



Craftsman Village of the Crossroads At Mountain View Meadows Phases 8-10 Traffic Impact Study Update

Helena, Montana



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**Craftsman Village of the Crossroads
At Mountain View Meadows Phases 8-10
Traffic Impact Study UPDATE
Helena, Montana**

A. EXECUTIVE SUMMARY

The Craftsman Village of the Crossroads at Mountain View Meadows Phases 8-10 is a 40-acre residential development located south of US Highway 12/287 in Helena, Montana. The project would consist of 230 single family residential units and would be accessed from Alpine View Drive and Jeannette Rankin Drive. As proposed Craftsman Village of the Crossroads would produce 2,169 new daily trips in the area at full build-out. Craftsman Village of the Crossroads Phases 8-10 will not affect roadway operations in the area. All nearby intersections will continue to function at acceptable levels of service with the proposed development. No roadway modifications are currently recommended with this project.

B. PROJECT DESCRIPTION

This document studies the possible effects on the surrounding road system from a proposed 40-acre residential development located south of US Highway 12/287 within the City of Helena between Helena and East Helena. The document identifies any traffic mitigation efforts that the development may require. The site is located north of Jeannette Rankin Drive and east of Alice Street.

C. EXISTING CONDITIONS

The proposed development property currently consists of a 40-acre parcel of undeveloped land located south of US Highway 12/287 and north of Jeannette Rankin Drive adjacent to Mountain View Park and the previous phases of the Craftsman Village of the Crossroads which are nearing completion. The topography in this area consists of rolling hills which slope downward to the east. See **Figure 1** for a location map of the proposed development.

Adjacent Roadways

US Highway 12/287 is a four-lane, two-way east/west highway which extends east from Helena. US Highway 12/287 has a five-lane cross-section and the posted speed limit near Crossroads Parkway is 55 MPH which decreases to 45 MPH approximately 0.5 miles west of Crossroads Parkway and at the East. The Highway intersects with Crossroads Parkway at a signalized intersection. Crossroads Parkway has a separated eastbound lane from

Highway 287 at the traffic signal. Traffic counts collected in 2021 by Montana Department of Transportation (MDT) indicate that this section of roadway carries an Average Daily Traffic (ADT) volume of 17,200 vehicles per day (VPD) west of Crossroads Parkway.

Highway 282 is a two-way north/south highway which extends south from Highway 12/287 in East Helena to an overpass at I-15. Highway 282 has a two-lane rural cross-section with a paved width of 28 feet. Near Runkle Parkway the highway has an extended width accommodating a northbound left-turn lane at the intersection. The posted speed limit near Runkle Parkway is 45 MPH and increases to 60 MPH south of Runkle Parkway. Traffic counts collected in 2021 by MDT indicate that this section of roadway carries an Average Daily Traffic (ADT) volume of 1,900 vehicles per day (VPD) south of Manlove Street.

Crossroads Parkway is a north/south, four-lane roadway that extends south from US Highway 12/287 providing residential and commercial access in the area. The road has an urban cross-section with a paved width of 65 feet, which includes left-turn bays at each intersection. The roadway features a central median and has a posted speed limit of 35 MPH. Crossroads Parkway is signal controlled at the intersection with US Highway 12/287.

Alice Street is a two-lane road which provides access to developments south of US Highway 12/287. Alice Street starts in an east/west direction at its intersection with Crossroads Parkway and changes to north/south approximately 0.25 miles east of Crossroads Parkway. The street has variable widths (24, 30, 36 and 40 feet) due to bulb outs along its north/south direction. The posted speed limit on Alice Street is 35 MPH. Data collected by Abelin Transportation Services (ATS) in 2022 indicates that the roadway currently carries 2,100 VPD.

Jeannette Rankin Drive is an east/west, two-lane residential collector street which intersects Alice Street to provide access to homes and the Mountain View Park. Jeannette Rankin Drive has a paved width of 33 feet and is a thru-street with STOP signs at each intersection. Jeannette Rankin Drive has a STOP sign at its intersection with Alice Street. Data collected by ATS in 2022 indicates that the roadway currently carries say 500 VPD.

Runkle Parkway is an east/west, two-lane roadway that extends west from Highway 282 providing residential access in the area. The road has an urban cross-section with a paved width of 42 feet and a posted speed limit of 35 MPH. Runkle Parkway has a central median with designated left-turn lanes at all cross-streets. Runkle Parkway is STOP controlled at the tee-intersection with Highway 282.

Alpine View Drive is a north/south, two-lane road which intersects Runkle Parkway to provide access to the developments in the area. The roadway is currently under construction to City of Helena local road standards.

Figure 1- Proposed Development Site



Traffic Counts

In July 2022 ATS collected traffic data to evaluate current operational characteristics. The data collected includes a peak-hour turning movement count performed at the intersection of Jeannette Rankin Drive and Alice Street and 48-hour traffic counts along Alice Street and Jeannette Ranking Drive. Additional data used for this project was obtained from a February 2021 traffic counting effort by ATS at the intersections of Highway 282 with Runkle Parkway and Alpine View Drive. Based on comments from the City of Helena, ATS provided an additional review of the intersection of US 12/287 and Crossroads Parkway from November 2022. The raw traffic data is included in **Appendix A** of this report.

Raw traffic data is typically adjusted for seasonal variation in accordance with the data collected from MDT's permanent traffic data located on Custer Avenue east of York Road (Station A-079). This count station data indicated that data collected in July 2022 is approximately 116% of the Average Annual Daily Traffic (AADT) in this area. For a conservative result no factorization applied was to the July traffic data. Based on the information from Station A-079, the data collected in November 2022 should be approximately 92% of the AADT. The raw data collected in November was factored accordingly. It should also be noted that the existing traffic volumes represent a significant amount of service traffic related to aggressive homebuilding.

ATS obtained historic traffic data for US Highway 12 and MT Highway 282 from the MDT. This data is presented in **Table 1**. Based on the available traffic data for these two roadways, traffic volumes in this area have not increased significantly over the past ten years.

Table 1 - Historic Average Daily Traffic Data (Source: MDT)

| Location | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Hwy 282 S of Manlove St #25-7B-044 | -- | -- | -- | -- | 1,596 | 1,583 | 1,917 | 1,929 | 1794 | 1795 |
| Hwy 12/287 W of Wylie Dr #25-7B-019 | 18,660 | 17,520 | 17,920 | 17,000 | 16,540 | 17,099 | 17,338 | 17,251 | 15,733 | 17,196 |

Vehicle speed and volume data was also collected along Alice Street during the July count period. This information suggested that the average vehicle speed on Alice Street north of Jeannette Rankin Drive was 30 MPH with an 85th percentile speed of 37 MPH for all recorded vehicles. In general, vehicle travel speeds on this section are near or slightly above the posted 35 MPH speed limit.

Area Crash Data

ATS obtained crash data from the MDT vehicle crash database for the study intersections. The data included all reported crashes which occur on these segments of road over the past five years. The MDT database indicates that 16 crashes have occurred at the intersection of HWY 287 and Crossroads Parkway and two crashes have occurred at the intersection of Runkle Parkway and MT 282. No crashes were reported at the other study intersections over the five-year period. Crash rates for HWY 287/Crossroads Parkway and Runkle Parkway/MT 282 are 0.03 per MVM and 0.4 respectively. These rates are well within typical standards and do not indicate a need for roadway mitigation.

Additional Projects

Aspen View Condominiums Phase 1 & 2 are currently under construction just north of Runkle Parkway along Alpine View Drive. The projects will include 58 condominium units and would produce 424 VPD from both phases. The projected future traffic from this project is included with the overall analysis for the Craftsman Village development.

The Craftsman Village at Mountain View Meadows generally matches the original intent of the residential density in this portion of the development property. Currently Mountain View Meadows has developed 400 of the originally planned 1,055 residential units on the property. The developers plan to amend a portion of the original 2012 Crossroads Preliminary Plat to update and correct the development plans and account for current lot configurations which includes reduction in overall lot density. There are no other MVM planned projects at this time that have not been previously analyzed with the existing preliminary plat regulatory review. For analysis purposes, a 5% growth rate was applied to the existing traffic volumes to account for the estimated growth for other approved projects at the project site through 2025. The approved projects include the Crossroads Amendment at Mountain View Meadows as approved by the City in 2012.

Overall, this analysis conservatively accounts for an additional 20 housing units per year in addition to the complete build out of the Aspen View Condominiums Phase 1 & 2 and the full buildout of the Craftsman Village of the Crossroads at Mountain View Meadows Phases 8-10. It should be noted, as previously described, the existing traffic volumes represent a significant amount of home building service traffic, thus a direct correlation to occupied housing units is speculative.

Level of Service

Using the data collected for this project, ATS conducted a Level of Service (LOS) analysis at area intersections. This evaluation was conducted in accordance with the procedures outlined in the Transportation Research Board's *Highway Capacity Manual 7th Edition: A Guide for Multimodal Mobility Analysis* and the Highway Capacity Software (HCS) version 8.2. Intersections are graded from A to F representing the average delay that a vehicle entering an intersection can expect. Typically, a LOS of C or better is considered acceptable for peak-hour conditions.

Table 2 shows the existing 2022 LOS for the AM and PM peak hours without the traffic from the proposed Craftsman Village of the Crossroads Phases 8-10. The LOS calculations are included in **Appendix C**. The table shows that the existing intersections along Alice Street and Runkle Parkway are currently operating within acceptable limits. No intersection modifications are currently needed in this area to improve capacity. ATS also developed a no-build scenario for the study roadways based on a 1.7% traffic growth rate

over the next three years. The projected no-build LOS is nearly identical to the existing traffic conditions. The results of this analysis are shown in **Table 3**.

Table 2 – 2022 Level of Service Summary (Source: ATS)

| Intersection | AM Peak Hour | | PM Peak Hour | |
|----------------------------------|--------------|-----|--------------|-----|
| | Delay (Sec.) | LOS | Delay (Sec.) | LOS |
| Highway 287 & Crossroad Pkwy | 8.7 | A | 5.5 | A |
| Highway 282 & Runkle Pkwy* | 10.8 | B | 9.0 | A |
| Runkle Parkway & Alpine View* | 9.0 | A | 8.7 | A |
| Alice Street & Jeannette Rankin* | 9.2 | A | 9.0 | A |

*Northbound/Southbound LOS and Delay or Eastbound/Westbound Side Street LOS and Delay.

Table 3 – 2025 No-Build Level of Service Summary (Source: ATS)

| Intersection | AM Peak Hour | | PM Peak Hour | |
|----------------------------------|--------------|-----|--------------|-----|
| | Delay (Sec.) | LOS | Delay (Sec.) | LOS |
| Highway 287 & Crossroad Pkwy | 9.3 | A | 5.7 | A |
| Highway 282 & Runkle Pkwy* | 11.0 | B | 9.1 | A |
| Runkle Parkway & Alpine View* | 9.0/9.5 | A/A | 8.8/8.7 | A/A |
| Alice Street & Jeannette Rankin* | 9.2 | A | 9.1 | A |

*Northbound/Southbound LOS and Delay or Eastbound/Westbound Side Street LOS and Delay.

The City of Helena also requested reviews of the possible traffic impacts from the proposed project to the intersection of US 12/287 with Elaine Street, Lola Street, North Side Frontage Road Access, Nickle Street, and South Side Frontage Road Access. The Helena LRTP indicates that several of these intersections have existing LOS deficiencies that should be addressed in the future. TSM-21 in the LRTP recommends installation of future traffic signals on US Highway 12 at Lola Street and/or Nicole Street when signal warrants are met. These roadway improvements have not been completed. The development of the Craftsman Village at Mountain View Meadows does not directly access any of these roadways and will not directly impact the operations of these intersections other than contributing to the ongoing traffic volume growth along the US 12/287 corridor. The intersections are also not part of the City of Helena major street network and are well over a mile from the proposed development. The traffic impacts from the Craftsman Village at these intersections will be minimal. The LRTP does not contain any additional recommended roadway improvements that would apply to the study area.

D. PROPOSED DEVELOPMENT

The development currently under consideration for this site includes 40 acres of land located west of the previous phases of the Craftsman Village of the Crossroads development and bordered by Jeannette Rankin Drive and Alpine View Drive. Phases 8-10 of the development would include up to 230 single-family residential properties. The project is planned for the development of 70 lots in phases 8 and 9, and 90 lots in Phase 10. Each phase would take one year to complete from 2023 to 2025. Access to the site would be provided through existing approaches from Jeannette Rankin Drive to the west and Alpine View Drive and a new connection to Alice Street at Alpine View Drive would be constructed with Phase 10. These phases of the project are expected to reach full development by 2025. All roads within the development would be constructed to City the Helena standards and will include boulevard sidewalks. On- and off-street parking will be supplied per City of Design Standards. All new streets will include sidewalks or a bike path according to the City complete streets policy and a 10-foot paved path adjacent to Runkle Parkway and Alice Street is being developed along Alpine View Drive. This path will continue west from Alice Street along Runkle Parkway. There are currently no public transit stops within the vicinity of Mountain View Meadows. The Craftsman Village of the Crossroads phases 8-10 is shown in **Figure 2**.

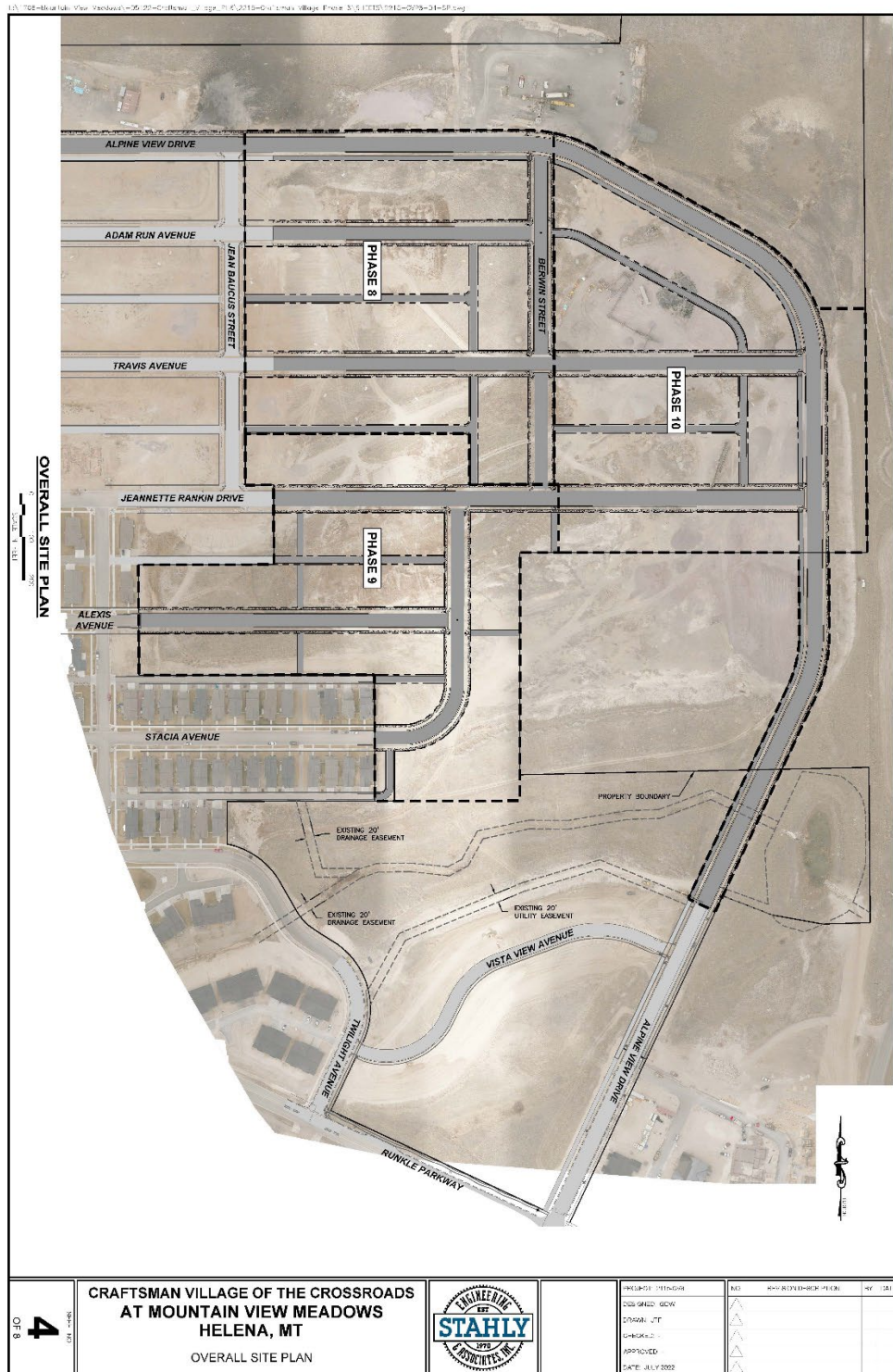
E. TRIP GENERATION AND ASSIGNMENT

ATS performed a trip generation analysis to determine the anticipated future traffic volumes from the proposed development using the trip generation rates contained in *Trip Generation* (Institute of Transportation Engineers, Eleventh Edition). These rates are the national standard and are based on the most current information available to planners. A vehicle “trip” is defined as any trip that either begins or ends at the development site. ATS determined that the critical traffic impacts on the intersections and roadways would occur during the weekday morning and evening peak hours. According to the ITE trip generation rates, the Craftsman Village of the Crossroads would produce 161 AM peak hour trips, 216 PM peak hour trips, and 2,169 daily trips. See **Table 4** for detailed trip generation information.

