Dayton Intersection Inventory and Safety Assessment

Report Summary of the Intersection Inventory and Safety Assessment in Dayton, Minnesota

June 12, 2024

Prepared for:

The City of Dayton

Prepared by:

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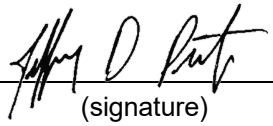
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1.0 INTRODUCTION

1.1 BACKGROUND AND PURPOSE

The City of Dayton (the city) proposed creating a city-wide intersection inventory for assessing and evaluating the safety of intersections within Dayton. This inventory and assessment will aid in the development of the city's Capital Improvement Plan (CIP), the coordination of intersection improvements with other jurisdictions such as Hennepin County (the County) and surrounding cities, and the preparation for future funding and grant opportunities intended for intersection improvements. The intersections included in the inventory are evaluated based on metrics like safety and geometry which allow the city to prioritize intersections for funding opportunities or project development.

This report summarizes the methodology and results of the inventory and assessment and is included as a supplement to the Excel spreadsheet of the intersection inventory, which contains the collected data and analysis results, and the map of intersections inventoried and those chosen for analysis.

1.2 CONTACT INFORMATION

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2.0 METHODOLOGY

2.1 IDENTIFICATION AND SELECTION

Public roadway intersections within Dayton were reviewed and 30 were selected to include in the inventory and initial screening stage. These intersections were identified and selected using the following criteria:

- Intersections between two roadways functionally classified as arterial or collector.
    - Arterial intersecting with arterial
    - Arterial intersecting with collector
    - Collector intersecting with collector
- Intersections between arterial/collector roadways with local streets where the minor leg annual average daily traffic (AADT) is higher than 500 vehicles per day. Local streets with AADT lower than the indicated threshold were included based on city recommendations.
- Intersections of local streets were based on city recommendation due to safety concerns.

The 30 intersections selected for the inventory and initial screening are shown in Figure 1.

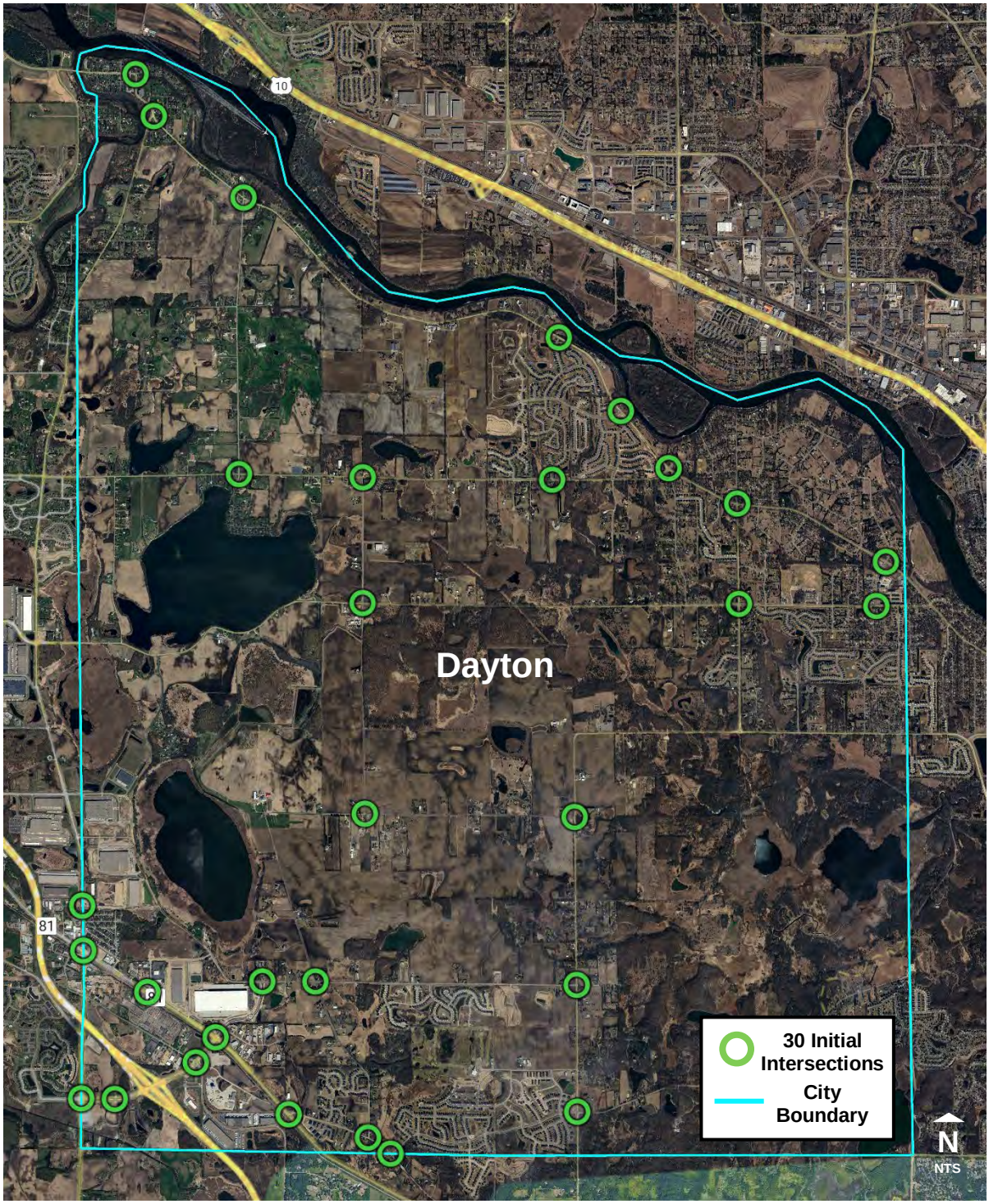


Figure 1 – Intersections for Inventory and Initial Screening

2.2 DATA COLLECTION

Data for the 30 selected intersections was collected through a combination of desktop and supplemental field reviews for subsequent screening and analysis. The data collected is compiled and shown in the final spreadsheet. Data and collection methodologies included the following:

- Intersection jurisdiction – Obtained from Enterprise MnDOT Mapping Application (EMMA).
- Functional classification – Obtained from EMMA.
- Urban or rural environment – Determined from land use context using aerial imagery.
- AADT – Obtained from MnDOT's Traffic Mapping Application (TMA) whenever available for the specified year. Unavailable AADT was estimated using daily volumes collected by Quality Counts on Thursday, November 16, 2023 at 16 locations. This count data is shown in Appendix A. At the remaining locations with unavailable AADT, the daily volume was estimated using Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition and determining the land uses with aerial imagery. Details are shown in the final spreadsheet.

  The AADT cross product was calculated by multiplying the averages of the major intersection legs with the averages of the minor legs.
- Intersection configuration, lane designations, and division – Obtained by aerial imagery, Google Street View, or available construction plans. Basic intersection layouts for the 30 intersections were generated and are shown in Appendix B.
- Traffic control – Obtained by aerial imagery, Google Street View, or available construction plans.
- Posted speed limit – Obtained by Google Street View or available construction plans.
- Existing and future active transportation facilities, number of lanes crossed by pedestrians – Existing facilities and number of lanes obtained by aerial imagery, Google Street View, or available construction plans. Number of lanes includes paved lane-equivalent widths. Future facilities determined from Chapter 7 of the city's comprehensive plan.
- Crash data and annual cost – Obtained from the Minnesota Crash Mapping Analysis Tool (MnCMAT2). Crash data included the latest five-years of crash data available at the time obtained from 2018 through 2022. Crash summaries if available are shown in Appendix C. Crashes near the intersection were examined to determine their relation to the intersection and were categorized by KABCO severity described below and by types if attributable to the intersection. Annual crash cost was calculated using MnDOT average values by KABCO severity and is expressed in 2024 dollars.
  - K – Fatal injury
  - A – Serious injury
  - B – Minor injury
  - C – Possible injury
  - O – Property damage only

- Geometric characteristics – Obtained by aerial imagery, Google Street View, or available construction plans.
    - Skew of road approaches – Zero degrees means approaches are perpendicular.
    - Horizontal and vertical curvature.
    - Sight obstructions.
    - Proximity to nearest accesses and adjacent development – Qualified as development if more than two accesses are within 250 feet of the intersection.
    - Railroad crossings within 250' of intersections.
    - Distance from previous stop condition – Determined if the stop condition is five miles away or greater on the major approach.
- Additional notes and considerations from the city or the public discussed during the intersection identification.

2.3 INTERSECTION PRIORITIZATION

The 30 intersections inventoried were screened to determine a top ten priority for further detailed analysis. Thresholds were developed based on 15 categories from the collected data. If the data for a particular intersection exceeded the threshold for that category, it indicated the intersection likely has a higher crash risk relative to the other intersections. A 'star' was given to the intersection for each category where the threshold was exceeded. Intersections were then sorted and screened by number of stars to find the ten intersections with the highest number, which were then chosen for further analysis. The screenings are shown in the final spreadsheet and summarized in Section 3.0. The categories and thresholds chosen for the screenings are as follows:

- AADT cross product – 5,000,000 or greater.
- Posted speed limit – 55 mph or greater on any leg.
- Existing active transportation facilities – Pedestrian/bicycle activity expected, and existing crossing has elements that are unsafe or substandard based on Chapter 13 of the MnDOT Traffic Engineering Manual (TEM) or engineering judgement.
- Future active transportation facilities – Proposed facilities are expected.
- Number of lanes crossed by pedestrians – Four or more lanes or lane equivalents on any leg.
- Crash severity – At least one K or A crash occurred in the past five years.
- Crash type – At least one intersection or pedestrian/bicycle related crash in the past five years.
- Skew – Ten degrees or greater.
- Horizontal or vertical curvature – Intersection is within a curve.



- Sight obstructions – Any permanent sight obstructions are present (i.e. excludes vegetation or signage but includes embankments or buildings).
- Nearest access – Within 100 feet or less.
- Railroad crossing – Within 250 feet or less.
- Previous stop condition – Five miles away or greater on major legs in any direction. Stop condition can be stop sign, yield sign, signal control, or roundabout.
- Adjacent development – Is present. Qualifies as more than two accesses within 250 feet).
- General staff or public concerns – Any concerns that were expressed.

2.4 INTERSECTION ANALYSIS

Detailed analyses were conducted on the ten intersections selected from the prioritization process. This included safety analysis, warrant analysis, and operational/capacity analysis. All analyses were conducted in accordance with widely accepted national and state methodologies. Analysis results are shown in the final spreadsheet and summarized in Section 4.0.

2.4.1 Additional Volume Data

Additional volume data was collected and examined for each of the detailed analyses, including intersection turning movement counts (TMC), seasonal adjustments, and volume forecasts. TMCs were collected for 13 hours by Quality Counts on Thursday, January 18, 2024, at the ten intersections. Heavy vehicles, bicycles, and pedestrians were also included in the TMCs whenever they were present. This count data is shown in Appendix A. From the TMCs, the AM and PM peak hour intersection volumes were determined for each intersection.

Since the TMCs were collected in January, the volumes were adjusted to reflect average traffic conditions within the year. A seasonal adjustment factor was determined by examining 2023 MnDOT automatic traffic recorder (ATR) data local to Dayton. The ATRs selected include ATR 352 on US 10 in Ramsey, ATR 10398 on I-94 in Rogers, and ATR 70413 on MN 610 in Maple Grove. The average of the ATRs indicate that April and November most closely represent average volume conditions and that an adjustment factor of 1.23 should be applied to January volumes.

Twenty-year forecasts were developed to understand the impacts of volume growth in the analyses and to ensure improvements can operate under future conditions. A growth factor was calculated by inputting historic AADT data from MnDOT's Traffic Mapping Application (TMA) from eleven locations within Dayton near the ten study intersections into the Minnesota Equivalent Single Axle Load (MnESAL) Traffic Forecasting Tool. The averages of certain data points were chosen, and two annual growth rates and 20-year factors were calculated: 1.37% per year or a 20-year factor of 1.31 was used for intersections near Dayton River Road, and 1.70% per year or a 20-year factor of 1.40 for intersections near CSAH 81. Detailed seasonal adjustment and forecast calculations are shown in Appendix D.



2.4.2 Safety Analysis

The first stage of the safety analysis was to calculate the five-year crash rates for the ten intersections using the crash data described in Section 2.2. Crashes and other data were input into the MnDOT 2018-2022 Intersection Toolkit, which calculates the total crash rate and fatal/serious injury rate (FAR rate) and compares them to statewide and critical crash rates. The critical crash rate is an indication of the statistical significance of the intersection crash rate, and observed crash rate above the critical rate may indicate the need for safety improvements. The critical index (CI) is the ratio between the observed and critical crash rates, where greater than 1.00 means the observed rate is higher than the critical rate.

Additionally, crash prediction analysis was conducted using the Interactive Highway Safety Design Model (IHSDM) software developed by the Federal Highway Administration (FHWA) to supplement collected crash data (i.e. if there were very few crashes recorded in the last five years) and even out any statistical anomalies. The prediction analysis calculated crashes by severity and type over a 20-year period and yielded both a 'predicted' and 'expected' number of crashes annually, which were input into the MnDOT Toolkit. The expected number of crashes considers the latest crash data, while the predicted number is calculated independently of crash data. Typically, the expected number of crashes provides the best representation of crash risk, however the predicted number may be useful for recently constructed intersections or those with significant changes that occurred less than five years ago. The inputs of IHSDM include many of the geometric, volume, and crash data categories listed in Section 2.2.

The second stage of the safety analysis was to calculate the crash reduction after implementing potential intersection improvements using a combination of methods: applying crash modification factors (CMF) and Proven Safety Countermeasures (PSC) to the annual crash rates and modifying the IHSDM models to run the crash prediction analysis on the improvements. CMFs and PSCs are obtained from the FHWA and are multiplicative factors used to calculate the anticipated number of crashes after an improvement is implemented. CMFs may modify all crashes at the intersection, or only certain types and severities. Crash rate calculations, IHSDM outputs, and CMFs used in the safety analysis are shown in Appendix E.

2.4.3 Warrant Analysis

The warrant analysis included examining traffic signal warrants and multiway stop warrants from the Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD) using the 13-hour TMC data. The following nine signal warrants and four multiway stop warrants were examined:

- Signal Warrant 1 – Eight-Hour Volume
- Signal Warrant 2 – Four-Hour Volume
- Signal Warrant 3 – Peak Hour Volume
- Signal Warrant 4 – Pedestrian Volume
- Signal Warrant 5 – School Crossing
- Signal Warrant 6 – Coordinated Signals
- Signal Warrant 7 – Crash Experience
- Signal Warrant 8 – Roadway Network
- Signal Warrant 9 – Near Railroad Crossing

- Multiway Stop Warrant A – Traffic Signal Warrant (Temporary Use)
- Multiway Stop Warrant B – Crash Experience
- Multiway Stop Warrant C – Intersection Volume & Delay

- Multiway Stop Warrant D – Combination Volume, Crash Experience, & Delay

If one of the warrants listed are met, then that control can be considered as an improvement. While there are no nationally recognized roundabout warrants, MnDOT generally considers roundabouts to be warranted if either a signal warrant or multiway stop warrant is met. Detailed descriptions of the thresholds for each warrant and the results for each intersection are shown in Appendix F.

2.4.4 Capacity/Operational Analysis

The first stage of the capacity analysis included examining existing conditions at each intersection. Capacity analysis results identify a level of service (LOS) using letters A through F, which represents the quality at which traffic is being served. LOS at an intersection is based on average delay per vehicle. LOS D is a common goal for urban roadways during peak hours, however LOS E may be considered acceptable if it results from prioritizing capacity of the major through movements. A summary of the LOS thresholds from the Highway Capacity Manual (HCM) is shown in Table 1.

Table 1 – Highway Capacity Manual Levels of Service and Control Delay

Signalized Intersection		Unsignalized Intersection	
LOS	**Delay per Vehicle (sec)**	**LOS**	**Delay per Vehicle (sec)**
A	≤ 10	A	≤ 10
B	> 10 and ≤ 20	B	> 10 and ≤ 15
C	> 20 and ≤ 35	C	> 15 and ≤ 25
D	> 35 and ≤ 55	D	> 25 and ≤ 35
E	> 55 and ≤ 80	E	> 35 and ≤ 50
F	> 80	F	> 50

Capacity analysis of the existing conditions was performed using Synchro software and included delay, LOS, and 95th percentile queue lengths from the HCM results. Where HCM queue results were not available or required validation based on engineering judgement, SimTraffic was used to simulate queues and report the result for the average of five runs. The analysis examined existing AM and PM peak hour volumes (2024), which were seasonally adjusted, and 20-year forecast volumes (2044).

The second stage of the capacity analysis was to examine the intersections after implementing potential improvements. Similar metrics, methodology, and volumes were used for analyzing the improvements as with the existing conditions, however alternatives involving roundabouts were analyzed using Rodel software. Synchro and Rodel outputs are shown in Appendix G.



2.5 IMPROVEMENT RECOMMENDATION

The results from the detailed analysis of the ten priority intersections were used to identify improvements to address safety and operational deficiencies. Proposed improvements accounted for the needs of all road users including vehicles, bicycles, and pedestrians and may be classified as an interim, minor, or significant improvement as defined below:

- Short-term improvements – Projects to address immediate safety and operational concerns or those that are lower-cost and easy to implement.
- Mid-term improvements/Improvements considered with other projects – Projects to address safety and operational concerns viable in the near future or those that should be considered with other road or land development projects involving or adjacent to the intersection.
- Long-term improvements – Projects to address safety and operational concerns expected if volume growth follows forecasted projections or those that are lower in priority.

2.5.1 Benefit Cost Analysis

Budgeting-level cost estimates for each improvement and preliminary layouts showing geometric changes were generated and are shown Appendix H. Additionally, the crash reduction and operational benefits of each improvement were monetized and quantified using factors from MnDOT's 'Benefit-Cost Analysis for Transportation Projects' guidance. These benefits were compared to the cost of the improvement to calculate a benefit/cost (B/C) ratio and provide justification for implementing the improvement and comparison to other improvements. Detailed B/C calculations are shown in Appendix I.

The following assumptions were used for generating and monetizing benefits in the B/C analysis:

- Twenty-year analysis period from 2025 through 2044, assuming single year construction in 2024.
- Discount rate of 0.8%
- Operational benefits in the form of travel time savings
    - Peak hour vehicle hours traveled (VHT) from SimTraffic, an average of five runs, extrapolated to get daily benefits using a peak hour-to-daily factor calculated from TMC data and AADT. Annual VHT between 2025 and 2044 interpolated using growth rate.
    - VHT converted to person-hours using MnDOT occupancy rate of 1.30 for passenger cars (Seven County Metro Area) and 1.00 for heavy vehicles. Percent heavy vehicles from TMC data. Travel time savings calculated using a passenger car occupants value of $23.90/hour and heavy vehicle occupants value of $37.60/hour from the MnDOT benefit-cost analysis guidance.
- Safety benefits in the form of crash cost savings
    - Expected crash reduction using crash data and CMFs or IHSDM models extrapolated over the year to obtain annual reduction. Crashes increased with vehicular growth rate.

    - Crash cost savings calculated by expected crash reduction multiplied with MnDOT crash costs by KABCO severity.

- Initial capital costs and remaining capital value
    - Initial capital costs are construction cost estimates occurring in 2024.
    - Remaining capital values are a portion of the initial capital costs which can be deducted from costs assuming the useful lives of construction elements are greater than the 20-year analysis period. Remaining capital value is calculated using MnDOT factors directly applied to certain elements of the cost estimate.
- Other costs such as vehicle operation, facility operation, and maintenance costs were assumed to have negligible effects on the analysis and thus were excluded.

The B/C ratio and other considerations from previous sections of this project were used to further prioritize the improvements and provide the city with guidance on when and in which order to fund and implement the improvements. Recommendations and their prioritization are summarized in Section 5.0.

3.0 PRELIMINARY ANALYSIS

3.1 RATING, PRIORITIZATION, AND SCREENING

Data collected for the 30 intersections was input into the final spreadsheet and stars were allotted to the intersections where the value for a category exceeds the threshold. Intersections were sorted by number of stars, with the greatest number of stars for any intersection being 10 out of 15. Intersections that tied with the same number of stars were given equal weight during the screening to select ten intersections to analyze further.

Once the intersections were rated and sorted, in collaboration with city staff, the following ten intersections were selected for detailed analysis. These intersections are shown in Figure 2:

- Dayton River Road & Pineview Lane – 10 stars
- Dayton River Road & Brockton Lane – 8 stars
- Dayton River Road & North Diamond Lake Road/142nd Avenue – 7 stars
- CSAH 81 & Dayton Parkway – 7 stars
- Dayton River Road & Lawndale Lane – 6 stars
- Fernbrook Lane & Rush Creek Parkway/Elm Creek Road – 6 stars
- Dayton Parkway & Territorial Road/Holly Lane – 6 stars
- CSAH 81 & Troy Lane – 4 stars
- CSAH 81 & Territorial Road – 4 stars
- South Diamond Lake Road & Pineview Lane – 3 stars



Figure 2 – Intersections for Detailed Analysis

4.0 DETAILED ANALYSIS

4.1 DAYTON RIVER ROAD & PINEVIEW LANE

4.1.1 Existing Conditions

Dayton River Road (CSAH 12) & Pineview Lane is a four-leg, two-way stop control (TWSC) intersection with approximately 15 degrees of skew and is located on a horizontal curve. Dayton River Road has one through/left turn lane and one bypass/right turn lane and has a 50-mph posted speed limit in both directions and Pineview Lane has single lane approaches in both directions but has a 40-mph posted speed limit on the south leg and a statutory 30-mph speed limit on the north leg.

Lighting is present at the intersection. A future regional shared-use path will run along the north side of the intersection and cross the north leg and roadside shared-use path is proposed on the south and east sides. A relatively significant grade is present in the southwest quadrant sloping towards a house. Five crashes occurred between 2018 and 2022, including two rear end crashes and one angle crash. A serious injury resulted from a head-on crash involving oncoming through vehicles.

4.1.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.82 and 1.20, respectively. The FAR CI exceeds 1.00 due to the one serious injury crash and the relatively low volumes at the intersection. The IHSDM expected crash rate and FAR rate yielded a CI of 0.87 and 0.22, respectively, which more closely represents a statistical average of crash occurrence at the intersection. Although the intersection has not been modified nor has experienced significant traffic volume increase due to development, it should be noted that the IHSDM predicted crash rate (not considering crash data) yielded a total crash CI of 1.10.

The crash data includes rear end and angle crashes that may be attributed to the existing geometry or stop-control at the intersection, particularly since bypass lanes are present on Dayton River Road instead of dedicated turn lanes, the intersection is located on a curve, and has skew, potentially affecting sight distance.

Warrant Analysis

The intersection meets Signal Warrant 3B for peak hour volume examined under seasonally adjusted 2024 traffic volumes. Additionally, the intersection meets Multiway Stop Warrant A for meeting a signal warrant, however all-way stop control (AWSC) should only be used as an interim measure. MnDOT generally considers roundabouts to be warranted if traffic volumes meet criteria for either traffic signals or AWSC, thus a roundabout is warranted.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movements at the intersection are northbound on Pineview Lane at LOS C in the AM and LOS D in the PM and the longest 95th percentile queue is 72 feet in the PM. Under forecasted 2044 traffic volumes, the northbound movements worsen to LOS E in the AM and LOS F in the PM and the longest queue is approximately 250 feet in the PM. Left turns on Dayton River Road perform at LOS B or better in all scenarios with minimal queues.

4.1.3 Potential Improvements

Since the observed and IHSDM expected total crash CIs for the intersection are approaching 1.00 and the predicted total crash CI is greater than 1.00, improvements to intersection geometry or control are expected to reduce the risk of crashes. It should be noted that the County plans to perform a mill and overlay (M&O) of Dayton River Road in 2024, at which time they will change the eastbound and westbound approaches from having left turn bypass lanes to having dedicated left turn lanes. This removes left-turning vehicles from the through lane and increases certainty of whether vehicles are turning, which is expected to reduce total crashes by 21% and fatal/injury crashes by 29% based on IHSDM results.

To further increase safety along Dayton River Road, an eastbound right turn lane may be constructed to remove eastbound right-turning vehicles from the through lane. According to the MnDOT Road Design Manual (RDM) Section 5-3.01.01, turn lanes should be considered at all public intersections in urban areas wherever their construction is economically feasible while considering right of way needs, terrain, and environmentally/culturally sensitive areas, which includes during reconstruction and preservation projects. One significant challenge for installing a right turn lane at this location is the grading necessary in the southeast quadrant. If implemented, this is expected to reduce total crashes by an additional 7% along with the left turn lanes and fatal/injury crashes by an additional 9%.

A significant improvement may be to install a single-lane roundabout at the intersection, which is warranted according to the warrant analysis. The roundabout can be offset from the current intersection location to minimize grading challenges in the southeast quadrant. The roundabout is expected to reduce total crashes by 14% compared to the existing conditions and fatal/injury crashes by 52%. To mitigate any effects of adding yield control to Dayton River Road movements, enhanced warning signage may be considered. A roundabout has the added benefit of improving vehicle operations, improving Pineview Lane to LOS A or better in 2024 and LOS C or better in 2044.

Since a regional shared-use path and other roadside active transportation facilities are planned at the intersection, appropriate crossing treatments including Americans with Disabilities Act (ADA) compliant ramps, crosswalks, and warning signage should be included when the paths are constructed. Additionally, should they be warranted based on MnDOT TEM Chapter 13 and engineering judgement, rectangular rapid flashing beacons (RRFB) could also be installed at uncontrolled crossings and roundabout leg crossings, which are shown to reduce pedestrian crashes by 47% and increase vehicle yield rates by 98% according to the PSC.

4.2 DAYTON RIVER ROAD & BROCKTON LANE

4.2.1 Existing Conditions

Dayton River Road (CSAH 12) & Brockton Lane (CSAH 13) is a three-leg, one-way stop control (OWSC) intersection. Dayton River Road has single lane approaches and has a 30-mph speed limit in both directions and Brockton Lane has a single lane approach and a 55-mph speed limit. A southbound right turn channel with yield control is present.

Lighting is present at the intersection and along Dayton River Road. A shared-use path is present on the west side of Dayton River Road and Brockton Lane, and a pedestrian crossing spans the right turn channel and north leg, however there is no receiving path on the east side, nor is the crossing signed or marked. A future regional shared-use path will run along the east side of the intersection and roadside shared-use path is proposed on the west and south sides connecting to existing. One crash occurred between 2018 and 2022, a run of road crash resulting in a serious injury when a vehicle on Brockton Lane drove past the stop sign and into the opposing property.

4.2.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.21 and 1.31, respectively. The FAR CI exceeds 1.00 due to the one serious injury crash and the relatively low volumes at the intersection. The IHSDM expected crash rate and FAR rate yielded a CI of 0.29 and 0.07, respectively, which more closely represents a statistical average of crash occurrence at the intersection.

The crash data includes one run-off-road crash, which is not necessarily attributed to the intersection. The resulting crash rates were not particularly abnormal. The high entry speed on Brockton Lane increases the crash risk for vehicles approaching the intersection, while the right turn channel increases the crash risk for pedestrians.

Warrant Analysis

The intersection does not meet any signal warrants or multiway stop warrants examined under seasonally adjusted 2024 traffic volumes.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movements at the intersection are eastbound on Brockton Lane at LOS B in the AM and PM and minimal 95th percentile queues. Under forecasted 2044 traffic volumes, the eastbound movements worsen to LOS C in the AM and PM and the longest queue is 74 feet in the PM. Left turns on Dayton River Road perform at LOS A or better in all scenarios with minimal queues.



4.2.3 Potential Improvements

Although the expected total crash CI for the intersection is less than 1.00, improvements to intersection geometry, particularly relating to pedestrians and bicycles, can reduce the risk of crashes. It should be noted that the County plans to perform a M&O of Dayton River Road in 2024, at which time it is expected the existing pedestrian ramps will be upgraded to comply with ADA standards.

To increase pedestrian safety, the southbound right turn channel may be removed, and the right turn movement can be consolidated with the southbound through lane. This is expected to mitigate the risk of pedestrian crashes and injuries at the crossing by lowering the speed at which vehicles make a right turn and reducing the number of lanes pedestrians must cross, thus reducing exposure. However, removing the channel may increase the risk of total crashes by 36% due to adding right turning vehicles to the general intersection traffic stream, assuming the opposite result of CMF ID: 11154 occurs. Crashes at the intersection are relatively low, however, so the expected increase in vehicle crashes would be minimal.

Regardless of the intersection configuration, the existing pedestrian crossing at the intersection should be upgraded by providing an ADA compliant ramp and sidewalk/path connection on the east side, marked crosswalk, and appropriate warning signage. The east side connection should begin at the sidewalk 290 feet north of the intersection and terminate at the north leg crossing, increasing connectivity and providing crossing opportunity at the intersection. Additionally, since a regional shared-use path and other roadside active transportation facilities are planned at the intersection, appropriate crossing treatments including ADA compliant ramps, crosswalks, and warning signage should be included when these paths are constructed.

The one crash that occurred at the intersection in the past five years involved a vehicle on Brockton Lane driving through the stop sign and running off the road. The safety of the Brockton northbound to eastbound approach may be improved by providing enhanced warning signage ahead of the curve indicating both the curve and stop condition are ahead. These enhancements may include doubling-up “stop ahead” or “curve ahead” signs (one on each side facing northbound Brockton Lane), using oversized “stop ahead”, “curve ahead”, or “one-direction large arrow” signs, or using a flashing beacon. These are shown to decrease fatal and injury crashes by 10 to 19% and nighttime crashes by 15% according to the PSC.

4.3 DAYTON RIVER ROAD & NORTH DIAMOND LAKE ROAD/142ND AVENUE

4.3.1 Existing Conditions

Dayton River Road (CSAH 12) & North Diamond Lake Road (CSAH 144)/142nd Avenue is a four-leg, TWSC intersection and is located on a horizontal curve. Dayton River Road has one through/left turn lane and has a 50-mph posted speed limit in both directions, plus one right turn lane eastbound and one bypass/right turn lane westbound. Pineview Lane has single lane approaches in both directions but has a



50-mph posted speed limit on the south leg and an unposted statutory 30-mph speed limit on the north leg. Eastbound and northbound right turn channels with yield control are present.

Lighting is present at the intersection. A future regional shared-use path will run along the north side of the intersection and cross the north leg and roadside shared-use path is proposed on the south, east, and west sides. 14 crashes occurred between 2018 and 2022, eight angle/left turn crashes and six rear end crashes. A serious injury resulted from a crash involving an eastbound through vehicle colliding with a westbound left turning vehicle. Six crashes resulted in minor injury.

4.3.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 2.56 and 1.24, respectively. Both the total crash CI and the FAR CI exceed 1.00 due to the relatively high incidence of crashes for the intersection volume and the occurrence of one serious injury crash. A total crash CI of 2.56 means the total crash rate is over 2.5 times higher than the critical crash rate. The IHSDM expected crash rate and FAR rate yielded a CI of 2.34 and 0.79, respectively, which more closely represents a statistical average of crash occurrence at the intersection.

The crash data includes several angle, left turn, and rear end crashes that are likely attributed to the existing geometry at the intersection, particularly since bypass lanes are present on Dayton River Road instead of dedicated turn lanes, large yield-controlled right turn channels are present, the intersection is located on a curve, potentially affecting sight distance, and the westbound left turn and northbound right turn volumes are relatively high.

Warrant Analysis

The intersection does not meet any signal warrants under seasonally adjusted 2024 traffic volumes, however it meets Multiway Stop Warrant B for experiencing five or more crashes in the span of 12 months. MnDOT generally considers roundabouts to be warranted if traffic volumes meet criteria for either traffic signals or AWSC, thus a roundabout is warranted.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movements at the intersection are southbound on 142nd Avenue at LOS D in the AM and LOS E in the PM. 95th percentile queues on 142nd Avenue are minimal due to the low volume, but the longest queue is the northbound left on North Diamond Lake Road is 50 feet in the AM. Under forecasted 2044 traffic volumes, the southbound movements worsen to LOS F in the AM and PM, although with fewer than five vehicles in the peak hour, and the northbound left queue increases to 122 feet in the AM, with the movement operating at LOS D. Left turns on Dayton River Road perform at LOS A or better in all scenarios with minimal queues.

4.3.3 Potential Improvements

Since the observed and expected total crash CIs for the intersection were significantly greater than 1.00, improvements to intersection geometry or control are expected to reduce the risk of crashes. It should be noted that the County plans to perform a M&O of Dayton River Road in 2024, at which time they will change the westbound approach from having a left turn bypass lane to having a dedicated left turn lane. This removes left-turning vehicles from the through lane and increases certainty of whether vehicles are turning, which is expected to reduce total crashes by 8% and fatal/injury crashes by 11%.

A significant improvement to increase safety may be to install a single-lane roundabout at the intersection, which is warranted according to the warrant analysis, plus an optional northbound right turn bypass to accommodate the higher volume movement. The roundabout is expected to reduce total crashes by 27% compared to the existing conditions and fatal/injury crashes by 72%. To mitigate any effects of adding yield control to Dayton River Road movements, enhanced warning signage may be considered. A roundabout has the added benefit of improving vehicle operations, improving North Diamond Lake Road and 142nd Avenue to LOS A or better in 2024 and LOS B or better in 2044 with or without the right turn bypass.

Since a regional shared-use path and other roadside active transportation facilities are planned at the intersection, appropriate crossing treatments including ADA compliant ramps, crosswalks, and warning signage should be included when the paths are constructed. Additionally, should they be warranted based on MnDOT TEM Chapter 13 and engineering judgement, RRFBs should also be installed at roundabout leg crossings, which are shown to reduce pedestrian crashes by 47% and increase vehicle yield rates by 98% according to the PSC.

4.4 CSAH 81 & DAYTON PARKWAY

4.4.1 Existing Conditions

CSAH 81 & Dayton Parkway is a four-leg, signalized intersection and is located on a horizontal curve. CSAH 81 has two through lanes, one right turn lane, and one left turn lane and has a 55-mph posted speed limit in both directions. Dayton Parkway has one left turn lane and has a 40-mph posted speed limit in both directions but has one through and one right turn lane northbound and one through-right lane southbound. The south leg is divided by a median.

Lighting is present at the intersection and along Dayton Parkway. A shared use path is present in the southwest quadrant running along the west side of Dayton Parkway. Crosswalks and pedestrian signals are present spanning the south and west legs. Future expansion and upgrades to the roadside path are desired on both sides of Dayton Parkway and the north side of CSAH 81. A railroad crossing is present 90 feet south of the intersection on the south leg and the railroad runs parallel to CSAH 81 along the south side. Future development in the areas along Dayton Parkway north and south of CSAH 81 is anticipated to result in increased volume at the intersection. Ten crashes occurred between 2018 and 2022, including two angle/left turn crashes, four rear end crashes, and three sideswipe crashes, although Dayton Parkway was recently constructed and volumes on that leg were lower during that period.

4.4.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.30 and 0.00, respectively. The IHSDM expected crash rate and FAR rate yielded a CI of 0.34 and 0.25, respectively, which more closely represents a statistical average of crash occurrence at the intersection. In the past five years, Dayton Parkway has been constructed, leading to volume increases and travel pattern changes at the intersection, thus the IHSDM predicted crash rate (not considering crash data) was examined and yielded a total crash CI of 0.54 and a FAR CI of 0.27.

The crash data includes rear end, angle, left turn, and sideswipe crashes that are common among high-speed signalized intersections and may be attributed to the existing conditions at the intersection, however the resulting crash rates were not particularly abnormal. The relatively long crosswalks increase the exposure for pedestrians and may increase the risk of pedestrian crashes.

Warrant Analysis

The intersection meets Signal Warrants 1 (A, B, and A+B) for eight-hour volume, 2 for four-hour volume, and 3B for peak hour volume examined under seasonally adjusted 2024 traffic volumes. Additionally, the intersection meets Multiway Stop Warrant A for meeting a signal warrant, however all-way stop control (AWSC) should only be used as an interim measure. MnDOT generally considers roundabouts to be warranted if traffic volumes meet criteria for either traffic signals or AWSC, thus a roundabout is warranted.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movements at the intersection are the eastbound and westbound lefts on CSAH 81 and southbound through and right on Dayton Parkway at LOS E in the AM and PM. The 95th percentile queues for these movements did not exceed available storage for either peak hour, while the longest queue is the northbound left (LOS D in AM and PM) at 241 feet in the AM and 285 feet in the PM. Under forecasted 2044 traffic volumes, the eastbound left, westbound left, and southbound through-right movements remained at LOS E, but the northbound left worsens to LOS E in the AM. In 2044, queues worsen and are no longer contained within the available storage for eastbound in the AM and westbound in the PM. The northbound left queue increases to 332 feet in the AM and 351 feet in the PM. It is assumed that capacity improvements to CSAH 81 will be considered sometime before the forecast year, and thus improved operations are anticipated.

4.4.3 Potential Improvements

Although the observed, expected, and predicted total crash CIs for the intersection are less than 1.00, improvements to intersection geometry or control can reduce the risk of crashes to both vehicles and pedestrians.

The intersection of CSAH 81 with Brockton Lane nearly one mile to the west recently received a signal upgrade and intersection improvements that may be adopted at CSAH 81 and Dayton Parkway. The signal hardware may be upgraded to include four-section signal heads with flashing yellow arrows on all approaches. This configuration provides flexibility in allowing only protected left turns on the desired approaches, as currently in place for eastbound and westbound lefts, but also allows permissive lefts during off-peak times. Maintaining protected eastbound and westbound lefts during peak times are expected to result in 1% to 11% fewer total crashes compared to also allowing permissive lefts. For the northbound and southbound lefts, these flashing yellow arrows are expected to reduce left turn crashes by 16% according to CMF ID: 7696. Additionally, since the railroad crossing is adjacent to the intersection, adding a dynamic “no right turn” sign facing the eastbound right turn would increase driver awareness that a train is about to cross. If railroad pre-emption is not currently implemented into the signal, then it is recommended so crossing trains can communicate with the controller and stop conflicting phases/activate the dynamic sign. Although the warrant analysis indicates that either a signal or a roundabout is warranted, there is no significant concern that would suggest the intersection control be changed to a roundabout and thus signal control should be maintained.

A significant improvement to increase pedestrian crossing safety would be to widen the CSAH 81 approaches to accommodate a ten-foot median and provide refuge for pedestrians in the west leg crosswalk. This reduces the number of lanes pedestrians must cross at once and protects pedestrians who do not complete the crossing within the pedestrian phase. Medians with refuges at intersections are shown to reduce pedestrian crashes by 46% according to the PSC. A pedestrian activated pushbutton should be placed in the refuge to allow reactivation of the pedestrian phase in this scenario. An additional improvement may be to extend the median on the south leg to provide refuge for that crosswalk. This may require shifting the crosswalk to the south and modifying ramps in each quadrant, which also shortens the northbound storage length between the railroad crossing and the stop bar.

Since additional roadside active transportation facilities are planned at the intersection, appropriate crossing treatments including ADA compliant ramps, crosswalks, pedestrian signals, and pushbuttons should be included when the paths are constructed.

4.5 DAYTON RIVER ROAD & LAWNDALE LANE

4.5.1 Existing Conditions

Dayton River Road (CSAH 12) & Lawndale Lane is a four-leg, TWSC intersection with approximately 35 degrees of skew. All approaches have a single lane. Dayton River Road has a 50-mph posted speed limit in both directions and Lawndale Lane has a 40-mph posted speed limit on the south leg and an unposted statutory 30-mph speed limit on the north leg. The north leg of Lawndale Lane is privately owned and serves only a few residential properties. The environment surrounding the intersection is more rural.

Lighting is not present at the intersection. A future regional shared-use path will run along the north side of the intersection and cross the north leg and roadside shared-use path is proposed on the south and east sides, connecting to future community trail in the southwest quadrant. A relatively significant embankment and house in the northeast quadrant as well as horizontal curvature on Dayton River Road



creates sight challenges for the southbound approach. Two crashes occurred between 2018 and 2022, both were run-off-road crashes.

4.5.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.53 and 0.00, respectively. The IHSDM expected crash rate and FAR rate yielded a CI of 0.49 and 0.08, respectively, which more closely represents a statistical average of crash occurrence at the intersection.

The crash data only includes two run-off-road crashes, which are not necessarily attributed to the intersection. The resulting crash rates were not particularly abnormal. The blocked sight lines due to the embankment in the northeast quadrant, the horizontal curve, and the skew increase the risk of crashes.

Warrant Analysis

The intersection does not meet any signal warrants or multiway stop warrants examined under seasonally adjusted 2024 traffic volumes.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movements at the intersection are northbound on Lawndale Lane at LOS B in the AM and PM with minimal 95th percentile queues. Under forecasted 2044 traffic volumes, the northbound movements remain at LOS B in the AM and PM with minimal queues. Left turns on Dayton River Road perform at LOS A in all scenarios with minimal queues.

4.5.3 Potential Improvements

Although the expected total crash CI for the intersection is less than 1.00, improvements to intersection geometry can reduce the risk of crashes. It should be noted that the County plans to perform a M&O of Dayton River Road in 2024.

The sight line for the southbound approach looking left is inadequate for either the 425-foot stopping sight distance (SSD) or right turning intersection sight distance (ISD) for 50 mph due to the curvature of Dayton River Road and the embankment in the northeast quadrant. The sight line may be improved by cutting into the embankment or installing a retaining wall to remove the obstruction, reducing the risk of intersection related crashes on that approach.

The intersection is skewed approximately 35 degrees. Removing intersection skew can increase vehicle safety for TWSC intersections by improving sight lines, which is expected to which is expected to reduce total crashes by 40% and fatal/injury crashes by 17%. The most feasible way to remove skew at the intersection is to realign the north and south legs to join Dayton River Road perpendicularly, creating offset intersections. While offset intersections are generally not preferrable, the north leg of Lawndale Lane is very low volume and has similar characteristics to a driveway. Additionally, while an intersection



spacing of 425 feet would be desirable to match the SSD for 50 mph, a spacing of 1/8 mile or 330 feet is proposed to minimize property impacts and could be reasonably adequate for the low volume north leg.

Since a regional shared-use path and other roadside active transportation facilities are planned at the intersection, appropriate crossing treatments including ADA compliant ramps, crosswalks, and warning signage should be included when these paths are constructed. Additionally, should they be warranted based on MnDOT TEM Chapter 13 and engineering judgement, RRFBs should also be installed at uncontrolled crossings. Lighting is also currently absent from the intersection and should be considered for installation in at least one quadrant to cover the intersection.

4.6 FERNBROOK LANE & RUSH CREEK PARKWAY/ELM CREEK ROAD

4.6.1 Existing Conditions

Fernbrook Lane (CSAH 121) & Rush Creek Parkway/Elm Creek Road (CR 202) is a four-leg, TWSC intersection. Fernbrook Lane has one left turn, one through, and one right turn lane and has a 55-mph posted speed limit in both directions. The southbound left turn lane is offset. Rush Creek Parkway on the west leg has a through-left turn lane and a right turn lane and a 30-mph posted speed limit. Elm Creek Road on the east leg has a single lane approach and a 35-mph posted speed limit. The south and west legs are divided by a median.

Lighting is not present at the intersection. A shared use path is present in the southwest and southeast quadrants running along the south side of Rush Creek Parkway and Elm Creek Road. The path has pedestrian ramps and median refuge, but no marked crosswalk spanning the south leg. Future upgrades to the shared-use path are desired and expansion of path on all quadrants, including regional trail in the southeast quadrant. The Elm Creek Park Reserve occupies the southeast quadrant, and thus are subject to Land and Water Conservation Act (LAWCON) restrictions. Existing development is under construction in west on Rush Creek Parkway and is anticipated to result in increased volume at the intersection. Five crashes occurred between 2018 and 2022, four angle/left turn crashes and one rear end crash, although Rush Creek Parkway was recently constructed, and volumes were low during that period.

4.6.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.72 and 0.00, respectively. The IHSDM expected crash rate and FAR rate yielded a CI of 0.92 and 0.25, respectively, which more closely represents a statistical average of crash occurrence at the intersection. In the past five years, residential development to the west on Rush Creek Parkway been constructed, leading to significant volume increases and travel pattern changes at the intersection, thus the IHSDM predicted crash rate (not considering crash data) was examined and yielded a total crash CI of 1.36 and a FAR CI of 0.31. The number of crashes and potentially the crash rate are expected to increase with the continued development to the west.

The crash data includes angle, left turn, and rear end crashes that may be attributed to the existing geometry, speed, or stop-control at the intersection. Additionally, the existing uncontrolled pedestrian crossing located on the south leg on a high-speed roadway creates crash risk for crossing pedestrians and cyclists.

Warrant Analysis

The intersection does not meet any signal warrants or multiway stop warrants examined under seasonally adjusted 2024 traffic volumes, however the continued development to the west is expected to increase volumes and warrants may be met soon.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movements at the intersection are westbound on Elm Creek Road at LOS D in the AM and LOS F in the PM, as well as eastbound left turns and through movements on Rush Creek Parkway at LOS F in the PM. The longest 95th percentile queue is the eastbound right turn at 50 feet in the AM. Under forecasted 2044 traffic volumes, the westbound movements worsen to LOS F in the AM and remain LOS F in the PM with significantly increased delay. All eastbound movements worsen to LOS E in the AM and the eastbound through-left remains LOS F in the PM with significantly increased delay. The longest queue is the eastbound right turn at 160 feet in the AM and the westbound movements at 184 feet in the PM. Left turns on Fernbrook Lane perform at LOS A in all scenarios with minimal queues.

4.6.3 Potential Improvements

Since the expected total crash CI for the intersection is approaching 1.00 and the predicted total crash CI was greater than 1.00, improvements to intersection geometry or control are expected to reduce the risk of crashes.

A significant improvement to increase safety may be to install a roundabout at the intersection, plus an optional eastbound right turn bypass to accommodate the higher volume movement. While the intersection does not meet signal or multiway stop warrants under 2024 volumes, development to the west is expected to increase volumes and worsen side street delay, plus roundabouts do not strictly need to follow volume warrants and may be justified under other circumstances. The roundabout is expected to reduce total crashes by 6% to 7% and fatal/injury crashes by 58% to 72%. To mitigate any effects of adding yield control to Fernbrook Lane movements, enhanced warning signage may be considered. A roundabout has the added benefit of improving vehicle operations, improving Rush Creek Parkway and Elm Creek Road to LOS B or better in both 2024 and 2044 with or without the right turn bypass. A dedicated northbound left turn lane would be necessary to accommodate forecast volumes.

Installing a traffic signal at the intersection would increase vehicle safety while largely maintaining existing intersection geometry. This is expected to reduce total crashes by 1% and fatal/injury crashes by 13% to 27%. A signal should only be considered if intersection volumes meet traffic signal warrants, thus as the development to the west approaches full build-out, both signal and multiway stop warrants should be

reexamined. A signal improves vehicle operations, improving Rush Creek Parkway and Elm Creek Road to LOS B or better in 2024 and LOS C or better in 2044.

The existing pedestrian crossing at the intersection should be modified to increase pedestrian safety. Since the crossing is on a 55-mph roadway, it is not recommended to provide a marked crosswalk without a form of control or grade-separation. Although the MnDOT TEM Chapter 13 mentions a pedestrian hybrid beacon (PHB) as an option, the roadway speed and crossing location at the intersection makes a PHB less ideal. A grade-separated solution, such as a pedestrian underpass or overpass, was previously discussed by the city and county but was ruled-out due to cost and site constraints. Either a traffic signal or roundabout would provide a controlled pedestrian crossing that is expected to reduce the risk of pedestrian crashes. Additionally, should they be warranted based on MnDOT TEM Chapter 13 and engineering judgement, RRFBs should also be installed at roundabout leg crossing, which are shown to reduce pedestrian crashes by 47% and increase vehicle yield rates by 98% according to the PSC. Other roadside active transportation facilities planned at the intersection should include appropriate crossing treatments including ADA compliant ramps and crosswalks when the paths are constructed. Lighting is also currently absent from the intersection and should be considered for installation in at least one quadrant to cover the intersection.

4.7 DAYTON PARKWAY & TERRITORIAL ROAD/HOLLY LANE

4.7.1 Existing Conditions

Dayton Parkway & Territorial Road/Holly Lane is a four-leg, TWSC intersection with approximately 10 degrees of skew on both east and west legs. Dayton Parkway has one left turn lane, two through lanes, and one right turn lane and has a 40-mph posted speed limit in both directions. The southbound left turn lane is offset. Territorial Road and Holly Lane have one left turn lane, one through lane, and one right turn lane and have a 30-mph posted speed limit in both directions. The north and south legs are divided by a median.

Lighting is present at the intersection. Shared use paths are present in quadrants except northeast, running along the west side of Dayton Parkway, north side of Territorial Road, and south side of Holly Lane. One marked crosswalk is present spanning west leg and the crossing spanning the south leg has pedestrian ramps and median refuge, but no marked crosswalk. Future expansion and upgrades to the roadside path are desired on both sides of Dayton Parkway. Future development in the areas surrounding the intersection is anticipated to result in increased volume. One angle crash occurred between 2018 and 2022, although the intersection was recently constructed and was not fully open during that period.

4.7.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.17 and 0.00, respectively. The IHSDM expected crash rate and FAR rate yielded a CI of 0.54 and 0.12, respectively, which more closely represents a statistical average of crash occurrence at the intersection.



In the past five years, this intersection has been constructed along with Dayton Parkway and the realignment of Territorial Road and Holly Lane, thus the IHSDM predicted crash rate (not considering crash data) was examined and yielded a total crash CI of 1.05 and a FAR CI of 0.21. The number of crashes and potentially the crash rate are expected to increase with the continued development surrounding the intersection and along Dayton Parkway.

The crash data includes one angle crash that may be attributed to the existing geometry or stop-control at the intersection. Additionally, the existing uncontrolled pedestrian crossing located on the south leg creates crash risk for crossing pedestrians and cyclists.

Warrant Analysis

The intersection does not meet any signal warrants or multiway stop warrants examined under seasonally adjusted 2024 traffic volumes, however the continued development to the west is expected to increase volumes and warrants may be met soon.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movements at the intersection are the westbound left on Holly Lane at LOS C in the AM and the eastbound through on Territorial Road at LOS C in the PM with minimal 95th percentile queues. Under forecasted 2044 traffic volumes, the westbound left turn worsens to LOS F in the AM and LOS E in the PM with minimal queues in the AM and 44-foot queue in the PM. Left turns on Dayton Parkway perform at LOS A in all scenarios with minimal queues.

4.7.3 Potential Improvements

Although the expected total crash CI for the intersection is less than 1.00, the predicted total crash CI was greater than 1.00, thus improvements to intersection geometry or control may reduce the risk of crashes.

Installing a traffic signal at the intersection would increase vehicle safety while largely maintaining existing intersection geometry. While the intersection does not meet signal warrants under 2024 volumes, development around Dayton Parkway is expected to increase volumes and worsen side street delay. A signal should only be considered if intersection volumes meet traffic signal warrants, thus as the development approaches full build-out, signal warrants should be reexamined. A signal is expected to reduce total crashes by 3% to 5% and fatal/injury crashes by 13% to 26%. It also improves vehicle operations, improving Territorial Road and Holly Lane to LOS B or better in both 2024 and 2044. While a roundabout at the intersection would be warranted should signal warrants be met, there is no significant concern that would suggest a roundabout should be installed instead of signal control. A signal would allow for coordination between the adjacent signalized intersections.

The existing pedestrian crossing at the intersection should be upgraded to increase pedestrian safety. The MnDOT TEM Chapter 13 suggests installing a marked crosswalk with RRFBs. This is shown to reduce pedestrian crashes by 47% and increase vehicle yield rates by 98% according to the PSC. Other roadside active transportation facilities planned at the intersection should include appropriate crossing



treatments including ADA compliant ramps and crosswalks when the paths are constructed. Should a traffic signal be installed when warranted, a controlled pedestrian crossing with pedestrian signals should also be provided to reduce the risk of pedestrian crashes.

4.8 CSAH 81 & TROY LANE

4.8.1 Existing Conditions

CSAH 81 & Troy Lane is a three-leg, OWSC intersection. CSAH 81 has one through/left turn lane and one bypass lane eastbound and one through lane and one right turn lane westbound and has a 55-mph posted speed limit in both directions. Troy Lane has one right turn lane and one left turn lane and has an unposted statutory 30-mph speed limit.

Lighting is present at the intersection. A future roadside shared-use path will run along the north side of CSAH 81 and cross the north leg. Future development in the areas north along Troy Lane is anticipated to result in increased volume at the intersection. Five crashes occurred between 2018 and 2022, including three rear end crashes and one angle crash.

4.8.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.50 and 0.00, respectively. The IHSDM expected crash rate and FAR rate yielded a CI of 0.46 and 0.16, respectively, which more closely represents a statistical average of crash occurrence at the intersection. The number of crashes and potentially the crash rate are expected to increase with the continued development to the north on Troy Lane.

The crash data includes rear end and angle crashes that may be attributed to the existing geometry, speed, or stop-control at the intersection, particularly since bypass lanes are present on CSAH 81 instead of dedicated turn lanes.

Warrant Analysis

The intersection does not meet any signal warrants or multiway stop warrants examined under seasonally adjusted 2024 traffic volumes.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movement at the intersection is the southbound left on Troy Lane at LOS E in the AM and PM with minimal 95th percentile queues. Under forecasted 2044 traffic volumes, the southbound left worsens to LOS F in the AM and PM and the longest queue is 56 feet in the PM. Left turns on CSAH 81 perform at LOS B or better in all scenarios with minimal queues.

4.8.3 Potential Improvements

Although the expected total crash CI for the intersection is less than 1.00, improvements to intersection geometry may reduce the risk of crashes.

The IHSDM results show that changing the eastbound approach from having a left turn bypass lane to having a dedicated left turn lane does not significantly impact the expected number of intersection crashes. This may be due to the existing conditions at CSAH 81 with the bypass lane being located on a level tangent segment of roadway with adequate sight, as well as being present on a three-leg intersection where there are no conflicts between side-street traffic and bypassing traffic. The bypass lane may still be converted to maintain consistency on the CSAH 81 corridor for having dedicated left turn lanes at similar intersections, which may reduce general crash risk. According to the MnDOT Road Design Manual (RDM) Section 5-3.01.01, turn lanes should be considered at all public intersections in urban areas wherever their construction is economically feasible while considering right of way needs, terrain, and environmentally/culturally sensitive areas.

Development to the north of the intersection along Troy Lane and traffic growth on CSAH 81 are expected to increase volumes. While the intersection does not meet signal or multiway stop warrants under 2024 volumes, warrants may be met in the future and should be reexamined periodically as development occurs to determine if a traffic signal or roundabout is justified. A signal or roundabout would improve safety by reducing the risk of severe angle crashes due to high speeds on CSAH 81 and would improve Troy Lane vehicle operations. The feasibility of these options may change however, as CSAH 81 could receive capacity improvements in the future, converting the segment at Troy Lane to a four-lane divided roadway. Any intersection improvements should be coordinated alongside these capacity improvements.

Since a regional shared-use path is planned at the intersection, appropriate crossing treatments including ADA compliant ramps and crosswalks should be included when the paths are constructed.

4.9 CSAH 81 & TERRITORIAL ROAD

4.9.1 Existing Conditions

CSAH 81 & Territorial Road is a three-leg, OWSC intersection with approximately 10 degrees of skew. CSAH 81 has one through/left turn lane and one bypass lane eastbound and one through lane and one right turn lane westbound and has a 55-mph posted speed limit in both directions. Territorial Road has one right turn lane and one left turn lane and has a 40-mph posted speed limit.

Lighting is present at the intersection. A future roadside shared-use path will run along the north side of CSAH 81 and cross the north leg, and along the north side of Territorial Road. Future development in the areas east along Territorial Road is anticipated to result in increased volume at the intersection. Nine crashes occurred between 2018 and 2022, including six rear end crashes and one angle crash.



4.9.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.85 and 0.00, respectively. The IHSDM expected crash rate and FAR rate yielded a CI of 0.76 and 0.27, respectively, which more closely represents a statistical average of crash occurrence at the intersection. The number of crashes and potentially the crash rate are expected to increase with the continued development to the east on Territorial Road.

The crash data includes rear end and angle crashes that may be attributed to the existing geometry, speed, or stop-control at the intersection, particularly since bypass lanes are present on CSAH 81 instead of dedicated turn lanes.

Warrant Analysis

The intersection does not meet any signal warrants or multiway stop warrants examined under seasonally adjusted 2024 traffic volumes.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movement at the intersection is the southbound left on Territorial Road at LOS D in the AM and LOS E in the PM with minimal 95th percentile queues. Under forecasted 2044 traffic volumes, the southbound left worsens to LOS F in the AM and PM and the longest queue is 136 feet in the PM. Left turns on CSAH 81 perform at LOS B or better in all scenarios with minimal queues.

4.9.3 Potential Improvements

Since the observed and expected total crash CIs for the intersection were approaching 1.00, improvements to intersection geometry may reduce the risk of crashes. A conceptual layout has been completed for a roundabout on Territorial Road approximately 550 feet east of the existing CSAH 81 & Territorial Road intersection, which as a result will be relocated approximately 450 feet southeast along CSAH 81. The layout includes changing the eastbound approach from having a left turn bypass lane to having a dedicated left turn lane. The control and intersection configuration will otherwise remain unchanged. The schedule for this design and construction is tentative and is contingent on local development to the north of the intersection.

The IHSDM results show a bypass to left turn lane conversion does not significantly impact the expected number of intersection crashes, which may be due to the existing conditions at CSAH 81 with the bypass lane being located on a level tangent segment of roadway with adequate sight, as well as being present on a three-leg intersection where there are no conflicts between side-street traffic and bypassing traffic. However, because work is already taking place at the intersection, the conversion should be performed. According to the MnDOT Road Design Manual (RDM) Section 5-3.01.01, turn lanes should be considered at all public intersections in urban areas wherever their construction is economically feasible while



considering right of way needs, terrain, and environmentally/culturally sensitive areas. The conversion also maintains consistency on the CSAH 81 corridor for having dedicated left turn lanes at similar intersections, which may reduce general crash risk.

Development to the east of the intersection along Territorial Road and traffic growth on CSAH 81 are expected to increase volumes. While the intersection does not meet signal or multiway stop warrants under 2024 volumes, warrants may be met in the future and should be reexamined periodically as development occurs to determine if a traffic signal or roundabout is justified. A signal or roundabout would improve safety by reducing the risk of severe angle crashes due to high speeds on CSAH 81 and would improve Territorial Road vehicle operations. The feasibility of these options may change however, as CSAH 81 could receive capacity improvements in the future, converting the segment at Territorial Road to a four-lane divided roadway. Any intersection improvements should be coordinated alongside these capacity improvements.

Since a regional shared-use path is planned at the intersection, appropriate crossing treatments including ADA compliant ramps and crosswalks should be included when the paths are constructed.

4.10 SOUTH DIAMOND LAKE ROAD & PINEVIEW LANE

4.10.1 Existing Conditions

South Diamond Lake Road & Pineview Lane is a four-leg, AWSC intersection. Both South Diamond Lake Road directions and northbound Pineview Lane have one through-right lane and one left turn lane, while southbound Pineview Lane is a single lane approach. All legs have a 40-mph posted speed limit.

Lighting is present at the intersection. Shared-use paths are present in all quadrants, running along the north side of South Diamond Lake Road, along the east side of Pineview Lane, and along the west side of Pineview lane in the southwest quadrant. Marked crosswalks span the north, west, and south legs. Future upgrades to paths and additional roadside active transportation facilities along the south side of South Diamond Lake Road are proposed. Seven crashes occurred between 2018 and 2022, six angle/left turn crashes and one rear-end crash.

4.10.2 Analysis Results

Safety Analysis

The crash rate and FAR rate at the intersection based on the five-year crash data yielded a CI of 0.88 and 0.00, respectively. The IHSDM expected crash rate and FAR rate yielded a CI of 0.71 and 0.21, respectively, which more closely represents a statistical average of crash occurrence at the intersection.

The crash data includes angle, left turn, and rear end crashes that may be attributed to the existing geometry or AWSC at the intersection.



Warrant Analysis

The intersection does not meet any signal warrants or multiway stop warrants examined under seasonally adjusted 2024 traffic volumes, however since AWSC is already present at the intersection and MnDOT generally considers roundabouts to be a viable alternative to AWSC, a roundabout is justifiable at the intersection.

Capacity Analysis

Under seasonally adjusted 2024 traffic volumes, the lowest operating movements at the intersection are the westbound through and southbound movements at LOS B in the AM and all the through movements at LOS B in the PM with minimal 95th percentile queues. Under forecasted 2044 traffic volumes, multiple movements remain at LOS B in the AM while the northbound through and eastbound through worsen to LOS C in the PM. The longest queues are the southbound movements at 56 feet in the AM and the northbound through at 64 feet in the PM.

4.10.3 Potential Improvements

Since the observed and expected total crash CIs for the intersection were approaching 1.00, improvements to intersection geometry may reduce the risk of crashes.

A significant improvement to increase safety may be to install a single-lane roundabout at the intersection. While multiway stop volume warrants were not met, since AWSC is currently present, it is justified to consider a roundabout. The roundabout is expected to reduce fatal/injury crashes by 43% compared to the existing conditions, however an increase in total crashes of 3% is expected. A roundabout has the added benefit of improving vehicle operations, improving all movements to LOS A in both 2024 and 2044.

Since new roadside active transportation facilities and upgrades are planned at the intersection, appropriate crossing treatments including ADA compliant ramps and crosswalks should be included when the paths are constructed. If roundabout control is implemented, RRFBs may also be installed at roundabout leg crossings should they be warranted based on MnDOT TEM Chapter 13 and engineering judgement. These are shown to reduce pedestrian crashes by 47% and increase vehicle yield rates by 98% according to the PSC.

5.0 CONCLUSIONS

5.1 RECOMMENDED IMPROVEMENTS

A summary of improvements for each intersection determined from the analysis presented in Section 4.0 is shown in Table 2. The budgeting level cost estimate for the improvement, including a 30% contingency and 25% indirect costs calculation, is compared to the monetized safety and operational benefits and a final recommendation for the improvement is given. The recommendation can include a general timeline (i.e. short-term vs long-term) or concurrence with other projects or development.

Table 2 – Recommended Improvements

Improvement	Cost Estimate	Benefits (20-year)	Recommendation
Dayton River Road & Pineview Lane			
Eastbound right turn lane (assuming left turn lanes installed by County)	$150,000	Safety: $276,653 Ops: $960,794 Total: $1,237,447 B/C: 8.25	May be constructed with County M&O project. Not a significant existing rear end crash risk. Consider if risk worsens.
Single lane roundabout	$2,007,700	Safety: $2,199,543 Ops: -$1,178,940 Total: $1,020,603 B/C: 0.51	Operations disbenefit from slowing mainline traffic. Not a significant existing crash risk. Consider when side street operations worsen.
Dayton River Road & Brockton Lane			
Extend sidewalk on east side to south and improve crossing	$88,000	Safety: Unquantified ped benefits potential B/C: N/A	May be constructed with County M&O project. Recommended to improve crossing safety and provide ped connection
Remove southbound right turn channel	$88,400	Safety: -$445,194, unquantified ped benefits potential B/C: N/A	Not recommended due to increased rear end crash risk. Similar safety affect with improvements to existing
Enhanced warning signage for Brockton Lane approach	$2,500 to $10,000	Safety: $226,481 B/C: min 22.65	Recommended. Inexpensive to implement independent of other projects.
Dayton River Road & North Diamond Lake Road/142nd Avenue			
Single lane roundabout with northbound bypass	$1,943,800	Safety: $10,947,987 Ops: -$468,242 Total: $10,479,745 B/C: 5.39	Operations disbenefit from slowing mainline traffic but expects to significantly improve safety. Recommended.
CSAH 81 & Dayton Parkway			
Replace signal system, add four section heads and railroad crossing pre-emption plus dynamic sign	$709,600 (signal) + $107,000 (railroad pre-emption and sign)	Safety (signal only): $203,872 B/C: 0.29 Unquantified safety benefits potential for railroad hardware	Not a significant existing crash risk at signal or rail crossing. Consider when signal hardware needs replaced or with CSAH 81 capacity improvements. If pre-emption is present, dynamic sign is $9,300

Add median refuge to CSAH 81 approaches	$2,449,400	Safety: Unquantified ped benefits potential B/C: N/A	Not recommended due to cost. Not a significant existing ped crash risk. May be considered with CSAH 81 capacity improvements.
Dayton River Road & Lawndale Lane			
Regrade embankment	$91,100	Safety: Unquantified veh benefits potential B/C: N/A	Not a significant existing crash risk. Recommended if feasible and realignment does not occur.
Realign Lawndale Lane approaches	$727,600	Safety: $257,364 B/C: 0.35	Not a significant existing crash risk. Consider if crash risk worsens or volumes increase.
Fernbrook Lane & Rush Creek Parkway/Elm Creek Road			
Roundabout with eastbound bypass	$2,161,100	Safety: $4,912,300 Ops: $3,981,254 Total: $8,893,554 B/C: 4.12	Significantly improves safety and future operations. Recommended. Provides safest ped crossing with RRFB.
Traffic signal	$668,900	Safety: $1,762,875 Ops: $2,284,554 Total: $4,047,430 B/C: 6.05	Significantly improves safety and future operations. Recommended if roundabout is not feasible and only when signal warrants are met.
Dayton Parkway & Territorial Road/Holly Lane			
RRFB on existing Dayton Parkway crossing	$30,100	Safety: Unquantified ped benefits potential B/C: N/A	Recommended to improve crossing safety across Dayton Parkway until signal is considered
Traffic signal	$668,900	Safety: $1,119,385 Ops: -$942,284 Total: $177,101 B/C: 0.26	Operations disbenefit from slowing mainline traffic. Not a significant existing crash risk. Consider when development warrants installation.
CSAH 81 & Troy Lane			
Eastbound left turn lane	$652,600	Safety: $0 Ops: -$55,747 Total: -$55,747 B/C: N/A	Not recommended. Not a significant existing crash risk and safety benefit due to adequate sight. Consider changes with CSAH 81 capacity improvements.
CSAH 81 & Territorial Road			
Eastbound left turn lane	$918,500 (includes work to relocate)	Safety: $0 Ops: $3,100,229 Total: $3,100,229 B/C: 3.38	Already considered with adjacent roundabout project, construct concurrently. Not a significant existing crash risk and safety benefit due to adequate sight. Consider other changes with CSAH 81 capacity improvements.
South Diamond Lake Road & Pineview Lane			
Single lane roundabout	$2,329,000	Safety: $1,520,526 Ops: $1,356,991 Total: $2,877,517 B/C: 1.24	Not a significant existing crash risk or capacity issues. Improves safety and may be considered. Accommodates ped crossings.

General intersection and safety improvements are recommended along with specific improvements. Future shared-use paths and roadside active transportation facilities at intersections should receive appropriate crossing treatments in accordance with MnDOT TEM Chapter 13 and ADA. Where recommended, RRFB systems can be installed for approximately $30,000 for pedestal mounted systems in addition to planned improvements (overhead RRFB systems may cost more). It is recommended to monitor intersections for capacity issues and increased crash risk. Monitor Dayton River Road & Pineview Lane, Dayton River Road & Lawndale Lane, Dayton Parkway & Territorial Road/Holly Lane, CSAH 81 & Troy Lane, CSAH 81 & Territorial Road, and South Diamond Lake Road & Pineview Lane as traffic grows or as development increases and continue to check warrants. Intersections along CSAH 81 should be reassessed once capacity improvements are planned.

The following is a summary of recommended actions at each intersection:

- **Dayton River Road & Pineview Lane** – Reconfigure intersection to have left turn lanes on Dayton River Road with the County M&O project. While the existing crash risk and capacity issues are not significant, improvements may be considered in the future and the intersection should be monitored. Consider an eastbound right turn lane if rear end crash risk worsens or consider a roundabout if angle crash risk and side street operations worsen. A roundabout at North Diamond Lake Road may benefit Pineview Lane by slowing vehicles along Dayton River Road.

- **Dayton River Road & Brockton Lane** – Improve existing pedestrian crossing to provide connection across Dayton River Road and increase visibility. While removing the southbound right turn channel may increase pedestrian safety, it may also increase rear end risk. Since Dayton River Road is lower speed at 30 mph, improvements to the channel crossing should be sufficient and additional signage and markings may be considered. Enhanced warning signage on the Brockton Lane approach should also be considered increase warning of the curve and stop condition downstream.

- **Dayton River Road & North Diamond Lake Road/142nd Avenue** – Reconfigure intersection to have a westbound left turn lane on Dayton River Road with the County M&O project, however the safety risk at this intersection justified installing a single lane roundabout at this location, which decreases the risk of left turn and angle crashes and reduces speeds on Dayton River Road. A northbound right turn bypass may be considered but is not necessary to operate acceptably.

- **CSAH 81 & Dayton Parkway** – There is not a significant existing crash risk at the signal or rail crossing, thus immediate replacement of signal hardware is not necessary. The signal should be upgraded to match the upgrades at CSAH 81 & Brockton Lane when the signal hardware reaches the end of its service life. Upgrades may also be considered with CSAH 81 capacity improvements. It is not recommended to widen the CSAH 81 approaches independently to provide median refuge for pedestrians due to cost, however this may be considered depending on capacity improvements. Ensure pedestrian crossing times are adequate in all directions.

- **Dayton River Road & Lawndale Lane** – There is not a significant existing crash risk associated with the skew or sightlines at this intersection. Ultimately, the Lawndale Lane approaches would benefit from realignment, creating perpendicular offset intersections, but this should be considered as crash risk worsens or volumes increase due to cost and property impacts. To improve sight on the southbound approach, the embankment should be regraded and retaining wall installed if it is considered feasible and realignment is not set to occur soon. Lighting should also be considered in at least one quadrant of the intersection(s).

- **Fernbrook Lane & Rush Creek Parkway/Elm Creek Road** – Due to the increasing residential development currently planned along Rush Creek Parkway, safety risk and capacity issues are expected to increase. A roundabout should be considered at this intersection to improve safety and operations of vehicles and the Fernbrook Lane pedestrian crossing with RRFB. A dedicated northbound left turn lane is necessary for acceptable future operations. An eastbound right turn bypass may be considered but is not necessary to operate acceptably. A traffic signal also provides these benefits and should be considered due to requiring less disruption and pavement construction to install, however the signal should only be considered if it meets warrants. Lighting should also be considered in at least one quadrant of the intersection.

- **Dayton Parkway & Territorial Road/Holly Lane** – Pedestrian crossing safety would benefit from the installation of an RRFB on the Dayton Parkway crossing. While the existing crash risk and capacity issues are not significant, additional improvements may be considered in the future and the intersection should be monitored. A consider a traffic signal if significant development occurs near the intersection and signal warrants are met. This also provides pedestrian crossing opportunity and the RRFB should be removed with the installation.

- **CSAH 81 & Troy Lane** – While removing the bypass lane and replacing it with a dedicated left turn lane is preferable for an urbanizing area and creates consistency for left turns across the corridor, it is not shown to provide significant safety benefit if installed independently. There is no significant existing crash risk due to adequate sight on CSAH 81 and limited conflict with bypassing vehicles and Troy Lane vehicles. Consider other changes to this intersection when CSAH 81 capacity improvements take place. Monitor for increased safety or capacity issues.

- **CSAH 81 & Territorial Road** – Removing the bypass lane and replacing it with a dedicated left turn lane will be considered with the adjacent Territorial Road roundabout project when that occurs, which is preferable for an urbanizing area and creates consistency for left turns across the corridor. While it shows operational benefit, it is not shown to provide significant safety benefit if installed independently. There is no significant existing crash risk due to adequate sight on CSAH 81 and limited conflict with bypassing vehicles and Territorial Road vehicles. Consider other changes to this intersection when CSAH 81 capacity improvements take place. Monitor for increased safety or capacity issues.



- **South Diamond Lake Road & Pineview Lane** – There is not a significant existing crash risk or capacity issues at the existing AWSC, however roundabout control provides benefits to both safety and operations. A roundabout may be considered in the future and the intersection should be monitored as traffic grows or if crash risk increases. A roundabout can also accommodate the existing and planned pedestrian crossings at the intersection.

5.2 PRIORITY OF IMPROVEMENTS

Based on the improvements listed in Section 5.2 and considering the B/C ratios and general magnitude of construction, the improvements were categorized into short-term, mid-term/consider with other projects, and long-term recommendations and further sorted to prioritize improvements and suggest a schedule for implementation.

Short-term

1. Roundabout at Dayton River Road & North Diamond Lake Road/142nd Avenue.
2. Roundabout at Fernbrook Lane & Rush Creek Parkway/Elm Creek Road with RRFB.
3. At Dayton Parkway & Territorial Road/Holly Lane, RRFB at existing Dayton Parkway crossing.
4. At Dayton River Road & Brockton Lane, enhanced warning signage on Brockton Lane and extend sidewalk on east side/improve Dayton River Road crossing.

Mid-term/Consider with Other Projects

1. Eastbound right turn lane at Dayton River Road & Pineview Lane.
2. Traffic signal at Fernbrook Lane & Rush Creek Parkway/Elm Creek Road if roundabout is not constructed.
3. Traffic signal at Dayton Parkway & Territorial Road/Holly Lane.
4. Regrade embankment at Dayton River Road & Lawndale Lane if realignment is not anticipated.
5. Replace traffic signal system and add railroad pre-emption with dynamic “no right turn” sign at CSAH 81 & Dayton Parkway.
6. Eastbound left turn lane at CSAH 81 & Territorial Road.

Long-term

1. Roundabout at South Diamond Lake Road & Pineview Lane.
2. Roundabout at Dayton River Road & Pineview Lane.
3. At Dayton River Road & Lawndale Lane, realign Lawndale Lane approaches.
4. Eastbound left turn lane at CSAH 81 & Troy Lane.

