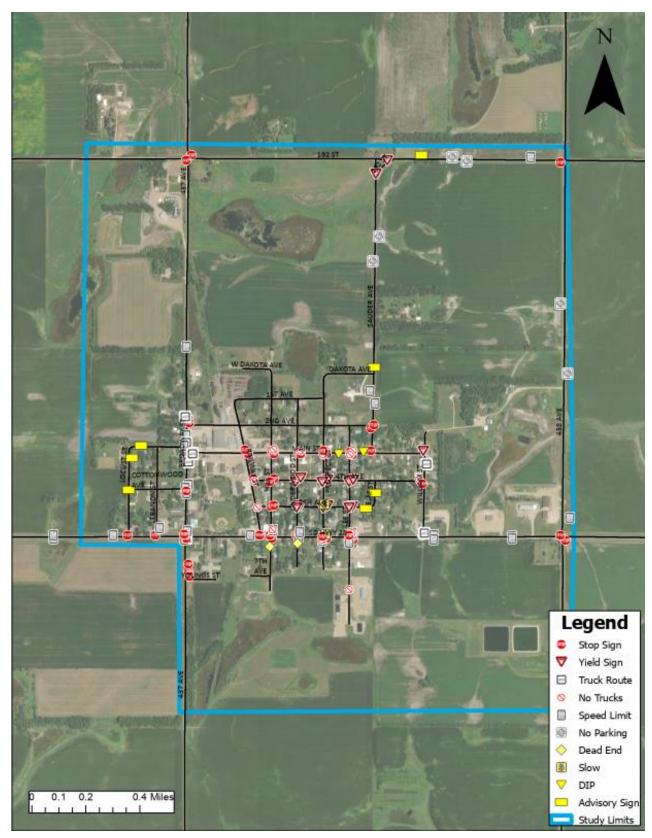


Figure 22. Signage Map

The majority of Bryant is adequately signed with relatively few issues, with most signs meeting MUTCD standards and most intersections having adequate and clear signage. There are, however, a few signs within the study area that need replacement as the purpose of the sign cannot be easily read from the road.



Signs in need of replacement



Note: These examples may be on Township, not City roads.

# **Public Participation**

When creating a master transportation plan, public engagement and meeting with community stakeholders is of the utmost importance as these groups can provide valuable insight into the day-to-day conditions of the transportation system in the community. The community knows the roads best as they experience these roads day in and day out. To engage with the public and collect information about Bryant's transportation system from their point of view, the SAT held an open house and created an online survey. The open house was a public meeting that gave the members of the community an introduction to the project and a brief overview of the inventory of the current conditions of Bryant's transportation system. The public meetings were also used as a source to pinpoint issues within Bryant. Members of the community added to the data by voicing concerns and giving members of the SAT a view of the driver behavior which is not able to be measured when collecting inventory. They were given the opportunity to submit a comment sheet that could be mailed in.

At the first public meeting, issues that brought into the discussion by member of the community were categorized into 3 major topics: roadway, pedestrian infrastructure, and ordinance/policy. Pedestrian infrastructure, more specifically creating routes for pedestrian use, was the forefront of discussion of both the public and stakeholder meetings. Concerns such as pedestrian use of the shoulder of SD Highway 28 as a walking or biking path, safe pedestrian access to Bryant's pool, park, and C'-store Convenience Store, and traffic speeds on SD Highway 28 through Bryant were central discussion points at these meetings. A majority of traffic conflicts occur on SD Highway 28 and can be caused by several different factors.