Table 4 - Trip Generation Rates (Source: ATS)

| Single-Family Res. ITE #210 | Units | AM Peak Hour Trip Ends per Unit | Total AM Peak Hour Trip Ends | PM Peak Hour Trip Ends per Unit | Total PM Peak Hour Trip Ends | Weekday Trip Ends per Unit | Total Weekday Trip Ends |
|-----------------------------|------------|---------------------------------|------------------------------|---------------------------------|------------------------------|----------------------------|-------------------------|
| Phase 8 – 2023 | 70 | 0.7 | 49 (13in/36out) | 0.94 | 66 (42in/24out) | 9.43 | 660 |
| Phase 9 – 2024 | 70 | 0.7 | 49 (13in/36out) | 0.94 | 66 (42in/24out) | 9.43 | 660 |
| Phase 10 - 2025 | 90 | 0.7 | 63 (16in/47out) | 0.94 | 85 (54in/31out) | 9.43 | 849 |
| TOTAL | 230 | | 161 (42in/119out) | | 217 (138in/79out) | | 2,169 |

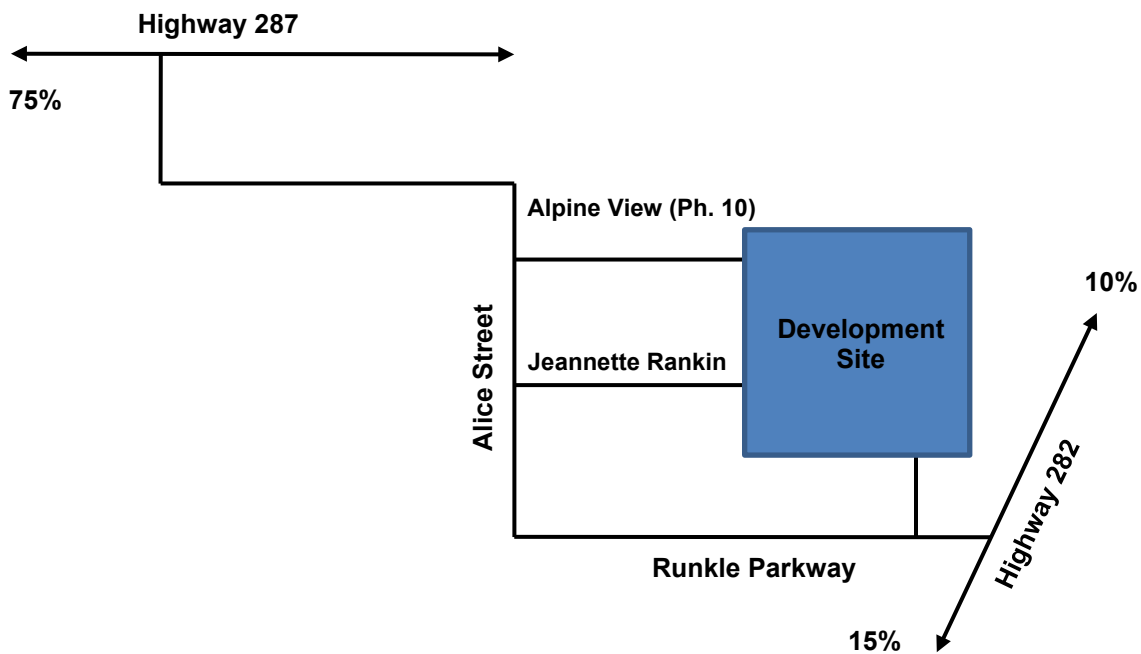
Figure 2 – Proposed Development



F. TRIP DISTRIBUTION

The traffic distribution and assignment for the proposed subdivision was based upon the existing ADT volumes along the adjacent roadways and the peak-hour turning volumes. It is expected that 75% of the traffic from the proposed development site would use Jeannette Rankin Drive and Alpine View Drive to reach Alice Street and Highway 287 to the west into Helena, 15% would distribute to the south onto Runkle Parkway and Highway 282 to the south, and 10% would distribute north onto Highway 282 towards East Helena. All traffic directing towards Helena from Phases 8 and 9 of the development would use Jeanette Rankin Drive. This traffic will decrease significantly in Phase 10 with the direction connection of Alpine View Drive to Alice Street. Traffic is expected to distribute onto the surrounding road network as shown on **Figure 3**.

Figure 3 – Trip Distribution



G. TRAFFIC IMPACTS OUTSIDE OF THE DEVELOPMENT

Using the trip generation and trip distribution numbers, ATS determined the future Level of Service for the area intersections. The anticipated intersection LOS with the Craftsman Village of the Crossroads Phases 8-10 is shown in **Tables 5**. These calculations are based on the projected model volumes included in **Appendix B** of this report and includes the projected traffic from the 58 units from the Aspen View Condominiums Phases 1&2 currently under construction.

Table 5 indicates that the construction of the Craftsman Village of the Crossroads Phases 8-10 will have little effect on the traffic conditions within the area. All area intersections will continue to function at LOS B or better at full build-out and no additional mitigation measures will be needed to improve intersection capacity. Both the intersections of Twilight Avenue and Alpine View Drive with Runkle Parkway have existing center left-turn lanes which will provide reserve operational capacity for these intersections well into the future. Based on the existing and projected traffic volumes along Alice Street, no additional turning lanes would be required at the intersections with Alpine View Drive or Jeannette Rankin Drive.

Total traffic volumes on Alice Street and Crossroads Parkway will increase by 1,600 VPD to a total of 3,700 VPD which is well within the capacity of a collector roadway. Traffic volume along the southern portion of Alpine View Drive will increase by approximately 500 VPD. The project will initially increase traffic volumes along Jeannette Rankin Drive (collector roadway) by approximately 1,000 VPD with Phases 8 & 9 which will increase the total traffic along Jeannette Rankin Drive to 1,500 VPD. With the connection of Alpine View Drive to Alice Street with Phase 10 of the project, traffic volumes along Jeannette Rankin Drive will decrease to approximately 800 VPD. It should be noted that Crossroads Parkway is currently constructed with an urban three-lane cross-section which has the capacity to handle 18,000 VPD to 20,000 VPD. The road is currently carrying 2,000 VPD to 3,000 VPD, or 10-20% of the roadway’s capacity.

**Table 5 –Level of Service Summary
With the Craftsman Village of the Crossroads Phases 8-10 (Source: ATS)**

| Intersection | AM Peak Hour | | PM Peak Hour | |
|---------------------------------|--------------|-----|--------------|-----|
| | Delay (Sec.) | LOS | Delay (Sec.) | LOS |
| Highway 287 & Crossroad Parkway | 12.7 | B | 11.5 | B |
| Highway 282 & Runkle Parkway | 11.4 | B | 9.7 | A |
| Runkle Parkway & Alpine View* | 9.1/9.8 | A/A | 8.9/8.9 | A/A |
| Alice Street & Alpine View | 9.6 | A | 9.5 | A |
| Alice Street & Jeannette Rankin | 9.4 | A | 9.3 | A |

*Northbound/Southbound LOS and Delay.

ATS used the HCS data to identify the average and maximum vehicle queuing lengths that can be expected at the study intersections with the development of the Craftsman Village. Under the existing roadway configuration, northbound vehicles queue at the Highway 287/Crossroads Parkway intersection will be in the range of 200 to 300 feet which are below the provided turn lane length (320 feet). The other turn lanes including the intersection of MT 282 with Runkle Parkway will have an average vehicle queue length of less than one vehicle.

Reviewing the traffic forecasts and relation to intersection LOS analysis, the intersections of Highway 12 and Crossroads Parkway, and the intersection of Highway 282 and Runkle Parkway can accommodate an excess amount of traffic from the total planned MVM projects, estimated at 1,055 housing units, while continuing to function within an acceptable LOS. ATS ran a LOS analysis for the intersections of Highway 12 and Crossroads Parkway and the intersection of Highway 282 and Runkle Parkway DOUBLING the currently anticipated traffic volumes at these intersections from the MVM. The analysis showed that both intersections would still function at LOS C or better with twice as much traffic as is currently projected at full buildout in 2025. The LOS analysis for this condition is included with this report. As MDT continually monitors the traffic signal operations at Highway 12 and Crossroads Parkway, signal timing adjustments for traffic flow optimization may be needed at before full buildout of the properties in this area to accommodate the continued growth on the subject properties, but no geometric improvements would be necessary to support full buildout of the planned projects.

H. IMPACT SUMMARY & RECOMMENDATIONS

As proposed Craftsman Village of the Crossroads would produce 2,169 new daily trips in the area at full build-out. Craftsman Village of the Crossroads Phases 8-10 will not affect roadway operations in the area. All nearby intersections will continue to function at acceptable levels of service with the proposed development. No roadway modifications are currently recommended with this project.

APPENDIX A

Traffic Data

Turning Movement Count

All Vehicles

Location MountainView

Date 7-19 PM and 7-20 AM

| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | TOTAL | |
|---------------|------------|-----|-------|------|------------|-----|-------|------|-----------|-----|-------|------|-----------|-----|-------|------|-------|-----|
| | Left | Thr | Right | Peds | Left | Thr | Right | Peds | Left | Thr | Right | Peds | Left | Thr | Right | Peds | | |
| 7:00 - 7:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15 - 7:30 | 0 | 13 | 0 | 0 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 0 | 29 |
| 7:30 - 7:45 | 0 | 18 | 0 | 0 | 5 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 6 | 0 | 0 | 36 |
| 7:45 - 8:00 | 0 | 20 | 4 | 0 | 9 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 8 | 0 | 0 | 50 |
| 8:00 - 8:15 | 0 | 15 | 0 | 0 | 5 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 3 | 0 | 0 | 30 |
| 8:15 - 8:30 | 0 | 13 | 1 | 0 | 9 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 34 |
| 8:30 - 8:45 | 0 | 15 | 1 | 0 | 9 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 39 |
| 8:45 - 9:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 - 9:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 - 9:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 - 9:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 - 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 - 10:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:15 - 10:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:30 - 10:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 - 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 - 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 - 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 - 1:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:00 - 1:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:15 - 1:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:30 - 1:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:45 - 2:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:00 - 2:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 - 2:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 - 2:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 - 3:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:00 - 3:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 - 3:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 - 3:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 - 4:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 - 4:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 - 4:30 | 0 | 11 | 0 | 0 | 2 | 18 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 36 |
| 4:30 - 4:45 | 0 | 14 | 2 | 0 | 2 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 0 | 43 |
| 4:45 - 5:00 | 0 | 11 | 0 | 0 | 1 | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 28 |
| 5:00 - 5:15 | 0 | 17 | 1 | 0 | 9 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 48 |
| 5:15 - 5:30 | 0 | 13 | 0 | 0 | 9 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 14 | 0 | 0 | 52 |
| 5:30 - 5:45 | 0 | 10 | 0 | 0 | 7 | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 41 |
| 5:45 - 6:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:00 - 6:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15 - 6:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30 - 6:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:45 - 7:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 170 | 9 | 0 | 72 | 130 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 0 | 79 | 0 | 0 | 466 |

Abelin Traffic Services

130 S. Howie Street
Helena, MT 59601

File Name : RunkleAlpineTMC
Site Code : 00000000
Start Date : 2/24/2021
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

| Start Time | ALPINE VEIW Southbound | | | | | RUNKLE Westbound | | | | | ALPINE VEIW Northbound | | | | | RUNKLE Eastbound | | | | | Int. Total |
|---------------|------------------------|------|------|------|------------|------------------|------|------|------|------------|------------------------|------|------|------|------------|------------------|------|------|------|------------|------------|
| | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | Right | Thru | Left | Peds | App. Total | |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 07:30 AM | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 3 | 0 | 10 | 0 | 0 | 10 | 15 |
| 07:45 AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 3 | 0 | 1 | 0 | 4 | 0 | 21 | 0 | 0 | 21 | 29 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 6 | 4 | 1 | 2 | 0 | 7 | 0 | 31 | 0 | 0 | 31 | 44 |
| 08:00 AM | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | 8 | 1 | 0 | 0 | 0 | 1 | 0 | 15 | 0 | 0 | 15 | 24 |
| 08:15 AM | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 1 | 0 | 5 | 1 | 0 | 1 | 0 | 2 | 6 | 8 | 0 | 0 | 14 | 21 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 1 | 0 | 13 | 2 | 0 | 1 | 0 | 3 | 6 | 23 | 0 | 0 | 29 | 45 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| 04:30 PM | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 1 | 0 | 6 | 2 | 0 | 1 | 2 | 5 | 0 | 6 | 0 | 0 | 6 | 17 |
| 04:45 PM | 0 | 0 | 0 | 0 | 0 | 0 | 13 | 2 | 1 | 16 | 1 | 0 | 0 | 0 | 1 | 1 | 9 | 0 | 1 | 11 | 28 |
| Total | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 3 | 1 | 22 | 3 | 0 | 1 | 2 | 6 | 1 | 15 | 0 | 1 | 17 | 45 |
| 05:00 PM | 0 | 0 | 0 | 0 | 0 | 0 | 15 | 3 | 0 | 18 | 2 | 0 | 1 | 0 | 3 | 0 | 3 | 2 | 0 | 5 | 26 |
| 05:15 PM | 0 | 0 | 0 | 0 | 0 | 0 | 12 | 2 | 0 | 14 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | 18 |
| *** BREAK *** | | | | | | | | | | | | | | | | | | | | | |
| Grand Total | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 10 | 1 | 73 | 11 | 1 | 5 | 2 | 19 | 7 | 76 | 2 | 1 | 86 | 178 |
| Apprch % | 0 | 0 | 0 | 0 | 0 | 0 | 84.9 | 13.7 | 1.4 | | 57.9 | 5.3 | 26.3 | 10.5 | | 8.1 | 88.4 | 2.3 | 1.2 | | |
| Total % | 0 | 0 | 0 | 0 | 0 | 0 | 34.8 | 5.6 | 0.6 | 41 | 6.2 | 0.6 | 2.8 | 1.1 | 10.7 | 3.9 | 42.7 | 1.1 | 0.6 | 48.3 | |
| Unshifted | 0 | 0 | 0 | 0 | 0 | 0 | 62 | 10 | 1 | 73 | 11 | 1 | 5 | 2 | 19 | 7 | 76 | 2 | 1 | 86 | 178 |
| % Unshifted | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Bank 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Bank 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Bank 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| % Bank 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Turning Movement Count

All Vehicles

Location Highway 287 & Crossroads Parkway

Date 11/3/2022

| | Northbound | | | | Southbound | | | | Eastbound | | | | Westbound | | | | TOTAL |
|---------------|------------|-----|-------|------|------------|-----|-------|------|-----------|------|-------|------|-----------|------|-------|------|-------|
| | Left | Thr | Right | Peds | Left | Thr | Right | Peds | Left | Thr | Right | Peds | Left | Thr | Right | Peds | |
| 7:00 - 7:15 | 21 | 0 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 82 | 7 | 0 | 4 | 238 | 6 | 0 | 363 |
| 7:15 - 7:30 | 27 | 1 | 1 | 0 | 5 | 0 | 0 | 0 | 2 | 78 | 9 | 0 | 0 | 201 | 0 | 0 | 324 |
| 7:30 - 7:45 | 39 | 0 | 4 | 0 | 5 | 0 | 1 | 0 | 2 | 107 | 22 | 0 | 4 | 345 | 4 | 0 | 533 |
| 7:45 - 8:00 | 29 | 1 | 0 | 0 | 7 | 1 | 2 | 0 | 1 | 102 | 17 | 0 | 7 | 275 | 3 | 0 | 445 |
| 8:00 - 8:15 | 16 | 0 | 1 | 0 | 4 | 2 | 4 | 0 | 0 | 89 | 15 | 0 | 2 | 249 | 1 | 0 | 383 |
| 8:15 - 8:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30 - 8:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45 - 9:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00 - 9:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15 - 9:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30 - 9:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45 - 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00 - 10:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:15 - 10:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:30 - 10:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:45 - 11:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:00 - 11:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:15 - 11:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:30 - 11:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11:45 - 12:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:00 - 12:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:15 - 12:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:30 - 12:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12:45 - 1:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:00 - 1:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:15 - 1:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:30 - 1:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1:45 - 2:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:00 - 2:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:15 - 2:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:30 - 2:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2:45 - 3:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:00 - 3:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:15 - 3:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:30 - 3:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3:45 - 4:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:00 - 4:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4:15 - 4:30 | 23 | 2 | 4 | 0 | 7 | 1 | 0 | 0 | 1 | 245 | 25 | 0 | 2 | 139 | 4 | 0 | 453 |
| 4:30 - 4:45 | 23 | 0 | 7 | 0 | 8 | 1 | 1 | 0 | 2 | 242 | 14 | 0 | 4 | 140 | 2 | 0 | 444 |
| 4:45 - 5:00 | 25 | 0 | 4 | 0 | 8 | 0 | 2 | 0 | 2 | 260 | 17 | 0 | 2 | 130 | 1 | 0 | 451 |
| 5:00 - 5:15 | 24 | 0 | 2 | 0 | 13 | 0 | 4 | 0 | 0 | 268 | 26 | 0 | 2 | 131 | 3 | 0 | 473 |
| 5:15 - 5:30 | 21 | 1 | 1 | 0 | 10 | 0 | 1 | 0 | 1 | 310 | 22 | 0 | 2 | 152 | 3 | 0 | 524 |
| 5:30 - 5:45 | 19 | 0 | 1 | 0 | 5 | 1 | 2 | 0 | 0 | 274 | 20 | 0 | 2 | 129 | 2 | 0 | 455 |
| 5:45 - 6:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:00 - 6:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:15 - 6:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:30 - 6:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6:45 - 7:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 267 | 5 | 27 | 0 | 74 | 7 | 17 | 0 | 11 | 2057 | 194 | 0 | 31 | 2129 | 29 | 0 | 4848 |