6.0 REFERENCES

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Appendix A - COLLECTED DAILY VOLUMES/TURNING MOVEMENT COUNTS

Type of report: Tube Count - Volume Data

LOCATION: Dayton Pkwy north of CSAH 81 **QC JOB #:** 16397101

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Dayton, MN **DATE:** Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
01:00 AM				2		2			2	
02:00 AM				4		4			4	
03:00 AM				1		1			1	
04:00 AM				1		1			1	
05:00 AM				23		23			23	
06:00 AM				112		112			112	
07:00 AM				**117**		**117**			**117**	
08:00 AM				96		96			96	
09:00 AM				76		76			76	
10:00 AM				85		85			85	
11:00 AM				66		66			66	
12:00 PM				114		114			114	
01:00 PM				107		107			107	
02:00 PM				91		91			91	
03:00 PM				**128**		**128**			**128**	
04:00 PM				116		116			116	
05:00 PM				119		119			119	
06:00 PM				67		67			67	
07:00 PM				53		53			53	
08:00 PM				29		29			29	
09:00 PM				34		34			34	
10:00 PM				11		11			11	
11:00 PM				7		7			7	
Day Total				1463		1463			1463	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				7:00 AM 117		7:00 AM 117			7:00 AM 117	
PM Peak Volume				3:00 PM 128		3:00 PM 128			3:00 PM 128	

Comments:

Report generated on 12/1/2023 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: 117th Ave N btwn Dayton Pkwy and E French Lake Rd
QC JOB #: 16397102
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				0		0			0	
02:00 AM				0		0			0	
03:00 AM				2		2			2	
04:00 AM				1		1			1	
05:00 AM				4		4			4	
06:00 AM				16		16			16	
07:00 AM				30		30			30	
08:00 AM				20		20			20	
09:00 AM				15		15			15	
10:00 AM				24		24			24	
11:00 AM				**34**		**34**			**34**	
12:00 PM				30		30			30	
01:00 PM				27		27			27	
02:00 PM				31		31			31	
03:00 PM				45		45			45	
04:00 PM				**61**		**61**			**61**	
05:00 PM				48		48			48	
06:00 PM				16		16			16	
07:00 PM				15		15			15	
08:00 PM				12		12			12	
09:00 PM				9		9			9	
10:00 PM				2		2			2	
11:00 PM				2		2			2	
Day Total				444		444			444	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 34		11:00 AM 34			11:00 AM 34	
PM Peak Volume				4:00 PM 61		4:00 PM 61			4:00 PM 61	

Comments:

Report generated on 12/1/2023 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: 117th Ave N west of Dayton Pkwy
QC JOB #: 16397103
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				0		0			0	
02:00 AM				0		0			0	
03:00 AM				2		2			2	
04:00 AM				2		2			2	
05:00 AM				4		4			4	
06:00 AM				10		10			10	
07:00 AM				10		10			10	
08:00 AM				10		10			10	
09:00 AM				9		9			9	
10:00 AM				**18**		**18**			**18**	
11:00 AM				14		14			14	
12:00 PM				24		24			24	
01:00 PM				19		19			19	
02:00 PM				14		14			14	
03:00 PM				33		33			33	
04:00 PM				**37**		**37**			**37**	
05:00 PM				29		29			29	
06:00 PM				8		8			8	
07:00 PM				9		9			9	
08:00 PM				11		11			11	
09:00 PM				4		4			4	
10:00 PM				0		0			0	
11:00 PM				1		1			1	
Day Total				268		268			268	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				10:00 AM 18		10:00 AM 18			10:00 AM 18	
PM Peak Volume				4:00 PM 37		4:00 PM 37			4:00 PM 37	

Comments:

Report generated on 12/1/2023 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Dayton Pkwy south of 117th Ave N
QC JOB #: 16397104
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				0		0			0	
02:00 AM				0		0			0	
03:00 AM				0		0			0	
04:00 AM				0		0			0	
05:00 AM				5		5			5	
06:00 AM				20		20			20	
07:00 AM				**29**		**29**			**29**	
08:00 AM				17		17			17	
09:00 AM				12		12			12	
10:00 AM				13		13			13	
11:00 AM				21		21			21	
12:00 PM				20		20			20	
01:00 PM				28		28			28	
02:00 PM				24		24			24	
03:00 PM				36		36			36	
04:00 PM				30		30			30	
05:00 PM				**44**		**44**			**44**	
06:00 PM				21		21			21	
07:00 PM				14		14			14	
08:00 PM				7		7			7	
09:00 PM				10		10			10	
10:00 PM				3		3			3	
11:00 PM				1		1			1	
Day Total				355		355			355	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				7:00 AM 29		7:00 AM 29			7:00 AM 29	
PM Peak Volume				5:00 PM 44		5:00 PM 44			5:00 PM 44	

Comments:

Report generated on 12/1/2023 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Territorial Rd btwn E French Lake Rd and Rush Creek Rd **QC JOB #:** 16397105

SPECIFIC LOCATION: **DIRECTION:** EB, WB

CITY/STATE: Dayton, MN **DATE:** Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				2		2			2	
01:00 AM				2		2			2	
02:00 AM				1		1			1	
03:00 AM				2		2			2	
04:00 AM				5		5			5	
05:00 AM				16		16			16	
06:00 AM				71		71			71	
07:00 AM				106		106			106	
08:00 AM				**117**		**117**			**117**	
09:00 AM				67		67			67	
10:00 AM				74		74			74	
11:00 AM				63		63			63	
12:00 PM				90		90			90	
01:00 PM				78		78			78	
02:00 PM				75		75			75	
03:00 PM				139		139			139	
04:00 PM				**158**		**158**			**158**	
05:00 PM				130		130			130	
06:00 PM				101		101			101	
07:00 PM				69		69			69	
08:00 PM				51		51			51	
09:00 PM				44		44			44	
10:00 PM				13		13			13	
11:00 PM				6		6			6	
Day Total				1480		1480			1480	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 117		8:00 AM 117			8:00 AM 117	
PM Peak Volume				4:00 PM 158		4:00 PM 158			4:00 PM 158	

Comments:

Report generated on 12/1/2023 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Lawndale Ln N south of Dayton River Rd **QC JOB #:** 16397106

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Dayton, MN **DATE:** Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				0		0			0	
02:00 AM				0		0			0	
03:00 AM				2		2			2	
04:00 AM				2		2			2	
05:00 AM				2		2			2	
06:00 AM				25		25			25	
07:00 AM				36		36			36	
08:00 AM				**41**		**41**			**41**	
09:00 AM				32		32			32	
10:00 AM				17		17			17	
11:00 AM				15		15			15	
12:00 PM				28		28			28	
01:00 PM				26		26			26	
02:00 PM				28		28			28	
03:00 PM				37		37			37	
04:00 PM				**54**		**54**			**54**	
05:00 PM				43		43			43	
06:00 PM				23		23			23	
07:00 PM				10		10			10	
08:00 PM				11		11			11	
09:00 PM				7		7			7	
10:00 PM				10		10			10	
11:00 PM				1		1			1	
Day Total				450		450			450	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 41		8:00 AM 41			8:00 AM 41	
PM Peak Volume				4:00 PM 54		4:00 PM 54			4:00 PM 54	

Comments:

Report generated on 12/1/2023 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: River Hills Pkwy south of Dayton River Rd
QC JOB #: 16397107
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				3		3			3	
01:00 AM				0		0			0	
02:00 AM				0		0			0	
03:00 AM				0		0			0	
04:00 AM				2		2			2	
05:00 AM				8		8			8	
06:00 AM				23		23			23	
07:00 AM				**51**		**51**			**51**	
08:00 AM				40		40			40	
09:00 AM				29		29			29	
10:00 AM				26		26			26	
11:00 AM				35		35			35	
12:00 PM				32		32			32	
01:00 PM				44		44			44	
02:00 PM				25		25			25	
03:00 PM				42		42			42	
04:00 PM				52		52			52	
05:00 PM				**54**		**54**			**54**	
06:00 PM				43		43			43	
07:00 PM				18		18			18	
08:00 PM				25		25			25	
09:00 PM				18		18			18	
10:00 PM				8		8			8	
11:00 PM				2		2			2	
Day Total				580		580			580	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				7:00 AM 51		7:00 AM 51			7:00 AM 51	
PM Peak Volume				5:00 PM 54		5:00 PM 54			5:00 PM 54	

Comments:

Report generated on 12/1/2023 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Pioneer Pkwy west of Dayton River Rd
QC JOB #: 16397108
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				4		4			4	
01:00 AM				5		5			5	
02:00 AM				4		4			4	
03:00 AM				3		3			3	
04:00 AM				8		8			8	
05:00 AM				15		15			15	
06:00 AM				74		74			74	
07:00 AM				**125**		**125**			**125**	
08:00 AM				93		93			93	
09:00 AM				69		69			69	
10:00 AM				53		53			53	
11:00 AM				59		59			59	
12:00 PM				66		66			66	
01:00 PM				63		63			63	
02:00 PM				70		70			70	
03:00 PM				99		99			99	
04:00 PM				100		100			100	
05:00 PM				**116**		**116**			**116**	
06:00 PM				60		60			60	
07:00 PM				58		58			58	
08:00 PM				44		44			44	
09:00 PM				43		43			43	
10:00 PM				15		15			15	
11:00 PM				12		12			12	
Day Total				1258		1258			1258	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				7:00 AM 125		7:00 AM 125			7:00 AM 125	
PM Peak Volume				5:00 PM 116		5:00 PM 116			5:00 PM 116	

Comments:

Report generated on 12/1/2023 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Balsam Ln N north of Dayton River Rd
QC JOB #: 16397109
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				0		0			0	
02:00 AM				1		1			1	
03:00 AM				0		0			0	
04:00 AM				0		0			0	
05:00 AM				1		1			1	
06:00 AM				1		1			1	
07:00 AM				3		3			3	
08:00 AM				1		1			1	
09:00 AM				3		3			3	
10:00 AM				**4**		**4**			**4**	
11:00 AM				2		2			2	
12:00 PM				3		3			3	
01:00 PM				6		6			6	
02:00 PM				5		5			5	
03:00 PM				6		6			6	
04:00 PM				7		7			7	
05:00 PM				**9**		**9**			**9**	
06:00 PM				7		7			7	
07:00 PM				3		3			3	
08:00 PM				0		0			0	
09:00 PM				1		1			1	
10:00 PM				4		4			4	
11:00 PM				0		0			0	
Day Total				67		67			67	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				10:00 AM 4		10:00 AM 4			10:00 AM 4	
PM Peak Volume				5:00 PM 9		5:00 PM 9			5:00 PM 9	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Lawndale Ln N north of N Diamond Lake Rd **QC JOB #:** 16397110

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Dayton, MN **DATE:** Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				0		0			0	
02:00 AM				0		0			0	
03:00 AM				2		2			2	
04:00 AM				3		3			3	
05:00 AM				6		6			6	
06:00 AM				32		32			32	
07:00 AM				36		36			36	
08:00 AM				41		41			41	
09:00 AM				50		50			50	
10:00 AM				36		36			36	
11:00 AM				**53**		**53**			**53**	
12:00 PM				44		44			44	
01:00 PM				36		36			36	
02:00 PM				53		53			53	
03:00 PM				81		81			81	
04:00 PM				**86**		**86**			**86**	
05:00 PM				59		59			59	
06:00 PM				56		56			56	
07:00 PM				39		39			39	
08:00 PM				26		26			26	
09:00 PM				26		26			26	
10:00 PM				21		21			21	
11:00 PM				3		3			3	
Day Total				789		789			789	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 53		11:00 AM 53			11:00 AM 53	
PM Peak Volume				4:00 PM 86		4:00 PM 86			4:00 PM 86	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: River Hills Pkwy north of N Diamond Lake Rd **QC JOB #:** 16397111

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Dayton, MN **DATE:** Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				1		1			1	
02:00 AM				3		3			3	
03:00 AM				3		3			3	
04:00 AM				19		19			19	
05:00 AM				32		32			32	
06:00 AM				72		72			72	
07:00 AM				50		50			50	
08:00 AM				47		47			47	
09:00 AM				49		49			49	
10:00 AM				55		55			55	
11:00 AM				**78**		**78**			**78**	
12:00 PM				55		55			55	
01:00 PM				69		69			69	
02:00 PM				50		50			50	
03:00 PM				**92**		**92**			**92**	
04:00 PM				85		85			85	
05:00 PM				50		50			50	
06:00 PM				37		37			37	
07:00 PM				34		34			34	
08:00 PM				9		9			9	
09:00 PM				5		5			5	
10:00 PM				4		4			4	
11:00 PM				0		0			0	
Day Total				899		899			899	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 78		11:00 AM 78			11:00 AM 78	
PM Peak Volume				3:00 PM 92		3:00 PM 92			3:00 PM 92	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Troy Ln N north of CSAH 81 **QC JOB #:** 16397112

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Dayton, MN **DATE:** Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				0		0			0	
02:00 AM				2		2			2	
03:00 AM				1		1			1	
04:00 AM				3		3			3	
05:00 AM				35		35			35	
06:00 AM				**36**		**36**			**36**	
07:00 AM				11		11			11	
08:00 AM				17		17			17	
09:00 AM				25		25			25	
10:00 AM				15		15			15	
11:00 AM				34		34			34	
12:00 PM				31		31			31	
01:00 PM				29		29			29	
02:00 PM				24		24			24	
03:00 PM				**33**		**33**			**33**	
04:00 PM				29		29			29	
05:00 PM				21		21			21	
06:00 PM				23		23			23	
07:00 PM				10		10			10	
08:00 PM				4		4			4	
09:00 PM				10		10			10	
10:00 PM				7		7			7	
11:00 PM				1		1			1	
Day Total				401		401			401	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				6:00 AM 36		6:00 AM 36			6:00 AM 36	
PM Peak Volume				3:00 PM 33		3:00 PM 33			3:00 PM 33	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Dayton Pkwy west of Brockton Ln N
QC JOB #: 16397113
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				2		2			2	
01:00 AM				1		1			1	
02:00 AM				1		1			1	
03:00 AM				2		2			2	
04:00 AM				15		15			15	
05:00 AM				19		19			19	
06:00 AM				71		71			71	
07:00 AM				**159**		**159**			**159**	
08:00 AM				140		140			140	
09:00 AM				76		76			76	
10:00 AM				78		78			78	
11:00 AM				79		79			79	
12:00 PM				77		77			77	
01:00 PM				77		77			77	
02:00 PM				89		89			89	
03:00 PM				114		114			114	
04:00 PM				**180**		**180**			**180**	
05:00 PM				152		152			152	
06:00 PM				93		93			93	
07:00 PM				70		70			70	
08:00 PM				51		51			51	
09:00 PM				32		32			32	
10:00 PM				24		24			24	
11:00 PM				7		7			7	
Day Total				1609		1609			1609	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				7:00 AM 159		7:00 AM 159			7:00 AM 159	
PM Peak Volume				4:00 PM 180		4:00 PM 180			4:00 PM 180	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Holly Ln N east of Dayton Pkwy
QC JOB #: 16397114
SPECIFIC LOCATION:
DIRECTION: NB, SB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				5		5			5	
01:00 AM				4		4			4	
02:00 AM				3		3			3	
03:00 AM				6		6			6	
04:00 AM				5		5			5	
05:00 AM				56		56			56	
06:00 AM				101		101			101	
07:00 AM				160		160			160	
08:00 AM				155		155			155	
09:00 AM				152		152			152	
10:00 AM				142		142			142	
11:00 AM				**181**		**181**			**181**	
12:00 PM				155		155			155	
01:00 PM				**158**		**158**			**158**	
02:00 PM				144		144			144	
03:00 PM				144		144			144	
04:00 PM				99		99			99	
05:00 PM				69		69			69	
06:00 PM				18		18			18	
07:00 PM				16		16			16	
08:00 PM				9		9			9	
09:00 PM				10		10			10	
10:00 PM				5		5			5	
11:00 PM				6		6			6	
Day Total				1803		1803			1803	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 181		11:00 AM 181			11:00 AM 181	
PM Peak Volume				1:00 PM 158		1:00 PM 158			1:00 PM 158	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: 121st Ave N east of Brockton Ln N
QC JOB #: 16397115
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				0		0			0	
01:00 AM				0		0			0	
02:00 AM				0		0			0	
03:00 AM				0		0			0	
04:00 AM				1		1			1	
05:00 AM				2		2			2	
06:00 AM				3		3			3	
07:00 AM				8		8			8	
08:00 AM				10		10			10	
09:00 AM				5		5			5	
10:00 AM				3		3			3	
11:00 AM				**11**		**11**			**11**	
12:00 PM				18		18			18	
01:00 PM				8		8			8	
02:00 PM				11		11			11	
03:00 PM				22		22			22	
04:00 PM				**69**		**69**			**69**	
05:00 PM				15		15			15	
06:00 PM				4		4			4	
07:00 PM				4		4			4	
08:00 PM				5		5			5	
09:00 PM				3		3			3	
10:00 PM				2		2			2	
11:00 PM				0		0			0	
Day Total				204		204			204	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				11:00 AM 11		11:00 AM 11			11:00 AM 11	
PM Peak Volume				4:00 PM 69		4:00 PM 69			4:00 PM 69	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Trailer Park Entrance east of Brockton Ln N
QC JOB #: 16397116
SPECIFIC LOCATION:
DIRECTION: EB, WB
CITY/STATE: Dayton, MN
DATE: Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				8		8			8	
01:00 AM				18		18			18	
02:00 AM				20		20			20	
03:00 AM				19		19			19	
04:00 AM				23		23			23	
05:00 AM				44		44			44	
06:00 AM				60		60			60	
07:00 AM				68		68			68	
08:00 AM				**87**		**87**			**87**	
09:00 AM				71		71			71	
10:00 AM				61		61			61	
11:00 AM				77		77			77	
12:00 PM				91		91			91	
01:00 PM				69		69			69	
02:00 PM				82		82			82	
03:00 PM				**110**		**110**			**110**	
04:00 PM				103		103			103	
05:00 PM				92		92			92	
06:00 PM				71		71			71	
07:00 PM				76		76			76	
08:00 PM				40		40			40	
09:00 PM				45		45			45	
10:00 PM				39		39			39	
11:00 PM				32		32			32	
Day Total				1406		1406			1406	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				8:00 AM 87		8:00 AM 87			8:00 AM 87	
PM Peak Volume				3:00 PM 110		3:00 PM 110			3:00 PM 110	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

TRUE DATA TO IMPROVE MOBILITY

Type of report: Tube Count - Volume Data

LOCATION: Kwik Trip Access north of CSAH 81 **QC JOB #:** 16397117

SPECIFIC LOCATION: **DIRECTION:** NB, SB

CITY/STATE: Dayton, MN **DATE:** Nov 16 2023 - Nov 16 2023

Start Time	Mon	Tue	Wed	Thu 16 Nov 23	Fri	Average Weekday Hourly Traffic	Sat	Sun	Average Week Hourly Traffic	Average Week Profile
12:00 AM				34		34			34	
01:00 AM				17		17			17	
02:00 AM				21		21			21	
03:00 AM				36		36			36	
04:00 AM				62		62			62	
05:00 AM				150		150			150	
06:00 AM				**280**		**280**			**280**	
07:00 AM				272		272			272	
08:00 AM				249		249			249	
09:00 AM				210		210			210	
10:00 AM				166		166			166	
11:00 AM				223		223			223	
12:00 PM				**289**		**289**			**289**	
01:00 PM				238		238			238	
02:00 PM				232		232			232	
03:00 PM				248		248			248	
04:00 PM				238		238			238	
05:00 PM				213		213			213	
06:00 PM				133		133			133	
07:00 PM				107		107			107	
08:00 PM				79		79			79	
09:00 PM				73		73			73	
10:00 PM				59		59			59	
11:00 PM				39		39			39	
Day Total				3668		3668			3668	
% Weekday Average				100%						
% Week Average				100%		100%				
AM Peak Volume				6:00 AM 280		6:00 AM 280			6:00 AM 280	
PM Peak Volume				12:00 PM 289		12:00 PM 289			12:00 PM 289	

Comments:

Report generated on 12/1/2023 10:59 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net)

QUALITY COUNTS REPORT

Pineview Ln & Dayton River Rd (CSAH 12)

AM Peak																				*771*
	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total			
7:00 AM	2	0	4	0	8	7	2	0	0	98	14	0	8	21	0	0	164			
7:15 AM	5	1	5	0	9	2	2	0	1	113	22	0	2	23	1	0	186			
7:30 AM	4	2	4	0	2	4	1	0	0	114	24	0	4	43	2	0	204			
7:45 AM	11	1	5	0	6	5	2	0	7	96	23	0	3	57	1	0	217			
Hourly Tot	22	4	18	0	25	18	7	0	8	421	83	0	17	144	4	0	771			
PC Total	20	4	18		24	17	7		7	416	80		16	138	4		Int PHF			
HV Total	2	0	0		1	1	0		1	5	3		1	6	0		0.89			
% HV	9%	2%	2%		4%	6%	2%		13%	2%	4%		6%	4%	2%					
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X					
Peds (Crossing)		X				X				X				X						

PM Peak																				*886*
	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total			
4:00 PM	23	4	12	0	4	0	0	0	6	78	11	0	2	95	2	0	237			
4:15 PM	28	6	3	0	5	1	4	0	3	62	6	0	3	89	3	0	213			
4:30 PM	22	3	8	0	6	2	1	0	6	61	17	0	4	82	2	0	214			
4:45 PM	28	8	5	0	2	1	2	0	3	59	9	0	4	94	7	0	222			
Hourly Tot	101	21	28	0	17	4	7	0	18	260	43	0	13	360	14	0	886			
PC Total	99	21	28		14	4	7		17	250	42		13	352	14		Int PHF			
HV Total	2	0	0		3	0	0		1	10	1		0	8	0		0.93			
% HV	2%	2%	2%		18%	2%	2%		6%	4%	2%		2%	2%	2%					
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X					
Peds (Crossing)		X				X				X				X						

Intersectio Pineview L Dayton River Rd (CSAH 12)
City/State: Dayton MN
QCJobNo: 16454210
ClientID:
Date: 01/18/24
Comments:
Latitude/L 45.20757 -93.4427
PEAK HOU 4:00 PM
PEAK HOU 5:00 PM
PEAK 15-M 4:00 PM
PEAK 15-M 4:15 PM
PHF 0.93

Lane Configuration:

	STOP	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7
		LTR						
EBLane7							TR	WBLane1
EBLane6							LT	WBLane2
EBLane5								WBLane3
EBLane4								WBLane4
EBLane3								WBLane5
EBLane2	LT							WBLane6
EBLane1	TR							WBLane7
							LTR	
		NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	STOP

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
101	21	28	17	4	7	18	260	43	13	360	14	150	28	321	387	53	60	305	468

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	2	0	0	17.6	0	0	5.6	3.8	2.3	0	2.2	0	1.3	10.7	3.7	2.1	1.9	1.7	4.3	2.1
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	92	16	48	0	0	16	0	0	0	0	24	312	44	0	0	8	380	8	0	0	948
Heavy Truc	8	0	0			0	0	0			4	24	0			0	12	0			48
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	4	0	1	0		2	1	0	0		1	37	10	0		2	13	0	0		71	
6:15 AM	1	1	0	0		9	0	2	0		2	42	10	0		0	20	2	0		89	
6:30 AM	0	0	3	0		5	2	1	0		0	60	9	0		3	21	0	0		104	
6:45 AM	3	1	4	0		8	6	1	0		0	79	16	0		2	33	5	0		158	422
7:00 AM	2	0	4	0		8	7	2	0		0	98	14	0		8	21	0	0		164	515
7:15 AM	5	1	5	0		9	2	2	0		1	113	22	0		2	23	1	0		186	612
7:30 AM	4	2	4	0		2	4	1	0		0	114	24	0		4	43	2	0		204	712
7:45 AM	11	1	5	0		6	5	2	0		7	96	23	0		3	57	1	0		217	771
8:00 AM	10	1	2	0		10	4	2	0		0	63	12	0		4	38	1	0		147	754
8:15 AM	6	3	4	0		4	2	1	0		3	71	8	0		4	33	0	0		139	707
8:30 AM	6	1	0	0		2	2	0	0		0	73	12	0		1	42	3	0		142	645
8:45 AM	4	2	1	0		5	0	1	0		0	63	15	0		1	47	2	0		141	569
9:00 AM	3	0	0	0		2	1	1	0		2	57	13	0		2	34	1	0		116	538
9:15 AM	11	1	0	0		2	3	0	0		1	38	8	0		2	23	2	0		91	490
9:30 AM	7	2	5	0		2	4	0	0		1	44	6	0		1	18	0	0		90	438
9:45 AM	8	2	1	0		3	2	1	0		0	49	2	0		1	37	1	0		107	404
10:00 AM	7	1	1	0		3	2	0	0		1	41	9	0		1	30	1	0		97	385
10:15 AM	3	0	0	0		5	3	2	0		0	39	8	0		0	31	0	0		91	385
10:30 AM	5	1	0	0		4	2	1	0		0	57	5	0		0	33	1	0		109	404
10:45 AM	2	2	3	0		1	3	0	0		2	44	6	0		5	34	2	0		104	401
11:00 AM	2	3	2	0		4	4	2	0		0	36	4	0		2	37	0	0		96	400
11:15 AM	3	2	1	0		2	3	0	0		1	36	6	0		1	50	4	0		109	418
11:30 AM	5	0	2	0		4	2	0	0		2	49	5	0		1	32	1	0		103	412
11:45 AM	7	5	2	0		2	0	1	0		1	45	2	0		2	28	8	0		103	411
12:00 PM	6	6	1	0		3	4	2	0		0	44	7	0		1	36	2	0		112	427
12:15 PM	8	2	1	0		1	0	1	0		1	34	7	0		1	53	5	0		114	432

12:30 PM	7	2	3	0		1	3	2	0		0	35	6	0		2	45	3	0	109	438
12:45 PM	7	2	1	0		1	2	1	0		2	24	6	0		0	42	3	0	91	426
1:00 PM	5	2	1	0		3	1	1	0		1	31	4	0		1	33	1	0	84	398
1:15 PM	9	0	0	0		1	0	0	0		0	42	3	0		1	43	4	0	103	387
1:30 PM	7	3	1	0		3	1	1	0		1	49	6	0		1	46	2	0	121	399
1:45 PM	6	0	0	0		1	4	1	0		0	38	6	0		1	38	0	0	95	403
2:00 PM	9	2	2	0		3	0	2	0		1	44	11	0		2	53	1	0	130	449
2:15 PM	10	1	3	0		4	3	1	0		1	58	5	0		0	49	7	0	142	488
2:30 PM	10	8	2	0		4	2	2	0		0	46	7	0		0	51	3	0	135	502
2:45 PM	6	3	6	0		3	1	0	0		1	52	6	0		2	64	2	0	146	553
3:00 PM	10	3	2	0		1	0	0	0		3	45	13	0		1	57	2	0	137	560
3:15 PM	16	6	1	0		2	7	1	0		1	41	9	0		0	72	8	0	164	582
3:30 PM	16	4	3	0		3	6	2	0		1	48	15	0		2	82	4	0	186	633
3:45 PM	19	5	2	0		3	2	0	0		2	64	9	0		1	90	2	0	199	686
4:00 PM	23	4	12	0		4	0	0	0		6	78	11	0		2	95	2	0	237	786
4:15 PM	28	6	3	0		5	1	4	0		3	62	6	0		3	89	3	0	213	835
4:30 PM	22	3	8	0		6	2	1	0		6	61	17	0		4	82	2	0	214	863
4:45 PM	28	8	5	0		2	1	2	0		3	59	9	0		4	94	7	0	222	886
5:00 PM	25	2	6	0		1	1	2	0		2	45	11	0		7	84	6	0	192	841
5:15 PM	15	5	7	0		2	2	3	0		1	46	13	0		5	86	6	0	191	819
5:30 PM	21	4	6	0		2	3	1	0		2	36	9	0		3	64	10	0	161	766
5:45 PM	19	6	6	0		3	3	1	0		0	42	5	0		2	54	4	0	145	689
6:00 PM	14	5	3	0		4	1	2	0		1	35	10	0		10	52	7	0	144	641
6:15 PM	12	3	4	0		2	0	0	0		0	49	4	0		4	48	1	0	127	577
6:30 PM	12	4	1	0		6	1	1	0		0	35	0	0		0	44	4	0	108	524
6:45 PM	4	3	1	0		3	1	0	0		0	28	1	0		2	41	5	0	89	468

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total	3.8%
6:00 AM	0	0	0	0	0	0	0	1	2	0	0	0	3	
6:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	
7:15 AM	0	0	0	0	0	0	0	2	1	0	1	0	4	
7:30 AM	0	0	0	0	1	0	0	0	0	1	1	0	3	
7:45 AM	2	0	0	1	0	0	1	2	2	0	4	0	12	
8:00 AM	1	0	0	0	0	0	0	1	0	1	1	0	4	
8:15 AM	1	0	1	0	0	0	1	4	0	0	6	0	13	
8:30 AM	0	0	0	0	0	0	0	6	0	0	3	0	9	
8:45 AM	0	0	0	1	0	0	0	4	2	0	9	0	16	
9:00 AM	0	0	0	1	0	0	0	4	2	0	0	0	7	
9:15 AM	0	0	0	0	0	0	0	2	0	0	4	0	6	
9:30 AM	1	0	2	0	0	0	0	5	1	0	0	0	9	
9:45 AM	0	0	0	0	0	0	0	3	0	0	3	1	7	
10:00 AM	0	0	0	0	0	0	0	4	0	0	5	0	9	
10:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	
10:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	3	
10:45 AM	0	0	0	0	1	0	1	2	1	0	2	0	7	
11:00 AM	0	0	1	0	1	0	0	3	0	0	1	0	6	
11:15 AM	0	0	0	0	0	0	0	2	0	0	4	0	6	
11:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	
11:45 AM	1	1	0	0	0	0	0	3	0	0	4	1	10	
12:00 PM	0	0	0	0	1	0	0	5	0	0	0	0	6	
12:15 PM	0	0	0	0	0	0	0	3	1	0	2	0	6	
12:30 PM	0	0	0	0	0	1	0	3	0	1	0	1	6	
12:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	
1:00 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	
1:15 PM	0	0	0	0	0	0	0	4	0	0	1	0	5	
1:30 PM	0	0	1	0	0	0	0	1	0	0	1	0	3	
1:45 PM	0	0	0	0	1	0	0	1	0	0	2	0	4	
2:00 PM	0	0	0	0	0	0	0	3	1	0	5	0	9	
2:15 PM	0	0	0	2	0	0	0	4	1	0	2	0	9	
2:30 PM	0	1	0	0	0	1	0	1	0	0	5	0	8	
2:45 PM	0	0	0	1	1	0	0	4	1	0	3	0	10	
3:00 PM	0	0	0	0	0	0	0	2	2	0	1	0	5	
3:15 PM	0	0	0	1	2	0	0	3	0	0	1	0	7	
3:30 PM	0	0	0	0	0	0	0	1	0	0	3	0	4	
3:45 PM	0	0	0	0	0	0	1	2	1	0	0	0	4	
4:00 PM	2	0	0	0	0	0	1	6	0	0	3	0	12	
4:15 PM	0	0	0	1	0	0	0	2	0	0	2	0	5	
4:30 PM	0	0	0	2	0	0	0	2	0	0	1	0	5	
4:45 PM	0	0	0	0	0	0	0	0	1	0	2	0	3	
5:00 PM	0	0	1	0	0	0	0	0	0	1	2	0	4	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	1	0	0	1	0	0	2	
6:15 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	
6:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT CHANGED ORIENTATION

Brockton Ln (CSAH 13) & Dayton River Rd (CSAH 12)

AM Peak *414*

	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	Total
7:00 AM	0	0	0	0	0	0	0	0	0	40	29	0	2	19	0	0	90
7:15 AM	7	0	1	0	0	0	0	0	0	49	61	0	2	14	0	0	134
7:30 AM	4	0	0	0	0	0	0	0	0	49	27	0	3	16	0	0	99
7:45 AM	8	0	2	0	0	0	0	0	0	33	22	0	0	26	0	0	91
Hourly Tot	19	0	3	0	0	0	0	0	0	171	139	0	7	75	0	0	414
PC Total	16	0	3		0	0	0		0	167	138		7	74	0		Int PHF
HV Total	3	0	0		0	0	0		0	4	1		0	1	0		0.77
% HV	16%	2%	2%		2%	2%	2%		2%	2%	2%		2%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak *515*

	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	Total
3:45 PM	39	0	3	0	0	0	0	0	0	31	9	0	4	38	0	0	124
4:00 PM	37	0	5	0	0	0	0	0	0	25	7	0	2	48	0	0	124
4:15 PM	30	0	2	0	0	0	0	0	0	21	14	0	1	62	0	0	130
4:30 PM	47	0	2	0	0	0	0	0	0	25	12	0	2	49	0	0	137
Hourly Tot	153	0	12	0	0	0	0	0	0	102	42	0	9	197	0	0	515
PC Total	153	0	11		0	0	0		0	96	40		9	193	0		Int PHF
HV Total	0	0	1		0	0	0		0	6	2		0	4	0		0.94
% HV	2%	2%	8%		2%	2%	2%		2%	6%	5%		2%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio Brockton L Dayton River Rd (CSAH 12) Lane Configuration:

City/State: Dayton MN

QCJobNo: 16454209

ClientID:

Date: 01/18/24

Comments:

Latitude/Lc 45.24046 -93.5131

PEAK HOUI 3:45 PM

PEAK HOUI 4:45 PM

PEAK 15-M 4:30 PM

PEAK 15-M 4:45 PM

PHF 0.94

STOP SBLane1 SBLane2 SBLane3 SBLane4 SBLane5 SBLane6 SBLane7

EBLane7 LT WBLane1

EBLane6 WBLane2

EBLane5 WBLane3

EBLane4 WBLane4

EBLane3 WBLane5

EBLane2 T WBLane6

EBLane1 R WBLane7

LR

NBLane7 NBLane6 NBLane5 NBLane4 NBLane3 NBLane2 NBLane1 STOP

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
153	0	12	0	0	0	0	102	42	9	197	0	165	0	144	206	0	51	114	350

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	0	0	8.3	0	0	0	0	5.9	4.8	0	2	0	0.6	0	5.6	1.9	0	3.9	6.1	1.1
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	188	0	8	0	0	0	0	0	0	0	0	100	48	0	0	8	196	0	0	0	548
Heavy Truc	0	0	4			0	0	0			0	0	4			0	4	0			12
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	0	0	1	0		0	0	0	0		0	13	10	0		2	5	0	0		31	
6:15 AM	0	0	0	0		0	0	0	0		0	28	10	0		0	9	0	0		47	
6:30 AM	0	0	0	0		0	0	0	0		0	31	15	0		4	6	0	0		56	
6:45 AM	6	0	0	0		0	0	0	0		0	38	16	0		1	16	0	0		77	211
7:00 AM	0	0	0	0		0	0	0	0		0	40	29	0		2	19	0	0		90	270
7:15 AM	7	0	1	0		0	0	0	0		0	49	61	0		2	14	0	0		134	357
7:30 AM	4	0	0	0		0	0	0	0		0	49	27	0		3	16	0	0		99	400
7:45 AM	8	0	2	0		0	0	0	0		0	33	22	0		0	26	0	0		91	414
8:00 AM	3	0	0	0		0	0	0	0		0	30	13	0		1	21	0	0		68	392
8:15 AM	8	0	2	0		0	0	0	0		0	30	14	0		2	15	0	0		71	329
8:30 AM	6	0	2	0		0	0	0	0		0	30	16	0		2	6	0	0		62	292
8:45 AM	4	0	3	0		0	0	0	0		0	18	9	0		3	13	0	0		50	251
9:00 AM	2	0	1	0		0	0	0	0		0	19	11	0		0	8	0	0		41	224
9:15 AM	5	0	1	0		0	0	0	0		0	15	4	0		1	9	0	0		35	188
9:30 AM	6	0	0	0		0	0	0	0		0	7	3	0		0	12	0	0		28	154
9:45 AM	6	0	3	0		0	0	0	0		0	15	8	0		3	14	0	0		49	153
10:00 AM	6	0	0	0		0	0	0	0		0	13	6	0		0	7	0	0		32	144
10:15 AM	4	0	1	0		0	0	0	0		0	17	6	0		0	12	0	0		40	149
10:30 AM	5	0	1	0		0	0	0	0		0	21	6	0		1	19	0	0		53	174
10:45 AM	5	0	3	0		0	0	0	0		0	11	6	0		2	7	0	0		34	159
11:00 AM	13	0	2	0		0	0	0	0		0	10	3	0		1	12	0	0		41	168
11:15 AM	5	0	1	0		0	0	0	0		0	11	7	0		2	10	0	0		36	164
11:30 AM	8	0	1	0		0	0	0	0		0	20	9	0		1	12	0	0		51	162
11:45 AM	12	0	1	0		0	0	0	0		0	18	7	0		2	12	0	0		52	180
12:00 PM	11	0	4	0		0	0	0	0		0	17	4	0		1	14	0	0		51	190
12:15 PM	7	0	3	0		0	0	0	0		0	18	8	0		0	19	0	0		55	209

12:30 PM	5	0	0	0	0	0	0	0	0	10	11	0	4	20	0	0	50	208
12:45 PM	6	0	1	0	0	0	0	0	0	10	4	0	1	11	0	0	33	189
1:00 PM	4	0	2	0	0	0	0	0	0	9	1	0	1	8	0	0	25	163
1:15 PM	18	0	1	0	0	0	0	0	0	13	10	0	0	19	0	0	61	169
1:30 PM	9	0	1	0	0	0	0	0	0	13	8	0	3	21	0	0	55	174
1:45 PM	14	0	1	0	0	0	0	0	0	15	8	0	1	23	0	0	62	203
2:00 PM	7	0	0	0	0	0	0	0	0	18	8	0	3	18	0	0	54	232
2:15 PM	21	0	1	0	0	0	0	0	0	17	8	0	1	21	0	0	69	240
2:30 PM	18	0	0	0	0	0	0	0	0	21	9	0	5	24	0	0	77	262
2:45 PM	17	0	0	0	0	0	0	0	0	22	10	0	2	31	0	0	82	282
3:00 PM	22	0	0	0	0	0	0	0	0	20	8	0	2	22	0	0	74	302
3:15 PM	28	0	5	0	0	0	0	0	0	17	6	0	3	38	0	0	97	330
3:30 PM	40	0	2	0	0	0	0	0	0	22	5	0	2	52	0	0	123	376
3:45 PM	39	0	3	0	0	0	0	0	0	31	9	0	4	38	0	0	124	418
4:00 PM	37	0	5	0	0	0	0	0	0	25	7	0	2	48	0	0	124	468
4:15 PM	30	0	2	0	0	0	0	0	0	21	14	0	1	62	0	0	130	501
4:30 PM	47	0	2	0	0	0	0	0	0	25	12	0	2	49	0	0	137	515
4:45 PM	31	0	4	0	0	0	0	0	0	25	7	0	2	50	0	0	119	510
5:00 PM	31	0	0	0	0	0	0	0	0	15	7	0	3	46	0	0	102	488
5:15 PM	24	0	1	0	0	0	0	0	0	28	6	0	3	43	0	0	105	463
5:30 PM	22	0	4	0	0	0	0	0	0	17	7	0	0	32	0	0	82	408
5:45 PM	14	0	1	0	0	0	0	0	0	12	7	0	1	27	0	0	62	351
6:00 PM	12	0	1	0	0	0	0	0	0	6	6	0	0	22	0	0	47	296
6:15 PM	5	0	3	0	0	0	0	0	0	13	1	0	2	24	0	0	48	239
6:30 PM	8	0	5	0	0	0	0	0	0	11	5	0	2	19	0	0	50	207
6:45 PM	10	0	1	0	0	0	0	0	0	13	4	0	1	14	0	0	43	188

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	2
7:15 AM	1	0	0	0	0	0	0	0	1	0	0	0	2
7:30 AM	2	0	0	0	0	0	0	1	0	0	0	0	3
7:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
8:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
8:15 AM	2	0	1	0	0	0	0	1	2	1	1	0	8
8:30 AM	0	0	0	0	0	0	0	2	1	0	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	1	0	3	0	4
9:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2
9:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
9:30 AM	1	0	0	0	0	0	0	1	0	0	1	0	3
9:45 AM	1	0	0	0	0	0	0	0	1	0	1	0	3
10:00 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
10:15 AM	1	0	0	0	0	0	0	0	0	0	1	0	2
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
10:45 AM	1	0	0	0	0	0	0	1	2	0	0	0	4
11:00 AM	0	0	0	0	0	0	0	0	1	1	0	0	2
11:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	1	1	0	2	0	4
12:00 PM	2	0	0	0	0	0	0	2	0	0	3	0	7
12:15 PM	1	0	0	0	0	0	0	2	0	0	0	0	3
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1
1:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	1	1	0	0	0	2
1:45 PM	0	0	0	0	0	0	0	2	1	0	0	0	3
2:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
2:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
2:30 PM	0	0	0	0	0	0	0	1	3	0	1	0	5
2:45 PM	1	0	0	0	0	0	0	1	0	0	0	0	2
3:00 PM	1	0	0	0	0	0	0	3	0	0	2	0	6
3:15 PM	2	0	1	0	0	0	0	0	1	1	0	0	5
3:30 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
3:45 PM	0	0	0	0	0	0	0	5	0	0	0	0	5
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	1	0	3	0	5
4:30 PM	0	0	1	0	0	0	0	0	1	0	1	0	3
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
6:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT

N Diamond Lake Rd (CSAH 144) & Dayton River Rd (CSAH 12)

AM Peak *699*

	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total
7:00 AM	1	1	56	0	0	0	0	0	0	57	0	0	14	11	0	0	140
7:15 AM	2	0	49	0	1	0	0	0	0	80	0	0	21	16	0	0	169
7:30 AM	1	0	61	0	1	0	0	0	0	82	0	0	26	23	0	0	194
7:45 AM	1	0	53	0	0	0	0	0	0	72	1	0	44	25	0	0	196
Hourly Tot	5	1	219	0	2	0	0	0	0	291	1	0	105	75	0	0	699
PC Total	5	1	214		2	0	0		0	289	1		98	75	0		Int PHF
HV Total	0	0	5		0	0	0		0	2	0		7	0	0		0.89
% HV	2%	2%	2%		2%	2%	2%		2%	2%	2%		7%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak *805*

	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total
4:00 PM	0	0	49	0	1	0	0	0	0	48	1	0	51	73	0	0	223
4:15 PM	1	1	34	0	0	0	0	0	0	33	1	0	46	73	1	0	190
4:30 PM	1	0	42	0	0	0	0	0	0	41	1	0	39	64	0	0	188
4:45 PM	0	0	36	0	0	0	0	0	0	40	2	0	52	73	1	0	204
Hourly Tot	2	1	161	0	1	0	0	0	0	162	5	0	188	283	2	0	805
PC Total	2	1	156		1	0	0		0	157	4		182	278	2		Int PHF
HV Total	0	0	5		0	0	0		0	5	1		6	5	0		0.9
% HV	2%	2%	3%		2%	2%	2%		2%	3%	20%		3%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio N Diamonc Dayton River Rd (CSAH 12)
City/State: Dayton MN
QCJobNo: 16454208
ClientID:
Date: 01/18/24
Comments:
Latitude/Lc 45.21058 -93.451
PEAK HOUI 4:00 PM
PEAK HOUI 5:00 PM
PEAK 15-M 4:00 PM
PEAK 15-M 4:15 PM
PHF 0.9

Lane Configuration:

		STOP	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7	
			LTR							
EBLane7								TR	WBLane1	
EBLane6								LT	WBLane2	
EBLane5									WBLane3	
EBLane4									WBLane4	
EBLane3									WBLane5	
EBLane2	LT								WBLane6	
EBLane1	R								WBLane7	
								LT	R	
			NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	STOP

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
2	1	161	1	0	0	0	162	5	188	283	2	164	1	167	473	3	193	324	285

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	0	0	3.1	0	0	0	0	3.1	20	3.2	1.8	0	3	0	3.6	2.3	0	3.6	3.1	1.8
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	0	0	196	0	0	4	0	0	0	0	0	192	4	0	0	204	292	0	0	0	892
Heavy Truc	0	0	8			0	0	0			0	16	4			12	4	0			44
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	0	0	23	0		0	0	0	0		0	23	0	0		9	9	0	0		64	
6:15 AM	0	1	30	0		0	1	0	0		0	32	2	0		19	6	0	0		91	
6:30 AM	1	0	36	0		1	0	0	0		0	40	1	0		20	6	0	0		105	
6:45 AM	3	0	37	0		0	0	0	0		0	50	6	0		24	14	0	0		134	394
7:00 AM	1	1	56	0		0	0	0	0		0	57	0	0		14	11	0	0		140	470
7:15 AM	2	0	49	0		1	0	0	0		0	80	0	0		21	16	0	0		169	548
7:30 AM	1	0	61	0		1	0	0	0		0	82	0	0		26	23	0	0		194	637
7:45 AM	1	0	53	0		0	0	0	0		0	72	1	0		44	25	0	0		196	699
8:00 AM	1	0	33	0		2	0	0	0		0	37	0	0		27	26	0	0		126	685
8:15 AM	0	0	36	0		0	0	0	0		0	44	2	0		16	22	0	0		120	636
8:30 AM	1	0	36	0		0	0	0	0		0	41	0	0		26	23	0	0		127	569
8:45 AM	2	0	39	0		0	0	1	0		0	39	4	0		23	26	1	0		135	508
9:00 AM	0	0	34	0		0	0	0	0		0	31	0	0		25	15	1	0		106	488
9:15 AM	0	0	19	0		0	0	0	0		0	25	1	0		20	16	0	0		81	449
9:30 AM	1	0	32	0		0	0	0	0		0	18	0	0		10	14	0	0		75	397
9:45 AM	0	0	26	0		0	1	0	0		0	23	0	0		24	21	0	0		95	357
10:00 AM	1	1	25	0		1	0	0	0		0	25	0	0		23	12	0	0		88	339
10:15 AM	0	0	22	0		0	0	0	0		0	23	0	0		19	18	0	0		82	340
10:30 AM	0	0	25	0		0	0	0	0		0	35	0	0		18	19	0	0		97	362
10:45 AM	1	0	27	0		0	0	0	0		0	24	1	0		22	15	0	0		90	357
11:00 AM	1	0	17	0		0	0	0	0		0	22	1	0		26	15	0	0		82	351
11:15 AM	1	0	17	0		0	0	0	0		0	24	2	0		36	15	1	0		96	365
11:30 AM	2	1	35	0		1	0	0	0		0	19	3	0		21	18	0	0		100	368
11:45 AM	0	0	25	0		0	0	0	0		0	24	0	0		18	19	0	0		86	364
12:00 PM	2	1	24	0		0	0	0	0		0	26	0	0		23	17	0	0		93	375
12:15 PM	0	0	19	0		0	0	1	0		0	25	1	0		29	36	0	0		111	390

12:30 PM	0	0	21	0	1	0	0	0	0	20	1	0	24	28	0	0	95	385
12:45 PM	1	0	21	0	1	0	0	0	0	6	1	0	24	26	1	0	81	380
1:00 PM	0	0	23	0	1	0	0	0	1	12	1	0	20	18	0	0	76	363
1:15 PM	2	0	21	0	1	1	0	0	1	20	3	0	23	24	0	0	96	348
1:30 PM	0	0	28	0	0	0	0	0	0	28	2	0	25	30	0	0	113	366
1:45 PM	0	0	20	0	0	0	1	0	0	24	0	0	22	22	1	0	90	375
2:00 PM	0	0	32	0	1	1	0	0	0	27	1	0	35	26	2	0	125	424
2:15 PM	1	1	40	0	0	0	0	0	0	22	1	0	29	29	0	0	123	451
2:30 PM	1	0	25	0	0	0	0	0	0	27	5	0	27	36	0	0	121	459
2:45 PM	1	0	32	0	0	0	0	0	1	27	2	0	36	39	0	0	138	507
3:00 PM	1	0	34	0	0	0	0	0	0	28	1	0	28	38	0	0	130	512
3:15 PM	5	0	31	0	0	1	0	0	1	21	2	0	41	45	1	0	148	537
3:30 PM	1	1	31	0	0	0	0	0	0	34	1	0	45	54	0	0	167	583
3:45 PM	1	1	46	0	1	1	0	0	0	28	1	0	51	55	0	0	185	630
4:00 PM	0	0	49	0	1	0	0	0	0	48	1	0	51	73	0	0	223	723
4:15 PM	1	1	34	0	0	0	0	0	0	33	1	0	46	73	1	0	190	765
4:30 PM	1	0	42	0	0	0	0	0	0	41	1	0	39	64	0	0	188	786
4:45 PM	0	0	36	0	0	0	0	0	0	40	2	0	52	73	1	0	204	805
5:00 PM	0	0	39	0	2	0	0	0	0	17	2	0	53	55	0	0	168	750
5:15 PM	0	0	30	0	0	0	0	0	0	34	2	0	61	55	0	0	182	742
5:30 PM	1	0	32	0	0	0	0	0	0	15	2	0	35	52	1	0	138	692
5:45 PM	1	0	27	0	0	1	0	0	0	25	0	0	28	47	2	0	131	619
6:00 PM	1	0	27	0	1	0	0	0	0	17	0	0	38	30	1	0	115	566
6:15 PM	0	0	35	0	0	0	0	0	0	18	0	0	30	28	0	0	111	495
6:30 PM	1	0	19	0	0	0	0	0	0	11	1	0	33	20	1	0	86	443
6:45 PM	1	0	16	0	0	0	0	0	0	13	2	0	19	25	0	0	76	388

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total	3.3%
6:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	
6:15 AM	0	0	0	0	0	0	0	0	0	2	1	0	3	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:15 AM	0	0	0	0	0	0	0	1	0	2	0	0	3	
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	
7:45 AM	0	0	5	0	0	0	0	1	0	4	0	0	10	
8:00 AM	0	0	0	0	0	0	0	0	0	3	1	0	4	
8:15 AM	0	0	0	0	0	0	0	3	0	3	2	0	8	
8:30 AM	1	0	3	0	0	0	0	1	0	3	1	0	9	
8:45 AM	1	0	2	0	0	0	0	3	0	2	5	0	13	
9:00 AM	0	0	3	0	0	0	0	1	0	0	0	0	4	
9:15 AM	0	0	2	0	0	0	0	0	0	2	2	0	6	
9:30 AM	0	0	4	0	0	0	0	2	0	0	1	0	7	
9:45 AM	0	0	2	0	0	0	0	0	0	2	1	0	5	
10:00 AM	0	0	0	0	0	0	0	2	0	2	1	0	5	
10:15 AM	0	0	0	0	0	0	0	0	0	1	1	0	2	
10:30 AM	0	0	0	0	0	0	0	0	0	1	1	0	2	
10:45 AM	0	0	1	0	0	0	0	0	0	2	0	0	3	
11:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	2	
11:15 AM	0	0	0	0	0	0	0	1	0	2	2	0	5	
11:30 AM	0	0	1	0	0	0	0	0	1	0	0	0	2	
11:45 AM	0	0	1	0	0	0	0	1	0	1	4	0	7	
12:00 PM	1	0	4	0	0	0	0	2	0	0	0	0	7	
12:15 PM	0	0	1	0	0	0	0	2	0	2	0	0	5	
12:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	
12:45 PM	0	0	0	0	0	0	0	0	1	1	1	0	3	
1:00 PM	0	0	4	0	0	0	0	0	0	0	0	0	4	
1:15 PM	0	0	3	0	0	0	0	0	0	0	0	0	3	
1:30 PM	0	0	1	0	0	0	0	0	0	0	1	0	2	
1:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	3	
2:00 PM	0	0	4	0	0	0	0	2	1	1	3	0	11	
2:15 PM	0	0	3	0	0	0	0	1	1	1	1	0	7	
2:30 PM	1	0	0	0	0	0	0	0	2	4	1	0	8	
2:45 PM	1	0	4	0	0	0	0	2	1	2	1	0	11	
3:00 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	
3:15 PM	0	0	1	0	0	0	0	1	0	0	1	0	3	
3:30 PM	0	0	0	0	0	0	0	0	0	1	2	0	3	
3:45 PM	0	1	2	1	0	0	0	1	0	0	0	0	5	
4:00 PM	0	0	2	0	0	0	0	4	1	3	1	0	11	
4:15 PM	0	0	2	0	0	0	0	1	0	1	3	0	7	
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	
4:45 PM	0	0	1	0	0	0	0	0	0	1	1	0	3	
5:00 PM	0	0	1	0	0	0	0	0	0	1	0	0	2	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	3	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT CHANGED ORIENTATION

CSAH 81 & Dayton Pkwy

AM Peak 1456

	WBLeft	WBThru	WBRight	WBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	Total
7:15 AM	15	73	1	1	4	152	30	0	45	7	7	0	1	5	8	0	349
7:30 AM	13	95	6	0	7	224	25	0	50	8	5	0	1	2	4	0	440
7:45 AM	13	87	3	0	4	175	23	0	41	9	11	0	0	5	2	0	373
8:00 AM	10	57	4	0	5	136	22	0	37	6	7	0	3	5	2	0	294
Hourly Tot	51	312	14	1	20	687	100	0	173	30	30	0	5	17	16	0	1456
PC Total	48	281	12		20	638	79		161	27	24		4	16	9		Int PHF
HV Total	4	31	2		0	49	21		12	3	6		1	1	7		0.83
% HV	8%	10%	14%		2%	7%	21%		7%	10%	20%		20%	6%	44%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak 1524

	WBLeft	WBThru	WBRight	WBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	Total
3:30 PM	12	178	5	0	1	107	35	0	41	8	23	0	7	9	9	0	435
3:45 PM	9	172	3	0	2	93	29	1	44	6	7	0	2	12	5	0	385
4:00 PM	8	160	5	0	7	89	21	0	41	3	11	0	2	6	4	0	357
4:15 PM	10	154	2	0	0	93	24	0	30	8	10	0	2	8	6	0	347
Hourly Tot	39	664	15	0	10	382	109	1	156	25	51	0	13	35	24	0	1524
PC Total	38	622	12		11	368	98		119	20	46		13	31	21		Int PHF
HV Total	1	42	3		0	14	11		37	5	5		0	4	3		0.88
% HV	3%	6%	20%		2%	4%	10%		24%	20%	10%		2%	11%	13%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio CSAH 81 Dayton Pkwy
City/State: Dayton MN
QCJobNo: 16454207
ClientID:
Date: 01/18/24
Comments:
Latitude/Lo 45.16229 -93.5055
PEAK HOUI 3:30 PM
PEAK HOUI 4:30 PM
PEAK 15-M 3:30 PM
PEAK 15-M 3:45 PM
PHF 0.88

Lane Configuration:

	SIGNAL	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7		
		TR	T	L						SIGNAL
EBLane7									TR	WBLane1
EBLane6									L	WBLane2
EBLane5										WBLane3
EBLane4										WBLane4
EBLane3	L									WBLane5
EBLane2	T									WBLane6
EBLane1	R									WBLane7
SIGNAL						L	T	TR		
		NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	SIGNAL	

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
39	664	15	11	382	109	156	25	51	13	35	24	718	502	232	72	845	446	50	183

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	2.6	6.3	20	0	3.7	10.1	23.7	20	9.8	0	11.4	12.5	6.4	5	20.3	9.7	9.7	4.3	16	8.7
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	48	712	20	0	0	4	428	140	0	0	164	32	92	0	0	28	36	36	0	0	1740
Heavy Truc	0	56	4			0	24	12			32	4	12			0	4	4			152
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	4	24	1	0		1	100	18	0		17	4	0	0		0	3	0	0		172	
6:15 AM	2	34	1	0		1	100	34	0		26	0	1	0		1	3	1	0		204	
6:30 AM	8	49	1	0		2	115	21	0		17	5	6	0		0	4	0	0		228	
6:45 AM	8	67	10	1		7	113	14	2		47	2	7	0		1	2	2	0		283	887
7:00 AM	11	54	0	0		2	115	26	0		29	6	4	0		0	3	1	0		251	966
7:15 AM	15	73	1	1		4	152	30	0		45	7	7	0		1	5	8	0		349	1111
7:30 AM	13	95	6	0		7	224	25	0		50	8	5	0		1	2	4	0		440	1323
7:45 AM	13	87	3	0		4	175	23	0		41	9	11	0		0	5	2	0		373	1413
8:00 AM	10	57	4	0		5	136	22	0		37	6	7	0		3	5	2	0		294	1456
8:15 AM	9	46	5	0		3	111	34	0		35	7	10	0		1	9	0	0		270	1377
8:30 AM	13	52	4	0		4	109	27	0		26	7	9	0		2	7	4	0		264	1201
8:45 AM	4	63	3	0		3	95	23	0		34	3	5	0		0	8	4	0		245	1073
9:00 AM	10	41	2	0		5	87	23	0		29	1	9	0		3	0	1	0		211	990
9:15 AM	8	54	6	0		8	70	31	0		18	6	5	1		4	5	5	0		221	941
9:30 AM	10	66	4	0		3	87	18	0		20	6	11	0		2	5	2	0		234	911
9:45 AM	4	47	5	0		4	66	21	0		29	5	10	0		2	4	4	0		201	867
10:00 AM	6	49	2	0		1	56	16	0		25	2	7	0		3	8	3	0		178	834
10:15 AM	4	49	6	0		2	64	18	0		18	1	1	0		1	6	2	0		172	785
10:30 AM	1	51	1	0		3	58	15	0		22	4	7	0		1	3	3	0		169	720
10:45 AM	10	57	0	0		6	57	13	0		23	5	8	0		0	4	3	0		186	705
11:00 AM	7	53	0	0		3	78	19	0		22	3	8	0		5	5	3	0		206	733
11:15 AM	5	48	3	0		3	52	16	1		21	11	5	0		0	6	3	0		174	735
11:30 AM	7	62	1	0		3	70	20	0		31	6	11	0		0	8	8	0		227	793
11:45 AM	8	69	8	0		6	53	28	0		26	9	8	0		5	8	4	0		232	839
12:00 PM	6	56	3	0		6	62	17	0		22	6	7	0		5	5	13	0		208	841
12:15 PM	10	58	2	0		3	75	28	0		34	6	3	0		4	6	3	0		232	899

12:30 PM	7	85	2	0	4	53	21	0	31	6	11	0	4	6	3	0	233	905
12:45 PM	4	53	4	0	7	62	16	0	33	6	7	0	1	6	4	0	203	876
1:00 PM	5	74	4	0	0	59	19	0	25	7	10	0	6	5	8	0	222	890
1:15 PM	9	84	3	0	4	61	13	0	47	10	15	0	5	8	7	0	266	924
1:30 PM	1	93	5	0	2	57	23	0	48	7	4	0	2	4	3	0	249	940
1:45 PM	5	81	6	0	3	57	13	0	34	4	10	0	3	8	5	0	229	966
2:00 PM	6	82	5	0	4	85	21	0	34	6	6	0	3	3	6	0	261	1005
2:15 PM	6	83	3	0	5	89	25	0	40	8	14	0	1	7	4	0	285	1024
2:30 PM	8	92	2	0	4	100	30	0	48	5	6	0	3	8	7	0	313	1088
2:45 PM	7	93	4	0	2	61	19	0	48	1	8	0	1	5	5	0	254	1113
3:00 PM	5	120	5	0	4	73	17	0	49	9	9	0	4	5	9	0	309	1161
3:15 PM	8	136	2	0	3	63	26	0	52	7	7	0	4	7	4	0	319	1195
3:30 PM	12	178	5	0	1	107	35	0	41	8	23	0	7	9	9	0	435	1317
3:45 PM	9	172	3	0	2	93	29	1	44	6	7	0	2	12	5	0	385	1448
4:00 PM	8	160	5	0	7	89	21	0	41	3	11	0	2	6	4	0	357	1496
4:15 PM	10	154	2	0	0	93	24	0	30	8	10	0	2	8	6	0	347	1524
4:30 PM	11	138	7	0	2	111	25	0	38	7	15	0	3	10	6	0	373	1462
4:45 PM	13	156	3	0	2	99	28	0	34	7	14	0	8	7	4	0	375	1452
5:00 PM	4	154	4	0	1	99	30	0	27	12	18	0	1	8	8	0	366	1461
5:15 PM	6	140	8	0	6	79	15	0	26	13	20	0	4	2	5	0	324	1438
5:30 PM	5	104	5	1	4	52	14	2	42	9	13	0	8	11	7	0	277	1342
5:45 PM	5	77	6	1	1	42	10	0	21	8	8	0	1	9	3	0	192	1159
6:00 PM	5	68	4	1	4	47	25	0	30	11	5	0	6	3	1	0	210	1003
6:15 PM	3	61	0	0	0	46	15	0	21	3	6	0	1	2	1	0	159	838
6:30 PM	5	50	2	1	0	37	11	0	25	4	11	0	7	8	8	0	169	730
6:45 PM	4	52	2	0	1	37	9	0	15	5	13	0	2	3	1	0	144	682

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	3	5	0	1	0	0	2	0	11
6:15 AM	0	1	0	0	2	4	2	0	0	0	0	1	10
6:30 AM	0	3	0	0	3	5	1	1	0	0	1	0	14
6:45 AM	0	8	0	0	4	3	4	0	0	0	0	0	19
7:00 AM	0	2	0	0	1	2	2	0	0	0	0	1	8
7:15 AM	2	5	0	0	4	3	3	1	2	0	0	4	24
7:30 AM	0	13	1	0	13	2	2	0	1	0	0	3	35
7:45 AM	1	6	0	0	10	6	1	2	3	0	1	0	30
8:00 AM	1	7	1	0	22	10	6	0	0	1	0	0	48
8:15 AM	0	4	1	0	16	17	4	0	1	1	2	0	46
8:30 AM	2	4	0	1	17	14	6	3	3	1	2	1	54
8:45 AM	1	6	1	0	15	11	5	2	0	0	2	1	44
9:00 AM	0	5	0	1	17	7	11	1	1	0	0	0	43
9:15 AM	1	9	0	0	14	15	6	0	0	1	0	2	48
9:30 AM	1	12	2	0	6	7	7	2	4	1	0	0	42
9:45 AM	0	8	0	1	10	9	5	0	1	0	1	1	36
10:00 AM	0	5	0	0	8	2	6	1	0	2	1	2	27
10:15 AM	0	11	2	0	9	7	5	0	0	1	1	0	36
10:30 AM	0	9	1	0	8	1	5	1	2	0	0	1	28
10:45 AM	4	4	0	2	8	3	4	0	1	0	1	1	28
11:00 AM	0	10	0	1	6	7	9	2	2	0	2	0	39
11:15 AM	2	6	2	0	6	3	6	4	0	0	1	1	31
11:30 AM	1	2	1	0	6	2	7	3	0	0	3	1	26
11:45 AM	1	13	0	2	9	4	8	2	0	4	3	0	46
12:00 PM	0	7	1	2	7	1	6	1	1	1	1	2	30
12:15 PM	1	3	0	0	7	2	11	1	1	1	3	1	31
12:30 PM	1	10	1	1	4	8	10	1	1	0	1	0	38
12:45 PM	2	4	1	3	9	2	6	2	1	0	0	3	33
1:00 PM	0	10	2	0	6	5	5	2	0	2	1	0	33
1:15 PM	3	10	0	0	6	4	7	2	1	0	0	1	34
1:30 PM	0	5	1	0	5	6	5	1	1	1	3	0	28
1:45 PM	2	10	0	1	5	7	10	0	3	1	1	0	40
2:00 PM	1	13	0	1	6	0	11	0	1	0	0	2	35
2:15 PM	1	5	1	2	9	3	10	1	3	0	0	1	36
2:30 PM	0	4	1	1	6	1	12	0	1	0	3	2	31
2:45 PM	0	10	1	0	4	1	13	0	0	0	1	0	30
3:00 PM	2	4	0	0	5	1	14	5	1	1	0	3	36
3:15 PM	0	14	0	1	8	6	11	1	1	0	1	1	44
3:30 PM	0	14	1	0	6	3	8	1	3	0	1	1	38
3:45 PM	0	9	0	0	3	6	9	1	2	0	3	1	34
4:00 PM	0	13	1	0	1	1	12	0	0	0	0	0	28
4:15 PM	1	6	1	0	4	1	8	3	0	0	0	1	25
4:30 PM	0	10	0	0	3	1	7	1	0	0	1	2	25
4:45 PM	0	8	0	0	4	2	5	0	0	1	1	0	21
5:00 PM	0	5	1	0	4	1	5	0	2	0	0	0	18
5:15 PM	1	5	0	1	0	2	5	0	0	0	0	1	15
5:30 PM	0	3	0	0	2	1	3	0	0	0	0	0	9
5:45 PM	0	1	1	1	2	2	5	0	0	0	0	0	12
6:00 PM	0	2	0	1	2	1	7	1	1	0	0	1	16
6:15 PM	0	2	0	0	1	2	4	0	0	0	0	0	9
6:30 PM	0	1	0	0	1	2	2	1	1	0	0	1	9
6:45 PM	1	1	0	1	2	1	0	1	0	0	1	0	8

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT

Lawndale Ln & Dayton River Rd (CSAH 12)

AM Peak *259*

	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total
7:00 AM	1	0	0	0	0	0	0	0	0	34	4	0	0	12	1	0	52
7:15 AM	2	0	3	0	2	0	2	0	1	54	1	0	1	13	0	0	79
7:30 AM	2	0	0	0	0	0	0	0	0	48	2	0	0	16	0	0	68
7:45 AM	0	0	0	0	0	0	0	0	0	32	4	0	0	24	0	0	60
Hourly Tot	5	0	3	0	2	0	2	0	1	168	11	0	1	65	1	0	259
PC Total	5	0	2		2	0	2		1	165	9		1	64	1		Int PHF
HV Total	0	0	1		0	0	0		0	3	2		0	1	0		0.82
% HV	2%	2%	33%		2%	2%	2%		2%	2%	18%		2%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak *326*

	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total
4:00 PM	5	0	1	0	0	0	0	0	0	26	4	0	0	44	1	0	81
4:15 PM	5	0	0	0	0	0	0	0	0	19	2	0	0	63	0	0	89
4:30 PM	6	0	0	0	0	0	0	0	0	26	1	0	0	39	2	0	74
4:45 PM	8	0	1	0	0	0	1	0	0	22	4	0	0	46	0	0	82
Hourly Tot	24	0	2	0	0	0	1	0	0	93	11	0	0	192	3	0	326
PC Total	23	0	2		0	0	1		0	91	11		0	189	3		Int PHF
HV Total	1	0	0		0	0	0		0	2	0		0	3	0		0.92
% HV	4%	2%	2%		2%	2%	2%		2%	2%	2%		2%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio Lawndale l Dayton River Rd (CSAH 12)
City/State: Dayton MN
QCJobNo: 16454205
ClientID:
Date: 01/18/24
Comments:
Latitude/L 45.23357 -93.5022
PEAK HOUI 4:00 PM
PEAK HOUI 5:00 PM
PEAK 15-M 4:15 PM
PEAK 15-M 4:30 PM
PHF 0.92

Lane Configuration:

	STOP	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7
		LTR						
EBLane7							LTR	WBLane1
EBLane6								WBLane2
EBLane5								WBLane3
EBLane4								WBLane4
EBLane3								WBLane5
EBLane2								WBLane6
EBLane1	LTR							WBLane7
							LTR	
		NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	STOP

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
24	0	2	0	0	1	0	93	11	0	192	3	26	1	104	195	3	11	95	217

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	4.2	0	0	0	0	0	0	2.2	0	0	1.6	0	3.8	0	1.9	1.5	0	0	2.1	1.8
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	20	0	0	0	0	0	0	0	0	0	0	76	8	0	0	0	252	0	0	0	356
Heavy Truc	4	0	0			0	0	0			0	4	0			0	4	0			12
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	0	0	1	0		0	0	0	0		0	15	2	0		0	6	0	0		24	
6:15 AM	0	0	0	0		0	0	0	0		0	25	2	0		1	6	1	0		35	
6:30 AM	1	0	0	0		1	0	1	0		1	25	5	0		1	5	0	0		40	
6:45 AM	0	0	0	0		1	0	1	0		0	32	5	0		0	14	1	0		54	153
7:00 AM	1	0	0	0		0	0	0	0		0	34	4	0		0	12	1	0		52	181
7:15 AM	2	0	3	0		2	0	2	0		1	54	1	0		1	13	0	0		79	225
7:30 AM	2	0	0	0		0	0	0	0		0	48	2	0		0	16	0	0		68	253
7:45 AM	0	0	0	0		0	0	0	0		0	32	4	0		0	24	0	0		60	259
8:00 AM	2	0	0	0		0	0	0	0		0	28	0	0		0	20	0	0		50	257
8:15 AM	1	0	0	0		0	0	0	0		0	27	5	0		0	15	0	0		48	226
8:30 AM	0	0	0	0		0	0	0	0		0	32	2	0		1	7	1	0		43	201
8:45 AM	1	0	1	0		2	0	1	0		1	20	1	0		0	16	5	0		48	189
9:00 AM	1	0	0	0		2	1	1	0		0	13	3	0		0	6	3	0		30	169
9:15 AM	0	0	0	0		0	0	1	0		0	15	2	0		0	9	1	0		28	149
9:30 AM	2	0	1	0		2	0	0	0		0	7	0	0		0	9	0	0		21	127
9:45 AM	2	0	0	0		1	1	3	0		0	15	3	0		0	13	0	0		38	117
10:00 AM	1	0	0	0		1	0	1	0		0	14	0	0		0	6	0	0		23	110
10:15 AM	3	0	1	0		0	0	0	0		1	16	0	0		1	11	0	0		33	115
10:30 AM	0	0	1	0		1	0	0	0		0	18	3	0		0	17	0	0		40	134
10:45 AM	0	0	0	0		0	0	0	0		0	11	0	0		0	6	0	0		17	113
11:00 AM	1	0	0	0		0	0	0	0		0	8	1	0		0	13	0	0		23	113
11:15 AM	1	0	0	0		0	0	0	0		0	11	3	0		0	11	0	0		26	106
11:30 AM	2	0	1	0		0	0	0	0		0	15	2	0		0	9	0	0		29	95
11:45 AM	2	0	0	0		0	0	0	0		0	22	1	0		0	11	0	0		36	114
12:00 PM	2	0	0	0		0	0	0	0		1	17	2	0		0	12	1	0		35	126
12:15 PM	0	0	0	0		0	0	0	0		0	17	2	0		1	18	1	0		39	139

12:30 PM	1	0	1	0	1	0	0	0	0	16	0	0	0	20	0	0	39	149
12:45 PM	2	0	0	0	0	0	0	0	1	9	1	0	0	9	2	0	24	137
1:00 PM	0	0	1	0	4	1	1	0	2	7	0	0	0	8	1	0	25	127
1:15 PM	4	1	1	0	1	0	2	0	0	14	0	0	0	15	1	0	39	127
1:30 PM	3	0	0	0	0	0	0	0	0	14	0	0	0	23	0	0	40	128
1:45 PM	2	0	0	0	0	0	0	0	0	13	2	0	1	20	0	0	38	142
2:00 PM	1	0	1	0	0	0	0	0	0	17	1	0	0	20	0	0	40	157
2:15 PM	3	0	1	0	1	0	0	0	0	15	2	0	1	23	0	0	46	164
2:30 PM	0	0	1	0	0	0	0	0	0	19	1	0	2	24	0	0	47	171
2:45 PM	0	0	1	0	1	0	0	0	0	20	1	0	1	28	1	0	53	186
3:00 PM	2	0	0	0	0	0	0	0	0	16	1	0	0	25	1	0	45	191
3:15 PM	1	0	1	0	0	0	0	0	0	17	4	0	0	39	0	0	62	207
3:30 PM	6	3	1	0	1	0	0	0	1	22	2	0	0	48	0	0	84	244
3:45 PM	2	0	1	0	0	1	0	0	2	26	0	0	1	36	0	0	69	260
4:00 PM	5	0	1	0	0	0	0	0	0	26	4	0	0	44	1	0	81	296
4:15 PM	5	0	0	0	0	0	0	0	0	19	2	0	0	63	0	0	89	323
4:30 PM	6	0	0	0	0	0	0	0	0	26	1	0	0	39	2	0	74	313
4:45 PM	8	0	1	0	0	0	1	0	0	22	4	0	0	46	0	0	82	326
5:00 PM	6	0	0	0	0	0	0	0	0	13	3	0	2	39	0	0	63	308
5:15 PM	4	0	1	0	1	0	0	0	0	21	6	0	1	42	0	0	76	295
5:30 PM	6	0	1	0	0	0	0	0	0	19	2	0	0	26	1	0	55	276
5:45 PM	2	0	1	0	0	0	0	0	0	12	2	0	0	24	1	0	42	236
6:00 PM	3	0	3	0	1	0	0	0	1	8	1	0	1	19	0	0	37	210
6:15 PM	2	0	2	0	1	0	0	0	0	14	2	0	0	24	0	0	45	179
6:30 PM	5	0	0	0	0	1	1	0	1	10	3	0	0	12	0	0	33	157
6:45 PM	0	0	0	0	0	0	1	0	0	7	4	0	0	16	0	0	28	143

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	1
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
7:15 AM	0	0	1	0	0	0	0	1	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	1	1	0	1	0	3
8:00 AM	0	0	0	0	0	0	0	2	0	0	1	0	3
8:15 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
8:30 AM	0	0	0	0	0	0	0	2	0	1	0	0	3
8:45 AM	0	0	0	0	0	0	0	0	0	0	4	1	5
9:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
9:15 AM	0	0	0	0	0	0	0	0	1	0	2	0	3
9:30 AM	1	0	0	0	0	0	0	1	0	0	0	0	2
9:45 AM	0	0	0	0	0	2	0	0	1	0	1	0	4
10:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
10:15 AM	1	0	0	0	0	0	0	0	0	0	1	0	2
10:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1
10:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
11:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1
11:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1
11:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1
11:45 AM	0	0	0	0	0	0	0	1	0	0	2	0	3
12:00 PM	1	0	0	0	0	0	0	2	0	0	2	0	5
12:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
12:30 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
12:45 PM	0	0	0	0	0	0	1	0	0	0	1	0	2
1:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	2
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	1
1:45 PM	0	0	0	0	0	0	0	2	0	0	0	0	2
2:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	4
2:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3
2:30 PM	0	0	1	0	0	0	0	0	0	0	1	0	2
2:45 PM	0	0	1	0	0	0	0	1	0	0	0	0	2
3:00 PM	0	0	0	0	0	0	0	3	0	0	2	0	5
3:15 PM	0	0	1	0	0	0	0	0	1	0	1	0	3
3:30 PM	1	0	0	0	0	0	0	1	0	0	1	0	3
3:45 PM	0	0	1	0	0	0	1	3	0	0	0	0	5
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	1	0	0	0	0	0	0	1	0	0	1	0	3
4:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT

Fernbrook Ln (CSAH 121) & Rush Creek Pkwy/Elm Creek Rd (CR 202)

AM Peak *813*

	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total
7:00 AM	11	15	3	0	4	68	3	0	8	3	62	0	6	0	2	0	185
7:15 AM	15	19	6	0	3	92	2	0	4	4	56	0	3	0	3	0	207
7:30 AM	13	18	1	0	1	104	1	0	4	4	60	0	1	4	2	0	213
7:45 AM	24	35	4	0	3	85	1	0	3	3	41	0	4	3	2	0	208
Hourly Tot	63	87	14	0	11	349	7	0	19	14	219	0	14	7	9	0	813
PC Total	61	82	14		11	344	6		17	13	215		14	7	9		Int PHF
HV Total	2	5	0		0	5	1		2	1	4		0	0	0		0.95
% HV	3%	6%	2%		2%	2%	14%		11%	7%	2%		2%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak *1032*

	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total
4:30 PM	47	116	8	0	3	39	4	0	2	3	33	0	5	4	3	0	267
4:45 PM	47	116	6	0	4	51	2	0	2	2	29	0	5	3	5	0	272
5:00 PM	46	92	3	0	2	34	7	0	7	3	39	0	5	6	5	0	249
5:15 PM	40	107	7	0	2	35	2	0	8	4	30	0	0	4	5	0	244
Hourly Tot	180	431	24	0	11	159	15	0	19	12	131	0	15	17	18	0	1032
PC Total	180	431	23		11	159	15		19	12	130		15	17	18		Int PHF
HV Total	0	0	1		0	0	0		0	0	1		0	0	0		0.95
% HV	2%	2%	4%		2%	2%	2%		2%	2%	2%		2%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio Fernbrook Rush Creek Pkwy/Elm Creek Rd ((Lane Configuration:

City/State:	Dayton	MN					SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7				
QCJobNo:	16454204						R	T	L							STOP	
ClientID:					EBLane7									LTR		WBLane1	
Date:	01/18/24				EBLane6											WBLane2	
Comments:					EBLane5											WBLane3	
Latitude/L	45.15596	-93.462			EBLane4											WBLane4	
PEAK HOUI	4:30 PM				EBLane3											WBLane5	
PEAK HOUI	5:30 PM				EBLane2											WBLane6	
PEAK 15-M	4:45 PM				EBLane1	LTR										WBLane7	
PEAK 15-M	5:00 PM				STOP						L	T	R				
PHF	0.95						NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1				

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
180	431	24	11	159	15	19	12	131	15	17	18	635	185	162	50	468	305	47	212

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	0	0	4.2	0	0	0	0	0	0.8	0	0	0	0.2	0	0.6	0	0	0.3	2.1	0
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	188	464	24	0	0	16	204	8	0	0	8	8	116	0	0	20	12	20	0	0	1088
Heavy Truc	0	0	4			0	0	0			0	0	0			0	0	0			4
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	3	3	0	0		0	25	0	0		2	1	13	0		2	0	0	0		49	
6:15 AM	9	10	2	0		1	29	1	0		0	0	15	0		0	0	0	0		67	
6:30 AM	5	16	1	0		3	53	5	0		1	2	18	0		0	0	0	0		104	
6:45 AM	9	12	2	1		5	42	1	0		13	1	30	0		2	1	4	0		123	343
7:00 AM	11	15	3	0		4	68	3	0		8	3	62	0		6	0	2	0		185	479
7:15 AM	15	19	6	0		3	92	2	0		4	4	56	0		3	0	3	0		207	619
7:30 AM	13	18	1	0		1	104	1	0		4	4	60	0		1	4	2	0		213	728
7:45 AM	24	35	4	0		3	85	1	0		3	3	41	0		4	3	2	0		208	813
8:00 AM	18	26	3	0		4	63	0	0		0	3	31	0		0	3	2	0		153	781
8:15 AM	18	24	2	0		3	46	5	0		1	2	42	0		7	1	3	0		154	728
8:30 AM	26	20	3	0		1	41	0	0		5	3	39	0		2	1	3	0		144	659
8:45 AM	24	32	3	0		2	33	3	0		2	2	18	0		4	1	0	0		124	575
9:00 AM	11	23	6	0		4	44	2	0		2	1	34	0		3	2	2	0		134	556
9:15 AM	14	21	10	0		3	40	1	0		1	2	21	0		2	1	5	0		121	523
9:30 AM	7	18	5	0		6	38	2	0		3	2	25	0		7	2	2	0		117	496
9:45 AM	9	22	2	0		0	31	2	0		3	2	11	0		2	0	1	0		85	457
10:00 AM	20	23	7	0		1	36	4	0		4	3	13	0		3	0	2	0		116	439
10:15 AM	9	22	3	0		0	24	2	0		0	0	12	0		4	1	2	0		79	397
10:30 AM	11	20	2	0		1	26	0	0		0	0	19	0		0	1	1	0		81	361
10:45 AM	11	18	1	0		2	14	2	0		0	2	16	0		1	1	0	0		68	344
11:00 AM	18	24	5	0		1	28	2	0		3	0	19	0		3	0	6	0		109	337
11:15 AM	9	31	3	0		3	41	6	0		1	1	12	0		1	0	2	0		110	368
11:30 AM	12	28	2	0		0	28	3	0		2	0	16	0		7	1	3	0		102	389
11:45 AM	22	36	1	0		3	27	4	0		1	1	21	0		3	1	1	0		121	442
12:00 PM	9	41	4	0		3	23	2	0		2	1	14	0		1	1	1	0		102	435
12:15 PM	24	39	7	1		0	24	2	0		0	1	14	0		4	1	0	0		117	442