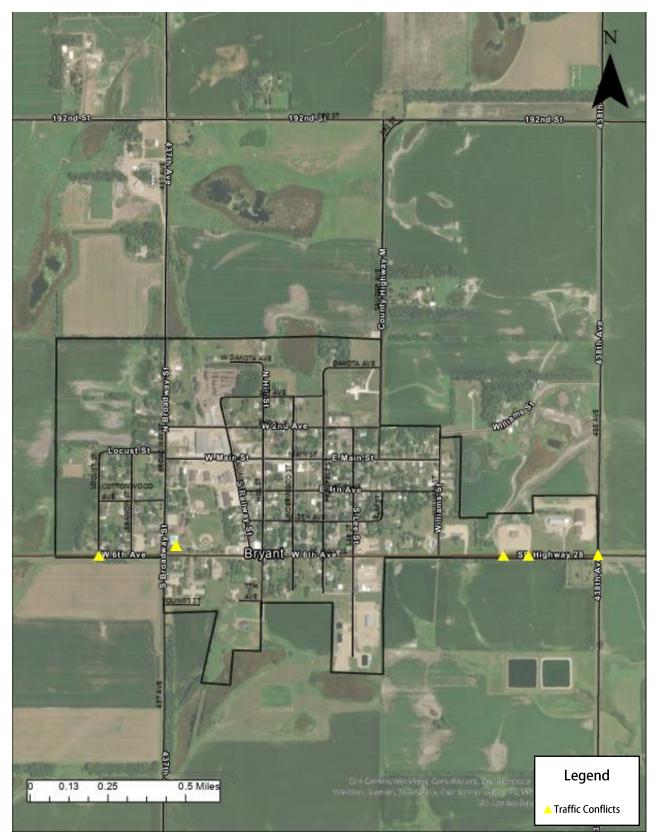


Figure 23. Traffic Conflicts Map

## Survey Results

The survey was created and provided online on the Bryant Master Transportation Plan webpage which was on the SDDOT's website during the study. The survey asked a series of questions to gain a better understanding of how citizens travelled in Bryant and look for feedback and impressions of the transportation system. A total of 3 unique responses were received from Bryant area residents during the period. The study team recognizes that this is not a statistically significant sampling of the entire Bryant population, but rather it provides an additional means of gathering input from Bryant citizens. The rest of this section summarizes survey responses. Some questions were written response only and most of the multiple-choice questions gave the option to provide comments. These comments and written answer responses are compiled in Part 2 of the appendix.

#### **Means of Transportation**

Figure 24 shows the respondents selected means of transportation. Multiple answers were allowed: thus, the total is greater than 3.

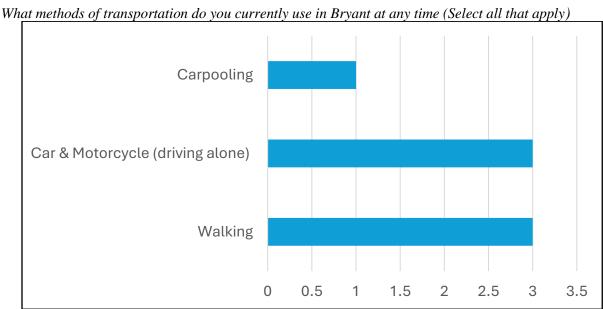
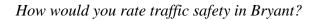


Figure 24. Means of Transportation Survey Result

Figure 24 shows that a majority of people drive a car or motorcycle and walk in Bryant.

### **Views of Existing Issues**

Figure 25 shows how respondents feel about traffic safety in Bryant at the time of this report.



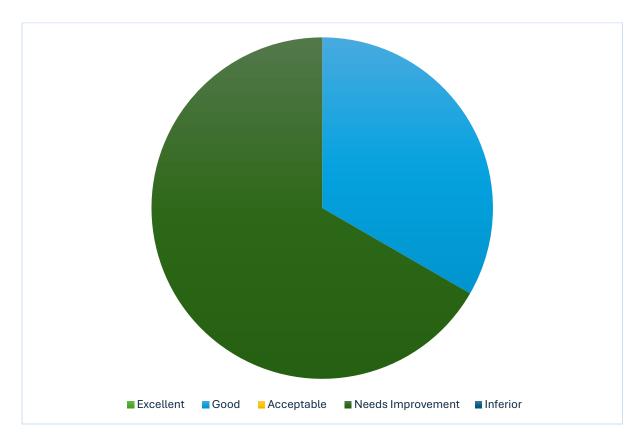


Figure 25. Views on Traffic Safety Survey Result

The results of this question reveal that majority of respondents' feel that traffic safety in Bryant is in need of improvement. However, there are some that feel traffic safety in Bryant is good.

#### **Evaluation of Multimodal Infrastructure**

Figure 26 shows how survey respondents rated the availability and quality of safe walking and bike facilities in Bryant.

How would you rate the availability and safety of walking and biking facilities (Ex. Sidewalks, Bike Paths, Pedestrian Crosswalks, etc.) in Bryant?

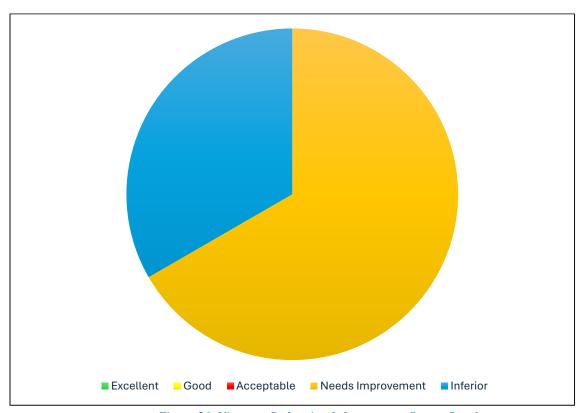


Figure 26. Views on Pedestrian Infrastructure Survey Results

The results from this question show that most of the survey respondents feel that walking and bike facilities are inferior or require improvement in Bryant.

#### **Most Important Transportation Priorities to Address**

Figure 27 shows what survey respondents placed as a top priority to be addressed in Bryant's transportation system.

Which of the following would you place as the top priority for Bryant's transportation system?