For Project: AliceStreet Helena
 Project Notes:
 Location/Name: Merged
 Report Generated: 8/3/2022 09:06
 Speed Intervals: 1 MPH
 Time Intervals: Instant
 Traffic Report From: 7/19/2022 10:00:00 through 7/21/2022 11:59:59
 85th Percentile Speed: 37 MPH
 85th Percentile Vehicles: 3703
 Max Speed: 67 MPH on 7/19/2022 17:26:37
 Total Vehicles: 4357
 AADT: 2091

Volumes - weekly counts

| Time | 5 Day | 7 Day |
|---------------|-------|-------|
| Average Daily | 1452 | 1452 |
| AM Peak | 186 | 186 |
| PM Peak | 196 | 196 |

Speed

Speed Limit: 35
 85th Percentile Speed: 37
 50th Percentile Speed: 31
 10 MPH Pace Interval: 28.0 MPH to 38.0 MPH
 Average Speed: 29.54

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|------------------|--------|---------|-----------|----------|--------|----------|--------|
| Count over limit | N/A | 324 | 502 | 174 | N/A | N/A | N/A |
| % over limit | N/A | 22.7 | 23.2 | 22.7 | N/A | N/A | N/A |
| Avg Speeder | N/A | 38.5 | 38.6 | 38.6 | N/A | N/A | N/A |

Class Counts

| | Number | % |
|---------------------|------------------|-----------------|
| VEH_SM | 101 | 2.3 |
| VEH_MED | 4107 | 94.3 |
| VEH_LG | 149 | 3.4 |
| [VEH_SM=motorcycle, | VEH_MED = sedan, | VEH_LG = truck] |

Merged Weekly Counts
AliceStreet Helena

from Tue-Jul-19-2022-10-00-AM to Thu-Jul-21-2022-11-59-AM

| | 7/18/2022 | to | 7/24/2022 | | | | | | | |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|---------|--------------|
| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | Week | Weekend | Week Day 85% |
| Hour | 7/18/2022 | 7/19/2022 | 7/20/2022 | 7/21/2022 | 7/22/2022 | 7/23/2022 | 7/24/2022 | Day Avg | Avg | Avg Speed |
| 0 - 1 | * | * | 4 | 3 | * | * | * | 3.5 | 0 | 33.5 |
| 1 - 2 | * | * | 2 | 1 | * | * | * | 1.5 | 0 | 31.5 |
| 2 - 3 | * | * | 1 | 2 | * | * | * | 1.5 | 0 | 32 |
| 3 - 4 | * | * | 5 | 4 | * | * | * | 4.5 | 0 | 36 |
| 4 - 5 | * | * | 4 | 4 | * | * | * | 4 | 0 | 30 |
| 5 - 6 | * | * | 36 | 38 | * | * | * | 37 | 0 | 35.9 |
| 6 - 7 | * | * | 71 | 51 | * | * | * | 61 | 0 | 37.25 |
| 7 - 8 | * | * | 191 | 182 | * | * | * | 186.5 | 0 | 36.3 |
| 8 - 9 | * | * | 164 | 137 | * | * | * | 150.5 | 0 | 36.2 |
| 9 - 10 | * | * | 116 | 113 | * | * | * | 114.5 | 0 | 36.65 |
| 10 - 11 | * | 18 | 151 | 109 | * | * | * | 92.67 | 0 | 35.13 |
| 11 - 12 | * | 165 | 149 | 122 | * | * | * | 145.33 | 0 | 36.37 |
| 12 - 13 | * | 177 | 215 | * | * | * | * | 196 | 0 | 36.35 |
| 13 - 14 | * | 127 | 160 | * | * | * | * | 143.5 | 0 | 36.7 |
| 14 - 15 | * | 112 | 122 | * | * | * | * | 117 | 0 | 36.7 |
| 15 - 16 | * | 148 | 115 | * | * | * | * | 131.5 | 0 | 35.75 |
| 16 - 17 | * | 158 | 189 | * | * | * | * | 173.5 | 0 | 36.75 |
| 17 - 18 | * | 221 | 166 | * | * | * | * | 193.5 | 0 | 36.95 |
| 18 - 19 | * | 90 | 91 | * | * | * | * | 90.5 | 0 | 37.3 |
| 19 - 20 | * | 81 | 65 | * | * | * | * | 73 | 0 | 37.65 |
| 20 - 21 | * | 72 | 45 | * | * | * | * | 58.5 | 0 | 36.5 |
| 21 - 22 | * | 39 | 61 | * | * | * | * | 50 | 0 | 35.5 |
| 22 - 23 | * | 21 | 29 | * | * | * | * | 25 | 0 | 35 |
| 23 - 24 | * | 1 | 9 | * | * | * | * | 5 | 0 | 32.5 |
| Totals | 0 | 1430 | 2161 | 766 | 0 | 0 | 0 | | | |
| % of Total | 0% | 32.82% | 49.6% | 17.58% | 0% | 0% | 0% | | | |

For Project: Jeannette Rankin Helena
 Project Notes:
 Location/Name: Merged
 Report Generated: 8/3/2022 09:12
 Speed Intervals: 1 MPH
 Time Intervals: Instant
 Traffic Report From: 7/19/2022 10:00:00 through 7/21/2022 11:59:59
 85th Percentile Speed: 28 MPH
 85th Percentile Vehicles: 839
 Max Speed: 43 MPH on 7/20/2022 11:29:54
 Total Vehicles: 987
 AADT: 473

Volumes - weekly counts

| Time | 5 Day | 7 Day |
|---------------|-------|-------|
| Average Daily | 329 | 329 |
| AM Peak | 48 | 48 |
| PM Peak | 51 | 51 |

Speed

Speed Limit: 35
 85th Percentile Speed: 28
 50th Percentile Speed: 23
 10 MPH Pace Interval: 18.0 MPH to 28.0 MPH
 Average Speed: 23.04

| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday |
|------------------|--------|---------|-----------|----------|--------|----------|--------|
| Count over limit | N/A | 3 | 10 | 5 | N/A | N/A | N/A |
| % over limit | N/A | 0.9 | 2.1 | 2.7 | N/A | N/A | N/A |
| Avg Speeder | N/A | 38.0 | 38.4 | 40.6 | N/A | N/A | N/A |

Class Counts

| | Number | % |
|---------------------|------------------|-----------------|
| VEH_SM | 70 | 7.1 |
| VEH_MED | 883 | 89.5 |
| VEH_LG | 34 | 3.4 |
| [VEH_SM=motorcycle, | VEH_MED = sedan, | VEH_LG = truck] |

Merged Weekly Counts
 Jeannette Rankin Helena

from Tue-Jul-19-2022-10-00-AM to Thu-Jul-21-2022-11-59-AM

| | 7/18/2022 | to | 7/24/2022 | | | | | | | |
|------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|---------|---------|--------------|
| | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday | Sunday | Week | Weekend | Week Day 85% |
| Hour | 7/18/2022 | 7/19/2022 | 7/20/2022 | 7/21/2022 | 7/22/2022 | 7/23/2022 | 7/24/2022 | Day Avg | Avg | Avg Speed |
| 0 - 1 | * | * | 1 | 0 | * | * | * | 0.5 | 0 | 21 |
| 1 - 2 | * | * | 0 | 0 | * | * | * | 0 | 0 | 0 |
| 2 - 3 | * | * | 0 | 0 | * | * | * | 0 | 0 | 0 |
| 3 - 4 | * | * | 0 | 1 | * | * | * | 0.5 | 0 | 23 |
| 4 - 5 | * | * | 1 | 1 | * | * | * | 1 | 0 | 20.5 |
| 5 - 6 | * | * | 8 | 8 | * | * | * | 8 | 0 | 30 |
| 6 - 7 | * | * | 15 | 12 | * | * | * | 13.5 | 0 | 27.5 |
| 7 - 8 | * | * | 45 | 47 | * | * | * | 46 | 0 | 28.6 |
| 8 - 9 | * | * | 51 | 45 | * | * | * | 48 | 0 | 28.5 |
| 9 - 10 | * | * | 21 | 24 | * | * | * | 22.5 | 0 | 27 |
| 10 - 11 | * | 9 | 27 | 24 | * | * | * | 20 | 0 | 26.33 |
| 11 - 12 | * | 51 | 38 | 21 | * | * | * | 36.67 | 0 | 25.93 |
| 12 - 13 | * | 48 | 54 | * | * | * | * | 51 | 0 | 27.1 |
| 13 - 14 | * | 32 | 42 | * | * | * | * | 37 | 0 | 26.75 |
| 14 - 15 | * | 18 | 25 | * | * | * | * | 21.5 | 0 | 25.75 |
| 15 - 16 | * | 31 | 28 | * | * | * | * | 29.5 | 0 | 28.75 |
| 16 - 17 | * | 31 | 40 | * | * | * | * | 35.5 | 0 | 28.5 |
| 17 - 18 | * | 48 | 24 | * | * | * | * | 36 | 0 | 27.1 |
| 18 - 19 | * | 11 | 20 | * | * | * | * | 15.5 | 0 | 29.75 |
| 19 - 20 | * | 15 | 10 | * | * | * | * | 12.5 | 0 | 29 |
| 20 - 21 | * | 13 | 10 | * | * | * | * | 11.5 | 0 | 27 |
| 21 - 22 | * | 10 | 14 | * | * | * | * | 12 | 0 | 28 |
| 22 - 23 | * | 4 | 7 | * | * | * | * | 5.5 | 0 | 25.75 |
| 23 - 24 | * | 0 | 2 | * | * | * | * | 1 | 0 | 24 |
| Totals | 0 | 321 | 483 | 183 | 0 | 0 | 0 | | | |
| % of Total | 0% | 32.52% | 48.94% | 18.54% | 0% | 0% | 0% | | | |

APPENDIX B

Traffic Model

Craftsman Village Phases 8-10

Traffic Model
Existing 2022
AM Peak Hour
(Peak 15 Min x 4)

Alice Street

9.2 A

64
0

0.0 A

0
0

112 Alpine View Drive
0

28
36

32
8

80 Jeanette Rankin Drive
16

November
Seasonal Factor

1.08

4
0
22
9
462
95

HWY 287

Hwy 282

9.0 A

0
0
0

0
17
4

13
199

Runkle Parkway

0
91
4

4
0
13

43
60

Crossroads Parkway

8.7 A

17
1490
17
168
4
17

Traffic Model
Existing 2022
PM Peak Hour
(Peak 15 Min x 4)

Alice Street

9.0 A

92
0

0.0 A

0
0

108 Alpine View Drive
0

56
36

56
8

52 Jeanette Rankin Drive
4

November
Seasonal Factor

1.08

4
0
43
4
1339
95

HWY 287

Hwy 282

8.7 A

0
0
0

0
65
13

13
30

Runkle Parkway

0
13
9

4
0
9

4
30

Crossroads Parkway

5.5 A

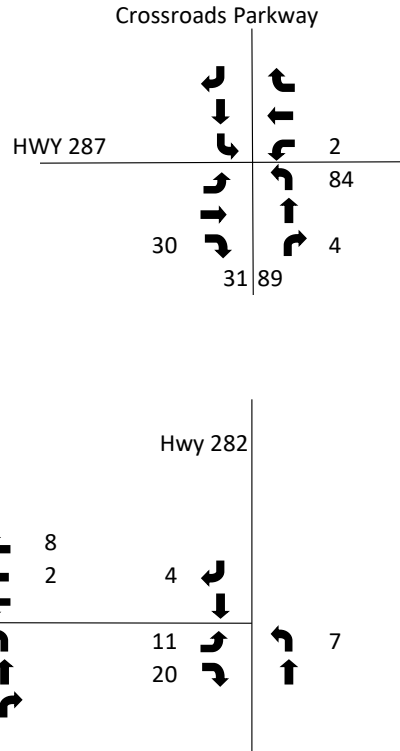
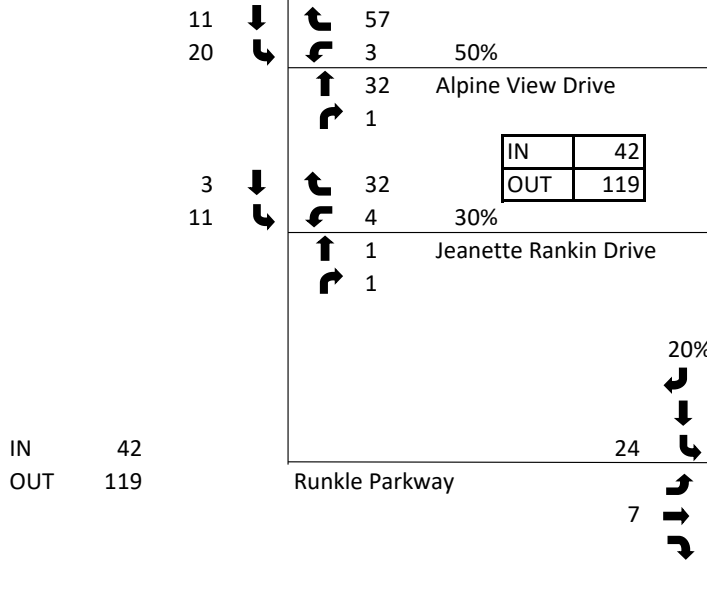
13
657
9
91
4
4

9.0 A

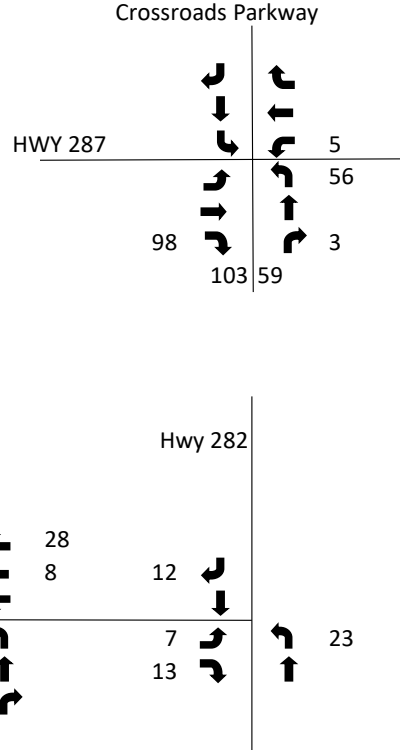
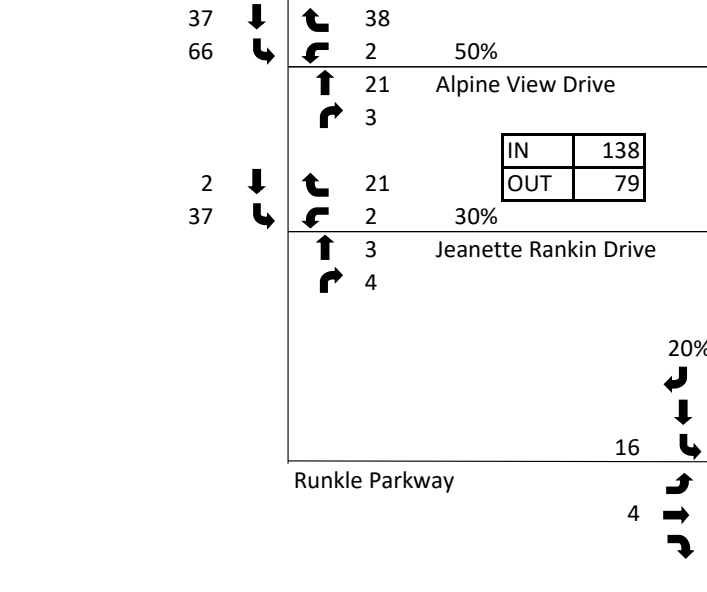
65
181

Craftsman Village Phases 8-10

Traffic Model Alice Street
 Site Generated Traffic
 AM Peak Hour



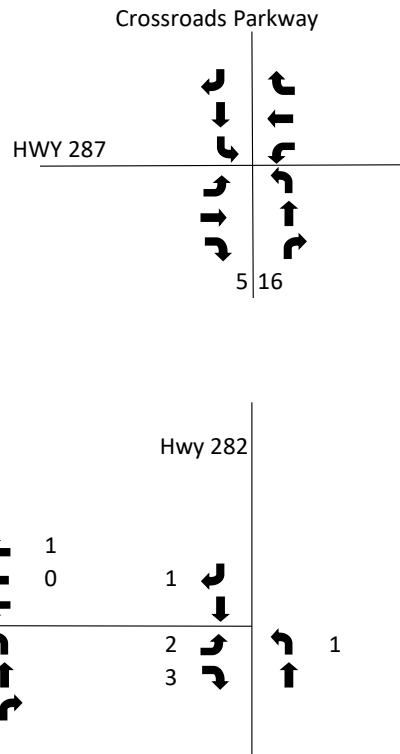
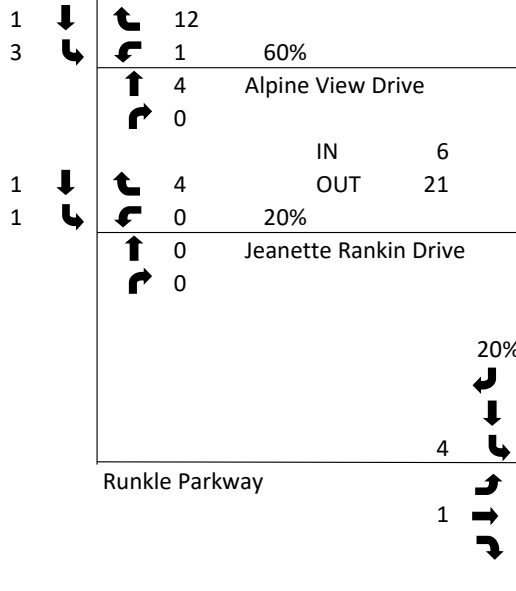
Traffic Model Alice Street
 Site Generated Traffic
 PM Peak Hour