12:30 PM	16	23	2	1		1	21	1	0		1	0	17	0		5	4	1	0	93	433
12:45 PM	17	29	4	0		7	30	1	0		1	3	22	0		3	2	1	0	120	432
1:00 PM	19	25	4	0		2	31	1	0		2	2	13	0		9	1	5	0	114	444
1:15 PM	23	28	4	0		1	28	0	0		1	1	12	0		2	2	1	0	103	430
1:30 PM	14	34	2	0		1	44	3	0		1	0	9	0		2	0	0	0	110	447
1:45 PM	13	38	3	0		0	26	3	0		2	2	13	0		3	0	2	0	105	432
2:00 PM	27	43	3	0		2	32	4	0		2	1	11	0		3	1	2	0	131	449
2:15 PM	29	54	2	1		4	33	1	0		1	1	13	0		1	1	3	0	144	490
2:30 PM	20	41	2	0		3	28	2	0		2	3	16	0		2	4	2	0	125	505
2:45 PM	19	40	8	0		3	37	1	0		3	0	17	0		5	1	2	0	136	536
3:00 PM	31	53	6	0		3	31	4	0		2	1	20	0		4	1	5	0	161	566
3:15 PM	21	62	4	0		6	45	0	0		2	2	20	0		7	2	5	0	176	598
3:30 PM	25	89	3	0		11	37	1	0		4	3	21	0		4	1	3	0	202	675
3:45 PM	29	100	4	0		2	32	0	0		3	1	33	0		3	3	3	0	213	752
4:00 PM	41	110	6	0		4	43	3	0		7	4	23	0		3	3	7	0	254	845
4:15 PM	37	87	2	0		3	33	1	0		4	3	32	0		0	6	4	0	212	881
4:30 PM	47	116	8	0		3	39	4	0		2	3	33	0		5	4	3	0	267	946
4:45 PM	47	116	6	0		4	51	2	0		2	2	29	0		5	3	5	0	272	1005
5:00 PM	46	92	3	0		2	34	7	0		7	3	39	0		5	6	5	0	249	1000
5:15 PM	40	107	7	0		2	35	2	0		8	4	30	0		0	4	5	0	244	1032
5:30 PM	40	90	4	0		2	37	3	0		3	4	30	0		3	4	3	0	223	988
5:45 PM	37	95	6	0		2	28	3	0		5	3	23	0		2	1	1	0	206	922
6:00 PM	35	75	2	0		2	25	4	0		4	3	19	0		3	2	5	0	179	852
6:15 PM	33	64	6	0		5	29	3	0		2	1	21	0		1	1	1	0	167	775
6:30 PM	30	43	7	0		2	27	2	0		1	3	22	0		1	0	4	0	142	694
6:45 PM	31	34	1	0		1	19	4	0		3	1	21	0		2	1	0	0	118	606

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total	3.1%
6:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 AM	1	1	0	0	1	0	0	0	1	0	0	0	4	
6:45 AM	0	1	0	0	0	0	1	0	2	0	0	0	4	
7:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	
7:15 AM	2	2	0	0	1	0	1	0	1	0	0	0	7	
7:30 AM	0	1	0	0	1	1	0	1	2	0	0	0	6	
7:45 AM	0	1	0	0	3	0	1	0	1	0	0	0	6	
8:00 AM	4	1	0	0	2	0	0	0	0	0	0	0	7	
8:15 AM	1	1	0	3	0	1	0	0	1	0	0	0	7	
8:30 AM	1	2	0	0	1	0	0	1	2	0	0	0	7	
8:45 AM	1	4	0	0	3	1	0	1	0	0	0	0	10	
9:00 AM	0	2	0	0	2	0	0	0	2	0	0	0	6	
9:15 AM	2	2	0	0	2	0	0	0	1	1	0	0	8	
9:30 AM	0	4	0	0	1	1	1	0	1	0	0	0	8	
9:45 AM	0	3	0	0	1	2	0	0	0	0	0	0	6	
10:00 AM	0	4	0	0	2	1	1	0	1	0	0	0	9	
10:15 AM	0	1	0	0	1	0	0	0	1	0	0	0	3	
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:45 AM	2	2	1	0	1	0	0	0	0	0	0	0	6	
11:00 AM	2	2	0	0	2	0	0	0	1	0	0	2	9	
11:15 AM	1	2	0	0	1	0	0	0	1	0	0	1	6	
11:30 AM	1	0	0	0	4	1	0	0	0	0	0	0	6	
11:45 AM	0	1	1	0	1	0	0	0	2	0	0	0	5	
12:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	
12:15 PM	0	3	0	0	1	0	0	0	0	0	0	0	4	
12:30 PM	0	1	0	0	2	0	0	0	0	0	0	0	3	
12:45 PM	0	0	0	0	2	0	0	1	0	0	0	0	3	
1:00 PM	1	3	0	0	0	1	0	0	0	0	0	0	5	
1:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	
1:30 PM	0	2	0	0	5	1	0	0	1	0	0	0	9	
1:45 PM	1	2	0	0	1	0	1	0	0	0	0	0	5	
2:00 PM	0	1	0	0	5	2	0	0	1	0	0	1	10	
2:15 PM	1	2	0	0	2	0	0	0	0	0	0	0	5	
2:30 PM	0	2	0	0	3	0	0	0	2	0	2	0	9	
2:45 PM	1	1	0	0	2	0	1	0	0	0	0	0	5	
3:00 PM	1	0	0	0	0	0	0	0	5	0	0	0	6	
3:15 PM	0	1	0	1	3	0	0	0	0	0	0	1	6	
3:30 PM	3	2	0	1	1	1	1	0	0	0	0	1	10	
3:45 PM	2	0	0	0	0	0	0	0	3	0	0	1	6	
4:00 PM	0	1	0	0	0	1	1	0	0	0	0	0	3	
4:15 PM	4	1	0	0	1	1	1	0	0	0	0	0	8	
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	
4:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	1	0	0	0	1
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT CHANGED ORIENTATION

Territorial Rd/Holly Ln & Dayton Pkwy

AM Peak 568

	WBLeft	WBThru	WBRight	WBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	Total
7:00 AM	1	0	0	0	1	1	3	0	17	41	21	0	5	33	1	0	124
7:15 AM	6	0	5	0	1	2	7	0	12	56	13	0	9	49	1	0	161
7:30 AM	6	0	3	0	0	1	8	0	11	66	10	0	4	34	3	0	146
7:45 AM	7	0	1	0	1	1	2	0	10	62	12	0	6	34	1	0	137
Hourly Tot	20	0	9	0	3	5	20	0	50	225	56	0	24	150	6	0	568
PC Total	3	0	6		3	4	19		47	214	51		20	136	6		Int PHF
HV Total	17	0	3		0	1	1		3	11	5		4	14	0		0.88
% HV	85%	2%	33%		2%	20%	5%		6%	5%	9%		17%	9%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak 585

	WBLeft	WBThru	WBRight	WBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	Total
3:15 PM	13	1	3	0	1	0	11	0	6	59	5	0	3	36	0	0	138
3:30 PM	14	1	4	0	3	0	13	0	15	64	2	1	0	46	2	0	165
3:45 PM	5	2	4	0	1	1	7	0	14	53	5	0	2	48	2	0	144
4:00 PM	17	2	5	0	6	1	22	0	6	38	3	0	2	36	0	0	138
Hourly Tot	49	6	16	0	11	2	53	0	41	214	15	1	7	166	4	0	585
PC Total	38	5	12		9	0	51		35	174	5		2	149	4		Int PHF
HV Total	11	1	4		2	2	2		7	40	10		5	17	0		0.89
% HV	22%	17%	25%		18%	100%	4%		17%	19%	67%		71%	10%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio Territorial Dayton Pkwy
City/State: Dayton MN
QCJobNo: 16454203
ClientID:
Date: 01/18/24
Comments:
Latitude/L 45.16015 -93.5079
PEAK HOU 3:15 PM
PEAK HOU 4:15 PM
PEAK 15-M 3:30 PM
PEAK 15-M 3:45 PM
PHF 0.89

Lane Configuration:

	STOP	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7		
		TR	L							
EBLane7								R	WBLane1	
EBLane6								T	WBLane2	
EBLane5								T	WBLane3	
EBLane4	L							L	WBLane4	
EBLane3	T								WBLane5	
EBLane2	T								WBLane6	
EBLane1	R								WBLane7	
							L	TR		
		NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	STOP	

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
49	6	16	11	2	53	42	214	15	7	166	4	71	66	271	177	51	24	241	269

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	22.4	16.7	25	18.2	100	3.8	16.7	18.7	66.7	71.4	10.2	0	22.5	9.1	21	12.4	15.7	70.8	19.1	11.2
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	56	4	16	0	0	12	0	52	0	0	60	256	8	4	0	0	184	8	0	0	660
Heavy Truc	4	0	4			4	0	4			12	44	4			0	16	0			92
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	4	0	0	0		0	1	1	0		3	27	6	0		4	19	2	0		67	
6:15 AM	5	0	0	0		0	1	2	0		9	33	3	0		3	35	3	0		94	
6:30 AM	3	0	0	0		0	1	2	0		13	31	10	0		1	25	2	0		88	
6:45 AM	6	1	3	0		1	0	4	0		22	56	9	0		6	25	2	0		135	384
7:00 AM	1	0	0	0		1	1	3	0		17	41	21	0		5	33	1	0		124	441
7:15 AM	6	0	5	0		1	2	7	0		12	56	13	0		9	49	1	0		161	508
7:30 AM	6	0	3	0		0	1	8	0		11	66	10	0		4	34	3	0		146	566
7:45 AM	7	0	1	0		1	1	2	0		10	62	12	0		6	34	1	0		137	568
8:00 AM	3	0	3	0		0	2	3	0		4	44	11	0		8	31	1	0		110	554
8:15 AM	4	1	3	0		0	0	5	0		7	45	10	0		6	46	2	0		129	522
8:30 AM	4	0	1	0		1	0	4	0		6	41	3	0		5	42	3	0		110	486
8:45 AM	2	0	2	0		0	0	6	0		6	42	4	0		3	36	2	0		103	452
9:00 AM	8	0	0	0		2	0	8	0		9	36	10	0		2	29	1	0		105	447
9:15 AM	6	1	0	0		1	0	4	0		5	28	7	2		0	45	2	0		101	419
9:30 AM	6	2	1	0		2	1	3	0		8	34	5	0		5	34	0	0		101	410
9:45 AM	7	0	0	0		1	2	5	0		6	42	5	0		3	26	1	0		98	405
10:00 AM	7	0	2	0		2	0	0	0		3	29	2	0		3	30	0	0		78	378
10:15 AM	6	0	3	0		0	0	4	0		3	18	5	0		3	23	2	0		67	344
10:30 AM	2	2	2	0		1	2	4	0		9	30	6	0		0	20	0	0		78	321
10:45 AM	2	0	2	0		3	1	4	0		6	31	1	0		1	23	2	0		76	299
11:00 AM	5	2	3	0		7	2	5	0		6	25	7	0		0	30	4	0		96	317
11:15 AM	8	0	4	0		1	1	8	0		6	32	8	1		3	21	3	0		96	346
11:30 AM	4	2	13	0		5	0	4	0		6	30	14	0		1	25	4	0		108	376
11:45 AM	6	2	4	0		2	1	6	0		5	36	4	0		5	32	4	0		107	407
12:00 PM	8	1	4	0		2	0	6	0		3	31	8	0		1	23	0	0		87	398
12:15 PM	6	0	2	0		0	0	1	0		5	37	3	0		9	32	2	0		97	399

12:30 PM	3	0	9	0	2	2	10	0	11	39	6	0	4	26	3	0	115	406
12:45 PM	4	4	5	0	3	3	4	0	9	38	12	1	1	22	1	0	107	406
1:00 PM	8	1	2	0	6	0	6	0	8	36	5	0	4	18	5	0	99	418
1:15 PM	7	0	7	0	5	1	4	0	4	63	4	0	7	20	2	0	124	445
1:30 PM	5	1	0	0	0	0	5	0	5	59	6	1	4	22	0	0	108	438
1:45 PM	3	0	4	0	3	0	1	0	6	40	3	0	4	23	1	0	88	419
2:00 PM	8	1	5	0	2	0	8	0	9	40	8	0	3	31	0	0	115	435
2:15 PM	8	1	5	0	3	0	7	0	8	50	8	0	2	37	1	0	130	441
2:30 PM	14	2	4	0	2	0	6	0	7	54	5	0	1	41	2	0	138	471
2:45 PM	16	1	4	0	1	0	7	0	6	53	5	0	1	26	2	0	122	505
3:00 PM	6	2	6	0	0	0	9	0	4	63	7	0	2	25	1	0	125	515
3:15 PM	13	1	3	0	1	0	11	0	6	59	5	0	3	36	0	0	138	523
3:30 PM	14	1	4	0	3	0	13	0	15	64	2	1	0	46	2	0	165	550
3:45 PM	5	2	4	0	1	1	7	0	14	53	5	0	2	48	2	0	144	572
4:00 PM	17	2	5	0	6	1	22	0	6	38	3	0	2	36	0	0	138	585
4:15 PM	15	1	4	0	1	1	10	0	2	52	1	0	0	42	2	0	131	578
4:30 PM	18	6	3	0	4	0	7	0	9	51	1	0	1	41	4	0	145	558
4:45 PM	6	0	1	0	2	1	5	0	5	50	2	0	0	45	1	0	118	532
5:00 PM	10	2	8	0	9	0	16	0	4	39	3	0	0	42	5	0	138	532
5:15 PM	4	0	3	0	5	0	3	0	3	49	5	0	2	23	0	0	97	498
5:30 PM	1	4	4	0	0	1	7	0	2	61	3	0	0	31	1	0	115	468
5:45 PM	1	1	2	0	1	0	3	0	4	41	1	0	1	22	2	0	79	429
6:00 PM	4	0	4	0	0	0	6	0	3	37	2	0	1	32	0	0	89	380
6:15 PM	1	0	0	0	0	1	4	0	2	30	4	0	1	17	0	0	60	343
6:30 PM	6	1	0	0	0	2	2	0	0	46	4	0	2	21	0	0	84	312
6:45 PM	4	0	2	0	0	0	5	0	1	35	4	0	0	15	0	0	66	299

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total	19.2%
6:00 AM	2	0	0	0	0	0	0	1	0	1	6	0	10	
6:15 AM	2	0	0	0	0	0	0	3	1	0	7	0	13	
6:30 AM	0	0	0	0	0	0	0	2	0	0	4	0	6	
6:45 AM	3	0	1	0	0	0	0	2	1	0	4	0	11	
7:00 AM	1	0	0	0	1	0	1	2	0	0	2	0	7	
7:15 AM	4	0	0	0	0	1	1	3	2	2	4	0	17	
7:30 AM	5	0	2	0	0	0	0	2	1	1	1	0	12	
7:45 AM	7	0	1	0	0	0	1	4	2	1	7	0	23	
8:00 AM	3	0	0	0	0	0	0	5	4	3	12	0	27	
8:15 AM	3	1	2	0	0	0	1	2	2	1	19	0	31	
8:30 AM	3	0	0	0	0	1	0	5	3	4	17	0	33	
8:45 AM	0	0	1	0	0	1	1	5	2	2	17	0	29	
9:00 AM	5	0	0	1	0	1	2	14	5	1	7	0	36	
9:15 AM	4	1	0	0	0	0	0	5	5	0	15	1	31	
9:30 AM	6	0	0	1	0	1	2	10	3	2	8	0	33	
9:45 AM	6	0	0	0	0	2	1	6	2	2	8	0	27	
10:00 AM	3	0	1	0	0	0	0	5	1	1	3	0	14	
10:15 AM	4	0	2	0	0	1	0	4	1	2	6	0	20	
10:30 AM	2	2	1	0	1	0	2	6	3	0	1	0	18	
10:45 AM	2	0	1	0	0	1	1	3	1	1	5	1	16	
11:00 AM	2	0	0	1	0	1	1	12	6	0	9	2	34	
11:15 AM	3	0	2	0	0	3	2	7	3	2	6	0	28	
11:30 AM	3	0	1	0	0	0	3	10	7	0	5	2	31	
11:45 AM	4	0	2	0	1	1	1	7	2	2	6	1	27	
12:00 PM	3	1	1	0	0	4	0	8	5	0	2	0	24	
12:15 PM	2	0	1	0	0	1	2	11	0	0	6	0	23	
12:30 PM	3	0	1	0	0	1	2	11	4	2	8	1	33	
12:45 PM	2	3	1	1	0	0	3	7	6	1	3	0	27	
1:00 PM	4	0	0	1	0	1	2	7	3	1	5	1	25	
1:15 PM	4	0	3	0	0	1	0	7	4	3	3	1	26	
1:30 PM	3	1	0	0	0	2	1	7	3	2	5	0	24	
1:45 PM	2	0	1	1	0	1	1	12	1	2	10	0	31	
2:00 PM	1	0	1	0	0	0	1	12	5	1	1	0	22	
2:15 PM	3	0	0	1	0	1	0	13	7	2	3	0	30	
2:30 PM	5	0	1	0	0	0	3	11	3	0	4	1	28	
2:45 PM	4	0	0	0	0	3	0	13	2	0	2	0	24	
3:00 PM	1	1	1	0	0	1	0	19	6	0	3	0	32	
3:15 PM	6	1	1	0	0	0	2	12	4	2	5	0	33	
3:30 PM	1	0	1	1	0	1	3	11	1	0	4	0	23	
3:45 PM	2	0	2	1	1	0	2	9	3	2	7	0	29	
4:00 PM	2	0	0	0	1	1	0	8	2	1	1	0	16	
4:15 PM	3	0	1	0	0	0	0	9	1	0	2	0	16	
4:30 PM	4	2	0	1	0	0	2	7	1	0	2	0	19	
4:45 PM	1	0	0	0	0	0	0	3	1	0	3	0	8	
5:00 PM	0	0	1	0	0	0	0	2	2	0	1	0	6	
5:15 PM	3	0	0	0	0	0	0	3	3	1	1	0	11	
5:30 PM	0	0	1	0	0	0	0	5	2	0	2	0	10	
5:45 PM	0	0	1	0	0	0	0	3	0	1	2	0	7	
6:00 PM	1	0	1	0	0	0	0	5	1	0	0	0	8	
6:15 PM	0	0	0	0	0	0	0	2	2	0	2	0	6	
6:30 PM	3	0	0	0	0	0	0	3	2	0	2	0	10	
6:45 PM	2	0	1	0	0	0	0	1	1	0	1	0	6	

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	1	1	0	2
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT CHANGED ORIENTATION

CSAH 81 & Troy Ln

AM Peak 1297

	WBLeft	WBThru	WBRight	WBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	Total
7:15 AM	0	118	3	0	3	174	0	0	0	0	0	0	0	0	1	0	299
7:30 AM	0	138	7	0	1	258	0	0	0	0	0	0	2	0	5	0	411
7:45 AM	0	132	2	0	1	196	0	0	0	0	0	0	1	0	2	0	334
8:00 AM	0	97	1	0	0	154	0	0	0	0	0	0	1	0	0	0	253
Hourly Tot	0	485	13	0	5	782	0	0	0	0	0	0	4	0	8	0	1297
PC Total	0	441	10		4	704	0		0	0	0		3	0	6		Int PHF
HV Total	0	44	3		1	78	0		0	0	0		1	0	2		0.79
% HV	2%	9%	23%		20%	10%	2%		2%	2%	2%		25%	2%	25%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak 1354

	WBLeft	WBThru	WBRight	WBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	Total
3:30 PM	0	223	0	0	0	130	0	0	0	0	0	0	3	0	5	0	361
3:45 PM	0	218	2	0	1	117	0	0	0	0	0	0	8	0	5	0	351
4:00 PM	0	203	0	0	2	108	0	0	0	0	0	0	8	0	2	0	323
4:15 PM	0	204	1	0	2	110	0	0	0	0	0	0	2	0	0	0	319
Hourly Tot	0	848	3	0	5	465	0	0	0	0	0	0	21	0	12	0	1354
PC Total	0	762	3		5	440	0		0	0	0		21	0	11		Int PHF
HV Total	0	86	0		0	25	0		0	0	0		0	0	1		0.94
% HV	2%	10%	2%		2%	5%	2%		2%	2%	2%		2%	2%	8%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio CSAH 81 Troy Ln
City/State: Dayton MN
QCJobNo: 16454206
ClientID:
Date: 01/18/24
Comments:
Latitude/Lo 45.16611 -93.5137
PEAK HOUI 3:30 PM
PEAK HOUI 4:30 PM
PEAK 15-M 3:30 PM
PEAK 15-M 3:45 PM
PHF 0.94

Lane Configuration:

SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7		
T	LT							STOP
EBLane7							R	WBLane1
EBLane6							L	WBLane2
EBLane5								WBLane3
EBLane4								WBLane4
EBLane3								WBLane5
EBLane2								WBLane6
EBLane1								WBLane7
STOP					T	R		
NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1		

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0	848	3	5	465	0	0	0	0	21	0	12	851	470	0	33	860	486	8	0

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	0	10.1	0	0	5.4	0	0	0	0	0	0	8.3	10.1	5.3	0	3	10.1	5.1	0	0
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	0	892	0	0	0	0	520	0	0	0	0	0	0	0	0	12	0	20	0	0	1444
Heavy Truc	0	92	0			0	32	0			0	0	0			0	0	4			128
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	0	40	3	0		2	127	0	0		0	0	0	0		0	0	1	0		173	
6:15 AM	0	53	1	0		0	127	0	0		0	0	0	0		0	0	0	0		181	
6:30 AM	0	61	3	0		1	151	0	0		0	0	0	0		0	0	1	0		217	
6:45 AM	0	107	6	0		7	136	0	0		0	0	0	0		1	0	0	0		257	828
7:00 AM	0	82	3	0		1	148	0	0		0	0	0	0		0	0	2	0		236	891
7:15 AM	0	118	3	0		3	174	0	0		0	0	0	0		0	0	1	0		299	1009
7:30 AM	0	138	7	0		1	258	0	0		0	0	0	0		2	0	5	0		411	1203
7:45 AM	0	132	2	0		1	196	0	0		0	0	0	0		1	0	2	0		334	1280
8:00 AM	0	97	1	0		0	154	0	0		0	0	0	0		1	0	0	0		253	1297
8:15 AM	0	80	3	0		2	148	0	0		0	0	0	0		1	0	1	0		235	1233
8:30 AM	0	87	1	0		0	134	0	0		0	0	0	0		1	0	2	0		225	1047
8:45 AM	0	99	1	0		3	113	0	0		0	0	0	0		0	0	0	0		216	929
9:00 AM	0	70	4	0		2	112	0	0		0	0	0	0		1	0	1	0		190	866
9:15 AM	0	78	1	0		0	102	0	0		0	0	0	0		3	0	0	0		184	815
9:30 AM	0	88	0	0		1	106	0	0		0	0	0	0		2	0	2	0		199	789
9:45 AM	0	79	0	0		1	91	0	0		0	0	0	0		2	0	1	0		174	747
10:00 AM	0	77	2	0		1	76	0	0		0	0	0	0		0	0	2	0		158	715
10:15 AM	0	67	1	0		0	77	0	0		0	0	0	0		1	0	2	0		148	679
10:30 AM	0	80	1	0		3	75	0	0		0	0	0	0		3	0	4	0		166	646
10:45 AM	0	83	1	0		2	81	0	0		0	0	0	0		0	0	1	0		168	640
11:00 AM	0	79	0	0		2	94	0	0		0	0	0	0		1	0	3	0		179	661
11:15 AM	0	78	2	0		2	71	0	0		0	0	0	0		2	0	1	0		156	669
11:30 AM	0	99	0	0		0	87	0	0		0	0	0	0		1	0	1	0		188	691
11:45 AM	0	103	0	0		3	85	0	0		0	0	0	0		0	0	4	0		195	718
12:00 PM	0	91	1	0		3	89	0	0		0	0	0	0		3	0	3	0		190	729
12:15 PM	0	95	1	0		1	90	0	0		0	0	0	0		1	0	0	0		188	761

12:30 PM	0	111	3	0	0	73	0	0	0	0	0	0	1	0	2	0	190	763
12:45 PM	0	91	1	0	0	82	0	0	0	0	0	0	1	0	0	0	175	743
1:00 PM	0	105	0	0	0	75	0	0	0	0	0	0	0	0	0	0	180	733
1:15 PM	0	139	4	0	1	78	0	0	0	0	0	0	1	0	4	0	227	772
1:30 PM	0	126	12	0	1	77	0	0	0	0	0	0	2	0	1	0	219	801
1:45 PM	0	120	6	0	4	70	0	0	0	0	0	0	0	0	0	0	200	826
2:00 PM	0	116	2	0	0	121	0	0	0	0	0	0	2	0	0	0	241	887
2:15 PM	0	132	2	0	1	107	0	0	0	0	0	0	8	0	11	0	261	921
2:30 PM	0	144	0	0	1	126	0	0	0	0	0	0	2	0	2	0	275	977
2:45 PM	0	152	0	0	0	84	0	0	0	0	0	0	2	0	1	0	239	1016
3:00 PM	0	175	0	0	2	89	0	0	0	0	0	0	3	0	2	0	271	1046
3:15 PM	0	184	1	0	2	84	0	0	0	0	0	0	8	0	6	0	285	1070
3:30 PM	0	223	0	0	0	130	0	0	0	0	0	0	3	0	5	0	361	1156
3:45 PM	0	218	2	0	1	117	0	0	0	0	0	0	8	0	5	0	351	1268
4:00 PM	0	203	0	0	2	108	0	0	0	0	0	0	8	0	2	0	323	1320
4:15 PM	0	204	1	0	2	110	0	0	0	0	0	0	2	0	0	0	319	1354
4:30 PM	0	180	4	0	0	140	0	0	0	0	0	0	4	0	1	0	329	1322
4:45 PM	0	191	2	0	1	123	0	0	0	0	0	0	1	0	1	0	319	1290
5:00 PM	0	184	0	0	1	133	0	0	0	0	0	0	6	0	4	0	328	1295
5:15 PM	0	172	1	0	1	95	0	0	0	0	0	0	0	0	1	0	270	1246
5:30 PM	0	160	0	0	1	72	0	0	0	0	0	0	2	0	0	0	235	1152
5:45 PM	0	99	0	0	1	53	0	0	0	0	0	0	1	0	0	0	154	987
6:00 PM	0	89	1	0	1	73	0	0	0	0	0	0	1	0	2	0	167	826
6:15 PM	0	68	5	0	0	61	0	0	0	0	0	0	2	0	0	0	136	692
6:30 PM	0	84	0	0	0	48	0	0	0	0	0	0	1	0	0	0	133	590
6:45 PM	0	68	7	0	2	47	0	0	0	0	0	0	0	0	1	0	125	561

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total	11.2%
6:00 AM	0	2	0	0	6	0	0	0	0	0	0	0	8	
6:15 AM	0	1	0	0	6	0	0	0	0	0	0	0	7	
6:30 AM	0	1	0	0	11	0	0	0	0	0	0	0	12	
6:45 AM	0	4	1	0	8	0	0	0	0	0	0	0	13	
7:00 AM	0	1	0	0	3	0	0	0	0	0	0	0	4	
7:15 AM	0	9	1	1	8	0	0	0	0	0	0	0	19	
7:30 AM	0	14	1	0	17	0	0	0	0	1	0	1	34	
7:45 AM	0	7	1	0	17	0	0	0	0	0	0	1	26	
8:00 AM	0	14	0	0	36	0	0	0	0	0	0	0	50	
8:15 AM	0	11	0	0	31	0	0	0	0	1	0	0	43	
8:30 AM	0	12	1	0	29	0	0	0	0	1	0	1	44	
8:45 AM	0	13	0	1	23	0	0	0	0	0	0	0	37	
9:00 AM	0	16	2	0	25	0	0	0	0	0	0	0	43	
9:15 AM	0	19	0	0	27	0	0	0	0	1	0	0	47	
9:30 AM	0	18	0	1	14	0	0	0	0	1	0	0	34	
9:45 AM	0	15	0	0	20	0	0	0	0	1	0	1	37	
10:00 AM	0	14	1	1	13	0	0	0	0	0	0	0	29	
10:15 AM	0	15	1	0	14	0	0	0	0	1	0	1	32	
10:30 AM	0	16	0	1	10	0	0	0	0	0	0	0	27	
10:45 AM	0	15	0	0	15	0	0	0	0	0	0	1	31	
11:00 AM	0	19	0	1	12	0	0	0	0	1	0	1	34	
11:15 AM	0	15	1	0	12	0	0	0	0	0	0	0	28	
11:30 AM	0	9	0	0	7	0	0	0	0	0	0	0	16	
11:45 AM	0	22	0	0	13	0	0	0	0	0	0	0	35	
12:00 PM	0	16	0	0	13	0	0	0	0	0	0	0	29	
12:15 PM	0	14	1	0	9	0	0	0	0	0	0	0	24	
12:30 PM	0	20	1	0	11	0	0	0	0	1	0	0	33	
12:45 PM	0	13	0	0	13	0	0	0	0	0	0	0	26	
1:00 PM	0	12	0	0	10	0	0	0	0	0	0	0	22	
1:15 PM	0	25	1	0	9	0	0	0	0	0	0	1	36	
1:30 PM	0	9	0	0	11	0	0	0	0	0	0	0	20	
1:45 PM	0	17	0	0	12	0	0	0	0	0	0	0	29	
2:00 PM	0	29	0	0	11	0	0	0	0	0	0	0	40	
2:15 PM	0	18	0	0	15	0	0	0	0	0	0	0	33	
2:30 PM	0	19	0	0	7	0	0	0	0	0	0	0	26	
2:45 PM	0	24	0	0	5	0	0	0	0	0	0	0	29	
3:00 PM	0	22	0	0	8	0	0	0	0	0	0	0	30	
3:15 PM	0	23	1	0	14	0	0	0	0	1	0	1	40	
3:30 PM	0	23	0	0	8	0	0	0	0	0	0	1	32	
3:45 PM	0	19	0	0	8	0	0	0	0	0	0	0	27	
4:00 PM	0	27	0	0	4	0	0	0	0	0	0	0	31	
4:15 PM	0	17	0	0	5	0	0	0	0	0	0	0	22	
4:30 PM	0	19	2	0	4	0	0	0	0	0	0	1	26	
4:45 PM	0	13	0	0	5	0	0	0	0	1	0	0	19	
5:00 PM	0	9	0	0	5	0	0	0	0	1	0	0	15	
5:15 PM	0	12	0	0	4	0	0	0	0	0	0	0	16	
5:30 PM	0	2	0	0	3	0	0	0	0	0	0	0	5	
5:45 PM	0	1	0	0	5	0	0	0	0	0	0	0	6	
6:00 PM	0	4	0	0	3	0	0	0	0	0	0	0	7	
6:15 PM	0	1	0	0	2	0	0	0	0	0	0	0	3	
6:30 PM	0	1	0	0	3	0	0	0	0	0	0	0	4	
6:45 PM	0	0	0	0	4	0	0	0	0	0	0	0	4	

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT CHANGED ORIENTATION

CSAH 81 & Territorial Rd

AM Peak 1141

	WBLeft	WBThru	WBRight	WBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	Total
7:15 AM	0	82	3	0	8	157	0	0	0	0	0	0	7	0	14	0	271
7:30 AM	0	93	4	0	9	215	0	0	0	0	0	0	11	0	17	0	349
7:45 AM	0	95	2	0	13	173	0	0	0	0	0	0	11	0	10	0	304
8:00 AM	0	51	4	0	9	132	0	0	0	0	0	0	8	0	13	0	217
Hourly Tot	0	321	13	0	39	677	0	0	0	0	0	0	37	0	54	0	1141
PC Total	0	287	12		29	627	0		0	0	0		36	0	50		Int PHF
HV Total	0	34	1		10	50	0		0	0	0		1	0	4		0.82
% HV	2%	11%	8%		26%	7%	2%		2%	2%	2%		3%	2%	7%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak 1227

	WBLeft	WBThru	WBRight	WBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	Total
4:15 PM	0	159	12	0	12	98	0	0	0	0	0	0	8	0	15	0	304
4:30 PM	0	158	10	0	16	108	0	0	0	0	0	0	3	0	11	0	306
4:45 PM	0	142	20	0	14	101	0	0	0	0	0	0	5	0	13	0	295
5:00 PM	0	163	17	0	21	105	0	0	0	0	0	0	8	0	8	0	322
Hourly Tot	0	622	59	0	63	412	0	0	0	0	0	0	24	0	47	0	1227
PC Total	0	591	57		59	395	0		0	0	0		22	0	44		Int PHF
HV Total	0	31	2		4	17	0		0	0	0		2	0	3		0.95
% HV	2%	5%	3%		6%	4%	2%		2%	2%	2%		8%	2%	6%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio CSAH 81 Territorial Rd
City/State: Dayton MN
QCJobNo: 16454202
ClientID:
Date: 01/18/24
Comments:
Latitude/Lo 45.15574 -93.4967
PEAK HOUI 4:15 PM
PEAK HOUI 5:15 PM
PEAK 15-M 5:00 PM
PEAK 15-M 5:15 PM
PHF 0.95

Lane Configuration:

SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7		
T	LT							STOP
EBLane7							R	WBLane1
EBLane6							L	WBLane2
EBLane5								WBLane3
EBLane4								WBLane4
EBLane3								WBLane5
EBLane2								WBLane6
EBLane1								WBLane7
STOP					T	R		
NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1		

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
0	622	59	63	412	0	0	0	0	24	0	47	681	475	0	71	669	436	122	0

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	0	5	3.4	6.3	4.1	0	0	0	0	8.3	0	6.4	4.8	4.4	0	7	5.1	4.4	4.9	0
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	0	652	68	0	0	84	420	0	0	0	0	0	0	0	0	32	0	32	0	0	1288
Heavy Truc	0	20	4			0	28	0			0	0	0			8	0	0			60
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	0	30	4	0		1	95	0	0		0	0	0	0		5	0	3	0		138	
6:15 AM	0	34	1	0		0	84	0	0		0	0	0	0		2	0	4	0		125	
6:30 AM	0	61	3	0		5	129	0	0		0	0	0	0		10	0	5	0		213	
6:45 AM	0	76	2	0		5	114	0	0		0	0	0	0		2	0	13	0		212	688
7:00 AM	0	54	2	0		5	114	0	0		0	0	0	0		9	0	18	0		202	752
7:15 AM	0	82	3	0		8	157	0	0		0	0	0	0		7	0	14	0		271	898
7:30 AM	0	93	4	0		9	215	0	0		0	0	0	0		11	0	17	0		349	1034
7:45 AM	0	95	2	0		13	173	0	0		0	0	0	0		11	0	10	0		304	1126
8:00 AM	0	51	4	0		9	132	0	0		0	0	0	0		8	0	13	0		217	1141
8:15 AM	0	50	7	0		8	115	0	0		0	0	0	0		2	0	9	0		191	1061
8:30 AM	0	64	7	0		8	107	0	0		0	0	0	0		12	0	18	0		216	928
8:45 AM	0	50	7	0		5	88	0	0		0	0	0	0		5	0	8	0		163	787
9:00 AM	0	44	6	0		12	86	0	0		0	0	0	0		6	0	10	0		164	734
9:15 AM	0	58	3	0		11	69	0	0		0	0	0	0		11	0	12	0		164	707
9:30 AM	0	65	5	0		10	85	0	0		0	0	0	0		4	0	11	0		180	671
9:45 AM	0	48	5	0		11	71	0	0		0	0	0	0		3	0	6	0		144	652
10:00 AM	0	50	5	0		7	62	0	0		0	0	0	0		7	0	10	0		141	629
10:15 AM	0	51	3	0		3	60	0	0		0	0	0	0		5	0	4	0		126	591
10:30 AM	0	51	3	0		1	69	0	0		0	0	0	0		4	0	3	0		131	542
10:45 AM	0	63	1	0		7	57	0	0		0	0	0	0		7	0	4	0		139	537
11:00 AM	0	49	4	0		5	79	0	0		0	0	0	0		3	0	11	0		151	547
11:15 AM	0	53	4	0		3	54	0	0		0	0	0	0		5	0	11	0		130	551
11:30 AM	0	61	4	0		10	65	0	0		0	0	0	0		4	0	8	0		152	572
11:45 AM	0	79	4	0		9	57	0	0		0	0	0	0		1	0	7	0		157	590
12:00 PM	0	58	6	0		14	66	0	0		0	0	0	0		2	0	12	0		158	597
12:15 PM	0	63	9	0		5	71	0	0		0	0	0	0		1	0	9	0		158	625

12:30 PM	0	81	4	0		6	65	0	0		0	0	0	0		0	0	10	0	166	639
12:45 PM	0	56	7	0		4	66	0	0		0	0	0	0		3	0	3	0	139	621
1:00 PM	0	73	3	0		6	63	0	0		0	0	0	0		7	0	6	0	158	621
1:15 PM	0	100	4	0		6	74	0	0		0	0	0	0		5	0	8	0	197	660
1:30 PM	0	93	1	0		9	53	0	0		0	0	0	0		7	0	6	0	169	663
1:45 PM	0	81	0	0		6	61	0	0		0	0	0	0		2	0	8	0	158	682
2:00 PM	0	89	5	0		4	83	0	0		0	0	0	0		5	0	6	0	192	716
2:15 PM	0	90	6	0		6	98	0	0		0	0	0	0		5	0	6	0	211	730
2:30 PM	0	92	5	0		6	99	0	0		0	0	0	0		5	0	5	0	212	773
2:45 PM	0	101	11	0		4	62	0	0		0	0	0	0		8	0	7	0	193	808
3:00 PM	0	131	8	0		11	76	0	0		0	0	0	0		6	0	4	0	236	852
3:15 PM	0	134	16	0		5	68	0	0		0	0	0	0		1	0	12	0	236	877
3:30 PM	0	175	12	0		19	106	0	0		0	0	0	0		5	0	23	0	340	1005
3:45 PM	0	170	7	0		9	95	0	0		0	0	0	0		4	0	10	0	295	1107
4:00 PM	0	151	7	0		12	89	0	0		0	0	0	0		5	0	14	0	278	1149
4:15 PM	0	159	12	0		12	98	0	0		0	0	0	0		8	0	15	0	304	1217
4:30 PM	0	158	10	0		16	108	0	0		0	0	0	0		3	0	11	0	306	1183
4:45 PM	0	142	20	0		14	101	0	0		0	0	0	0		5	0	13	0	295	1183
5:00 PM	0	163	17	0		21	105	0	0		0	0	0	0		8	0	8	0	322	1227
5:15 PM	0	130	9	0		19	81	0	0		0	0	0	0		12	0	9	0	260	1183
5:30 PM	0	113	17	0		15	57	0	0		0	0	0	0		2	0	6	0	210	1087
5:45 PM	0	72	7	0		12	37	0	0		0	0	0	0		13	0	6	0	147	939
6:00 PM	0	67	11	0		9	49	0	0		0	0	0	0		2	0	9	0	147	764
6:15 PM	0	57	10	0		6	44	0	0		0	0	0	0		8	0	7	0	132	636
6:30 PM	0	50	8	0		10	40	0	0		0	0	0	0		8	0	10	0	126	552
6:45 PM	0	60	11	0		14	38	0	0		0	0	0	0		3	0	5	0	131	536

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total	8.3%
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:15 AM	0	3	0	0	0	0	0	0	0	0	0	1	4	
6:30 AM	0	3	0	1	1	0	0	0	0	0	0	0	5	
6:45 AM	0	2	0	0	1	0	0	0	0	0	0	1	4	
7:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	
7:15 AM	0	7	1	3	4	0	0	0	0	0	0	1	16	
7:30 AM	0	13	0	4	13	0	0	0	0	1	0	1	32	
7:45 AM	0	9	0	3	10	0	0	0	0	0	0	0	22	
8:00 AM	0	5	0	0	23	0	0	0	0	0	0	2	30	
8:15 AM	0	4	0	3	15	0	0	0	0	0	0	1	23	
8:30 AM	0	8	1	4	17	0	0	0	0	0	0	4	34	
8:45 AM	0	7	0	0	14	0	0	0	0	0	0	1	22	
9:00 AM	0	5	0	2	16	0	0	0	0	0	0	0	23	
9:15 AM	0	12	0	1	14	0	0	0	0	0	0	2	29	
9:30 AM	0	13	0	3	6	0	0	0	0	0	0	0	22	
9:45 AM	0	7	0	1	10	0	0	0	0	0	0	2	20	
10:00 AM	0	7	0	0	13	0	0	0	0	0	0	0	20	
10:15 AM	0	13	0	0	16	0	0	0	0	0	0	1	30	
10:30 AM	0	10	0	0	10	0	0	0	0	0	0	1	21	
10:45 AM	0	10	0	1	9	0	0	0	0	0	0	0	20	
11:00 AM	0	10	0	1	5	0	0	0	0	0	0	1	17	
11:15 AM	0	11	1	0	8	0	0	0	0	0	0	1	21	
11:30 AM	0	4	0	0	6	0	0	0	0	0	0	0	10	
11:45 AM	0	11	0	3	9	0	0	0	0	0	0	1	24	
12:00 PM	0	8	1	3	11	0	0	0	0	0	0	1	24	
12:15 PM	0	4	0	1	6	0	0	0	0	0	0	3	14	
12:30 PM	0	10	0	1	7	0	0	0	0	0	0	1	19	
12:45 PM	0	5	0	1	10	0	0	0	0	0	0	0	16	
1:00 PM	0	11	0	0	9	0	0	0	0	1	0	0	21	
1:15 PM	0	11	0	0	5	0	0	0	0	0	0	3	19	
1:30 PM	0	7	0	1	7	0	0	0	0	0	0	1	16	
1:45 PM	0	11	0	1	6	0	0	0	0	0	0	3	21	
2:00 PM	0	13	0	0	8	0	0	0	0	0	0	1	22	
2:15 PM	0	8	0	1	13	0	0	0	0	0	0	0	22	
2:30 PM	0	5	0	2	7	0	0	0	0	0	0	0	14	
2:45 PM	0	11	1	0	3	0	0	0	0	0	0	1	16	
3:00 PM	0	6	0	1	5	0	0	0	0	0	0	2	14	
3:15 PM	0	12	1	1	9	0	0	0	0	0	0	1	24	
3:30 PM	0	14	0	0	12	0	0	0	0	1	0	4	31	
3:45 PM	0	8	0	0	6	0	0	0	0	0	0	0	14	
4:00 PM	0	13	0	0	2	0	0	0	0	0	0	4	19	
4:15 PM	0	6	0	2	5	0	0	0	0	0	0	2	15	
4:30 PM	0	15	0	1	1	0	0	0	0	0	0	0	17	
4:45 PM	0	5	1	1	4	0	0	0	0	0	0	1	12	
5:00 PM	0	5	1	0	7	0	0	0	0	2	0	0	15	
5:15 PM	0	6	0	1	0	0	0	0	0	1	0	0	8	
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	
6:00 PM	0	4	0	0	1	0	0	0	0	0	0	0	5	
6:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	
6:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	
6:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	

PEDESTRIAN VOLUMES

Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	0	0	0
8:00 AM	0	0	0	0	0
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	0	0	0	0	0
11:00 AM	0	0	0	0	0
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

QUALITY COUNTS REPORT

Pineview Ln & S Diamond Lake Rd

AM Peak																	*473*
	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total
7:00 AM	4	2	4	0	2	29	10	0	2	11	10	0	10	22	0	0	106
7:15 AM	5	7	3	0	2	31	1	0	1	15	1	0	12	40	1	0	119
7:30 AM	5	7	8	0	4	38	1	0	0	9	11	0	21	26	1	0	131
7:45 AM	6	12	10	0	13	28	0	0	0	9	4	0	4	29	2	0	117
Hourly Tot	20	28	25	0	21	126	12	0	3	44	26	0	47	117	4	0	473
PC Total	19	27	23		20	122	12		3	40	25		46	117	4		Int PHF
HV Total	1	1	2		1	4	0		0	4	1		1	0	0		0.9
% HV	5%	4%	8%		5%	3%	2%		2%	9%	4%		2%	2%	2%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

PM Peak																	*621*
	NBLeft	NBThru	NBRight	NBU-Turn	SBLeft	SBThru	SBRight	SBU-Turn	EBLeft	EBThru	EBRight	EBU-Turn	WBLeft	WBThru	WBRight	WBU-Turn	Total
4:00 PM	6	28	9	0	2	12	0	0	3	35	11	0	15	24	16	0	161
4:15 PM	15	32	7	0	5	11	1	0	1	32	13	0	3	18	9	0	147
4:30 PM	11	40	10	0	4	23	1	0	1	31	3	0	11	14	2	0	151
4:45 PM	7	40	17	0	2	18	2	0	2	30	15	0	4	22	3	0	162
Hourly Tot	39	140	43	0	13	64	4	0	7	128	42	0	33	78	30	0	621
PC Total	38	138	43		12	63	4		7	126	42		32	68	27		Int PHF
HV Total	1	2	0		1	1	0		0	2	0		1	10	3		0.96
% HV	3%	2%	2%		8%	2%	2%		2%	2%	2%		3%	13%	10%		
Bikes Total	X	X	X		X	X	X		X	X	X		X	X	X		
Peds (Crossing)		X				X				X				X			

Intersectio Pineview L S Diamond Lake Rd
City/State: Dayton MN
QCJobNo: 16454201
ClientID:
Date: 01/18/24
Comments:
Latitude/L 45.19905 -93.4425
PEAK HOU 4:00 PM
PEAK HOU 5:00 PM
PEAK 15-M 4:45 PM
PEAK 15-M 5:00 PM
PHF 0.96

Lane Configuration:

	STOP	SBLane1	SBLane2	SBLane3	SBLane4	SBLane5	SBLane6	SBLane7			
		LTR									STOP
EBLane7									TR	WBLane1	
EBLane6									L	WBLane2	
EBLane5										WBLane3	
EBLane4										WBLane4	
EBLane3										WBLane5	
EBLane2	L									WBLane6	
EBLane1	TR									WBLane7	
STOP								LTR			
		NBLane7	NBLane6	NBLane5	NBLane4	NBLane3	NBLane2	NBLane1	STOP		

PEAK-HOUR VOLUMES

NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
39	140	43	13	64	4	7	128	42	33	78	30	222	81	177	141	177	139	184	121

PERCENT HEAVY VEHICLES

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight	NBEnterin	SBEntering	EBEntering	WBEnterin	NBLeaving	SBLeaving	EBLeaving	WBLeaving
HEAVY VEH	2.6	1.4	0	7.7	1.6	0	0	1.6	0	3	12.8	10	1.4	2.5	1.1	9.9	2.8	1.4	1.6	9.1
BUSES																				

PEAK-HOUR VOLUMES - PEDESTRIANS

Leg/Crossv	South	North	West	East
	0	0	0	0

PEAK-HOUR VOLUMES - MICROMOBILITY

	NBLeft	NBThru	NBRight	SBLeft	SBThru	SBRight	EBLeft	EBThru	EBRight	WBLeft	WBThru	WBRight
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0
Scooters												

PEAK 15-MIN FLOWRATES

VehicleTyp	NBLeft	NBThru	NBRight	NBU-Turn	NBRTOR	SBLeft	SBThru	SBRight	SBU-Turn	SBRTOR	EBLeft	EBThru	EBRight	EBU-Turn	EBRTOR	WBLeft	WBThru	WBRight	WBU-Turn	WBRTOR	Total
All Vehicle	28	160	68	0	0	8	72	8	0	0	8	120	60	0	0	16	88	12	0	0	648
Heavy Truc	0	0	0			0	4	0			0	0	0			0	4	0			8
Buses																					
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

ALL-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	NB U-Turn	NB RTOR	SB Left	SB Thru	SB Right	SB U-Turn	SB RTOR	EB Left	EB Thru	EB Right	EB U-Turn	EB RTOR	WB Left	WB Thru	WB Right	WB U-Turr	WB RTOR	Total	Hourly Tota
6:00 AM	0	2	0	0		1	7	3	0		0	3	3	0		2	10	3	0		34	
6:15 AM	1	0	0	0		1	16	1	0		0	4	6	0		1	23	1	0		54	
6:30 AM	4	1	4	0		0	18	3	0		0	4	6	0		4	31	1	0		76	
6:45 AM	6	5	8	0		4	23	3	0		0	13	5	0		5	38	0	0		110	274
7:00 AM	4	2	4	0		2	29	10	0		2	11	10	0		10	22	0	0		106	346
7:15 AM	5	7	3	0		2	31	1	0		1	15	1	0		12	40	1	0		119	411
7:30 AM	5	7	8	0		4	38	1	0		0	9	11	0		21	26	1	0		131	466
7:45 AM	6	12	10	0		13	28	0	0		0	9	4	0		4	29	2	0		117	473
8:00 AM	3	10	6	0		2	18	1	0		0	9	4	0		9	20	3	0		85	452
8:15 AM	4	12	10	0		7	15	2	0		0	16	7	0		6	19	3	0		101	434
8:30 AM	4	10	6	0		4	14	1	0		0	11	3	0		5	14	1	1		74	377
8:45 AM	1	8	7	0		4	12	1	0		0	5	0	0		5	20	0	0		63	323
9:00 AM	1	6	10	0		12	9	1	0		1	14	5	0		7	11	0	0		77	315
9:15 AM	3	4	5	0		9	9	0	0		1	18	6	0		16	11	10	0		92	306
9:30 AM	5	9	4	0		0	11	0	0		1	9	3	0		2	8	6	0		58	290
9:45 AM	2	7	0	0		1	8	1	0		0	8	5	0		3	13	6	0		54	281
10:00 AM	5	9	2	0		0	10	1	0		1	11	10	0		1	10	0	0		60	264
10:15 AM	6	2	4	0		1	14	1	0		0	8	4	0		5	6	0	0		51	223
10:30 AM	1	6	7	0		1	6	0	0		0	11	5	0		2	8	0	0		47	212
10:45 AM	6	5	5	0		1	15	1	0		0	12	4	0		0	12	1	0		62	220
11:00 AM	0	7	3	0		0	9	1	0		0	14	4	0		6	7	0	0		51	211
11:15 AM	5	6	4	0		2	13	0	0		0	11	3	0		4	6	1	0		55	215
11:30 AM	6	7	2	0		1	9	0	0		0	9	6	0		3	10	3	0		56	224
11:45 AM	3	11	6	0		1	7	1	0		1	5	5	0		5	13	4	0		62	224
12:00 PM	5	17	5	0		2	9	1	0		1	12	6	0		5	18	3	0		84	257
12:15 PM	5	9	6	0		4	7	0	0		0	5	5	0		4	9	2	0		56	258

12:30 PM	5	10	5	0	0	12	0	0	0	17	3	0	3	14	2	0	71	273
12:45 PM	3	9	2	0	0	8	0	0	0	11	6	0	6	10	1	0	56	267
1:00 PM	4	9	7	0	0	7	0	0	0	8	2	0	4	7	1	0	49	232
1:15 PM	9	10	5	0	0	6	0	0	1	15	4	0	1	7	0	0	58	234
1:30 PM	6	12	3	0	2	8	0	0	1	19	6	0	4	13	0	0	74	237
1:45 PM	5	9	7	0	0	11	0	0	2	15	4	0	4	14	0	0	71	252
2:00 PM	7	15	5	0	1	7	1	0	0	38	6	0	4	11	4	0	99	302
2:15 PM	12	11	6	0	3	7	1	0	1	27	5	0	3	24	4	0	104	348
2:30 PM	3	23	3	0	0	11	1	0	0	23	4	0	9	9	3	0	89	363
2:45 PM	6	13	4	0	1	8	0	0	1	11	7	0	5	28	1	0	85	377
3:00 PM	7	18	7	0	4	11	0	0	0	31	10	0	5	11	0	0	104	382
3:15 PM	3	24	4	0	1	18	0	0	2	31	7	0	4	18	1	0	113	391
3:30 PM	7	21	11	0	4	18	2	0	3	34	14	0	5	24	2	0	145	447
3:45 PM	13	28	16	0	11	9	0	0	1	27	4	0	9	18	4	0	140	502
4:00 PM	6	28	9	0	2	12	0	0	3	35	11	0	15	24	16	0	161	559
4:15 PM	15	32	7	0	5	11	1	0	1	32	13	0	3	18	9	0	147	593
4:30 PM	11	40	10	0	4	23	1	0	1	31	3	0	11	14	2	0	151	599
4:45 PM	7	40	17	0	2	18	2	0	2	30	15	0	4	22	3	0	162	621
5:00 PM	5	37	11	0	4	14	0	0	0	34	4	0	2	13	3	0	127	587
5:15 PM	10	35	14	0	5	16	1	0	0	27	6	0	6	19	0	0	139	579
5:30 PM	10	34	10	0	0	15	2	0	0	15	7	0	10	12	8	0	123	551
5:45 PM	7	32	14	0	1	14	2	0	1	14	8	0	6	6	4	0	109	498
6:00 PM	7	29	9	0	3	16	5	0	2	8	9	0	9	9	0	0	106	477
6:15 PM	7	20	11	0	0	9	2	0	1	13	11	0	15	2	1	0	92	430
6:30 PM	6	12	12	0	2	2	1	0	0	8	3	0	2	6	3	0	57	364
6:45 PM	5	16	5	0	1	4	0	0	1	9	5	0	7	7	0	0	60	315

HEAVY-VEHICLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total	4.0%
6:00 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	
6:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
7:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	
7:15 AM	0	0	0	0	1	0	0	2	0	1	0	0	4	
7:30 AM	0	0	1	0	2	0	0	0	1	0	0	0	4	
7:45 AM	1	1	1	1	1	0	0	1	0	0	0	0	6	
8:00 AM	0	0	1	0	0	0	0	2	0	0	2	0	5	
8:15 AM	0	1	0	0	0	0	0	3	2	0	1	1	8	
8:30 AM	1	0	0	0	0	0	0	2	1	0	0	0	4	
8:45 AM	0	0	0	2	0	0	0	2	0	0	1	0	5	
9:00 AM	0	0	3	2	0	0	0	2	0	0	1	0	8	
9:15 AM	0	1	0	1	0	0	0	3	0	3	2	0	10	
9:30 AM	0	1	1	0	0	0	0	1	0	0	0	1	4	
9:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	
10:00 AM	0	0	0	0	0	0	0	1	0	0	2	0	3	
10:15 AM	2	0	0	0	0	0	0	0	0	0	1	0	3	
10:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	2	
10:45 AM	1	0	0	0	3	0	0	1	0	0	1	0	6	
11:00 AM	0	0	0	0	0	0	0	3	0	0	0	0	3	
11:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:45 AM	0	0	0	0	1	0	0	0	1	0	2	1	5	
12:00 PM	0	0	0	0	1	0	0	0	0	0	1	0	2	
12:15 PM	0	0	1	1	0	0	0	0	0	0	1	0	3	
12:30 PM	0	0	0	0	1	0	0	0	0	0	3	0	4	
12:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	
1:00 PM	0	0	1	0	1	0	0	1	0	0	1	0	4	
1:15 PM	0	0	0	0	0	0	0	3	0	0	1	0	4	
1:30 PM	0	1	0	0	0	0	0	3	0	0	0	0	4	
1:45 PM	1	0	0	0	1	0	0	1	0	0	2	0	5	
2:00 PM	0	0	2	0	2	0	0	0	0	0	1	0	5	
2:15 PM	0	0	0	0	1	0	0	1	0	0	3	0	5	
2:30 PM	1	1	0	0	0	0	0	0	0	2	1	0	5	
2:45 PM	0	0	0	0	1	0	0	0	0	1	4	0	6	
3:00 PM	0	1	0	0	1	0	0	1	0	0	1	0	4	
3:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	2	
3:30 PM	1	0	0	0	0	0	0	1	0	0	5	0	7	
3:45 PM	0	0	1	2	0	0	0	0	0	0	4	0	7	
4:00 PM	0	1	0	0	0	0	0	0	0	0	5	1	7	
4:15 PM	1	0	0	1	0	0	0	2	0	0	3	2	9	
4:30 PM	0	1	0	0	0	0	0	0	0	1	1	0	3	
4:45 PM	0	0	0	0	1	0	0	0	0	0	1	0	2	
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	
5:15 PM	0	0	0	0	1	0	0	0	0	1	2	0	4	
5:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	1	
5:45 PM	0	0	1	0	0	0	0	0	0	0	0	1	2	
6:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	

PEDESTRIAN VOLUMES

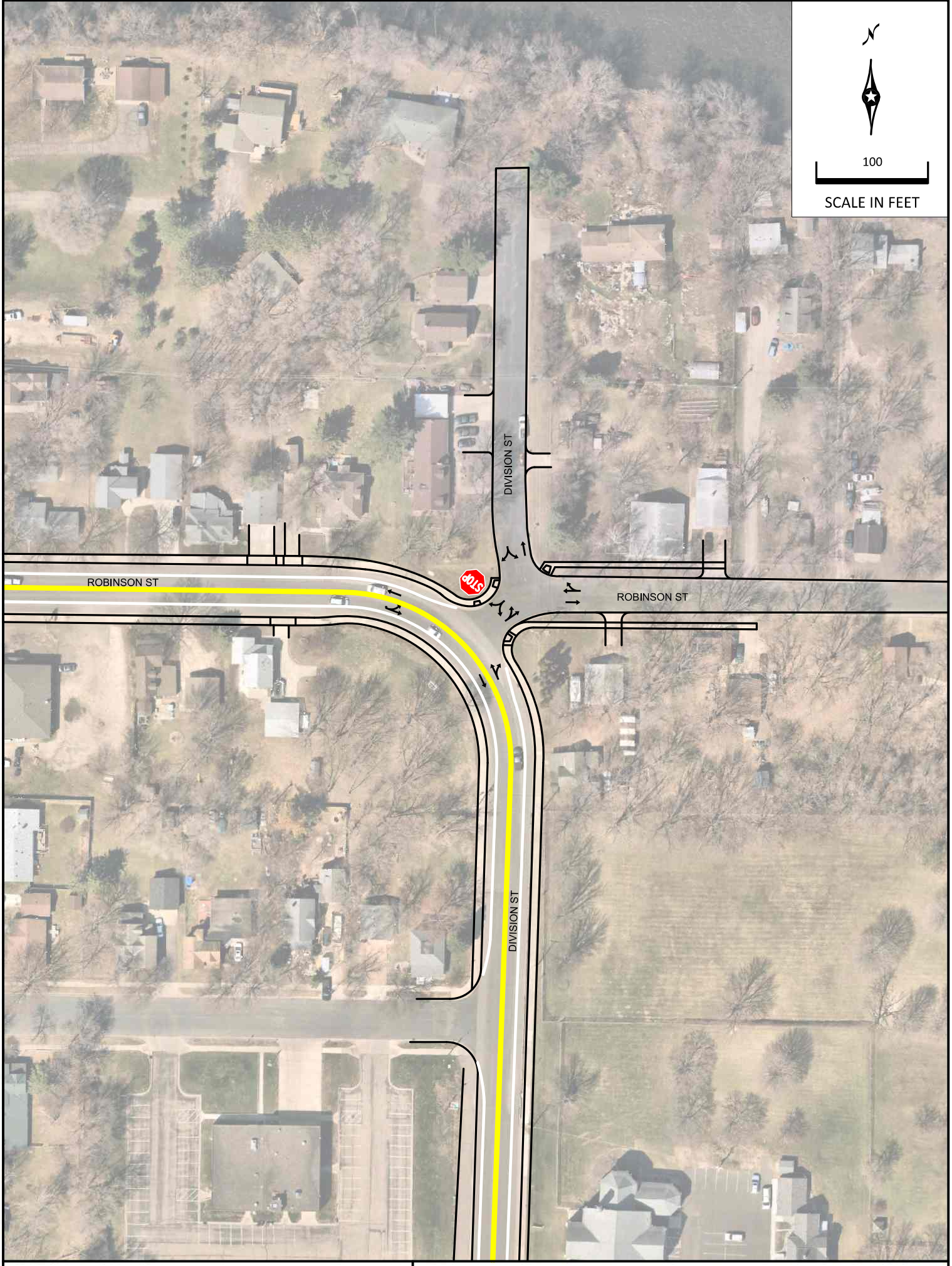
Time Perio	South Leg	North Leg	West Leg	East Leg	Total
6:00 AM	0	0	0	0	0
6:15 AM	0	0	0	0	0
6:30 AM	0	0	0	0	0
6:45 AM	0	0	0	0	0
7:00 AM	0	0	0	0	0
7:15 AM	0	0	0	0	0
7:30 AM	0	0	0	0	0
7:45 AM	0	0	1	0	1
8:00 AM	0	0	1	0	1
8:15 AM	0	0	0	0	0
8:30 AM	0	0	0	0	0
8:45 AM	0	0	0	0	0
9:00 AM	0	0	0	0	0

9:15 AM	0	0	0	0	0
9:30 AM	0	0	0	0	0
9:45 AM	0	0	0	0	0
10:00 AM	0	0	0	0	0
10:15 AM	0	0	0	0	0
10:30 AM	0	0	0	0	0
10:45 AM	1	0	0	0	1
11:00 AM	0	1	1	0	2
11:15 AM	0	0	0	0	0
11:30 AM	0	0	0	0	0
11:45 AM	0	0	0	0	0
12:00 PM	0	0	0	0	0
12:15 PM	0	0	0	0	0
12:30 PM	0	0	0	0	0
12:45 PM	0	0	0	0	0
1:00 PM	0	0	0	0	0
1:15 PM	0	0	0	0	0
1:30 PM	0	0	0	0	0
1:45 PM	0	0	0	0	0
2:00 PM	0	0	0	0	0
2:15 PM	0	0	0	0	0
2:30 PM	0	0	0	0	0
2:45 PM	0	0	0	0	0
3:00 PM	0	0	0	0	0
3:15 PM	0	0	0	0	0
3:30 PM	0	0	0	0	0
3:45 PM	0	0	0	0	0
4:00 PM	0	0	0	0	0
4:15 PM	0	0	0	0	0
4:30 PM	0	0	0	0	0
4:45 PM	0	0	0	0	0
5:00 PM	0	0	0	0	0
5:15 PM	0	0	0	0	0
5:30 PM	0	0	0	0	0
5:45 PM	0	0	0	0	0
6:00 PM	0	0	0	0	0
6:15 PM	0	0	0	0	0
6:30 PM	0	0	0	0	0
6:45 PM	0	0	0	0	0

BICYCLE VOLUMES

Time Perio	NB Left	NB Thru	NB Right	SB Left	SB Thru	SB Right	EB Left	EB Thru	EB Right	WB Left	WB Thru	WB Right	Total
6:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
1:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0

Appendix B - EXISTING INTERSECTION LAYOUTS



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

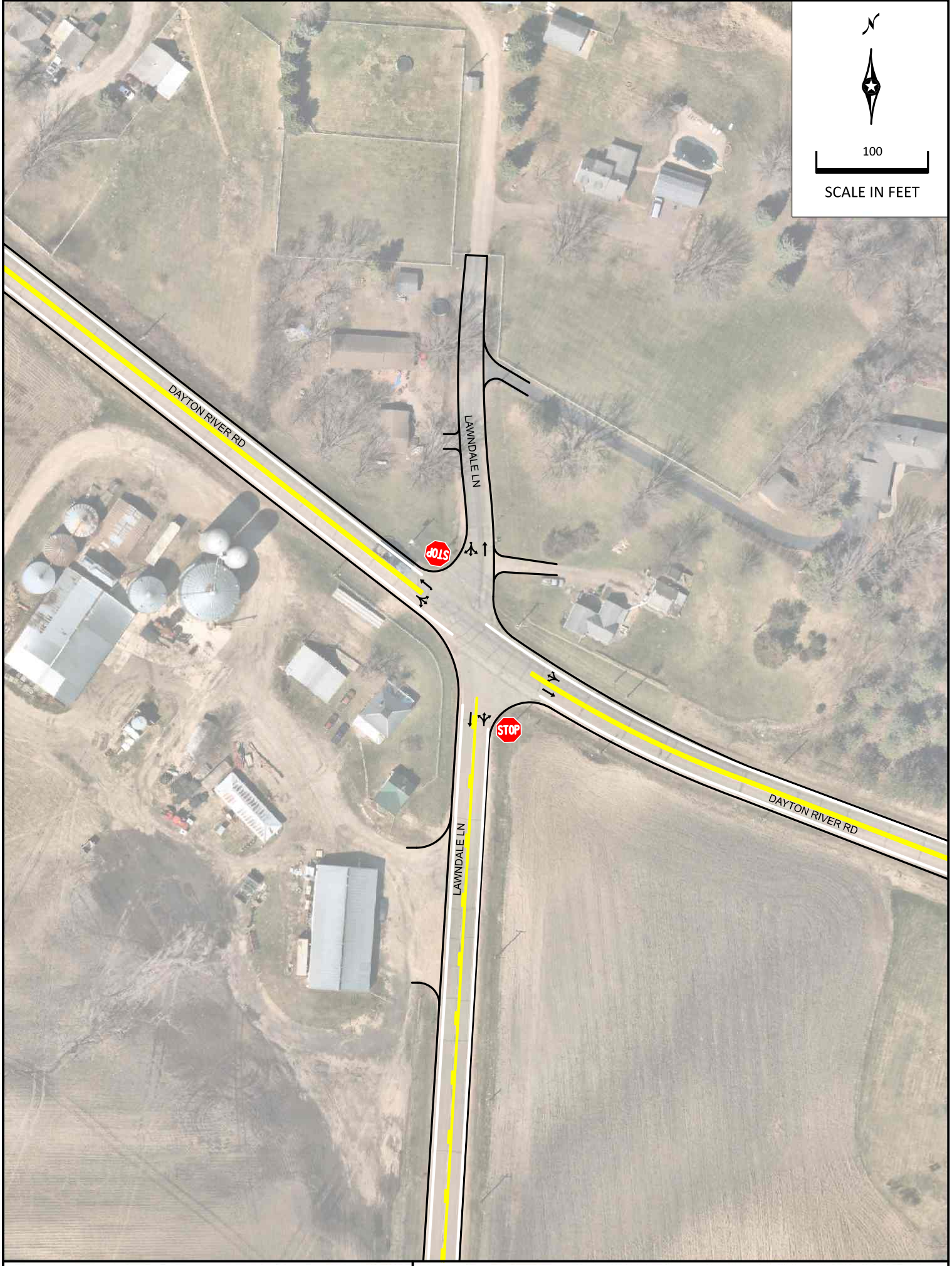
DIVISION ST & ROBINSON ST (CSAH 12)



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

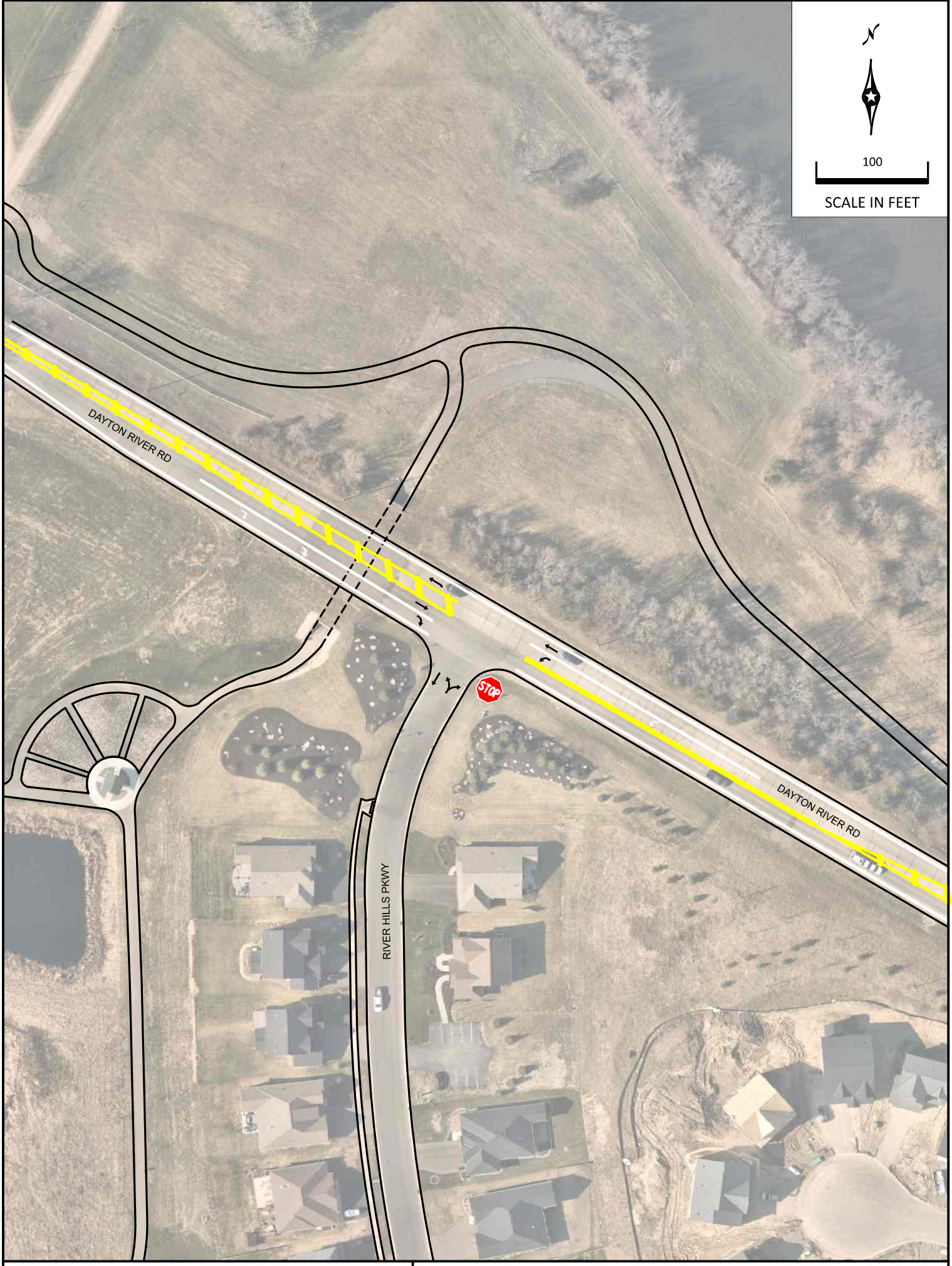
DAYTON RIVER RD (CSAH 12) & BROCKTON LN (CSAH 13)



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

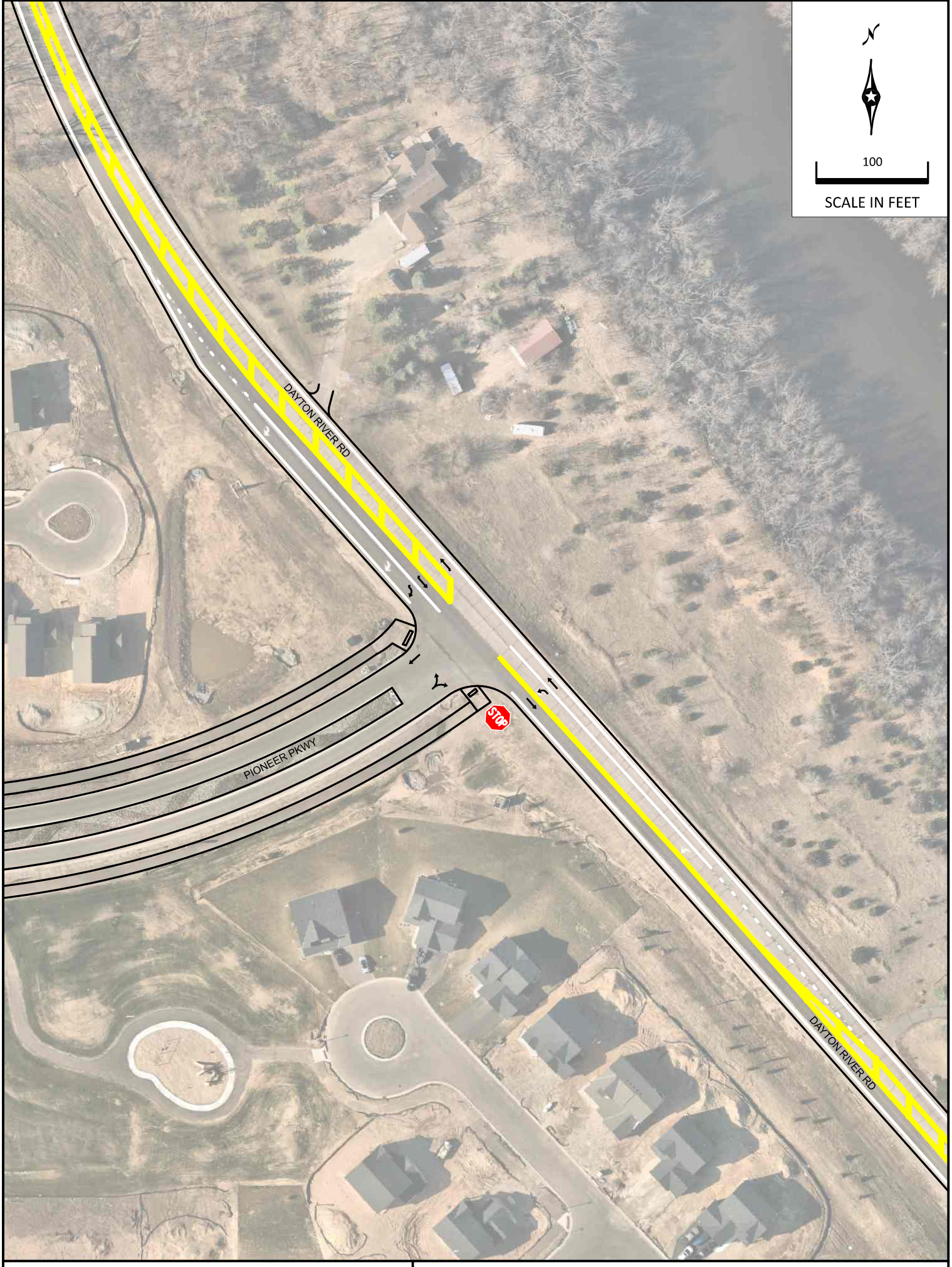
DAYTON RIVER RD (CSAH 12) & LAWNDALE LN



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

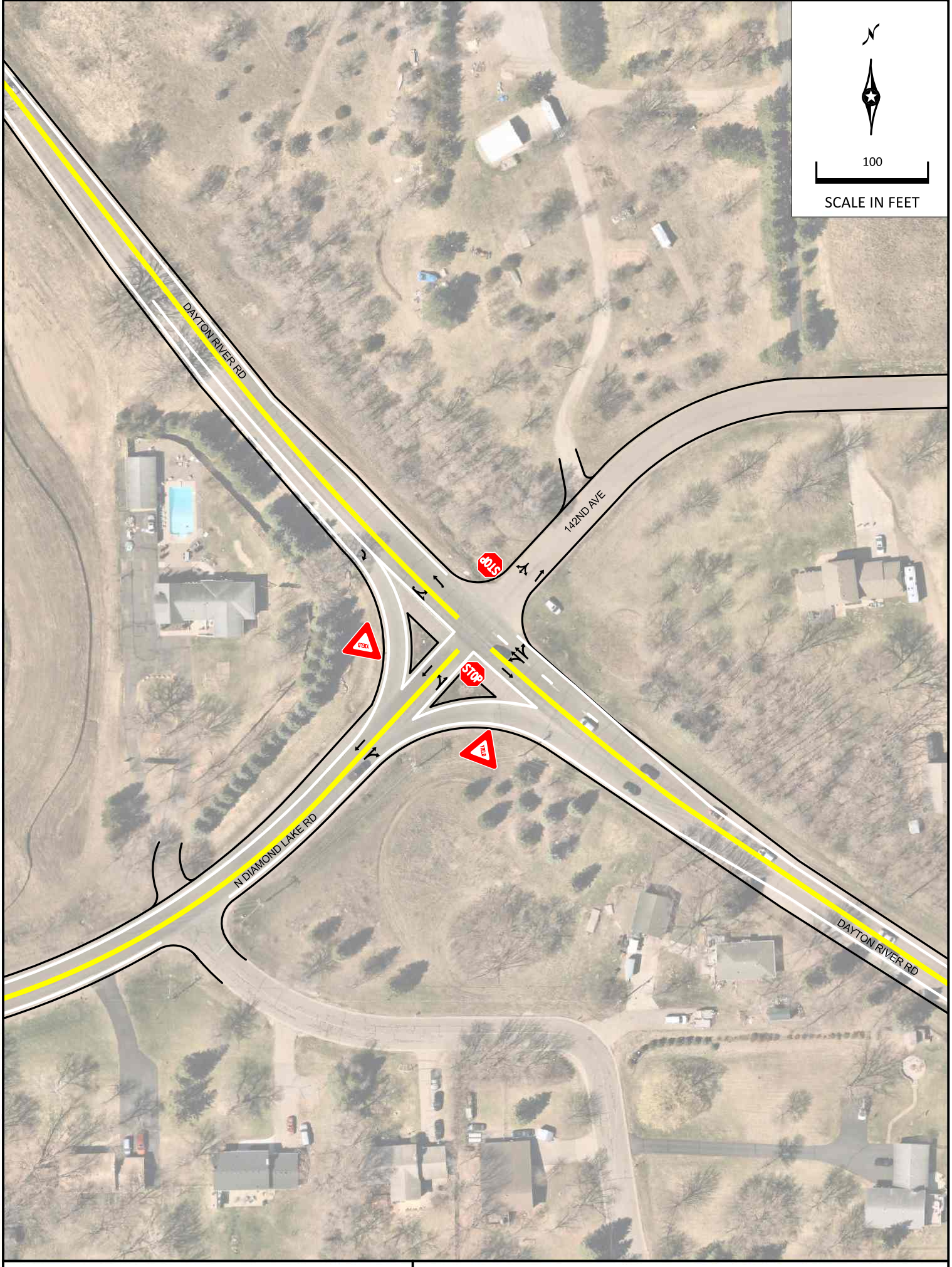
DAYTON RIVER RD (CSAH 12) & RIVER HILLS PKWY