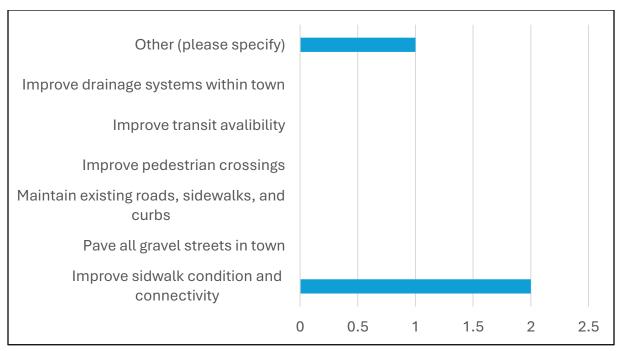


Figure 27. Top Priority Survey Results

The results from this question place improving sidewalk condition and connectivity as the top priority to address within Bryant's transportation system. The respondent(s) that selected other, provided commentary that indicated special attention to improving sidewalk connectivity along the section of SD Highway 28 that passes through Bryant.

Figure 28 shows what survey respondents placed as the lowest priority to be addressed in Bryant's transportation system.

Which of the following would you place as the lowest priority for Bryant's transportation system?

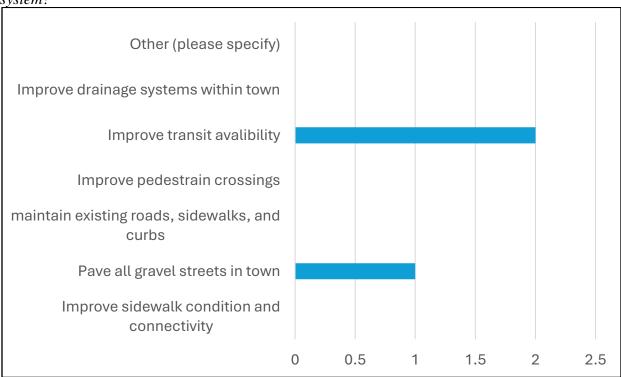


Figure 28. Lowest Priority Survey Results

The results from this question place improving transit availability as the lowest priority to be addressed within Bryant's transportation system. Other responses indicate that paving all gravel roads is also a low priority.

### **Future Conditions**

An important aspect of the following recommendations is to take future conditions into account. Bryant currently has grants to fund water and sewage improvement projects. The population of Bryant is expected to increase so plans must be made to consider this future growth. Bryant's transportation system is adequately maintained but needs better connectivity to help it improve.

Currently the most traveled road in Bryant is SD Highway 28, which sees approximately 1233 vehicles per day. Over the next 20 years, that number is expected to increase to 1,900 vehicles per day. This is a significant change for a town of this size and will inevitably increase the traffic on other roads in town. This report used all information collected from the inventory of current conditions, input from the public, and all of the documents provided by Bryant, including zoning maps and other city documents, when creating the final list of transportation alternatives and recommendations for Bryant.

Not mentioned in this report are any projects that the city is, at the time of writing this report, currently in the early planning phases or waiting on SDDOT for installation.

# **Recommended System Projects**

Proposed projects in this section have been organized first by major category and then by area of effect and suggested time of completion. Cost estimates and funding of these alternatives are covered in sections following the recommendations.

### Transportation- Roadway

The following projects are for road safety, improvement, and maintenance. An option that is possible but is not recommended in this section is taking "No Action" This is not recommended due to the citizen desire to increase the overall safety of the Bryant transportation system, and the increasing cost of fully rehabilitating pavement rather than having multiple smaller interventions.

#### • Short-Term (0-5 years)

- O Project 1A: Develop a road pavement priority plan. Members of the community have expressed that paving city streets is not a high priority. However, having a plan for any future projects will help the city budget and provide a timeline for specific projects going into the future. An example plan is included in a later section, with cost estimates for example projects.
- on SD Highway 28 within city limits for traffic approaching from the east.

  Members of the community expressed concern for the speed limit for West bound traffic, approaching from the East on SD Highway 28. This concern was raised by the move and opening of the new C'-Store Convenience Store on the east edge of town. \*Note: Changing the speed limit will not be as effective if there is insignificant enforcement of the established speed limit.

• Project 1C: Move to replace and fix all signs not compliant with MUTCD standards. MUTCD standards are established as major contributors to both traffic safety and efficiency. Ensuring that signage is compliant with these standards will increase the overall safety for motorists traveling in all directions as well as pedestrians. Completing this project can be done incrementally as city budget allows.

#### • <u>Mid-Term (5-10 years)</u>

- o Project 1D: Implement a bus pickup/ drop off area for children riding the bus to and from schools. The residents of Bryant expressed concern for the current school bus pick up/ drop off system. This project can be executed in several different ways. The city can dedicate a space when constructing Project 1E solely for bus pick up/ drop off and/or place signage marking specified pick up/ drop off locations. Features such as signage warning motorist of kids traveling to/from busses can be placed. Introducing structure to the drop off/ pick up system will increase awareness and overall safety.
- Project 1E: Construct bump-outs on Main St. Constructing Bump-outs on main street will serve to increase visibility for motorists traveling in all directions by removing parking spaces at the corners of intersections. This project will also decrease the width of the road, which will reduce pedestrian exposure to traffic when crossing the street and discourage motorists from speeding on Main St., improving safety. This project can be initially completed by constructing the bump outs with paint markings and temporary delineation. *Note: Bump outs also*

provide opportunity to introduce decorative elements to Main St, which can be observed on Main Ave, in Brookings, SD, as seen in Fig. 29.