Craftsman Village Phases 8-10

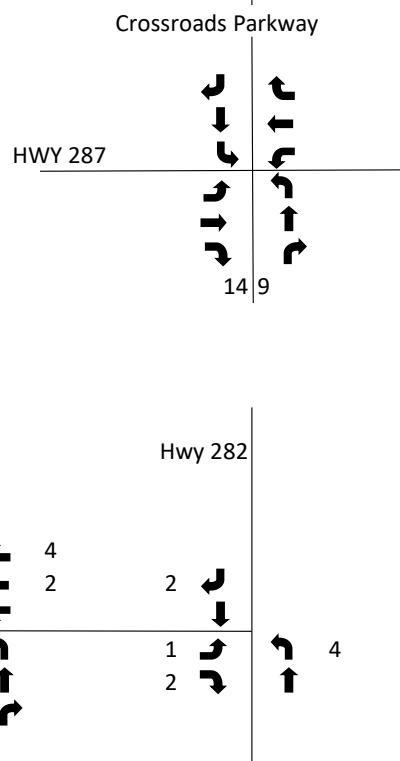
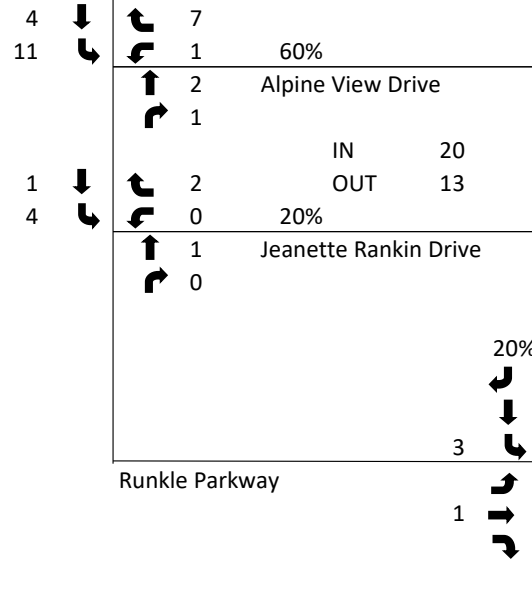
Traffic Model
Aspen View Traffic
AM Peak Hour

Alice Street



Traffic Model
Aspen View Traffic
PM Peak Hour

Alice Street



Craftsman Village Phases 8-10

Background Growth

1.05

Crossroads Parkway

Traffic Model
NO BUILD TRAFFIC
AM Peak Hour
2025

Alice Street

68
3

9.1 A
12
1

9.2 A

30
39

121 Alpine View Drive
0

37
9

84 Jeanette Rankin Drive
17

Runkle Parkway

0
0
4
0
96
5

HWY 287

5
0
23
9
485
100

Hwy 282

9.0/9.5 A/A

1
18
5
5
0
14

Crossroads Parkway

9.3 A
18
1565
18
177
5
18

11.0 B
5
104

Traffic Model
NO BUILD TRAFFIC
PM Peak Hour
2025

Alice Street

100
11

9.1 A
7
1

9.1 A

60
41

116 Alpine View Drive
1

61
9

56 Jeanette Rankin Drive
5

Runkle Parkway

0
0
3
0
15
9

HWY 287

5
0
45
5
1406
100

Hwy 282

8.8/8.7 A/A

4
70
14
5
0
9

Crossroads Parkway

5.7 A
14
689
9
95
5
5

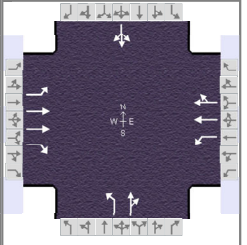
9.1 A
72
191

APPENDIX C

LOS Calculations

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | |
|---------------------|-------------------|---------------|------------------|--------------------------|-----------------|----------|
| Agency | ATS | | | Duration, h | 0.250 | |
| Analyst | RLA | Analysis Date | Nov 3, 2022 | | Area Type | Other |
| Jurisdiction | MDT | Time Period | Existing AM Peak | | PHF | 1.00 |
| Urban Street | HWY 287 | Analysis Year | 2022 | | Analysis Period | 1 > 7:00 |
| Intersection | Crossroads Parkwy | File Name | HWY287AM.xus | | | |
| Project Description | MVM | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|-----|----|----|------|----|-----|---|----|----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 9 | 462 | 95 | 17 | 1490 | 17 | 168 | 4 | 17 | 22 | 0 | 4 |

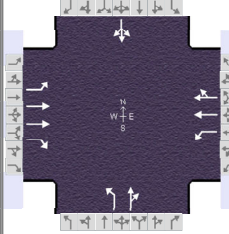
| Signal Information | | | | | | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--------|------|------|-----|-----|-----|-----|---|--|---|--|---|--|---|--|
| Cycle, s | 90.0 | Reference Phase | 2 | | | | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | | | | | | |
| Uncoordinated | No | Simult. Gap E/W | On | Green | 69.0 | 11.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | | 2 | | 3 | | 4 | |
| Force Mode | Fixed | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5 | | 6 | | 7 | | 8 | |
| | | | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|--|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 5.0 | | 6.0 | | 6.0 | | 8.0 |
| Phase Duration, s | | 74.0 | | 74.0 | | 16.0 | | 16.0 |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 0.0 | | 0.0 | | 3.1 | | 3.1 |
| Queue Clearance Time (g _s), s | | | | | | 13.0 | | 4.0 |
| Green Extension Time (g _e), s | | 0.0 | | 0.0 | | 0.0 | | 0.2 |
| Phase Call Probability | | | | | | 1.00 | | 1.00 |
| Max Out Probability | | | | | | 1.00 | | 0.02 |

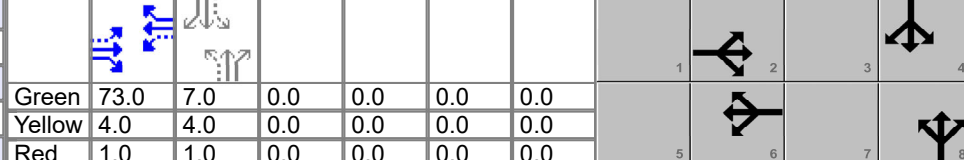
| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|----|----|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 9 | 462 | 95 | 17 | 755 | 752 | 168 | 21 | | | 26 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 367 | 1809 | 1675 | 983 | 1900 | 1892 | 1492 | 1658 | | | 1423 | |
| Queue Service Time (g _s), s | 0.9 | 3.1 | 1.3 | 0.4 | 13.8 | 13.9 | 9.0 | 1.0 | | | 0.9 | |
| Cycle Queue Clearance Time (g _c), s | 14.7 | 3.1 | 1.3 | 3.5 | 13.8 | 13.9 | 11.0 | 1.0 | | | 2.0 | |
| Green Ratio (g/C) | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.12 | 0.12 | | | 0.12 | |
| Capacity (c), veh/h | 305 | 2773 | 1284 | 800 | 1457 | 1451 | 230 | 203 | | | 248 | |
| Volume-to-Capacity Ratio (X) | 0.030 | 0.167 | 0.074 | 0.021 | 0.518 | 0.519 | 0.730 | 0.104 | | | 0.105 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 3.4 | 34.6 | 14 | 3.3 | 176.8 | 176.5 | 192.5 | 18.2 | | | 22.8 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 0.1 | 1.4 | 0.6 | 0.1 | 7.1 | 7.1 | 7.7 | 0.7 | | | 0.9 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | |
| Uniform Delay (d ₁), s/veh | 6.9 | 2.8 | 2.6 | 3.3 | 4.1 | 4.1 | 41.0 | 35.1 | | | 35.6 | |
| Incremental Delay (d ₂), s/veh | 0.2 | 0.1 | 0.1 | 0.0 | 1.3 | 1.3 | 9.9 | 0.1 | | | 0.1 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | |
| Control Delay (d), s/veh | 7.1 | 2.9 | 2.7 | 3.3 | 5.4 | 5.4 | 50.8 | 35.2 | | | 35.7 | |
| Level of Service (LOS) | A | A | A | A | A | A | D | D | | | D | |
| Approach Delay, s/veh / LOS | 3.0 | | | A | | | 5.4 | | | A | | |
| Intersection Delay, s/veh / LOS | 8.7 | | | | | | A | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 1.83 | B | 1.61 | B | 2.30 | B | 2.45 | B |
| Bicycle LOS Score / LOS | 0.95 | A | 1.74 | B | 0.80 | A | 0.53 | A |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | |  |
|---------------------|--------------------|---------------|------------------|--------------------------|----------|---|
| Agency | ATS | | | Duration, h | 0.250 | |
| Analyst | RLA | Analysis Date | Nov 3, 2022 | Area Type | Other | |
| Jurisdiction | MDT | Time Period | Existing PM Peak | PHF | 1.00 | |
| Urban Street | HWY 287 | Analysis Year | 2022 | Analysis Period | 1 > 7:00 | |
| Intersection | Crossroads Parkway | File Name | HWY287PM.xus | | | |
| Project Description | MVM | | | | | |

| Demand Information | EB | | | WB | | | NB | | | SB | | |
|-----------------------|----|------|----|----|-----|----|----|---|---|----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 4 | 1339 | 95 | 9 | 657 | 13 | 91 | 4 | 4 | 43 | 0 | 4 |

| Signal Information | | | |  | | | | | | | | |
|--------------------|-------|-----------------|-----|--|------|-----|-----|-----|-----|-----|-----|-----|
| Cycle, s | 90.0 | Reference Phase | 2 | Green | 73.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Offset, s | 0 | Reference Point | End | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Uncoordinated | No | Simult. Gap E/W | On | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-----------------------------------|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 5.0 | | 6.0 | | 6.0 | | 8.0 |
| Phase Duration, s | | 78.0 | | 78.0 | | 12.0 | | 12.0 |
| Change Period, ($Y+R_c$), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 0.0 | | 0.0 | | 3.1 | | 3.1 |
| Queue Clearance Time (g_s), s | | | | | | 9.0 | | 4.8 |
| Green Extension Time (g_e), s | | 0.0 | | 0.0 | | 0.0 | | 0.0 |
| Phase Call Probability | | | | | | 0.97 | | 0.97 |
| Max Out Probability | | | | | | 1.00 | | 1.00 |

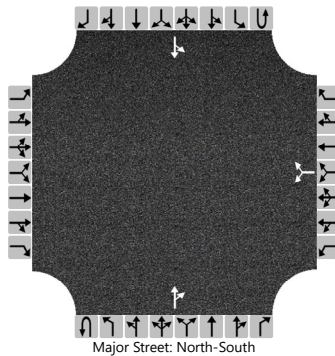
| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|----|----|-------|----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 4 | 1339 | 95 | 9 | 336 | 334 | 91 | 8 | | | 47 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 811 | 1809 | 1675 | 431 | 1900 | 1887 | 1492 | 1743 | | | 1471 | |
| Queue Service Time (g_s), s | 0.1 | 10.0 | 1.0 | 0.6 | 3.7 | 3.7 | 4.2 | 0.4 | | | 2.4 | |
| Cycle Queue Clearance Time (g_c), s | 3.8 | 10.0 | 1.0 | 10.6 | 3.7 | 3.7 | 7.0 | 0.4 | | | 2.8 | |
| Green Ratio (g/C) | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.08 | 0.08 | | | 0.08 | |
| Capacity (c), veh/h | 705 | 2934 | 1358 | 382 | 1541 | 1530 | 149 | 136 | | | 191 | |
| Volume-to-Capacity Ratio (X) | 0.006 | 0.456 | 0.070 | 0.024 | 0.218 | 0.218 | 0.610 | 0.059 | | | 0.246 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 0.6 | 86.4 | 8.9 | 2.4 | 35.7 | 35.5 | 99.2 | 7.3 | | | 44.2 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 0.0 | 3.5 | 0.4 | 0.1 | 1.4 | 1.4 | 4.0 | 0.3 | | | 1.8 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | |
| Uniform Delay (d_1), s/veh | 2.4 | 2.5 | 1.7 | 4.1 | 2.0 | 2.0 | 43.4 | 38.4 | | | 39.6 | |
| Incremental Delay (d_2), s/veh | 0.0 | 0.5 | 0.1 | 0.1 | 0.3 | 0.3 | 5.2 | 0.1 | | | 0.2 | |
| Initial Queue Delay (d_3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | |
| Control Delay (d), s/veh | 2.4 | 3.1 | 1.8 | 4.2 | 2.3 | 2.3 | 48.6 | 38.5 | | | 39.9 | |
| Level of Service (LOS) | A | A | A | A | A | A | D | D | | | D | |
| Approach Delay, s/veh / LOS | 3.0 | | | A | | | 2.3 | | | A | | |
| Intersection Delay, s/veh / LOS | 5.5 | | | | | | A | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 1.82 | B | 1.59 | B | 2.30 | B | 2.46 | B |
| Bicycle LOS Score / LOS | 1.67 | B | 1.05 | A | 0.65 | A | 0.57 | A |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|----------------------------|-----------------------|------------------|--|--|--|
| Analyst | RLA | Intersection | Alice and Alpine View | | | | |
| Agency/Co. | ATS | Jurisdiction | Lewis and Clark | | | | |
| Date Performed | 8/2/2022 | East/West Street | Alpine View | | | | |
| Analysis Year | 2022 | North/South Street | Alice | | | | |
| Time Analyzed | AM peak existing | Peak Hour Factor | 0.92 | | | | |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 | | | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|---|------------|---|-----|----|------------|----|----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 0 | | 0 | | | 112 | 0 | | 0 | 64 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | | |

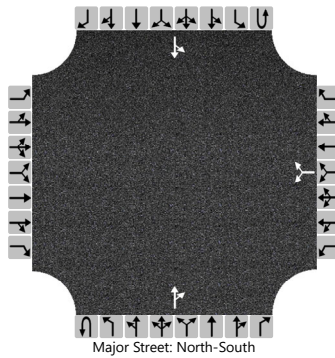
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|---|--|--|--|--|--|--|-----|--|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 0 | | | | | | | | | 0 | | |
| Capacity, c (veh/h) | | | | | | 0 | | | | | | | | | 1459 | | |
| v/c Ratio | | | | | | | | | | | | | | | 0.00 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | | | | | | | | | | 0.0 | | |
| Control Delay (s/veh) | | | | | | | | | | | | | | | 7.5 | 0.0 | |
| Level of Service (LOS) | | | | | | | | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | | | | | | | | | 0.0 | | | | |
| Approach LOS | | | | | | | | | | | | | A | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|-----------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Alpine View | | |
| Analysis Year | 2022 | | | North/South Street | Alice | | |
| Time Analyzed | PM peak existing | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|---|------------|---|-----|----|------------|----|---|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 0 | | 0 | | | 108 | 0 | | 0 | | 92 |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|--|------|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | | 4.1 | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | | 4.13 | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | | 2.2 | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | | 2.23 | |

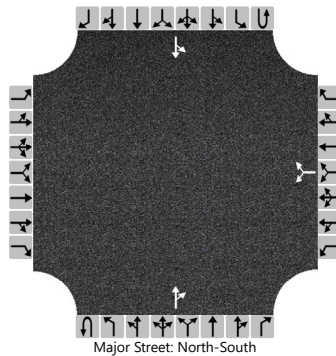
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|-----|--|--|--|--|---|--|--|--|--|--|--|--|--|--|------|-----|
| Flow Rate, v (veh/h) | | | | | | 0 | | | | | | | | | | 0 | |
| Capacity, c (veh/h) | | | | | | 0 | | | | | | | | | | 1465 | |
| v/c Ratio | | | | | | | | | | | | | | | | 0.00 | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | | | | | | | | | | | 0.0 | |
| Control Delay (s/veh) | | | | | | | | | | | | | | | | 7.5 | 0.0 |
| Level of Service (LOS) | | | | | | | | | | | | | | | | A | A |
| Approach Delay (s/veh) | 0.0 | | | | | | | | | | | | | | | | |
| Approach LOS | A | | | | | | | | | | | | | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|----------------------------|------------------|------------------|--|--|--|
| Analyst | RLA | Intersection | Alice and Rankin | | | | |
| Agency/Co. | ATS | Jurisdiction | Lewis and Clark | | | | |
| Date Performed | 8/2/2022 | East/West Street | Jeannette Rankin | | | | |
| Analysis Year | 2022 | North/South Street | Alice | | | | |
| Time Analyzed | AM peak existing | Peak Hour Factor | 0.92 | | | | |
| Intersection Orientation | North-South | Analysis Time Period (hrs) | 0.25 | | | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|----|------------|---|----|----|------------|----|----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 8 | | 32 | | | 80 | 16 | | 36 | 28 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | 2.23 | | |

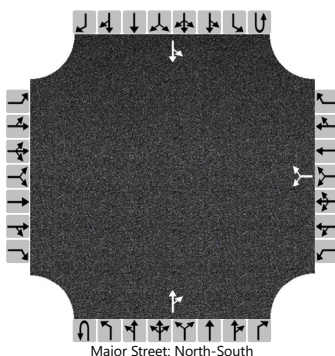
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|--|--|--|--|-----|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 43 | | | | | | | | 39 | | |
| Capacity, c (veh/h) | | | | | | 911 | | | | | | | | 1481 | | |
| v/c Ratio | | | | | | 0.05 | | | | | | | | 0.03 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.2 | | | | | | | | 0.1 | | |
| Control Delay (s/veh) | | | | | | 9.2 | | | | | | | | 7.5 | 0.2 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | 9.2 | | | | | | | | 4.3 | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Rankin | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Jeannette Rankin | | |
| Analysis Year | 2022 | | | North/South Street | Alice | | |
| Time Analyzed | PM peak existing | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|----|------------|---|----|----|------------|----|----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 8 | | 56 | | | 52 | 4 | | 36 | 56 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | | |