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

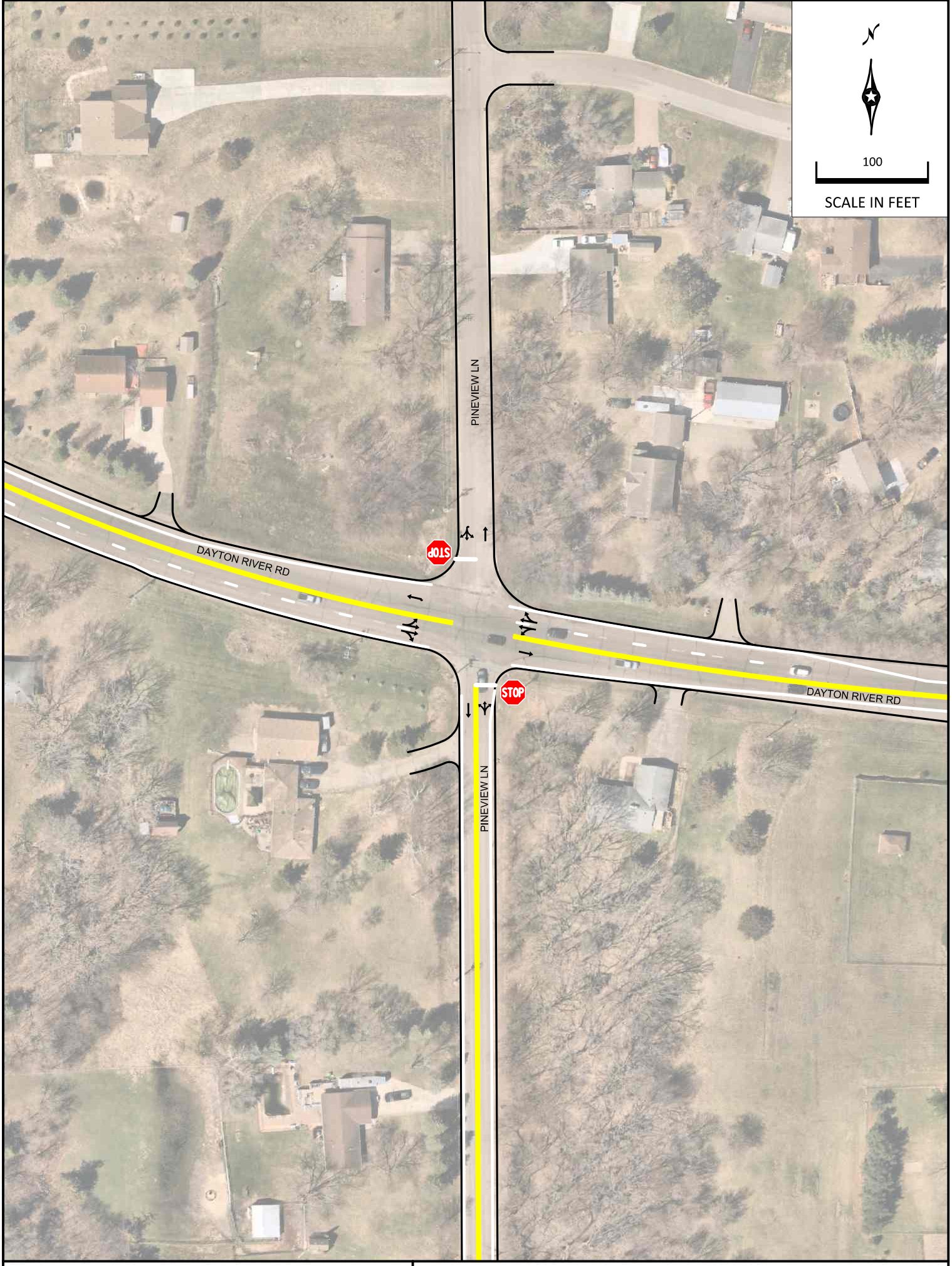
DAYTON RIVER RD (CSAH 12) & PIONEER PKWY



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

DAYTON RIVER RD (CSAH 12) & N DIAMOND LAKE RD (CSAH 144)



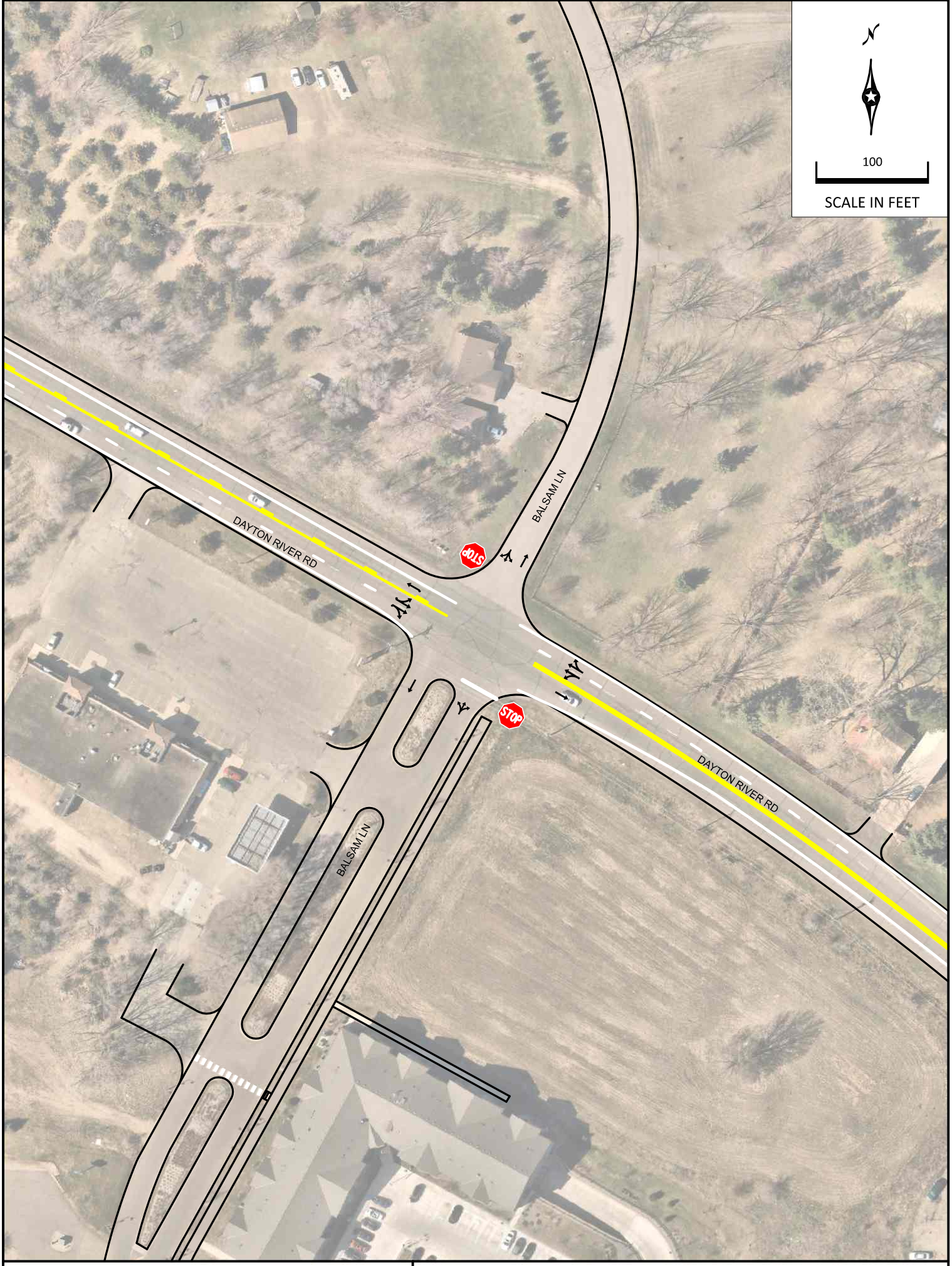
PLOTTED/REVISED: 21-NOV-2023

PLOT NAME: 193806024-Layouts

PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

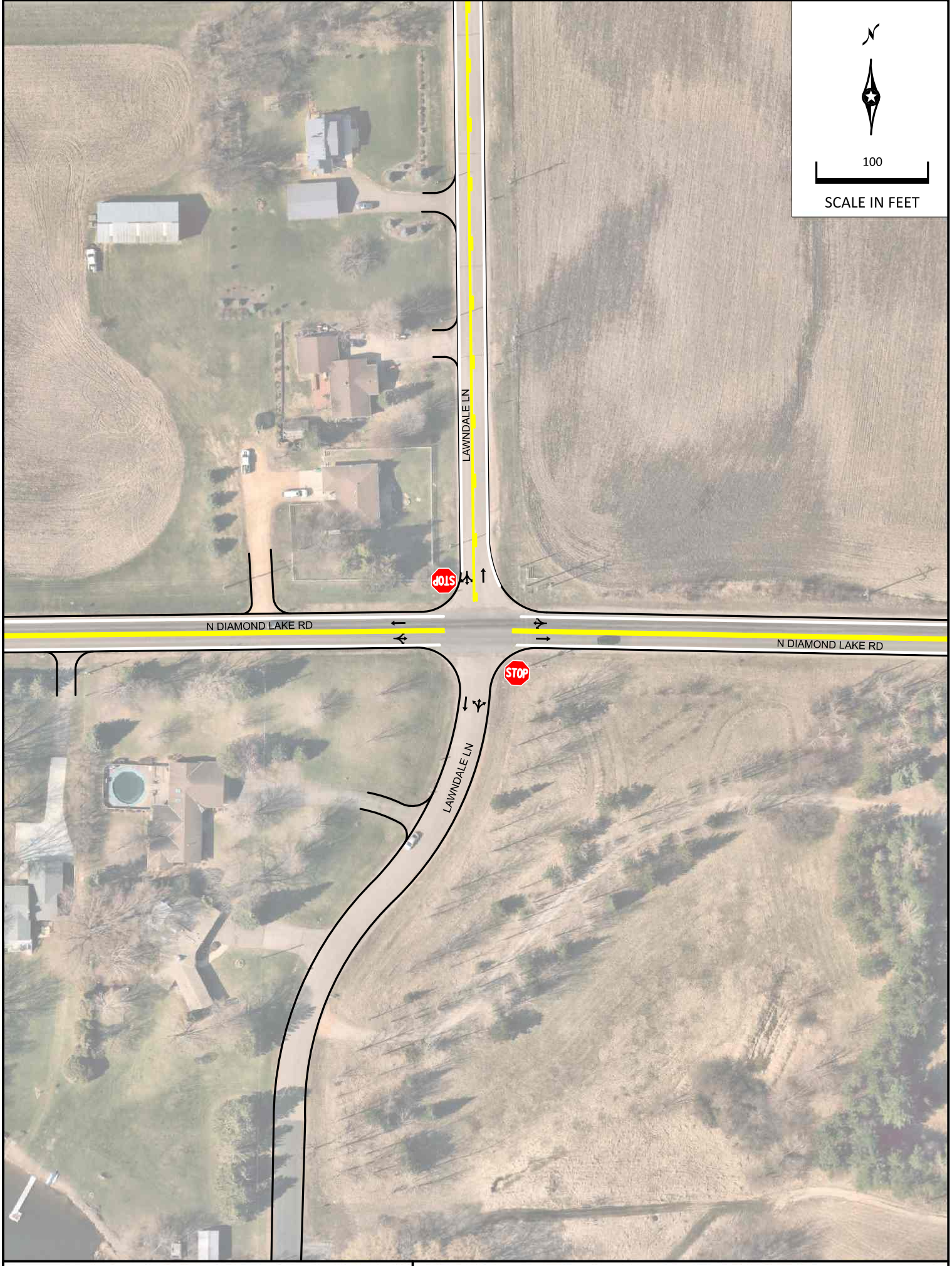
DAYTON RIVER RD (CSAH 12) & PINEVIEW LN



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

DAYTON RIVER RD (CSAH 12) & BALSAM LN



PLOTTED/REVISED: 21-NOV-2023

PLOT NAME: 193806024-Layouts

PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

N DIAMOND LAKE RD (CSAH 144) & LAWNDALE LN



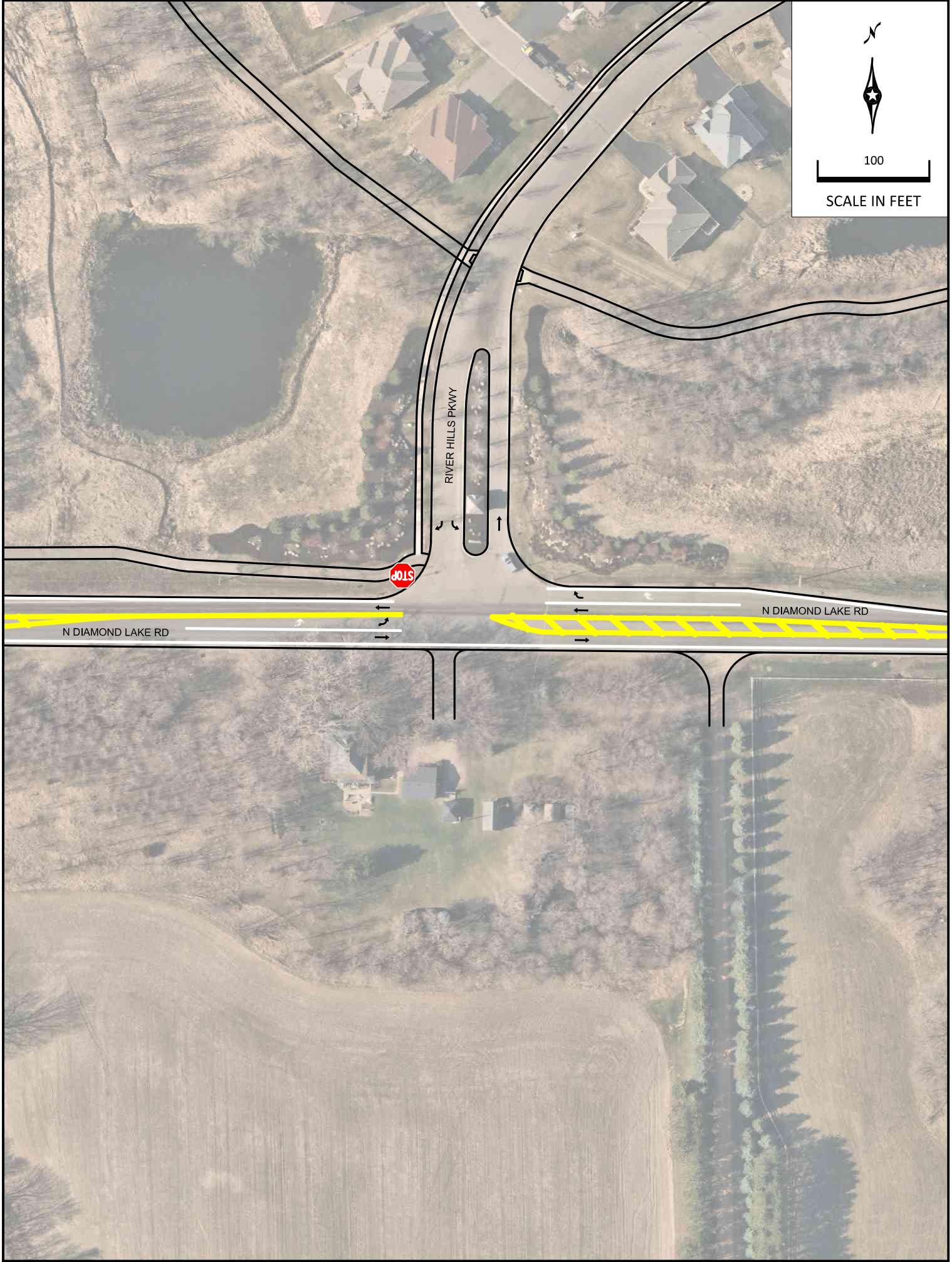
PLOTTED/REVISED: 21-NOV-2023

PLOT NAME: 193806024-Layouts

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DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

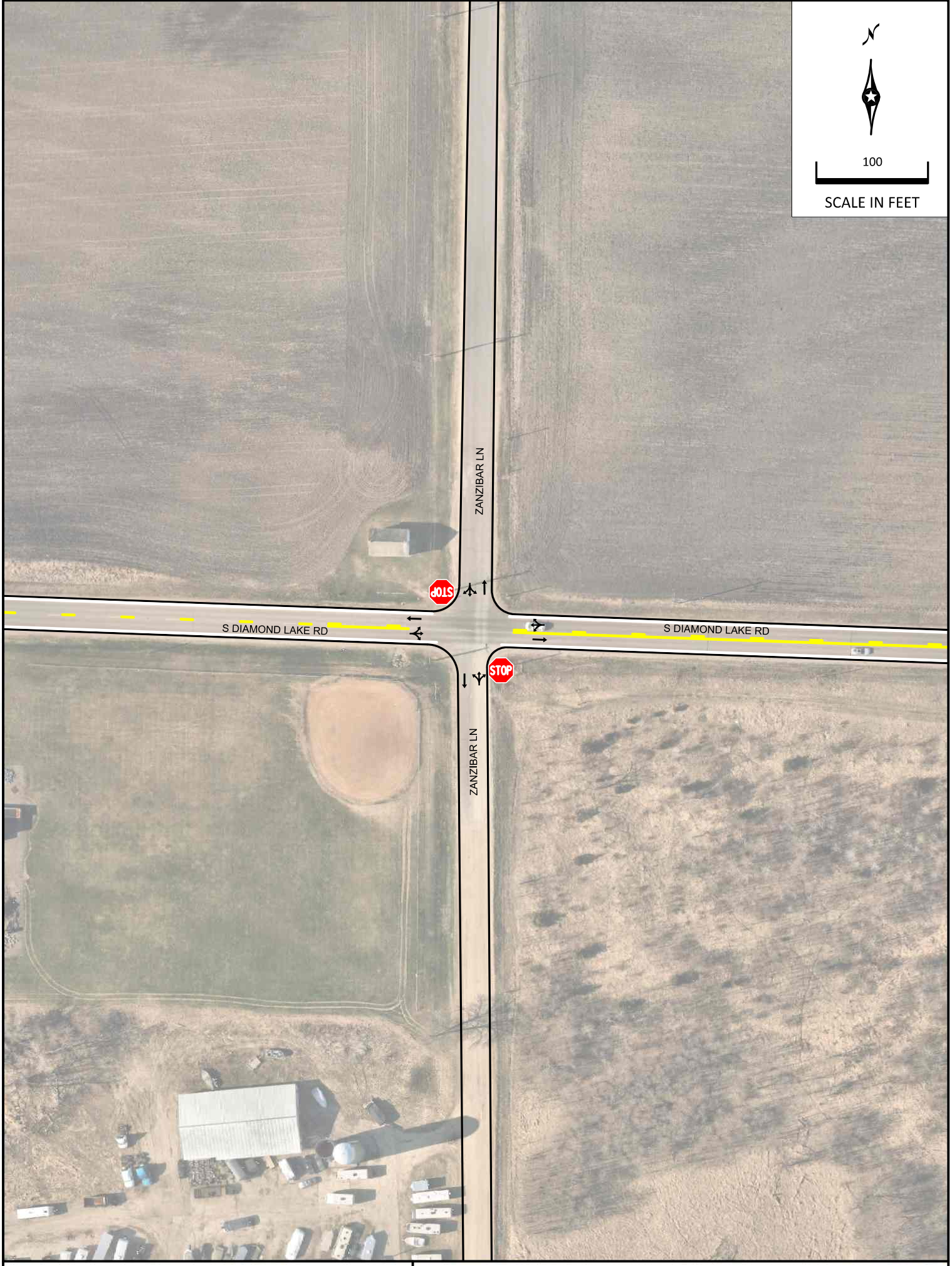
N DIAMOND LAKE RD (CSAH 144) & ZANZIBAR LN



PLOT NAME: 193806024-Layouts
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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

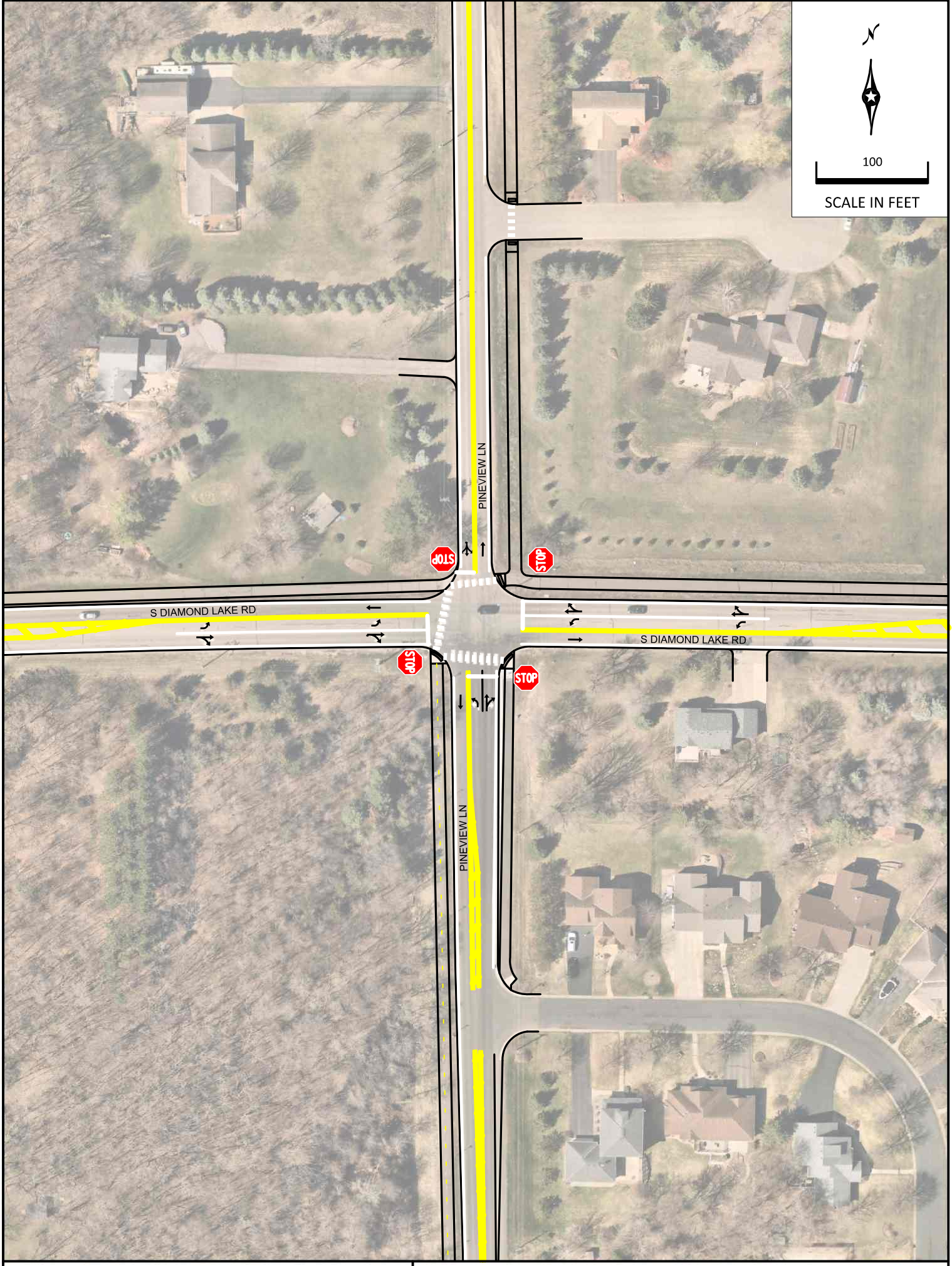
N DIAMOND LAKE RD (CSAH 144) & RIVER HILLS PKWY



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

S DIAMOND LAKE RD & ZANZIBAR LN

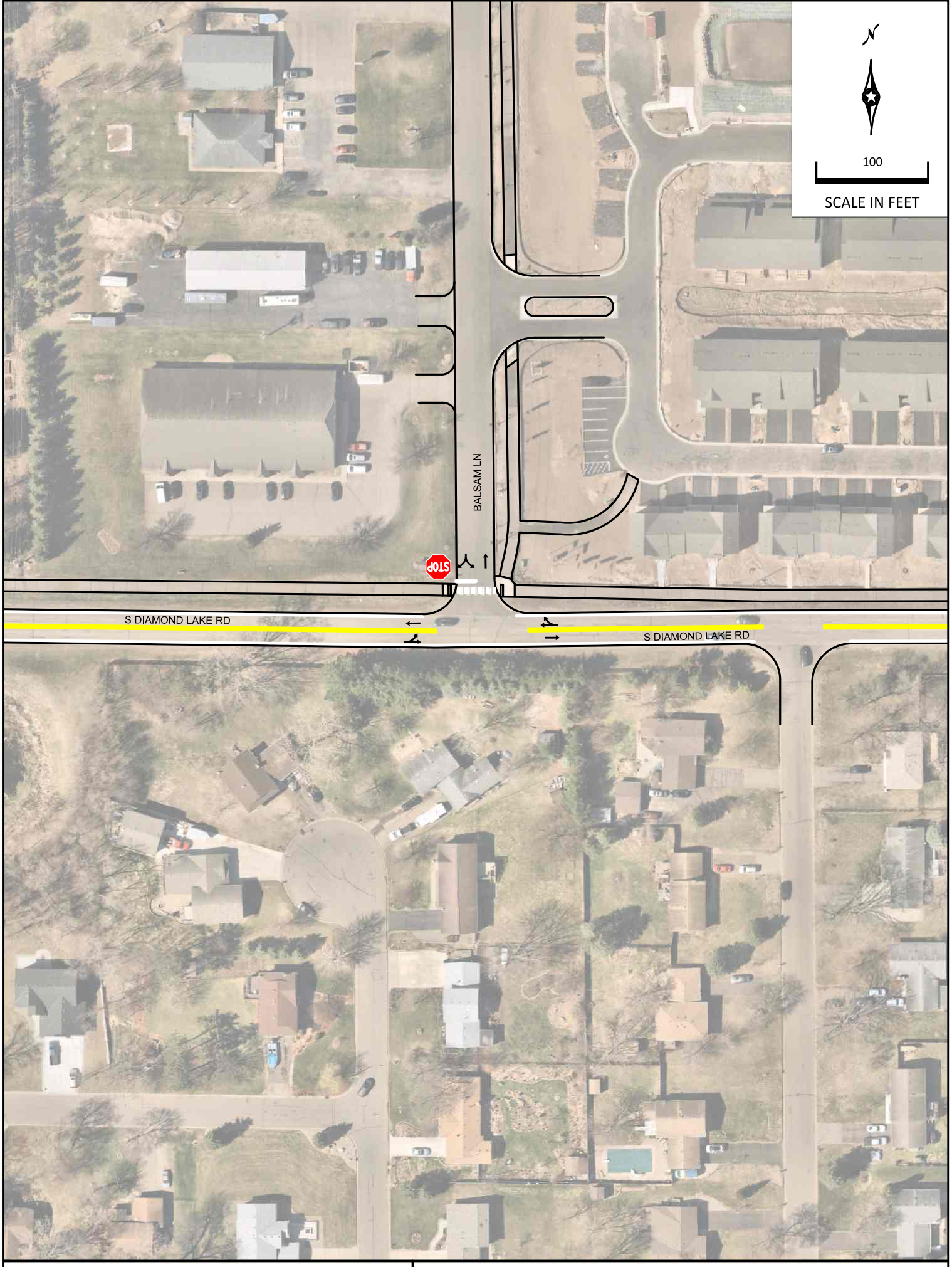


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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

S DIAMOND LAKE RD & PINEVIEW LN

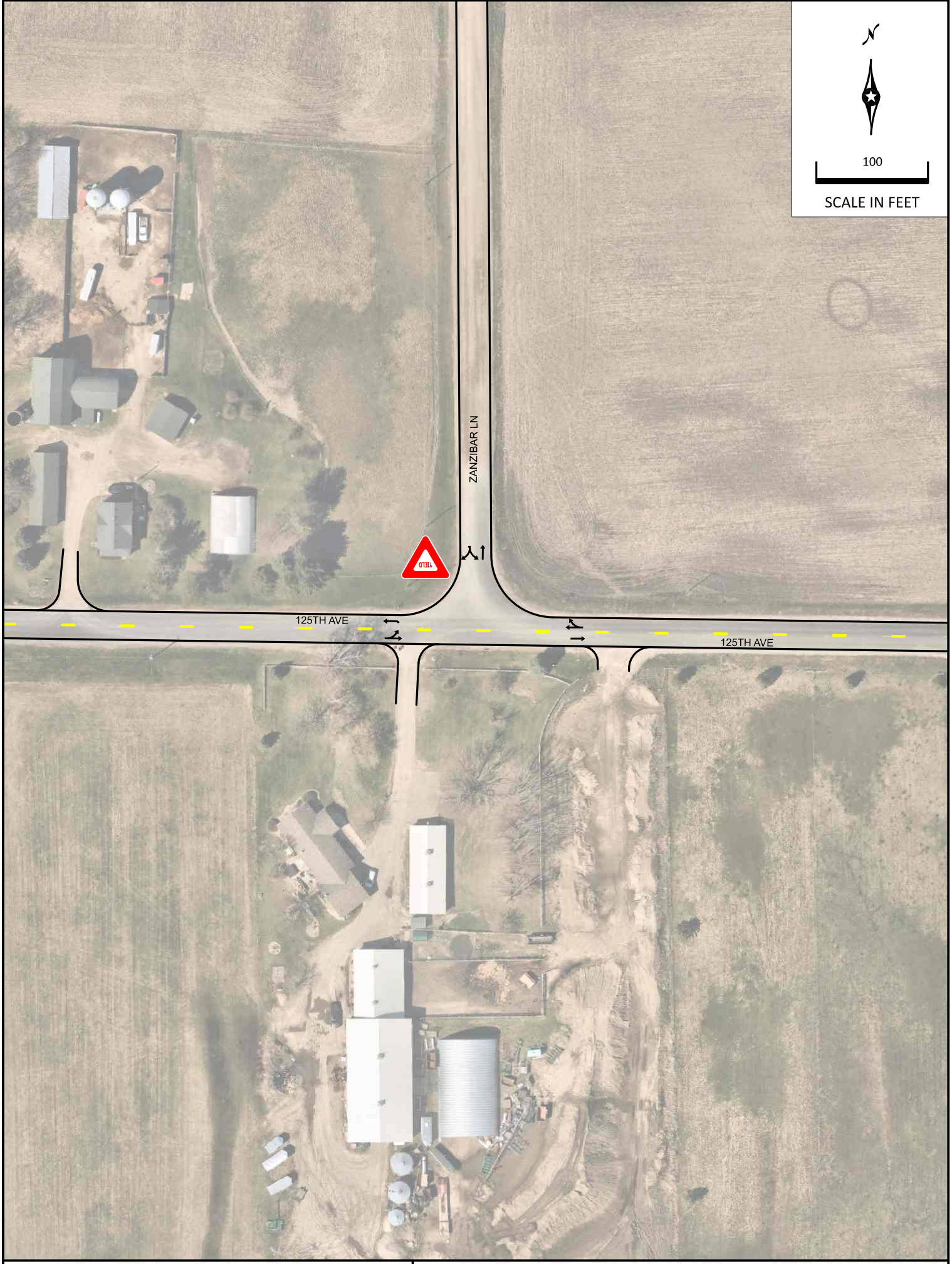
FIGURE 13 OF 30



PLOT NAME: 193806024-Layouts
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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

S DIAMOND LAKE RD & BALSAM LN



PLOTTED/REVISED: 21-NOV-2023

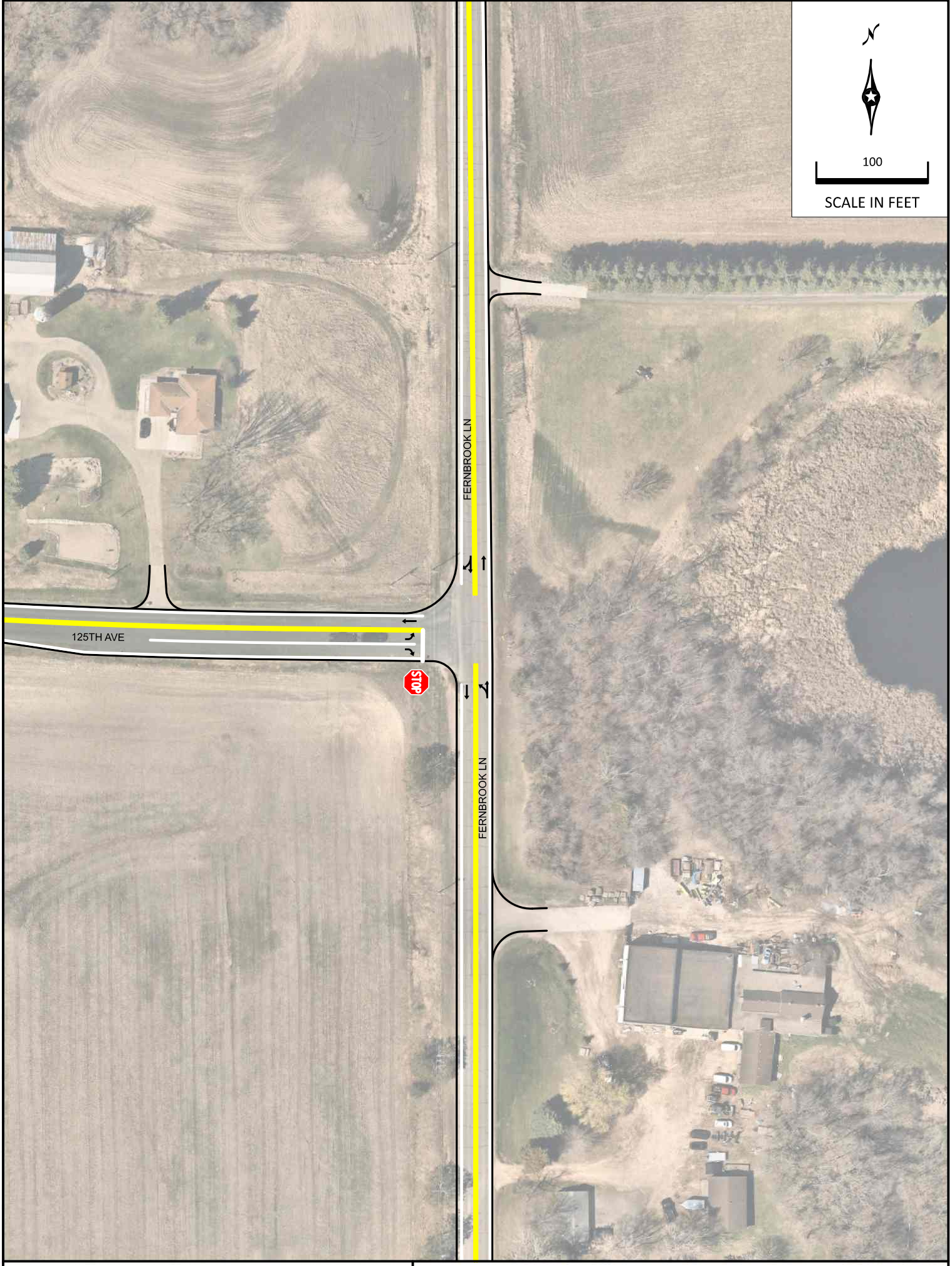
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PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

125TH AVE & ZANZIBAR LN

FIGURE 15 OF 30

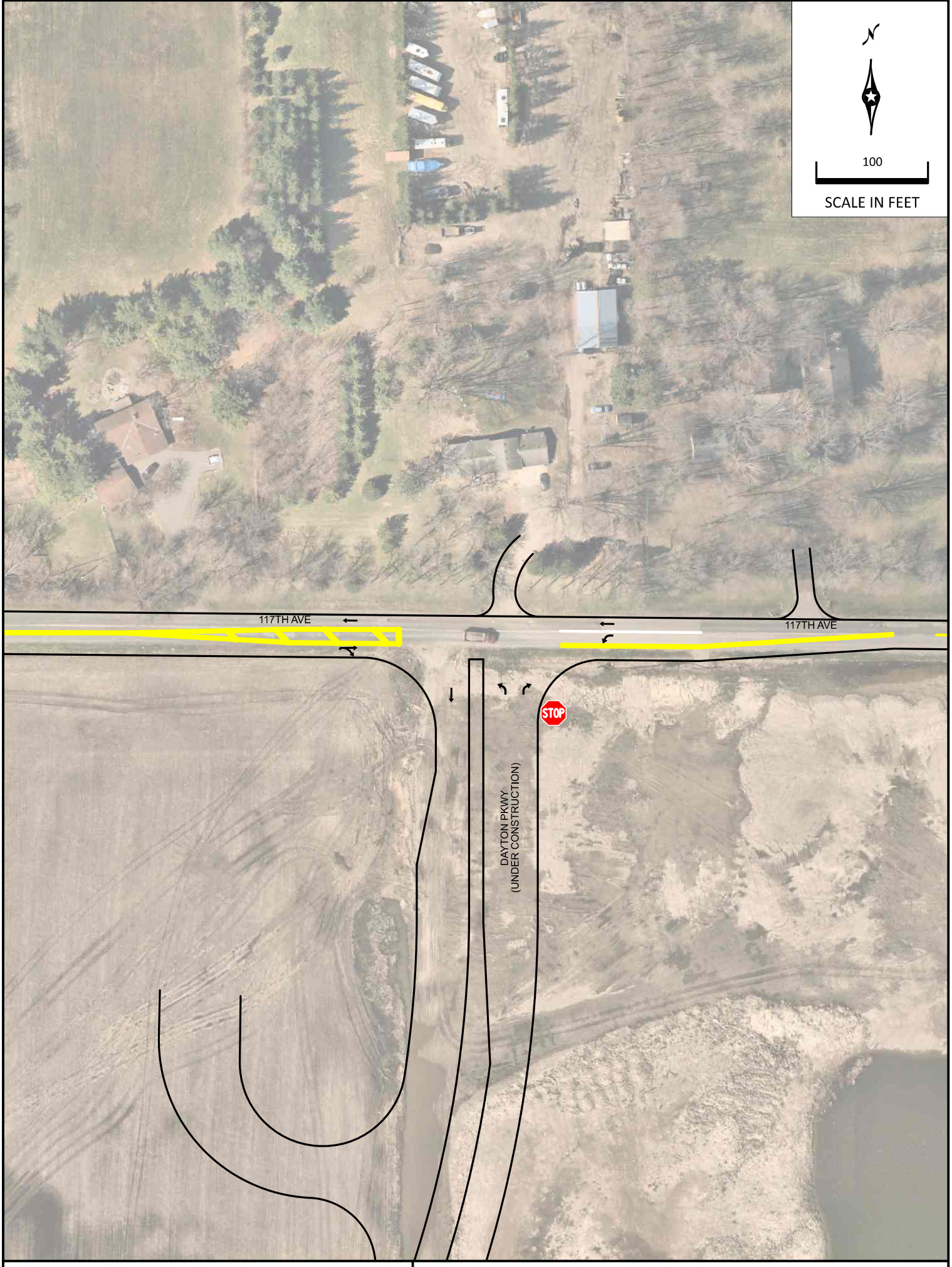


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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

FERNBROOK LN (CSAH 121) & 125TH AVE

FIGURE 16 OF 30



PLOTTED/REVISED: 21-NOV-2023

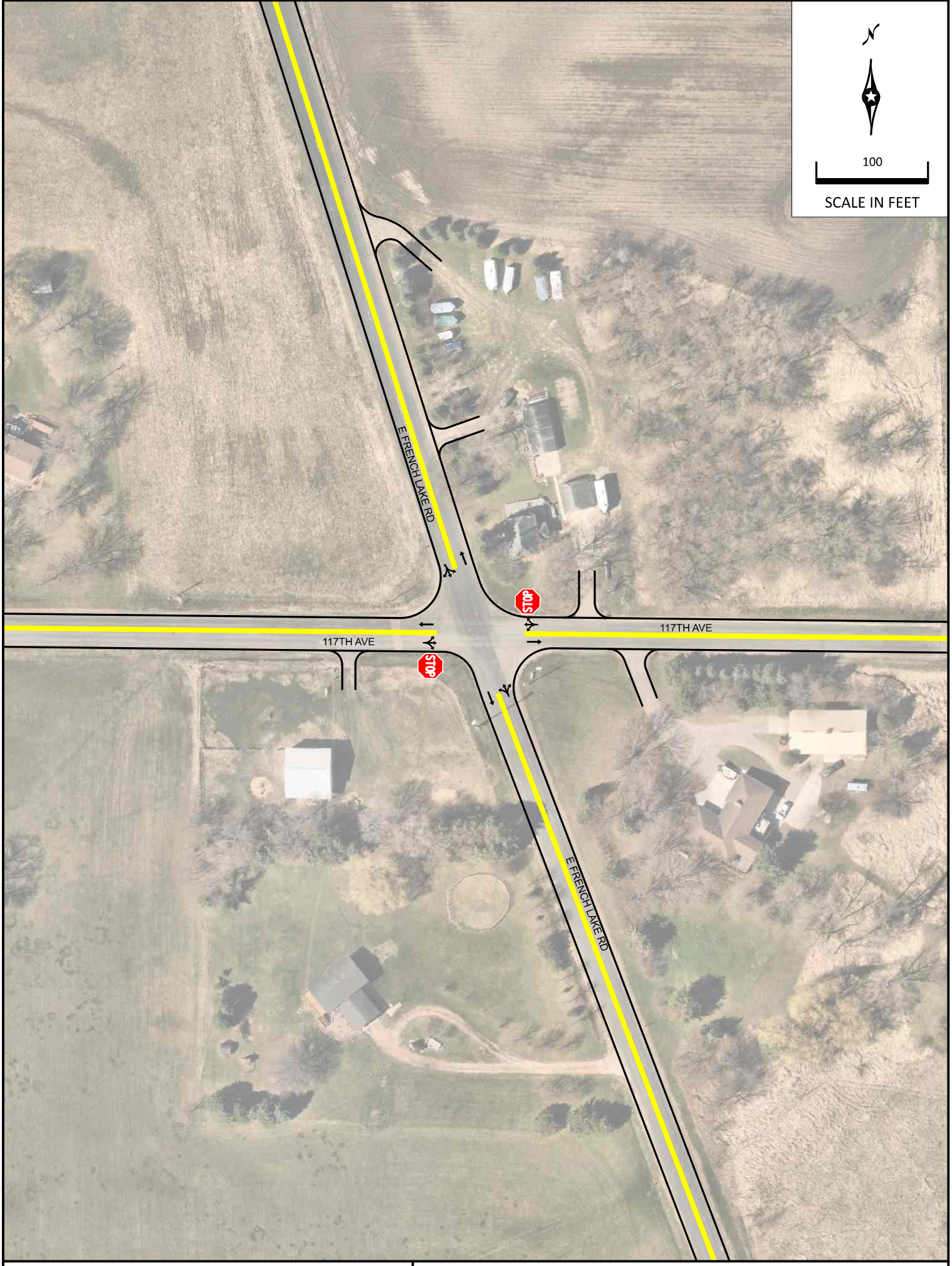
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PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

117TH AVE & DAYTON PKWY

FIGURE 17 OF 30

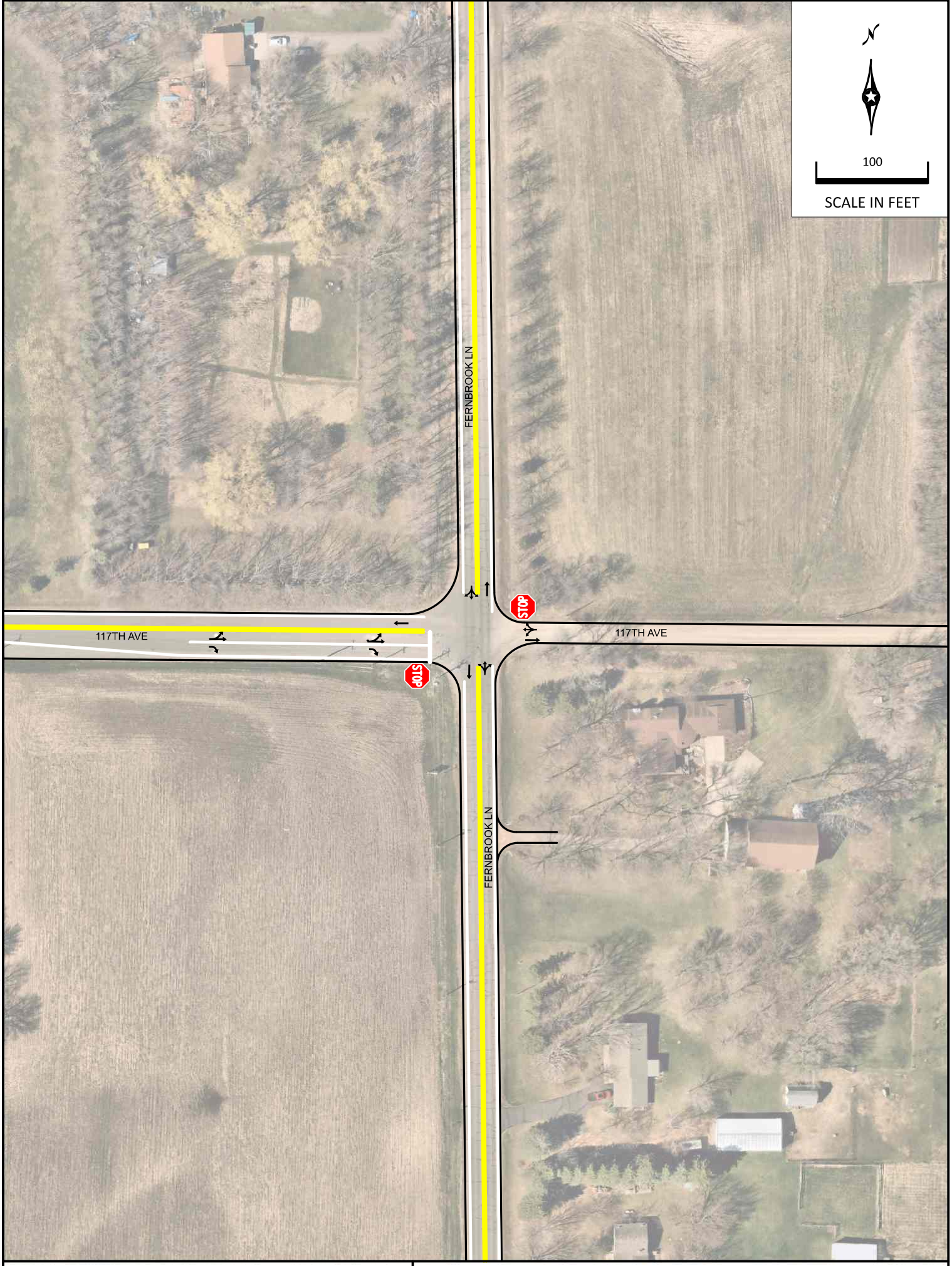


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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

E FRENCH LAKE RD & 117TH AVE

FIGURE 18 OF 30



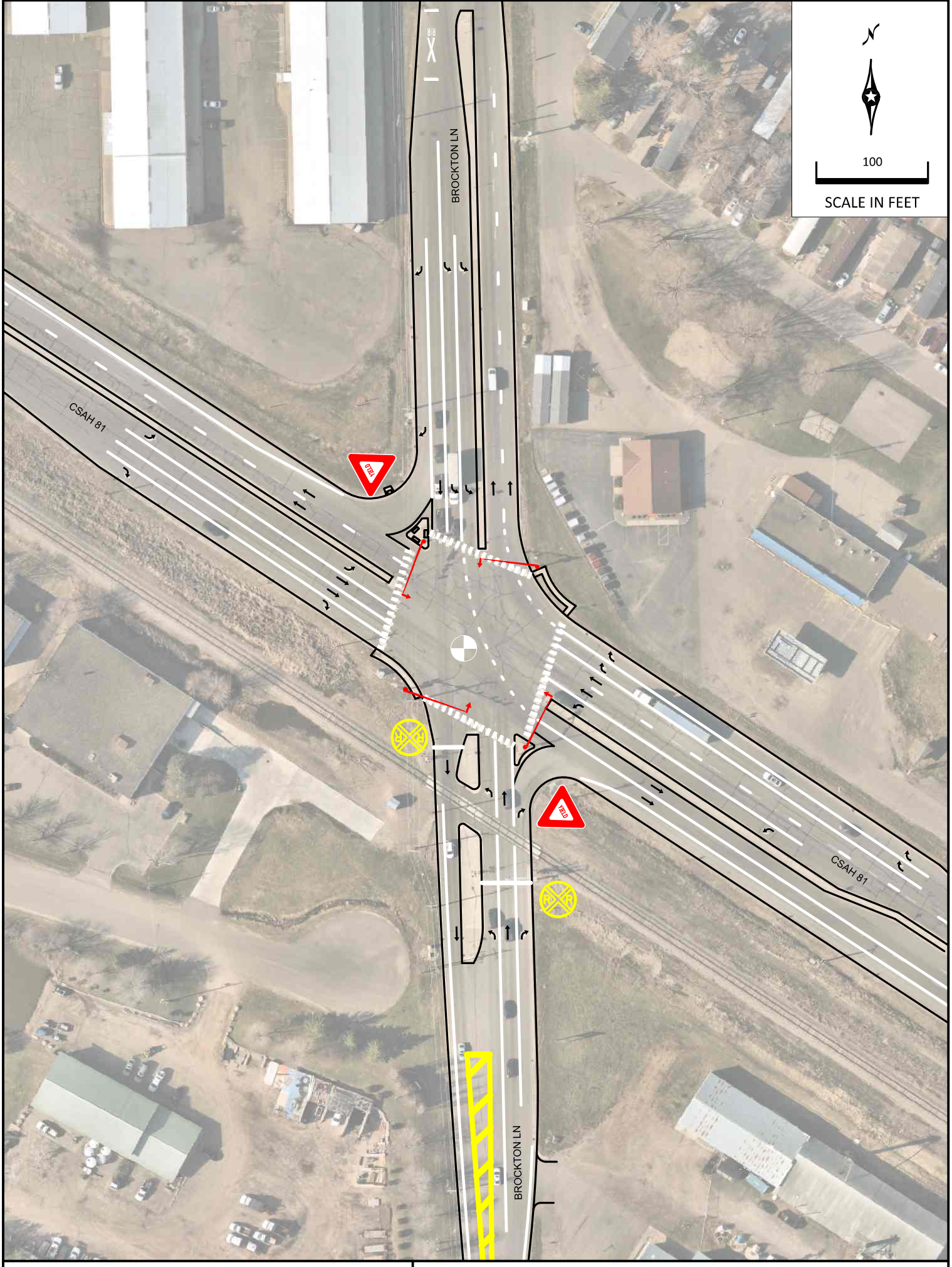
PLOTTED/REVISED: 21-NOV-2023

PLOT NAME: 193806024-Layouts

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DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

FERNBROOK LN (CSAH 121) & 117TH AVE

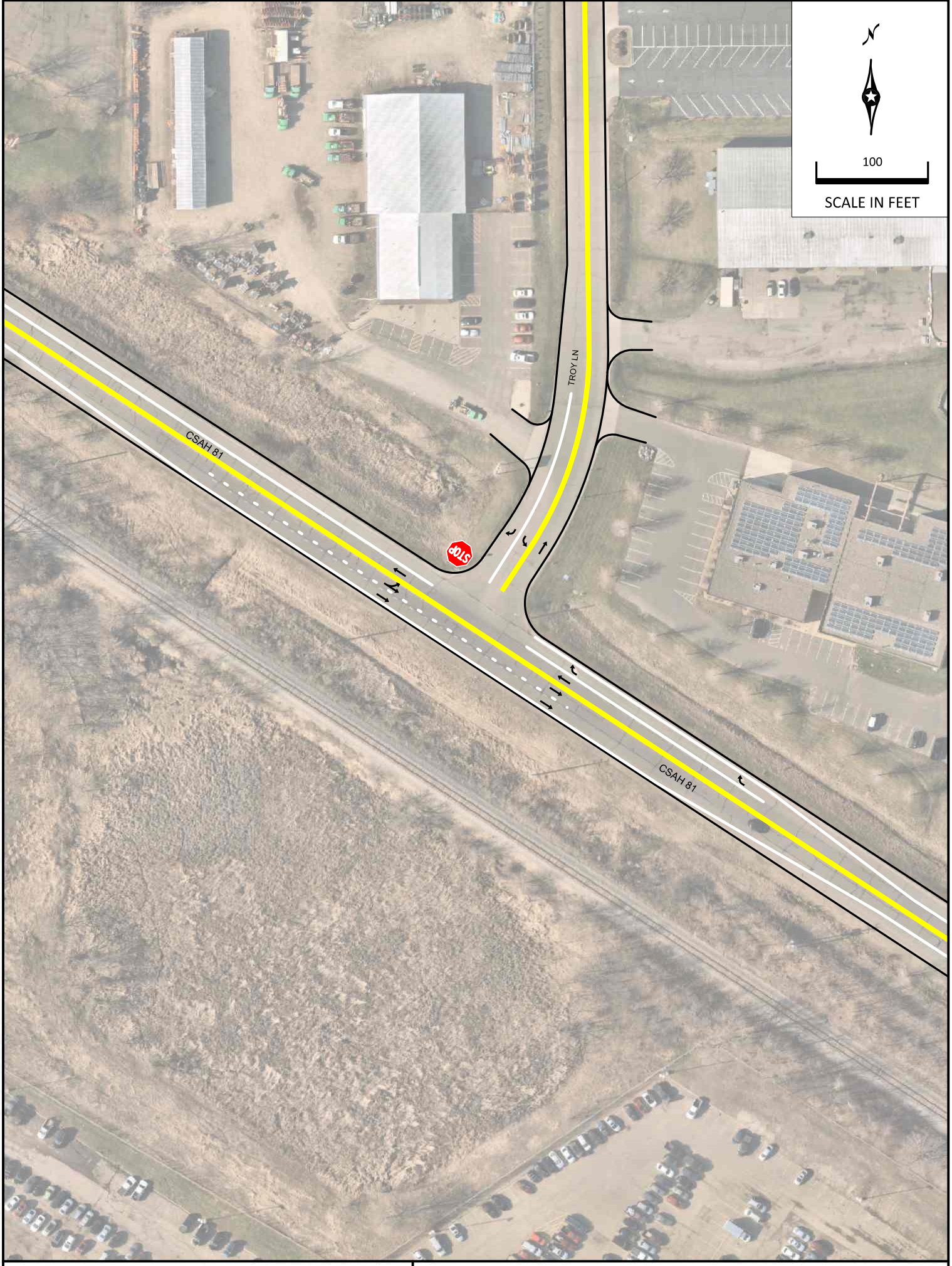


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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

CSAH 81 & BROCKTON LN (CSAH13 / CSAH 101)

FIGURE 20 OF 30



PLOTTED/REVISED: 21-NOV-2023

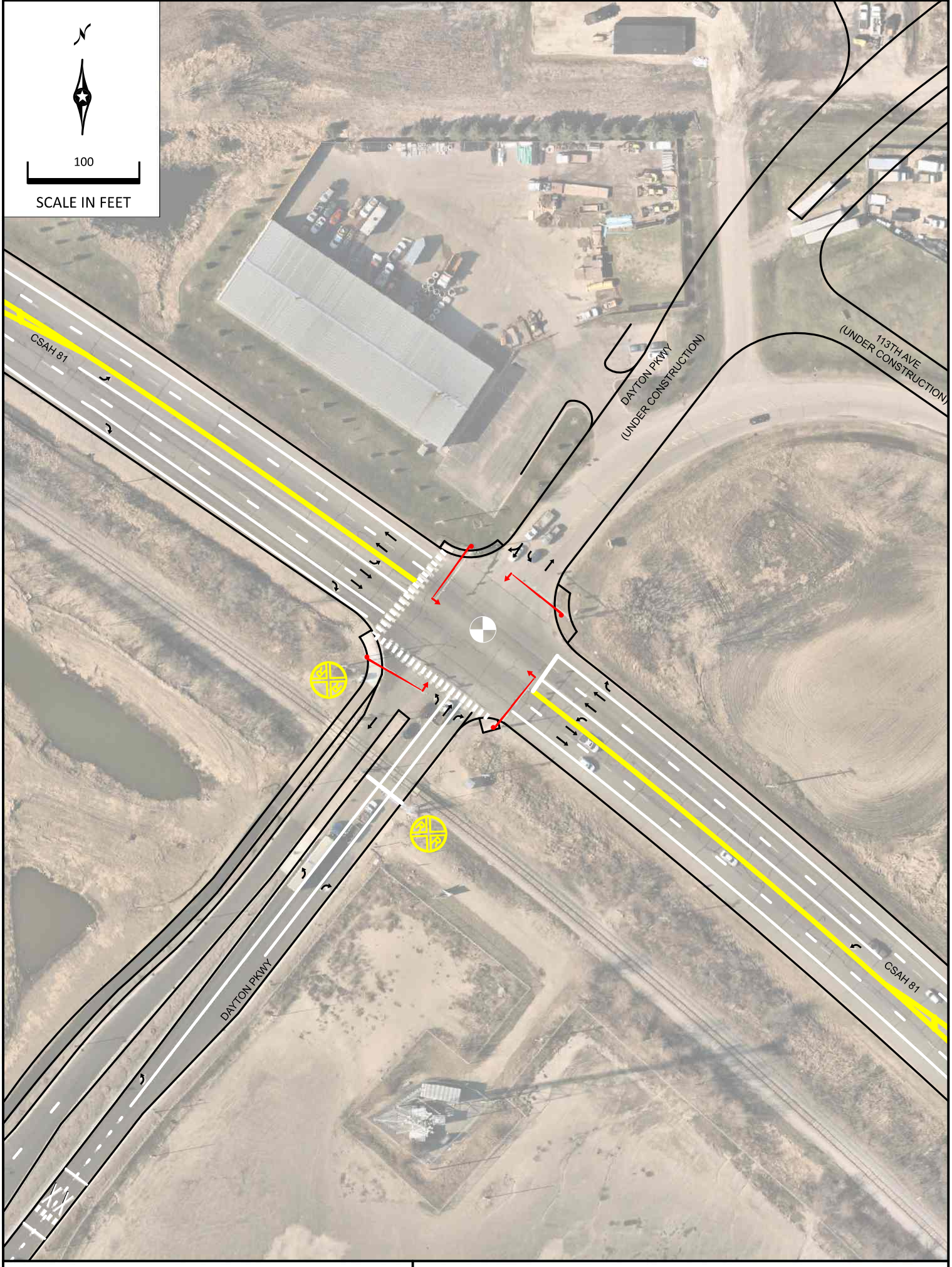
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PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

CSAH 81 & TROY LN

FIGURE 21 OF 30



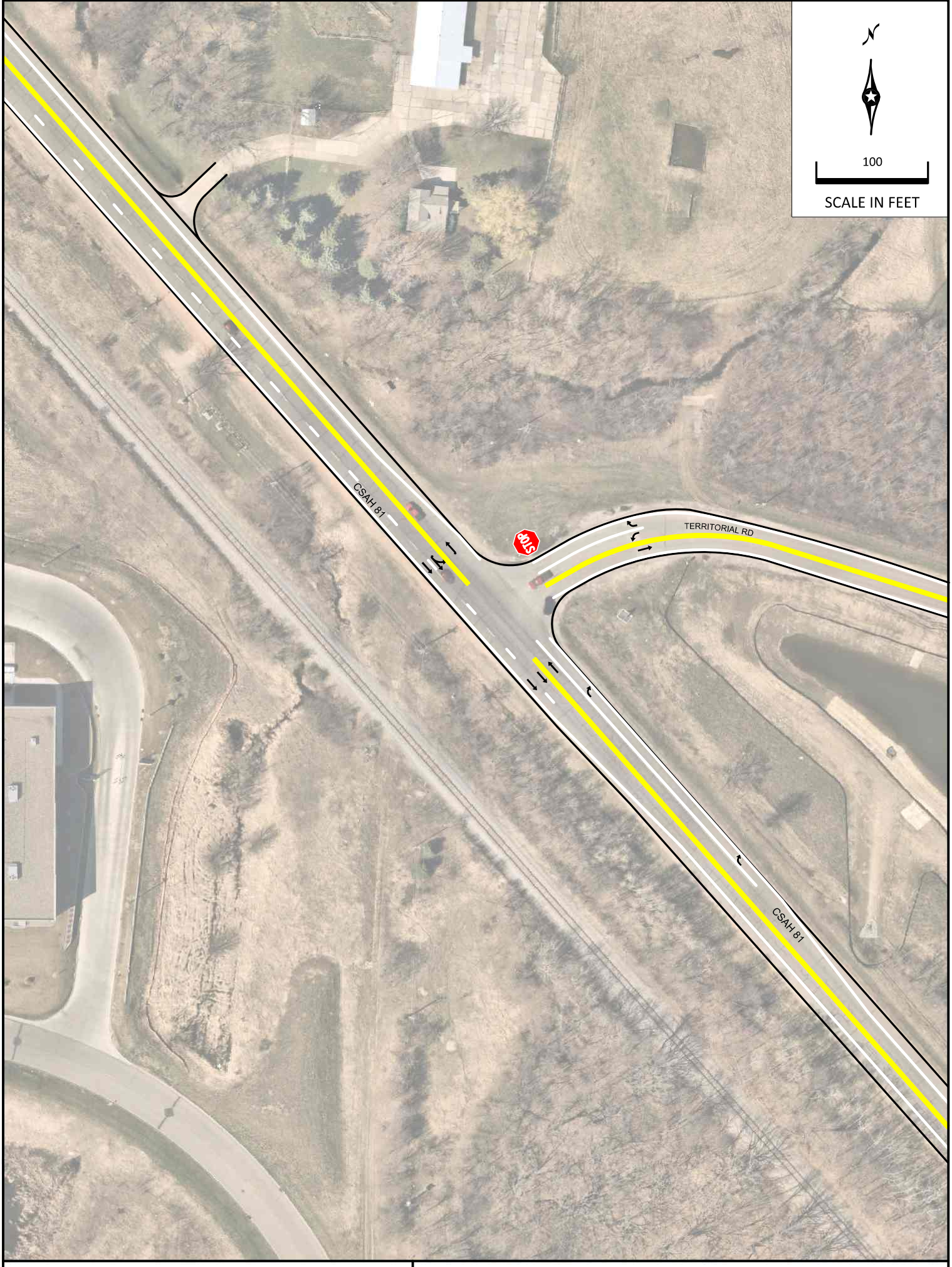
PLOTTED/REVISED: 21-NOV-2023

PLOT NAME: 193806024-Layouts

PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

CSAH 81 & DAYTON PWKY

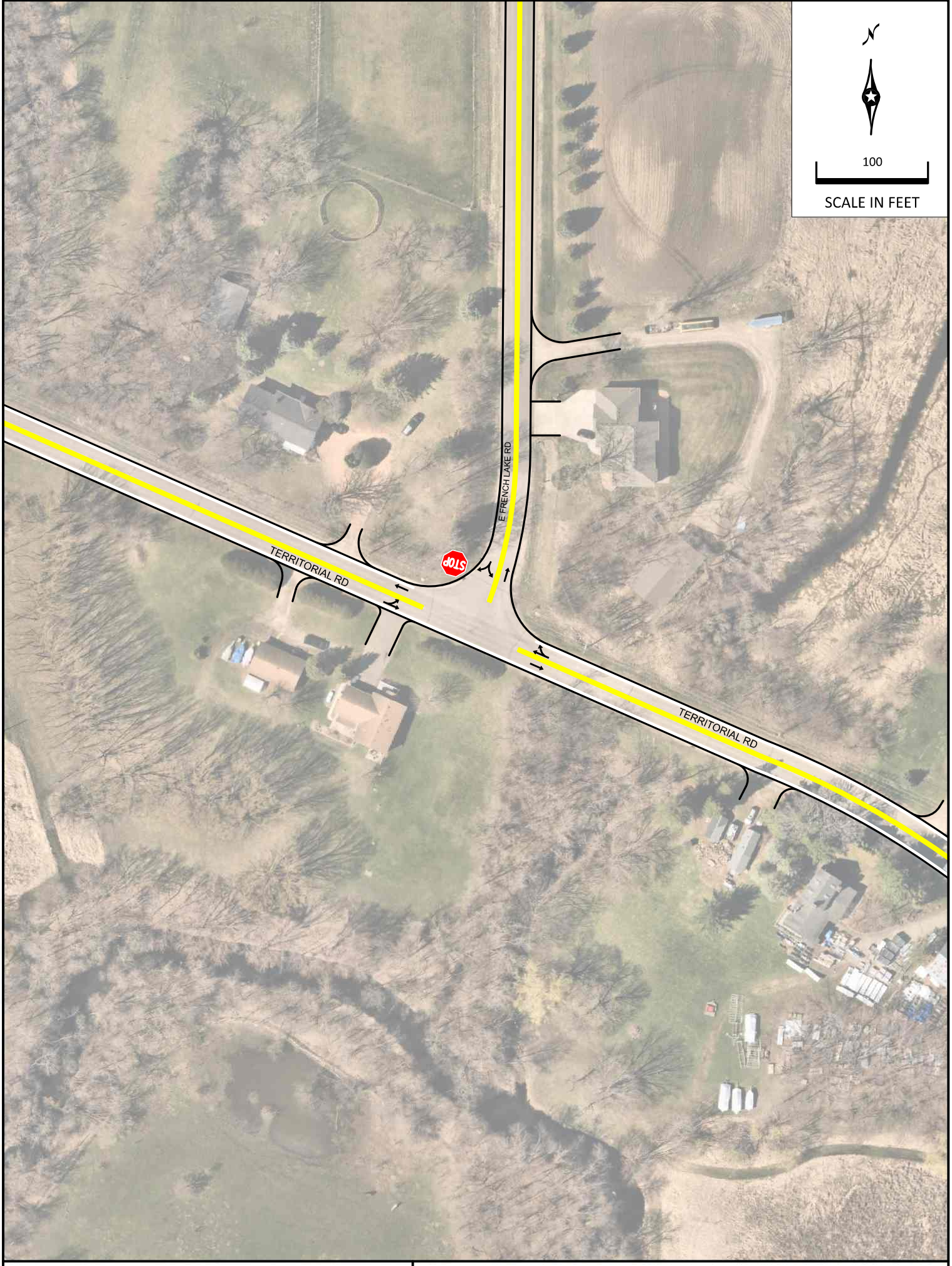


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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

CSAH 81 & TERRITORIAL RD

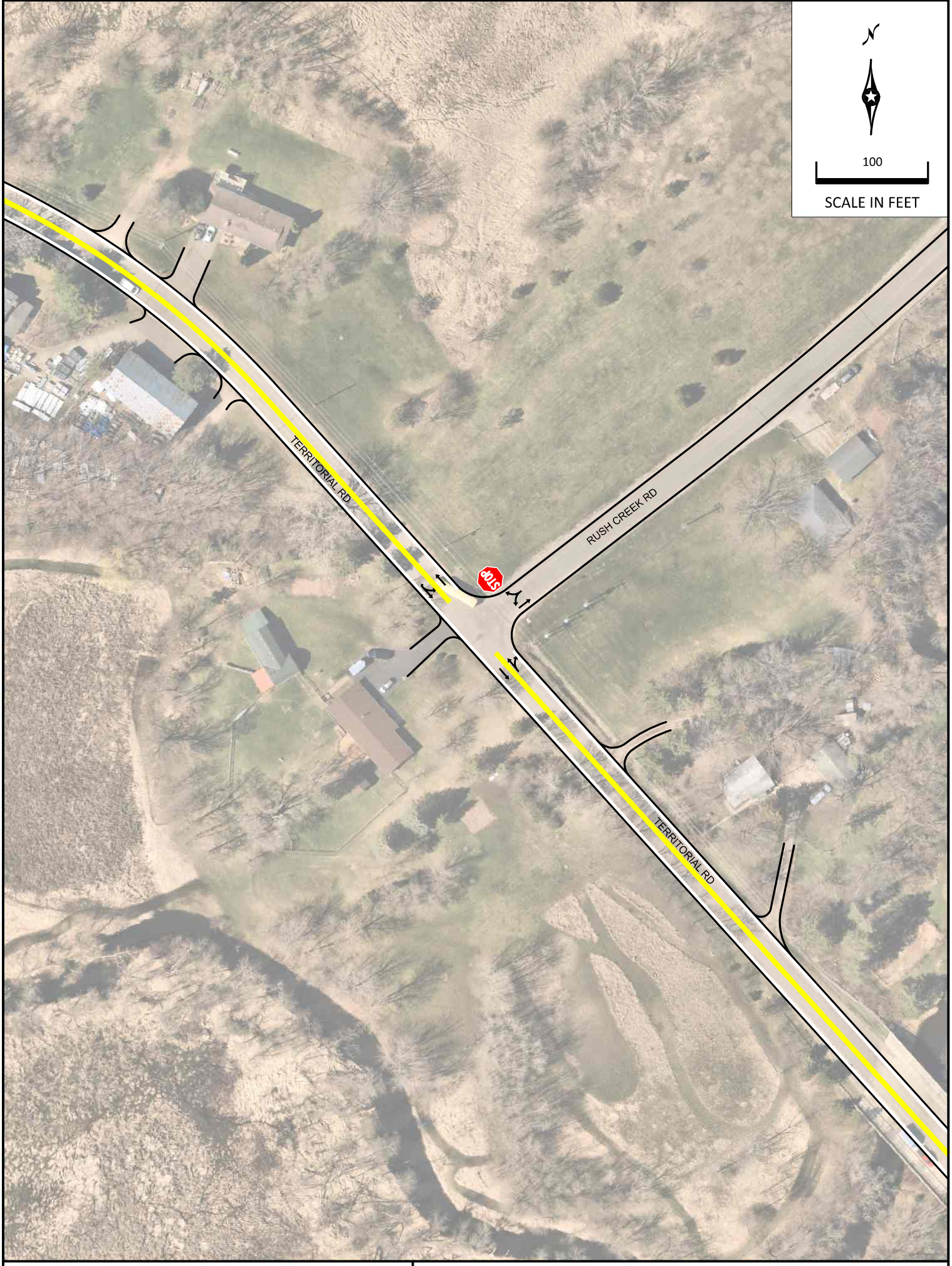
FIGURE 23 OF 30



PLOT NAME: 193806024-Layouts
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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

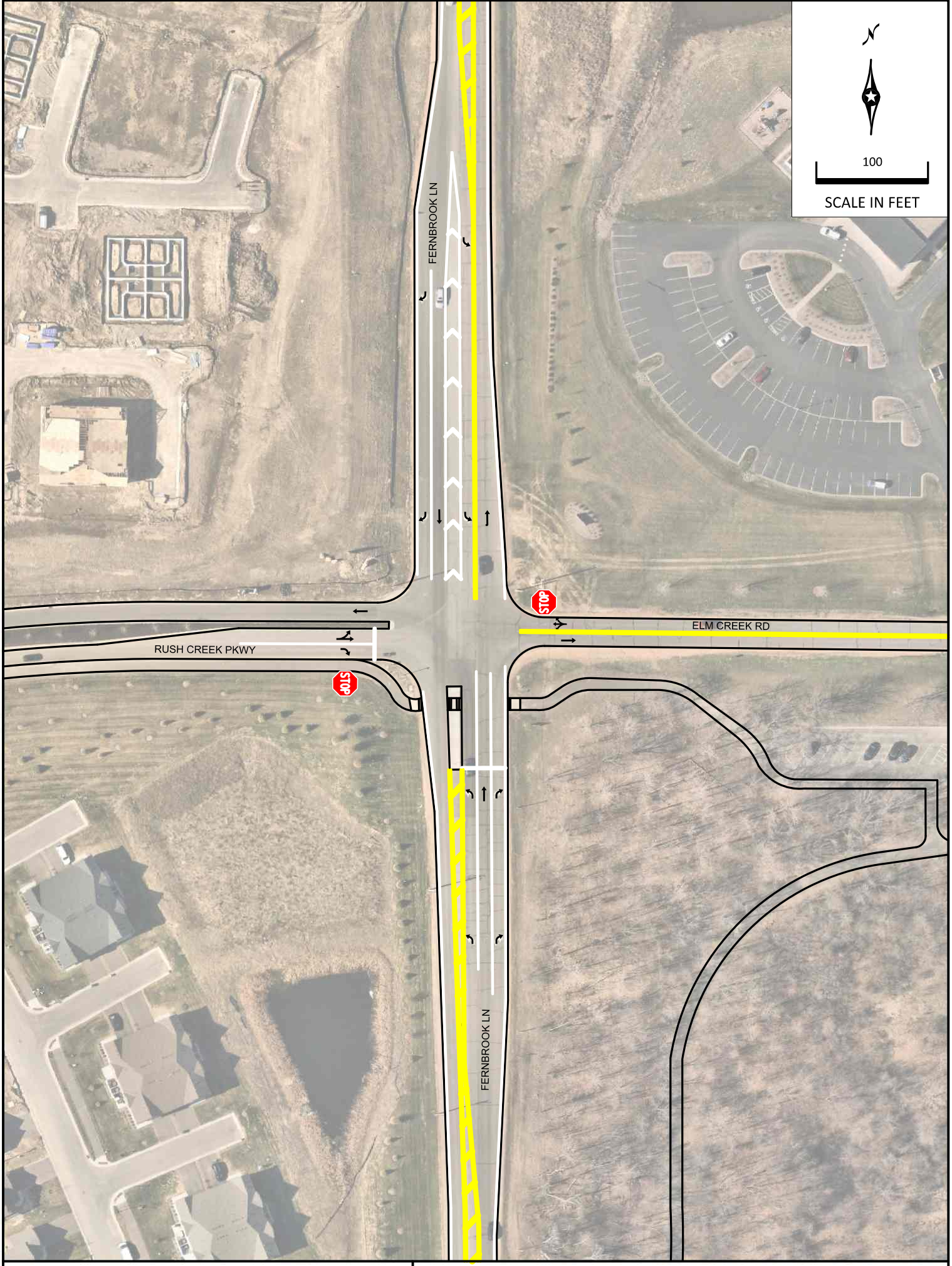
TERRITORIAL RD & E FRENCH LAKE RD



PLOT NAME: 193806024-Layouts
PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn
PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

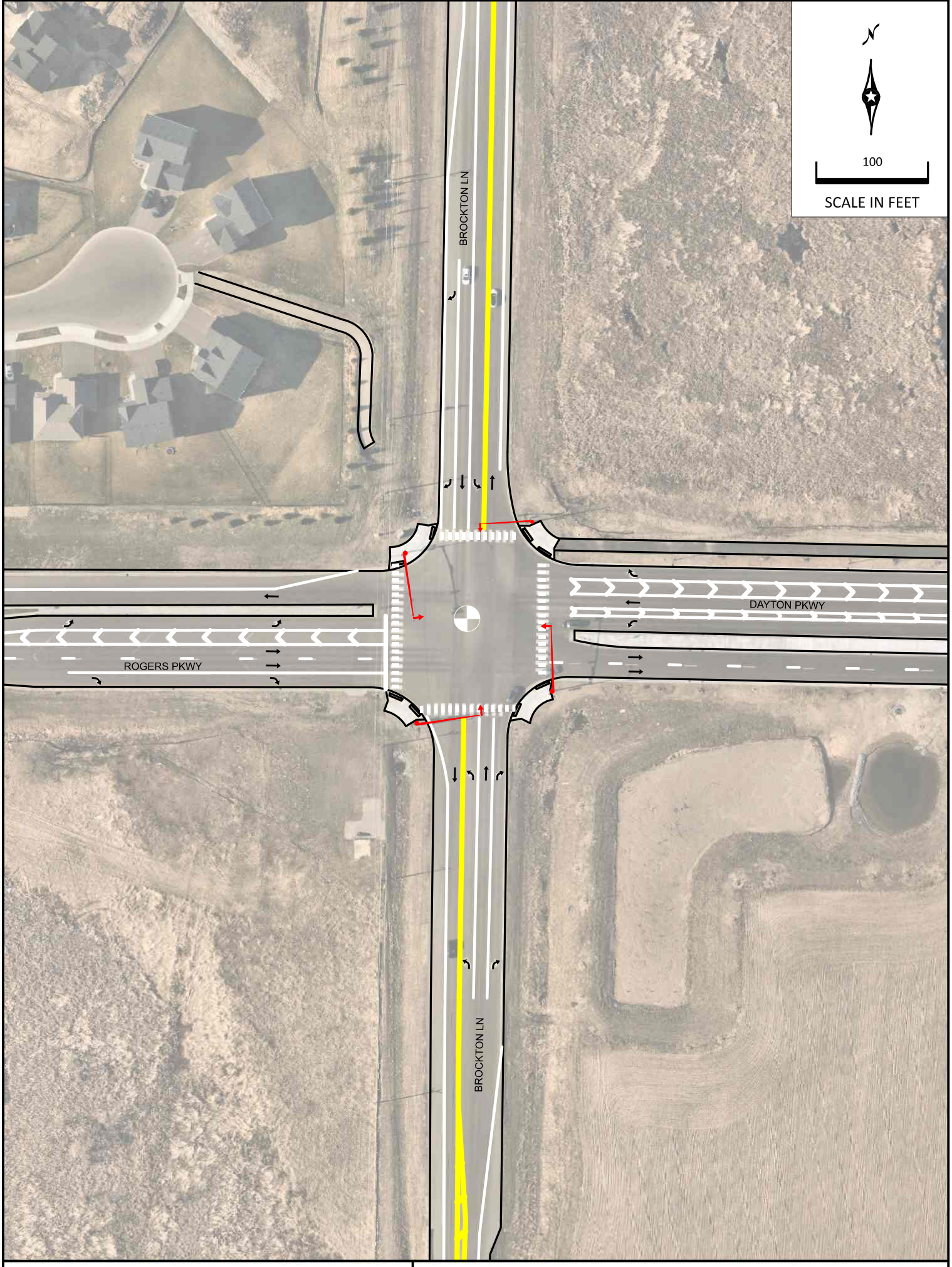
TERRITORIAL RD & RUSH CREEK RD



PLOT NAME: 193806024-Layouts
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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