Figure 29: An Aerial Photo of the intersection of 5th St. & Main Ave. in Downtown Brookings

## Transportation- Pedestrian

The following projects are for pedestrian infrastructure, safety, and maintenance. An option that is possible but is not recommended in this section is taking "No Action". This is not recommended due to the citizen desire to improve sidewalk connectivity and condition, as well as pedestrian accessibility in Bryant.

#### • Short-Term (0-5 years)

- Project 2A: Develop a sidewalk pavement priority plan. Members of the community have expressed a widespread desire to improve sidewalk condition and connectivity through both public meetings and the public survey. Having a plan for future projects will help the city budget and provide a timeline for future projects. An example plan with cost estimates will be included in a later section of this report.
- Project 2B: Request SDDOT add pedestrian cross walks at intersections of

  Broadway St. & SD Highway 28 and Prospect St. & SD Highway 28. Locating a

  pedestrian crosswalk at these intersections will provide safer access to a wider

  region of Bryant. A pedestrian crosswalk located on Broadway St. would provide

  access to pedestrians crossing SD Highway 28 to get to the pool, park, and

  baseball fields. A pedestrian crosswalk located at Prospect St. would provide

  access to pedestrians crossing SD Highway 28 to connect the areas of Bryant that

  are separated by the highway. Note: These will be more likely to be approved

  when sidewalk is installed south of SD Highway 28.

• Project 2C: Construct Park access from Railway St. Creating this path will provide safe access to the park and pool for a larger area of Bryant and keep those traveling to the listed amenities, off of the surrounding roads that are marked as truck routes. The city has previously obtained the easement for this project.

#### • <u>Mid-Term (5-10 years)</u>

- Project 2D: Construct shared use path on North side along SD Highway 28 from Locust St. to the C-Store Convenience Store. Members of the community have expressed concern for the lack of sidewalk along SD Highway 28 through town. The addition of this path would provide safe access for pedestrians traveling to any of Bryant's amenities.
- Project 2E: Request SDDOT add Roadway lighting along SD Highway 28 through Bryant. Community members have concern for lack of visibility along SD Highway 28 at night. If South Dakota Department of Transportation determines that lighting installation meets design warrants, it will fund the installation of lights along the highway but the responsibility of electricity and maintenance to keep lights functional falls to the city. If installation is not deemed necessary, then the city will need to fund installation.

#### • Long-Term (10-20 years)

• Project 2F: Prioritize repairing and creating sidewalks on all city streets. The public survey indicated that improving Bryant's sidewalk condition and connectivity was a top priority for members of the community. The city should work to replace or create ADA compliant sidewalk on all city streets to improve sidewalk condition and connectivity for residents. This project should be

- completed over a period of short-term to long-term (0-20 years) as city budget and funding allows. This project could be eligible for SDDOT TA program.
- Project 2G: Repair or create ramps on all sidewalks. An area of improving the connectivity of sidewalks is including ADA accessible sidewalks. The addition of ramps will improve the safety and accessibility of pedestrian infrastructure for all residents of Bryant. This project can be completed in time with Project 2F.
- o **Project 2H:** Construct a shared use path. See Figure 30. Members of the community expressed the desire for a safe walking and/or biking path that loops for the community. A prospective location for this trail, that will require the city to acquire right of way from the county, is to construct the trail along 438<sup>th</sup> Ave and 192<sup>nd</sup> St, and connect the trail to the city's sidewalk system along Sauder Ave.

  This project would be eligible for funding through SDDOT Transportation

  Alternatives or the SD Game, Fish, and Parks Recreational Trails program, which are included as resources in Part 3 of the Appendix.