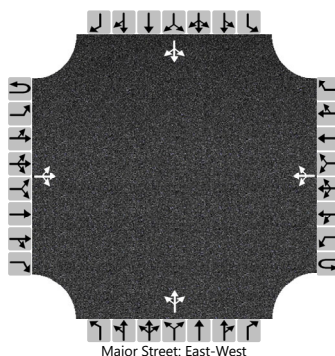
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|--|--|--|--|-----|--|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 70 | | | | | | | | | 39 | | |
| Capacity, c (veh/h) | | | | | | 967 | | | | | | | | | 1536 | | |
| v/c Ratio | | | | | | 0.07 | | | | | | | | | 0.03 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.2 | | | | | | | | | 0.1 | | |
| Control Delay (s/veh) | | | | | | 9.0 | | | | | | | | | 7.4 | 0.2 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | 9.0 | | | | | | | | 3.0 | | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|------------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2022 | | | North/South Street | Alpine | | |
| Time Analyzed | AM peak existing | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|---|-----|---|-----------|---|-----|---|------------|---|-----|----|------------|----|-----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 | |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | | |
| Volume (veh/h) | | 0 | 91 | 4 | | 4 | 17 | 0 | | 4 | 0 | 13 | | 0 | 0 | 0 | |
| Percent Heavy Vehicles (%) | | 3 | | | | 3 | | | | 3 | 3 | 3 | | 3 | 3 | 3 | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.13 | | | | 4.13 | | | | 7.13 | 6.53 | 6.23 | | 7.13 | 6.53 | 6.23 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | 2.23 | | | | 3.53 | 4.03 | 3.33 | | 3.53 | 4.03 | 3.33 |

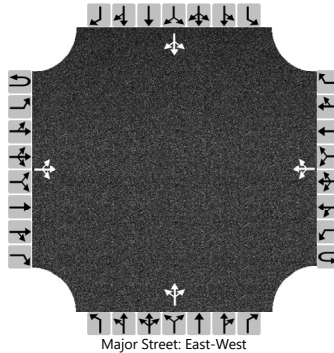
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|------|-----|-----|--|------|-----|-----|--|-----|------|--|--|--|--|---|
| Flow Rate, v (veh/h) | | 0 | | | | 4 | | | | | 18 | | | | | 0 |
| Capacity, c (veh/h) | | 1592 | | | | 1482 | | | | | 923 | | | | | 0 |
| v/c Ratio | | 0.00 | | | | 0.00 | | | | | 0.02 | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.0 | | | | | 0.1 | | | | | |
| Control Delay (s/veh) | | 7.3 | 0.0 | 0.0 | | 7.4 | 0.0 | 0.0 | | | 9.0 | | | | | |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | A | | | | | |
| Approach Delay (s/veh) | | 0.0 | | | | 1.4 | | | | 9.0 | | | | | | |
| Approach LOS | | A | | | | A | | | | A | | | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|------------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2022 | | | North/South Street | Alpine | | |
| Time Analyzed | PM peak existing | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|---|-----------|----|-----|---|------------|---|-----|---|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 0 | 13 | 9 | | 13 | 65 | 0 | | 4 | 0 | 9 | | 0 | 0 | 0 |
| Percent Heavy Vehicles (%) | | 3 | | | | 3 | | | | 3 | 3 | 3 | | 3 | 3 | 3 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.13 | | | | 4.13 | | | | 7.13 | 6.53 | 6.23 | | 7.13 | 6.53 | 6.23 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | 2.23 | | | | 3.53 | 4.03 | 3.33 | | 3.53 | 4.03 | 3.33 |

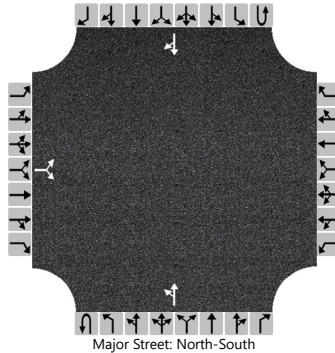
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|------|-----|-----|--|------|-----|-----|--|-----|------|--|--|--|--|---|
| Flow Rate, v (veh/h) | | 0 | | | | 14 | | | | | 14 | | | | | 0 |
| Capacity, c (veh/h) | | 1523 | | | | 1584 | | | | | 982 | | | | | 0 |
| v/c Ratio | | 0.00 | | | | 0.01 | | | | | 0.01 | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.0 | | | | | 0.0 | | | | | |
| Control Delay (s/veh) | | 7.4 | 0.0 | 0.0 | | 7.3 | 0.1 | 0.1 | | | 8.7 | | | | | |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | A | | | | | |
| Approach Delay (s/veh) | | 0.0 | | | | 1.3 | | | | 8.7 | | | | | | |
| Approach LOS | | A | | | | A | | | | A | | | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|--------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Hwy 282 | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2022 | | | North/South Street | Hwy 282 | | |
| Time Analyzed | AM peak existing | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|----|---|------------|---|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 43 | | 60 | | | | | | 4 | 99 | | | | 199 | 13 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

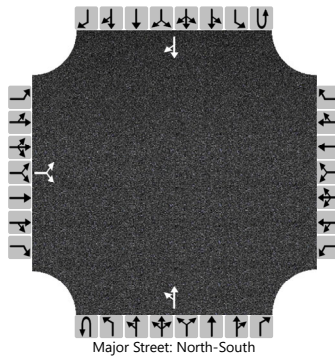
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|--|------|--|--|--|--|--|-----|------|-----|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 112 | | | | | | | 4 | | | | | | |
| Capacity, c (veh/h) | | | 737 | | | | | | | 1332 | | | | | | |
| v/c Ratio | | | 0.15 | | | | | | | 0.00 | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.5 | | | | | | | 0.0 | | | | | | |
| Control Delay (s/veh) | | | 10.8 | | | | | | | 7.7 | 0.0 | | | | | |
| Level of Service (LOS) | | | B | | | | | | | A | A | | | | | |
| Approach Delay (s/veh) | 10.8 | | | | | | | | 0.3 | | | | | | | |
| Approach LOS | B | | | | | | | | A | | | | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|--------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Hwy 282 | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2022 | | | North/South Street | Hwy 282 | | |
| Time Analyzed | PM peak existing | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | | |
|----------------------------|-----------|-----------|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|----|----|--|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | |
| Configuration | | | LR | | | | | | | LT | | | | | | TR | |
| Volume (veh/h) | | 4 | | 30 | | | | | | 65 | 181 | | | | 30 | 13 | |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | | |
| Median Type Storage | | Undivided | | | | | | | | | | | | | | | |

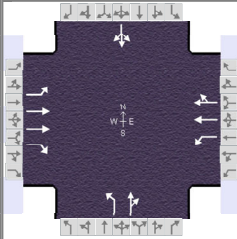
Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

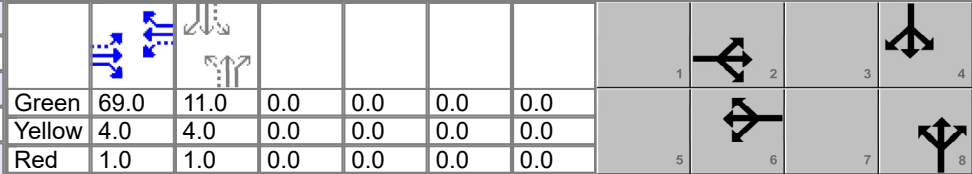
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|-----|------|--|--|--|--|--|--|------|-----|--|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 37 | | | | | | | 71 | | | | | | | |
| Capacity, c (veh/h) | | | 946 | | | | | | | 1554 | | | | | | | |
| v/c Ratio | | | 0.04 | | | | | | | 0.05 | | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.1 | | | | | | | 0.1 | | | | | | | |
| Control Delay (s/veh) | | | 9.0 | | | | | | | 7.4 | 0.4 | | | | | | |
| Level of Service (LOS) | | | A | | | | | | | A | A | | | | | | |
| Approach Delay (s/veh) | | 9.0 | | | | | | | | 2.2 | | | | | | | |
| Approach LOS | | A | | | | | | | | A | | | | | | | |

HCS Signalized Intersection Results Summary

| General Information | | | | | Intersection Information | | |  | | | | | |
|---------------------|-------------------|---------------|---------------------|--|--------------------------|----------|--|---|--|--|--|--|--|
| Agency | ATS | | | | Duration, h | 0.250 | | | | | | | |
| Analyst | RLA | Analysis Date | Nov 3, 2022 | | Area Type | Other | | | | | | | |
| Jurisdiction | MDT | Time Period | No Build AM Peak | | PHF | 1.00 | | | | | | | |
| Urban Street | HWY 287 | Analysis Year | 2025 | | Analysis Period | 1 > 7:00 | | | | | | | |
| Intersection | Crossroads Parkwy | File Name | HWY287AMnobuild.xus | | | | | | | | | | |
| Project Description | MVM | | | | | | | | | | | | |

| Demand Information | EB | | | WB | | | NB | | | SB | | |
|-----------------------|----|-----|-----|----|------|----|-----|---|----|----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 9 | 485 | 100 | 18 | 1565 | 18 | 177 | 5 | 18 | 23 | 0 | 5 |

| Signal Information | | | |  | | | | | | | | |
|--------------------|--------|-----------------|------|--|-----|-----|-----|--|--|--|--|--|
| Cycle, s | 90.0 | Reference Phase | 2 | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | No | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| | Green | 69.0 | 11.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |
| | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | |

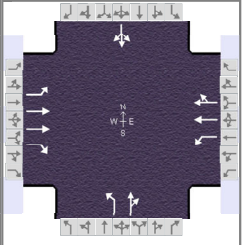
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-----------------------------------|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 5.0 | | 6.0 | | 6.0 | | 8.0 |
| Phase Duration, s | | 74.0 | | 74.0 | | 16.0 | | 16.0 |
| Change Period, ($Y+R_c$), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 0.0 | | 0.0 | | 3.1 | | 3.1 |
| Queue Clearance Time (g_s), s | | | | | | 13.0 | | 4.1 |
| Green Extension Time (g_e), s | | 0.0 | | 0.0 | | 0.0 | | 0.2 |
| Phase Call Probability | | | | | | 1.00 | | 1.00 |
| Max Out Probability | | | | | | 1.00 | | 0.02 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|----|------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 9 | 485 | 100 | 18 | 792 | 791 | 177 | 23 | | | 28 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 341 | 1809 | 1675 | 962 | 1900 | 1892 | 1491 | 1665 | | | 1425 | |
| Queue Service Time (g_s), s | 1.0 | 3.3 | 1.3 | 0.5 | 15.0 | 15.1 | 8.9 | 1.1 | | | 1.0 | |
| Cycle Queue Clearance Time (g_c), s | 16.0 | 3.3 | 1.3 | 3.7 | 15.0 | 15.1 | 11.0 | 1.1 | | | 2.1 | |
| Green Ratio (g/C) | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.77 | 0.12 | 0.12 | | | 0.12 | |
| Capacity (c), veh/h | 285 | 2773 | 1284 | 783 | 1457 | 1451 | 228 | 204 | | | 247 | |
| Volume-to-Capacity Ratio (X) | 0.032 | 0.175 | 0.078 | 0.023 | 0.544 | 0.545 | 0.776 | 0.113 | | | 0.113 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 3.6 | 36.6 | 14.9 | 3.5 | 192.2 | 191.9 | 208.6 | 20 | | | 24.6 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 0.1 | 1.5 | 0.6 | 0.1 | 7.7 | 7.7 | 8.3 | 0.8 | | | 1.0 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | |
| Uniform Delay (d_1), s/veh | 7.4 | 2.8 | 2.6 | 3.3 | 4.2 | 4.2 | 41.3 | 35.2 | | | 35.6 | |
| Incremental Delay (d_2), s/veh | 0.2 | 0.1 | 0.1 | 0.1 | 1.5 | 1.5 | 14.1 | 0.1 | | | 0.1 | |
| Initial Queue Delay (d_3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | |
| Control Delay (d), s/veh | 7.6 | 3.0 | 2.7 | 3.4 | 5.7 | 5.7 | 55.4 | 35.2 | | | 35.7 | |
| Level of Service (LOS) | A | A | A | A | A | A | E | D | | | D | |
| Approach Delay, s/veh / LOS | 3.0 | | A | 5.6 | | A | 53.1 | | D | 35.7 | | D |
| Intersection Delay, s/veh / LOS | 9.3 | | | | | | A | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 1.83 | B | 1.61 | B | 2.30 | B | 2.45 | B |
| Bicycle LOS Score / LOS | 0.98 | A | 1.81 | B | 0.82 | A | 0.53 | A |

HCS Signalized Intersection Results Summary

| General Information | | | | | Intersection Information | | |
|---------------------|-------------------|---------------|---------------------|--|--------------------------|----------|--|
| Agency | ATS | | | | Duration, h | 0.250 | |
| Analyst | RLA | Analysis Date | Nov 3, 2022 | | Area Type | Other | |
| Jurisdiction | MDT | Time Period | No Build PM Peak | | PHF | 1.00 | |
| Urban Street | HWY 287 | Analysis Year | 2025 | | Analysis Period | 1 > 7:00 | |
| Intersection | Crossroads Parkwy | File Name | HWY287PMnobuild.xus | | | | |
| Project Description | MVM | | | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|-----------------------|----|------|-----|----|-----|----|----|---|---|----|---|---|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Demand (v), veh/h | 5 | 1406 | 100 | 9 | 689 | 14 | 95 | 5 | 5 | 45 | 0 | 5 |

| Signal Information | | | | | | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--------|------|-----|-----|-----|-----|-----|---|--|---|--|---|--|---|--|
| Cycle, s | 90.0 | Reference Phase | 2 | | | | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | | | | | | |
| Uncoordinated | No | Simult. Gap E/W | On | Green | 73.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | | 2 | | 3 | | 4 | |
| Force Mode | Fixed | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5 | | 6 | | 7 | | 8 | |
| | | | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-----------------------------------|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 5.0 | | 6.0 | | 6.0 | | 8.0 |
| Phase Duration, s | | 78.0 | | 78.0 | | 12.0 | | 12.0 |
| Change Period, ($Y+R_c$), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 0.0 | | 0.0 | | 3.1 | | 3.1 |
| Queue Clearance Time (g_s), s | | | | | | 9.0 | | 5.1 |
| Green Extension Time (g_e), s | | 0.0 | | 0.0 | | 0.0 | | 0.0 |
| Phase Call Probability | | | | | | 0.98 | | 0.98 |
| Max Out Probability | | | | | | 1.00 | | 1.00 |

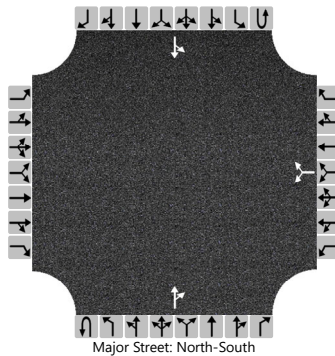
| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|----|------|-------|----|
| | L | T | R | L | T | R | L | T | R | L | T | R |
| Approach Movement | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 5 | 1406 | 100 | 9 | 353 | 350 | 95 | 10 | | | 50 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 786 | 1809 | 1675 | 405 | 1900 | 1886 | 1491 | 1743 | | | 1460 | |
| Queue Service Time (g_s), s | 0.1 | 10.8 | 1.1 | 0.6 | 3.9 | 3.9 | 3.9 | 0.5 | | | 2.6 | |
| Cycle Queue Clearance Time (g_c), s | 4.0 | 10.8 | 1.1 | 11.4 | 3.9 | 3.9 | 7.0 | 0.5 | | | 3.1 | |
| Green Ratio (g/C) | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.08 | 0.08 | | | 0.08 | |
| Capacity (c), veh/h | 684 | 2934 | 1358 | 360 | 1541 | 1530 | 145 | 136 | | | 190 | |
| Volume-to-Capacity Ratio (X) | 0.007 | 0.479 | 0.074 | 0.025 | 0.229 | 0.229 | 0.654 | 0.074 | | | 0.264 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 0.8 | 92.9 | 9.4 | 2.5 | 38 | 37.8 | 108.1 | 9.2 | | | 47.1 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 0.0 | 3.7 | 0.4 | 0.1 | 1.5 | 1.5 | 4.3 | 0.4 | | | 1.9 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | |
| Uniform Delay (d_1), s/veh | 2.4 | 2.6 | 1.7 | 4.4 | 2.0 | 2.0 | 43.6 | 38.5 | | | 39.8 | |
| Incremental Delay (d_2), s/veh | 0.0 | 0.6 | 0.1 | 0.1 | 0.3 | 0.3 | 8.1 | 0.1 | | | 0.3 | |
| Initial Queue Delay (d_3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | |
| Control Delay (d), s/veh | 2.5 | 3.2 | 1.8 | 4.5 | 2.3 | 2.3 | 51.7 | 38.6 | | | 40.0 | |
| Level of Service (LOS) | A | A | A | A | A | A | D | D | | | D | |
| Approach Delay, s/veh / LOS | 3.1 | | A | 2.3 | | A | 50.5 | | D | 40.0 | | D |
| Intersection Delay, s/veh / LOS | 5.7 | | | | | | A | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 1.82 | B | 1.59 | B | 2.30 | B | 2.46 | B |
| Bicycle LOS Score / LOS | 1.73 | B | 1.08 | A | 0.66 | A | 0.57 | A |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|-----------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Alpine View | | |
| Analysis Year | 2025 | | | North/South Street | Alice | | |
| Time Analyzed | AM Peak No Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|----|------------|---|-----|----|------------|----|----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | | | | | | | | | | | | | | | | |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 1 | | 13 | | | 121 | 0 | | 3 | 68 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | 2.23 | | |