FERNBROOK LN (CSAH 121) & ELM CREEK RD (CR 202) / RUSH CREEK PKWY



PLOTTED/REVISED: 21-NOV-2023

PLOT NAME: 193806024-Layouts

PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

BROCKTON LN (CSAH 101) & DAYTON PKWY / ROGERS PKWY (CR 117)

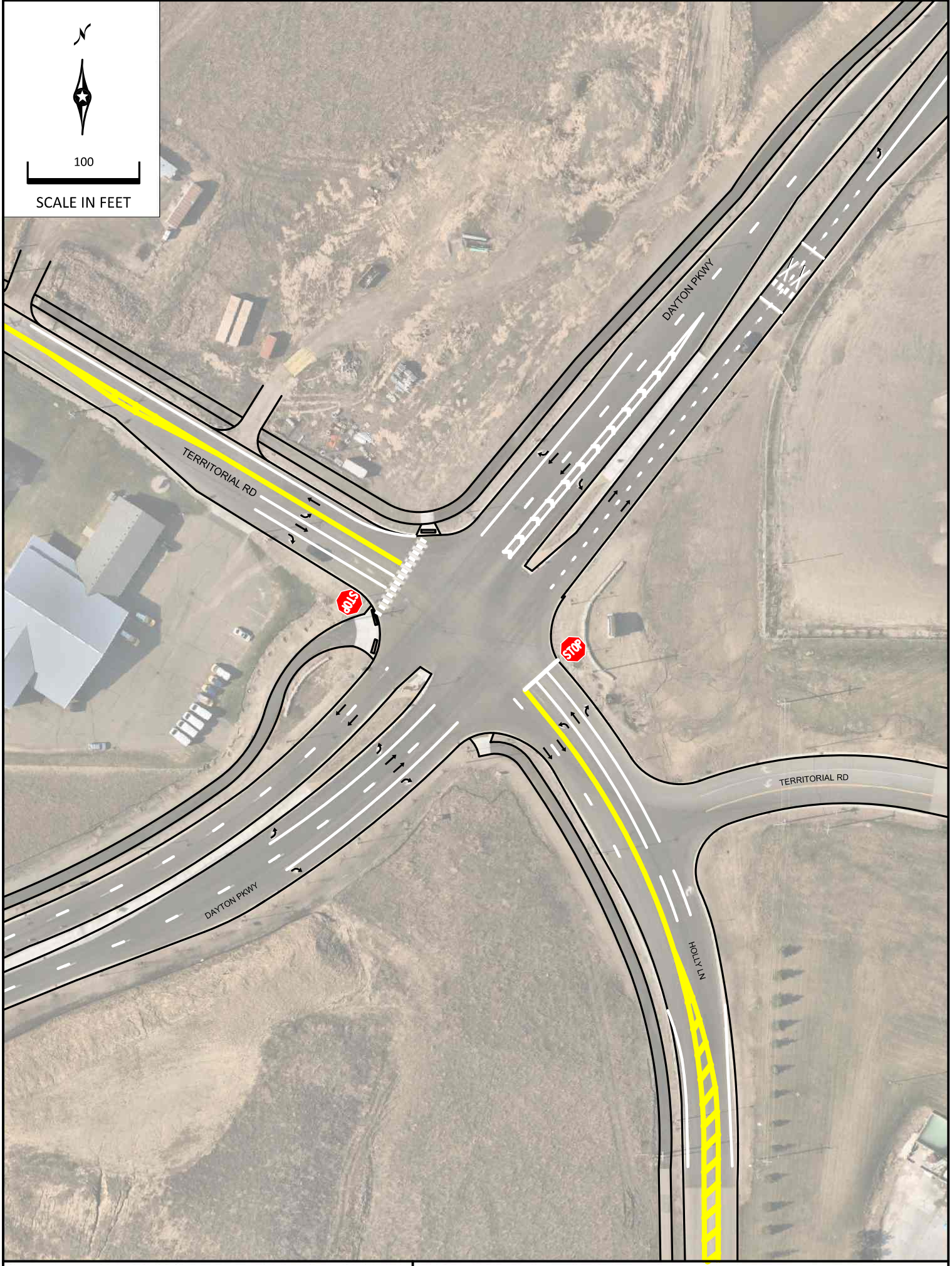


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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

DAYTON PKWY & FUTURE ROADWAY

FIGURE 28 OF 30

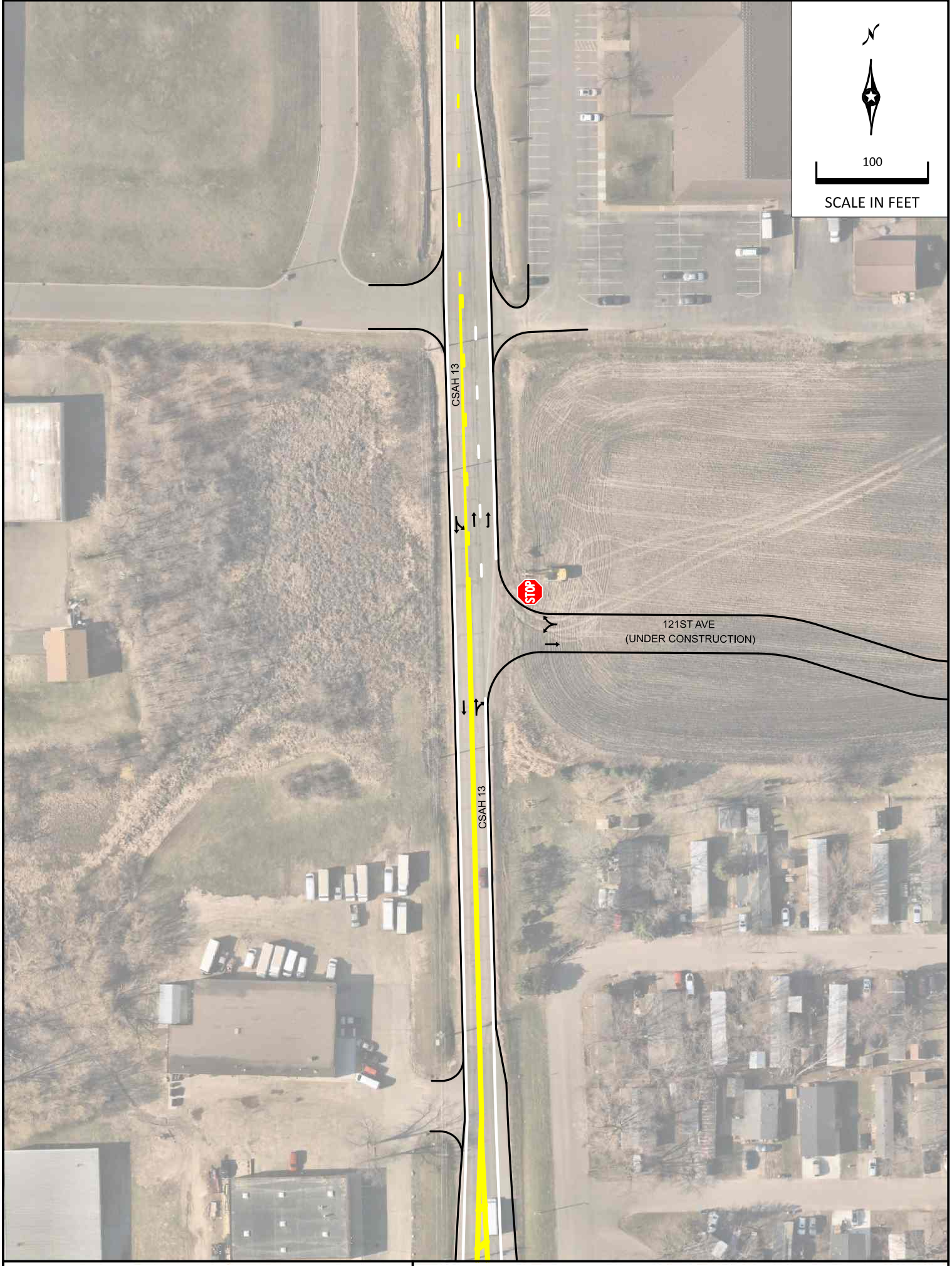


PLOT NAME: 193806024-Layouts
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PLOTTED/REVISED: 21-NOV-2023

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

DAYTON PKWY & HOLLY LN / TERRITORIAL RD

FIGURE 29 OF 30



PLOTTED/REVISED: 21-NOV-2023

PLOT NAME: 193806024-Layouts

PATH & FILENAME: \\us0242-ppfss01\shared_projects\227704770\193806024\Technical\600 - Transportation System\Intersection Inventory\CAD\193806024-Layouts.dgn

DAYTON INTERSECTION INVENTORY AND SAFETY ANALYSIS

CSAH 13 & 121ST AVE

FIGURE 30 OF 30

Appendix C - CRASH SUMMARIES

Crash Summary

Brockton & Dayton

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	0	0	0	0	1	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	1	0	0	0	0	0	0	0	0	0	1	0
Total	2	0	0	0	0	0	0	0	0	0	2	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	0	1	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	1	0	1	0	0
Total	2	0	1	1	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	1 0	50.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	0	0.0
Head On	0	0.0
Left Turn	1 2	50.0
Angle	0	0.0
Other	0	0.0
Total	2	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	1	50.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	1	50.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	2	100.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Weather 1 Summary

	Total	%
Clear	2	100.0
Cloudy	0	0.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Light Condition Summary

	Total	%
Daylight	2	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Crash Summary

Brockton & Dayton

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	1	0	1	50.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	0	0	0	0	1	0	0	0	1	50.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	0	0	0	0	1	0	1	0	2	100.0
%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	50.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	1	0	0	0	1	33.3
25-29	0	0	0	0	0	0.0
30-34	1	0	0	0	1	33.3
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	1	0	0	0	1	33.3
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	3	0	0	0	3	100.0
%	100.0	0.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	0	0.0
April	0	0.0
May	0	0.0
June	1	50.0
July	0	0.0
August	0	0.0
September	0	0.0
October	1	50.0
November	0	0.0
December	0	0.0
Total	2	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	3	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	3	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

CSAH 81 & Brockton

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	0	0	0	0	1	0
C - Possible Injury	6	0	0	0	0	0	2	1	1	1	1	0
N - Prop Dmg Only	20	0	0	0	0	0	3	6	4	1	6	0
Total	27	0	0	0	0	0	5	7	5	2	8	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	0	1	0
C - Possible Injury	6	0	1	5	0
N - Prop Dmg Only	20	0	1	18	1
Total	27	0	2	24	1

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	1	3.7
Single Vehicle Other	1	3.7
Sideswipe Same Direction	8	29.6
Sideswipe Opposing	0	0.0
Rear End	11	40.7
Head On	~~1~~ 0	3.7
Left Turn	~~1~~ 3	3.7
Angle	~~4~~ 3	14.8
Other	0	0.0
Total	27	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	25	92.6
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	1	3.7
Collision Fixed Object	1	3.7
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	27	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	7	25.9
Four-Way Intersection	17	63.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	2	7.4
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	1	3.7
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	27	100.0

Weather 1 Summary

	Total	%
Clear	13	48.1
Cloudy	10	37.0
Rain	3	11.1
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	1	3.7
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	27	100.0

Light Condition Summary

	Total	%
Daylight	22	81.5
Sunrise	1	3.7
Sunset	1	3.7
Dark (Str Lights On)	3	11.1
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	27	100.0

Crash Summary

CSAH 81 & Brockton

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	2	0	0	0	1	0	0	0	0	3	11.1
TUE	0	0	0	0	0	1	1	0	0	0	0	0	2	7.4
WED	0	0	0	0	2	1	0	0	1	0	0	0	4	14.8
THU	0	0	0	1	3	1	1	0	2	0	0	0	8	29.6
FRI	0	1	0	0	0	0	1	3	3	0	1	0	9	33.3
SAT	0	0	0	0	0	1	0	0	0	0	0	0	1	3.7
Total	0	1	0	3	5	4	3	4	6	0	1	0	27	100.0
%	0.0	3.7	0.0	11.1	18.5	14.8	11.1	14.8	22.2	0.0	3.7	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	1	0	0	0	1	1.9
19	1	0	0	0	1	1.9
20	2	1	0	0	3	5.7
21-24	1	3	0	0	4	7.5
25-29	5	0	0	0	5	9.4
30-34	3	1	0	0	4	7.5
35-39	1	2	0	0	3	5.7
40-44	4	2	0	0	6	11.3
45-49	2	2	0	0	4	7.5
50-54	5	1	0	0	6	11.3
55-59	1	3	0	0	4	7.5
60-64	2	2	0	0	4	7.5
65-69	4	0	0	0	4	7.5
70-74	2	0	0	0	2	3.8
75-79	0	1	0	0	1	1.9
80-84	1	0	0	0	1	1.9
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	35	18	0	0	53	100.0
%	66.0	34.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	3	11.1
February	0	0.0
March	1	3.7
April	3	11.1
May	0	0.0
June	3	11.1
July	1	3.7
August	1	3.7
September	5	18.5
October	4	14.8
November	2	7.4
December	4	14.8
Total	27	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	52	98.1
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	1	1.9
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	53	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

CSAH 81 & Dayton

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	2	0	0	0	0	0	0	2	0	0	0	0
C - Possible Injury	3	0	0	0	0	0	1	0	0	1	1	0
N - Prop Dmg Only	5	0	0	0	0	0	3	0	0	2	0	0
Total	10	0	0	0	0	0	4	2	0	3	1	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	2	0	0	2	0
C - Possible Injury	3	0	0	3	0
N - Prop Dmg Only	5	0	1	4	0
Total	10	0	1	9	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	1	10.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	~~1~~ 3	10.0
Sideswipe Opposing	0	0.0
Rear End	4	40.0
Head On	0	0.0
Left Turn	1	10.0
Angle	~~2~~ 1	20.0
Other	~~1~~ 0	10.0
Total	10	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	9	90.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	1	10.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	10	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	3	30.0
Four-Way Intersection	6	60.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	1	10.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	10	100.0

Weather 1 Summary

	Total	%
Clear	4	40.0
Cloudy	4	40.0
Rain	1	10.0
Snow	1	10.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	10	100.0

Light Condition Summary

	Total	%
Daylight	7	70.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	1	10.0
Dark (Str Lights Off)	1	10.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	1	10.0
Other/Unknown	0	0.0
Total	10	100.0

Crash Summary

CSAH 81 & Dayton

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	2	1	2	0	0	0	5	50.0
TUE	0	0	0	0	1	0	0	0	0	0	0	0	1	10.0
WED	0	0	0	1	0	0	0	0	1	0	0	0	2	20.0
THU	0	0	0	0	0	0	0	0	1	0	0	0	1	10.0
FRI	0	0	0	0	1	0	0	0	0	0	0	0	1	10.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	1	2	0	2	1	4	0	0	0	10	100.0
%	0.0	0.0	0.0	10.0	20.0	0.0	20.0	10.0	40.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	1	0	0	1	5.3
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	1	0	0	1	5.3
21-24	2	0	0	0	2	10.5
25-29	1	0	0	0	1	5.3
30-34	1	1	0	0	2	10.5
35-39	0	1	0	0	1	5.3
40-44	1	3	0	0	4	21.1
45-49	0	0	0	0	0	0.0
50-54	2	1	0	0	3	15.8
55-59	2	0	0	0	2	10.5
60-64	0	1	0	0	1	5.3
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	1	0	0	1	5.3
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	9	10	0	0	19	100.0
%	47.4	52.6	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	1	10.0
March	1	10.0
April	0	0.0
May	0	0.0
June	0	0.0
July	2	20.0
August	1	10.0
September	1	10.0
October	1	10.0
November	2	20.0
December	1	10.0
Total	10	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	19	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	19	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

CSAH 81 & Territorial

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	0	1	0	0	0	0
C - Possible Injury	2	0	0	0	0	0	1	1	0	0	0	0
N - Prop Dmg Only	6	0	0	0	0	0	2	1	1	0	2	0
Total	9	0	0	0	0	0	3	3	1	0	2	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	0	1	0
C - Possible Injury	2	0	0	1	1
N - Prop Dmg Only	6	0	2	4	0
Total	9	0	2	6	1

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	1	11.1
Single Vehicle Other	1	11.1
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	6	66.7
Head On	0	0.0
Left Turn	0	0.0
Angle	1	11.1
Other	0	0.0
Total	9	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	7	77.8
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	1	11.1
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	1	11.1
Other/Unknown	0	0.0
Total	9	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	3	33.3
Four-Way Intersection	1	11.1
T or Y Intersection	4	44.4
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	1	11.1
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	9	100.0

Weather 1 Summary

	Total	%
Clear	6	66.7
Cloudy	2	22.2
Rain	0	0.0
Snow	1	11.1
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	9	100.0

Light Condition Summary

	Total	%
Daylight	7	77.8
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	2	22.2
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	9	100.0

Crash Summary

CSAH 81 & Territorial

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	1	0	0	0	0	1	11.1
TUE	0	0	0	0	0	1	0	0	2	0	0	0	3	33.3
WED	0	0	0	0	0	0	0	1	0	0	0	0	1	11.1
THU	0	0	0	0	0	0	0	0	0	1	0	0	1	11.1
FRI	0	0	0	0	0	0	1	1	0	0	0	1	3	33.3
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	0	1	1	3	2	1	0	1	9	100.0
%	0.0	0.0	0.0	0.0	0.0	11.1	11.1	33.3	22.2	11.1	0.0	11.1	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	1	0	0	0	1	5.9
18	0	1	0	0	1	5.9
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	3	0	0	0	3	17.6
25-29	1	0	0	0	1	5.9
30-34	1	2	0	0	3	17.6
35-39	1	2	0	0	3	17.6
40-44	2	0	0	0	2	11.8
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	2	0	0	0	2	11.8
70-74	1	0	0	0	1	5.9
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	12	5	0	0	17	100.0
%	70.6	29.4	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	0	0.0
April	1	11.1
May	1	11.1
June	0	0.0
July	2	22.2
August	1	11.1
September	1	11.1
October	0	0.0
November	0	0.0
December	3	33.3
Total	9	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	17	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	17	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

CSAH 81 & Troy

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	1	0	0	0	0	0
C - Possible Injury	1	0	0	0	0	0	0	1	0	0	0	0
N - Prop Dmg Only	3	0	0	0	0	0	0	1	0	1	1	0
Total	5	0	0	0	0	0	1	2	0	1	1	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	0	1	0
C - Possible Injury	1	0	0	1	0
N - Prop Dmg Only	3	0	1	2	0
Total	5	0	1	4	0

Basic Type Summary

Basic Type Summary	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	1	20.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	3	60.0
Head On	0	0.0
Left Turn	0	0.0
Angle	1	20.0
Other	0	0.0
Total	5	100.0

First Harmful Event Summary

First Harmful Event Summary	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	4	80.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	1	20.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Relationship to Intersection Summary

Relationship to Intersection Summary	Total	%
Not at Intersection/Interchange	1	20.0
Four-Way Intersection	0	0.0
T or Y Intersection	3	60.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	1	20.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Weather 1 Summary

Weather 1 Summary	Total	%
Clear	2	40.0
Cloudy	2	40.0
Rain	1	20.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Light Condition Summary

Light Condition Summary	Total	%
Daylight	4	80.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	1	20.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Crash Summary

CSAH 81 & Troy

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	1	0	0	0	0	0	1	20.0
MON	0	0	0	0	0	0	0	0	0	0	1	0	1	20.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	1	0	0	0	0	0	0	0	0	1	20.0
SAT	0	0	0	0	0	1	0	1	0	0	0	0	2	40.0
Total	0	0	0	1	0	1	1	1	0	0	1	0	5	100.0
%	0.0	0.0	0.0	20.0	0.0	20.0	20.0	20.0	0.0	0.0	20.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	1	0	0	0	1	11.1
20	0	0	0	0	0	0.0
21-24	1	0	0	0	1	11.1
25-29	2	1	0	0	3	33.3
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	2	0	0	0	2	22.2
50-54	0	0	0	0	0	0.0
55-59	1	0	0	0	1	11.1
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	1	0	0	0	1	11.1
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	8	1	0	0	9	100.0
%	88.9	11.1	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	1	20.0
March	1	20.0
April	0	0.0
May	0	0.0
June	0	0.0
July	0	0.0
August	0	0.0
September	1	20.0
October	1	20.0
November	0	0.0
December	1	20.0
Total	5	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	9	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	9	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Dayton & Future

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	1	0	0	0	0	0	0	0	0	0	1	0
Total	1	0	0	0	0	0	0	0	0	0	1	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	0	0	0	0	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	1	0	1	0	0
Total	1	0	1	0	0

Basic Type Summary

Basic Type Summary	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	1	100.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	0	0.0
Head On	0	0.0
Left Turn	0	0.0
Angle	0	0.0
Other	0	0.0
Total	1	100.0

First Harmful Event Summary

First Harmful Event Summary	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	0	0.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	1	100.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Relationship to Intersection Summary

Relationship to Intersection Summary	Total	%
Not at Intersection/Interchange	1	100.0
Four-Way Intersection	0	0.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Weather 1 Summary

Weather 1 Summary	Total	%
Clear	0	0.0
Cloudy	0	0.0
Rain	0	0.0
Snow	1	100.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Light Condition Summary

Light Condition Summary	Total	%
Daylight	1	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Crash Summary

Dayton & Future

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	1	0	0	0	0	0	0	0	1	100.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	1	0	0	0	0	0	0	0	1	100.0
%	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	0	0	0	0	0.0
25-29	1	0	0	0	1	100.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	1	0	0	0	1	100.0
%	100.0	0.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	0	0.0
April	0	0.0
May	0	0.0
June	0	0.0
July	0	0.0
August	0	0.0
September	0	0.0
October	0	0.0
November	1	100.0
December	0	0.0
Total	1	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	0	0.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	1	100.0
Not Applicable	0	0.0
Total	1	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Dayton & Territorial

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	1	0	0	0	0	0	0	0	0	0	1	0
Total	1	0	0	0	0	0	0	0	0	0	1	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	0	0	0	0	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	1	0	0	1	0
Total	1	0	0	1	0

Basic Type Summary

Basic Type Summary	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	0	0.0
Head On	0	0.0
Left Turn	0	0.0
Angle	1	100.0
Other	0	0.0
Total	1	100.0

First Harmful Event Summary

First Harmful Event Summary	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	1	100.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Relationship to Intersection Summary

Relationship to Intersection Summary	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	1	100.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Weather 1 Summary

Weather 1 Summary	Total	%
Clear	0	0.0
Cloudy	1	100.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Light Condition Summary

Light Condition Summary	Total	%
Daylight	1	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Crash Summary

Dayton & Territorial

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	1	0	0	0	1	100.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	0	0	0	0	1	0	0	0	1	100.0
%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	0	0	0	0	0.0
25-29	1	0	0	0	1	50.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	1	0	0	0	1	50.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	2	0	0	0	2	100.0
%	100.0	0.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	0	0.0
April	0	0.0
May	0	0.0
June	0	0.0
July	0	0.0
August	1	100.0
September	0	0.0
October	0	0.0
November	0	0.0
December	0	0.0
Total	1	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	2	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	2	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Dayton River & Brockton

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	1	0	0	0	0	0	1	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	1	0	0	0	0	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	1	0	1	0	0
B - Minor Injury	0	0	0	0	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	0	0	0	0	0
Total	1	0	1	0	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	1	100.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	0	0.0
Head On	0	0.0
Left Turn	0	0.0
Angle	0	0.0
Other	0	0.0
Total	1	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	0	0.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	1	100.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	0	0.0
T or Y Intersection	1	100.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Weather 1 Summary

	Total	%
Clear	0	0.0
Cloudy	1	100.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Light Condition Summary

	Total	%
Daylight	1	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Crash Summary

Dayton River & Brockton

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	0	0	0	0	1	0	0	0	1	100.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	0	0	0	0	1	0	0	0	1	100.0
%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	1	0	0	1	100.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	0	0	0	0	0.0
25-29	0	0	0	0	0	0.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	0	1	0	0	1	100.0
%	0.0	100.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	0	0.0
April	1	100.0
May	0	0.0
June	0	0.0
July	0	0.0
August	0	0.0
September	0	0.0
October	0	0.0
November	0	0.0
December	0	0.0
Total	1	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	0	0.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	1	100.0
Not Applicable	0	0.0
Total	1	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Dayton River & Lawndale

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	2	0	0	0	0	0	1	1	0	0	0	0
Total	2	0	0	0	0	0	1	1	0	0	0	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	0	0	0	0	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	2	0	2	0	0
Total	2	0	2	0	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	2	100.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	0	0.0
Head On	0	0.0
Left Turn	0	0.0
Angle	0	0.0
Other	0	0.0
Total	2	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	0	0.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	2	100.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	2	100.0
Four-Way Intersection	0	0.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Weather 1 Summary

	Total	%
Clear	1	50.0
Cloudy	0	0.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	1	50.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Light Condition Summary

	Total	%
Daylight	2	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Crash Summary

Dayton River & Lawndale

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	1	0	0	0	0	0	0	0	1	50.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	1	0	0	0	0	0	0	0	0	1	50.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	1	1	0	0	0	0	0	0	0	2	100.0
%	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	1	0	0	1	50.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	1	0	0	1	50.0
25-29	0	0	0	0	0	0.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	0	2	0	0	2	100.0
%	0.0	100.0	0.0	0.0	100.0	100.0

Month Summary	Total	%
January	1	50.0
February	1	50.0
March	0	0.0
April	0	0.0
May	0	0.0
June	0	0.0
July	0	0.0
August	0	0.0
September	0	0.0
October	0	0.0
November	0	0.0
December	0	0.0
Total	2	100.0

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	2	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	2	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Dayton River & N Diamond Lk

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	1	0	0	0	0	0	0	1	0	0	0	0
B - Minor Injury	6	0	0	0	0	0	1	2	0	2	1	0
C - Possible Injury	4	0	0	0	0	0	0	1	2	1	0	0
N - Prop Dmg Only	3	0	0	0	0	0	0	1	0	0	2	0
Total	14	0	0	0	0	0	1	5	2	3	3	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	1	0	0	1	0
B - Minor Injury	6	0	0	6	0
C - Possible Injury	4	0	0	4	0
N - Prop Dmg Only	3	0	0	3	0
Total	14	0	0	14	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	6	42.9
Head On	~~3~~ 0	21.4
Left Turn	~~1~~ 4	7.1
Angle	4	28.6
Other	0	0.0
Total	14	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	14	100.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	14	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	9	64.3
T or Y Intersection	4	28.6
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	1	7.1
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	14	100.0

Weather 1 Summary

	Total	%
Clear	12	85.7
Cloudy	1	7.1
Rain	0	0.0
Snow	1	7.1
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	14	100.0

Light Condition Summary

	Total	%
Daylight	12	85.7
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	2	14.3
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	14	100.0

Crash Summary

Dayton River & N Diamond Lk

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	2	0	0	0	2	14.3
MON	0	0	0	1	0	0	0	0	1	0	0	0	2	14.3
TUE	0	0	0	0	1	0	0	0	0	1	0	0	2	14.3
WED	0	0	0	0	1	0	0	0	0	0	0	0	1	7.1
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	1	1	0	2	2	0	0	6	42.9
SAT	0	0	0	0	0	1	0	0	0	0	0	0	1	7.1
Total	0	0	0	1	2	2	1	0	5	3	0	0	14	100.0
%	0.0	0.0	0.0	7.1	14.3	14.3	7.1	0.0	35.7	21.4	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	1	0	0	1	3.6
19	0	1	0	0	1	3.6
20	1	0	0	0	1	3.6
21-24	3	1	0	0	4	14.3
25-29	2	1	0	0	3	10.7
30-34	2	0	0	0	2	7.1
35-39	2	0	0	0	2	7.1
40-44	3	1	0	0	4	14.3
45-49	1	0	0	0	1	3.6
50-54	1	1	0	0	2	7.1
55-59	0	3	0	0	3	10.7
60-64	0	0	0	0	0	0.0
65-69	2	0	0	0	2	7.1
70-74	0	1	0	0	1	3.6
75-79	0	0	0	0	0	0.0
80-84	0	1	0	0	1	3.6
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	17	11	0	0	28	100.0
%	60.7	39.3	0.0	0.0	100.0	100.0

Month Summary	Total	%
January	1	7.1
February	2	14.3
March	0	0.0
April	0	0.0
May	0	0.0
June	2	14.3
July	2	14.3
August	3	21.4
September	0	0.0
October	3	21.4
November	0	0.0
December	1	7.1
Total	14	100.0

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	28	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	28	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Dayton River & Pineview

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	1	0	0	0	0	0	0	0	0	0	1	0
B - Minor Injury	1	0	0	0	0	0	0	0	0	1	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	3	0	0	0	0	0	0	0	1	2	0	0
Total	5	0	0	0	0	0	0	0	1	3	1	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	1	0	0	1	0
B - Minor Injury	1	0	0	1	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	3	0	1	2	0
Total	5	0	1	4	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	1	20.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	1	20.0
Rear End	1	20.0
Head On	1	20.0
Left Turn	0	0.0
Angle	0	0.0
Other	1	20.0
Total	5	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	3	60.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	2	40.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	3	60.0
Four-Way Intersection	2	40.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Weather 1 Summary

	Total	%
Clear	2	40.0
Cloudy	3	60.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Light Condition Summary

	Total	%
Daylight	4	80.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	1	20.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Crash Summary

Dayton River & Pineview

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	1	0	0	1	0	0	0	2	40.0
MON	0	0	0	0	1	0	0	0	0	1	0	0	2	40.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	1	0	0	0	0	0	1	20.0
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	1	1	1	0	1	1	0	0	5	100.0
%	0.0	0.0	0.0	0.0	20.0	20.0	20.0	0.0	20.0	20.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	1	0	0	1	11.1
17	1	0	0	0	1	11.1
18	1	0	0	0	1	11.1
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	1	2	0	0	3	33.3
25-29	0	0	0	0	0	0.0
30-34	1	0	0	0	1	11.1
35-39	2	0	0	0	2	22.2
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	6	3	0	0	9	100.0
%	66.7	33.3	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	1	20.0
March	0	0.0
April	1	20.0
May	0	0.0
June	0	0.0
July	0	0.0
August	0	0.0
September	0	0.0
October	0	0.0
November	1	20.0
December	2	40.0
Total	5	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	9	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	9	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Dayton River & Pioneer

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	1	0	0	0	0	0	0	0	0	1	0	0
Total	1	0	0	0	0	0	0	0	0	1	0	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	0	0	0	0	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	1	0	0	1	0
Total	1	0	0	1	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	1	100.0
Head On	0	0.0
Left Turn	0	0.0
Angle	0	0.0
Other	0	0.0
Total	1	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	1	100.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	0	0.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	1	100.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Weather 1 Summary

	Total	%
Clear	1	100.0
Cloudy	0	0.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Light Condition Summary

	Total	%
Daylight	1	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Crash Summary

Dayton River & Pioneer

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	1	0	0	0	0	0	1	100.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	0	0	1	0	0	0	0	0	1	100.0
%	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	0	0	0	0	0.0
25-29	0	0	0	0	0	0.0
30-34	0	0	0	0	0	0.0
35-39	0	1	0	0	1	50.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	1	0	0	0	1	50.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	1	1	0	0	2	100.0
%	50.0	50.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	0	0.0
April	0	0.0
May	0	0.0
June	1	100.0
July	0	0.0
August	0	0.0
September	0	0.0
October	0	0.0
November	0	0.0
December	0	0.0
Total	1	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	2	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	2	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

E French Lk & 117th Ave

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	0	0	0	1	0	0
C - Possible Injury	1	0	0	0	0	0	0	0	0	1	0	0
N - Prop Dmg Only	1	0	0	0	0	0	0	0	0	0	1	0
Total	3	0	0	0	0	0	0	0	0	2	1	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	0	1	0
C - Possible Injury	1	0	0	1	0
N - Prop Dmg Only	1	0	0	1	0
Total	3	0	0	3	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	0	0.0
Head On	0	0.0
Left Turn	0	0.0
Angle	3	100.0
Other	0	0.0
Total	3	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	3	100.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	3	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	3	100.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	3	100.0

Weather 1 Summary

	Total	%
Clear	3	100.0
Cloudy	0	0.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	3	100.0

Light Condition Summary

	Total	%
Daylight	3	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	3	100.0

Crash Summary

E French Lk & 117th Ave

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	1	0	0	1	33.3
THU	0	0	0	0	0	0	0	1	1	0	0	0	2	66.7
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	0	0	0	1	1	1	0	0	3	100.0
%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.3	33.3	33.3	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	1	0	0	1	16.7
17	0	0	0	0	0	0.0
18	0	1	0	0	1	16.7
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	1	0	0	0	1	16.7
25-29	1	1	0	0	2	33.3
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	1	0	0	1	16.7
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	2	4	0	0	6	100.0
%	33.3	66.7	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	1	33.3
April	0	0.0
May	0	0.0
June	1	33.3
July	1	33.3
August	0	0.0
September	0	0.0
October	0	0.0
November	0	0.0
December	0	0.0
Total	3	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	6	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	6	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Fernbrook & 117th

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	1	0	0	0	0	0	1	0	0	0	0	0
Total	1	0	0	0	0	0	1	0	0	0	0	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	0	0	0	0	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	1	0	0	1	0
Total	1	0	0	1	0

Basic Type Summary

Basic Type Summary	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	1	100.0
Head On	0	0.0
Left Turn	0	0.0
Angle	0	0.0
Other	0	0.0
Total	1	100.0

First Harmful Event Summary

First Harmful Event Summary	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	1	100.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Relationship to Intersection Summary

Relationship to Intersection Summary	Total	%
Not at Intersection/Interchange	1	100.0
Four-Way Intersection	0	0.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Weather 1 Summary

Weather 1 Summary	Total	%
Clear	0	0.0
Cloudy	1	100.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Light Condition Summary

Light Condition Summary	Total	%
Daylight	1	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Crash Summary

Fernbrook & 117th

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	1	0	0	0	1	100.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	0	0	0	0	1	0	0	0	1	100.0
%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	1	0	0	0	1	50.0
21-24	0	0	0	0	0	0.0
25-29	0	0	0	0	0	0.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	1	0	0	1	50.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	1	1	0	0	2	100.0
%	50.0	50.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	0	0.0
April	0	0.0
May	0	0.0
June	0	0.0
July	0	0.0
August	1	100.0
September	0	0.0
October	0	0.0
November	0	0.0
December	0	0.0
Total	1	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	2	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	2	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Fernbrook & 125th

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	1	0	0	0	0	0
C - Possible Injury	1	0	0	0	0	0	0	1	0	0	0	0
N - Prop Dmg Only	1	0	0	0	0	0	1	0	0	0	0	0
Total	3	0	0	0	0	0	2	1	0	0	0	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	1	0	0
C - Possible Injury	1	0	1	0	0
N - Prop Dmg Only	1	0	1	0	0
Total	3	0	3	0	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	~~3~~ 2	100.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	~~0~~ 1	0.0
Head On	0	0.0
Left Turn	0	0.0
Angle	0	0.0
Other	0	0.0
Total	3	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	0	0.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	2	66.7
Non-Collision Harmful Events	1	33.3
Other/Unknown	0	0.0
Total	3	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	3	100.0
Four-Way Intersection	0	0.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	3	100.0

Weather 1 Summary

	Total	%
Clear	2	66.7
Cloudy	0	0.0
Rain	0	0.0
Snow	1	33.3
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	3	100.0

Light Condition Summary

	Total	%
Daylight	1	33.3
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	1	33.3
Dark (No Str Lights)	1	33.3
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	3	100.0

Crash Summary

Fernbrook & 125th

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	1	0	0	0	0	0	0	1	33.3
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	1	0	0	1	33.3
THU	0	0	0	0	0	0	0	0	1	0	0	0	1	33.3
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	0	1	0	0	1	1	0	0	3	100.0
%	0.0	0.0	0.0	0.0	0.0	33.3	0.0	0.0	33.3	33.3	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	1	0	0	1	33.3
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	0	0	0	0	0.0
25-29	0	0	0	0	0	0.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	1	0	0	0	1	33.3
65-69	1	0	0	0	1	33.3
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	2	1	0	0	3	100.0
%	66.7	33.3	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	1	33.3
March	0	0.0
April	0	0.0
May	0	0.0
June	1	33.3
July	0	0.0
August	0	0.0
September	0	0.0
October	0	0.0
November	1	33.3
December	0	0.0
Total	3	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	3	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	3	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Fernbrook & Rush Creek

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	2	0	0	0	0	0	0	0	1	1	0	0
N - Prop Dmg Only	3	0	0	0	0	0	0	0	1	0	2	0
Total	5	0	0	0	0	0	0	0	2	1	2	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	0	0	0	0	0
C - Possible Injury	2	0	0	2	0
N - Prop Dmg Only	3	0	1	2	0
Total	5	0	1	4	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	1 0	20.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	1	20.0
Head On	0	0.0
Left Turn	0	0.0
Angle	3 4	60.0
Other	0	0.0
Total	5	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	4	80.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	1	20.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	5	100.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Weather 1 Summary

	Total	%
Clear	1	20.0
Cloudy	2	40.0
Rain	0	0.0
Snow	1	20.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	1	20.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Light Condition Summary

	Total	%
Daylight	4	80.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	1	20.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	5	100.0

Crash Summary

Fernbrook & Rush Creek

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	1	1	0	0	0	0	1	0	3	60.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	2	0	0	0	0	2	40.0
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	0	0	0	0	1	1	0	2	0	0	1	0	5	100.0
%	0.0	0.0	0.0	0.0	20.0	20.0	0.0	40.0	0.0	0.0	20.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	1	0	0	1	11.1
19	1	0	0	0	1	11.1
20	1	0	0	0	1	11.1
21-24	1	0	0	0	1	11.1
25-29	0	1	0	0	1	11.1
30-34	1	0	0	0	1	11.1
35-39	1	1	0	0	2	22.2
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	1	0	0	0	1	11.1
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	6	3	0	0	9	100.0
%	66.7	33.3	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	1	20.0
March	0	0.0
April	0	0.0
May	0	0.0
June	1	20.0
July	2	40.0
August	0	0.0
September	0	0.0
October	0	0.0
November	0	0.0
December	1	20.0
Total	5	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	9	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	9	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

Robinson & Division (CSAH 12)

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	0	1	0	0	0	0
C - Possible Injury	2	0	0	0	0	0	0	0	1	0	1	0
N - Prop Dmg Only	4	0	0	0	0	0	0	0	2	1	1	0
Total	7	0	0	0	0	0	0	1	3	1	2	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	1	0	0
C - Possible Injury	2	0	2	0	0
N - Prop Dmg Only	4	0	3	1	0
Total	7	0	6	1	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	6	85.7
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	~~0~~ 1	0.0
Rear End	0	0.0
Head On	0	0.0
Left Turn	0	0.0
Angle	~~1~~ 0	14.3
Other	0	0.0
Total	7	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	1	14.3
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	6	85.7
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	7	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	2	28.6
Four-Way Intersection	0	0.0
T or Y Intersection	2	28.6
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	3	42.9
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	7	100.0

Weather 1 Summary

	Total	%
Clear	3	42.9
Cloudy	1	14.3
Rain	0	0.0
Snow	3	42.9
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	7	100.0

Light Condition Summary

	Total	%
Daylight	4	57.1
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	2	28.6
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	1	14.3
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	7	100.0

Crash Summary

Robinson & Division (CSAH 12)

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	1	1	0	0	0	0	0	0	0	0	0	0	2	28.6
MON	0	0	0	0	1	0	0	0	0	0	0	0	1	14.3
TUE	0	0	0	0	0	0	1	0	0	0	0	0	1	14.3
WED	0	0	0	0	0	2	0	0	0	0	0	0	2	28.6
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	0	0	1	0	0	1	14.3
SAT	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
Total	1	1	0	0	1	2	1	0	0	1	0	0	7	100.0
%	14.3	14.3	0.0	0.0	14.3	28.6	14.3	0.0	0.0	14.3	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	1	0	0	1	12.5
18	1	0	0	0	1	12.5
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	0	0	0	0	0.0
25-29	1	1	0	0	2	25.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	1	0	0	0	1	12.5
60-64	1	0	0	0	1	12.5
65-69	0	1	0	0	1	12.5
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	1	0	0	1	12.5
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	4	4	0	0	8	100.0
%	50.0	50.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	1	14.3
February	0	0.0
March	0	0.0
April	0	0.0
May	0	0.0
June	0	0.0
July	1	14.3
August	1	14.3
September	0	0.0
October	1	14.3
November	1	14.3
December	2	28.6
Total	7	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	7	87.5
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	1	12.5
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	8	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

S Diamond Lk & Balsam

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	0	0	0	0	0	0	0	0	0	0	0	0
C - Possible Injury	1	0	0	0	0	0	0	0	0	0	1	0
N - Prop Dmg Only	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	0	0	0	0	0	0	0	1	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	0	0	0	0	0
C - Possible Injury	1	0	0	1	0
N - Prop Dmg Only	0	0	0	0	0
Total	1	0	0	1	0

Basic Type Summary

Basic Type Summary	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	1	100.0
Head On	0	0.0
Left Turn	0	0.0
Angle	0	0.0
Other	0	0.0
Total	1	100.0

First Harmful Event Summary

First Harmful Event Summary	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	1	100.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Relationship to Intersection Summary

Relationship to Intersection Summary	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	0	0.0
T or Y Intersection	1	100.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Weather 1 Summary

Weather 1 Summary	Total	%
Clear	0	0.0
Cloudy	1	100.0
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Light Condition Summary

Light Condition Summary	Total	%
Daylight	1	100.0
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	0	0.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	1	100.0

Crash Summary

S Diamond Lk & Balsam

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
SAT	0	0	0	0	0	0	0	1	0	0	0	0	1	100.0
Total	0	0	0	0	0	0	0	1	0	0	0	0	1	100.0
%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	1	0	0	0	1	50.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	1	0	0	0	1	50.0
25-29	0	0	0	0	0	0.0
30-34	0	0	0	0	0	0.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	0	0	0	0	0.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	2	0	0	0	2	100.0
%	100.0	0.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	0	0.0
March	0	0.0
April	0	0.0
May	0	0.0
June	0	0.0
July	1	100.0
August	0	0.0
September	0	0.0
October	0	0.0
November	0	0.0
December	0	0.0
Total	1	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	2	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	2	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

S Diamond Lk & Pineview

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	0	0	1	0	0	0
C - Possible Injury	2	0	0	0	0	0	1	0	0	0	1	0
N - Prop Dmg Only	4	0	0	0	0	0	0	2	0	1	1	0
Total	7	0	0	0	0	0	1	2	1	1	2	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	0	1	0
C - Possible Injury	2	0	0	2	0
N - Prop Dmg Only	4	0	0	4	0
Total	7	0	0	7	0

Basic Type Summary

Basic Type Summary	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	1	14.3
Head On	0	0.0
Left Turn	0	0.0
Angle	6	85.7
Other	0	0.0
Total	7	100.0

First Harmful Event Summary

First Harmful Event Summary	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	7	100.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	7	100.0

Relationship to Intersection Summary

Relationship to Intersection Summary	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	7	100.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	7	100.0

Weather 1 Summary

Weather 1 Summary	Total	%
Clear	6	85.7
Cloudy	1	14.3
Rain	0	0.0
Snow	0	0.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	7	100.0

Light Condition Summary

Light Condition Summary	Total	%
Daylight	5	71.4
Sunrise	0	0.0
Sunset	0	0.0
Dark (Str Lights On)	2	28.6
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	7	100.0

Crash Summary

S Diamond Lk & Pineview

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	1	0	0	0	1	14.3
TUE	0	0	0	0	0	0	0	0	0	1	0	0	1	14.3
WED	0	0	1	0	0	0	0	1	0	0	0	0	2	28.6
THU	0	0	0	0	1	0	0	0	0	0	0	0	1	14.3
FRI	0	0	0	1	0	0	0	0	0	0	0	0	1	14.3
SAT	0	0	0	0	0	0	0	1	0	0	0	0	1	14.3
Total	0	0	1	1	1	0	0	2	1	1	0	0	7	100.0
%	0.0	0.0	14.3	14.3	14.3	0.0	0.0	28.6	14.3	14.3	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	1	0	0	1	7.1
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	0	0	0	0	0	0.0
25-29	1	1	0	0	2	14.3
30-34	0	1	0	0	1	7.1
35-39	0	2	0	0	2	14.3
40-44	1	0	0	0	1	7.1
45-49	0	1	0	0	1	7.1
50-54	1	0	0	0	1	7.1
55-59	2	1	0	0	3	21.4
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	2	0	0	2	14.3
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	5	9	0	0	14	100.0
%	35.7	64.3	0.0	0.0	100.0	100.0

Month Summary	Total	%
January	2	28.6
February	1	14.3
March	0	0.0
April	0	0.0
May	0	0.0
June	1	14.3
July	0	0.0
August	2	28.6
September	0	0.0
October	1	14.3
November	0	0.0
December	0	0.0
Total	7	100.0

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	14	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	14	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Crash Summary

S Diamond Lk & Zanzibar

Crash Severity/Crash Year

Crash Severity	Total	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
K - Fatal	0	0	0	0	0	0	0	0	0	0	0	0
A - Serious Injury	0	0	0	0	0	0	0	0	0	0	0	0
B - Minor Injury	1	0	0	0	0	0	0	0	1	0	0	0
C - Possible Injury	0	0	0	0	0	0	0	0	0	0	0	0
N - Prop Dmg Only	1	0	0	0	0	0	1	0	0	0	0	0
Total	2	0	0	0	0	0	1	0	1	0	0	0

Crash Severity/Number of Vehicles

Crash Severity	Total	0	1	2	3+
K - Fatal	0	0	0	0	0
A - Serious Injury	0	0	0	0	0
B - Minor Injury	1	0	0	1	0
C - Possible Injury	0	0	0	0	0
N - Prop Dmg Only	1	0	0	1	0
Total	2	0	0	2	0

Basic Type Summary

	Total	%
Pedestrian	0	0.0
Bike	0	0.0
Single Vehicle Run Off Road	0	0.0
Single Vehicle Other	0	0.0
Sideswipe Same Direction	0	0.0
Sideswipe Opposing	0	0.0
Rear End	1	50.0
Head On	0	0.0
Left Turn	0	0.0
Angle	1	50.0
Other	0	0.0
Total	2	100.0

First Harmful Event Summary

	Total	%
Pedestrian	0	0.0
Bicyclist	0	0.0
Motor Vehicle In Transport	2	100.0
Parked Motor Vehicle	0	0.0
Train	0	0.0
Deer/Animal	0	0.0
Other - Non Fixed Object	0	0.0
Collision Fixed Object	0	0.0
Non-Collision Harmful Events	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Relationship to Intersection Summary

	Total	%
Not at Intersection/Interchange	0	0.0
Four-Way Intersection	2	100.0
T or Y Intersection	0	0.0
Five-Way Intersection or More	0	0.0
Roundabout	0	0.0
Intersection Related	0	0.0
Driveway Access Related	0	0.0
At School Crossing	0	0.0
Railway Grade Crossing	0	0.0
Shared Use Path or Trail	0	0.0
Interchange or Ramp	0	0.0
Crossover Related	0	0.0
Acceleration/Deceleration Lane	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Weather 1 Summary

	Total	%
Clear	0	0.0
Cloudy	1	50.0
Rain	0	0.0
Snow	1	50.0
Sleet, Hail (Freezing Rain/Drizzle)	0	0.0
Fog/Smog/Smoke	0	0.0
Blowing Sand/Soil/Dirt/Snow	0	0.0
Severe Crosswinds	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Light Condition Summary

	Total	%
Daylight	0	0.0
Sunrise	0	0.0
Sunset	1	50.0
Dark (Str Lights On)	1	50.0
Dark (Str Lights Off)	0	0.0
Dark (No Str Lights)	0	0.0
Dark (Unknown Light)	0	0.0
Other/Unknown	0	0.0
Total	2	100.0

Crash Summary

S Diamond Lk & Zanzibar

Time of Day/Day of Week

From To	00:00 01:59	02:00 03:59	04:00 05:59	06:00 07:59	08:00 09:59	10:00 11:59	12:00 13:59	14:00 15:59	16:00 17:59	18:00 19:59	20:00 21:59	22:00 23:59	Total	%
SUN	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
MON	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
TUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
WED	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
THU	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0
FRI	0	0	0	0	0	0	0	0	0	1	0	0	1	50.0
SAT	0	0	0	0	0	0	0	0	1	0	0	0	1	50.0
Total	0	0	0	0	0	0	0	0	1	1	0	0	2	100.0
%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	100.0	100.0

Driver & Non-Motorist Age/Gender Summary

Age	M	F	NR	No Value	Total	%
<14	0	0	0	0	0	0.0
14	0	0	0	0	0	0.0
15	0	0	0	0	0	0.0
16	0	0	0	0	0	0.0
17	0	0	0	0	0	0.0
18	0	0	0	0	0	0.0
19	0	0	0	0	0	0.0
20	0	0	0	0	0	0.0
21-24	1	0	0	0	1	25.0
25-29	1	0	0	0	1	25.0
30-34	1	0	0	0	1	25.0
35-39	0	0	0	0	0	0.0
40-44	0	0	0	0	0	0.0
45-49	0	0	0	0	0	0.0
50-54	0	0	0	0	0	0.0
55-59	0	1	0	0	1	25.0
60-64	0	0	0	0	0	0.0
65-69	0	0	0	0	0	0.0
70-74	0	0	0	0	0	0.0
75-79	0	0	0	0	0	0.0
80-84	0	0	0	0	0	0.0
85-89	0	0	0	0	0	0.0
90-94	0	0	0	0	0	0.0
95+	0	0	0	0	0	0.0
No Value	0	0	0	0	0	0.0
Total	3	1	0	0	4	100.0
%	75.0	25.0	0.0	0.0	100.0	100.0

Month Summary

Month Summary	Total	%
January	0	0.0
February	1	50.0
March	0	0.0
April	0	0.0
May	0	0.0
June	0	0.0
July	0	0.0
August	0	0.0
September	0	0.0
October	0	0.0
November	0	0.0
December	1	50.0
Total	2	100.0

Physical Condition Summary

Physical Condition Summary	Total	%
Apparently Normal (Including No Drugs/Alcohol)	4	100.0
Physical Disability (Short Term or Long Term)	0	0.0
Medical Issue (Ill, Sick or Fainted)	0	0.0
Emotional (Depression, Angry, Disturbed, etc.)	0	0.0
Asleep or Fatigued	0	0.0
Has Been Drinking Alcohol	0	0.0
Has Been Taking Illicit Drugs	0	0.0
Has Been Taking Medications	0	0.0
Other/Unknown	0	0.0
Not Applicable	0	0.0
Total	4	100.0

Selection Filter:

WORK AREA: County('659472') - FILTER: Status Note('Under $1000','30 Day Rule','Reportable'), Year('2018','2019','2020','2021','2022') - SPATIAL FILTER APPLIED

Analyst: Adam Capets

Notes:

Appendix D - SEASONAL ADJUSTMENTS AND FORECASTS

2023

MADT

ATR	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	AADT
342	99666	103661	110166	118348	126881	133544	127620	133289	125424	123359	119902	113988	119654
10398	69831	70748	76449	81917	91170	97917	93228	97414	90505	88553	85024	80009	85230
70413	17721	17891	19602	21472	24917	27087	24009	25784	24343	24368	23056	20839	22591
						Adjustment Factor							
342	1.20	1.15	1.09	1.01	0.94	0.90	0.94	0.90	0.95	0.97	1.00	1.05	1.00
10398	1.22	1.20	1.11	1.04	0.93	0.87	0.91	0.87	0.94	0.96	1.00	1.07	1.00
70413	1.27	1.26	1.15	1.05	0.91	0.83	0.94	0.88	0.93	0.93	0.98	1.08	1.00
Average	1.23	1.21	1.12	1.03	0.93	0.87	0.93	0.88	0.94	0.95	0.99	1.07	1.00

	Dayton River	Avg Rate	20 yr Factor	
1	0.99%			
2	1.36%	1.37%	1.31	Use 1.37% for intersections near Dayton River
3	1.63%		1.62	(Incl seasonal adjustment)
4	1.13%			
5	0.50%			
	Brockton			
6	0.50%			
	NDL			
7	0.68%			
	Pineview			
8	1.49%			
	Fernbrook			
9	0.84%			
	CSAH 81			
10	1.68%	1.70%	1.40	Use 1.70% for intersections near CSAH 81
11	1.72%		1.72	(Incl seasonal adjustment)

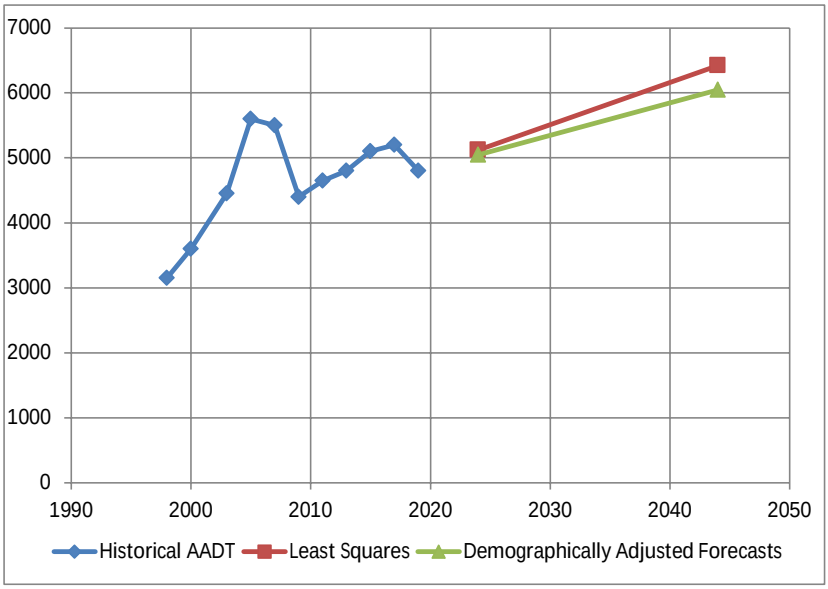
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: Dayton River **SP#:** **DATE :** 04-19-24

LOCATION: N of Brockton **Seq #** 42844

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	3150
2000	3600
2003	4450
2005	5600
2007	5500
2009	4400
2011	4650
2013	4800
2015	5100
2017	5200
2019	4800



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2019	5317	-517	4800
2024	5640		5123
2044	6933		6416

Statistics	AADT
R 2	0.35
SLOPE	64.63
INTERCEPT	-125165
N	11

Raw Least Squares Forecasts	
YEAR	AADT
2019	4800
2024	5120
2044	6420
Slope Over Base Year	
1.26%	

Demographically Adjusted Forecasts	
YEAR	AADT
2019	4800
2024	5050
2044	6050
Slope Over Base Year	
0.99%	

NOTE:

County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

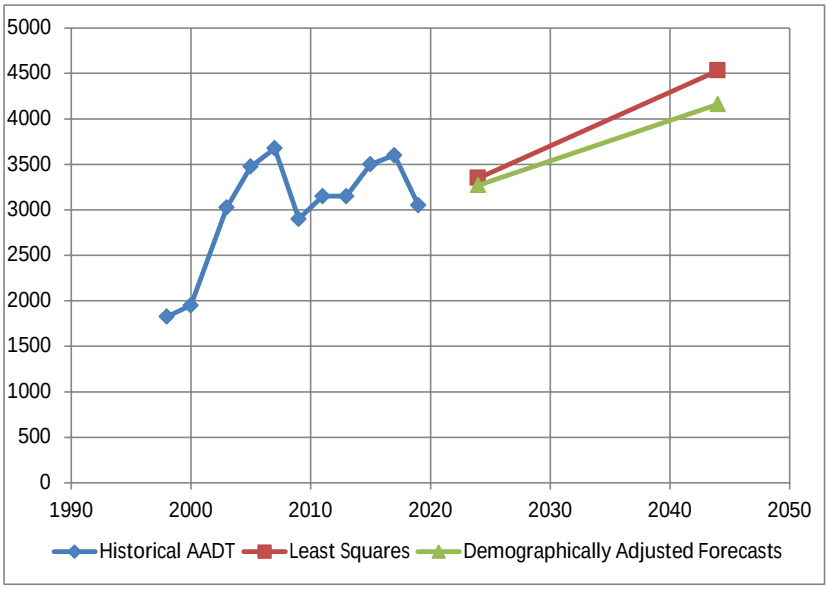
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: Dayton River **SP#:** **DATE :** 04-19-24

LOCATION: Brockton to Lawndale **Seq #** 42600

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	1825
2000	1950
2003	3025
2005	3475
2007	3675
2009	2900
2011	3150
2013	3150
2015	3500
2017	3600
2019	3050



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2019	3629	-579	3050
2024	3925		3346
2044	5107		4528

Statistics	AADT
R 2	0.44
SLOPE	59.10
INTERCEPT	-115699
N	11

Raw Least Squares Forecasts	
YEAR	AADT
2019	3050
2024	3350
2044	4530
Slope Over Base Year	
1.76%	

Demographically Adjusted Forecasts	
YEAR	AADT
2019	3050
2024	3270
2044	4160
Slope Over Base Year	
1.36%	

NOTE:
County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

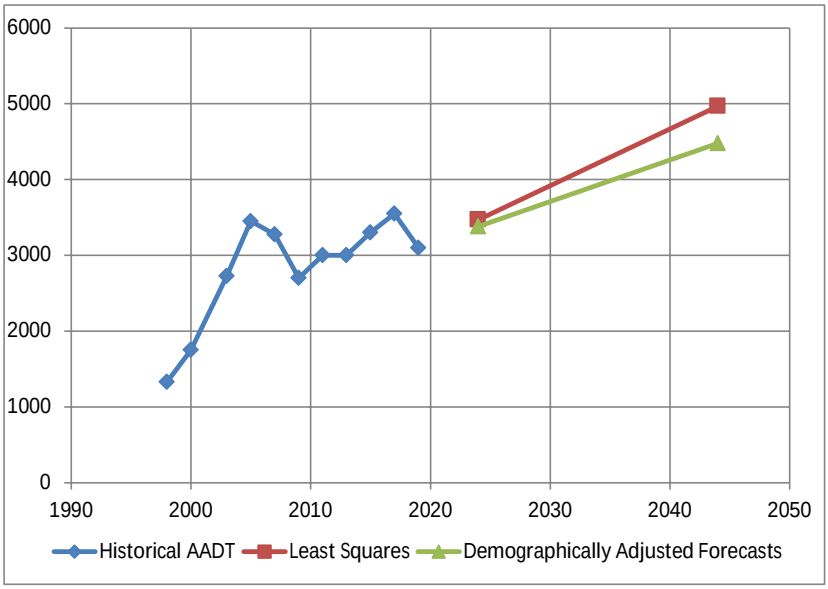
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: Dayton River **SP#:** **DATE :** 04-19-24

LOCATION: Lawndale to NDL **Seq #** 42911

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	1330
2000	1750
2003	2725
2005	3450
2007	3275
2009	2700
2011	3000
2013	3000
2015	3300
2017	3550
2019	3100



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2019	3597	-497	3100
2024	3972		3475
2044	5471		4973

Statistics	AADT
R 2	0.55
SLOPE	74.93
INTERCEPT	-147685
N	11

Raw Least Squares Forecasts	
YEAR	AADT
2019	3100
2024	3470
2044	4970
Slope Over Base Year	2.16%

Demographically Adjusted Forecasts	
YEAR	AADT
2019	3100
2024	3380
2044	4480
Slope Over Base Year	1.63%

NOTE:

County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: Dayton River **SP#:** **DATE :** 04-19-24

LOCATION: NDL to Pineview **Seq #** 60601

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	3600
2000	3850
2003	5500
2005	6100
2007	5900
2009	4700
2011	5600
2013	5200
2015	5800
2017	6400
2019	5900
2023	6737



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2023	6670	67	6737
2024	6764		6832
2044	8655		8722

Statistics	AADT
R 2	0.58
SLOPE	94.53
INTERCEPT	-184571
N	12

Raw Least Squares Forecasts	
YEAR	AADT
2023	6740
2024	6830
2044	8720
Slope Over Base Year	
1.38%	

Demographically Adjusted Forecasts	
YEAR	AADT
2023	6740
2024	6820
2044	8360
Slope Over Base Year	
1.13%	

NOTE:
County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

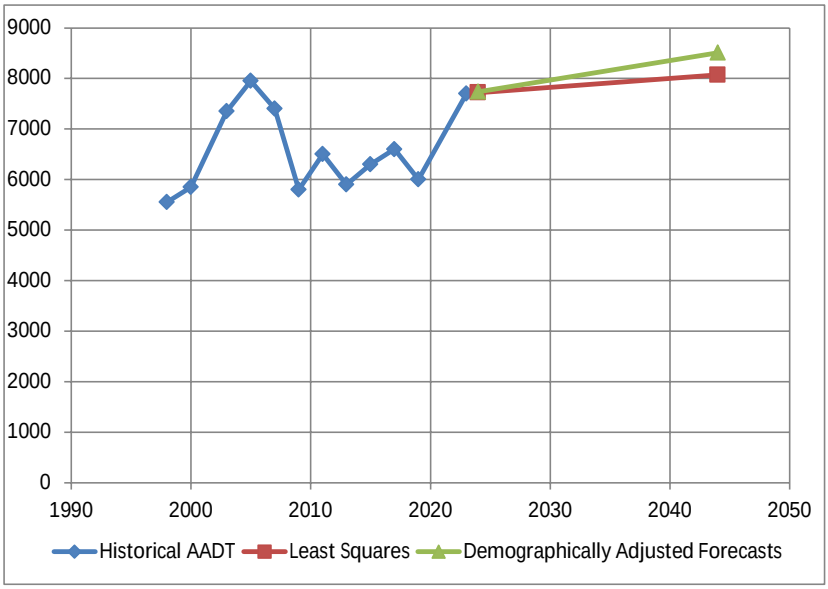
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: Dayton River **SP#:** **DATE :** 04-19-24

LOCATION: S of Pineview **Seq #** 42608

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	5550
2000	5850
2003	7350
2005	7950
2007	7400
2009	5800
2011	6500
2013	5900
2015	6300
2017	6600
2019	6000
2023	7700



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2023	6805	895	7700
2024	6822		7718
2044	7176		8071

Statistics	AADT
R 2	0.03
SLOPE	17.67
INTERCEPT	-28949
N	12

Raw Least Squares Forecasts	
YEAR	AADT
2023	7700
2024	7720
2044	8070
Slope Over Base Year	
0.23%	

Demographically Adjusted Forecasts	
YEAR	AADT
2023	7700
2024	7740
2044	8510
Slope Over Base Year	
0.50%	

NOTE:
County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

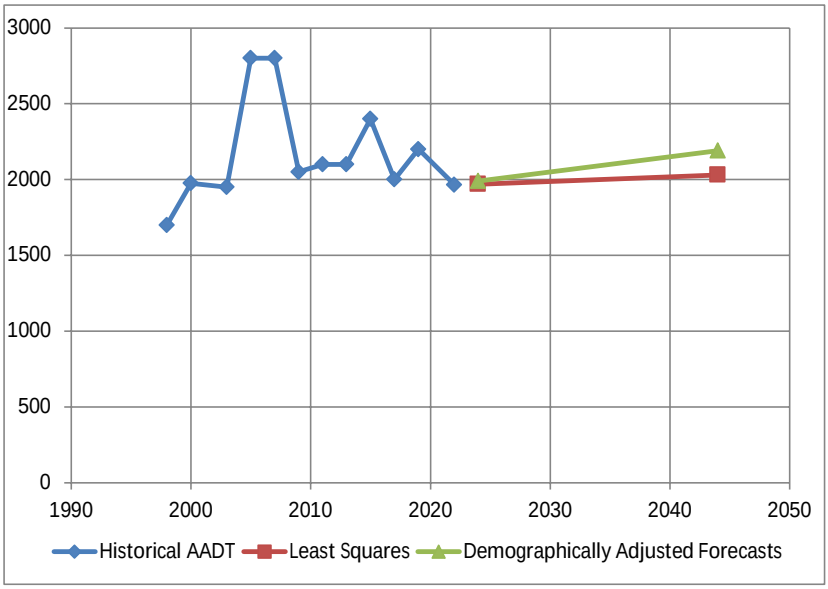
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: Brockton **SP#:** **DATE :** 04-19-24

LOCATION: S of Dayton Rv **Seq #** 42843

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	1700
2000	1975
2003	1950
2005	2800
2007	2800
2009	2050
2011	2100
2013	2100
2015	2400
2017	2000
2019	2200
2022	1966



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2022	2203	-237	1966
2024	2208		1971
2044	2262		2025

Statistics	AADT
R 2	0.00
SLOPE	2.69
INTERCEPT	-3233
N	12

Raw Least Squares Forecasts	
YEAR	AADT
2022	1970
2024	1970
2044	2030
Slope Over Base Year 0.14%	

Demographically Adjusted Forecasts	
YEAR	AADT
2022	1970
2024	1990
2044	2190
Slope Over Base Year 0.50%	

NOTE:

County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

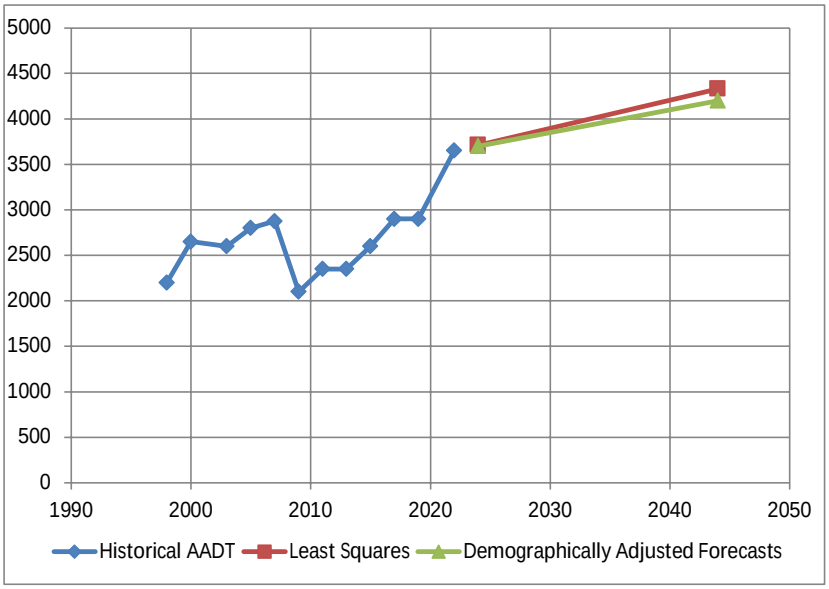
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: NDL **SP#:** **DATE :** 04-19-24

LOCATION: S of Dayton Rv **Seq #** 42901

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	2200
2000	2650
2003	2600
2005	2800
2007	2875
2009	2100
2011	2350
2013	2350
2015	2600
2017	2900
2019	2900
2022	3653



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2022	3034	619	3653
2024	3095		3714
2044	3707		4326

Statistics	AADT
R 2	0.31
SLOPE	30.58
INTERCEPT	-58795
N	12

Raw Least Squares Forecasts	
YEAR	AADT
2022	3650
2024	3710
2044	4330
Slope Over Base Year	
0.82%	

Demographically Adjusted Forecasts	
YEAR	AADT
2022	3650
2024	3700
2044	4200
Slope Over Base Year	
0.68%	

NOTE:
County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

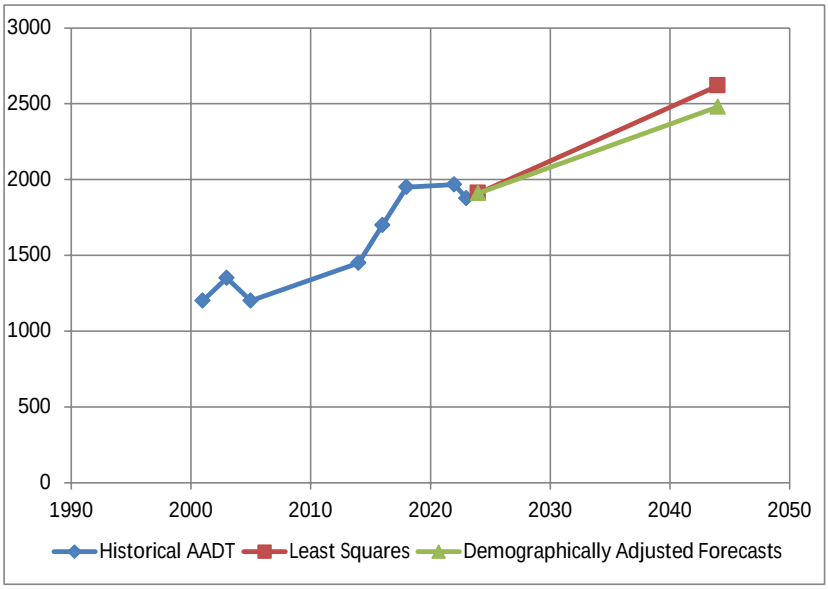
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: Pineview **SP#:** **DATE :** 04-19-24

LOCATION: Dayton Rv to SDL **Seq #** 59844

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
2001	1200
2003	1350
2005	1200
2014	1450
2016	1700
2018	1950
2022	1967
2023	1877



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2023	1948	-71	1877
2024	1983		1912
2044	2688		2617

Statistics	AADT
R 2	0.87
SLOPE	35.24
INTERCEPT	-69336
N	8

Raw Least Squares Forecasts	
YEAR	AADT
2023	1880
2024	1910
2044	2620
Slope Over Base Year	
1.84%	

Demographically Adjusted Forecasts	
YEAR	AADT
2023	1880
2024	1910
2044	2480
Slope Over Base Year	
1.49%	

NOTE:
County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: Fernbrook **SP#:** **DATE :** 04-19-24

LOCATION: Near Rush Cr/Elm Cr **Seq #** 42610

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	4675
2000	5500
2003	5150
2005	5850
2007	5350
2009	5000
2011	5900
2013	5800
2015	5800
2017	6200
2019	7500



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2019	6552	948	7500
2024	6970		7917
2044	8640		9587

Statistics	AADT
R 2	0.60
SLOPE	83.49
INTERCEPT	-162021
N	11

Raw Least Squares Forecasts	
YEAR	AADT
2019	7500
2024	7920
2044	9590
Slope Over Base Year	
1.05%	

Demographically Adjusted Forecasts	
YEAR	AADT
2019	7500
2024	7830
2044	9140
Slope Over Base Year	
0.84%	

NOTE:
County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

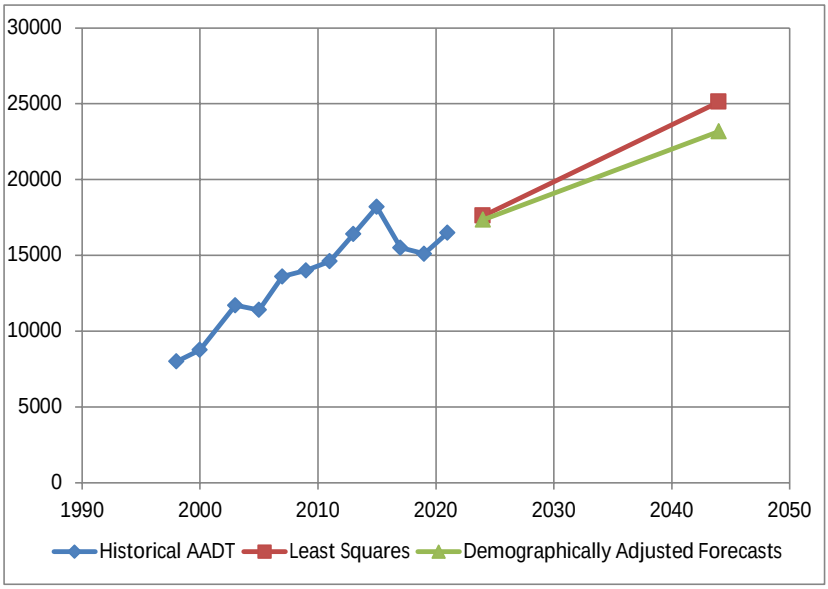
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: CSAH 81 **SP#:** **DATE :** 04-19-24

LOCATION: Brockton to Territorial **Seq #** 42993

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
1998	8000
2000	8750
2003	11700
2005	11400
2007	13600
2009	14000
2011	14600
2013	16400
2015	18200
2017	15500
2019	15100
2021	16476



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2021	17839	-1363	16476
2024	18966		17603
2044	26479		25116

Statistics	AADT
R 2	0.80
SLOPE	375.65
INTERCEPT	-741349
N	12

Raw Least Squares Forecasts	
YEAR	AADT
2021	16480
2024	17600
2044	25120
Slope Over Base Year	2.13%

Demographically Adjusted Forecasts	
YEAR	AADT
2021	16480
2024	17350
2044	23170
Slope Over Base Year	1.68%

NOTE:

County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

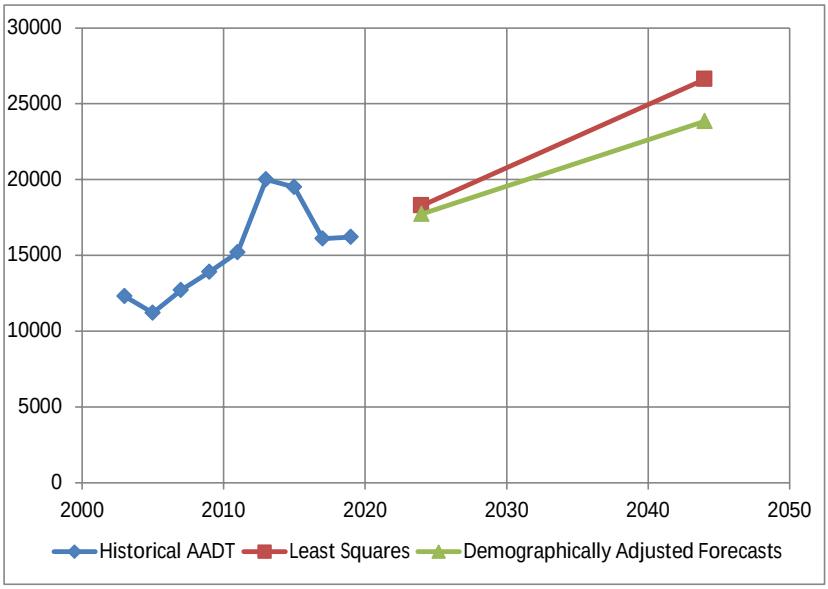
LEAST SQUARES WORKSHEET **SEGMENT A1**

ROUTE: CSAH 81 **SP#:** **DATE :** 04-19-24

LOCATION: E of Territorial **Seq #** 74935

BASE YEAR: 2024 **FORECAST YEAR:** 2044 **# of lanes** 2

COUNTED YEAR	FLOW MAP AADT (SEG A)
2003	12300
2005	11200
2007	12700
2009	13900
2011	15200
2013	20000
2015	19500
2017	16100
2019	16200



LEAST SQUARES BASED FORECASTS:

Year	AADT	Calc	ADT Calc
2019	18567	-2367	16200
2024	20650		18283
2044	28983		26617

Statistics	AADT
R 2	0.55
SLOPE	416.67
INTERCEPT	-822683
N	9

Raw Least Squares Forecasts	
YEAR	AADT
2019	16200
2024	18280
2044	26620
Slope Over Base Year	
2.28%	

Demographically Adjusted Forecasts	
YEAR	AADT
2019	16200
2024	17730
2044	23840
Slope Over Base Year	
1.72%	

NOTE:
County Adjustment Factors were developed to Apply to Projected AADT. They are based on 1992-2007 VMT, Population, Labor Force, Household, and Employment Data.

COUNTY	COUNTY FACTOR	GROWTH PROFILE
HENNEPIN	0.83	LOW GROWTH AREA

Appendix E - CRASH RATE CALCULATIONS, IHSDM OUTPUTS, AND CMFS

Intersection Safety Screening - Data

Intersection: Dayton River Rd & Pineview Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	1
Minor Injury (B)	1
Possible Injury (C)	0
Property Damage (PDO)	3
Total Crashes	5

Intersection Characteristics	
Entering Volume	7,740
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$219,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.354
Statewide Average	0.138
Critical Rate	0.430
Critical Index	0.82

Fatal & Serious Injury Crash Rate	
Observed	7.076
Statewide Average	0.350
Critical Rate	5.910
Critical Index	1.20

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.35 per MEV; this is 18% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 7.08 per 100 MEV; this is 1.2 times the critical rate. This site may be a sustained severe crash location.