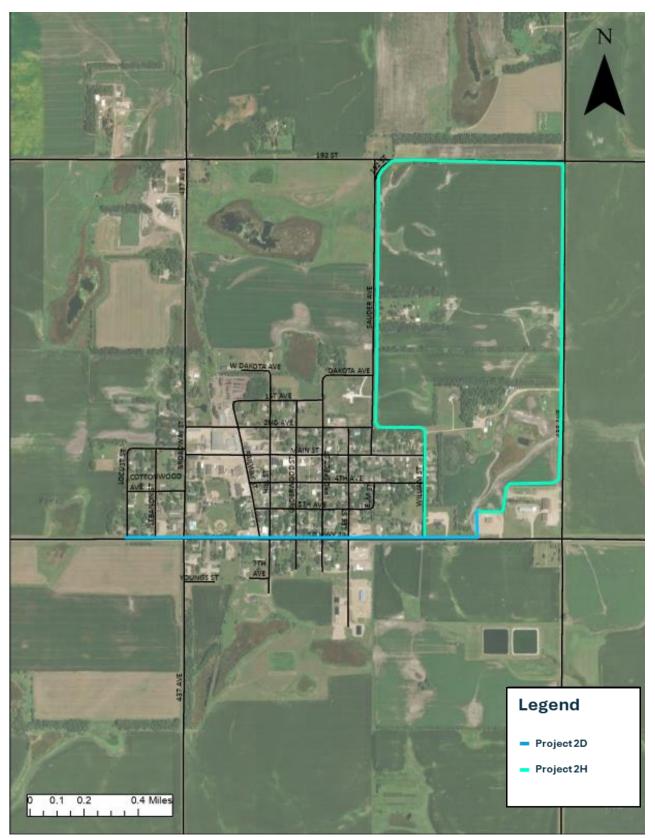


Figure 30. Suggested Walking/Biking Trail

## Ordinance and Policy

Projects in this category will affect the city's ordinances and policies. These projects will be less visible to the public and will take longer to impact the quality of the transportation system and the vision of the city moving forward.

#### • Short-Term (0-5 years)

- Project 3A: Draft City ordinances relating to line of sight and sidewalk installation, obstruction, and maintenance. This will ensure that, if properly enforced, all intersections have a clear line of sight established for motorists traveling in all directions, increasing the overall safety of city streets. In addition to line of sight, establishing sidewalk ordinances will allow the city and resident to provide a clean, unobstructed walkway for pedestrians. The city can use existing ordinances from nearby towns such as Watertown, Brookings, DeSmet, etc. as references when completing this project.
- o Project 3B: Accept road design standards. The current design standards in the ordinance reference "Local Government Construction Standards" of which there is no document that the city has accepted to reference. The city has generally been operating on the advice of prospective engineers when bidding projects. The city should formally accept these design criteria and draft ordinances to reflect this change and to make the standards clear to both citizens and prospective contractors. This update may require changes to any existing design guidelines to better reflect Bryant's needs. The design guidelines should not be accepted without first reviewing and potentially revising the standards. These design standards also contain references to sidewalk design, so this project could aid in the completion of Project 3A.

Project 3C: Develop a pavement preservation plan. A pavement preservation program can help improve roads while also cutting down on maintenance costs.

Developing this plan will require an inventory of current road conditions as well as ensuring that roads never become to degraded before work begins on them.

Currently, Bryant's road conditions are fair and basing a preservation plan to ensure that roads are on a rotating schedule would be best. This program could be based on the current age of the road surface, should the city have access to all that information for every city owned road. Otherwise, the city should set up a geographic system where all roads in one section of town are done at the same time and rotate which sections are done every year.

## **Example Priority Plans**

As referenced in the previous section, prioritizing different paving projects to ensure the greatest benefit to the community while also ensuring the city can still maintain its roads to a high standard and improving pedestrian accessible routes are a high priority to members of the public. Below are example prioritization plans for road paving and sidewalk connections. Note that while these were created with input from members of the community and the SAT, these prioritizations plans should not be considered binding recommendations, but instead a starting point for the city to develop their own final plan if they deem it necessary. It should also be noted that any priority plans the city makes should be flexible and able to change as situations may change.

### **Example Road Paving Priority Plan**

#### • Short Term (0-5 years)

- o **Project 4A**: 2<sup>nd</sup> Avenue Phase 1. 2<sup>nd</sup> Avenue is a gravel street that carries a large amount of the city's truck traffic. Sections of the road are paved, while other sections remain gravel. Much of the concern with paving these streets is to prevent runoff from the gravel potentially impeding travel or drainage along paved streets. Phase 1 covers the section of 2<sup>nd</sup> Avenue that connects Broadway Street and Railway Street, which also carries truck traffic.
- Project 4B: 2<sup>nd</sup> Avenue Phase 2. Phase 2 of 2<sup>nd</sup> Avenue covers the second section of gravel road. Much of the concern with paving these streets is to prevent runoff from the gravel potentially impeding travel or drainage along paved streets. Phase 2 covers the section of 2<sup>nd</sup> Avenue that connects Underwood Street and Sauder Avenue, passing though residential areas.

#### • Mid Term (5-10 years)

- **Project 4C**: Elm Street. Elm Street is a gravel road connecting 5<sup>th</sup> Avenue to 4<sup>th</sup> Avenue and is the location of several drainage issues. Much of the concern with paving these streets is to prevent runoff from the gravel potentially impeding travel or drainage along paved streets. This area is not as high of a priority than the previously mentioned projects
- O Project 4D: Main Street. Main Street is a gravel road that connects Broadway Street to Locust Avenue. This gravel road is also very narrow and has some drainage issues. Much of the concern with paving these streets is to prevent runoff from the gravel potentially impeding travel or drainage along paved streets. This area is not as high of a priority than the previously mentioned projects

#### • **Long Term (10-20 years)**

- Project 4E: <u>Locust Street</u>. Locust Street is connected to SD Highway 28, and
   Main Street. Locust Street, at this time, does not carry large amounts of traffic, so paving this road can wait for some time.
- Project 4F: <u>Cottonwood Avenue</u>. Cottonwood Avenue connects Broadway Street and Locust Street. At this time, Cottonwood Avenue does not carry large amounts of traffic, so paving this road can wait for some time.