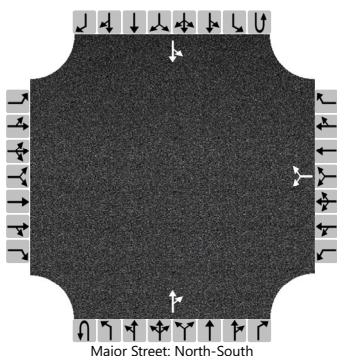
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|--|--|--|--|-----|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 15 | | | | | | | | 3 | | |
| Capacity, c (veh/h) | | | | | | 903 | | | | | | | | 1447 | | |
| v/c Ratio | | | | | | 0.02 | | | | | | | | 0.00 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.1 | | | | | | | | 0.0 | | |
| Control Delay (s/veh) | | | | | | 9.1 | | | | | | | | 7.5 | 0.0 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | 9.1 | | | | | | | | 0.3 | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|-----------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Alpine View | | |
| Analysis Year | 2025 | | | North/South Street | Alice | | |
| Time Analyzed | PM Peak No Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|---|------------|---|-----|----|------------|----|-----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 1 | | 7 | | | 116 | 1 | | 11 | 100 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | | |

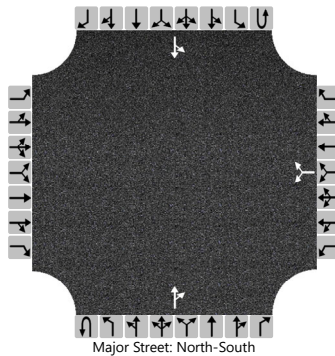
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|--|--|--|--|-----|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 9 | | | | | | | | 12 | | |
| Capacity, c (veh/h) | | | | | | 890 | | | | | | | | 1453 | | |
| v/c Ratio | | | | | | 0.01 | | | | | | | | 0.01 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.0 | | | | | | | | 0.0 | | |
| Control Delay (s/veh) | | | | | | 9.1 | | | | | | | | 7.5 | 0.1 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | 9.1 | | | | | | | | 0.8 | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Rankin | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Jeannette Rankin | | |
| Analysis Year | 2025 | | | North/South Street | Alice | | |
| Time Analyzed | AM Peak No Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|-----------|----|----|------------|---|----|----|------------|----|----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 9 | | 37 | | | 84 | 17 | | 39 | 30 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | 0 | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | | | | | | Undivided | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | | |

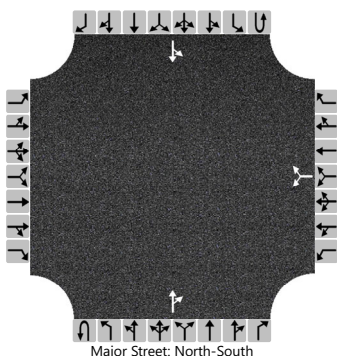
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|------|--|--|--|--|--|--|--|-----|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 50 | | | | | | | | | 42 | | |
| Capacity, c (veh/h) | | | | | | 903 | | | | | | | | | 1474 | | |
| v/c Ratio | | | | | | 0.06 | | | | | | | | | 0.03 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.2 | | | | | | | | | 0.1 | | |
| Control Delay (s/veh) | | | | | | 9.2 | | | | | | | | | 7.5 | 0.2 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | | 9.2 | | | | | | | | 4.3 | | | |
| Approach LOS | | | | | | A | | | | | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Rankin | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Jeannette Rankin | | |
| Analysis Year | 2025 | | | North/South Street | Alice | | |
| Time Analyzed | PM Peak No Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|----|------------|---|----|----|------------|----|----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 9 | | 61 | | | 59 | 5 | | 41 | 60 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | | |

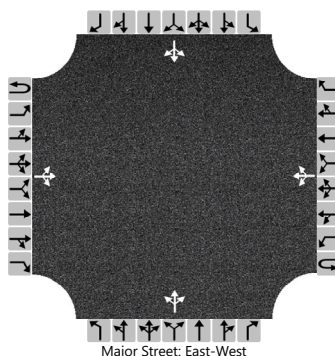
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|--|--|--|--|-----|--|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 76 | | | | | | | | | 45 | | |
| Capacity, c (veh/h) | | | | | | 952 | | | | | | | | | 1525 | | |
| v/c Ratio | | | | | | 0.08 | | | | | | | | | 0.03 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.3 | | | | | | | | | 0.1 | | |
| Control Delay (s/veh) | | | | | | 9.1 | | | | | | | | | 7.4 | 0.2 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | 9.1 | | | | | | | | 3.2 | | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|------------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Alpine | | |
| Time Analyzed | AM Peak No Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|---|-----------|---|-----|---|------------|---|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 0 | 96 | 5 | | 5 | 18 | 1 | | 5 | 0 | 14 | | 4 | 0 | 0 |
| Percent Heavy Vehicles (%) | | 3 | | | | 3 | | | | 3 | 3 | 3 | | 3 | 3 | 3 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.13 | | | | 4.13 | | | | 7.13 | 6.53 | 6.23 | | 7.13 | 6.53 | 6.23 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | 2.23 | | | | 3.53 | 4.03 | 3.33 | | 3.53 | 4.03 | 3.33 |

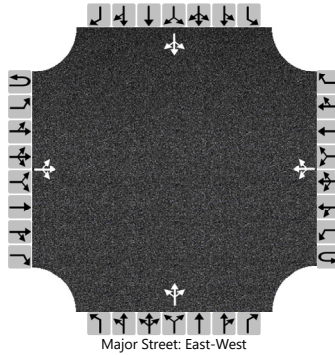
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|------|-----|-----|--|------|-----|-----|--|-----|------|--|--|-----|--|------|
| Flow Rate, v (veh/h) | | 0 | | | | 5 | | | | | 21 | | | | | 4 |
| Capacity, c (veh/h) | | 1589 | | | | 1474 | | | | | 910 | | | | | 805 |
| v/c Ratio | | 0.00 | | | | 0.00 | | | | | 0.02 | | | | | 0.01 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.0 | | | | | 0.1 | | | | | 0.0 |
| Control Delay (s/veh) | | 7.3 | 0.0 | 0.0 | | 7.5 | 0.0 | 0.0 | | | 9.0 | | | | | 9.5 |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | A | | | | | A |
| Approach Delay (s/veh) | | 0.0 | | | | 1.6 | | | | 9.0 | | | | 9.5 | | |
| Approach LOS | | A | | | | A | | | | A | | | | A | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|------------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Alpine | | |
| Time Analyzed | PM Peak No Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|---|-----------|----|-----|---|------------|---|-----|---|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 0 | 15 | 9 | | 14 | 70 | 4 | | 4 | 0 | 9 | | 0 | 0 | 3 |
| Percent Heavy Vehicles (%) | | 3 | | | | 3 | | | | 3 | 3 | 3 | | 3 | 3 | 3 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.13 | | | | 4.13 | | | | 7.13 | 6.53 | 6.23 | | 7.13 | 6.53 | 6.23 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | 2.23 | | | | 3.53 | 4.03 | 3.33 | | 3.53 | 4.03 | 3.33 |

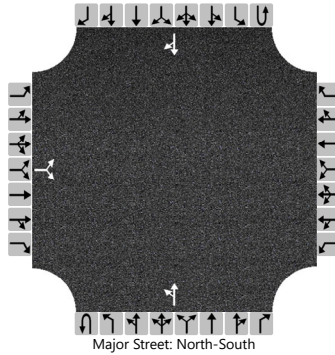
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|------|-----|-----|--|------|-----|-----|--|-----|------|--|--|-----|--|------|
| Flow Rate, v (veh/h) | | 0 | | | | 15 | | | | | 14 | | | | | 3 |
| Capacity, c (veh/h) | | 1511 | | | | 1582 | | | | | 972 | | | | | 980 |
| v/c Ratio | | 0.00 | | | | 0.01 | | | | | 0.01 | | | | | 0.00 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.0 | | | | | 0.0 | | | | | 0.0 |
| Control Delay (s/veh) | | 7.4 | 0.0 | 0.0 | | 7.3 | 0.1 | 0.1 | | | 8.8 | | | | | 8.7 |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | A | | | | | A |
| Approach Delay (s/veh) | | 0.0 | | | | 1.2 | | | | 8.8 | | | | 8.7 | | |
| Approach LOS | | A | | | | A | | | | A | | | | A | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|--------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Hwy 282 | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Hwy 282 | | |
| Time Analyzed | AM Peak No Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 47 | | 67 | | | | | | 5 | 104 | | | | 209 | 14 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|--|--|--|------|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | | | | 4.1 | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | | | | 4.13 | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | | | | 2.2 | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | | | | 2.23 | | | | |

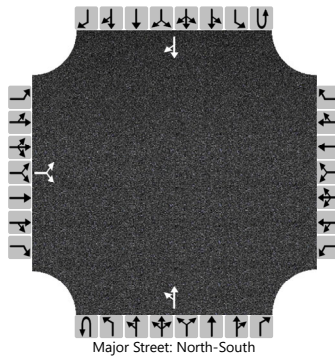
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|------|--|------|--|--|--|--|--|-----|--|--|--|------|-----|--|--|--|
| Flow Rate, v (veh/h) | | | 124 | | | | | | | | | | 5 | | | | |
| Capacity, c (veh/h) | | | 723 | | | | | | | | | | 1318 | | | | |
| v/c Ratio | | | 0.17 | | | | | | | | | | 0.00 | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.6 | | | | | | | | | | 0.0 | | | | |
| Control Delay (s/veh) | | | 11.0 | | | | | | | | | | 7.7 | 0.0 | | | |
| Level of Service (LOS) | | | B | | | | | | | | | | A | A | | | |
| Approach Delay (s/veh) | 11.0 | | | | | | | | 0.4 | | | | | | | | |
| Approach LOS | B | | | | | | | | A | | | | | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|------------------|--|--|----------------------------|--------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Hwy 282 | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Hwy 282 | | |
| Time Analyzed | PM Peak No Build | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 6 | | 34 | | | | | | 72 | 191 | | | | 32 | 15 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

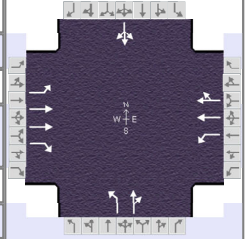
| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|-----|--|------|--|--|--|--|--|-----|------|-----|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 43 | | | | | | | 78 | | | | | | |
| Capacity, c (veh/h) | | | 913 | | | | | | | 1549 | | | | | | |
| v/c Ratio | | | 0.05 | | | | | | | 0.05 | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.1 | | | | | | | 0.2 | | | | | | |
| Control Delay (s/veh) | | | 9.1 | | | | | | | 7.4 | 0.4 | | | | | |
| Level of Service (LOS) | | | A | | | | | | | A | A | | | | | |
| Approach Delay (s/veh) | 9.1 | | | | | | | | 2.3 | | | | | | | |
| Approach LOS | A | | | | | | | | A | | | | | | | |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | |
|---------------------|-------------------|---------------|-------------------|--------------------------|----------|
| Agency | ATS | | | Duration, h | 0.250 |
| Analyst | RLA | Analysis Date | Nov 3, 2022 | Area Type | Other |
| Jurisdiction | MDT | Time Period | AM Peak With Dev. | PHF | 1.00 |
| Urban Street | HWY 287 | Analysis Year | 2025 | Analysis Period | 1 > 7:00 |
| Intersection | Crossroads Parkwy | File Name | HWY287AMwith.xus | | |
| Project Description | MVM | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|-----|-----|----|------|----|-----|---|----|----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 9 | 485 | 130 | 20 | 1565 | 18 | 261 | 5 | 23 | 23 | 0 | 5 |

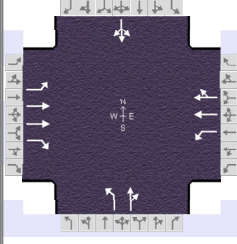
| Signal Information | | | | | | | | | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--------|------|------|-----|-----|-----|-----|---|--|---|--|---|--|---|--|
| Cycle, s | 90.0 | Reference Phase | 2 | | | | | | | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | | | | | | | |
| Uncoordinated | No | Simult. Gap E/W | On | Green | 60.0 | 20.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | | 2 | | 3 | | 4 | |
| Force Mode | Fixed | Simult. Gap N/S | On | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5 | | 6 | | 7 | | 8 | |
| | | | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | | | | | |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|--|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 5.0 | | 6.0 | | 6.0 | | 8.0 |
| Phase Duration, s | | 65.0 | | 65.0 | | 25.0 | | 25.0 |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 0.0 | | 0.0 | | 3.1 | | 3.1 |
| Queue Clearance Time (g _s), s | | | | | | 19.5 | | 4.0 |
| Green Extension Time (g _e), s | | 0.0 | | 0.0 | | 0.4 | | 0.5 |
| Phase Call Probability | | | | | | 1.00 | | 1.00 |
| Max Out Probability | | | | | | 0.01 | | 0.00 |

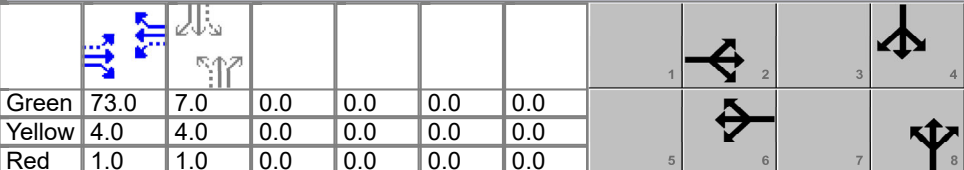
| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|----|------|-------|----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 9 | 485 | 130 | 20 | 792 | 791 | 261 | 28 | | | 28 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 341 | 1809 | 1675 | 962 | 1900 | 1892 | 1491 | 1655 | | | 1447 | |
| Queue Service Time (g _s), s | 1.4 | 4.7 | 2.5 | 0.7 | 21.6 | 21.7 | 15.3 | 1.2 | | | 0.8 | |
| Cycle Queue Clearance Time (g _c), s | 23.1 | 4.7 | 2.5 | 5.4 | 21.6 | 21.7 | 17.5 | 1.2 | | | 2.0 | |
| Green Ratio (g/C) | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.22 | 0.22 | | | 0.22 | |
| Capacity (c), veh/h | 225 | 2403 | 1112 | 669 | 1262 | 1257 | 378 | 372 | | | 398 | |
| Volume-to-Capacity Ratio (X) | 0.040 | 0.202 | 0.117 | 0.030 | 0.628 | 0.629 | 0.690 | 0.075 | | | 0.070 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 5.6 | 69.5 | 36.6 | 6.7 | 316.9 | 317.2 | 231.4 | 21 | | | 21.2 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 0.2 | 2.8 | 1.5 | 0.3 | 12.7 | 12.7 | 9.3 | 0.8 | | | 0.8 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | |
| Uniform Delay (d ₁), s/veh | 15.4 | 5.9 | 5.5 | 6.9 | 8.7 | 8.7 | 34.9 | 27.5 | | | 27.9 | |
| Incremental Delay (d ₂), s/veh | 0.3 | 0.2 | 0.2 | 0.1 | 2.4 | 2.4 | 0.8 | 0.0 | | | 0.0 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | |
| Control Delay (d), s/veh | 15.7 | 6.0 | 5.7 | 7.0 | 11.1 | 11.1 | 35.7 | 27.6 | | | 27.9 | |
| Level of Service (LOS) | B | A | A | A | B | B | D | C | | | C | |
| Approach Delay, s/veh / LOS | 6.1 | A | | 11.0 | B | | 35.0 | C | | 27.9 | C | |
| Intersection Delay, s/veh / LOS | 12.7 | | | | | | B | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 1.86 | B | 1.64 | B | 2.29 | B | 2.44 | B |
| Bicycle LOS Score / LOS | 1.00 | A | 1.81 | B | 0.96 | A | 0.53 | A |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | |  |
|---------------------|--------------------|---------------|-------------------|--------------------------|----------|---|
| Agency | ATS | | | Duration, h | 0.250 | |
| Analyst | RLA | Analysis Date | Nov 3, 2022 | Area Type | Other | |
| Jurisdiction | MDT | Time Period | PM Peak With Dev. | PHF | 1.00 | |
| Urban Street | HWY 287 | Analysis Year | 2025 | Analysis Period | 1 > 7:00 | |
| Intersection | Crossroads Parkway | File Name | HWY287PMwith.xus | | | |
| Project Description | MVM | | | | | |

| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|-----|----|-----|----|-----|---|---|----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 5 | 1406 | 197 | 14 | 689 | 14 | 151 | 5 | 7 | 45 | 0 | 5 |

| Signal Information | | | |  | | | | | | | | | | |
|--------------------|-------|-----------------|-----|--|------|-----|-----|-----|-----|-----|---|---|---|---|
| Cycle, s | 90.0 | Reference Phase | 2 | Green | 73.0 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1 | 2 | 3 | 4 |
| Offset, s | 0 | Reference Point | End | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5 | 6 | 7 | 8 |
| Uncoordinated | No | Simult. Gap E/W | On | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | | | |

| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|---------------------------------|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 5.0 | | 6.0 | | 6.0 | | 8.0 |
| Phase Duration, s | | 78.0 | | 78.0 | | 12.0 | | 12.0 |
| Change Period, (Y+R c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 0.0 | | 0.0 | | 3.1 | | 3.1 |
| Queue Clearance Time (g s), s | | | | | | 9.0 | | 5.2 |
| Green Extension Time (g e), s | | 0.0 | | 0.0 | | 0.0 | | 0.1 |
| Phase Call Probability | | | | | | 1.00 | | 1.00 |
| Max Out Probability | | | | | | 1.00 | | 1.00 |