Intersection Safety Screening - IHSDM

Intersection: Dayton River Rd & Pineview Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	1
Property Damage (PDO)	3
Total Crashes	5

Intersection Characteristics	
Entering Volume	7,740
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$117,830*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.375
Statewide Average	0.138
Critical Rate	0.430
Critical Index	0.87

Fatal & Serious Injury Crash Rate	
Observed	1.274
Statewide Average	0.350
Critical Rate	5.910
Critical Index	0.22

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.38 per MEV; this is 13% below the critical rate. Based on similar statewide intersections, an additional 1.7 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 1.27 per 100 MEV; this is 78% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: Dayton River Rd & Brockton Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	1
Minor Injury (B)	0
Possible Injury (C)	0
Property Damage (PDO)	0
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,141
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$160,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.107
Statewide Average	0.138
Critical Rate	0.500
Critical Index	0.21

Fatal & Serious Injury Crash Rate	
Observed	10.653
Statewide Average	0.350
Critical Rate	8.150
Critical Index	1.31

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.11 per MEV; this is 79% below the critical rate. Based on similar statewide intersections, an additional 4 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 10.65 per 100 MEV; this is 1.3 times the critical rate. This site may be a sustained severe crash location.

Intersection Safety Screening - IHSDM

Intersection: Dayton River Rd & Brockton Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	0
Property Damage (PDO)	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	5,141
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$32,580*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.144
Statewide Average	0.138
Critical Rate	0.500
Critical Index	0.29

Fatal & Serious Injury Crash Rate	
Observed	0.533
Statewide Average	0.350
Critical Rate	8.150
Critical Index	0.07

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.14 per MEV; this is 71% below the critical rate. Based on similar statewide intersections, an additional 3.65 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.53 per 100 MEV; this is 93% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: Dayton River Rd & N Diamond Lake Rd & 142nd Ave

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	1
Minor Injury (B)	6
Possible Injury (C)	4
Property Damage (PDO)	3
Total Crashes	14

Intersection Characteristics	
Entering Volume	6,647
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$573,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	1.154
Statewide Average	0.138
Critical Rate	0.450
Critical Index	2.56

Fatal & Serious Injury Crash Rate	
Observed	8.240
Statewide Average	0.350
Critical Rate	6.650
Critical Index	1.24

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 1.15 per MEV; this is 2.6 times the critical rate. If crashes were reduced by 9 over five years, this intersection would perform within normal range.

The observed fatal and serious injury crash rate for this period is 8.24 per 100 MEV; this is 1.2 times the critical rate. This site may be a sustained severe crash location.

Intersection Safety Screening - IHSDM

Intersection: Dayton River Rd & N Diamond Lake Rd & 142nd Ave

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	1
Minor Injury (B)	3
Possible Injury (C)	5
Property Damage (PDO)	4
Total Crashes	13

Intersection Characteristics	
Entering Volume	6,647
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$401,340*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	1.051
Statewide Average	0.138
Critical Rate	0.450
Critical Index	2.34

Fatal & Serious Injury Crash Rate	
Observed	5.273
Statewide Average	0.350
Critical Rate	6.650
Critical Index	0.79

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 1.05 per MEV; this is 2.3 times the critical rate. If crashes were reduced by 8 over five years, this intersection would perform within normal range.

The observed fatal and serious injury crash rate for this period is 5.27 per 100 MEV; this is 21% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: CSAH 81 & Dayton Pkwy

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	2
Possible Injury (C)	3
Property Damage (PDO)	5
Total Crashes	10

Intersection Characteristics	
Entering Volume	20,730
Environment	Urban
Lighting	Lit
Traffic Control	Signal

Annual crash cost = *$193,000*

Statewide comparison = *Signal, Low Volume (<=20K)*

Total Crash Rate	
Observed	0.264
Statewide Average	0.548
Critical Rate	0.870
Critical Index	0.30

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	1.024
Critical Rate	4.450
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.26 per MEV; this is 70% below the critical rate. Based on similar statewide intersections, an additional 23 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - IHSDM

Intersection: CSAH 81 & Dayton Pkwy

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	2
Possible Injury (C)	3
Property Damage (PDO)	6
Total Crashes	11

Intersection Characteristics	
Entering Volume	20,730
Environment	Urban
Lighting	Lit
Traffic Control	Signal

Annual crash cost = *$271,920*

Statewide comparison = *Signal, Low Volume (<=20K)*

Total Crash Rate	
Observed	0.293
Statewide Average	0.548
Critical Rate	0.870
Critical Index	0.34

Fatal & Serious Injury Crash Rate	
Observed	1.110
Statewide Average	1.024
Critical Rate	4.450
Critical Index	0.25

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.29 per MEV; this is 66% below the critical rate. Based on similar statewide intersections, an additional 21.9 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 1.11 per 100 MEV; this is 75% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: Dayton River Rd & Lawndale Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	0
Property Damage (PDO)	2
Total Crashes	2

Intersection Characteristics	
Entering Volume	3,498
Environment	Urban
Lighting	Unlit
Traffic Control	Thru-Stop

Annual crash cost = *$6,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.313
Statewide Average	0.138
Critical Rate	0.590
Critical Index	0.53

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.350
Critical Rate	11.180
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.31 per MEV; this is 47% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - IHSDM

Intersection: Dayton River Rd & Lawndale Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	0
Property Damage (PDO)	1
Total Crashes	2

Intersection Characteristics	
Entering Volume	3,498
Environment	Urban
Lighting	Unlit
Traffic Control	Thru-Stop

Annual crash cost = *$38,440*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.290
Statewide Average	0.138
Critical Rate	0.590
Critical Index	0.49

Fatal & Serious Injury Crash Rate	
Observed	0.939
Statewide Average	0.350
Critical Rate	11.180
Critical Index	0.08

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.29 per MEV; this is 51% below the critical rate. Based on similar statewide intersections, an additional 2.15 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.94 per 100 MEV; this is 92% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	2
Property Damage (PDO)	3
Total Crashes	5

Intersection Characteristics	
Entering Volume	9,726
Environment	Urban
Lighting	Unlit
Traffic Control	Thru-Stop

Annual crash cost = *$61,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.282
Statewide Average	0.138
Critical Rate	0.390
Critical Index	0.72

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.350
Critical Rate	4.970
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.28 per MEV; this is 28% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - IHSDM

Intersection: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	2
Property Damage (PDO)	4
Total Crashes	6

Intersection Characteristics	
Entering Volume	9,726
Environment	Urban
Lighting	Unlit
Traffic Control	Thru-Stop

Annual crash cost = *$142,390*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.358
Statewide Average	0.138
Critical Rate	0.390
Critical Index	0.92

Fatal & Serious Injury Crash Rate	
Observed	1.239
Statewide Average	0.350
Critical Rate	4.970
Critical Index	0.25

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.36 per MEV; this is 8% below the critical rate. Based on similar statewide intersections, an additional 0.640000000000001 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 1.24 per 100 MEV; this is 75% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: Dayton Pkwy & Territorial/Holly

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	0
Property Damage (PDO)	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	7,448
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$3,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.074
Statewide Average	0.138
Critical Rate	0.430
Critical Index	0.17

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.350
Critical Rate	6.080
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.07 per MEV; this is 83% below the critical rate. Based on similar statewide intersections, an additional 5 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - IHSDM

Intersection: Dayton Pkwy & Territorial/Holly

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	1
Property Damage (PDO)	2
Total Crashes	3

Intersection Characteristics	
Entering Volume	7,448
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$63,750*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.232
Statewide Average	0.138
Critical Rate	0.430
Critical Index	0.54

Fatal & Serious Injury Crash Rate	
Observed	0.735
Statewide Average	0.350
Critical Rate	6.080
Critical Index	0.12

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.23 per MEV; this is 46% below the critical rate. Based on similar statewide intersections, an additional 2.84 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.74 per 100 MEV; this is 88% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: CSAH 81 & Troy Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	1
Property Damage (PDO)	3
Total Crashes	5

Intersection Characteristics	
Entering Volume	17,242
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$85,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.159
Statewide Average	0.138
Critical Rate	0.320
Critical Index	0.50

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.350
Critical Rate	3.290
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.16 per MEV; this is 50% below the critical rate. Based on similar statewide intersections, an additional 6 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - IHSDM

Intersection: CSAH 81 & Troy Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	1
Property Damage (PDO)	2
Total Crashes	5

Intersection Characteristics	
Entering Volume	17,242
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$113,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.146
Statewide Average	0.138
Critical Rate	0.320
Critical Index	0.46

Fatal & Serious Injury Crash Rate	
Observed	0.540
Statewide Average	0.350
Critical Rate	3.290
Critical Index	0.16

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.15 per MEV; this is 54% below the critical rate. Based on similar statewide intersections, an additional 6.4 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.54 per 100 MEV; this is 84% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: CSAH 81 & Territorial Road

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	2
Property Damage (PDO)	6
Total Crashes	9

Intersection Characteristics	
Entering Volume	18,058
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$120,000*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.273
Statewide Average	0.138
Critical Rate	0.320
Critical Index	0.85

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.350
Critical Rate	3.190
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.27 per MEV; this is 15% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - IHSDM

Intersection: CSAH 81 & Territorial Road

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	2
Property Damage (PDO)	4
Total Crashes	8

Intersection Characteristics	
Entering Volume	18,058
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = *$182,010*

Statewide comparison = *Thru/STOP, Urban*

Total Crash Rate	
Observed	0.244
Statewide Average	0.138
Critical Rate	0.320
Critical Index	0.76

Fatal & Serious Injury Crash Rate	
Observed	0.849
Statewide Average	0.350
Critical Rate	3.190
Critical Index	0.27

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.24 per MEV; this is 24% below the critical rate. Based on similar statewide intersections, an additional 2.94 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.85 per 100 MEV; this is 73% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - Data

Intersection: S Diamond Lake Rd & Pineview Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	2
Property Damage (PDO)	4
Total Crashes	7

Intersection Characteristics	
Entering Volume	5,869
Environment	Urban
Lighting	Lit
Traffic Control	All-way Stop

Annual crash cost = *$114,000*

Statewide comparison = *All-way STOP*

Total Crash Rate	
Observed	0.653
Statewide Average	0.281
Critical Rate	0.740
Critical Index	0.88

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.233
Critical Rate	6.790
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.65 per MEV; this is 12% below the critical rate. Based on similar statewide intersections, an additional 1 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening - IHSDM

Intersection: S Diamond Lake Rd & Pineview Ln

Statewide Averages based on 2018-2022 crashes

Crashes by Crash Severity	
Fatal (K)	0
Incapacitating Injury (A)	0
Minor Injury (B)	1
Possible Injury (C)	1
Property Damage (PDO)	4
Total Crashes	6

Intersection Characteristics	
Entering Volume	5,869
Environment	Urban
Lighting	Lit
Traffic Control	All-way Stop

Annual crash cost = *$100,910*

Statewide comparison = *All-way STOP*

Total Crash Rate	
Observed	0.527
Statewide Average	0.281
Critical Rate	0.740
Critical Index	0.71

Fatal & Serious Injury Crash Rate	
Observed	1.400
Statewide Average	0.233
Critical Rate	6.790
Critical Index	0.21

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.53 per MEV; this is 29% below the critical rate. Based on similar statewide intersections, an additional 2.35 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 1.40 per 100 MEV; this is 79% below the critical rate. The intersection operates within the normal range.

Interactive Highway Safety Design Model

Crash Prediction Evaluation Report

February 28, 2024

Disclaimer

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Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

Since the publication of the Highway Safety Manual - First Edition (HSM-1), in 2010 by the American Association of State Highway and Transportation Officials (AASHTO), multiple research efforts have been undertaken through the National Cooperative Highway Research Program (NCHRP) to develop safety performance models for road segment and intersection facility types that were not initially reflected in the HSM-1, in order to expand the breadth and depth of the HSM in the future.

The IHSDM Crash Prediction Module (CPM) is intended as a faithful implementation of HSM Part C predictive methods. As NCHRP projects to develop new predictive methods for the HSM are completed, FHWA works to incorporate the new methods into IHSDM, sometimes in advance of publication in the HSM. The following new crash predictive methods have been accepted by NCHRP project panels and incorporated into IHSDM, while pending AASHTO's approval for incorporation into a future edition of the HSM:

- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Report Overview

Report Generated: Feb 28, 2024 4:30 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:52:10 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_DaytonRiver_Pineview
Project Comment: Created Tue Feb 06 15:30:27 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & Pineview Ln
Intersection Comment: Created Tue Feb 06 16:12:53 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes Dayton Rv & Pineview
Evaluation Comment: Created Wed Feb 28 15:51:24 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Tue Feb 06 15:31:20 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & Pineview Ln Evaluation

Intersection: Dayton River Rd & Pineview Ln
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	1	1	0	0	1
2021	3	2	1	1	1
2022	1	1	1	1	0
All Years	5 [1]	4	2	2	2

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & Pineview Ln)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Pineview Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2023: 6,336; 2024: 6,435; 2025: 6,534; 2026: 6,633; 2027: 6,732; 2028: 6,831; 2029: 6,930; 2030: 7,029; 2031: 7,128; 2032: 7,227; 2033: 7,326; 2034: 7,425; 2035: 7,524; 2036: 7,623; 2037: 7,722; 2038: 7,821; 2039: 7,920; 2040: 8,019; 2041: 8,118; 2042: 8,217; 2043: 8,317	2023: 1,994; 2024: 2,025; 2025: 2,056; 2026: 2,087; 2027: 2,118; 2028: 2,150; 2029: 2,181; 2030: 2,212; 2031: 2,243; 2032: 2,274; 2033: 2,306; 2034: 2,337; 2035: 2,368; 2036: 2,399; 2037: 2,430; 2038: 2,462; 2039: 2,493; 2040: 2,524; 2041: 2,555; 2042: 2,586; 2043: 2,618	4	Stop-Controlled	0	0			true					

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Pineview Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2018-2022: 6,336	2018-2022: 1,994	4	Stop-Controlled	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & Pineview Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**25.81**
Fatal and Injury Crashes	**11.59**
Property-Damage-Only Crashes	**14.22**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**45**
Percent Property-Damage-Only Crashes (%)	**55**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.34	0.50	37.045	0.84	62.955
2024	1.36	0.51	37.104	0.86	62.896
2025	1.38	0.51	37.161	0.87	62.839
2026	1.40	0.52	37.218	0.88	62.782
2027	1.42	0.53	37.275	0.89	62.725
2028	1.44	0.54	37.331	0.90	62.669
2029	1.46	0.55	37.387	0.92	62.613
2030	1.48	0.56	37.442	0.93	62.558
2031	1.50	0.56	37.496	0.94	62.504
2032	1.52	0.57	37.550	0.95	62.450
2033	1.54	0.58	37.604	0.96	62.396
2034	1.56	0.59	37.657	0.98	62.343
2035	1.58	0.60	37.709	0.99	62.291
2036	1.61	0.61	37.761	1.00	62.239
2037	1.63	0.61	37.813	1.01	62.187
2038	1.65	0.62	37.864	1.02	62.136
2039	1.67	0.63	37.915	1.03	62.085
2040	1.69	0.64	37.965	1.05	62.035
2041	1.71	0.65	38.014	1.06	61.986
2042	1.73	0.66	38.064	1.07	61.936
2043	1.75	0.67	38.114	1.08	61.886
Total	32.44	12.20	37.621	20.23	62.379
Average	1.54	0.58	37.621	0.96	62.379

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.07	0.47	44.216	0.59	55.606
2024	1.08	0.48	44.285	0.60	55.554
2025	1.10	0.49	44.354	0.61	55.503
2026	1.11	0.49	44.422	0.62	55.453
2027	1.13	0.50	44.490	0.63	55.403
2028	1.15	0.51	44.557	0.64	55.353
2029	1.16	0.52	44.623	0.64	55.304
2030	1.18	0.53	44.689	0.65	55.256
2031	1.20	0.54	44.754	0.66	55.208
2032	1.21	0.54	44.818	0.67	55.160
2033	1.23	0.55	44.882	0.68	55.113
2034	1.25	0.56	44.945	0.69	55.066
2035	1.26	0.57	45.008	0.69	55.019
2036	1.28	0.58	45.070	0.70	54.974
2037	1.29	0.58	45.132	0.71	54.928
2038	1.31	0.59	45.193	0.72	54.883
2039	1.33	0.60	45.253	0.73	54.838
2040	1.34	0.61	45.313	0.74	54.794
2041	1.36	0.62	45.373	0.74	54.750
2042	1.38	0.62	45.431	0.75	54.706
2043	1.39	0.63	45.491	0.76	54.662
Total	25.81	11.59	44.902	14.22	55.098
Average	1.23	0.55	44.902	0.68	55.098

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & Pineview Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	32.44	12.20	37.621	20.23	62.379
Expected	25.81	11.59	44.902	14.22	55.098
Expected - Predicted	-6.62	-0.61		-6.01	
Percent Difference	-25.65	-5.28		-42.26	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & Pineview Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.04	0.2	0.04	0.2
Intersection	Collision with Bicycle	0.56	2.2	0.00	0.0	0.56	2.2
Intersection	Collision with Fixed Object	0.69	2.7	1.42	5.5	2.11	8.2
Intersection	Non-Collision	0.18	0.7	0.08	0.3	0.27	1.0
Intersection	Collision with Other Object	0.09	0.4	0.12	0.5	0.21	0.8
Intersection	Other Single-vehicle Collision	0.05	0.2	0.01	0.0	0.06	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.69	2.7	0.00	0.0	0.69	2.7
Intersection	Total Intersection Single Vehicle Crashes	2.27	8.8	1.68	6.5	3.94	15.3
Intersection	Angle Collision	4.10	15.9	4.20	16.3	8.30	32.2
Intersection	Head-on Collision	0.38	1.5	0.38	1.5	0.76	2.9
Intersection	Other Multi-vehicle Collision	0.56	2.2	2.72	10.5	3.28	12.7
Intersection	Rear-end Collision	3.15	12.2	4.69	18.2	7.84	30.4
Intersection	Sideswipe	1.13	4.4	0.55	2.1	1.68	6.5
Intersection	Total Intersection Multiple Vehicle Crashes	9.32	36.1	12.54	48.6	21.87	84.7
Intersection	Total Intersection Crashes	11.59	44.9	14.22	55.1	25.81	100.0
	Total Crashes	11.59	44.9	14.22	55.1	25.81	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:21 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:01:14 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_DaytonRiver_Pineview - LT
Project Comment: Created Tue Feb 06 15:30:27 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & Pineview Ln
Intersection Comment: Created Tue Feb 06 16:12:53 CST 2024
Intersection Version: v1

Evaluation Title: New Crashes LT Dayton Rv & Pineview
Evaluation Comment: Created Wed Apr 03 22:50:46 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Tue Feb 06 15:31:20 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & Pineview Ln Evaluation

Intersection: Dayton River Rd & Pineview Ln
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	1	1	0	0	1
2021	3	2	1	1	1
2022	1	1	1	1	0
All Years	5 [1]	4	2	2	2

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & Pineview Ln)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Pineview Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2023: 6,336; 2024: 6,435; 2025: 6,534; 2026: 6,633; 2027: 6,732; 2028: 6,831; 2029: 6,930; 2030: 7,029; 2031: 7,128; 2032: 7,227; 2033: 7,326; 2034: 7,425; 2035: 7,524; 2036: 7,623; 2037: 7,722; 2038: 7,821; 2039: 7,920; 2040: 8,019; 2041: 8,118; 2042: 8,217; 2043: 8,317	2023: 1,994; 2024: 2,025; 2025: 2,056; 2026: 2,087; 2027: 2,118; 2028: 2,150; 2029: 2,181; 2030: 2,212; 2031: 2,243; 2032: 2,274; 2033: 2,306; 2034: 2,337; 2035: 2,368; 2036: 2,399; 2037: 2,430; 2038: 2,462; 2039: 2,493; 2040: 2,524; 2041: 2,555; 2042: 2,586; 2043: 2,618	4	Stop-Controlled	2	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Pineview Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2018-2022: 6,336	2018-2022: 1,994	4	Stop-Controlled	2	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & Pineview Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**19.52**
Fatal and Injury Crashes	**8.28**
Property-Damage-Only Crashes	**11.23**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**42**
Percent Property-Damage-Only Crashes (%)	**58**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.71	0.26	37.045	0.45	62.955
2024	0.72	0.27	37.104	0.45	62.896
2025	0.73	0.27	37.161	0.46	62.839
2026	0.74	0.28	37.218	0.47	62.782
2027	0.75	0.28	37.275	0.47	62.725
2028	0.76	0.28	37.331	0.48	62.669
2029	0.78	0.29	37.387	0.48	62.613
2030	0.79	0.29	37.442	0.49	62.558
2031	0.80	0.30	37.496	0.50	62.504
2032	0.81	0.30	37.550	0.50	62.450
2033	0.82	0.31	37.604	0.51	62.396
2034	0.83	0.31	37.657	0.52	62.343
2035	0.84	0.32	37.709	0.52	62.291
2036	0.85	0.32	37.761	0.53	62.239
2037	0.86	0.33	37.813	0.54	62.187
2038	0.87	0.33	37.864	0.54	62.136
2039	0.88	0.34	37.915	0.55	62.085
2040	0.90	0.34	37.965	0.56	62.035
2041	0.91	0.34	38.014	0.56	61.986
2042	0.92	0.35	38.064	0.57	61.936
2043	0.93	0.35	38.114	0.57	61.886
Total	17.19	6.47	37.621	10.72	62.379
Average	0.82	0.31	37.621	0.51	62.379

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.81	0.34	41.798	0.47	58.083
2024	0.82	0.34	41.864	0.47	58.030
2025	0.83	0.35	41.929	0.48	57.977
2026	0.84	0.35	41.993	0.49	57.924
2027	0.85	0.36	42.057	0.49	57.872
2028	0.87	0.36	42.121	0.50	57.820
2029	0.88	0.37	42.183	0.51	57.769
2030	0.89	0.38	42.245	0.52	57.718
2031	0.91	0.38	42.307	0.52	57.668
2032	0.92	0.39	42.368	0.53	57.618
2033	0.93	0.39	42.428	0.54	57.568
2034	0.94	0.40	42.488	0.54	57.520
2035	0.95	0.41	42.547	0.55	57.471
2036	0.97	0.41	42.606	0.56	57.423
2037	0.98	0.42	42.664	0.56	57.376
2038	0.99	0.42	42.722	0.57	57.328
2039	1.00	0.43	42.779	0.57	57.282
2040	1.02	0.43	42.836	0.58	57.235
2041	1.03	0.44	42.892	0.59	57.189
2042	1.04	0.45	42.947	0.59	57.144
2043	1.05	0.45	43.003	0.60	57.098
Total	19.52	8.28	42.447	11.23	57.553
Average	0.93	0.39	42.447	0.54	57.553

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & Pineview Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	17.19	6.47	37.621	10.72	62.379
Expected	19.52	8.28	42.447	11.23	57.553
Expected - Predicted	2.32	1.82		0.51	
Percent Difference	11.91	21.92		4.52	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & Pineview Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.03	0.2	0.03	0.2
Intersection	Collision with Bicycle	0.30	1.5	0.00	0.0	0.30	1.5
Intersection	Collision with Fixed Object	0.41	2.1	0.97	5.0	1.38	7.1
Intersection	Non-Collision	0.11	0.6	0.06	0.3	0.17	0.8
Intersection	Collision with Other Object	0.05	0.3	0.08	0.4	0.13	0.7
Intersection	Other Single-vehicle Collision	0.03	0.2	0.01	0.0	0.04	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.36	1.9	0.00	0.0	0.36	1.9
Intersection	Total Intersection Single Vehicle Crashes	1.27	6.5	1.15	5.9	2.41	12.4
Intersection	Angle Collision	3.09	15.8	3.38	17.3	6.47	33.1
Intersection	Head-on Collision	0.29	1.5	0.30	1.6	0.59	3.0
Intersection	Other Multi-vehicle Collision	0.42	2.2	2.19	11.2	2.61	13.4
Intersection	Rear-end Collision	2.37	12.2	3.77	19.3	6.14	31.5
Intersection	Sideswipe	0.85	4.3	0.44	2.3	1.29	6.6
Intersection	Total Intersection Multiple Vehicle Crashes	7.01	35.9	10.09	51.7	17.10	87.6
Intersection	Total Intersection Crashes	8.28	42.4	11.23	57.6	19.52	100.0
	Total Crashes	8.28	42.4	11.23	57.6	19.52	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:23 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:02:31 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_DaytonRiver_Pineview - LTRT
Project Comment: Created Tue Feb 06 15:30:27 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & Pineview Ln
Intersection Comment: Created Tue Feb 06 16:12:53 CST 2024
Intersection Version: v1

Evaluation Title: New Crashes LTRT Dayton Rv & Pineview
Evaluation Comment: Created Wed Apr 03 23:02:03 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Tue Feb 06 15:31:20 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & Pineview Ln Evaluation

Intersection: Dayton River Rd & Pineview Ln
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	1	1	0	0	1
2021	3	2	1	1	1
2022	1	1	1	1	0
All Years	5 [1]	4	2	2	2

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & Pineview Ln)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Pineview Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2023: 6,336; 2024: 6,435; 2025: 6,534; 2026: 6,633; 2027: 6,732; 2028: 6,831; 2029: 6,930; 2030: 7,029; 2031: 7,128; 2032: 7,227; 2033: 7,326; 2034: 7,425; 2035: 7,524; 2036: 7,623; 2037: 7,722; 2038: 7,821; 2039: 7,920; 2040: 8,019; 2041: 8,118; 2042: 8,217; 2043: 8,317	2023: 1,994; 2024: 2,025; 2025: 2,056; 2026: 2,087; 2027: 2,118; 2028: 2,150; 2029: 2,181; 2030: 2,212; 2031: 2,243; 2032: 2,274; 2033: 2,306; 2034: 2,337; 2035: 2,368; 2036: 2,399; 2037: 2,430; 2038: 2,462; 2039: 2,493; 2040: 2,524; 2041: 2,555; 2042: 2,586; 2043: 2,618	4	Stop-Controlled	2	1			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Pineview Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2018-2022: 6,336	2018-2022: 1,994	4	Stop-Controlled	2	1			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & Pineview Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**18.03**
Fatal and Injury Crashes	**7.57**
Property-Damage-Only Crashes	**10.46**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**42**
Percent Property-Damage-Only Crashes (%)	**58**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.61	0.23	37.045	0.38	62.955
2024	0.62	0.23	37.104	0.39	62.896
2025	0.63	0.23	37.161	0.40	62.839
2026	0.64	0.24	37.218	0.40	62.782
2027	0.65	0.24	37.275	0.41	62.725
2028	0.66	0.24	37.331	0.41	62.669
2029	0.67	0.25	37.387	0.42	62.613
2030	0.68	0.25	37.442	0.42	62.558
2031	0.69	0.26	37.496	0.43	62.504
2032	0.69	0.26	37.550	0.43	62.450
2033	0.70	0.27	37.604	0.44	62.396
2034	0.71	0.27	37.657	0.45	62.343
2035	0.72	0.27	37.709	0.45	62.291
2036	0.73	0.28	37.761	0.46	62.239
2037	0.74	0.28	37.813	0.46	62.187
2038	0.75	0.28	37.864	0.47	62.136
2039	0.76	0.29	37.915	0.47	62.085
2040	0.77	0.29	37.965	0.48	62.035
2041	0.78	0.30	38.014	0.48	61.986
2042	0.79	0.30	38.064	0.49	61.936
2043	0.80	0.30	38.114	0.49	61.886
Total	14.79	5.56	37.621	9.22	62.379
Average	0.70	0.27	37.621	0.44	62.379

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.74	0.31	41.327	0.44	58.567
2024	0.76	0.31	41.392	0.44	58.512
2025	0.77	0.32	41.456	0.45	58.459
2026	0.78	0.32	41.520	0.46	58.406
2027	0.79	0.33	41.583	0.46	58.353
2028	0.80	0.33	41.646	0.47	58.301
2029	0.81	0.34	41.708	0.47	58.249
2030	0.82	0.34	41.769	0.48	58.198
2031	0.84	0.35	41.830	0.49	58.148
2032	0.85	0.35	41.890	0.49	58.097
2033	0.86	0.36	41.950	0.50	58.047
2034	0.87	0.36	42.009	0.51	57.998
2035	0.88	0.37	42.067	0.51	57.949
2036	0.89	0.38	42.125	0.52	57.901
2037	0.90	0.38	42.183	0.52	57.853
2038	0.92	0.39	42.240	0.53	57.805
2039	0.93	0.39	42.296	0.54	57.758
2040	0.94	0.40	42.352	0.54	57.711
2041	0.95	0.40	42.408	0.55	57.665
2042	0.96	0.41	42.463	0.55	57.619
2043	0.97	0.41	42.518	0.56	57.573
Total	18.03	7.57	41.968	10.46	58.032
Average	0.86	0.36	41.968	0.50	58.032

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & Pineview Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	14.79	5.56	37.621	9.22	62.379
Expected	18.03	7.57	41.968	10.46	58.032
Expected - Predicted	3.25	2.01		1.24	
Percent Difference	18.01	26.50		11.87	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & Pineview Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.03	0.1	0.03	0.2
Intersection	Collision with Bicycle	0.26	1.4	0.00	0.0	0.26	1.4
Intersection	Collision with Fixed Object	0.36	2.0	0.87	4.8	1.23	6.8
Intersection	Non-Collision	0.10	0.5	0.05	0.3	0.15	0.8
Intersection	Collision with Other Object	0.05	0.3	0.07	0.4	0.12	0.7
Intersection	Other Single-vehicle Collision	0.03	0.2	0.01	0.0	0.03	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.31	1.7	0.00	0.0	0.31	1.7
Intersection	Total Intersection Single Vehicle Crashes	1.10	6.1	1.03	5.7	2.13	11.8
Intersection	Angle Collision	2.85	15.8	3.16	17.5	6.01	33.3
Intersection	Head-on Collision	0.27	1.5	0.28	1.6	0.55	3.0
Intersection	Other Multi-vehicle Collision	0.39	2.2	2.05	11.4	2.44	13.5
Intersection	Rear-end Collision	2.19	12.1	3.53	19.6	5.71	31.7
Intersection	Sideswipe	0.78	4.3	0.41	2.3	1.20	6.6
Intersection	Total Intersection Multiple Vehicle Crashes	6.47	35.9	9.44	52.3	15.90	88.2
Intersection	Total Intersection Crashes	7.57	42.0	10.46	58.0	18.03	100.0
	Total Crashes	7.57	42.0	10.46	58.0	18.03	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:24 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:20:06 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_DaytonRiver_Pineview - Rdbt
Project Comment: Created Tue Feb 06 15:30:27 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & Pineview Ln
Intersection Comment: Created Wed Apr 03 12:30:55 CDT 2024
Intersection Version: v1

Evaluation Title: New Crashes Rdbt Dayton Rv & Pineview
Evaluation Comment: Created Wed Apr 03 23:18:58 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Tue Feb 06 15:31:20 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & Pineview Ln Evaluation

Intersection: Dayton River Rd & Pineview Ln
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: USA 41R=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	1	1	0	0	1
2021	3	2	1	1	1
2022	1	1	1	1	0
All Years	5 [1]	4	2	2	2

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Roundabout - Site (Dayton River Rd & Pineview Ln)

Inter. No.	Title	Type	Area Type	Legs	Location (Sta. ft)	Entering AADT
1	Dayton River Rd & Pineview Ln (v1)	Roundabout 41R - Roundabout with 4 legs and a single circulating lane	Urban	4	10+00.000	Leg 1: 2023: 3,115; 2024: 3,163; 2025: 3,212; 2026: 3,261; 2027: 3,309; 2028: 3,358; 2029: 3,407; 2030: 3,456; 2031: 3,504; 2032: 3,553; 2033: 3,602; 2034: 3,650; 2035: 3,699; 2036: 3,748; 2037: 3,797; 2038: 3,845; 2039: 3,894; 2040: 3,943; 2041: 3,992; 2042: 4,040; 2043: 4,089; Leg 2: 2023: 459; 2024: 466; 2025: 473; 2026: 481; 2027: 488; 2028: 495; 2029: 502; 2030: 509; 2031: 517; 2032: 524; 2033: 531; 2034: 538; 2035: 545; 2036: 553; 2037: 560; 2038: 567; 2039: 574; 2040: 581; 2041: 589; 2042: 596; 2043: 603; Leg 3: 2023: 3,168; 2024: 3,217; 2025: 3,267; 2026: 3,316; 2027: 3,366; 2028: 3,415; 2029: 3,465; 2030: 3,514; 2031: 3,564; 2032: 3,613; 2033: 3,663; 2034: 3,712; 2035: 3,762; 2036: 3,811; 2037: 3,861; 2038: 3,910; 2039: 3,960; 2040: 4,009; 2041: 4,059; 2042: 4,108; 2043: 4,158; Leg 4: 2023: 997; 2024: 1,012; 2025: 1,028; 2026: 1,043; 2027: 1,059; 2028: 1,075; 2029: 1,090; 2030: 1,106; 2031: 1,121; 2032: 1,137; 2033: 1,153; 2034: 1,168; 2035: 1,184; 2036: 1,199; 2037: 1,215; 2038: 1,231; 2039: 1,246; 2040: 1,262; 2041: 1,277; 2042: 1,293; 2043: 1,309

Table 3. Crash Highway Roundabout - Site (Highway with Crash History)

Inter. No.	Title	Type	Area Type	Legs	Location (Sta. ft)	Entering AADT
1	Dayton River Rd & Pineview Ln (v1)	Roundabout 41R - Roundabout with 4 legs and a single circulating lane	Urban	4	10+00.000	Leg 1: 2018-2022: 3,115; Leg 2: 2018-2022: 459; Leg 3: 2018-2022: 3,168; Leg 4: 2018-2022: 997

Table 4. Expected Roundabout Crash Rates and Frequencies Summary (Dayton River Rd & Pineview Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**17.87**
Fatal and Injury Crashes	**5.61**
Property-Damage-Only Crashes	**12.26**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**31**
Percent Property-Damage-Only Crashes (%)	**69**

Table 5. Expected Crash Frequencies and Rates by Roundabout (Dayton River Rd & Pineview Ln)

Segment Number/Intersection Name/Cross Road	Location (Sta. ft)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Travel Crash Rate (crashes/million veh)
Dayton River Rd & Pineview Ln (v1)	10+00.000	17.871	28.959	0.8510	0.2672	0.5837	1.3790	0.2172	1.1618	-0.5280	0.0500	-0.5780	0.26

Table 6. Expected Crash Severity by Roundabout (Dayton River Rd & Pineview Ln)

Seg. No.	Type	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	Roundabout	0.0381	0.3792	2.4399	2.7550	12.2587

Table 7. Predicted Crash Frequencies by Year (Dayton River Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.24	0.19	15.339	1.05	84.661
2024	1.25	0.19	15.382	1.06	84.618
2025	1.27	0.20	15.424	1.07	84.576
2026	1.28	0.20	15.466	1.08	84.534
2027	1.30	0.20	15.508	1.10	84.492
2028	1.31	0.20	15.548	1.11	84.452
2029	1.32	0.21	15.589	1.12	84.411
2030	1.34	0.21	15.629	1.13	84.371
2031	1.35	0.21	15.668	1.14	84.332
2032	1.37	0.21	15.707	1.15	84.293
2033	1.38	0.22	15.746	1.16	84.254
2034	1.39	0.22	15.783	1.17	84.217
2035	1.41	0.22	15.821	1.19	84.179
2036	1.42	0.23	15.858	1.20	84.142
2037	1.43	0.23	15.895	1.21	84.105
2038	1.45	0.23	15.931	1.22	84.069
2039	1.46	0.23	15.967	1.23	84.033
2040	1.48	0.24	16.003	1.24	83.998
2041	1.49	0.24	16.038	1.25	83.962
2042	1.50	0.24	16.073	1.26	83.927
2043	1.51	0.24	16.107	1.27	83.893
Total	28.96	4.56	15.751	24.40	84.249
Average	1.38	0.22	15.751	1.16	84.249

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Crash Frequencies by Year (Dayton River Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.77	0.23	30.583	0.53	68.931
2024	0.77	0.24	30.667	0.53	68.897
2025	0.78	0.24	30.753	0.54	68.862
2026	0.79	0.24	30.836	0.55	68.828
2027	0.80	0.25	30.919	0.55	68.794
2028	0.81	0.25	31.000	0.56	68.761
2029	0.82	0.25	31.080	0.56	68.728
2030	0.83	0.26	31.160	0.57	68.696
2031	0.83	0.26	31.238	0.57	68.664
2032	0.84	0.26	31.316	0.58	68.632
2033	0.85	0.27	31.393	0.58	68.600
2034	0.86	0.27	31.468	0.59	68.570
2035	0.87	0.27	31.543	0.59	68.539
2036	0.88	0.28	31.617	0.60	68.509
2037	0.89	0.28	31.691	0.61	68.479
2038	0.89	0.28	31.763	0.61	68.449
2039	0.90	0.29	31.834	0.62	68.420
2040	0.91	0.29	31.905	0.62	68.391
2041	0.92	0.29	31.976	0.63	68.362
2042	0.93	0.30	32.045	0.63	68.334
2043	0.94	0.30	32.114	0.64	68.306
Total	17.87	5.61	31.404	12.26	68.596
Average	0.85	0.27	31.404	0.58	68.596

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 9. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & Pineview Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	28.96	4.56	15.751	24.40	84.249
Expected	17.87	5.61	31.404	12.26	68.596
Expected - Predicted	-11.09	1.05		-12.14	
Percent Difference	-62.04	18.73		-99.02	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 10. Expected Roundabout Crash Type Distribution (Dayton River Rd & Pineview Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.03	0.1	0.03	0.1
Intersection	Collision with Fixed Object	1.21	6.8	2.31	12.9	3.52	19.7
Intersection	Collision with Other Object	0.00	0.0	0.03	0.1	0.03	0.1
Intersection	Other Single-vehicle Collision	1.17	6.6	0.66	3.7	1.83	10.3
Intersection	Collision with Parked Vehicle	0.01	0.1	0.11	0.6	0.12	0.7
Intersection	Total Single Vehicle Crashes	2.40	13.4	3.13	17.5	5.52	30.9
Intersection	Angle Collision	0.65	3.6	2.35	13.2	3.00	16.8
Intersection	Head-on Collision	0.06	0.3	0.12	0.7	0.18	1.0
Intersection	Other Multiple-vehicle Collision	0.40	2.2	2.29	12.8	2.69	15.1
Intersection	Rear-end Collision	1.67	9.4	3.22	18.0	4.90	27.4
Intersection	Sideswipe	0.44	2.5	1.14	6.4	1.58	8.8
Intersection	Total Multiple Vehicle Crashes	3.22	18.0	9.13	51.1	12.35	69.1
Intersection	Total Intersection Crashes	5.61	31.4	12.26	68.6	17.87	100.0
	Total Crashes	5.61	31.4	12.26	68.6	17.87	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:29 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:48:09 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_DaytonRiver_Brockton
Project Comment: Created Wed Feb 07 09:11:03 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & Brockton Ln
Intersection Comment: Created Wed Feb 07 11:27:04 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes Dayton Rv & Brockton
Evaluation Comment: Created Wed Feb 28 15:47:25 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Wed Feb 07 09:12:16 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & Brockton Ln Evaluation

Intersection: Dayton River Rd & Brockton Ln
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 3ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	0	0	0	0
2019	0	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	0	0	0	0	0
All Years	1 [1]	0	0	0	0

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & Brockton Ln)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Brockton Ln (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2023: 5,068; 2024: 5,147; 2025: 5,226; 2026: 5,305; 2027: 5,385; 2028: 5,464; 2029: 5,543; 2030: 5,623; 2031: 5,702; 2032: 5,781; 2033: 5,861; 2034: 5,940; 2035: 6,019; 2036: 6,098; 2037: 6,178; 2038: 6,257; 2039: 6,336; 2040: 6,416; 2041: 6,495; 2042: 6,574; 2043: 6,654	2023: 1,993; 2024: 2,024; 2025: 2,055; 2026: 2,086; 2027: 2,117; 2028: 2,148; 2029: 2,179; 2030: 2,211; 2031: 2,242; 2032: 2,273; 2033: 2,304; 2034: 2,335; 2035: 2,366; 2036: 2,397; 2037: 2,429; 2038: 2,460; 2039: 2,491; 2040: 2,522; 2041: 2,553; 2042: 2,584; 2043: 2,616	3	Stop-Controlled	0	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Brockton Ln (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2018-2022: 5,068	2018-2022: 1,993	3	Stop-Controlled	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & Brockton Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**6.78**
Fatal and Injury Crashes	**3.34**
Property-Damage-Only Crashes	**3.44**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**49**
Percent Property-Damage-Only Crashes (%)	**51**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & Brockton Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.63	0.24	37.618	0.39	62.382
2024	0.64	0.24	37.553	0.40	62.447
2025	0.66	0.25	37.489	0.41	62.511
2026	0.67	0.25	37.426	0.42	62.574
2027	0.68	0.25	37.363	0.43	62.637
2028	0.69	0.26	37.301	0.43	62.699
2029	0.71	0.26	37.240	0.44	62.760
2030	0.72	0.27	37.178	0.45	62.822
2031	0.73	0.27	37.118	0.46	62.882
2032	0.74	0.28	37.059	0.47	62.941
2033	0.76	0.28	37.000	0.48	63.000
2034	0.77	0.28	36.942	0.49	63.058
2035	0.78	0.29	36.885	0.49	63.115
2036	0.80	0.29	36.829	0.50	63.171
2037	0.81	0.30	36.771	0.51	63.229
2038	0.82	0.30	36.716	0.52	63.284
2039	0.84	0.31	36.661	0.53	63.339
2040	0.85	0.31	36.607	0.54	63.393
2041	0.86	0.32	36.553	0.55	63.447
2042	0.88	0.32	36.500	0.56	63.500
2043	0.89	0.33	36.446	0.57	63.554
Total	15.94	5.89	36.975	10.04	63.025
Average	0.76	0.28	36.975	0.48	63.025

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & Brockton Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.27	0.13	50.075	0.14	50.263
2024	0.27	0.14	49.988	0.14	50.315
2025	0.28	0.14	49.903	0.14	50.367
2026	0.28	0.14	49.819	0.14	50.418
2027	0.29	0.14	49.735	0.15	50.469
2028	0.29	0.15	49.653	0.15	50.519
2029	0.30	0.15	49.571	0.15	50.568
2030	0.31	0.15	49.488	0.15	50.618
2031	0.31	0.15	49.409	0.16	50.666
2032	0.32	0.16	49.330	0.16	50.714
2033	0.32	0.16	49.252	0.16	50.761
2034	0.33	0.16	49.175	0.17	50.808
2035	0.33	0.16	49.099	0.17	50.854
2036	0.34	0.17	49.024	0.17	50.899
2037	0.34	0.17	48.947	0.18	50.946
2038	0.35	0.17	48.873	0.18	50.990
2039	0.36	0.17	48.800	0.18	51.034
2040	0.36	0.18	48.728	0.18	51.078
2041	0.37	0.18	48.657	0.19	51.121
2042	0.37	0.18	48.586	0.19	51.164
2043	0.38	0.18	48.514	0.19	51.208
Total	6.78	3.34	49.219	3.44	50.781
Average	0.32	0.16	49.219	0.16	50.781

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & Brockton Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	15.94	5.89	36.975	10.04	63.025
Expected	6.78	3.34	49.219	3.44	50.781
Expected - Predicted	-9.15	-2.55		-6.60	
Percent Difference	-134.91	-76.47		-191.55	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & Brockton Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.02	0.3	0.02	0.3
Intersection	Collision with Bicycle	0.25	3.6	0.00	0.0	0.25	3.6
Intersection	Collision with Fixed Object	0.76	11.2	0.92	13.6	1.68	24.8
Intersection	Non-Collision	0.10	1.6	0.03	0.5	0.14	2.0
Intersection	Collision with Other Object	0.09	1.3	0.10	1.5	0.19	2.8
Intersection	Other Single-vehicle Collision	0.04	0.6	0.03	0.4	0.06	0.9
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.1
Intersection	Collision with Pedestrian	0.32	4.8	0.00	0.0	0.32	4.8
Intersection	Total Intersection Single Vehicle Crashes	1.57	23.1	1.10	16.3	2.67	39.4
Intersection	Angle Collision	0.61	8.9	0.61	9.0	1.22	18.0
Intersection	Head-on Collision	0.08	1.2	0.05	0.8	0.13	2.0
Intersection	Other Multi-vehicle Collision	0.12	1.7	0.55	8.1	0.67	9.8
Intersection	Rear-end Collision	0.74	11.0	1.03	15.2	1.77	26.2
Intersection	Sideswipe	0.22	3.3	0.09	1.4	0.32	4.7
Intersection	Total Intersection Multiple Vehicle Crashes	1.77	26.1	2.34	34.5	4.11	60.6
Intersection	Total Intersection Crashes	3.34	49.2	3.44	50.8	6.78	100.0
	Total Crashes	3.34	49.2	3.44	50.8	6.78	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:30 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:50:27 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_DaytonRiver_NDiamondLake_142nd
Project Comment: Created Tue Feb 06 16:28:15 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & N Diamond Lake Rd/142nd Ave
Intersection Comment: Created Thu Feb 08 09:22:39 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes Dayton Rv & N Diamond Lk/142nd
Evaluation Comment: Created Wed Feb 28 15:49:44 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Tue Feb 06 16:29:28 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & N Diamond Lake Rd/142nd Ave Evaluation

Intersection: Dayton River Rd & N Diamond Lake Rd/142nd Ave
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	1	1	1	0
2019	5	5	4	3	1
2020	2	2	2	0	0
2021	3	3	3	2	0
2022	3	3	1	1	2
All Years	14 [1]	14	11	7	3

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & N Diamond Lake Rd/142nd Ave (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2023: 6,230; 2024: 6,327; 2025: 6,424; 2026: 6,522; 2027: 6,619; 2028: 6,717; 2029: 6,814; 2030: 6,912; 2031: 7,009; 2032: 7,107; 2033: 7,204; 2034: 7,301; 2035: 7,399; 2036: 7,496; 2037: 7,594; 2038: 7,691; 2039: 7,789; 2040: 7,886; 2041: 7,984; 2042: 8,081; 2043: 8,179	2023: 3,703; 2024: 3,760; 2025: 3,818; 2026: 3,876; 2027: 3,934; 2028: 3,992; 2029: 4,050; 2030: 4,108; 2031: 4,166; 2032: 4,224; 2033: 4,282; 2034: 4,339; 2035: 4,397; 2036: 4,455; 2037: 4,513; 2038: 4,571; 2039: 4,629; 2040: 4,687; 2041: 4,745; 2042: 4,803; 2043: 4,861	4	Stop-Controlled	0	0			true					

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & N Diamond Lake Rd/142nd Ave (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2018-2022: 6,230	2018-2022: 3,703	4	Stop-Controlled	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**62.14**
Fatal and Injury Crashes	**41.07**
Property-Damage-Only Crashes	**21.07**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**66**
Percent Property-Damage-Only Crashes (%)	**34**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.53	0.57	37.385	0.96	62.615
2024	1.55	0.58	37.447	0.97	62.553
2025	1.57	0.59	37.509	0.98	62.491
2026	1.60	0.60	37.570	1.00	62.430
2027	1.62	0.61	37.631	1.01	62.369
2028	1.64	0.62	37.691	1.02	62.309
2029	1.67	0.63	37.750	1.04	62.250
2030	1.69	0.64	37.809	1.05	62.191
2031	1.71	0.65	37.867	1.06	62.133
2032	1.74	0.66	37.925	1.08	62.075
2033	1.76	0.67	37.981	1.09	62.019
2034	1.78	0.68	38.038	1.10	61.962
2035	1.81	0.69	38.094	1.12	61.906
2036	1.83	0.70	38.149	1.13	61.851
2037	1.85	0.71	38.204	1.15	61.796
2038	1.88	0.72	38.258	1.16	61.742
2039	1.90	0.73	38.312	1.17	61.688
2040	1.93	0.74	38.365	1.19	61.635
2041	1.95	0.75	38.418	1.20	61.582
2042	1.97	0.76	38.470	1.21	61.530
2043	2.00	0.77	38.522	1.23	61.478
Total	36.98	14.05	37.999	22.93	62.001
Average	1.76	0.67	37.999	1.09	62.001

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.56	1.67	65.027	0.88	34.241
2024	2.60	1.70	65.135	0.89	34.207
2025	2.64	1.72	65.242	0.90	34.173
2026	2.68	1.75	65.349	0.92	34.140
2027	2.72	1.78	65.454	0.93	34.107
2028	2.76	1.81	65.559	0.94	34.074
2029	2.80	1.84	65.662	0.95	34.041
2030	2.84	1.87	65.764	0.97	34.009
2031	2.88	1.90	65.865	0.98	33.977
2032	2.92	1.93	65.966	0.99	33.946
2033	2.96	1.96	66.064	1.00	33.915
2034	3.00	1.98	66.162	1.02	33.884
2035	3.04	2.01	66.260	1.03	33.853
2036	3.08	2.04	66.355	1.04	33.823
2037	3.12	2.07	66.451	1.05	33.793
2038	3.16	2.10	66.545	1.07	33.764
2039	3.20	2.13	66.639	1.08	33.734
2040	3.24	2.16	66.731	1.09	33.705
2041	3.28	2.19	66.824	1.10	33.676
2042	3.31	2.22	66.914	1.11	33.648
2043	3.35	2.25	67.005	1.13	33.619
Total	62.14	41.07	66.095	21.07	33.905
Average	2.96	1.96	66.095	1.00	33.905

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	36.98	14.05	37.999	22.93	62.001
Expected	62.14	41.07	66.095	21.07	33.905
Expected - Predicted	25.17	27.02		-1.86	
Percent Difference	40.50	65.79		-8.81	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.05	0.1	0.05	0.1
Intersection	Collision with Bicycle	0.64	1.0	0.00	0.0	0.64	1.0
Intersection	Collision with Fixed Object	0.70	1.1	1.51	2.4	2.21	3.6
Intersection	Non-Collision	0.18	0.3	0.09	0.1	0.27	0.4
Intersection	Collision with Other Object	0.09	0.1	0.12	0.2	0.22	0.3
Intersection	Other Single-vehicle Collision	0.05	0.1	0.01	0.0	0.07	0.1
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.78	1.3	0.00	0.0	0.78	1.3
Intersection	Total Intersection Single Vehicle Crashes	2.45	3.9	1.78	2.9	4.23	6.8
Intersection	Angle Collision	17.00	27.3	6.46	10.4	23.46	37.7
Intersection	Head-on Collision	1.58	2.5	0.58	0.9	2.16	3.5
Intersection	Other Multi-vehicle Collision	2.32	3.7	4.18	6.7	6.50	10.5
Intersection	Rear-end Collision	13.05	21.0	7.21	11.6	20.27	32.6
Intersection	Sideswipe	4.67	7.5	0.85	1.4	5.52	8.9
Intersection	Total Intersection Multiple Vehicle Crashes	38.62	62.2	19.29	31.0	57.91	93.2
Intersection	Total Intersection Crashes	41.07	66.1	21.07	33.9	62.14	100.0
	Total Crashes	41.07	66.1	21.07	33.9	62.14	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:26 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:07:42 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_DaytonRiver_NDiamondLake_142nd - LT
Project Comment: Created Tue Feb 06 16:28:15 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & N Diamond Lake Rd/142nd Ave
Intersection Comment: Created Thu Feb 08 09:22:39 CST 2024
Intersection Version: v1

Evaluation Title: New Crashes LT Dayton Rv & N Diamond Lk
Evaluation Comment: Created Wed Apr 03 23:07:14 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Tue Feb 06 16:29:28 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & N Diamond Lake Rd/142nd Ave Evaluation

Intersection: Dayton River Rd & N Diamond Lake Rd/142nd Ave
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	1	1	1	0
2019	5	5	4	3	1
2020	2	2	2	0	0
2021	3	3	3	2	0
2022	3	3	1	1	2
All Years	14 [1]	14	11	7	3

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & N Diamond Lake Rd/142nd Ave (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2023: 6,230; 2024: 6,327; 2025: 6,424; 2026: 6,522; 2027: 6,619; 2028: 6,717; 2029: 6,814; 2030: 6,912; 2031: 7,009; 2032: 7,107; 2033: 7,204; 2034: 7,301; 2035: 7,399; 2036: 7,496; 2037: 7,594; 2038: 7,691; 2039: 7,789; 2040: 7,886; 2041: 7,984; 2042: 8,081; 2043: 8,179	2023: 3,703; 2024: 3,760; 2025: 3,818; 2026: 3,876; 2027: 3,934; 2028: 3,992; 2029: 4,050; 2030: 4,108; 2031: 4,166; 2032: 4,224; 2033: 4,282; 2034: 4,339; 2035: 4,397; 2036: 4,455; 2037: 4,513; 2038: 4,571; 2039: 4,629; 2040: 4,687; 2041: 4,745; 2042: 4,803; 2043: 4,861	4	Stop-Controlled	1	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & N Diamond Lake Rd/142nd Ave (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2018-2022: 6,230	2018-2022: 3,703	4	Stop-Controlled	1	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**55.74**
Fatal and Injury Crashes	**36.42**
Property-Damage-Only Crashes	**19.32**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**65**
Percent Property-Damage-Only Crashes (%)	**35**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.11	0.42	37.385	0.70	62.615
2024	1.13	0.42	37.447	0.71	62.553
2025	1.15	0.43	37.509	0.72	62.491
2026	1.17	0.44	37.570	0.73	62.430
2027	1.18	0.45	37.631	0.74	62.369
2028	1.20	0.45	37.691	0.75	62.309
2029	1.22	0.46	37.750	0.76	62.250
2030	1.23	0.47	37.809	0.77	62.191
2031	1.25	0.47	37.867	0.78	62.133
2032	1.27	0.48	37.925	0.79	62.075
2033	1.28	0.49	37.981	0.80	62.019
2034	1.30	0.49	38.038	0.81	61.962
2035	1.32	0.50	38.094	0.82	61.906
2036	1.34	0.51	38.149	0.83	61.851
2037	1.35	0.52	38.204	0.84	61.796
2038	1.37	0.53	38.258	0.85	61.742
2039	1.39	0.53	38.312	0.86	61.688
2040	1.41	0.54	38.365	0.87	61.635
2041	1.42	0.55	38.418	0.88	61.582
2042	1.44	0.55	38.470	0.89	61.530
2043	1.46	0.56	38.522	0.90	61.478
Total	26.99	10.26	37.999	16.74	62.001
Average	1.28	0.49	37.999	0.80	62.001

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.30	1.48	64.284	0.81	35.004
2024	2.33	1.50	64.391	0.82	34.969
2025	2.37	1.53	64.497	0.83	34.934
2026	2.41	1.55	64.603	0.84	34.900
2027	2.44	1.58	64.706	0.85	34.866
2028	2.48	1.60	64.810	0.86	34.833
2029	2.51	1.63	64.912	0.87	34.800
2030	2.55	1.66	65.013	0.89	34.767
2031	2.58	1.68	65.113	0.90	34.734
2032	2.62	1.71	65.212	0.91	34.702
2033	2.65	1.73	65.310	0.92	34.670
2034	2.69	1.76	65.406	0.93	34.639
2035	2.73	1.78	65.502	0.94	34.607
2036	2.76	1.81	65.597	0.95	34.577
2037	2.80	1.84	65.692	0.97	34.546
2038	2.83	1.86	65.785	0.98	34.516
2039	2.87	1.89	65.878	0.99	34.485
2040	2.90	1.92	65.969	1.00	34.456
2041	2.94	1.94	66.060	1.01	34.426
2042	2.97	1.97	66.150	1.02	34.397
2043	3.01	1.99	66.239	1.03	34.368
Total	55.74	36.42	65.340	19.32	34.660
Average	2.65	1.73	65.340	0.92	34.660

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	26.99	10.26	37.999	16.74	62.001
Expected	55.74	36.42	65.340	19.32	34.660
Expected - Predicted	28.74	26.16		2.58	
Percent Difference	51.57	71.83		13.37	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.04	0.1	0.04	0.1
Intersection	Collision with Bicycle	0.47	0.8	0.00	0.0	0.47	0.8
Intersection	Collision with Fixed Object	0.54	1.0	1.28	2.3	1.82	3.3
Intersection	Non-Collision	0.14	0.3	0.07	0.1	0.22	0.4
Intersection	Collision with Other Object	0.07	0.1	0.10	0.2	0.18	0.3
Intersection	Other Single-vehicle Collision	0.04	0.1	0.01	0.0	0.05	0.1
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.57	1.0	0.00	0.0	0.57	1.0
Intersection	Total Intersection Single Vehicle Crashes	1.84	3.3	1.51	2.7	3.34	6.0
Intersection	Angle Collision	15.21	27.3	5.97	10.7	21.18	38.0
Intersection	Head-on Collision	1.42	2.5	0.53	1.0	1.95	3.5
Intersection	Other Multi-vehicle Collision	2.08	3.7	3.87	6.9	5.94	10.7
Intersection	Rear-end Collision	11.69	21.0	6.66	12.0	18.35	32.9
Intersection	Sideswipe	4.18	7.5	0.78	1.4	4.97	8.9
Intersection	Total Intersection Multiple Vehicle Crashes	34.58	62.0	17.81	32.0	52.39	94.0
Intersection	Total Intersection Crashes	36.42	65.3	19.32	34.7	55.74	100.0
	Total Crashes	36.42	65.3	19.32	34.7	55.74	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:28 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:30:08 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_DaytonRiver_NDiamondLake_142nd - Rdbt
Project Comment: Created Tue Feb 06 16:28:15 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & N Diamond Lake Rd/142nd Ave
Intersection Comment: Created Wed Apr 03 13:51:04 CDT 2024
Intersection Version: v1

Evaluation Title: New Crashes Rdbt Dayton Rv & N Diamond Lk
Evaluation Comment: Created Wed Apr 03 23:29:33 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Tue Feb 06 16:29:28 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & N Diamond Lake Rd/142nd Ave Evaluation

Intersection: Dayton River Rd & N Diamond Lake Rd/142nd Ave
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: USA 41R=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	1	1	1	0
2019	5	5	4	3	1
2020	2	2	2	0	0
2021	3	3	3	2	0
2022	3	3	1	1	2
All Years	14 [1]	14	11	7	3

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Roundabout - Site (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Inter. No.	Title	Type	Area Type	Legs	Location (Sta. ft)	Entering AADT
1	Dayton River Rd & N Diamond Lake Rd/142nd Ave (v1)	Roundabout 41R - Roundabout with 4 legs and a single circulating lane	Urban	4	10+00.000	Leg 1: 2023: 1,636; 2024: 1,662; 2025: 1,687; 2026: 1,713; 2027: 1,738; 2028: 1,764; 2029: 1,790; 2030: 1,815; 2031: 1,841; 2032: 1,866; 2033: 1,892; 2034: 1,918; 2035: 1,943; 2036: 1,969; 2037: 1,994; 2038: 2,020; 2039: 2,046; 2040: 2,071; 2041: 2,097; 2042: 2,122; 2043: 2,148; Leg 2: 2023: 43; 2024-2025: 44; 2026: 45; 2027-2028: 46; 2029: 47; 2030-2031: 48; 2032: 49; 2033-2034: 50; 2035: 51; 2036-2037: 52; 2038: 53; 2039-2040: 54; 2041: 55; 2042: 56; 2043: 57; Leg 3: 2023: 3,115; 2024: 3,163; 2025: 3,212; 2026: 3,261; 2027: 3,309; 2028: 3,358; 2029: 3,407; 2030: 3,456; 2031: 3,504; 2032: 3,553; 2033: 3,602; 2034: 3,650; 2035: 3,699; 2036: 3,748; 2037: 3,797; 2038: 3,845; 2039: 3,894; 2040: 3,943; 2041: 3,992; 2042: 4,040; 2043: 4,089; Leg 4: 2023: 1,851; 2024: 1,880; 2025: 1,909; 2026: 1,938; 2027: 1,967; 2028: 1,996; 2029: 2,025; 2030: 2,054; 2031: 2,083; 2032: 2,112; 2033: 2,141; 2034: 2,169; 2035: 2,198; 2036: 2,227; 2037: 2,256; 2038: 2,285; 2039: 2,314; 2040: 2,343; 2041: 2,372; 2042: 2,401; 2043: 2,430

Table 3. Crash Highway Roundabout - Site (Highway with Crash History)

Inter. No.	Title	Type	Area Type	Legs	Location (Sta. ft)	Entering AADT
1	Dayton River Rd & N Diamond Lake Rd/142nd Ave (v1)	Roundabout 41R - Roundabout with 4 legs and a single circulating lane	Urban	4	10+00.000	Leg 1: 2018-2022: 1,636; Leg 2: 2018-2022: 43; Leg 3: 2018-2022: 3,115; Leg 4: 2018-2022: 1,851

Table 4. Expected Roundabout Crash Rates and Frequencies Summary (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**26.69**
Fatal and Injury Crashes	**11.30**
Property-Damage-Only Crashes	**15.39**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**42**
Percent Property-Damage-Only Crashes (%)	**58**

Table 5. Expected Crash Frequencies and Rates by Roundabout (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Segment Number/Intersection Name/Cross Road	Location (Sta. ft)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Travel Crash Rate (crashes/million veh)
Dayton River Rd & N Diamond Lake Rd/142nd Ave (v1)	10+00.000	26.692	23.137	1.2710	0.5384	0.7327	1.1017	0.1444	0.9573	0.1693	0.3939	-0.2246	0.45

Table 6. Expected Crash Severity by Roundabout (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Seg. No.	Type	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	Roundabout	0.0788	0.7841	5.0447	5.3977	15.3864

Table 7. Predicted Crash Frequencies by Year (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.99	0.13	12.756	0.86	87.244
2024	1.00	0.13	12.793	0.88	87.207
2025	1.01	0.13	12.829	0.88	87.171
2026	1.02	0.13	12.865	0.89	87.135
2027	1.04	0.13	12.900	0.90	87.100
2028	1.05	0.14	12.935	0.91	87.065
2029	1.06	0.14	12.970	0.92	87.030
2030	1.07	0.14	13.005	0.93	86.995
2031	1.08	0.14	13.038	0.94	86.962
2032	1.09	0.14	13.071	0.95	86.929
2033	1.10	0.14	13.105	0.96	86.895
2034	1.11	0.15	13.137	0.97	86.863
2035	1.12	0.15	13.169	0.98	86.831
2036	1.14	0.15	13.202	0.98	86.798
2037	1.15	0.15	13.233	0.99	86.767
2038	1.16	0.15	13.264	1.00	86.736
2039	1.17	0.15	13.296	1.01	86.704
2040	1.18	0.16	13.325	1.02	86.674
2041	1.19	0.16	13.356	1.03	86.644
2042	1.20	0.16	13.386	1.04	86.614
2043	1.21	0.16	13.416	1.05	86.584
Total	23.14	3.03	13.110	20.10	86.890
Average	1.10	0.14	13.110	0.96	86.890

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Crash Frequencies by Year (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.14	0.47	41.214	0.66	57.879
2024	1.16	0.48	41.333	0.67	57.855
2025	1.17	0.48	41.448	0.68	57.831
2026	1.18	0.49	41.566	0.68	57.807
2027	1.20	0.50	41.678	0.69	57.784
2028	1.21	0.51	41.791	0.70	57.761
2029	1.22	0.51	41.905	0.70	57.737
2030	1.23	0.52	42.016	0.71	57.715
2031	1.25	0.53	42.123	0.72	57.693
2032	1.26	0.53	42.230	0.73	57.670
2033	1.27	0.54	42.339	0.73	57.648
2034	1.28	0.55	42.444	0.74	57.627
2035	1.30	0.55	42.548	0.75	57.605
2036	1.31	0.56	42.654	0.75	57.584
2037	1.32	0.56	42.753	0.76	57.563
2038	1.33	0.57	42.854	0.77	57.542
2039	1.35	0.58	42.956	0.78	57.521
2040	1.36	0.58	43.053	0.78	57.502
2041	1.37	0.59	43.152	0.79	57.481
2042	1.38	0.60	43.247	0.80	57.462
2043	1.40	0.60	43.344	0.80	57.442
Total	26.69	11.30	42.355	15.39	57.645
Average	1.27	0.54	42.355	0.73	57.645

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 9. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	23.14	3.03	13.110	20.10	86.890
Expected	26.69	11.30	42.355	15.39	57.645
Expected - Predicted	3.56	8.27		-4.72	
Percent Difference	13.32	73.17		-30.66	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 10. Expected Roundabout Crash Type Distribution (Dayton River Rd & N Diamond Lake Rd/142nd Ave)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.03	0.1	0.03	0.1
Intersection	Collision with Fixed Object	2.44	9.1	2.89	10.8	5.33	20.0
Intersection	Collision with Other Object	0.00	0.0	0.03	0.1	0.03	0.1
Intersection	Other Single-vehicle Collision	2.36	8.9	0.83	3.1	3.19	12.0
Intersection	Collision with Parked Vehicle	0.02	0.1	0.14	0.5	0.16	0.6
Intersection	Total Single Vehicle Crashes	4.83	18.1	3.92	14.7	8.75	32.8
Intersection	Angle Collision	1.30	4.9	2.95	11.1	4.25	15.9
Intersection	Head-on Collision	0.12	0.5	0.15	0.6	0.28	1.0
Intersection	Other Multiple-vehicle Collision	0.80	3.0	2.88	10.8	3.68	13.8
Intersection	Rear-end Collision	3.37	12.6	4.05	15.2	7.42	27.8
Intersection	Sideswipe	0.88	3.3	1.43	5.4	2.31	8.7
Intersection	Total Multiple Vehicle Crashes	6.48	24.3	11.46	42.9	17.94	67.2
Intersection	Total Intersection Crashes	11.30	42.4	15.39	57.6	26.69	100.0
	Total Crashes	11.30	42.4	15.39	57.6	26.69	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:24 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:39:06 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_CSAH81_DaytonPkwy
Project Comment: Created Wed Feb 07 14:01:46 CST 2024
Project Unit System: U.S. Customary

Intersection Title: CSAH 81 & Dayton Pkwy
Intersection Comment: Created Wed Feb 07 15:43:52 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes CSAH 81 & Dayton
Evaluation Comment: Created Wed Feb 28 15:35:19 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: CSAH 81
Highway with Crash History Comment: Created Wed Feb 07 14:02:33 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

CSAH 81 & Dayton Pkwy Evaluation

Intersection: CSAH 81 & Dayton Pkwy
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4SG=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	4	4	1	0	3
2019	2	2	2	2	0
2020	0	0	0	0	0
2021	3	2	1	0	1
2022	1	1	1	0	0
All Years	10 [1]	9	5	2	4

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (CSAH 81 & Dayton Pkwy)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Dayton Pkwy (v1)	Urban/Suburban Arterial Intersection Four-Legged Signalized	10+00.000	2023: 17,041; 2024: 17,382; 2025: 17,724; 2026: 18,065; 2027: 18,407; 2028: 18,749; 2029: 19,090; 2030: 19,432; 2031: 19,773; 2032: 20,115; 2033: 20,457; 2034: 20,798; 2035: 21,140; 2036: 21,481; 2037: 21,823; 2038: 22,165; 2039: 22,506; 2040: 22,848; 2041: 23,189; 2042: 23,531; 2043: 23,873	2023: 5,785; 2024: 5,900; 2025: 6,016; 2026: 6,132; 2027: 6,248; 2028: 6,364; 2029: 6,480; 2030: 6,596; 2031: 6,712; 2032: 6,828; 2033: 6,944; 2034: 7,060; 2035: 7,176; 2036: 7,292; 2037: 7,408; 2038: 7,524; 2039: 7,640; 2040: 7,756; 2041: 7,872; 2042: 7,988; 2043: 8,104	4	Signalized	0	0	0	20	true	false	false	0	0	6

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Dayton Pkwy (v1)	Urban/Suburban Arterial Intersection Four-Legged Signalized	10+00.000	2018-2022: 17,041	2018-2022: 5,785	4	Signalized	0	0	0	20	true	false	false	0	0	6

Table 4. Expected Intersection Crash Rates and Frequencies Summary (CSAH 81 & Dayton Pkwy)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**59.14**
Fatal and Injury Crashes	**29.54**
Property-Damage-Only Crashes	**29.60**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**50**
Percent Property-Damage-Only Crashes (%)	**50**

Table 5. Predicted Crash Frequencies by Year (CSAH 81 & Dayton Pkwy)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	3.58	1.20	33.382	2.39	66.618
2024	3.67	1.23	33.428	2.45	66.572
2025	3.77	1.26	33.473	2.51	66.527
2026	3.86	1.29	33.517	2.57	66.483
2027	3.95	1.33	33.561	2.63	66.439
2028	4.05	1.36	33.604	2.69	66.396
2029	4.14	1.39	33.647	2.75	66.353
2030	4.24	1.43	33.689	2.81	66.311
2031	4.33	1.46	33.731	2.87	66.269
2032	4.43	1.50	33.772	2.93	66.228
2033	4.52	1.53	33.812	2.99	66.188
2034	4.62	1.56	33.853	3.06	66.147
2035	4.72	1.60	33.892	3.12	66.108
2036	4.81	1.63	33.931	3.18	66.069
2037	4.91	1.67	33.970	3.24	66.030
2038	5.01	1.70	34.009	3.31	65.991
2039	5.11	1.74	34.047	3.37	65.953
2040	5.21	1.77	34.084	3.43	65.916
2041	5.31	1.81	34.121	3.50	65.879
2042	5.41	1.85	34.158	3.56	65.842
2043	5.51	1.88	34.194	3.62	65.806
Total	95.16	32.20	33.835	62.96	66.165
Average	4.53	1.53	33.835	3.00	66.165

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (CSAH 81 & Dayton Pkwy)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.23	1.10	49.281	1.12	50.393
2024	2.28	1.13	49.348	1.15	50.359
2025	2.34	1.16	49.414	1.18	50.325
2026	2.40	1.19	49.480	1.21	50.291
2027	2.46	1.22	49.544	1.24	50.258
2028	2.52	1.25	49.608	1.26	50.225
2029	2.57	1.28	49.671	1.29	50.193
2030	2.63	1.31	49.733	1.32	50.161
2031	2.69	1.34	49.795	1.35	50.130
2032	2.75	1.37	49.856	1.38	50.099
2033	2.81	1.40	49.916	1.41	50.068
2034	2.87	1.44	49.975	1.44	50.038
2035	2.93	1.47	50.034	1.47	50.008
2036	2.99	1.50	50.092	1.50	49.978
2037	3.05	1.53	50.149	1.52	49.948
2038	3.11	1.56	50.206	1.55	49.919
2039	3.17	1.60	50.261	1.58	49.891
2040	3.24	1.63	50.317	1.61	49.862
2041	3.30	1.66	50.372	1.64	49.834
2042	3.36	1.70	50.426	1.67	49.806
2043	3.42	1.73	50.480	1.70	49.779
Total	59.14	29.54	49.949	29.60	50.051
Average	2.82	1.41	49.949	1.41	50.051

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (CSAH 81 & Dayton Pkwy)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	95.16	32.20	33.835	62.96	66.165
Expected	59.14	29.54	49.949	29.60	50.051
Expected - Predicted	-36.02	-2.66		-33.36	
Percent Difference	-60.90	-8.99		-112.70	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (CSAH 81 & Dayton Pkwy)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.01	0.0	0.01	0.0
Intersection	Collision with Bicycle	1.40	2.4	0.00	0.0	1.40	2.4
Intersection	Collision with Fixed Object	1.00	1.7	2.33	3.9	3.33	5.6
Intersection	Non-Collision	0.19	0.3	0.09	0.2	0.28	0.5
Intersection	Collision with Other Object	0.10	0.2	0.19	0.3	0.28	0.5
Intersection	Other Single-vehicle Collision	0.05	0.1	0.06	0.1	0.12	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.33	0.6	0.00	0.0	0.33	0.6
Intersection	Total Intersection Single Vehicle Crashes	3.07	5.2	2.68	4.5	5.75	9.7
Intersection	Angle Collision	9.18	15.5	6.57	11.1	15.75	26.6
Intersection	Head-on Collision	1.30	2.2	0.81	1.4	2.10	3.6
Intersection	Other Multi-vehicle Collision	1.46	2.5	5.68	9.6	7.14	12.1
Intersection	Rear-end Collision	11.91	20.1	13.00	22.0	24.91	42.1
Intersection	Sideswipe	2.62	4.4	0.86	1.5	3.48	5.9
Intersection	Total Intersection Multiple Vehicle Crashes	26.47	44.8	26.92	45.5	53.39	90.3
Intersection	Total Intersection Crashes	29.54	49.9	29.60	50.1	59.14	100.0
	Total Crashes	29.54	49.9	29.60	50.1	59.14	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:42 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:16:33 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_CSAH81_DaytonPkwy - FYA
Project Comment: Created Wed Feb 07 14:01:46 CST 2024
Project Unit System: U.S. Customary

Intersection Title: CSAH 81 & Dayton Pkwy
Intersection Comment: Created Wed Feb 07 15:43:52 CST 2024
Intersection Version: v1

Evaluation Title: New Crashes FYA CSAH 81 & Dayton
Evaluation Comment: Created Wed Apr 03 23:16:09 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: CSAH 81
Highway with Crash History Comment: Created Wed Feb 07 14:02:33 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

CSAH 81 & Dayton Pkwy Evaluation

Intersection: CSAH 81 & Dayton Pkwy
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4SG=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	4	4	1	0	3
2019	2	2	2	2	0
2020	0	0	0	0	0
2021	3	2	1	0	1
2022	1	1	1	0	0
All Years	10 [1]	9	5	2	4

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (CSAH 81 & Dayton Pkwy)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Dayton Pkwy (v1)	Urban/Suburban Arterial Intersection Four-Legged Signalized	10+00.000	2023: 17,041; 2024: 17,382; 2025: 17,724; 2026: 18,065; 2027: 18,407; 2028: 18,749; 2029: 19,090; 2030: 19,432; 2031: 19,773; 2032: 20,115; 2033: 20,457; 2034: 20,798; 2035: 21,140; 2036: 21,481; 2037: 21,823; 2038: 22,165; 2039: 22,506; 2040: 22,848; 2041: 23,189; 2042: 23,531; 2043: 23,873	2023: 5,785; 2024: 5,900; 2025: 6,016; 2026: 6,132; 2027: 6,248; 2028: 6,364; 2029: 6,480; 2030: 6,596; 2031: 6,712; 2032: 6,828; 2033: 6,944; 2034: 7,060; 2035: 7,176; 2036: 7,292; 2037: 7,408; 2038: 7,524; 2039: 7,640; 2040: 7,756; 2041: 7,872; 2042: 7,988; 2043: 8,104	4	Signalized	0	0	0	20	true	false	false	0	0	6

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Dayton Pkwy (v1)	Urban/Suburban Arterial Intersection Four-Legged Signalized	10+00.000	2018-2022: 17,041	2018-2022: 5,785	4	Signalized	0	0	0	20	true	false	false	0	0	6

Table 4. Expected Intersection Crash Rates and Frequencies Summary (CSAH 81 & Dayton Pkwy)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**60.32**
Fatal and Injury Crashes	**30.44**
Property-Damage-Only Crashes	**29.88**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**50**
Percent Property-Damage-Only Crashes (%)	**50**

Table 5. Predicted Crash Frequencies by Year (CSAH 81 & Dayton Pkwy)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	3.97	1.32	33.355	2.65	66.645
2024	4.08	1.36	33.401	2.71	66.599
2025	4.18	1.40	33.447	2.78	66.553
2026	4.28	1.43	33.491	2.85	66.509
2027	4.38	1.47	33.535	2.91	66.465
2028	4.49	1.51	33.579	2.98	66.421
2029	4.59	1.54	33.622	3.05	66.378
2030	4.70	1.58	33.665	3.12	66.335
2031	4.80	1.62	33.707	3.18	66.293
2032	4.91	1.66	33.748	3.25	66.252
2033	5.01	1.70	33.789	3.32	66.211
2034	5.12	1.73	33.830	3.39	66.170
2035	5.23	1.77	33.870	3.46	66.130
2036	5.34	1.81	33.909	3.53	66.091
2037	5.45	1.85	33.949	3.60	66.051
2038	5.56	1.89	33.987	3.67	66.013
2039	5.67	1.93	34.026	3.74	65.975
2040	5.78	1.97	34.063	3.81	65.937
2041	5.89	2.01	34.101	3.88	65.899
2042	6.00	2.05	34.138	3.95	65.862
2043	6.11	2.09	34.174	4.02	65.826
Total	105.51	35.68	33.812	69.84	66.188
Average	5.02	1.70	33.812	3.33	66.188