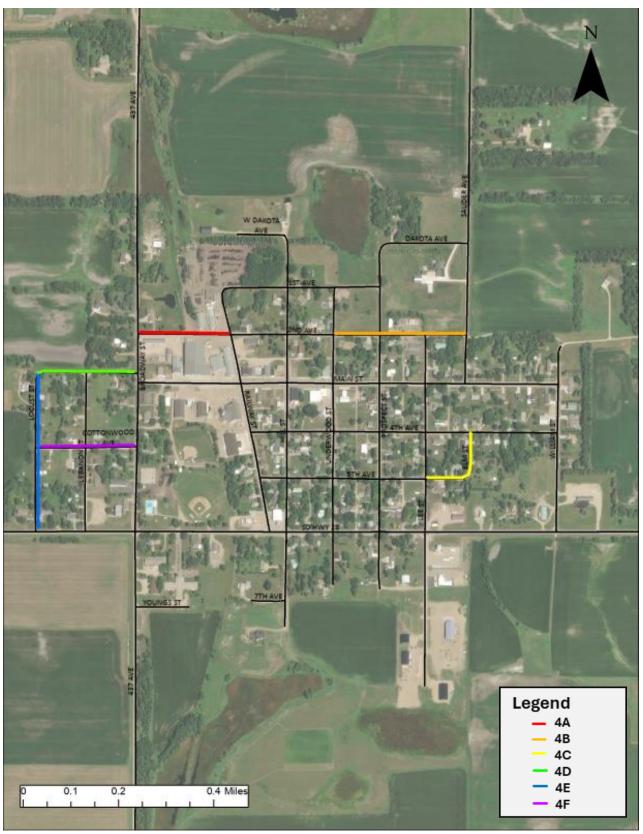


Figure 31. Example Road Pavement Priority Plan

#### **Example Sidewalk Paving Priority Plan**

#### • Short Term (0-5 years)

- Project 5A: Railway Street sidewalk installation from Main Street to SD
  Highway 28. Railway Street has been identified as a desired walking path by
  community members, hoping to provide useable paths to decrease the number of
  pedestrians traveling on the established truck route.
- Project 5B: Broadway Street sidewalk installation from Main Street to SD
   Highway 28. Broadway Street is a main truck route off of SD Highway 28. It was identified as a desired walking path by community members hoping to decrease the number of pedestrians traveling on the established truck route.

#### • <u>Mid Term (5-10 years)</u>

- Project 5C: Prospect Street sidewalk installation from Main Street to SD Highway 28. Creating sidewalk on Prospect Street, connects SD Highway 28 to Main Street. The installation of sidewalk will bring greater access to Main Street for pedestrians. This project holds a less high priority than the previously listed projects, so it can be completed later.
- Project 5D: 5<sup>th</sup> Avenue sidewalk installation from Railway Street to Lee Street.

  Creating sidewalk on 5<sup>th</sup> Avenue connects Railway Street to William Street. This allows greater access to Bryant's amenities such as the pool and park on the west side of town, as well as providing greater areas of pedestrian accessible walking paths. This project holds a less high priority than the previously listed projects, so it can be completed later.

#### • Long Term (10-20 years)

- Project 5E: <u>Lee Street sidewalk installation from Main Street to SD Highway 28</u>.
   Creating sidewalk on Lee Street connects Main Street to SD Highway 28 and provides pedestrian access to a larger area of town.
- Project 5F: 4<sup>th</sup> Avenue sidewalk installation from Railway Street to William
   Street. This is currently shown as a single project but is able to be further broken down for budgeting. Creating sidewalk on 4<sup>th</sup> Avenue connects Railway Street and William Street which provides greater pedestrian access to a larger area of town.