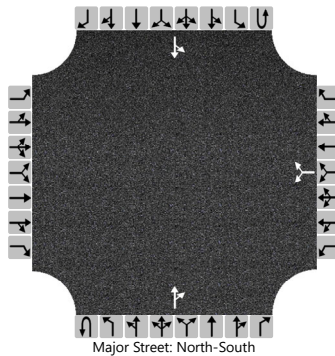
| Movement Group Results | EB | | | WB | | | NB | | | SB | | | | | | | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|----|----|-------|----|-------|--|--|---|--|--|------|--|--|---|--|--|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R | | | | | | | | | | | | |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 | | | | | | | | | | | | |
| Adjusted Flow Rate (v), veh/h | 5 | 1406 | 197 | 14 | 353 | 350 | 151 | 12 | | | 50 | | | | | | | | | | | | | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 786 | 1809 | 1675 | 405 | 1900 | 1886 | 1491 | 1719 | | | 1435 | | | | | | | | | | | | | |
| Queue Service Time (g s), s | 0.1 | 10.8 | 2.3 | 1.0 | 3.9 | 3.9 | 3.8 | 0.6 | | | 2.6 | | | | | | | | | | | | | |
| Cycle Queue Clearance Time (g c), s | 4.0 | 10.8 | 2.3 | 11.8 | 3.9 | 3.9 | 7.0 | 0.6 | | | 3.2 | | | | | | | | | | | | | |
| Green Ratio (g/C) | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.81 | 0.08 | 0.08 | | | 0.08 | | | | | | | | | | | | | |
| Capacity (c), veh/h | 684 | 2934 | 1358 | 360 | 1541 | 1530 | 143 | 134 | | | 188 | | | | | | | | | | | | | |
| Volume-to-Capacity Ratio (X) | 0.007 | 0.479 | 0.145 | 0.039 | 0.229 | 0.229 | 1.053 | 0.090 | | | 0.266 | | | | | | | | | | | | | |
| Back of Queue (Q), ft/ln (95 th percentile) | 0.8 | 92.9 | 19.8 | 3.9 | 38 | 37.8 | 279.1 | 11 | | | 47.2 | | | | | | | | | | | | | |
| Back of Queue (Q), veh/ln (95 th percentile) | 0.0 | 3.7 | 0.8 | 0.2 | 1.5 | 1.5 | 11.2 | 0.4 | | | 1.9 | | | | | | | | | | | | | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | | | | | | | | | | | | | |
| Uniform Delay (d 1), s/veh | 2.4 | 2.6 | 1.8 | 4.4 | 2.0 | 2.0 | 44.2 | 38.5 | | | 39.8 | | | | | | | | | | | | | |
| Incremental Delay (d 2), s/veh | 0.0 | 0.6 | 0.2 | 0.2 | 0.3 | 0.3 | 89.9 | 0.1 | | | 0.3 | | | | | | | | | | | | | |
| Initial Queue Delay (d 3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | | | | | | | | | | | | | |
| Control Delay (d), s/veh | 2.5 | 3.2 | 2.0 | 4.7 | 2.3 | 2.3 | 134.1 | 38.6 | | | 40.1 | | | | | | | | | | | | | |
| Level of Service (LOS) | A | A | A | A | A | A | F | D | | | D | | | | | | | | | | | | | |
| Approach Delay, s/veh / LOS | 3.0 | | | A | | | 2.4 | | | A | | | 127.0 | | | F | | | 40.1 | | | D | | |
| Intersection Delay, s/veh / LOS | 11.5 | | | | | | | | | | | | B | | | | | | | | | | | |

| Multimodal Results | EB | | | WB | | | NB | | | SB | | |
|----------------------------|------|--|---|------|--|---|------|--|---|------|--|---|
| Pedestrian LOS Score / LOS | 1.82 | | B | 1.59 | | B | 2.30 | | B | 2.46 | | B |
| Bicycle LOS Score / LOS | 1.81 | | B | 1.08 | | A | 0.76 | | A | 0.57 | | A |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|-----------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Alpine View | | |
| Analysis Year | 2025 | | | North/South Street | Alice | | |
| Time Analyzed | AM Peak With Dev. | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|----|------------|---|-----|----|------------|----|----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 4 | | 68 | | | 154 | 1 | | 23 | 80 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | | |

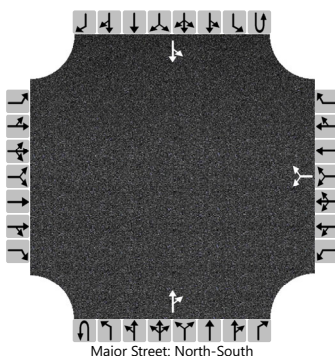
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|--|--|--|--|-----|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 78 | | | | | | | | 25 | | |
| Capacity, c (veh/h) | | | | | | 859 | | | | | | | | 1403 | | |
| v/c Ratio | | | | | | 0.09 | | | | | | | | 0.02 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.3 | | | | | | | | 0.1 | | |
| Control Delay (s/veh) | | | | | | 9.6 | | | | | | | | 7.6 | 0.1 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | 9.6 | | | | | | | | 1.8 | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|-----------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Alpine View | | |
| Analysis Year | 2025 | | | North/South Street | Alice | | |
| Time Analyzed | PM Peak With Dev. | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|----|------------|---|-----|----|------------|----|-----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 3 | | 45 | | | 137 | 5 | | 76 | 137 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | | |

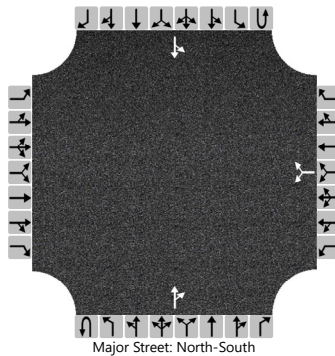
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|--|--|--|--|-----|--|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 52 | | | | | | | | | 83 | | |
| Capacity, c (veh/h) | | | | | | 854 | | | | | | | | | 1420 | | |
| v/c Ratio | | | | | | 0.06 | | | | | | | | | 0.06 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.2 | | | | | | | | | 0.2 | | |
| Control Delay (s/veh) | | | | | | 9.5 | | | | | | | | | 7.7 | 0.5 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | 9.5 | | | | | | | | 3.1 | | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Rankin | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Jeannette Rankin | | |
| Analysis Year | 2025 | | | North/South Street | Alice | | |
| Time Analyzed | AM peak projected | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|----|----|----|------------|---|----|----|------------|----|----|---|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | 12 | | 70 | | | 85 | 18 | | 50 | 33 | |
| Percent Heavy Vehicles (%) | | | | | | 3 | | 3 | | | | | | 3 | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|--|
| Base Critical Headway (sec) | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | | |
| Critical Headway (sec) | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | | |
| Base Follow-Up Headway (sec) | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | | |
| Follow-Up Headway (sec) | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | | |

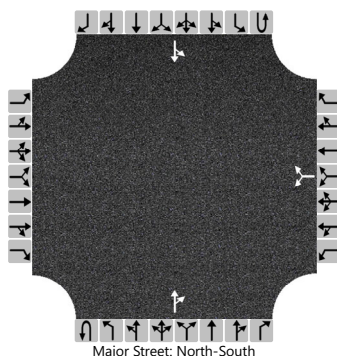
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|------|--|--|--|--|--|--|-----|--|------|-----|--|
| Flow Rate, v (veh/h) | | | | | | 89 | | | | | | | | | 54 | | |
| Capacity, c (veh/h) | | | | | | 906 | | | | | | | | | 1471 | | |
| v/c Ratio | | | | | | 0.10 | | | | | | | | | 0.04 | | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | 0.3 | | | | | | | | | 0.1 | | |
| Control Delay (s/veh) | | | | | | 9.4 | | | | | | | | | 7.5 | 0.3 | |
| Level of Service (LOS) | | | | | | A | | | | | | | | | A | A | |
| Approach Delay (s/veh) | | | | | 9.4 | | | | | | | | 4.7 | | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|------------------|--|--|
| Analyst | RLA | | | Intersection | Alice and Rankin | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Jeannette Rankin | | |
| Analysis Year | 2025 | | | North/South Street | Alice | | |
| Time Analyzed | PM peak projected | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|----|---|------------|---|----|----|------------|----|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | | | | | LR | | | | | TR | | LT | | |
| Volume (veh/h) | | | | | | | 11 | | | | 59 | 9 | | | 79 | 62 |
| Percent Heavy Vehicles (%) | | | | | | | 3 | | | | | | | | 3 | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | 0 | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|------|--|------|--|--|--|--|--|--|------|--|
| Base Critical Headway (sec) | | | | | | | 7.1 | | 6.2 | | | | | | | 4.1 | |
| Critical Headway (sec) | | | | | | | 6.43 | | 6.23 | | | | | | | 4.13 | |
| Base Follow-Up Headway (sec) | | | | | | | 3.5 | | 3.3 | | | | | | | 2.2 | |
| Follow-Up Headway (sec) | | | | | | | 3.53 | | 3.33 | | | | | | | 2.23 | |

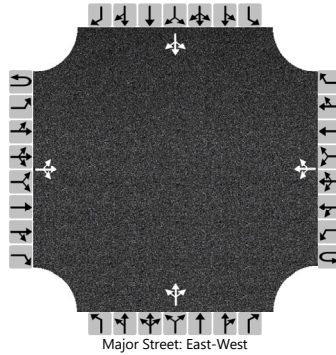
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|-----|--|------|--|--|--|--|--|-----|--|--|------|-----|
| Flow Rate, v (veh/h) | | | | | | | 101 | | | | | | | | | 86 | |
| Capacity, c (veh/h) | | | | | | | 931 | | | | | | | | | 1519 | |
| v/c Ratio | | | | | | | 0.11 | | | | | | | | | 0.06 | |
| 95% Queue Length, Q ₉₅ (veh) | | | | | | | 0.4 | | | | | | | | | 0.2 | |
| Control Delay (s/veh) | | | | | | | 9.3 | | | | | | | | | 7.5 | 0.4 |
| Level of Service (LOS) | | | | | | | A | | | | | | | | | A | A |
| Approach Delay (s/veh) | | | | | 9.3 | | | | | | | | 4.4 | | | | |
| Approach LOS | | | | | A | | | | | | | | A | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|------------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Alpine | | |
| Time Analyzed | AM peak projected | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|---|-----------|---|-----|----|------------|---|-----|----|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 0 | 103 | 5 | | 5 | 21 | 10 | | 5 | 0 | 14 | | 28 | 0 | 0 |
| Percent Heavy Vehicles (%) | | 3 | | | | 3 | | | | 3 | 3 | 3 | | 3 | 3 | 3 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.13 | | | | 4.13 | | | | 7.13 | 6.53 | 6.23 | | 7.13 | 6.53 | 6.23 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | 2.23 | | | | 3.53 | 4.03 | 3.33 | | 3.53 | 4.03 | 3.33 |

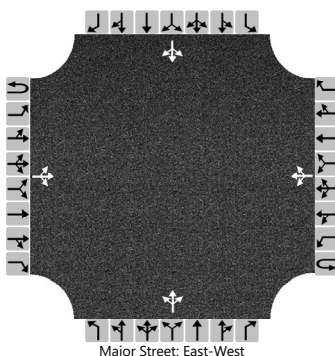
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|------|-----|-----|--|------|-----|-----|--|-----|------|--|--|-----|--|------|
| Flow Rate, v (veh/h) | | 0 | | | | 5 | | | | | 21 | | | | | 30 |
| Capacity, c (veh/h) | | 1571 | | | | 1465 | | | | | 898 | | | | | 786 |
| v/c Ratio | | 0.00 | | | | 0.00 | | | | | 0.02 | | | | | 0.04 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.0 | | | | | 0.1 | | | | | 0.1 |
| Control Delay (s/veh) | | 7.3 | 0.0 | 0.0 | | 7.5 | 0.0 | 0.0 | | | 9.1 | | | | | 9.8 |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | A | | | | | A |
| Approach Delay (s/veh) | | 0.0 | | | | 1.1 | | | | 9.1 | | | | 9.8 | | |
| Approach LOS | | A | | | | A | | | | A | | | | A | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|------------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Alpine View | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Alpine | | |
| Time Analyzed | PM peak projected | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | East-West | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|---|-----|---|-----------|----|-----|----|------------|---|-----|---|------------|----|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Movement | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 | | 7 | 8 | 9 | | 10 | 11 | 12 |
| Priority | | | | | | | | | | | | | | | | |
| Number of Lanes | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | | 0 | 1 | 0 | | 0 | 1 | 0 |
| Configuration | | | LTR | | | | LTR | | | | LTR | | | | LTR | |
| Volume (veh/h) | | 0 | 19 | 9 | | 14 | 77 | 32 | | 5 | 0 | 9 | | 0 | 0 | 18 |
| Percent Heavy Vehicles (%) | | 3 | | | | 3 | | | | 3 | 3 | 3 | | 3 | 3 | 3 |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | | | | | | | | | 0 | | | | 0 | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|--|--|------|--|--|--|------|------|------|--|------|------|------|
| Base Critical Headway (sec) | | 4.1 | | | | 4.1 | | | | 7.1 | 6.5 | 6.2 | | 7.1 | 6.5 | 6.2 |
| Critical Headway (sec) | | 4.13 | | | | 4.13 | | | | 7.13 | 6.53 | 6.23 | | 7.13 | 6.53 | 6.23 |
| Base Follow-Up Headway (sec) | | 2.2 | | | | 2.2 | | | | 3.5 | 4.0 | 3.3 | | 3.5 | 4.0 | 3.3 |
| Follow-Up Headway (sec) | | 2.23 | | | | 2.23 | | | | 3.53 | 4.03 | 3.33 | | 3.53 | 4.03 | 3.33 |

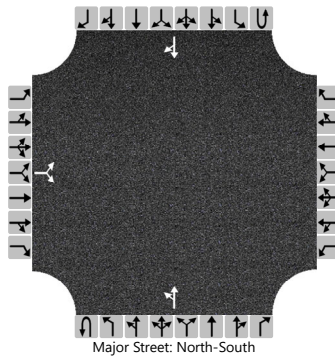
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|--|------|-----|-----|--|------|-----|-----|--|-----|------|--|--|-----|--|------|
| Flow Rate, v (veh/h) | | 0 | | | | 15 | | | | | 15 | | | | | 20 |
| Capacity, c (veh/h) | | 1463 | | | | 1576 | | | | | 928 | | | | | 951 |
| v/c Ratio | | 0.00 | | | | 0.01 | | | | | 0.02 | | | | | 0.02 |
| 95% Queue Length, Q ₉₅ (veh) | | 0.0 | | | | 0.0 | | | | | 0.0 | | | | | 0.1 |
| Control Delay (s/veh) | | 7.5 | 0.0 | 0.0 | | 7.3 | 0.1 | 0.1 | | | 8.9 | | | | | 8.9 |
| Level of Service (LOS) | | A | A | A | | A | A | A | | | A | | | | | A |
| Approach Delay (s/veh) | | 0.0 | | | | 0.9 | | | | 8.9 | | | | 8.9 | | |
| Approach LOS | | A | | | | A | | | | A | | | | A | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|--------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Hwy 282 | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Hwy 282 | | |
| Time Analyzed | AM peak projected | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 58 | | 86 | | | | | | 12 | 104 | | | | 209 | 18 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

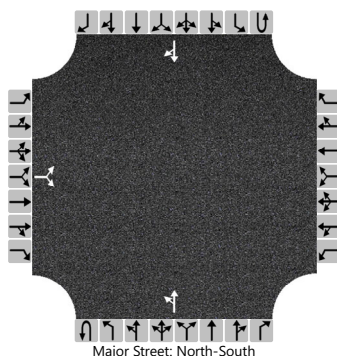
Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|--|------|--|--|--|--|--|-----|------|-----|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 157 | | | | | | | 13 | | | | | | |
| Capacity, c (veh/h) | | | 714 | | | | | | | 1313 | | | | | | |
| v/c Ratio | | | 0.22 | | | | | | | 0.01 | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.8 | | | | | | | 0.0 | | | | | | |
| Control Delay (s/veh) | | | 11.4 | | | | | | | 7.8 | 0.1 | | | | | |
| Level of Service (LOS) | | | B | | | | | | | A | A | | | | | |
| Approach Delay (s/veh) | 11.4 | | | | | | | | 0.9 | | | | | | | |
| Approach LOS | B | | | | | | | | A | | | | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|-------------------|--|--|----------------------------|--------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Hwy 282 | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Hwy 282 | | |
| Time Analyzed | PM peak projected | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |

Lanes



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|----|-----------|---|---|---|------------|----|-----|---|------------|---|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 13 | | 47 | | | | | | 95 | 191 | | | | 32 | 28 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|-----|--|------|--|--|--|--|--|-----|------|-----|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 65 | | | | | | | 103 | | | | | | |
| Capacity, c (veh/h) | | | 837 | | | | | | | 1530 | | | | | | |
| v/c Ratio | | | 0.08 | | | | | | | 0.07 | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.3 | | | | | | | 0.2 | | | | | | |
| Control Delay (s/veh) | | | 9.7 | | | | | | | 7.5 | 0.6 | | | | | |
| Level of Service (LOS) | | | A | | | | | | | A | A | | | | | |
| Approach Delay (s/veh) | 9.7 | | | | | | | | 2.9 | | | | | | | |
| Approach LOS | A | | | | | | | | A | | | | | | | |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | | |
|---------------------|--------------------|---------------|--------------------|--------------------------|----------|--|
| Agency | ATS | | | Duration, h | 0.250 | |
| Analyst | RLA | Analysis Date | Nov 3, 2022 | Area Type | Other | |
| Jurisdiction | MDT | Time Period | AM Peak With Dev. | PHF | 1.00 | |
| Urban Street | HWY 287 | Analysis Year | DOUBLE 2025 | Analysis Period | 1 > 7:00 | |
| Intersection | Crossroads Parkway | File Name | HWY287AMwith2x.xus | | | |
| Project Description | MVM | | | | | |

| Demand Information | EB | | | WB | | | NB | | | SB | | |
|-----------------------|----|-----|-----|----|------|----|-----|----|----|----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 9 | 485 | 260 | 40 | 1565 | 18 | 520 | 10 | 50 | 23 | 0 | 5 |

| Signal Information | | | | | | | | | | | | |
|--------------------|-------|-----------------|------|------|-----|-----|-----|-----|--|--|--|--|
| Cycle, s | 90.0 | Reference Phase | 2 | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | No | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| | | Green | 49.0 | 31.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