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (CSAH 81 & Dayton Pkwy)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	2.27	1.13	49.784	1.13	49.876
2024	2.33	1.16	49.853	1.16	49.841
2025	2.39	1.19	49.921	1.19	49.807
2026	2.45	1.22	49.987	1.22	49.774
2027	2.51	1.25	50.053	1.25	49.741
2028	2.56	1.29	50.119	1.27	49.708
2029	2.62	1.32	50.183	1.30	49.676
2030	2.69	1.35	50.246	1.33	49.644
2031	2.75	1.38	50.309	1.36	49.612
2032	2.81	1.41	50.371	1.39	49.581
2033	2.87	1.45	50.432	1.42	49.551
2034	2.93	1.48	50.493	1.45	49.520
2035	2.99	1.51	50.553	1.48	49.490
2036	3.05	1.54	50.612	1.51	49.461
2037	3.11	1.58	50.670	1.54	49.431
2038	3.18	1.61	50.728	1.57	49.403
2039	3.24	1.65	50.785	1.60	49.374
2040	3.30	1.68	50.841	1.63	49.346
2041	3.36	1.71	50.897	1.66	49.318
2042	3.43	1.75	50.952	1.69	49.290
2043	3.49	1.78	51.007	1.72	49.263
Total	60.32	30.44	50.466	29.88	49.534
Average	2.87	1.45	50.466	1.42	49.534

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (CSAH 81 & Dayton Pkwy)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	105.51	35.68	33.812	69.84	66.188
Expected	60.32	30.44	50.466	29.88	49.534
Expected - Predicted	-45.20	-5.24		-39.96	
Percent Difference	-74.93	-17.20		-133.75	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (CSAH 81 & Dayton Pkwy)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.01	0.0	0.01	0.0
Intersection	Collision with Bicycle	1.55	2.6	0.00	0.0	1.55	2.6
Intersection	Collision with Fixed Object	1.09	1.8	2.49	4.1	3.58	5.9
Intersection	Non-Collision	0.21	0.3	0.10	0.2	0.30	0.5
Intersection	Collision with Other Object	0.11	0.2	0.20	0.3	0.31	0.5
Intersection	Other Single-vehicle Collision	0.06	0.1	0.07	0.1	0.12	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.33	0.5	0.00	0.0	0.33	0.5
Intersection	Total Intersection Single Vehicle Crashes	3.35	5.6	2.86	4.7	6.21	10.3
Intersection	Angle Collision	9.40	15.6	6.59	10.9	15.99	26.5
Intersection	Head-on Collision	1.33	2.2	0.81	1.3	2.14	3.5
Intersection	Other Multi-vehicle Collision	1.49	2.5	5.70	9.5	7.19	11.9
Intersection	Rear-end Collision	12.19	20.2	13.05	21.6	25.24	41.8
Intersection	Sideswipe	2.68	4.4	0.86	1.4	3.55	5.9
Intersection	Total Intersection Multiple Vehicle Crashes	27.09	44.9	27.02	44.8	54.10	89.7
Intersection	Total Intersection Crashes	30.44	50.5	29.88	49.5	60.32	100.0
	Total Crashes	30.44	50.5	29.88	49.5	60.32	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:29 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:48:59 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_DaytonRiver_Lawndale
Project Comment: Created Wed Feb 07 08:26:26 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & Lawndale Ln
Intersection Comment: Created Wed Feb 07 09:03:33 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes Dayton Rv & Lawndale
Evaluation Comment: Created Wed Feb 28 15:48:24 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Wed Feb 07 08:26:51 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & Lawndale Ln Evaluation

Intersection: Dayton River Rd & Lawndale Ln
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	0	0	0	0
2019	1	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	0	0	0	0	0
All Years	2 [1]	0	0	0	0

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & Lawndale Ln)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Lawndale Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2023: 3,273; 2024: 3,324; 2025: 3,375; 2026: 3,426; 2027: 3,477; 2028: 3,529; 2029: 3,580; 2030: 3,631; 2031: 3,682; 2032: 3,733; 2033: 3,785; 2034: 3,836; 2035: 3,887; 2036: 3,938; 2037: 3,989; 2038: 4,041; 2039: 4,092; 2040: 4,143; 2041: 4,194; 2042: 4,245; 2043: 4,297	2023: 450; 2024: 457; 2025: 464; 2026: 471; 2027: 478; 2028: 485; 2029: 492; 2030: 499; 2031: 506; 2032: 513; 2033: 520; 2034: 527; 2035: 534; 2036: 541; 2037: 548; 2038: 555; 2039: 562; 2040: 569; 2041: 576; 2042: 583; 2043: 591	4	Stop-Controlled	0	0			false					

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Lawndale Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2018-2022: 3,273	2018-2022: 450	4	Stop-Controlled	0	0			false					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & Lawndale Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**8.82**
Fatal and Injury Crashes	**3.64**
Property-Damage-Only Crashes	**5.17**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**41**
Percent Property-Damage-Only Crashes (%)	**59**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & Lawndale Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.65	0.23	34.815	0.42	65.185
2024	0.66	0.23	34.847	0.43	65.153
2025	0.67	0.23	34.879	0.43	65.121
2026	0.68	0.24	34.911	0.44	65.089
2027	0.69	0.24	34.943	0.45	65.057
2028	0.70	0.24	34.976	0.45	65.024
2029	0.71	0.25	35.008	0.46	64.992
2030	0.71	0.25	35.040	0.47	64.960
2031	0.72	0.25	35.072	0.47	64.928
2032	0.73	0.26	35.104	0.48	64.896
2033	0.74	0.26	35.136	0.48	64.864
2034	0.75	0.27	35.168	0.49	64.832
2035	0.76	0.27	35.200	0.49	64.800
2036	0.77	0.27	35.232	0.50	64.768
2037	0.78	0.28	35.263	0.51	64.737
2038	0.79	0.28	35.295	0.51	64.705
2039	0.80	0.28	35.327	0.52	64.673
2040	0.81	0.29	35.358	0.52	64.642
2041	0.82	0.29	35.390	0.53	64.610
2042	0.83	0.29	35.421	0.54	64.579
2043	0.84	0.30	35.453	0.54	64.547
Total	15.62	5.49	35.150	10.13	64.850
Average	0.74	0.26	35.150	0.48	64.850

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & Lawndale Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.37	0.15	40.931	0.22	58.978
2024	0.37	0.15	40.969	0.22	58.949
2025	0.38	0.15	41.007	0.22	58.920
2026	0.38	0.16	41.044	0.23	58.891
2027	0.39	0.16	41.082	0.23	58.862
2028	0.39	0.16	41.120	0.23	58.832
2029	0.40	0.16	41.158	0.23	58.803
2030	0.40	0.17	41.196	0.24	58.774
2031	0.41	0.17	41.233	0.24	58.745
2032	0.41	0.17	41.271	0.24	58.717
2033	0.42	0.17	41.309	0.25	58.687
2034	0.42	0.18	41.346	0.25	58.658
2035	0.43	0.18	41.384	0.25	58.630
2036	0.44	0.18	41.421	0.26	58.601
2037	0.44	0.18	41.458	0.26	58.572
2038	0.45	0.18	41.496	0.26	58.543
2039	0.45	0.19	41.533	0.26	58.515
2040	0.46	0.19	41.570	0.27	58.486
2041	0.46	0.19	41.607	0.27	58.458
2042	0.47	0.20	41.644	0.27	58.430
2043	0.47	0.20	41.681	0.28	58.401
Total	8.82	3.64	41.325	5.17	58.675
Average	0.42	0.17	41.325	0.25	58.675

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & Lawndale Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	15.62	5.49	35.150	10.13	64.850
Expected	8.82	3.64	41.325	5.17	58.675
Expected - Predicted	-6.80	-1.84		-4.95	
Percent Difference	-77.11	-50.64		-95.75	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & Lawndale Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.03	0.4	0.04	0.4
Intersection	Collision with Bicycle	0.27	3.1	0.00	0.0	0.27	3.1
Intersection	Collision with Fixed Object	0.61	7.0	1.11	12.6	1.72	19.6
Intersection	Non-Collision	0.16	1.8	0.06	0.7	0.23	2.6
Intersection	Collision with Other Object	0.08	0.9	0.09	1.0	0.17	2.0
Intersection	Other Single-vehicle Collision	0.05	0.5	0.01	0.1	0.06	0.6
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.33	3.7	0.00	0.0	0.33	3.7
Intersection	Total Intersection Single Vehicle Crashes	1.50	17.1	1.31	14.9	2.82	31.9
Intersection	Angle Collision	0.94	10.7	1.29	14.7	2.23	25.4
Intersection	Head-on Collision	0.09	1.0	0.12	1.3	0.20	2.3
Intersection	Other Multi-vehicle Collision	0.13	1.5	0.84	9.5	0.97	11.0
Intersection	Rear-end Collision	0.72	8.2	1.44	16.4	2.17	24.6
Intersection	Sideswipe	0.26	2.9	0.17	1.9	0.43	4.9
Intersection	Total Intersection Multiple Vehicle Crashes	2.14	24.3	3.86	43.8	6.00	68.1
Intersection	Total Intersection Crashes	3.64	41.3	5.17	58.7	8.82	100.0
	Total Crashes	3.64	41.3	5.17	58.7	8.82	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:30 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:38:51 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_DaytonRiver_Lawndale - Offset
Project Comment: Created Wed Feb 07 08:26:26 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & Lawndale N
Intersection Comment: Created Wed Apr 03 15:39:05 CDT 2024
Intersection Version: v1

Evaluation Title: New Crashes Off-N Dayton Rv & Lawndale
Evaluation Comment: Created Wed Apr 03 23:37:36 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Wed Feb 07 08:26:51 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & Lawndale N Evaluation

Intersection: Dayton River Rd & Lawndale N
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 3ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	0	0	0	0
2019	1	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	0	0	0	0	0
All Years	2 [1]	0	0	0	0

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & Lawndale N)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Lawndale N (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	9+30.000	2023: 3,221; 2024: 3,271; 2025: 3,321; 2026: 3,372; 2027: 3,422; 2028: 3,472; 2029: 3,523; 2030: 3,573; 2031: 3,623; 2032: 3,674; 2033: 3,724; 2034: 3,774; 2035: 3,825; 2036: 3,875; 2037: 3,925; 2038: 3,976; 2039: 4,026; 2040: 4,076; 2041: 4,127; 2042: 4,177; 2043: 4,228	2023-2024: 52; 2025: 53; 2026: 54; 2027: 55; 2028-2029: 56; 2030: 57; 2031: 58; 2032: 59; 2033-2034: 60; 2035: 61; 2036: 62; 2037: 63; 2038-2039: 64; 2040: 65; 2041: 66; 2042: 67; 2043: 68	3	Stop-Controlled	0	0			false						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Lawndale N (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	9+30.000	2018-2022: 3,221	2018-2022: 52	3	Stop-Controlled	0	0			false					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & Lawndale N)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**1.99**
Fatal and Injury Crashes	**1.04**
Property-Damage-Only Crashes	**0.94**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**53**
Percent Property-Damage-Only Crashes (%)	**47**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & Lawndale N)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.10	0.05	51.411	0.05	48.589
2024	0.10	0.05	51.446	0.05	48.554
2025	0.10	0.05	51.403	0.05	48.597
2026	0.10	0.05	51.360	0.05	48.640
2027	0.10	0.05	51.318	0.05	48.682
2028	0.10	0.05	51.276	0.05	48.724
2029	0.11	0.06	51.307	0.05	48.693
2030	0.11	0.06	51.264	0.05	48.736
2031	0.11	0.06	51.222	0.05	48.778
2032	0.11	0.06	51.181	0.06	48.819
2033	0.12	0.06	51.139	0.06	48.861
2034	0.12	0.06	51.167	0.06	48.833
2035	0.12	0.06	51.125	0.06	48.875
2036	0.12	0.06	51.084	0.06	48.916
2037	0.12	0.06	51.042	0.06	48.958
2038	0.12	0.06	51.002	0.06	48.998
2039	0.13	0.06	51.026	0.06	48.974
2040	0.13	0.07	50.985	0.06	49.015
2041	0.13	0.07	50.945	0.06	49.055
2042	0.13	0.07	50.904	0.07	49.096
2043	0.14	0.07	50.865	0.07	49.135
Total	2.41	1.23	51.148	1.18	48.852
Average	0.12	0.06	51.148	0.06	48.852

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & Lawndale N)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.08	0.04	52.937	0.04	47.079
2024	0.08	0.04	52.973	0.04	47.045
2025	0.08	0.04	52.928	0.04	47.087
2026	0.08	0.04	52.885	0.04	47.128
2027	0.09	0.04	52.841	0.04	47.169
2028	0.09	0.05	52.797	0.04	47.210
2029	0.09	0.05	52.830	0.04	47.180
2030	0.09	0.05	52.786	0.04	47.221
2031	0.09	0.05	52.742	0.04	47.262
2032	0.09	0.05	52.700	0.04	47.302
2033	0.10	0.05	52.657	0.04	47.342
2034	0.10	0.05	52.685	0.04	47.316
2035	0.10	0.05	52.643	0.05	47.356
2036	0.10	0.05	52.600	0.05	47.396
2037	0.10	0.05	52.557	0.05	47.436
2038	0.10	0.05	52.516	0.05	47.475
2039	0.10	0.06	52.541	0.05	47.452
2040	0.11	0.06	52.498	0.05	47.492
2041	0.11	0.06	52.457	0.05	47.531
2042	0.11	0.06	52.415	0.05	47.570
2043	0.11	0.06	52.374	0.05	47.608
Total	1.99	1.04	52.666	0.94	47.334
Average	0.10	0.05	52.666	0.04	47.334

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & Lawndale N)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	2.41	1.23	51.148	1.18	48.852
Expected	1.99	1.04	52.666	0.94	47.334
Expected - Predicted	-0.43	-0.19		-0.24	
Percent Difference	-21.56	-18.05		-25.45	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & Lawndale N)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.01	0.3	0.01	0.4
Intersection	Collision with Bicycle	0.04	1.9	0.00	0.0	0.04	1.9
Intersection	Collision with Fixed Object	0.18	9.2	0.29	14.8	0.48	24.0
Intersection	Non-Collision	0.03	1.3	0.01	0.5	0.04	1.8
Intersection	Collision with Other Object	0.02	1.1	0.03	1.6	0.05	2.7
Intersection	Other Single-vehicle Collision	0.01	0.5	0.01	0.4	0.02	0.9
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.1	0.00	0.1
Intersection	Collision with Pedestrian	0.05	2.5	0.00	0.0	0.05	2.5
Intersection	Total Intersection Single Vehicle Crashes	0.33	16.4	0.35	17.8	0.68	34.2
Intersection	Angle Collision	0.25	12.4	0.15	7.7	0.40	20.2
Intersection	Head-on Collision	0.03	1.6	0.01	0.7	0.05	2.3
Intersection	Other Multi-vehicle Collision	0.05	2.4	0.14	6.9	0.18	9.3
Intersection	Rear-end Collision	0.30	15.3	0.26	13.0	0.56	28.3
Intersection	Sideswipe	0.09	4.6	0.02	1.2	0.11	5.8
Intersection	Total Intersection Multiple Vehicle Crashes	0.72	36.3	0.59	29.5	1.31	65.8
Intersection	Total Intersection Crashes	1.04	52.7	0.94	47.3	1.99	100.0
	Total Crashes	1.04	52.7	0.94	47.3	1.99	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:30 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:39:51 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_DaytonRiver_Lawndale - Offset
Project Comment: Created Wed Feb 07 08:26:26 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton River Rd & Lawndale S
Intersection Comment: Created Wed Apr 03 15:44:52 CDT 2024
Intersection Version: v1

Evaluation Title: New Crashes Off-S Dayton Rv & Lawndale
Evaluation Comment: Created Wed Apr 03 23:39:09 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton River Road
Highway with Crash History Comment: Created Wed Feb 07 08:26:51 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton River Rd & Lawndale S Evaluation

Intersection: Dayton River Rd & Lawndale S
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 3ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	0	0	0	0
2019	1	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	0	0	0	0	0
All Years	2 [1]	0	0	0	0

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton River Rd & Lawndale S)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Lawndale S (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	12+60.000	2023: 3,273; 2024: 3,324; 2025: 3,375; 2026: 3,426; 2027: 3,477; 2028: 3,529; 2029: 3,580; 2030: 3,631; 2031: 3,682; 2032: 3,733; 2033: 3,785; 2034: 3,836; 2035: 3,887; 2036: 3,938; 2037: 3,989; 2038: 4,041; 2039: 4,092; 2040: 4,143; 2041: 4,194; 2042: 4,245; 2043: 4,297	2023: 450; 2024: 457; 2025: 464; 2026: 471; 2027: 478; 2028: 485; 2029: 492; 2030: 499; 2031: 506; 2032: 513; 2033: 520; 2034: 527; 2035: 534; 2036: 541; 2037: 548; 2038: 555; 2039: 562; 2040: 569; 2041: 576; 2042: 583; 2043: 591	3	Stop-Controlled	0	0			false					

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton River Rd & Lawndale S (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	12+60.000	2018-2022: 3,273	2018-2022: 450	3	Stop-Controlled	0	0			false					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton River Rd & Lawndale S)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**4.11**
Fatal and Injury Crashes	**1.97**
Property-Damage-Only Crashes	**2.14**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**48**
Percent Property-Damage-Only Crashes (%)	**52**

Table 5. Predicted Crash Frequencies by Year (Dayton River Rd & Lawndale S)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.25	0.11	43.050	0.14	56.950
2024	0.26	0.11	43.001	0.15	56.999
2025	0.26	0.11	42.952	0.15	57.048
2026	0.27	0.12	42.904	0.15	57.096
2027	0.27	0.12	42.856	0.16	57.144
2028	0.28	0.12	42.809	0.16	57.191
2029	0.28	0.12	42.761	0.16	57.239
2030	0.29	0.12	42.715	0.17	57.285
2031	0.29	0.12	42.668	0.17	57.332
2032	0.30	0.13	42.622	0.17	57.378
2033	0.30	0.13	42.577	0.17	57.423
2034	0.31	0.13	42.532	0.18	57.468
2035	0.31	0.13	42.487	0.18	57.513
2036	0.32	0.14	42.442	0.18	57.558
2037	0.32	0.14	42.398	0.19	57.602
2038	0.33	0.14	42.354	0.19	57.646
2039	0.33	0.14	42.310	0.19	57.690
2040	0.34	0.14	42.267	0.20	57.733
2041	0.34	0.14	42.224	0.20	57.776
2042	0.35	0.15	42.182	0.20	57.818
2043	0.35	0.15	42.133	0.20	57.867
Total	6.37	2.71	42.555	3.66	57.445
Average	0.30	0.13	42.555	0.17	57.445

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton River Rd & Lawndale S)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.16	0.08	48.587	0.08	51.524
2024	0.17	0.08	48.532	0.09	51.568
2025	0.17	0.08	48.477	0.09	51.612
2026	0.17	0.08	48.422	0.09	51.656
2027	0.18	0.09	48.368	0.09	51.699
2028	0.18	0.09	48.315	0.09	51.742
2029	0.18	0.09	48.262	0.10	51.785
2030	0.19	0.09	48.209	0.10	51.827
2031	0.19	0.09	48.157	0.10	51.869
2032	0.19	0.09	48.105	0.10	51.910
2033	0.20	0.09	48.053	0.10	51.952
2034	0.20	0.10	48.002	0.10	51.992
2035	0.20	0.10	47.952	0.10	52.033
2036	0.20	0.10	47.901	0.11	52.073
2037	0.21	0.10	47.851	0.11	52.114
2038	0.21	0.10	47.802	0.11	52.153
2039	0.21	0.10	47.753	0.11	52.193
2040	0.22	0.10	47.704	0.11	52.232
2041	0.22	0.11	47.655	0.12	52.270
2042	0.23	0.11	47.607	0.12	52.309
2043	0.23	0.11	47.552	0.12	52.353
Total	4.11	1.97	48.029	2.14	51.971
Average	0.20	0.09	48.029	0.10	51.971

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton River Rd & Lawndale S)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	6.37	2.71	42.555	3.66	57.445
Expected	4.11	1.97	48.029	2.14	51.971
Expected - Predicted	-2.25	-0.73		-1.52	
Percent Difference	-54.85	-37.21		-71.17	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton River Rd & Lawndale S)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.01	0.3	0.02	0.4
Intersection	Collision with Bicycle	0.10	2.4	0.00	0.0	0.10	2.4
Intersection	Collision with Fixed Object	0.46	11.1	0.66	15.9	1.11	27.0
Intersection	Non-Collision	0.06	1.5	0.02	0.6	0.09	2.1
Intersection	Collision with Other Object	0.05	1.3	0.07	1.8	0.13	3.1
Intersection	Other Single-vehicle Collision	0.02	0.6	0.02	0.4	0.04	1.0
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.1	0.00	0.1
Intersection	Collision with Pedestrian	0.13	3.1	0.00	0.0	0.13	3.1
Intersection	Total Intersection Single Vehicle Crashes	0.82	20.1	0.79	19.1	1.61	39.2
Intersection	Angle Collision	0.39	9.6	0.35	8.6	0.75	18.2
Intersection	Head-on Collision	0.05	1.3	0.03	0.8	0.08	2.0
Intersection	Other Multi-vehicle Collision	0.07	1.8	0.32	7.7	0.39	9.5
Intersection	Rear-end Collision	0.48	11.8	0.59	14.5	1.08	26.2
Intersection	Sideswipe	0.14	3.5	0.05	1.3	0.20	4.8
Intersection	Total Intersection Multiple Vehicle Crashes	1.15	28.0	1.35	32.9	2.50	60.8
Intersection	Total Intersection Crashes	1.97	48.0	2.14	52.0	4.11	100.0
	Total Crashes	1.97	48.0	2.14	52.0	4.11	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:31 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:53:36 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_Fernbrook_ElmRush
Project Comment: Created Wed Feb 07 16:54:49 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd
Intersection Comment: Created Wed Feb 07 17:32:53 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes Fernbrook & Rush/Elm Cr
Evaluation Comment: Created Wed Feb 28 15:53:03 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Fernbrook Lane
Highway with Crash History Comment: Created Wed Feb 07 16:56:04 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd Evaluation

Intersection: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	2	2	1	0	1
2021	1	1	1	0	0
2022	2	2	0	0	2
All Years	5 [1]	5	2	0	3

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2023: 8,023; 2024: 8,183; 2025: 8,344; 2026: 8,505; 2027: 8,666; 2028: 8,827; 2029: 8,988; 2030: 9,148; 2031: 9,309; 2032: 9,470; 2033: 9,631; 2034: 9,792; 2035: 9,953; 2036: 10,114; 2037: 10,274; 2038: 10,435; 2039: 10,596; 2040: 10,757; 2041: 10,918; 2042: 11,079; 2043: 11,240	2023: 2,710; 2024: 2,764; 2025: 2,818; 2026: 2,873; 2027: 2,927; 2028: 2,981; 2029: 3,036; 2030: 3,090; 2031: 3,144; 2032: 3,199; 2033: 3,253; 2034: 3,307; 2035: 3,362; 2036: 3,416; 2037: 3,470; 2038: 3,525; 2039: 3,579; 2040: 3,633; 2041: 3,688; 2042: 3,742; 2043: 3,797	4	Stop-Controlled	0	0			false						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2018-2022: 8,023	2018-2022: 2,710	4	Stop-Controlled	0	0			false					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**32.09**
Fatal and Injury Crashes	**14.37**
Property-Damage-Only Crashes	**17.72**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**45**
Percent Property-Damage-Only Crashes (%)	**55**

Table 5. Predicted Crash Frequencies by Year (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.88	0.71	38.017	1.17	61.983
2024	1.92	0.73	38.097	1.19	61.903
2025	1.96	0.75	38.178	1.21	61.822
2026	1.99	0.76	38.257	1.23	61.743
2027	2.03	0.78	38.335	1.25	61.665
2028	2.07	0.79	38.412	1.27	61.588
2029	2.10	0.81	38.488	1.29	61.512
2030	2.14	0.83	38.562	1.32	61.438
2031	2.18	0.84	38.636	1.34	61.364
2032	2.22	0.86	38.709	1.36	61.291
2033	2.25	0.87	38.781	1.38	61.219
2034	2.29	0.89	38.852	1.40	61.148
2035	2.33	0.91	38.923	1.42	61.077
2036	2.37	0.92	38.992	1.44	61.008
2037	2.40	0.94	39.060	1.47	60.940
2038	2.44	0.95	39.128	1.49	60.872
2039	2.48	0.97	39.195	1.51	60.805
2040	2.52	0.99	39.261	1.53	60.739
2041	2.55	1.00	39.327	1.55	60.673
2042	2.59	1.02	39.391	1.57	60.609
2043	2.63	1.04	39.456	1.59	60.544
Total	47.33	18.37	38.808	28.96	61.192
Average	2.25	0.88	38.808	1.38	61.192

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.27	0.56	43.875	0.71	55.926
2024	1.30	0.57	43.968	0.73	55.853
2025	1.32	0.58	44.061	0.74	55.781
2026	1.35	0.60	44.152	0.75	55.709
2027	1.38	0.61	44.242	0.77	55.639
2028	1.40	0.62	44.331	0.78	55.569
2029	1.43	0.63	44.419	0.79	55.501
2030	1.45	0.65	44.505	0.81	55.434
2031	1.48	0.66	44.590	0.82	55.367
2032	1.50	0.67	44.674	0.83	55.301
2033	1.53	0.68	44.757	0.84	55.236
2034	1.55	0.70	44.839	0.86	55.172
2035	1.58	0.71	44.921	0.87	55.108
2036	1.60	0.72	45.001	0.88	55.046
2037	1.63	0.73	45.079	0.90	54.984
2038	1.66	0.75	45.158	0.91	54.923
2039	1.68	0.76	45.235	0.92	54.862
2040	1.71	0.77	45.311	0.94	54.803
2041	1.73	0.79	45.387	0.95	54.744
2042	1.76	0.80	45.462	0.96	54.685
2043	1.78	0.81	45.535	0.97	54.627
Total	32.09	14.37	44.789	17.72	55.211
Average	1.53	0.68	44.789	0.84	55.211

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	47.33	18.37	38.808	28.96	61.192
Expected	32.09	14.37	44.789	17.72	55.211
Expected - Predicted	-15.25	-4.00		-11.25	
Percent Difference	-47.51	-27.82		-63.49	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.10	0.3	0.10	0.3
Intersection	Collision with Bicycle	0.82	2.6	0.00	0.0	0.82	2.6
Intersection	Collision with Fixed Object	0.99	3.1	3.08	9.6	4.08	12.7
Intersection	Non-Collision	0.26	0.8	0.18	0.6	0.44	1.4
Intersection	Collision with Other Object	0.13	0.4	0.26	0.8	0.39	1.2
Intersection	Other Single-vehicle Collision	0.07	0.2	0.03	0.1	0.10	0.3
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.01	0.0
Intersection	Collision with Pedestrian	1.00	3.1	0.00	0.0	1.00	3.1
Intersection	Total Intersection Single Vehicle Crashes	3.28	10.2	3.64	11.3	6.92	21.6
Intersection	Angle Collision	4.88	15.2	4.72	14.7	9.60	29.9
Intersection	Head-on Collision	0.46	1.4	0.42	1.3	0.88	2.7
Intersection	Other Multi-vehicle Collision	0.67	2.1	3.06	9.5	3.72	11.6
Intersection	Rear-end Collision	3.75	11.7	5.26	16.4	9.01	28.1
Intersection	Sideswipe	1.34	4.2	0.62	1.9	1.96	6.1
Intersection	Total Intersection Multiple Vehicle Crashes	11.09	34.6	14.08	43.9	25.17	78.4
Intersection	Total Intersection Crashes	14.37	44.8	17.72	55.2	32.09	100.0
	Total Crashes	14.37	44.8	17.72	55.2	32.09	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:34 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:32:10 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_Fernbrook_ElmRush - Rdbt
Project Comment: Created Wed Feb 07 16:54:49 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Fernbrook Ln & Rush Cr/Elm Cr
Intersection Comment: Created Wed Apr 03 16:18:03 CDT 2024
Intersection Version: v1

Evaluation Title: New Crashes Rdbt Fernbrook & RushElm
Evaluation Comment: Created Wed Apr 03 23:31:28 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Fernbrook Lane
Highway with Crash History Comment: Created Wed Feb 07 16:56:04 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Fernbrook Ln & Rush Cr/Elm Cr Evaluation

Intersection: Fernbrook Ln & Rush Cr/Elm Cr
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: USA 41R=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	2	2	1	0	1
2021	1	1	1	0	0
2022	2	2	0	0	2
All Years	5 [1]	5	2	0	3

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Roundabout - Site (Fernbrook Ln & Rush Cr/Elm Cr)

Inter. No.	Title	Type	Area Type	Legs	Location (Sta. ft)	Entering AADT
1	Fernbrook Ln & Rush Cr/Elm Cr (v1)	Roundabout 41R - Roundabout with 4 legs and a single circulating lane	Urban	4	10+00.000	Leg 1: 2023: 4,011; 2024: 4,091; 2025: 4,172; 2026: 4,252; 2027: 4,333; 2028: 4,413; 2029: 4,494; 2030: 4,574; 2031: 4,654; 2032: 4,735; 2033: 4,815; 2034: 4,896; 2035: 4,976; 2036: 5,057; 2037: 5,137; 2038: 5,217; 2039: 5,298; 2040: 5,378; 2041: 5,459; 2042: 5,539; 2043: 5,620; Leg 2: 2023: 347; 2024: 354; 2025: 361; 2026: 368; 2027: 375; 2028: 382; 2029: 389; 2030: 396; 2031: 403; 2032: 410; 2033: 417; 2034: 424; 2035: 431; 2036: 438; 2037: 445; 2038: 452; 2039: 459; 2040: 466; 2041: 473; 2042: 480; 2043: 487; Leg 3: 2023: 4,011; 2024: 4,091; 2025: 4,172; 2026: 4,252; 2027: 4,333; 2028: 4,413; 2029: 4,494; 2030: 4,574; 2031: 4,654; 2032: 4,735; 2033: 4,815; 2034: 4,896; 2035: 4,976; 2036: 5,057; 2037: 5,137; 2038: 5,217; 2039: 5,298; 2040: 5,378; 2041: 5,459; 2042: 5,539; 2043: 5,620; Leg 4: 2023: 1,355; 2024: 1,382; 2025: 1,409; 2026: 1,436; 2027: 1,463; 2028: 1,490; 2029: 1,518; 2030: 1,545; 2031: 1,572; 2032: 1,599; 2033: 1,626; 2034: 1,653; 2035: 1,681; 2036: 1,708; 2037: 1,735; 2038: 1,762; 2039: 1,789; 2040: 1,816; 2041: 1,844; 2042: 1,871; 2043: 1,898

Table 3. Crash Highway Roundabout - Site (Highway with Crash History)

Inter. No.	Title	Type	Area Type	Legs	Location (Sta. ft)	Entering AADT
1	Fernbrook Ln & Rush Cr/Elm Cr (v1)	Roundabout 41R - Roundabout with 4 legs and a single circulating lane	Urban	4	10+00.000	Leg 1: 2018-2022: 4,011; Leg 2: 2018-2022: 347; Leg 3: 2018-2022: 4,011; Leg 4: 2018-2022: 1,355

Table 4. Expected Roundabout Crash Rates and Frequencies Summary (Fernbrook Ln & Rush Cr/Elm Cr)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**22.68**
Fatal and Injury Crashes	**5.98**
Property-Damage-Only Crashes	**16.70**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**26**
Percent Property-Damage-Only Crashes (%)	**74**

Table 5. Expected Crash Frequencies and Rates by Roundabout (Fernbrook Ln & Rush Cr/Elm Cr)

Segment Number/Intersection Name/Cross Road	Location (Sta. ft)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Travel Crash Rate (crashes/million veh)
Fernbrook Ln & Rush Cr/Elm Cr (v1)	10+00.000	22.676	31.886	1.0798	0.2846	0.7952	1.5184	0.2357	1.2827	-0.4386	0.0490	-0.4876	0.25

Table 6. Expected Crash Severity by Roundabout (Fernbrook Ln & Rush Cr/Elm Cr)

Seg. No.	Type	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	Roundabout	0.0433	0.4303	2.7686	2.7351	16.6986

Table 7. Predicted Crash Frequencies by Year (Fernbrook Ln & Rush Cr/Elm Cr)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.33	0.20	15.009	1.13	84.991
2024	1.35	0.20	15.063	1.15	84.937
2025	1.37	0.21	15.116	1.16	84.884
2026	1.39	0.21	15.168	1.18	84.832
2027	1.41	0.21	15.220	1.19	84.780
2028	1.43	0.22	15.271	1.21	84.729
2029	1.45	0.22	15.321	1.22	84.679
2030	1.46	0.23	15.370	1.24	84.630
2031	1.48	0.23	15.418	1.25	84.582
2032	1.50	0.23	15.466	1.27	84.534
2033	1.52	0.24	15.512	1.28	84.487
2034	1.54	0.24	15.559	1.30	84.441
2035	1.56	0.24	15.604	1.31	84.396
2036	1.58	0.25	15.650	1.33	84.350
2037	1.59	0.25	15.694	1.34	84.306
2038	1.61	0.25	15.738	1.36	84.262
2039	1.63	0.26	15.781	1.37	84.219
2040	1.65	0.26	15.824	1.39	84.176
2041	1.67	0.26	15.866	1.40	84.134
2042	1.69	0.27	15.908	1.42	84.093
2043	1.70	0.27	15.949	1.43	84.051
Total	31.89	4.95	15.521	26.94	84.479
Average	1.52	0.24	15.521	1.28	84.479

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Crash Frequencies by Year (Fernbrook Ln & Rush Cr/Elm Cr)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.94	0.24	25.489	0.70	74.087
2024	0.96	0.24	25.580	0.71	74.040
2025	0.97	0.25	25.672	0.72	73.994
2026	0.99	0.25	25.760	0.73	73.948
2027	1.00	0.26	25.848	0.74	73.903
2028	1.01	0.26	25.934	0.75	73.859
2029	1.03	0.27	26.018	0.76	73.816
2030	1.04	0.27	26.102	0.77	73.773
2031	1.05	0.28	26.183	0.78	73.731
2032	1.07	0.28	26.265	0.79	73.689
2033	1.08	0.28	26.344	0.80	73.648
2034	1.09	0.29	26.424	0.81	73.607
2035	1.11	0.29	26.500	0.81	73.568
2036	1.12	0.30	26.578	0.82	73.529
2037	1.13	0.30	26.653	0.83	73.490
2038	1.15	0.31	26.727	0.84	73.452
2039	1.16	0.31	26.801	0.85	73.414
2040	1.17	0.32	26.873	0.86	73.377
2041	1.19	0.32	26.945	0.87	73.340
2042	1.20	0.32	27.015	0.88	73.304
2043	1.21	0.33	27.086	0.89	73.268
Total	22.68	5.98	26.360	16.70	73.640
Average	1.08	0.28	26.360	0.80	73.640

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 9. Comparing Predicted and Expected Crashes for the Evaluation Period (Fernbrook Ln & Rush Cr/Elm Cr)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	31.89	4.95	15.521	26.94	84.479
Expected	22.68	5.98	26.360	16.70	73.640
Expected - Predicted	-9.21	1.03		-10.24	
Percent Difference	-40.62	17.20		-61.31	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 10. Expected Roundabout Crash Type Distribution (Fernbrook Ln & Rush Cr/Elm Cr)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.03	0.1	0.03	0.1
Intersection	Collision with Fixed Object	1.29	5.7	3.14	13.8	4.43	19.5
Intersection	Collision with Other Object	0.00	0.0	0.03	0.1	0.03	0.1
Intersection	Other Single-vehicle Collision	1.25	5.5	0.90	4.0	2.15	9.5
Intersection	Collision with Parked Vehicle	0.01	0.1	0.15	0.7	0.16	0.7
Intersection	Total Single Vehicle Crashes	2.55	11.3	4.26	18.8	6.81	30.0
Intersection	Angle Collision	0.69	3.0	3.21	14.1	3.89	17.2
Intersection	Head-on Collision	0.07	0.3	0.17	0.7	0.23	1.0
Intersection	Other Multiple-vehicle Collision	0.42	1.9	3.12	13.8	3.55	15.6
Intersection	Rear-end Collision	1.78	7.9	4.39	19.4	6.17	27.2
Intersection	Sideswipe	0.47	2.1	1.55	6.8	2.02	8.9
Intersection	Total Multiple Vehicle Crashes	3.42	15.1	12.44	54.9	15.87	70.0
Intersection	Total Intersection Crashes	5.98	26.4	16.70	73.6	22.68	100.0
	Total Crashes	5.98	26.4	16.70	73.6	22.68	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:36 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:09:23 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_Fernbrook_ElmRush - Signal
Project Comment: Created Wed Feb 07 16:54:49 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd
Intersection Comment: Created Wed Feb 07 17:32:53 CST 2024
Intersection Version: v1

Evaluation Title: New Crashes Signal Fernbrook & RushElm
Evaluation Comment: Created Wed Apr 03 23:08:37 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Fernbrook Lane
Highway with Crash History Comment: Created Wed Feb 07 16:56:04 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd Evaluation

Intersection: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4SG=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	2	2	1	0	1
2021	1	1	1	0	0
2022	2	2	0	0	2
All Years	5 [1]	5	2	0	3

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd (v1)	Urban/Suburban Arterial Intersection Four-Legged Signalized	10+00.000	2023: 8,023; 2024: 8,183; 2025: 8,344; 2026: 8,505; 2027: 8,666; 2028: 8,827; 2029: 8,988; 2030: 9,148; 2031: 9,309; 2032: 9,470; 2033: 9,631; 2034: 9,792; 2035: 9,953; 2036: 10,114; 2037: 10,274; 2038: 10,435; 2039: 10,596; 2040: 10,757; 2041: 10,918; 2042: 11,079; 2043: 11,240	2023: 2,710; 2024: 2,764; 2025: 2,818; 2026: 2,873; 2027: 2,927; 2028: 2,981; 2029: 3,036; 2030: 3,090; 2031: 3,144; 2032: 3,199; 2033: 3,253; 2034: 3,307; 2035: 3,362; 2036: 3,416; 2037: 3,470; 2038: 3,525; 2039: 3,579; 2040: 3,633; 2041: 3,688; 2042: 3,742; 2043: 3,797	4	Signalized	0	0	0	10	true	false	false	0	0	3

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd (v1)	Urban/Suburban Arterial Intersection Four-Legged Signalized	10+00.000	2018-2022: 8,023	2018-2022: 2,710	4	Signalized	0	0	0	10	true	false	false	0	0	3

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**30.07**
Fatal and Injury Crashes	**12.47**
Property-Damage-Only Crashes	**17.60**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**41**
Percent Property-Damage-Only Crashes (%)	**59**

Table 5. Predicted Crash Frequencies by Year (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.58	0.50	31.674	1.08	68.326
2024	1.62	0.52	31.710	1.11	68.290
2025	1.66	0.53	31.745	1.14	68.255
2026	1.71	0.54	31.780	1.16	68.220
2027	1.75	0.56	31.815	1.19	68.185
2028	1.79	0.57	31.849	1.22	68.151
2029	1.83	0.58	31.883	1.25	68.117
2030	1.87	0.60	31.917	1.27	68.083
2031	1.91	0.61	31.950	1.30	68.050
2032	1.95	0.62	31.983	1.33	68.017
2033	2.00	0.64	32.016	1.36	67.984
2034	2.04	0.65	32.048	1.39	67.951
2035	2.08	0.67	32.081	1.41	67.919
2036	2.12	0.68	32.113	1.44	67.887
2037	2.17	0.70	32.144	1.47	67.856
2038	2.21	0.71	32.175	1.50	67.825
2039	2.25	0.73	32.206	1.53	67.794
2040	2.30	0.74	32.237	1.56	67.763
2041	2.34	0.76	32.268	1.58	67.732
2042	2.38	0.77	32.298	1.61	67.702
2043	2.43	0.79	32.328	1.64	67.672
Total	41.99	13.45	32.036	28.54	67.964
Average	2.00	0.64	32.036	1.36	67.964

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.13	0.47	41.011	0.67	58.833
2024	1.16	0.48	41.057	0.68	58.802
2025	1.19	0.49	41.102	0.70	58.772
2026	1.22	0.50	41.148	0.72	58.742
2027	1.25	0.52	41.192	0.73	58.712
2028	1.28	0.53	41.237	0.75	58.682
2029	1.31	0.54	41.281	0.77	58.653
2030	1.34	0.55	41.324	0.79	58.624
2031	1.37	0.57	41.367	0.80	58.595
2032	1.40	0.58	41.410	0.82	58.567
2033	1.43	0.59	41.453	0.84	58.539
2034	1.46	0.61	41.495	0.85	58.511
2035	1.49	0.62	41.536	0.87	58.483
2036	1.52	0.63	41.578	0.89	58.455
2037	1.55	0.65	41.619	0.91	58.428
2038	1.58	0.66	41.659	0.92	58.401
2039	1.61	0.67	41.699	0.94	58.375
2040	1.65	0.69	41.739	0.96	58.348
2041	1.68	0.70	41.779	0.98	58.322
2042	1.71	0.71	41.818	0.99	58.296
2043	1.74	0.73	41.857	1.01	58.270
Total	30.07	12.47	41.479	17.60	58.521
Average	1.43	0.59	41.479	0.84	58.521

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	41.99	13.45	32.036	28.54	67.964
Expected	30.07	12.47	41.479	17.60	58.521
Expected - Predicted	-11.92	-0.98		-10.94	
Percent Difference	-39.64	-7.85		-62.17	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.01	0.0	0.01	0.0
Intersection	Collision with Bicycle	0.62	2.1	0.00	0.0	0.62	2.1
Intersection	Collision with Fixed Object	0.73	2.4	2.21	7.4	2.95	9.8
Intersection	Non-Collision	0.14	0.5	0.09	0.3	0.23	0.8
Intersection	Collision with Other Object	0.07	0.2	0.18	0.6	0.25	0.8
Intersection	Other Single-vehicle Collision	0.04	0.1	0.06	0.2	0.10	0.3
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.16	0.5	0.00	0.0	0.16	0.5
Intersection	Total Intersection Single Vehicle Crashes	1.76	5.9	2.55	8.5	4.31	14.3
Intersection	Angle Collision	3.72	12.4	3.67	12.2	7.39	24.6
Intersection	Head-on Collision	0.53	1.7	0.45	1.5	0.98	3.2
Intersection	Other Multi-vehicle Collision	0.59	2.0	3.17	10.6	3.76	12.5
Intersection	Rear-end Collision	4.82	16.0	7.27	24.2	12.09	40.2
Intersection	Sideswipe	1.06	3.5	0.48	1.6	1.54	5.1
Intersection	Total Intersection Multiple Vehicle Crashes	10.71	35.6	15.05	50.1	25.76	85.7
Intersection	Total Intersection Crashes	12.47	41.5	17.60	58.5	30.07	100.0
	Total Crashes	12.47	41.5	17.60	58.5	30.07	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:28 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:46:55 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_DaytonPkwy_HollyTerritorial
Project Comment: Created Wed Feb 07 17:40:21 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton Pkwy & Territorial/Holly
Intersection Comment: Created Thu Feb 08 11:18:08 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes Dayton & Territorial/Holly
Evaluation Comment: Created Wed Feb 28 15:45:34 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton Parkway
Highway with Crash History Comment: Created Thu Feb 08 10:59:22 CST 2024
Highway with Crash History Version: 2
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton Pkwy & Territorial/Holly Evaluation

Intersection: Dayton Pkwy & Territorial/Holly
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	1	1	0	0	1
All Years	1 [1]	1	0	0	1

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton Pkwy & Territorial/Holly)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton Pkwy & Territorial/Holly (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2023: 5,785; 2024: 5,900; 2025: 6,016; 2026: 6,132; 2027: 6,248; 2028: 6,364; 2029: 6,480; 2030: 6,596; 2031: 6,712; 2032: 6,828; 2033: 6,944; 2034: 7,060; 2035: 7,176; 2036: 7,292; 2037: 7,408; 2038: 7,524; 2039: 7,640; 2040: 7,756; 2041: 7,872; 2042: 7,988; 2043: 8,104	2023: 1,803; 2024: 1,839; 2025: 1,875; 2026: 1,911; 2027: 1,947; 2028: 1,983; 2029: 2,019; 2030: 2,056; 2031: 2,092; 2032: 2,128; 2033: 2,164; 2034: 2,200; 2035: 2,236; 2036: 2,272; 2037: 2,309; 2038: 2,345; 2039: 2,381; 2040: 2,417; 2041: 2,453; 2042: 2,489; 2043: 2,526	4	Stop-Controlled	0	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton Pkwy & Territorial/Holly (v1)	Urban/Suburban Arterial Intersection Four-Legged w/STOP control	10+00.000	2018-2022: 5,785	2018-2022: 1,803	4	Stop-Controlled	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton Pkwy & Territorial/Holly)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**15.72**
Fatal and Injury Crashes	**6.03**
Property-Damage-Only Crashes	**9.69**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**38**
Percent Property-Damage-Only Crashes (%)	**62**

Table 5. Predicted Crash Frequencies by Year (Dayton Pkwy & Territorial/Holly)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.22	0.45	36.705	0.78	63.295
2024	1.25	0.46	36.777	0.79	63.223
2025	1.27	0.47	36.848	0.80	63.152
2026	1.29	0.48	36.918	0.82	63.082
2027	1.32	0.49	36.987	0.83	63.013
2028	1.34	0.50	37.056	0.84	62.944
2029	1.37	0.51	37.124	0.86	62.876
2030	1.39	0.52	37.191	0.87	62.809
2031	1.41	0.53	37.258	0.89	62.742
2032	1.44	0.54	37.323	0.90	62.677
2033	1.46	0.55	37.388	0.92	62.612
2034	1.49	0.56	37.452	0.93	62.548
2035	1.51	0.57	37.516	0.94	62.484
2036	1.53	0.58	37.579	0.96	62.421
2037	1.56	0.59	37.641	0.97	62.359
2038	1.58	0.60	37.703	0.98	62.297
2039	1.61	0.61	37.763	1.00	62.237
2040	1.63	0.62	37.824	1.01	62.176
2041	1.65	0.63	37.883	1.03	62.117
2042	1.68	0.64	37.942	1.04	62.058
2043	1.70	0.65	38.001	1.05	61.999
Total	30.71	11.49	37.414	19.22	62.586
Average	1.46	0.55	37.414	0.92	62.586

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton Pkwy & Territorial/Holly)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.63	0.24	37.625	0.39	62.346
2024	0.64	0.24	37.698	0.40	62.276
2025	0.65	0.25	37.771	0.41	62.206
2026	0.66	0.25	37.843	0.41	62.137
2027	0.68	0.26	37.914	0.42	62.069
2028	0.69	0.26	37.985	0.43	62.001
2029	0.70	0.27	38.054	0.43	61.934
2030	0.71	0.27	38.123	0.44	61.868
2031	0.72	0.28	38.191	0.45	61.802
2032	0.74	0.28	38.259	0.46	61.738
2033	0.75	0.29	38.325	0.46	61.674
2034	0.76	0.29	38.391	0.47	61.611
2035	0.77	0.30	38.456	0.48	61.548
2036	0.79	0.30	38.520	0.48	61.486
2037	0.80	0.31	38.584	0.49	61.425
2038	0.81	0.31	38.647	0.50	61.364
2039	0.82	0.32	38.710	0.50	61.304
2040	0.83	0.32	38.771	0.51	61.245
2041	0.85	0.33	38.833	0.52	61.186
2042	0.86	0.33	38.893	0.53	61.128
2043	0.87	0.34	38.953	0.53	61.070
Total	15.72	6.03	38.352	9.69	61.648
Average	0.75	0.29	38.352	0.46	61.648

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton Pkwy & Territorial/Holly)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	30.71	11.49	37.414	19.22	62.586
Expected	15.72	6.03	38.352	9.69	61.648
Expected - Predicted	-14.99	-5.46		-9.53	
Percent Difference	-95.35	-90.58		-98.32	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton Pkwy & Territorial/Holly)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.04	0.3	0.04	0.3
Intersection	Collision with Bicycle	0.53	3.4	0.00	0.0	0.53	3.4
Intersection	Collision with Fixed Object	0.69	4.4	1.41	8.9	2.09	13.3
Intersection	Non-Collision	0.18	1.2	0.08	0.5	0.26	1.7
Intersection	Collision with Other Object	0.09	0.6	0.12	0.7	0.21	1.3
Intersection	Other Single-vehicle Collision	0.05	0.3	0.01	0.1	0.06	0.4
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.65	4.1	0.00	0.0	0.65	4.1
Intersection	Total Intersection Single Vehicle Crashes	2.19	13.9	1.66	10.6	3.85	24.5
Intersection	Angle Collision	1.69	10.7	2.69	17.1	4.38	27.9
Intersection	Head-on Collision	0.16	1.0	0.24	1.5	0.40	2.5
Intersection	Other Multi-vehicle Collision	0.23	1.5	1.74	11.1	1.97	12.6
Intersection	Rear-end Collision	1.30	8.2	3.00	19.1	4.30	27.4
Intersection	Sideswipe	0.46	3.0	0.35	2.2	0.82	5.2
Intersection	Total Intersection Multiple Vehicle Crashes	3.84	24.4	8.03	51.1	11.87	75.5
Intersection	Total Intersection Crashes	6.03	38.4	9.69	61.6	15.72	100.0
	Total Crashes	6.03	38.4	9.69	61.6	15.72	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:39 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:10:22 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_DaytonPkwy_HollyTerritorial - Signal
Project Comment: Created Wed Feb 07 17:40:21 CST 2024
Project Unit System: U.S. Customary

Intersection Title: Dayton Pkwy & Territorial/Holly
Intersection Comment: Created Thu Feb 08 11:18:08 CST 2024
Intersection Version: v1

Evaluation Title: New Crashes Signal Dayton & TerritorialHolly
Evaluation Comment: Created Wed Apr 03 23:09:54 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: Dayton Parkway
Highway with Crash History Comment: Created Thu Feb 08 10:59:22 CST 2024
Highway with Crash History Version: 2
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

Dayton Pkwy & Territorial/Holly Evaluation

Intersection: Dayton Pkwy & Territorial/Holly
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 4SG=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	0	0	0	0	0
2019	0	0	0	0	0
2020	0	0	0	0	0
2021	0	0	0	0	0
2022	1	1	0	0	1
All Years	1 [1]	1	0	0	1

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (Dayton Pkwy & Territorial/Holly)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton Pkwy & Territorial/Holly (v1)	Urban/Suburban Arterial Intersection Four-Legged Signalized	10+00.000	2023: 5,785; 2024: 5,900; 2025: 6,016; 2026: 6,132; 2027: 6,248; 2028: 6,364; 2029: 6,480; 2030: 6,596; 2031: 6,712; 2032: 6,828; 2033: 6,944; 2034: 7,060; 2035: 7,176; 2036: 7,292; 2037: 7,408; 2038: 7,524; 2039: 7,640; 2040: 7,756; 2041: 7,872; 2042: 7,988; 2043: 8,104	2023: 1,803; 2024: 1,839; 2025: 1,875; 2026: 1,911; 2027: 1,947; 2028: 1,983; 2029: 2,019; 2030: 2,056; 2031: 2,092; 2032: 2,128; 2033: 2,164; 2034: 2,200; 2035: 2,236; 2036: 2,272; 2037: 2,309; 2038: 2,345; 2039: 2,381; 2040: 2,417; 2041: 2,453; 2042: 2,489; 2043: 2,526	4	Signalized	0	0	0	20	true	false	false	0	0	4

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	Dayton Pkwy & Territorial/Holly (v1)	Urban/Suburban Arterial Intersection Four-Legged Signalized	10+00.000	2018-2022: 5,785	2018-2022: 1,803	4	Signalized	0	0	0	20	true	false	false	0	0	4

Table 4. Expected Intersection Crash Rates and Frequencies Summary (Dayton Pkwy & Territorial/Holly)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**14.61**
Fatal and Injury Crashes	**5.22**
Property-Damage-Only Crashes	**9.39**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**36**
Percent Property-Damage-Only Crashes (%)	**64**

Table 5. Predicted Crash Frequencies by Year (Dayton Pkwy & Territorial/Holly)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.01	0.32	31.347	0.69	68.653
2024	1.03	0.33	31.373	0.71	68.627
2025	1.06	0.33	31.399	0.73	68.601
2026	1.09	0.34	31.424	0.74	68.576
2027	1.11	0.35	31.450	0.76	68.550
2028	1.14	0.36	31.476	0.78	68.524
2029	1.17	0.37	31.501	0.80	68.499
2030	1.19	0.38	31.527	0.82	68.473
2031	1.22	0.38	31.552	0.83	68.448
2032	1.24	0.39	31.578	0.85	68.422
2033	1.27	0.40	31.603	0.87	68.397
2034	1.30	0.41	31.628	0.89	68.372
2035	1.32	0.42	31.653	0.91	68.347
2036	1.35	0.43	31.678	0.92	68.322
2037	1.38	0.44	31.703	0.94	68.297
2038	1.41	0.45	31.728	0.96	68.272
2039	1.43	0.46	31.752	0.98	68.248
2040	1.46	0.46	31.777	1.00	68.223
2041	1.49	0.47	31.801	1.02	68.199
2042	1.52	0.48	31.826	1.03	68.174
2043	1.54	0.49	31.850	1.05	68.150
Total	26.74	8.46	31.621	18.28	68.379
Average	1.27	0.40	31.621	0.87	68.379

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (Dayton Pkwy & Territorial/Holly)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.55	0.20	35.419	0.36	64.529
2024	0.57	0.20	35.448	0.36	64.505
2025	0.58	0.21	35.477	0.37	64.481
2026	0.59	0.21	35.506	0.38	64.456
2027	0.61	0.22	35.535	0.39	64.432
2028	0.62	0.22	35.565	0.40	64.408
2029	0.64	0.23	35.593	0.41	64.384
2030	0.65	0.23	35.622	0.42	64.360
2031	0.67	0.24	35.651	0.43	64.336
2032	0.68	0.24	35.680	0.44	64.312
2033	0.69	0.25	35.708	0.45	64.288
2034	0.71	0.25	35.737	0.46	64.265
2035	0.72	0.26	35.765	0.47	64.241
2036	0.74	0.26	35.793	0.47	64.218
2037	0.75	0.27	35.821	0.48	64.195
2038	0.77	0.28	35.849	0.49	64.171
2039	0.78	0.28	35.877	0.50	64.148
2040	0.80	0.29	35.905	0.51	64.125
2041	0.81	0.29	35.932	0.52	64.102
2042	0.83	0.30	35.960	0.53	64.079
2043	0.84	0.30	35.987	0.54	64.057
Total	14.61	5.22	35.728	9.39	64.272
Average	0.70	0.25	35.728	0.45	64.272

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (Dayton Pkwy & Territorial/Holly)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	26.74	8.46	31.621	18.28	68.379
Expected	14.61	5.22	35.728	9.39	64.272
Expected - Predicted	-12.12	-3.23		-8.89	
Percent Difference	-82.97	-61.93		-94.66	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (Dayton Pkwy & Territorial/Holly)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Bicycle	0.39	2.7	0.00	0.0	0.39	2.7
Intersection	Collision with Fixed Object	0.53	3.6	1.06	7.3	1.59	10.9
Intersection	Non-Collision	0.10	0.7	0.04	0.3	0.14	1.0
Intersection	Collision with Other Object	0.05	0.4	0.09	0.6	0.14	0.9
Intersection	Other Single-vehicle Collision	0.03	0.2	0.03	0.2	0.06	0.4
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.19	1.3	0.00	0.0	0.19	1.3
Intersection	Total Intersection Single Vehicle Crashes	1.30	8.9	1.22	8.3	2.52	17.2
Intersection	Angle Collision	1.36	9.3	1.99	13.6	3.35	23.0
Intersection	Head-on Collision	0.19	1.3	0.24	1.7	0.44	3.0
Intersection	Other Multi-vehicle Collision	0.22	1.5	1.73	11.8	1.94	13.3
Intersection	Rear-end Collision	1.76	12.1	3.95	27.0	5.71	39.1
Intersection	Sideswipe	0.39	2.7	0.26	1.8	0.65	4.4
Intersection	Total Intersection Multiple Vehicle Crashes	3.92	26.8	8.17	55.9	12.10	82.8
Intersection	Total Intersection Crashes	5.22	35.7	9.39	64.3	14.61	100.0
	Total Crashes	5.22	35.7	9.39	64.3	14.61	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:28 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:44:56 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_CSAH81_Troy
Project Comment: Created Wed Feb 07 12:52:20 CST 2024
Project Unit System: U.S. Customary

Intersection Title: CSAH 81 & Troy Ln
Intersection Comment: Created Wed Feb 07 13:50:28 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes CSAH 81 & Troy
Evaluation Comment: Created Wed Feb 28 15:44:18 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: CSAH 81
Highway with Crash History Comment: Created Wed Feb 07 12:53:53 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

CSAH 81 & Troy Ln Evaluation

Intersection: CSAH 81 & Troy Ln
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 3ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	1	1	1	0
2019	2	2	1	0	1
2020	0	0	0	0	0
2021	1	0	0	0	0
2022	1	1	0	0	1
All Years	5 [1]	4	2	1	2

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (CSAH 81 & Troy Ln)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Troy Ln (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2023: 17,041; 2024: 17,382; 2025: 17,724; 2026: 18,065; 2027: 18,407; 2028: 18,749; 2029: 19,090; 2030: 19,432; 2031: 19,773; 2032: 20,115; 2033: 20,457; 2034: 20,798; 2035: 21,140; 2036: 21,481; 2037: 21,823; 2038: 22,165; 2039: 22,506; 2040: 22,848; 2041: 23,189; 2042: 23,531; 2043: 23,873	2023: 401; 2024: 409; 2025: 417; 2026: 425; 2027: 433; 2028: 441; 2029: 449; 2030: 457; 2031: 465; 2032: 473; 2033: 481; 2034: 489; 2035: 497; 2036: 505; 2037: 513; 2038: 521; 2039: 529; 2040: 537; 2041: 545; 2042: 553; 2043: 562	3	Stop-Controlled	0	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Troy Ln (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2018-2022: 17,041	2018-2022: 401	3	Stop-Controlled	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (CSAH 81 & Troy Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**24.95**
Fatal and Injury Crashes	**12.19**
Property-Damage-Only Crashes	**12.76**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**49**
Percent Property-Damage-Only Crashes (%)	**51**

Table 5. Predicted Crash Frequencies by Year (CSAH 81 & Troy Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.97	0.43	43.991	0.54	56.009
2024	1.00	0.44	43.898	0.56	56.102
2025	1.02	0.45	43.806	0.58	56.194
2026	1.05	0.46	43.715	0.59	56.285
2027	1.08	0.47	43.626	0.61	56.374
2028	1.11	0.48	43.539	0.63	56.461
2029	1.14	0.50	43.452	0.65	56.548
2030	1.17	0.51	43.367	0.66	56.633
2031	1.20	0.52	43.283	0.68	56.717
2032	1.23	0.53	43.201	0.70	56.799
2033	1.26	0.54	43.119	0.72	56.881
2034	1.29	0.56	43.039	0.73	56.961
2035	1.32	0.57	42.959	0.75	57.041
2036	1.35	0.58	42.881	0.77	57.119
2037	1.38	0.59	42.804	0.79	57.196
2038	1.41	0.60	42.728	0.81	57.272
2039	1.45	0.62	42.653	0.83	57.347
2040	1.48	0.63	42.579	0.85	57.421
2041	1.51	0.64	42.506	0.87	57.494
2042	1.54	0.65	42.434	0.89	57.566
2043	1.57	0.67	42.354	0.91	57.646
Total	26.54	11.43	43.069	15.11	56.931
Average	1.26	0.54	43.069	0.72	56.931

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (CSAH 81 & Troy Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.91	0.46	49.898	0.46	50.319
2024	0.94	0.47	49.792	0.47	50.403
2025	0.96	0.48	49.688	0.49	50.486
2026	0.99	0.49	49.585	0.50	50.567
2027	1.02	0.50	49.484	0.52	50.647
2028	1.04	0.52	49.385	0.53	50.726
2029	1.07	0.53	49.287	0.54	50.804
2030	1.10	0.54	49.190	0.56	50.880
2031	1.13	0.55	49.095	0.57	50.956
2032	1.16	0.57	49.001	0.59	51.030
2033	1.18	0.58	48.909	0.60	51.103
2034	1.21	0.59	48.818	0.62	51.175
2035	1.24	0.60	48.728	0.64	51.246
2036	1.27	0.62	48.639	0.65	51.317
2037	1.30	0.63	48.552	0.67	51.386
2038	1.33	0.64	48.465	0.68	51.454
2039	1.36	0.66	48.380	0.70	51.522
2040	1.39	0.67	48.296	0.72	51.588
2041	1.42	0.68	48.213	0.73	51.654
2042	1.45	0.70	48.132	0.75	51.719
2043	1.48	0.71	48.041	0.77	51.790
Total	24.95	12.19	48.852	12.76	51.148
Average	1.19	0.58	48.852	0.61	51.148

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (CSAH 81 & Troy Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	26.54	11.43	43.069	15.11	56.931
Expected	24.95	12.19	48.852	12.76	51.148
Expected - Predicted	-1.60	0.76		-2.35	
Percent Difference	-6.40	6.19		-18.43	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (CSAH 81 & Troy Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.02	0.1	0.02	0.1
Intersection	Collision with Bicycle	0.41	1.6	0.00	0.0	0.41	1.6
Intersection	Collision with Fixed Object	0.47	1.9	0.75	3.0	1.23	4.9
Intersection	Non-Collision	0.07	0.3	0.03	0.1	0.09	0.4
Intersection	Collision with Other Object	0.06	0.2	0.08	0.3	0.14	0.6
Intersection	Other Single-vehicle Collision	0.02	0.1	0.02	0.1	0.04	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.54	2.2	0.00	0.0	0.54	2.2
Intersection	Total Intersection Single Vehicle Crashes	1.57	6.3	0.90	3.6	2.47	9.9
Intersection	Angle Collision	3.64	14.6	3.11	12.5	6.75	27.1
Intersection	Head-on Collision	0.48	1.9	0.27	1.1	0.75	3.0
Intersection	Other Multi-vehicle Collision	0.69	2.8	2.79	11.2	3.48	13.9
Intersection	Rear-end Collision	4.47	17.9	5.22	20.9	9.69	38.8
Intersection	Sideswipe	1.34	5.4	0.47	1.9	1.81	7.3
Intersection	Total Intersection Multiple Vehicle Crashes	10.62	42.6	11.86	47.5	22.48	90.1
Intersection	Total Intersection Crashes	12.19	48.9	12.76	51.1	24.95	100.0
	Total Crashes	12.19	48.9	12.76	51.1	24.95	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Disclaimer Regarding Crash Prediction Method

IMPORTANT NOTICE ABOUT COMPARING RESULTS FROM HIGHWAY SAFETY MANUAL FIRST EDITION (2010) MODELS TO RESULTS FROM NEW MODELS DEVELOPED UNDER NCHRP PROJECTS 17-70, 17-58, AND 17-68

Since the publication of the Highway Safety Manual - First Edition (HSM-1), in 2010 by the American Association of State Highway and Transportation Officials (AASHTO), multiple research efforts have been undertaken through the National Cooperative Highway Research Program (NCHRP) to develop safety performance models for road segment and intersection facility types that were not initially reflected in the HSM-1, in order to expand the breadth and depth of the HSM in the future.

The IHSDM Crash Prediction Module (CPM) is intended as a faithful implementation of HSM Part C predictive methods. As NCHRP projects to develop new predictive methods for the HSM are completed, FHWA works to incorporate the new methods into IHSDM, sometimes in advance of publication in the HSM. The following new crash predictive methods have been accepted by NCHRP project panels and incorporated into IHSDM, while pending AASHTO's approval for incorporation into a future edition of the HSM:

- Roundabouts: completed in 2018 under NCHRP Project 17-70, the new methods will provide improved outcomes for the safety analysis of roundabouts.
- 6+ lane and one-way urban/suburban arterials (including models for segments and intersections): completed under NCHRP Project 17-58.
- Intersection crash prediction methods for some intersection configurations and traffic control types not currently addressed in the HSM (e.g., all-way stop; rural 3-leg signalized; 3-leg stop-controlled where the major leg turns; urban 5-leg signalized; urban high-speed intersections): completed in 2021 under NCHRP Project 17-68.

However, in the absence of local calibration factors (see HSM-1 Part C, Appendix A for guidance on calibration of the predictive models), it is neither appropriate nor advisable to directly compare the results from new models (from NCHRP Projects 17-58, 17-68, and 17-70) to results from HSM-1 models, as the models were not calibrated to the same base state data sets, and consequently can produce unexpected results. If local calibration factors are available and applied to both new models and HSM-1 models, then it may be appropriate to directly compare the results.*[Note: Work being performed under NCHRP Project 17-72 (Update of Crash Modification Factors for the Highway Safety Manual) is expected to re-calibrate many of the old (HSM-1) and new (e.g., NCHRP 17-70) models to data from a single (or small number of) states, that would allow results from all models to be directly compared.]*

The models produced for NCHRP Project 17-70 have independent value in terms of informing the design of a roundabout and assessing the effects of different design characteristics on the expected safety performance of a roundabout.

The HSM-1 interim method previously included in IHSDM for evaluating roundabouts on urban/suburban arterials (i.e., evaluating an existing intersection and then applying a Crash Modification Factor for replacing the existing intersection with a roundabout) has been deactivated in IHSDM, to minimize any confusion with the new roundabout methodology.

Section Types

CSAH 81 & Troy Ln Evaluation

Intersection: CSAH 81 & Troy Ln
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 3ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	1	1	1	0
2019	2	2	1	0	1
2020	0	0	0	0	0
2021	1	0	0	0	0
2022	1	1	0	0	1
All Years	5 [1]	4	2	1	2

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (CSAH 81 & Troy Ln)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Troy Ln (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2023: 17,041; 2024: 17,382; 2025: 17,724; 2026: 18,065; 2027: 18,407; 2028: 18,749; 2029: 19,090; 2030: 19,432; 2031: 19,773; 2032: 20,115; 2033: 20,457; 2034: 20,798; 2035: 21,140; 2036: 21,481; 2037: 21,823; 2038: 22,165; 2039: 22,506; 2040: 22,848; 2041: 23,189; 2042: 23,531; 2043: 23,873	2023: 401; 2024: 409; 2025: 417; 2026: 425; 2027: 433; 2028: 441; 2029: 449; 2030: 457; 2031: 465; 2032: 473; 2033: 481; 2034: 489; 2035: 497; 2036: 505; 2037: 513; 2038: 521; 2039: 529; 2040: 537; 2041: 545; 2042: 553; 2043: 562	3	Stop-Controlled	0	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Troy Ln (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2018-2022: 17,041	2018-2022: 401	3	Stop-Controlled	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (CSAH 81 & Troy Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**24.95**
Fatal and Injury Crashes	**12.19**
Property-Damage-Only Crashes	**12.76**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**49**
Percent Property-Damage-Only Crashes (%)	**51**

Table 5. Predicted Crash Frequencies by Year (CSAH 81 & Troy Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.97	0.43	43.991	0.54	56.009
2024	1.00	0.44	43.898	0.56	56.102
2025	1.02	0.45	43.806	0.58	56.194
2026	1.05	0.46	43.715	0.59	56.285
2027	1.08	0.47	43.626	0.61	56.374
2028	1.11	0.48	43.539	0.63	56.461
2029	1.14	0.50	43.452	0.65	56.548
2030	1.17	0.51	43.367	0.66	56.633
2031	1.20	0.52	43.283	0.68	56.717
2032	1.23	0.53	43.201	0.70	56.799
2033	1.26	0.54	43.119	0.72	56.881
2034	1.29	0.56	43.039	0.73	56.961
2035	1.32	0.57	42.959	0.75	57.041
2036	1.35	0.58	42.881	0.77	57.119
2037	1.38	0.59	42.804	0.79	57.196
2038	1.41	0.60	42.728	0.81	57.272
2039	1.45	0.62	42.653	0.83	57.347
2040	1.48	0.63	42.579	0.85	57.421
2041	1.51	0.64	42.506	0.87	57.494
2042	1.54	0.65	42.434	0.89	57.566
2043	1.57	0.67	42.354	0.91	57.646
Total	26.54	11.43	43.069	15.11	56.931
Average	1.26	0.54	43.069	0.72	56.931

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (CSAH 81 & Troy Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.91	0.46	49.898	0.46	50.319
2024	0.94	0.47	49.792	0.47	50.403
2025	0.96	0.48	49.688	0.49	50.486
2026	0.99	0.49	49.585	0.50	50.567
2027	1.02	0.50	49.484	0.52	50.647
2028	1.04	0.52	49.385	0.53	50.726
2029	1.07	0.53	49.287	0.54	50.804
2030	1.10	0.54	49.190	0.56	50.880
2031	1.13	0.55	49.095	0.57	50.956
2032	1.16	0.57	49.001	0.59	51.030
2033	1.18	0.58	48.909	0.60	51.103
2034	1.21	0.59	48.818	0.62	51.175
2035	1.24	0.60	48.728	0.64	51.246
2036	1.27	0.62	48.639	0.65	51.317
2037	1.30	0.63	48.552	0.67	51.386
2038	1.33	0.64	48.465	0.68	51.454
2039	1.36	0.66	48.380	0.70	51.522
2040	1.39	0.67	48.296	0.72	51.588
2041	1.42	0.68	48.213	0.73	51.654
2042	1.45	0.70	48.132	0.75	51.719
2043	1.48	0.71	48.041	0.77	51.790
Total	24.95	12.19	48.852	12.76	51.148
Average	1.19	0.58	48.852	0.61	51.148

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (CSAH 81 & Troy Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	26.54	11.43	43.069	15.11	56.931
Expected	24.95	12.19	48.852	12.76	51.148
Expected - Predicted	-1.60	0.76		-2.35	
Percent Difference	-6.40	6.19		-18.43	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (CSAH 81 & Troy Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.02	0.1	0.02	0.1
Intersection	Collision with Bicycle	0.41	1.6	0.00	0.0	0.41	1.6
Intersection	Collision with Fixed Object	0.47	1.9	0.75	3.0	1.23	4.9
Intersection	Non-Collision	0.07	0.3	0.03	0.1	0.09	0.4
Intersection	Collision with Other Object	0.06	0.2	0.08	0.3	0.14	0.6
Intersection	Other Single-vehicle Collision	0.02	0.1	0.02	0.1	0.04	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.00	0.0
Intersection	Collision with Pedestrian	0.54	2.2	0.00	0.0	0.54	2.2
Intersection	Total Intersection Single Vehicle Crashes	1.57	6.3	0.90	3.6	2.47	9.9
Intersection	Angle Collision	3.64	14.6	3.11	12.5	6.75	27.1
Intersection	Head-on Collision	0.48	1.9	0.27	1.1	0.75	3.0
Intersection	Other Multi-vehicle Collision	0.69	2.8	2.79	11.2	3.48	13.9
Intersection	Rear-end Collision	4.47	17.9	5.22	20.9	9.69	38.8
Intersection	Sideswipe	1.34	5.4	0.47	1.9	1.81	7.3
Intersection	Total Intersection Multiple Vehicle Crashes	10.62	42.6	11.86	47.5	22.48	90.1
Intersection	Total Intersection Crashes	12.19	48.9	12.76	51.1	24.95	100.0
	Total Crashes	12.19	48.9	12.76	51.1	24.95	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:28 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:43:56 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_CSAH81_Territorial
Project Comment: Created Wed Feb 07 16:07:30 CST 2024
Project Unit System: U.S. Customary

Intersection Title: CSAH 81 & Territorial Road
Intersection Comment: Created Wed Feb 07 16:49:51 CST 2024
Intersection Version: v1

Evaluation Title: Existing Crashes CSAH 81 & Territorial
Evaluation Comment: Created Wed Feb 28 15:42:20 CST 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: CSAH 81
Highway with Crash History Comment: Created Wed Feb 07 16:09:06 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

CSAH 81 & Territorial Road Evaluation

Intersection: CSAH 81 & Territorial Road
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 3ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	3	3	1	0	2
2019	3	3	2	1	1
2020	1	1	0	0	1
2021	0	0	0	0	0
2022	2	0	0	0	0
All Years	9 [1]	7	3	1	4

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (CSAH 81 & Territorial Road)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Territorial Road (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2023: 17,330; 2024: 17,677; 2025: 18,024; 2026: 18,372; 2027: 18,719; 2028: 19,067; 2029: 19,414; 2030: 19,761; 2031: 20,109; 2032: 20,456; 2033: 20,804; 2034: 21,151; 2035: 21,498; 2036: 21,846; 2037: 22,193; 2038: 22,541; 2039: 22,888; 2040: 23,235; 2041: 23,583; 2042: 23,930; 2043: 24,278	2023: 1,745; 2024: 1,780; 2025: 1,815; 2026: 1,850; 2027: 1,885; 2028: 1,920; 2029: 1,955; 2030: 1,990; 2031: 2,025; 2032: 2,060; 2033: 2,095; 2034: 2,130; 2035: 2,165; 2036: 2,200; 2037: 2,235; 2038: 2,270; 2039: 2,305; 2040: 2,340; 2041: 2,375; 2042: 2,410; 2043: 2,445	3	Stop-Controlled	0	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Territorial Road (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2018-2022: 17,330	2018-2022: 1,745	3	Stop-Controlled	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (CSAH 81 & Territorial Road)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**43.63**
Fatal and Injury Crashes	**19.08**
Property-Damage-Only Crashes	**24.56**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**44**
Percent Property-Damage-Only Crashes (%)	**56**

Table 5. Predicted Crash Frequencies by Year (CSAH 81 & Territorial Road)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.83	0.69	37.456	1.15	62.544
2024	1.89	0.70	37.361	1.18	62.639
2025	1.94	0.72	37.268	1.22	62.732
2026	1.99	0.74	37.176	1.25	62.824
2027	2.04	0.76	37.086	1.29	62.914
2028	2.10	0.78	36.998	1.32	63.002
2029	2.15	0.80	36.911	1.36	63.089
2030	2.21	0.81	36.825	1.40	63.175
2031	2.26	0.83	36.741	1.43	63.259
2032	2.32	0.85	36.658	1.47	63.342
2033	2.38	0.87	36.576	1.51	63.424
2034	2.43	0.89	36.496	1.54	63.504
2035	2.49	0.91	36.417	1.58	63.583
2036	2.55	0.93	36.339	1.62	63.661
2037	2.61	0.94	36.263	1.66	63.737
2038	2.67	0.96	36.187	1.70	63.813
2039	2.73	0.98	36.113	1.74	63.887
2040	2.79	1.00	36.039	1.78	63.961
2041	2.85	1.02	35.967	1.82	64.033
2042	2.90	1.04	35.896	1.86	64.104
2043	2.97	1.06	35.826	1.90	64.174
Total	50.09	18.30	36.529	31.79	63.471
Average	2.38	0.87	36.529	1.51	63.471

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (CSAH 81 & Territorial Road)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.60	0.72	44.831	0.89	55.457
2024	1.64	0.73	44.717	0.91	55.541
2025	1.69	0.75	44.605	0.94	55.624
2026	1.73	0.77	44.496	0.97	55.705
2027	1.78	0.79	44.388	0.99	55.785
2028	1.83	0.81	44.282	1.02	55.863
2029	1.88	0.83	44.178	1.05	55.941
2030	1.92	0.85	44.075	1.08	56.017
2031	1.97	0.87	43.974	1.11	56.091
2032	2.02	0.89	43.875	1.14	56.165
2033	2.07	0.91	43.778	1.16	56.237
2034	2.12	0.93	43.682	1.19	56.308
2035	2.17	0.95	43.587	1.22	56.378
2036	2.22	0.97	43.494	1.25	56.447
2037	2.27	0.99	43.402	1.28	56.515
2038	2.32	1.01	43.312	1.31	56.582
2039	2.37	1.03	43.223	1.34	56.648
2040	2.43	1.05	43.135	1.38	56.713
2041	2.48	1.07	43.049	1.41	56.777
2042	2.53	1.09	42.963	1.44	56.840
2043	2.58	1.11	42.879	1.47	56.903
Total	43.63	19.08	43.721	24.56	56.279
Average	2.08	0.91	43.721	1.17	56.279

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (CSAH 81 & Territorial Road)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	50.09	18.30	36.529	31.79	63.471
Expected	43.63	19.08	43.721	24.56	56.279
Expected - Predicted	-6.45	0.78		-7.23	
Percent Difference	-14.79	4.10		-29.45	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (CSAH 81 & Territorial Road)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.02	0.1	0.03	0.1
Intersection	Collision with Bicycle	0.77	1.8	0.00	0.0	0.77	1.8
Intersection	Collision with Fixed Object	0.82	1.9	1.02	2.3	1.83	4.2
Intersection	Non-Collision	0.11	0.3	0.04	0.1	0.15	0.3
Intersection	Collision with Other Object	0.10	0.2	0.11	0.3	0.21	0.5
Intersection	Other Single-vehicle Collision	0.04	0.1	0.03	0.1	0.07	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.01	0.0
Intersection	Collision with Pedestrian	1.01	2.3	0.00	0.0	1.01	2.3
Intersection	Total Intersection Single Vehicle Crashes	2.86	6.6	1.22	2.8	4.08	9.3
Intersection	Angle Collision	5.56	12.7	6.12	14.0	11.68	26.8
Intersection	Head-on Collision	0.73	1.7	0.54	1.2	1.27	2.9
Intersection	Other Multi-vehicle Collision	1.05	2.4	5.49	12.6	6.54	15.0
Intersection	Rear-end Collision	6.83	15.6	10.27	23.5	17.10	39.2
Intersection	Sideswipe	2.04	4.7	0.93	2.1	2.98	6.8
Intersection	Total Intersection Multiple Vehicle Crashes	16.22	37.2	23.34	53.5	39.55	90.7
Intersection	Total Intersection Crashes	19.08	43.7	24.56	56.3	43.63	100.0
	Total Crashes	19.08	43.7	24.56	56.3	43.63	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 11:57 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:17:30 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_CSAH81_Territorial - LT
Project Comment: Created Wed Feb 07 16:07:30 CST 2024
Project Unit System: U.S. Customary