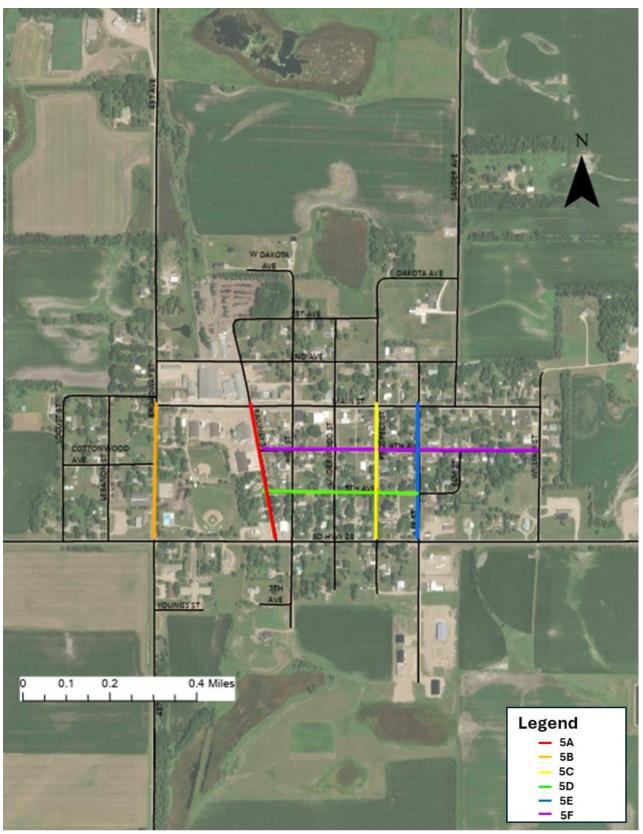


Figure 32. Example Sidewalk Pavement Priority Plan

# Cost Estimates for Recommended Projects

The Tables shown below, detailed cost estimates for each project recommended in the plan. The tables show total costs and depending on the project, are not necessarily intended to be entirely completed immediately or at one time. Additionally, the costs are capital improvement costs only and may not necessarily represent a total cost estimate. Other expenses such as engineering consultation or design fees, utilities, and right of way may increase the total cost to the city. However, the city may be able to lessen expenses by using an area cost with the availability to implement the projects at lower rates than SDDOT estimates. All cost estimates are based on per mile costs from previous SDDOT projects and do not include cost of design or any right of way purchases that may be needed to complete projects.

Projects with an asterisk (\*) indicate that there are funding programs available.

Short-Term (0-5 years)

Table 1. Short-Term Recommendations

Description	Treatment	Estimated Cost
Project 1A: Develop a road pavement priority plan.	Documentation	\$0
Project 1B: Request SDDOT decrease the speed limit from 65 MPH to 45MPH on SD Highway 28 in city limits for traffic approaching from the east.	Documentation and enforcement	\$0
Project 1C: Move to replace and fix all signs not compliant with MUTCD standards, this can be done incrementally, as City budget allows.	Remove and replace sign not in compliance with MUTCD standards. Project can be completed incrementally as city budget allows	Cost Varies , ~\$500 per sign

Project 2A: <u>Develop sidewalk</u> pavement priority plan	Documentation	\$0
Project 2B: Request SDDOT add pedestrian cross walks at intersections of Broadway St. & SD Highway 28 and Prospect St. & SD Highway 28	Documentation	\$0
*Project 2C: Construct Park access from Railway St.	Create new 6' wide sidewalk leading to Bryant's Park	~\$38,000
Project 3A: <u>Draft City</u> ordinances relating to line of sight and sidewalk obstruction and maintenance.	Documentation	\$0
Project 3B: Accept road design standards.	Documentation	\$0
Project 3C: <u>Develop a</u> pavement preservation plan.	Documentation	\$0
Project 4A: 2 <sup>nd</sup> Ave Phase 1	Pave existing gravel road, 24' feet wide asphalt, ~1,056' of asphalt road	~\$365,000
Project 4B: 2 <sup>nd</sup> Ave Phase 2.	Pave existing gravel road, 24' feet wide asphalt, ~1,584' of asphalt road	~\$131,000
*Project 5A:Railway St.	Create new 6' wide sidewalk, ~1,584' of sidewalk	~\$80,500 per side of the road
*Project 5B: <u>Broadway St.</u>	Create new 6' wide sidewalk, ~1,584' of sidewalk	~\$80,500 per side of the road

## Mid-Term (5-10 years)

Table 2. Mid-Term Recommendations

Description	Treatment	Estimated Cost
Project 1D: <u>Implement a bus</u> pick up/drop off area for	Dedicate space when constructing <b>Project 1E</b>	Cost varies, \$500 per sign
children riding the bus to and	solely for bus pick up/ drop	
from schools.	off and/or place signage	
	marking specified pick up/	
	drop off locations	
Project 1E: Construct bump-	Construct bump-outs with	Cost varies
outs on Main St.	concrete or paint markings on	
	Main Street from Railway	
	Street to Underwood Street	
*Project 2D: Construct shared	Create new 8'-10' paved path	~\$501,000
use path on North side along	connecting Bryant's pool to	
SD Highway 28 from Locust	the new C'-Store	
St. to C-Store.	Convenience Store	
Project 2E: Request SDDOT	Documentation	\$0
add Roadway lighting along		
SD Highway 28 through		
Bryant.		
Project 4C: Elm St.	Pave existing gravel road,	~\$105,000
	24' feet wide asphalt,	
	~1,056' of asphalt road	
Project 4D: Main St.	Pave existing gravel road,	~\$87,000
	24' feet wide asphalt,	
	~1,267' of asphalt road	
Project 5C: Prospect St.	Create new 6' wide sidewalk,	~\$80,500 per side of the road
	~1,584' of sidewalk	, 1
D. t. and oth t		004000
Project 5D: 5 <sup>th</sup> Ave.	Create new 6' wide sidewalk, ~1,795' of sidewalk	~\$94,000 per side of the road
	1,775 Of Sidewalk	