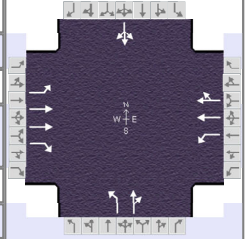
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|-----------------------------------|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 5.0 | | 6.0 | | 6.0 | | 8.0 |
| Phase Duration, s | | 54.0 | | 54.0 | | 36.0 | | 36.0 |
| Change Period, ($Y+R_c$), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 0.0 | | 0.0 | | 3.1 | | 3.1 |
| Queue Clearance Time (g_s), s | | | | | | 33.0 | | 4.8 |
| Green Extension Time (g_e), s | | 0.0 | | 0.0 | | 0.0 | | 1.2 |
| Phase Call Probability | | | | | | 1.00 | | 1.00 |
| Max Out Probability | | | | | | 1.00 | | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|----|------|-------|----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 9 | 485 | 260 | 40 | 792 | 791 | 520 | 60 | | | 28 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 341 | 1809 | 1675 | 962 | 1900 | 1892 | 1491 | 1652 | | | 1381 | |
| Queue Service Time (g_s), s | 1.9 | 6.3 | 7.5 | 2.1 | 29.3 | 29.4 | 28.2 | 2.2 | | | 0.6 | |
| Cycle Queue Clearance Time (g_c), s | 31.3 | 6.3 | 7.5 | 8.4 | 29.3 | 29.4 | 31.0 | 2.2 | | | 2.8 | |
| Green Ratio (g/C) | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 0.34 | 0.34 | | | 0.34 | |
| Capacity (c), veh/h | 154 | 1970 | 912 | 536 | 1034 | 1030 | 546 | 569 | | | 548 | |
| Volume-to-Capacity Ratio (X) | 0.058 | 0.246 | 0.285 | 0.075 | 0.766 | 0.767 | 0.952 | 0.105 | | | 0.051 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 8.2 | 107.9 | 123.4 | 20.7 | 466.9 | 466.3 | 542 | 37.4 | | | 17.7 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 0.3 | 4.3 | 4.9 | 0.8 | 18.7 | 18.7 | 21.7 | 1.5 | | | 0.7 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | |
| Uniform Delay (d_1), s/veh | 28.3 | 10.8 | 11.1 | 13.0 | 16.0 | 16.0 | 32.4 | 20.1 | | | 20.3 | |
| Incremental Delay (d_2), s/veh | 0.7 | 0.3 | 0.8 | 0.3 | 5.4 | 5.5 | 26.6 | 0.0 | | | 0.0 | |
| Initial Queue Delay (d_3), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | |
| Control Delay (d), s/veh | 29.0 | 11.1 | 11.8 | 13.3 | 21.4 | 21.5 | 58.9 | 20.1 | | | 20.3 | |
| Level of Service (LOS) | C | B | B | B | C | C | E | C | | | C | |
| Approach Delay, s/veh / LOS | 11.6 | B | | 21.3 | C | | 54.9 | D | | 20.3 | C | |
| Intersection Delay, s/veh / LOS | 25.3 | | | | | | C | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 1.89 | B | 1.66 | B | 2.28 | B | 2.43 | B |
| Bicycle LOS Score / LOS | 1.11 | A | 1.83 | B | 1.44 | A | 0.53 | A |

HCS Signalized Intersection Results Summary

| General Information | | | | Intersection Information | |
|---------------------|--------------------|---------------|--------------------|--------------------------|----------|
| Agency | ATS | | | Duration, h | 0.250 |
| Analyst | RLA | Analysis Date | Nov 3, 2022 | Area Type | Other |
| Jurisdiction | MDT | Time Period | PM Peak With Dev. | PHF | 1.00 |
| Urban Street | HWY 287 | Analysis Year | DOUBLE 2025 | Analysis Period | 1 > 7:00 |
| Intersection | Crossroads Parkway | File Name | HWY287PMwith2x.xus | | |
| Project Description | MVM | | | | |



| Demand Information | EB | | | WB | | | NB | | | SB | | |
|---------------------|----|------|-----|----|-----|----|-----|----|----|----|---|---|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Demand (v), veh/h | 5 | 1406 | 400 | 30 | 689 | 14 | 300 | 10 | 15 | 45 | 0 | 5 |

| Signal Information | | | | | | | | | | | | |
|--------------------|-------|-----------------|------|------|-----|-----|-----|-----|--|--|--|--|
| Cycle, s | 90.0 | Reference Phase | 2 | | | | | | | | | |
| Offset, s | 0 | Reference Point | End | | | | | | | | | |
| Uncoordinated | No | Simult. Gap E/W | On | | | | | | | | | |
| Force Mode | Fixed | Simult. Gap N/S | On | | | | | | | | | |
| | | Green | 59.0 | 21.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Yellow | 4.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |
| | | Red | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | | |

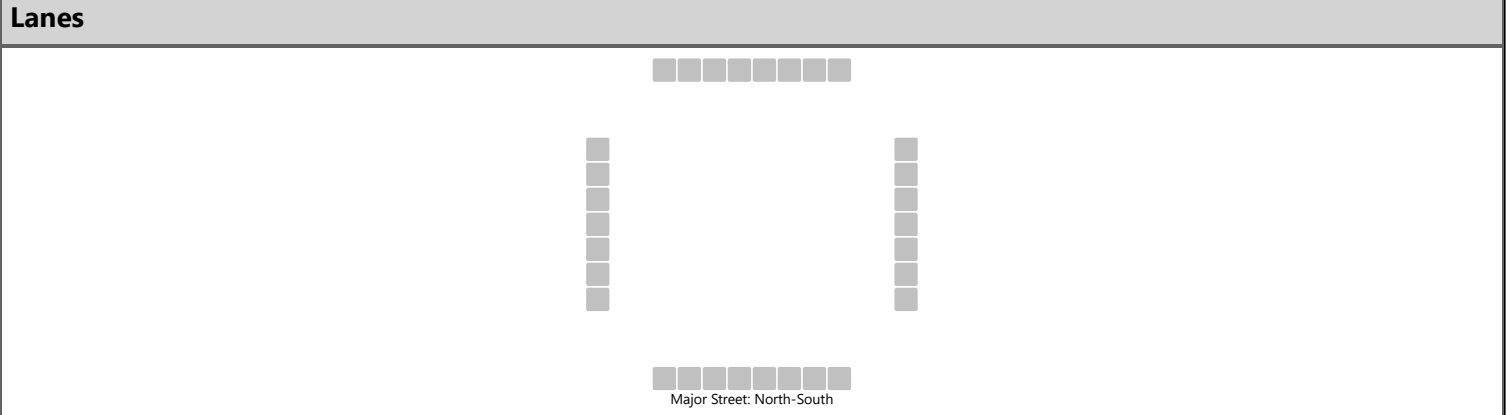
| Timer Results | EBL | EBT | WBL | WBT | NBL | NBT | SBL | SBT |
|--|-----|------|-----|------|-----|------|-----|------|
| Assigned Phase | | 2 | | 6 | | 8 | | 4 |
| Case Number | | 5.0 | | 6.0 | | 6.0 | | 8.0 |
| Phase Duration, s | | 64.0 | | 64.0 | | 26.0 | | 26.0 |
| Change Period, (Y+R _c), s | | 5.0 | | 5.0 | | 5.0 | | 5.0 |
| Max Allow Headway (MAH), s | | 0.0 | | 0.0 | | 3.1 | | 3.1 |
| Queue Clearance Time (g _s), s | | | | | | 23.0 | | 5.2 |
| Green Extension Time (g _e), s | | 0.0 | | 0.0 | | 0.0 | | 0.6 |
| Phase Call Probability | | | | | | 1.00 | | 1.00 |
| Max Out Probability | | | | | | 1.00 | | 0.00 |

| Movement Group Results | EB | | | WB | | | NB | | | SB | | |
|--|-------|-------|-------|-------|-------|-------|-------|-------|----|------|-------|----|
| Approach Movement | L | T | R | L | T | R | L | T | R | L | T | R |
| Assigned Movement | 5 | 2 | 12 | 1 | 6 | 16 | 3 | 8 | 18 | 7 | 4 | 14 |
| Adjusted Flow Rate (v), veh/h | 5 | 1406 | 400 | 30 | 353 | 350 | 300 | 25 | | | 50 | |
| Adjusted Saturation Flow Rate (s), veh/h/ln | 786 | 1809 | 1675 | 405 | 1900 | 1886 | 1491 | 1715 | | | 1431 | |
| Queue Service Time (g _s), s | 0.2 | 19.7 | 9.7 | 4.1 | 7.1 | 7.1 | 17.8 | 1.0 | | | 2.1 | |
| Cycle Queue Clearance Time (g _c), s | 7.3 | 19.7 | 9.7 | 23.8 | 7.1 | 7.1 | 21.0 | 1.0 | | | 3.2 | |
| Green Ratio (g/C) | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 | 0.23 | 0.23 | | | 0.23 | |
| Capacity (c), veh/h | 534 | 2372 | 1098 | 257 | 1246 | 1237 | 375 | 400 | | | 410 | |
| Volume-to-Capacity Ratio (X) | 0.009 | 0.593 | 0.364 | 0.117 | 0.283 | 0.283 | 0.799 | 0.062 | | | 0.122 | |
| Back of Queue (Q), ft/ln (95 th percentile) | 1.9 | 272.6 | 142.9 | 19 | 116 | 115.3 | 299.1 | 18.4 | | | 38.1 | |
| Back of Queue (Q), veh/ln (95 th percentile) | 0.1 | 10.9 | 5.7 | 0.8 | 4.6 | 4.6 | 12.0 | 0.7 | | | 1.5 | |
| Queue Storage Ratio (RQ) (95 th percentile) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 | |
| Uniform Delay (d ₁), s/veh | 8.1 | 8.7 | 7.0 | 15.4 | 6.6 | 6.6 | 36.2 | 26.8 | | | 27.9 | |
| Incremental Delay (d ₂), s/veh | 0.0 | 1.1 | 0.9 | 0.9 | 0.6 | 0.6 | 10.7 | 0.0 | | | 0.0 | |
| Initial Queue Delay (d ₃), s/veh | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | |
| Control Delay (d), s/veh | 8.1 | 9.8 | 8.0 | 16.4 | 7.1 | 7.1 | 47.0 | 26.9 | | | 27.9 | |
| Level of Service (LOS) | A | A | A | B | A | A | D | C | | | C | |
| Approach Delay, s/veh / LOS | 9.4 | A | | 7.5 | A | | 45.4 | D | | 27.9 | C | |
| Intersection Delay, s/veh / LOS | 13.3 | | | | | | B | | | | | |

| Multimodal Results | EB | | WB | | NB | | SB | |
|----------------------------|------|---|------|---|------|---|------|---|
| Pedestrian LOS Score / LOS | 1.86 | B | 1.64 | B | 2.29 | B | 2.44 | B |
| Bicycle LOS Score / LOS | 1.98 | B | 1.09 | A | 1.02 | A | 0.57 | A |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|---------------------|--|--|----------------------------|--------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Hwy 282 | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Hwy 282 | | |
| Time Analyzed | AM DOUBLE projected | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|-----|----|-----|-----------|---|---|---|------------|----|-----|---|------------|---|-----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 120 | | 170 | | | | | | 24 | 104 | | | | 209 | 40 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

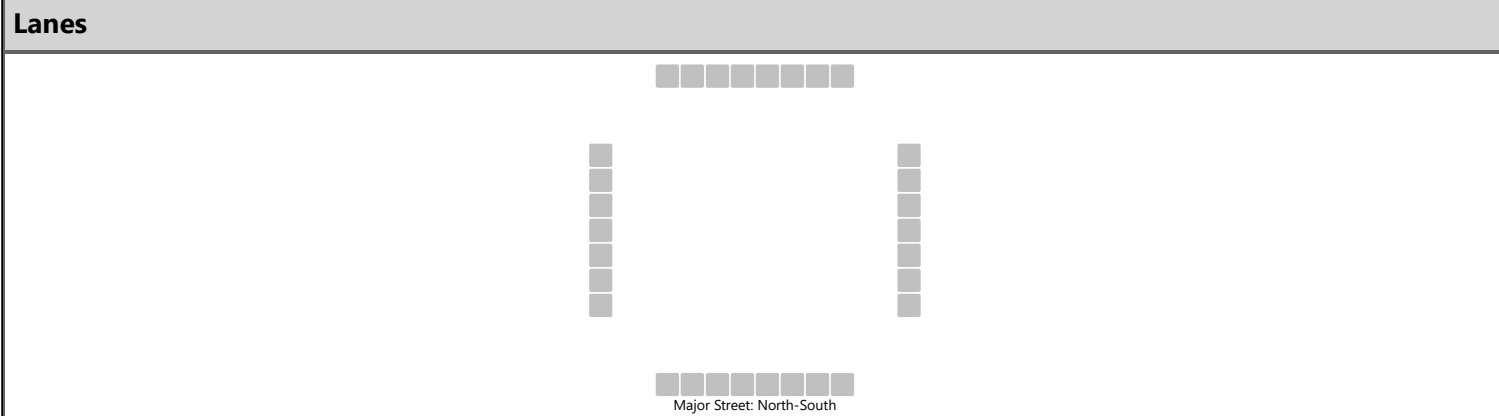
| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|--|------|--|--|--|--|--|-----|------|-----|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 315 | | | | | | | 26 | | | | | | |
| Capacity, c (veh/h) | | | 686 | | | | | | | 1287 | | | | | | |
| v/c Ratio | | | 0.46 | | | | | | | 0.02 | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 2.4 | | | | | | | 0.1 | | | | | | |
| Control Delay (s/veh) | | | 14.6 | | | | | | | 7.9 | 0.2 | | | | | |
| Level of Service (LOS) | | | B | | | | | | | A | A | | | | | |
| Approach Delay (s/veh) | 14.6 | | | | | | | | 1.6 | | | | | | | |
| Approach LOS | B | | | | | | | | A | | | | | | | |

HCS Two-Way Stop-Control Report

| General Information | | | | Site Information | | | |
|--------------------------|---------------------|--|--|----------------------------|--------------------|--|--|
| Analyst | RLA | | | Intersection | Rundle and Hwy 282 | | |
| Agency/Co. | ATS | | | Jurisdiction | Lewis and Clark | | |
| Date Performed | 8/2/2022 | | | East/West Street | Rundle | | |
| Analysis Year | 2025 | | | North/South Street | Hwy 282 | | |
| Time Analyzed | PM DOUBLE projected | | | Peak Hour Factor | 0.92 | | |
| Intersection Orientation | North-South | | | Analysis Time Period (hrs) | 0.25 | | |
| Project Description | Mountain View | | | | | | |



Vehicle Volumes and Adjustments

| Approach | Eastbound | | | | Westbound | | | | Northbound | | | | Southbound | | | |
|----------------------------|-----------|----|----|-----|-----------|---|---|---|------------|-----|-----|---|------------|---|----|----|
| | U | L | T | R | U | L | T | R | U | L | T | R | U | L | T | R |
| Priority | | 10 | 11 | 12 | | 7 | 8 | 9 | 1U | 1 | 2 | 3 | 4U | 4 | 5 | 6 |
| Number of Lanes | | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| Configuration | | | LR | | | | | | | LT | | | | | | TR |
| Volume (veh/h) | | 26 | | 100 | | | | | | 200 | 191 | | | | 32 | 60 |
| Percent Heavy Vehicles (%) | | 3 | | 3 | | | | | | 3 | | | | | | |
| Proportion Time Blocked | | | | | | | | | | | | | | | | |
| Percent Grade (%) | 0 | | | | | | | | | | | | | | | |
| Right Turn Channelized | | | | | | | | | | | | | | | | |
| Median Type Storage | Undivided | | | | | | | | | | | | | | | |

Critical and Follow-up Headways

| | | | | | | | | | | | | | | | | |
|------------------------------|--|------|--|------|--|--|--|--|--|------|--|--|--|--|--|--|
| Base Critical Headway (sec) | | 7.1 | | 6.2 | | | | | | 4.1 | | | | | | |
| Critical Headway (sec) | | 6.43 | | 6.23 | | | | | | 4.13 | | | | | | |
| Base Follow-Up Headway (sec) | | 3.5 | | 3.3 | | | | | | 2.2 | | | | | | |
| Follow-Up Headway (sec) | | 3.53 | | 3.33 | | | | | | 2.23 | | | | | | |

Delay, Queue Length, and Level of Service

| | | | | | | | | | | | | | | | | |
|---|------|--|------|--|--|--|--|--|-----|------|-----|--|--|--|--|--|
| Flow Rate, v (veh/h) | | | 137 | | | | | | | 217 | | | | | | |
| Capacity, c (veh/h) | | | 705 | | | | | | | 1486 | | | | | | |
| v/c Ratio | | | 0.19 | | | | | | | 0.15 | | | | | | |
| 95% Queue Length, Q ₉₅ (veh) | | | 0.7 | | | | | | | 0.5 | | | | | | |
| Control Delay (s/veh) | | | 11.3 | | | | | | | 7.8 | 1.3 | | | | | |
| Level of Service (LOS) | | | B | | | | | | | A | A | | | | | |
| Approach Delay (s/veh) | 11.3 | | | | | | | | 4.6 | | | | | | | |
| Approach LOS | B | | | | | | | | A | | | | | | | |