## Long-Term (10-12 years)

Table 3. Long-Term Recommendations

Description	Treatment	Estimated Cost
*Project 2F: Prioritize repairing and creating sidewalks on all city streets.	Repair or create 6' wide sidewalks on all city streets	~\$2,800,000
*Project 2G: Repair or create ramps on all sidewalk	Create ADA compliant ramps on all sidewalks	Cost varies based on repair/replace
*Project 2H: Construct shared use path	Create 8'-10' wide shared use path that loops back into town	~\$1,400,000
Project 4E: <u>Locust St.</u>	Pave existing gravel road, 24' feet wide asphalt, ~1,742' of asphalt road	~\$144,000
Project 4F: Cottonwood Ave.	Pave existing gravel road, 24' feet wide asphalt, ~1,267' of asphalt road	~\$92,000
Project 5E: Lee St.	Create new 6' wide sidewalk, ~1,584' of sidewalk	~\$80,500 per side of the road
Project 5F: 4th Ave.	Create new 6' wide sidewalk, ~3,326' of sidewalk	~\$161,000 per side of the road

## Funding Availability

Financial planning is a vital component of the Transportation Plan. The availability of funding, designations of funds and future financial planning will often be the elements that make or break the implementation of the projects identified in this transportation plan. Therefore, it is just as important to identify the financial needs for the future as it is to identify the transportation needs of the community. South Dakota transportation projects are generally funded with federal, state, or local funds. Funding for transportation may come from federal and state fuel tax, local general funds, wheel tax, vehicle registration fees, or property tax. SDDOT has special programs for community access, industrial park roads, and transportation alternatives or non-motorized transportation networks. Other programs from multiple agencies exist within South Dakota that have programs for electric vehicle charging stations, recreational trails, and a wide variety of helpful studies.

As the city budgets for transportation projects, it is important to know the priorities of the community. Although these priorities should be evaluated from time to time, the long-term goals of the community will develop the long-range plan needed to budget for large projects in the distant future as well as small, annual transportation projects that either maintain the existing system or accomplish a large-scale project built in a series of phases.

Potential local funding sources for city transportation network projects may include:

- Sales tax funds
- Property tax funds
- Assessment of adjacent property owners
- Funds raised through local fundraising efforts, including private or corporate donations

In addition, the city may apply for a variety of grant or special program funding administered by the State of South Dakota or the Federal Government (primarily through the USDOT). It should be noted that many of these programs are reimbursement programs, so the city would need to have the finances to upfront the costs. These sources may include:

- Foundational Bicycle and Pedestrian Grants for bike and pedestrian transportation related projects. Many are available and fund projects at various levels. Some examples include
  - o American Hiking Society <a href="https://americanhiking.org/">https://americanhiking.org/</a>
  - o The Conservation Alliance <a href="https://conservationalliance.com/">https://conservationalliance.com/</a>
  - o The Walmart Foundation <a href="https://www.walmart.org/how-we-give/grant-eligibility">https://www.walmart.org/how-we-give/grant-eligibility</a>
  - Community Change <a href="https://americawalks.org/programs/community-change-grants/">https://americawalks.org/programs/community-change-grants/</a>
- Transportation Economic Development Grant funds, for cities less than 5,000 in population, for the construction or reconstruction of major streets, such as roads to the school or elevator. (SDDOT)
   Information on each individual grant is available at <a href="https://dot.sd.gov/doing-business/localgovernments/transportation-economic-development-grants/">https://dot.sd.gov/doing-business/localgovernments/transportation-economic-development-grants/</a>.
- <u>Recreational Trails Grants</u> for the development and maintenance of non-motorized and motorized trails for recreational purposes. *Note: This is a reimbursement program*.
   (SDGF&P). Additional information is available at <a href="https://gfp.sd.gov/partnerships/">https://gfp.sd.gov/partnerships/</a>.
- <u>Transportation Alternatives Program</u> funds for non-motorized transportation projects including safe routes to school, safe routes for non-drivers, shared use paths and others. (SDDOT). Further information is available at <a href="https://dot.sd.gov/programs-services/programs/transportation-alternatives/">https://dot.sd.gov/programs-services/programs/transportation-alternatives/</a>.

- <u>USDOT Grant Programs.</u> The USDOT has numerous grant opportunities for a variety of transportation projects ranging from planning to construction and for a variety of modes.
   A list of all USDOT grants is at <a href="https://www.transportation.gov/grants/dashboard">https://www.transportation.gov/grants/dashboard</a>. Note:
   Most USDOT grants are reimbursement programs.
- Walking Audit Grants, Active Transportation, and other healthy lifestyle related grants for the development of transportation networks supporting walking, biking, and other active transportation facilities. (SDDOH)