Intersection Title: CSAH 81 & Territorial Road
Intersection Comment: Created Wed Feb 07 16:49:51 CST 2024
Intersection Version: v1

Evaluation Title: New Crashes LT CSAH 81 & Territorial
Evaluation Comment: Created Wed Apr 03 23:17:04 CDT 2024

Minimum Location: 0.000
Maximum Location: 20+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: CSAH 81
Highway with Crash History Comment: Created Wed Feb 07 16:09:06 CST 2024
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

CSAH 81 & Territorial Road Evaluation

Intersection: CSAH 81 & Territorial Road
Evaluation Start Location: 0.000
Evaluation End Location: 20+00.000
Calibration Factor: 3ST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	3	3	1	0	2
2019	3	3	2	1	1
2020	1	1	0	0	1
2021	0	0	0	0	0
2022	2	0	0	0	0
All Years	9 [1]	7	3	1	4

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (CSAH 81 & Territorial Road)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Territorial Road (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2023: 17,330; 2024: 17,677; 2025: 18,024; 2026: 18,372; 2027: 18,719; 2028: 19,067; 2029: 19,414; 2030: 19,761; 2031: 20,109; 2032: 20,456; 2033: 20,804; 2034: 21,151; 2035: 21,498; 2036: 21,846; 2037: 22,193; 2038: 22,541; 2039: 22,888; 2040: 23,235; 2041: 23,583; 2042: 23,930; 2043: 24,278	2023: 1,745; 2024: 1,780; 2025: 1,815; 2026: 1,850; 2027: 1,885; 2028: 1,920; 2029: 1,955; 2030: 1,990; 2031: 2,025; 2032: 2,060; 2033: 2,095; 2034: 2,130; 2035: 2,165; 2036: 2,200; 2037: 2,235; 2038: 2,270; 2039: 2,305; 2040: 2,340; 2041: 2,375; 2042: 2,410; 2043: 2,445	3	Stop-Controlled	0	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	CSAH 81 & Territorial Road (v1)	Urban/Suburban Arterial Intersection Three-Legged w/STOP control	10+00.000	2018-2022: 17,330	2018-2022: 1,745	3	Stop-Controlled	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (CSAH 81 & Territorial Road)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**43.63**
Fatal and Injury Crashes	**19.08**
Property-Damage-Only Crashes	**24.56**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**44**
Percent Property-Damage-Only Crashes (%)	**56**

Table 5. Predicted Crash Frequencies by Year (CSAH 81 & Territorial Road)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.83	0.69	37.456	1.15	62.544
2024	1.89	0.70	37.361	1.18	62.639
2025	1.94	0.72	37.268	1.22	62.732
2026	1.99	0.74	37.176	1.25	62.824
2027	2.04	0.76	37.086	1.29	62.914
2028	2.10	0.78	36.998	1.32	63.002
2029	2.15	0.80	36.911	1.36	63.089
2030	2.21	0.81	36.825	1.40	63.175
2031	2.26	0.83	36.741	1.43	63.259
2032	2.32	0.85	36.658	1.47	63.342
2033	2.38	0.87	36.576	1.51	63.424
2034	2.43	0.89	36.496	1.54	63.504
2035	2.49	0.91	36.417	1.58	63.583
2036	2.55	0.93	36.339	1.62	63.661
2037	2.61	0.94	36.263	1.66	63.737
2038	2.67	0.96	36.187	1.70	63.813
2039	2.73	0.98	36.113	1.74	63.887
2040	2.79	1.00	36.039	1.78	63.961
2041	2.85	1.02	35.967	1.82	64.033
2042	2.90	1.04	35.896	1.86	64.104
2043	2.97	1.06	35.826	1.90	64.174
Total	50.09	18.30	36.529	31.79	63.471
Average	2.38	0.87	36.529	1.51	63.471

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (CSAH 81 & Territorial Road)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.60	0.72	44.831	0.89	55.457
2024	1.64	0.73	44.717	0.91	55.541
2025	1.69	0.75	44.605	0.94	55.624
2026	1.73	0.77	44.496	0.97	55.705
2027	1.78	0.79	44.388	0.99	55.785
2028	1.83	0.81	44.282	1.02	55.863
2029	1.88	0.83	44.178	1.05	55.941
2030	1.92	0.85	44.075	1.08	56.017
2031	1.97	0.87	43.974	1.11	56.091
2032	2.02	0.89	43.875	1.14	56.165
2033	2.07	0.91	43.778	1.16	56.237
2034	2.12	0.93	43.682	1.19	56.308
2035	2.17	0.95	43.587	1.22	56.378
2036	2.22	0.97	43.494	1.25	56.447
2037	2.27	0.99	43.402	1.28	56.515
2038	2.32	1.01	43.312	1.31	56.582
2039	2.37	1.03	43.223	1.34	56.648
2040	2.43	1.05	43.135	1.38	56.713
2041	2.48	1.07	43.049	1.41	56.777
2042	2.53	1.09	42.963	1.44	56.840
2043	2.58	1.11	42.879	1.47	56.903
Total	43.63	19.08	43.721	24.56	56.279
Average	2.08	0.91	43.721	1.17	56.279

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (CSAH 81 & Territorial Road)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	50.09	18.30	36.529	31.79	63.471
Expected	43.63	19.08	43.721	24.56	56.279
Expected - Predicted	-6.45	0.78		-7.23	
Percent Difference	-14.79	4.10		-29.45	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (CSAH 81 & Territorial Road)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.02	0.1	0.03	0.1
Intersection	Collision with Bicycle	0.77	1.8	0.00	0.0	0.77	1.8
Intersection	Collision with Fixed Object	0.82	1.9	1.02	2.3	1.83	4.2
Intersection	Non-Collision	0.11	0.3	0.04	0.1	0.15	0.3
Intersection	Collision with Other Object	0.10	0.2	0.11	0.3	0.21	0.5
Intersection	Other Single-vehicle Collision	0.04	0.1	0.03	0.1	0.07	0.2
Intersection	Collision with Parked Vehicle	0.00	0.0	0.00	0.0	0.01	0.0
Intersection	Collision with Pedestrian	1.01	2.3	0.00	0.0	1.01	2.3
Intersection	Total Intersection Single Vehicle Crashes	2.86	6.6	1.22	2.8	4.08	9.3
Intersection	Angle Collision	5.56	12.7	6.12	14.0	11.68	26.8
Intersection	Head-on Collision	0.73	1.7	0.54	1.2	1.27	2.9
Intersection	Other Multi-vehicle Collision	1.05	2.4	5.49	12.6	6.54	15.0
Intersection	Rear-end Collision	6.83	15.6	10.27	23.5	17.10	39.2
Intersection	Sideswipe	2.04	4.7	0.93	2.1	2.98	6.8
Intersection	Total Intersection Multiple Vehicle Crashes	16.22	37.2	23.34	53.5	39.55	90.7
Intersection	Total Intersection Crashes	19.08	43.7	24.56	56.3	43.63	100.0
	Total Crashes	19.08	43.7	24.56	56.3	43.63	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Feb 28, 2024 4:32 PM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Jan 23, 2024 11:13 AM)

Evaluation Date: Wed Feb 28 15:54:23 CST 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name:
Phone:
E-Mail:

Project Title: 193806685_SDiamondLake_Pineview
Project Comment: Created Fri Oct 22 15:44:15 CDT 2021
Project Unit System: U.S. Customary

Intersection Title: S Diamond Lake Rd & Pineview Ln
Intersection Comment: Created Wed May 04 10:26:09 CDT 2022
Intersection Version: v1

Evaluation Title: Existing Crashes S Diamond Lk & Pineview
Evaluation Comment: Created Wed Feb 28 15:53:45 CST 2024

Minimum Location: 0.000
Maximum Location: 12+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: S Diamond Lake Road
Highway with Crash History Comment: Created Fri Oct 22 15:46:43 CDT 2021
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

S Diamond Lake Rd & Pineview Ln Evaluation

Intersection: S Diamond Lake Rd & Pineview Ln
Evaluation Start Location: 0.000
Evaluation End Location: 12+00.000
Calibration Factor: 4aST=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	1	1	0	0
2019	2	2	0	0	2
2020	1	1	1	1	0
2021	1	1	0	0	1
2022	2	2	1	0	1
All Years	7 [1]	7	3	1	4

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Intersection (S Diamond Lake Rd & Pineview Ln)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	S Diamond Lake Rd & Pineview Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/All-Way STOP control	6+00.000	2023: 3,392; 2024: 3,445; 2025: 3,498; 2026: 3,551; 2027: 3,604; 2028: 3,657; 2029: 3,710; 2030: 3,763; 2031: 3,816; 2032: 3,869; 2033: 3,922; 2034: 3,975; 2035: 4,028; 2036: 4,081; 2037: 4,134; 2038: 4,187; 2039: 4,240; 2040: 4,293; 2041: 4,346; 2042: 4,399; 2043: 4,453	2023: 4,175; 2024: 4,240; 2025: 4,305; 2026: 4,370; 2027: 4,436; 2028: 4,501; 2029: 4,566; 2030: 4,632; 2031: 4,697; 2032: 4,762; 2033: 4,828; 2034: 4,893; 2035: 4,958; 2036: 5,023; 2037: 5,089; 2038: 5,154; 2039: 5,219; 2040: 5,285; 2041: 5,350; 2042: 5,415; 2043: 5,481	4	All-Way Stop	0	0			true						

Table 3. Crash Highway Intersection (Highway with Crash History)

Inter. No.	Title	Type	Location (Sta. ft)	Major AADT	Minor AADT	Legs	Traffic Control	Approaches w/Left Turn Lanes	Approaches w/Right Turn Lanes	Approaches w/o Right Turn on Red	Pedestrian Volume (crossings/day)	Lighted at Night	Red Light Camera	School Nearby	Number of Bus Stops	Number of Alcohol Sales Establishments	Max Lanes Crossed
1	S Diamond Lake Rd & Pineview Ln (v1)	Urban/Suburban Arterial Intersection Four-Legged w/All-Way STOP control	6+00.000	2018-2022: 3,392	2018-2022: 4,175	4	All-Way Stop	0	0			true					

Table 4. Expected Intersection Crash Rates and Frequencies Summary (S Diamond Lake Rd & Pineview Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**27.71**
Fatal and Injury Crashes	**9.45**
Property-Damage-Only Crashes	**18.26**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**34**
Percent Property-Damage-Only Crashes (%)	**66**

Table 5. Predicted Crash Frequencies by Year (S Diamond Lake Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.84	0.23	26.924	0.61	73.076
2024	0.85	0.23	26.993	0.62	73.007
2025	0.87	0.23	27.060	0.63	72.940
2026	0.88	0.24	27.126	0.64	72.874
2027	0.90	0.24	27.192	0.65	72.808
2028	0.91	0.25	27.256	0.66	72.744
2029	0.92	0.25	27.320	0.67	72.680
2030	0.94	0.26	27.383	0.68	72.617
2031	0.95	0.26	27.445	0.69	72.555
2032	0.97	0.27	27.506	0.70	72.493
2033	0.98	0.27	27.567	0.71	72.433
2034	0.99	0.28	27.627	0.72	72.373
2035	1.01	0.28	27.686	0.73	72.314
2036	1.02	0.28	27.745	0.74	72.255
2037	1.04	0.29	27.803	0.75	72.197
2038	1.05	0.29	27.860	0.76	72.140
2039	1.06	0.30	27.917	0.77	72.083
2040	1.08	0.30	27.973	0.78	72.027
2041	1.09	0.31	28.028	0.79	71.972
2042	1.11	0.31	28.083	0.80	71.917
2043	1.12	0.32	28.138	0.81	71.862
Total	20.60	5.68	27.586	14.92	72.414
Average	0.98	0.27	27.586	0.71	72.414

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 6. Expected Crash Frequencies by Year (S Diamond Lake Rd & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.13	0.38	33.286	0.75	66.498
2024	1.15	0.38	33.370	0.76	66.436
2025	1.17	0.39	33.454	0.78	66.375
2026	1.19	0.40	33.536	0.79	66.314
2027	1.21	0.41	33.616	0.80	66.255
2028	1.23	0.41	33.696	0.81	66.196
2029	1.24	0.42	33.775	0.82	66.138
2030	1.26	0.43	33.853	0.83	66.081
2031	1.28	0.43	33.930	0.85	66.024
2032	1.30	0.44	34.006	0.86	65.968
2033	1.32	0.45	34.081	0.87	65.913
2034	1.34	0.46	34.155	0.88	65.859
2035	1.36	0.47	34.228	0.89	65.805
2036	1.38	0.47	34.301	0.91	65.751
2037	1.40	0.48	34.372	0.92	65.699
2038	1.41	0.49	34.443	0.93	65.647
2039	1.43	0.49	34.513	0.94	65.595
2040	1.45	0.50	34.582	0.95	65.544
2041	1.47	0.51	34.651	0.96	65.494
2042	1.49	0.52	34.718	0.97	65.444
2043	1.51	0.53	34.787	0.99	65.393
Total	27.71	9.45	34.104	18.26	65.896
Average	1.32	0.45	34.104	0.87	65.896

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 7. Comparing Predicted and Expected Crashes for the Evaluation Period (S Diamond Lake Rd & Pineview Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	20.60	5.68	27.586	14.92	72.414
Expected	27.71	9.45	34.104	18.26	65.896
Expected - Predicted	7.12	3.77		3.35	
Percent Difference	25.68	39.88		18.32	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Intersection Crash Type Distribution (S Diamond Lake Rd & Pineview Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Bicycle	0.22	0.8	0.00	0.0	0.22	0.8
Intersection	Non-Collision	0.04	0.1	0.02	0.1	0.05	0.2
Intersection	Other Single-vehicle Collision	0.70	2.5	1.48	5.3	2.18	7.8
Intersection	Collision with Pedestrian	0.30	1.1	0.00	0.0	0.30	1.1
Intersection	Total Intersection Single Vehicle Crashes	1.25	4.5	1.50	5.4	2.75	9.9
Intersection	Angle Collision	4.79	17.3	8.78	31.7	13.57	49.0
Intersection	Head-on Collision	0.10	0.4	0.07	0.3	0.17	0.6
Intersection	Other Multi-vehicle Collision	1.11	4.0	1.55	5.6	2.66	9.6
Intersection	Rear-end Collision	2.08	7.5	5.51	19.9	7.60	27.4
Intersection	Sideswipe	0.13	0.5	0.84	3.0	0.97	3.5
Intersection	Total Intersection Multiple Vehicle Crashes	8.21	29.6	16.77	60.5	24.97	90.1
Intersection	Total Intersection Crashes	9.46	34.1	18.26	65.9	27.72	100.0
	Total Crashes	9.46	34.1	18.26	65.9	27.72	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Report Overview

Report Generated: Apr 4, 2024 10:44 AM
Report Template: System: Single Page, 508 Compliant [System] (mlcpm5, Dec 5, 2019 1:16 PM)

Evaluation Date: Wed Apr 03 23:35:18 CDT 2024
IHSDM Version: v17.0.0 (Sep 22, 2021)
Crash Prediction Module: v12.0.0 (Sep 22, 2021)

User Name: acapets
Organization Name: Stantec
Phone: 3122622238
E-Mail: adam.capets@stantec.com

Project Title: 193806685_SDiamondLake_Pineview - Rdbt
Project Comment: Created Fri Oct 22 15:44:15 CDT 2021
Project Unit System: U.S. Customary

Intersection Title: S Diamond Lake & Pineview Ln
Intersection Comment: Created Wed Apr 03 18:04:01 CDT 2024
Intersection Version: v1

Evaluation Title: New Crashes Rdbt S Diamond Lk & Pineview
Evaluation Comment: Created Wed Apr 03 23:34:21 CDT 2024

Minimum Location: 0.000
Maximum Location: 12+00.000

Policy for Superelevation: AASHTO 2011 U.S. Customary
Calibration: HSM Configuration
Crash Distribution: HSM Configuration
Model/CMF: HSM Configuration

First Year of Analysis: 2023
Last Year of Analysis: 2043
Empirical-Bayes Analysis: Site-Specific
Highway with Crash History: S Diamond Lake Road
Highway with Crash History Comment: Created Fri Oct 22 15:46:43 CDT 2021
Highway with Crash History Version: 1
First Year of Observed Crashes: 2018
Last Year of Observed Crashes: 2022

Section Types

S Diamond Lake & Pineview Ln Evaluation

Intersection: S Diamond Lake & Pineview Ln
Evaluation Start Location: 0.000
Evaluation End Location: 12+00.000
Calibration Factor: USA 41R=1.0;

Table 1. Observed Crashes Used in the Evaluation (Highway with Crash History)

Year	Observed Crashes	Total Crashes Used	FI Crashes	FI no/C Crashes	PDO Crashes
2018	1	1	1	0	0
2019	2	2	0	0	2
2020	1	1	1	1	0
2021	1	1	0	0	1
2022	2	2	1	0	1
All Years	7 [1]	7	3	1	4

Footnotes

[1] Note: Observed crash data that does not comply with the associated CPM model requirements may not be used in EB processing.

Table 2. Evaluation Roundabout - Site (S Diamond Lake & Pineview Ln)

Inter. No.	Title	Type	Area Type	Legs	Location (Sta. ft)	Entering AADT
1	S Diamond Lake & Pineview Ln (v1)	Roundabout 41R - Roundabout with 4 legs and a single circulating lane	Urban	4	6+00.000	Leg 1: 2023: 997; 2024: 1,012; 2025: 1,028; 2026: 1,043; 2027: 1,059; 2028: 1,075; 2029: 1,090; 2030: 1,106; 2031: 1,121; 2032: 1,137; 2033: 1,153; 2034: 1,168; 2035: 1,184; 2036: 1,199; 2037: 1,215; 2038: 1,231; 2039: 1,246; 2040: 1,262; 2041: 1,277; 2042: 1,293; 2043: 1,309; Leg 2: 2023: 1,696; 2024: 1,722; 2025: 1,749; 2026: 1,775; 2027: 1,802; 2028: 1,828; 2029: 1,855; 2030: 1,881; 2031: 1,908; 2032: 1,934; 2033: 1,961; 2034: 1,987; 2035: 2,014; 2036: 2,040; 2037: 2,067; 2038: 2,093; 2039: 2,120; 2040: 2,146; 2041: 2,173; 2042: 2,199; 2043: 2,226; Leg 3: 2023: 2,087; 2024: 2,120; 2025: 2,152; 2026: 2,185; 2027: 2,218; 2028: 2,250; 2029: 2,283; 2030: 2,316; 2031: 2,348; 2032: 2,381; 2033: 2,414; 2034: 2,446; 2035: 2,479; 2036: 2,511; 2037: 2,544; 2038: 2,577; 2039: 2,609; 2040: 2,642; 2041: 2,675; 2042: 2,707; 2043: 2,740; Leg 4: 2023: 1,088; 2024: 1,105; 2025: 1,122; 2026: 1,139; 2027: 1,156; 2028: 1,173; 2029: 1,190; 2030: 1,207; 2031: 1,224; 2032: 1,241; 2033: 1,258; 2034: 1,275; 2035: 1,292; 2036: 1,309; 2037: 1,326; 2038: 1,343; 2039: 1,360; 2040: 1,377; 2041: 1,394; 2042: 1,411; 2043: 1,429

Table 3. Crash Highway Roundabout - Site (Highway with Crash History)

Inter. No.	Title	Type	Area Type	Legs	Location (Sta. ft)	Entering AADT
1	S Diamond Lake & Pineview Ln (v1)	Roundabout 41R - Roundabout with 4 legs and a single circulating lane	Urban	4	6+00.000	Leg 1: 2018-2022: 997; Leg 2: 2018-2022: 1,696; Leg 3: 2018-2022: 2,087; Leg 4: 2018-2022: 1,088

Table 4. Expected Roundabout Crash Rates and Frequencies Summary (S Diamond Lake & Pineview Ln)

First Year of Analysis	**2023**
Last Year of Analysis	**2043**
Expected Crashes	
Total Crashes	**24.19**
Fatal and Injury Crashes	**5.37**
Property-Damage-Only Crashes	**18.82**
Percent of Total Expected Crashes	
Percent Fatal and Injury Crashes (%)	**22**
Percent Property-Damage-Only Crashes (%)	**78**

Table 5. Expected Crash Frequencies and Rates by Roundabout (S Diamond Lake & Pineview Ln)

Segment Number/Intersection Name/Cross Road	Location (Sta. ft)	Total Expected Crashes for Evaluation Period	Total Predicted Crashes for Evaluation Period	Expected Total Crash Frequency (crashes/yr)	Expected FI Crash Frequency (crashes/yr)	Expected PDO Crash Frequency (crashes/yr)	Predicted Total Crash Frequency (crashes/yr)	Predicted FI Crash Frequency (crashes/yr)	Predicted PDO Crash Frequency (crashes/yr)	(Expected - Predicted) Total Crash Frequency (crashes/yr)	(Expected - Predicted) FI Crash Frequency (crashes/yr)	(Expected - Predicted) PDO Crash Frequency (crashes/yr)	Expected Travel Crash Rate (crashes/million veh)
S Diamond Lake & Pineview Ln (v1)	6+00.000	24.187	22.617	1.1518	0.2557	0.8961	1.0770	0.1631	0.9139	0.0748	0.0926	-0.0179	0.47

Table 6. Expected Crash Severity by Roundabout (S Diamond Lake & Pineview Ln)

Seg. No.	Type	Fatal (K) Crashes (crashes)	Incapacitating Injury (A) Crashes (crashes)	Non-Incapacitating Injury (B) Crashes (crashes)	Possible Injury (C) Crashes (crashes)	No Injury (O) Crashes (crashes)
1	Roundabout	0.0325	0.3229	2.0779	2.9361	18.8176

Table 7. Predicted Crash Frequencies by Year (S Diamond Lake & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	0.97	0.14	14.741	0.83	85.259
2024	0.98	0.14	14.782	0.83	85.218
2025	0.99	0.15	14.823	0.84	85.177
2026	1.00	0.15	14.864	0.85	85.136
2027	1.01	0.15	14.904	0.86	85.096
2028	1.02	0.15	14.944	0.87	85.056
2029	1.03	0.15	14.983	0.88	85.017
2030	1.04	0.16	15.021	0.89	84.979
2031	1.06	0.16	15.059	0.90	84.941
2032	1.07	0.16	15.097	0.91	84.903
2033	1.08	0.16	15.134	0.92	84.865
2034	1.09	0.17	15.171	0.92	84.829
2035	1.10	0.17	15.207	0.93	84.793
2036	1.11	0.17	15.243	0.94	84.757
2037	1.12	0.17	15.279	0.95	84.721
2038	1.13	0.17	15.314	0.96	84.686
2039	1.14	0.17	15.349	0.97	84.651
2040	1.15	0.18	15.383	0.97	84.617
2041	1.16	0.18	15.417	0.98	84.583
2042	1.17	0.18	15.451	0.99	84.549
2043	1.18	0.18	15.485	1.00	84.515
Total	22.62	3.42	15.140	19.19	84.860
Average	1.08	0.16	15.140	0.91	84.860

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 8. Expected Crash Frequencies by Year (S Diamond Lake & Pineview Ln)

Year	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
2023	1.04	0.22	21.615	0.81	78.166
2024	1.05	0.23	21.675	0.82	78.128
2025	1.06	0.23	21.736	0.83	78.090
2026	1.07	0.23	21.795	0.84	78.053
2027	1.08	0.24	21.854	0.84	78.016
2028	1.09	0.24	21.912	0.85	77.980
2029	1.11	0.24	21.969	0.86	77.945
2030	1.12	0.25	22.026	0.87	77.909
2031	1.13	0.25	22.081	0.88	77.874
2032	1.14	0.25	22.137	0.89	77.840
2033	1.15	0.26	22.192	0.90	77.805
2034	1.16	0.26	22.245	0.91	77.772
2035	1.18	0.26	22.299	0.91	77.738
2036	1.19	0.27	22.351	0.92	77.706
2037	1.20	0.27	22.403	0.93	77.673
2038	1.21	0.27	22.455	0.94	77.641
2039	1.22	0.28	22.506	0.95	77.609
2040	1.23	0.28	22.556	0.95	77.577
2041	1.24	0.28	22.606	0.96	77.546
2042	1.25	0.28	22.655	0.97	77.515
2043	1.26	0.29	22.706	0.98	77.484
Total	24.19	5.37	22.200	18.82	77.800
Average	1.15	0.26	22.200	0.90	77.800

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 9. Comparing Predicted and Expected Crashes for the Evaluation Period (S Diamond Lake & Pineview Ln)

Scope	Total Crashes	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)
Predicted	22.62	3.42	15.140	19.19	84.860
Expected	24.19	5.37	22.200	18.82	77.800
Expected - Predicted	1.57	1.95		-0.38	
Percent Difference	6.49	36.23		-1.99	

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

Table 10. Expected Roundabout Crash Type Distribution (S Diamond Lake & Pineview Ln)

Element Type	Crash Type	FI Crashes	Percent FI (%)	PDO Crashes	Percent PDO (%)	Total Crashes	Percent Total (%)
Intersection	Collision with Animal	0.00	0.0	0.04	0.2	0.04	0.2
Intersection	Collision with Fixed Object	1.16	4.8	3.54	14.6	4.70	19.4
Intersection	Collision with Other Object	0.00	0.0	0.04	0.2	0.04	0.2
Intersection	Other Single-vehicle Collision	1.12	4.6	1.02	4.2	2.14	8.8
Intersection	Collision with Parked Vehicle	0.01	0.0	0.17	0.7	0.18	0.7
Intersection	Total Single Vehicle Crashes	2.29	9.5	4.80	19.8	7.09	29.3
Intersection	Angle Collision	0.62	2.6	3.61	14.9	4.23	17.5
Intersection	Head-on Collision	0.06	0.2	0.19	0.8	0.25	1.0
Intersection	Other Multiple-vehicle Collision	0.38	1.6	3.52	14.5	3.90	16.1
Intersection	Rear-end Collision	1.60	6.6	4.95	20.5	6.55	27.1
Intersection	Sideswipe	0.42	1.7	1.75	7.2	2.17	9.0
Intersection	Total Multiple Vehicle Crashes	3.08	12.7	14.02	58.0	17.10	70.7
Intersection	Total Intersection Crashes	5.37	22.2	18.82	77.8	24.19	100.0
	Total Crashes	5.37	22.2	18.82	77.8	24.19	100.0

Note: *Fatal and Injury Crashes* and *Property Damage Only Crashes* do not necessarily sum up to *Total Crashes* because the distribution of these three crashes had been derived independently.

CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 7696

CMF Name: Change from 5-section

Description: Change from 5-section

Prior Condition: 5 section doghouse signal

Category: Intersection traffic control

Study ID: *Safety Effectiveness of Flashing Yellow Arrow: Evaluation of 222 Signalized Intersections in North Carolina*, Simpson and Troy 2015

Star Quality Rating	
Star Quality Rating:	4 Stars

Crash Modification Factor (CMF)	
Value:	0.838
Adjusted Standard Error:	
Unadjusted Standard Error:	0.053

Crash Reduction Factor	
Value:	16.2
Adjusted Standard Error:	
Unadjusted Standard Error:	5.3

Applicability	
Crash Type:	Left turn
Crash Severity:	All
Roadway Types:	Not specified
Minimum Number of Lanes:	
Maximum Number of Lanes:	
Number of Lanes Direction:	
Number of Lanes Comment:	
Road Division Type:	
Minimum Speed Limit:	20
Maximum Speed Limit:	55
Speed Unit:	mph
Speed Limit Comment:	
Area Type:	Not specified
Traffic Volume:	
Average Traffic Volume:	
Time of Day:	Not specified
If countermeasure is intersection-based.	
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	3-leg,4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 3500 to Maximum of 52000 Annual Average Daily Traffic (AADT)
Minor Road Traffic Volume:	Minimum of 300 to Maximum of 26500 Annual Average Daily Traffic (AADT)

Average Major Road Volume:	
Average Minor Road Volume:	

Development Details

Date Range of Data Used:	2003 to 2013
Municipality:	
State:	NC
Country:	
Type of Methodology Used:	Simple before/after
Sample Size (crashes):	441 crashes before, 325 crashes after
Sample Size (sites):	156 sites before, 156 sites after

Other Details

Included in HSM:	No
Date Added to Clearinghouse:	Nov 01, 2015
Comments:	Target crashes are defined as

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.

CMF / CRF Details

CMF ID: 11154

Provide Right Turn Channelization

Description:

Prior Condition: intersection without channelization

Category: Intersection geometry

Study: *Safety and Economic Evaluation of the Highway Safety Improvement Program: Is there a Return on Investment?*, Boris Claros, Erynn Schroeder, Kentin Brummett, Madhav Chitturi, Andrea Bill, and David A. Noyce, 2022

Star Quality Rating:	★★★☆☆

Crash Modification Factor (CMF)	
Value:	0.734
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)	
Value:	26.6 *(This value indicates a **decrease** in crashes)*
Adjusted Standard Error:	

Unadjusted Standard Error:	

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	All
Speed Limit:	
Area Type:	Not specified
Traffic Volume:	
Time of Day:	Not specified

If countermeasure is intersection-based

Intersection Type:	Not specified
Intersection Geometry:	No values chosen.
Traffic Control:	Not specified
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Development Details

Date Range of Data Used:	
Municipality:	
State:	WI

Country:	
Type of Methodology Used:	2
Sample Size Used:	

Other Details

Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Aug-25-2022
Comments:	

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Appendix F - SIGNAL WARRANT ANALYSIS

Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Eastbound: Dayton Rv

Number of Lanes:	2
Approach Speed:	50
Total App. Vehicles:	3,993
Rt Turn Percentage:	100%

Westbound: Dayton Rv

Number of Lanes:	2
Approach Speed:	50
Total App. Vehicles:	3,350
Rt Turn Percentage:	100%

Minor Street Approaches:

Northbound: Pineview

Number of Lanes:	1
Approach Speed:	40
Total App. Vehicles:	943
Rt Turn Percentage:	100%

Southbound: Pineview

Number of Lanes:	1
Approach Speed:	30
Total App. Vehicles:	436
Rt Turn Percentage:	100%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Minor Street Direction	Minor Street Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	NB	14			
1 AM	0	0	NB	14			
2 AM	0	0	NB	14			
3 AM	0	0	NB	14			
4 AM	0	0	NB	14			
5 AM	0	0	NB	14			
6 AM	452	46	SB	10	Major St		
7 AM	833	62	SB	6	Major St	- - -BOTH- - -	B ONLY
8 AM	610	50	NB	8	Major St		
9 AM	422	49	NB	9	Major St		
10 AM	430	32	SB	13	Major St		
11 AM	434	42	NB	11	Major St		
12 PM	442	56	NB	7	Major St	Minor St	
1 PM	433	41	NB	12	Major St		
2 PM	574	76	NB	5	Major St	Minor St	
3 PM	705	107	NB	3	- - -BOTH- - -	- - -BOTH- - -	
4 PM	871	184	NB	1	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
5 PM	668	150	NB	2	- - -BOTH- - -	- - -BOTH- - -	A ONLY
6 PM	469	81	NB	4	Major St	Minor St	
7 PM	0	0	NB	14			
8 PM	0	0	NB	14			
9 PM	0	0	NB	14			
10 PM	0	0	NB	14			
11 PM	0	0	NB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Warrant 1 - Eight Hour Vehicular Volume
Condition A: **Not satisfied.** Required values reached for 3 hours. Eight hours required.
Criteria - Major Street 420 Minor Street 105
Condition B: **Not satisfied.** Required values reached for 4 hours. Eight hours required.
Criteria - Major Street 630 Minor Street 53
Condition A+B: **Not satisfied.** Required values reached for 2 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 480 720 Minor Street 120 60

Warrant 2 - Four Hour Vehicular Volume
Not satisfied. Required values reached for 3 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
Condition A: **Minor street delay requirement not met.**
Criteria - Total Approach Volume: 800
- Minor Street High Side Volume: 100
- Minor Street High Side Delay: 4 vehicle-hours
Condition B: **Satisfied.** Required values reached for 1 hour. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume
Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

Not examined.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Satisfied.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 21 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 210 vehicles per hour and total volume from the minor approaches of at least 140 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume and crash criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-2
Warrant 2 - Four-Hour Vehicular Volume

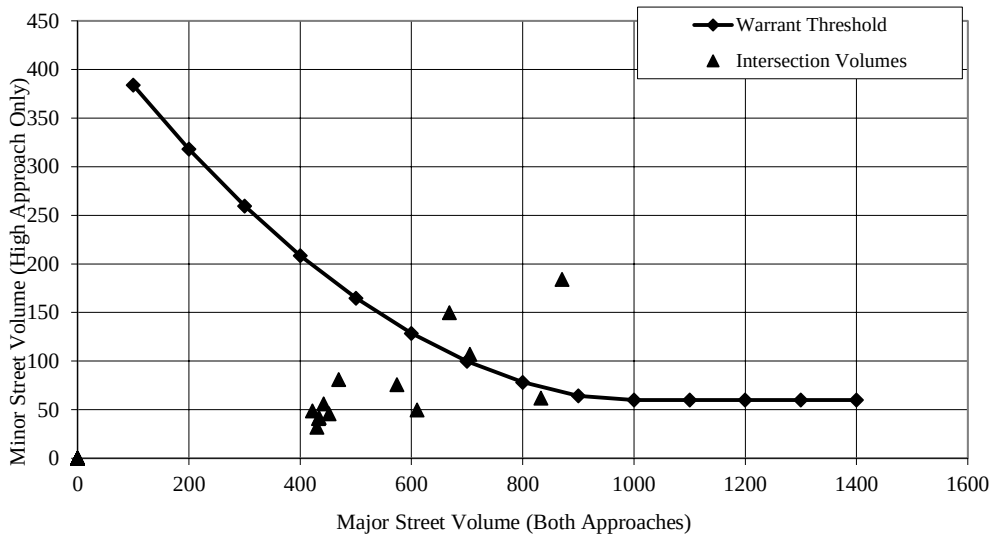
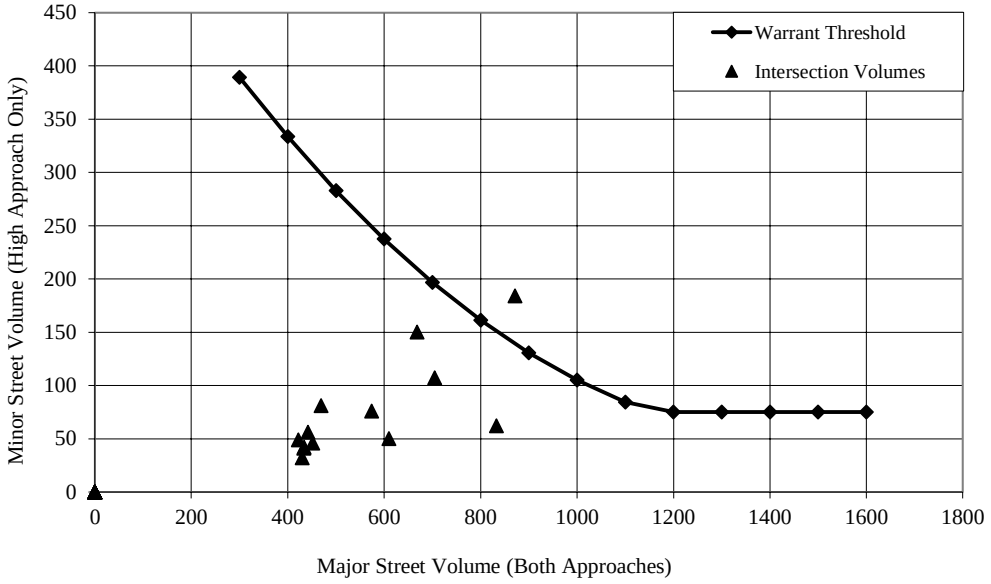


Figure 4C-4
Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Northbound: Dayton Rv

Number of Lanes:	1
Approach Speed:	30
Total App. Vehicles:	1,481
Rt Turn Percentage:	100%

Southbound: Dayton Rv

Number of Lanes:	1
Approach Speed:	30
Total App. Vehicles:	1,930
Rt Turn Percentage:	100%

Minor Street Approaches:

Eastbound: Brockton

Number of Lanes:	1
Approach Speed:	55
Total App. Vehicles:	907
Rt Turn Percentage:	100%

Westbound: Brockton

Number of Lanes:	1
Approach Speed:	55
Total App. Vehicles:	0
Rt Turn Percentage:	100%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Direction	Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	EB	14			
1 AM	0	0	EB	14			
2 AM	0	0	EB	14			
3 AM	0	0	EB	14			
4 AM	0	0	EB	14			
5 AM	0	0	EB	14			
6 AM	251	8	EB	13			
7 AM	482	27	EB	12			
8 AM	275	35	EB	9			
9 AM	159	29	EB	11			
10 AM	165	31	EB	10			
11 AM	169	53	EB	7			
12 PM	187	46	EB	8			
1 PM	188	61	EB	5			
2 PM	269	78	EB	4		Minor St	
3 PM	344	171	EB	2	Minor St	Minor St	
4 PM	433	194	EB	1	Minor St	Minor St	A ONLY
5 PM	313	119	EB	3		Minor St	
6 PM	176	55	EB	6			
7 PM	0	0	EB	14			
8 PM	0	0	EB	14			
9 PM	0	0	EB	14			
10 PM	0	0	EB	14			
11 PM	0	0	EB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Warrant 1 - Eight Hour Vehicular Volume
Condition A: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 500 Minor Street 150
Condition B: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 750 Minor Street 75
Condition A+B: **Not satisfied.** Required values reached for 0 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 400 600 Minor Street 120 60

Warrant 2 - Four Hour Vehicular Volume
Not satisfied. Required values reached for 0 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
Condition A: **Minor street delay requirement not met.**
Criteria - Total Approach Volume: 650
- Minor Street High Side Volume: 100
- Minor Street High Side Delay: 4 vehicle-hours
Condition B: **Not satisfied.** Required values reached for 0 hours. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume
Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

First and second criteria listed below not met.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Traffic signal warrants are not met.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Delay and volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 300 vehicles per hour and total volume on the minor approaches of at least 200 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume, crash, and delay criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-1
Warrant 2 - Four-Hour Vehicular Volume

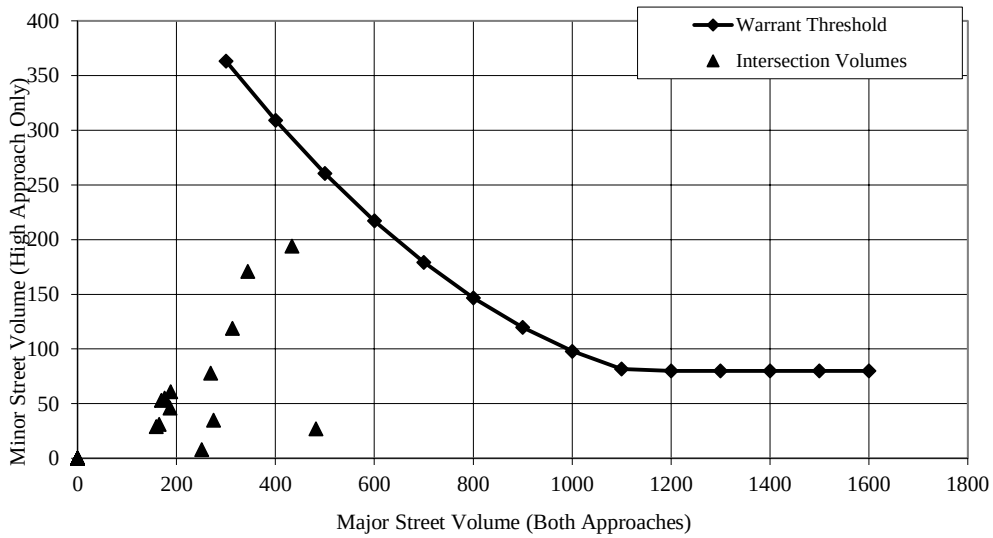
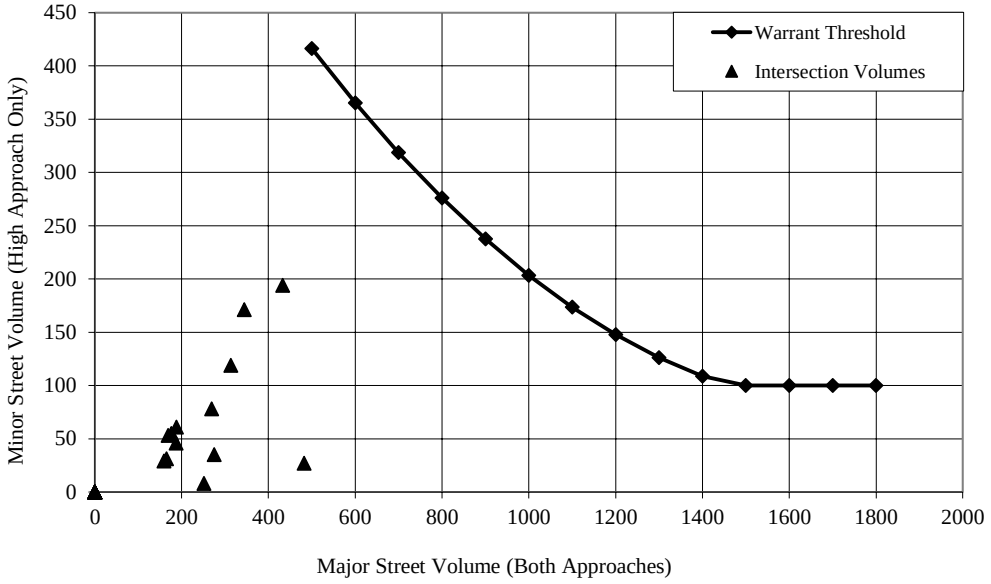


Figure 4C-4
Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Eastbound: Dayton Rv	
Number of Lanes:	2
Approach Speed:	50
Total App. Vehicles:	2,017
Rt Turn Percentage:	100%

Westbound: Dayton Rv	
Number of Lanes:	2
Approach Speed:	50
Total App. Vehicles:	3,731
Rt Turn Percentage:	100%

Minor Street Approaches:

Northbound: N Diamond Lk	
Number of Lanes:	1
Approach Speed:	50
Total App. Vehicles:	61
Rt Turn Percentage:	0%

Southbound: 142nd	
Number of Lanes:	1
Approach Speed:	30
Total App. Vehicles:	27
Rt Turn Percentage:	100%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Minor Street Direction	Minor Street Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	NB	14			
1 AM	0	0	NB	14			
2 AM	0	0	NB	14			
3 AM	0	0	NB	14			
4 AM	0	0	NB	14			
5 AM	0	0	NB	14			
6 AM	321	6	NB	3			
7 AM	580	7	NB	2	Major St		
8 AM	438	5	NB	5	Major St		
9 AM	299	1	NB	13			
10 AM	313	3	NB	10			
11 AM	323	6	NB	3			
12 PM	355	5	NB	5			
1 PM	340	4	SB	8			
2 PM	457	5	NB	5	Major St		
3 PM	584	12	NB	1	Major St		
4 PM	786	3	NB	10	Major St	Major St	
5 PM	598	3	SB	10	Major St		
6 PM	354	4	NB	8			
7 PM	0	0	NB	14			
8 PM	0	0	NB	14			
9 PM	0	0	NB	14			
10 PM	0	0	NB	14			
11 PM	0	0	NB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Warrant 1 - Eight Hour Vehicular Volume
Condition A: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 420 Minor Street 105
Condition B: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 630 Minor Street 53
Condition A+B: **Not satisfied.** Required values reached for 0 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 480 720 Minor Street 120 60

Warrant 2 - Four Hour Vehicular Volume
Not satisfied. Required values reached for 0 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
Condition A: **Minor street delay requirement not met.**
Criteria - Total Approach Volume: 800
- Minor Street High Side Volume: 150
- Minor Street High Side Delay: 5 vehicle-hours
Condition B: **Not satisfied.** Required values reached for 0 hours. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume
Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Veh. or ped. volume criteria not met.

Criteria - 5 or more correctable crashes, and

- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

First and second criteria listed below not met.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.

- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Traffic signal warrants are not met.

Criteria - One or more traffic signal warrants are satisfied.

- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Satisfied.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Delay and volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 21 seconds per vehicle during the highest hour.

- Total volume from the major approaches of at least 210 vehicles per hour and total volume from the minor approaches of at least 140 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume and delay criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.

- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-2

Warrant 2 - Four-Hour Vehicular Volume

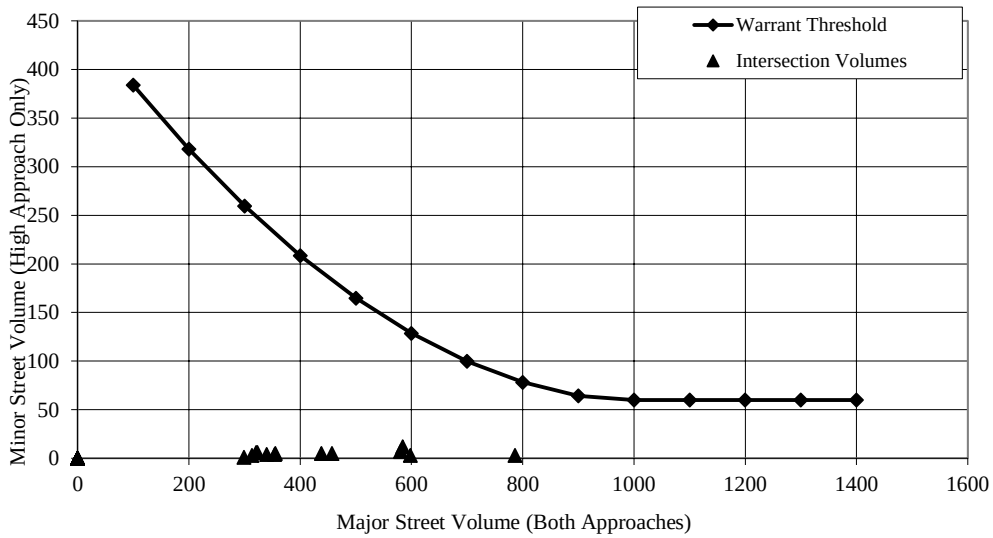
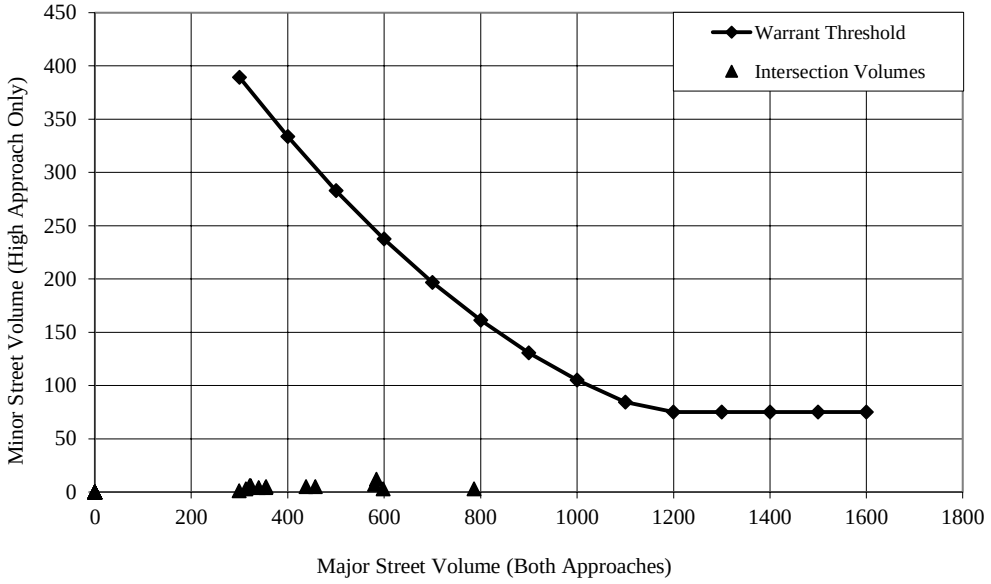


Figure 4C-4

Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Eastbound: CSAH 81
- Number of Lanes: 4
- Approach Speed: 55
- Total App. Vehicles: 6,917
- Rt Turn Percentage: 100%

Westbound: CSAH 81
- Number of Lanes: 4
- Approach Speed: 55
- Total App. Vehicles: 5,861
- Rt Turn Percentage: 100%

Minor Street Approaches:

Northbound: Dayton
- Number of Lanes: 2
- Approach Speed: 40
- Total App. Vehicles: 2,442
- Rt Turn Percentage: 0%

Southbound: Dayton
- Number of Lanes: 2
- Approach Speed: 40
- Total App. Vehicles: 802
- Rt Turn Percentage: 100%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Minor Street Direction	Minor Street Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	NB	14			
1 AM	0	0	NB	14			
2 AM	0	0	NB	14			
3 AM	0	0	NB	14			
4 AM	0	0	NB	14			
5 AM	0	0	NB	14			
6 AM	907	146	NB	10	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
7 AM	1425	240	NB	2	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
8 AM	1035	190	NB	7	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
9 AM	836	141	NB	11	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
10 AM	670	123	NB	13	- - -BOTH- - -	- - -BOTH- - -	B ONLY
11 AM	766	159	NB	9	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
12 PM	793	178	NB	8	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
1 PM	838	223	NB	4	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
2 PM	1028	234	NB	3	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
3 PM	1364	266	NB	1	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
4 PM	1438	207	NB	5	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
5 PM	1076	195	NB	6	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
6 PM	602	140	NB	12	- - -BOTH- - -	- - -BOTH- - -	- - -A + B- - -
7 PM	0	0	NB	14			
8 PM	0	0	NB	14			
9 PM	0	0	NB	14			
10 PM	0	0	NB	14			
11 PM	0	0	NB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Warrant 1 - Eight Hour Vehicular Volume **Existing Signal, 80% Volume for Warrant 1**
- Condition A: **Satisfied.** Required values reached for 13 hours. Eight hours required.
  - Criteria - Major Street 336 Minor Street 112
- Condition B: **Satisfied.** Required values reached for 13 hours. Eight hours required.
  - Criteria - Major Street 504 Minor Street 56
- Condition A+B: **Satisfied.** Required values reached for 12 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
  - Criteria - Major Street 384 576 Minor Street 128 64

Warrant 2 - Four Hour Vehicular Volume
- **Satisfied.** Required values reached for 11 hours. Four hours required.
- See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
- Condition A: **Not examined.**
  - Criteria - Total Approach Volume: 800
  - Minor Street High Side Volume: 150
  - Minor Street High Side Delay: 5 vehicle-hours
- Condition B: **Satisfied.** Required values reached for 7 hours. One hour required.
- See chart for criteria.

Warrant 4 - Pedestrian Volume
- **Not examined.**
- Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
- **Not examined.**
- Criteria - At least 20 students crossing during the highest crossing hour.
  - Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
  - Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
- **Not examined**
- Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
  - Proposed and adjacent traffic control signals will collectively provide a progressive operation.
  - Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

Not examined.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Satisfied.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Delay criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 21 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 210 vehicles per hour and total volume from the minor approaches of at least 140 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Delay and crash criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-2
Warrant 2 - Four-Hour Vehicular Volume

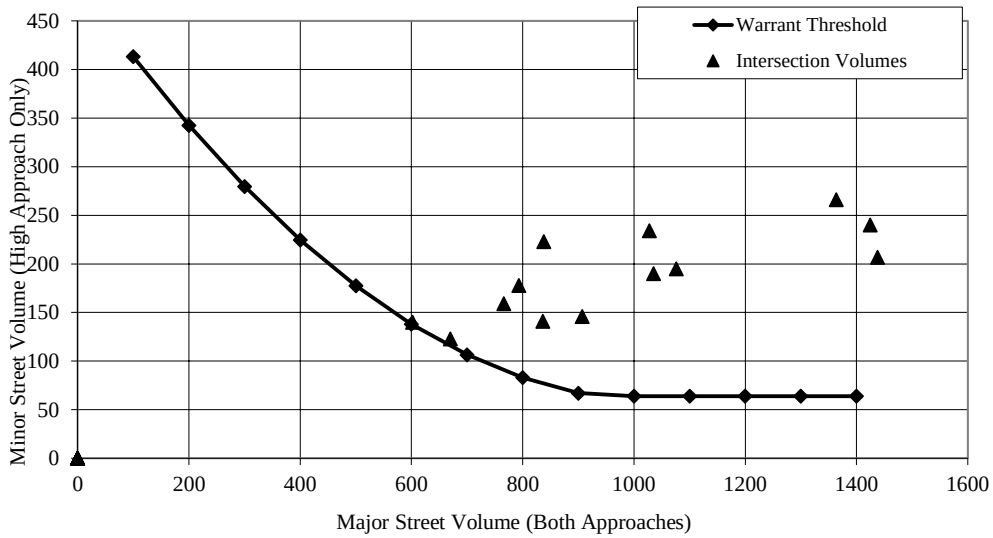
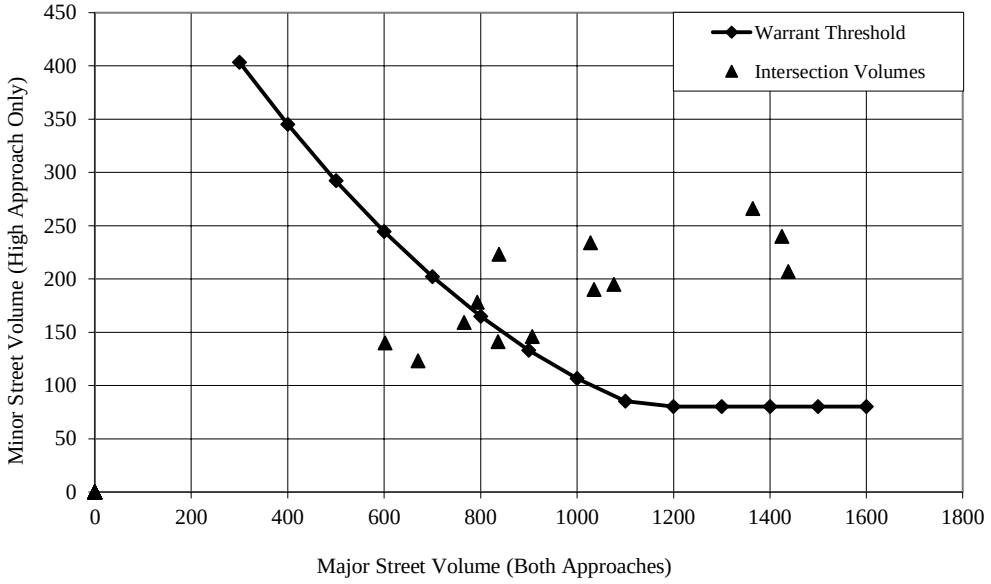


Figure 4C-4
Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Eastbound: Dayton Rv	
Number of Lanes:	1
Approach Speed:	50
Total App. Vehicles:	1,366
Rt Turn Percentage:	100%

Westbound: Dayton Rv	
Number of Lanes:	1
Approach Speed:	50
Total App. Vehicles:	1,323
Rt Turn Percentage:	100%

Minor Street Approaches:

Northbound: Lawndale	
Number of Lanes:	1
Approach Speed:	40
Total App. Vehicles:	169
Rt Turn Percentage:	100%

Southbound: Lawndale	
Number of Lanes:	1
Approach Speed:	30
Total App. Vehicles:	51
Rt Turn Percentage:	100%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Minor Street Direction	Minor Street Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	NB	14			
1 AM	0	0	NB	14			
2 AM	0	0	NB	14			
3 AM	0	0	NB	14			
4 AM	0	0	NB	14			
5 AM	0	0	NB	14			
6 AM	179	4	SB	13			
7 AM	304	10	NB	7			
8 AM	222	6	NB	12			
9 AM	123	14	SB	5			
10 AM	128	7	NB	10			
11 AM	132	8	NB	9			
12 PM	160	7	NB	10			
1 PM	147	14	NB	5			
2 PM	216	10	NB	7			
3 PM	297	22	NB	3			
4 PM	368	32	NB	1	Major St		
5 PM	263	26	NB	2			
6 PM	150	18	NB	4			
7 PM	0	0	NB	14			
8 PM	0	0	NB	14			
9 PM	0	0	NB	14			
10 PM	0	0	NB	14			
11 PM	0	0	NB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Warrant 1 - Eight Hour Vehicular Volume
Condition A: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 350 Minor Street 105
Condition B: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 525 Minor Street 53
Condition A+B: **Not satisfied.** Required values reached for 0 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 400 600 Minor Street 120 60

Warrant 2 - Four Hour Vehicular Volume
Not satisfied. Required values reached for 0 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
Condition A: **Delay and volume requirements not met.**
Criteria - Total Approach Volume: 800
- Minor Street High Side Volume: 100
- Minor Street High Side Delay: 4 vehicle-hours
Condition B: **Not satisfied.** Required values reached for 0 hours. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume
Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

Not examined.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Traffic signal warrants are not met.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Delay and volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 21 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 210 vehicles per hour and total volume from the minor approaches of at least 140 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume, crash, and delay criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-2
Warrant 2 - Four-Hour Vehicular Volume

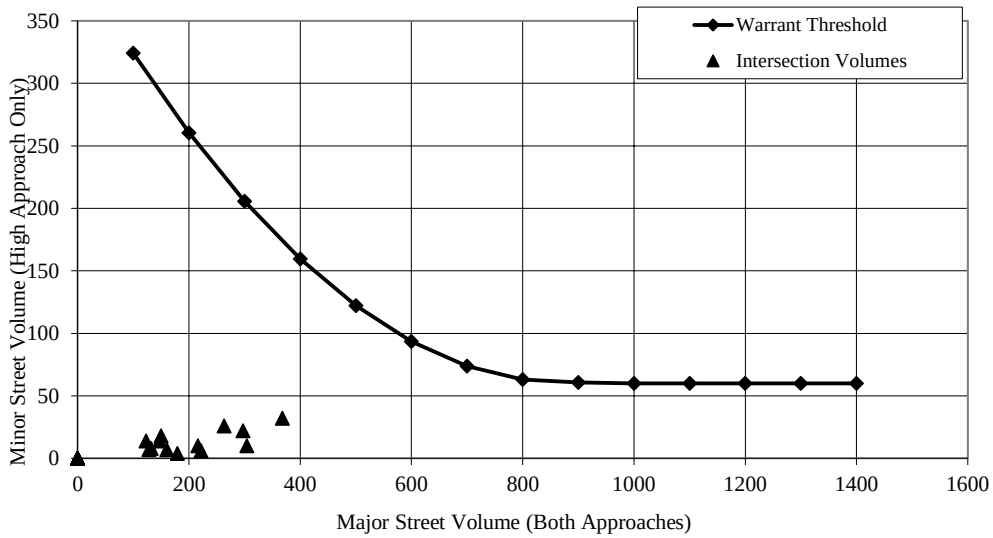
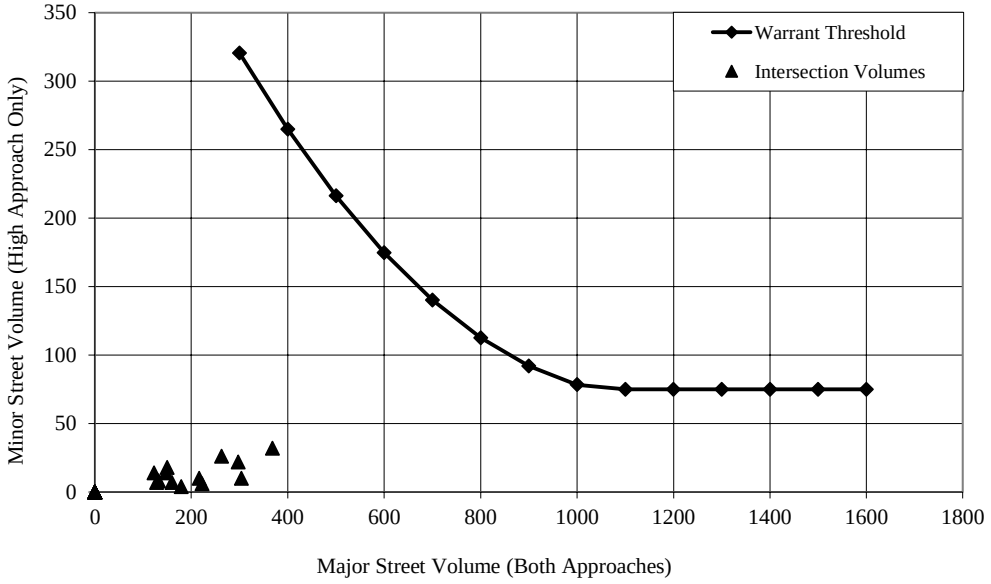


Figure 4C-4
Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Major Street Approaches:		Minor Street Approaches:	
Northbound: Fernbrook		Eastbound: Rush Cr	
Number of Lanes:	3	Number of Lanes:	1
Approach Speed:	55	Approach Speed:	30
Total App. Vehicles:	4,443	Total App. Vehicles:	292
Rt Turn Percentage:	100%	Rt Turn Percentage:	0%
Southbound: Fernbrook		Westbound: Elm Cr	
Number of Lanes:	3	Number of Lanes:	1
Approach Speed:	55	Approach Speed:	35
Total App. Vehicles:	2,721	Total App. Vehicles:	451
Rt Turn Percentage:	100%	Rt Turn Percentage:	100%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Direction	Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	EB	14			
1 AM	0	0	EB	14			
2 AM	0	0	EB	14			
3 AM	0	0	EB	14			
4 AM	0	0	EB	14			
5 AM	0	0	EB	14			
6 AM	292	25	EB	12			
7 AM	653	40	EB	4	Major St	Major St	
8 AM	492	33	WB	9	Major St		
9 AM	394	35	WB	5			
10 AM	319	20	WB	13			
11 AM	415	34	WB	6			
12 PM	409	30	WB	10			
1 PM	428	34	WB	6	Major St		
2 PM	540	34	WB	6	Major St		
3 PM	736	51	WB	2	Major St	Major St	
4 PM	1000	59	WB	1	Major St	- - -BOTH- - -	
5 PM	890	47	WB	3	Major St	Major St	
6 PM	596	26	WB	11	Major St		
7 PM	0	0	EB	14			
8 PM	0	0	EB	14			
9 PM	0	0	EB	14			
10 PM	0	0	EB	14			
11 PM	0	0	EB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Warrant 1 - Eight Hour Vehicular Volume
Condition A: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 420 Minor Street 105
Condition B: **Not satisfied.** Required values reached for 1 hour. Eight hours required.
Criteria - Major Street 630 Minor Street 53
Condition A+B: **Not satisfied.** Required values reached for 0 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 480 720 Minor Street 120 60

Warrant 2 - Four Hour Vehicular Volume
Not satisfied. Required values reached for 0 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
Condition A: **Minor street delay requirement not met.**
Criteria - Total Approach Volume: 800
- Minor Street High Side Volume: 150
- Minor Street High Side Delay: 5 vehicle-hours
Condition B: **Not satisfied.** Required values reached for 0 hours. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume
Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

Not examined.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Traffic signal warrants are not met.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Delay and volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 21 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 210 vehicles per hour and total volume from the minor approaches of at least 140 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume, crash, and delay criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-2
Warrant 2 - Four-Hour Vehicular Volume

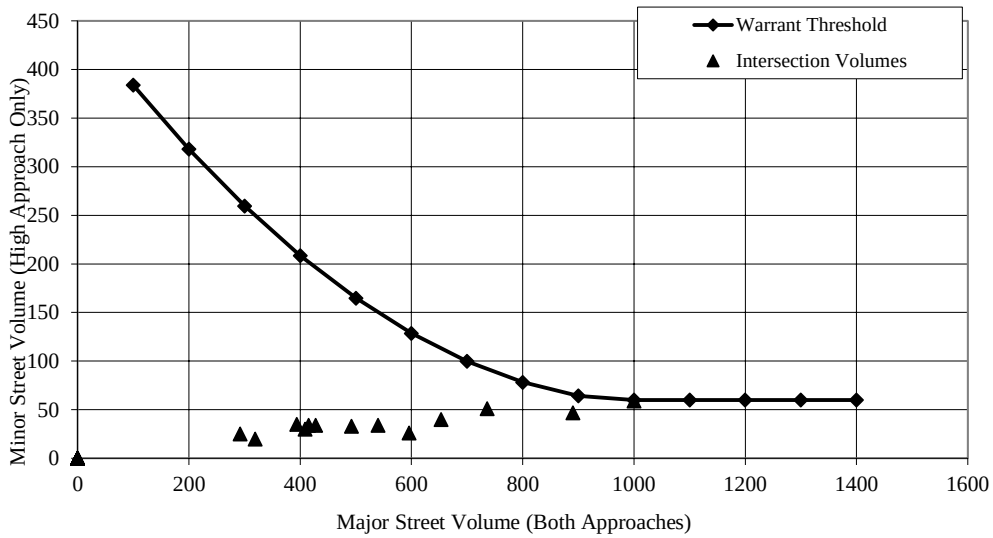
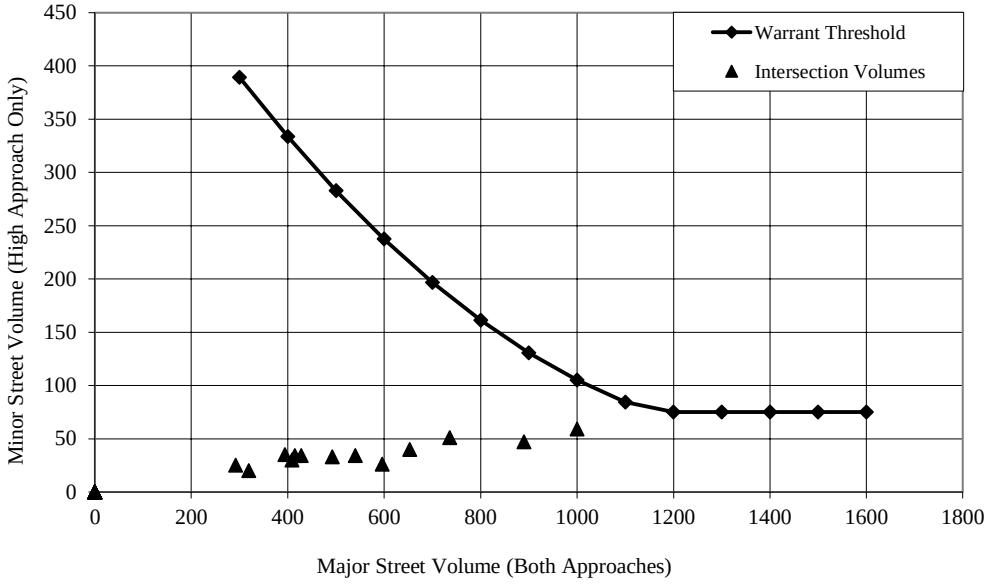


Figure 4C-4
Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Northbound: Dayton
- Number of Lanes: 4
- Approach Speed: 40
- Total App. Vehicles: 3,560
- Rt Turn Percentage: 100%

Southbound: Dayton
- Number of Lanes: 4
- Approach Speed: 40
- Total App. Vehicles: 2,240
- Rt Turn Percentage: 100%

Minor Street Approaches:

Eastbound: Territorial
- Number of Lanes: 2
- Approach Speed: 30
- Total App. Vehicles: 156
- Rt Turn Percentage: 0%

Westbound: Holly
- Number of Lanes: 2
- Approach Speed: 30
- Total App. Vehicles: 467
- Rt Turn Percentage: 0%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Minor Street Direction	Minor Street Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	EB	14			
1 AM	0	0	EB	14			
2 AM	0	0	EB	14			
3 AM	0	0	EB	14			
4 AM	0	0	EB	14			
5 AM	0	0	EB	14			
6 AM	429	23	WB	10			
7 AM	630	25	WB	9	Major St		
8 AM	502	17	WB	13			
9 AM	424	37	WB	4			
10 AM	308	23	WB	10			
11 AM	384	35	WB	5			
12 PM	402	32	WB	6			
1 PM	431	30	WB	7			
2 PM	492	63	WB	2			
3 PM	572	54	WB	3			
4 PM	486	80	WB	1			
5 PM	424	29	WB	8			
6 PM	316	19	WB	12			
7 PM	0	0	EB	14			
8 PM	0	0	EB	14			
9 PM	0	0	EB	14			
10 PM	0	0	EB	14			
11 PM	0	0	EB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Warrant 1 - Eight Hour Vehicular Volume

Condition A: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 600 Minor Street 200

Condition B: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 900 Minor Street 100

Condition A+B: **Not satisfied.** Required values reached for 0 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 480 720 Minor Street 160 80

Warrant 2 - Four Hour Vehicular Volume

Not satisfied. Required values reached for 0 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume

Condition A: **Minor street delay and volume requirements not met.**
Criteria - Total Approach Volume: 800
- Minor Street High Side Volume: 150
- Minor Street High Side Delay: 5 vehicle-hours

Condition B: **Not satisfied.** Required values reached for 0 hours. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume

Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing

Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System

Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

Not examined.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Traffic signal warrants are not met.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Delay and volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 300 vehicles per hour and total volume on the minor approaches of at least 200 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume, crash, and delay criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-1

Warrant 2 - Four-Hour Vehicular Volume

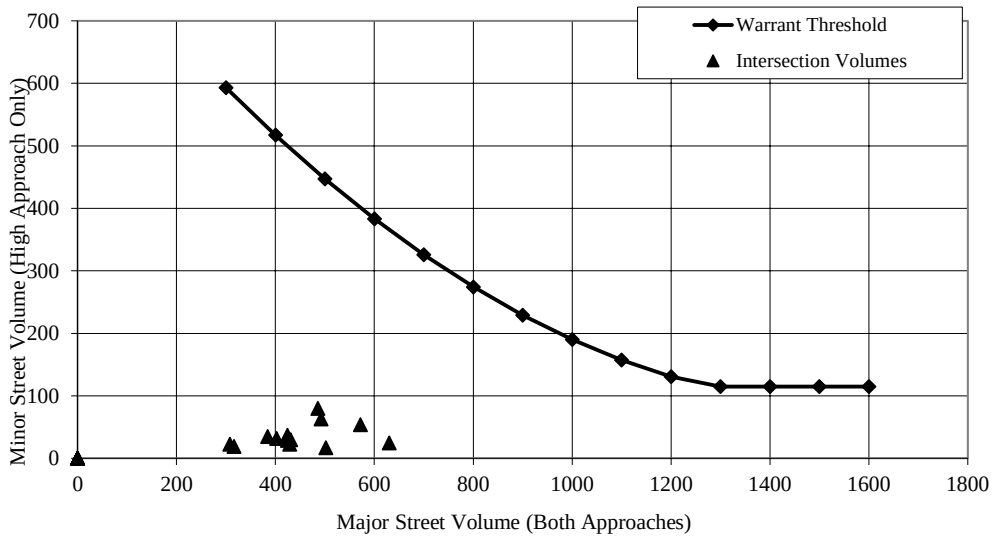
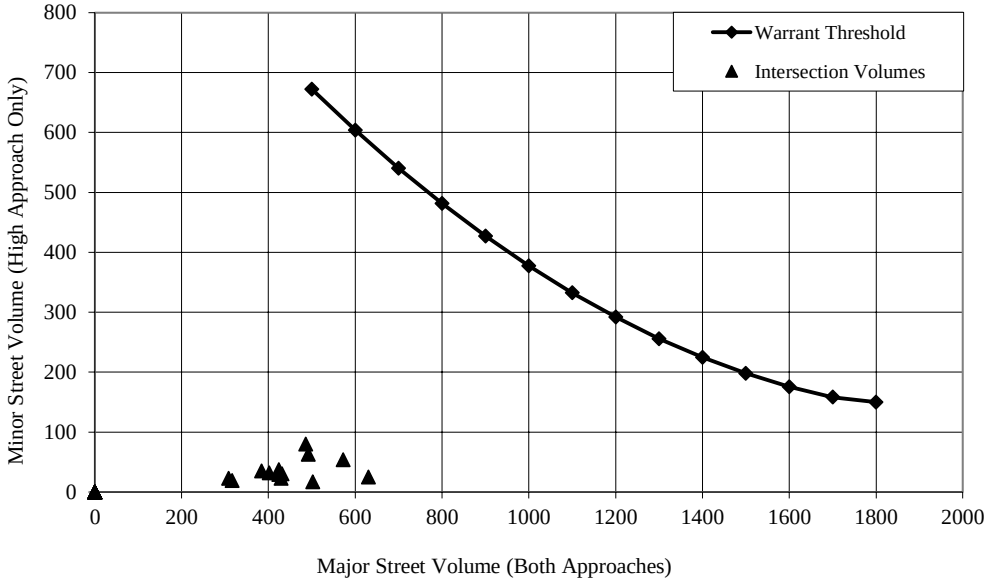


Figure 4C-4

Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Eastbound: CSAH 81

Number of Lanes:	2
Approach Speed:	55
Total App. Vehicles:	6,820
Rt Turn Percentage:	100%

Westbound: CSAH 81

Number of Lanes:	2
Approach Speed:	55
Total App. Vehicles:	7,502
Rt Turn Percentage:	100%

Minor Street Approaches:

Northbound: Troy

Number of Lanes:	1
Approach Speed:	30
Total App. Vehicles:	0
Rt Turn Percentage:	100%

Southbound: Troy

Number of Lanes:	1
Approach Speed:	30
Total App. Vehicles:	118
Rt Turn Percentage:	0%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Minor Street Direction	Minor Street Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	NB	14			
1 AM	0	0	NB	14			
2 AM	0	0	NB	14			
3 AM	0	0	NB	14			
4 AM	0	0	NB	14			
5 AM	0	0	NB	14			
6 AM	1014	1	SB	13	Major St	Major St	
7 AM	1557	4	SB	10	Major St	Major St	
8 AM	1134	4	SB	10	Major St	Major St	
9 AM	904	10	SB	5	Major St	Major St	
10 AM	771	5	SB	7	Major St	Major St	
11 AM	868	5	SB	7	Major St	Major St	
12 PM	900	7	SB	6	Major St	Major St	
1 PM	1006	4	SB	10	Major St	Major St	
2 PM	1215	17	SB	3	Major St	Major St	
3 PM	1511	27	SB	1	Major St	Major St	
4 PM	1564	18	SB	2	Major St	Major St	
5 PM	1196	11	SB	4	Major St	Major St	
6 PM	682	5	SB	7	Major St	Major St	
7 PM	0	0	NB	14			
8 PM	0	0	NB	14			
9 PM	0	0	NB	14			
10 PM	0	0	NB	14			
11 PM	0	0	NB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Warrant 1 - Eight Hour Vehicular Volume
Condition A: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 420 Minor Street 105
Condition B: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 630 Minor Street 53
Condition A+B: **Not satisfied.** Required values reached for 0 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 480 720 Minor Street 120 60

Warrant 2 - Four Hour Vehicular Volume
Not satisfied. Required values reached for 0 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
Condition A: **Minor street delay and volume requirements not met.**
Criteria - Total Approach Volume: 650
- Minor Street High Side Volume: 150
- Minor Street High Side Delay: 5 vehicle-hours
Condition B: **Not satisfied.** Required values reached for 0 hours. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume
Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

Not examined.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Traffic signal warrants are not met.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 21 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 210 vehicles per hour and total volume from the minor approaches of at least 140 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume and crash criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-2
Warrant 2 - Four-Hour Vehicular Volume

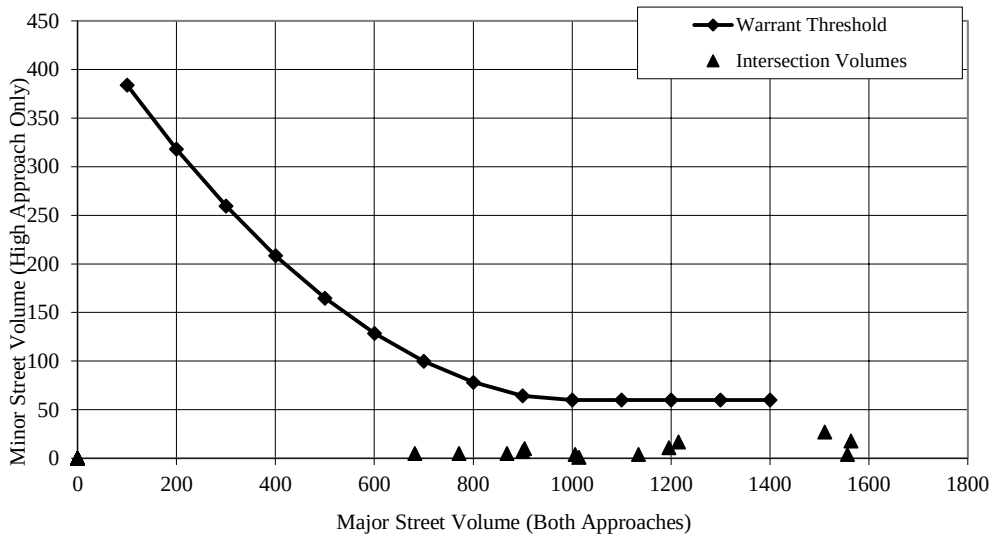
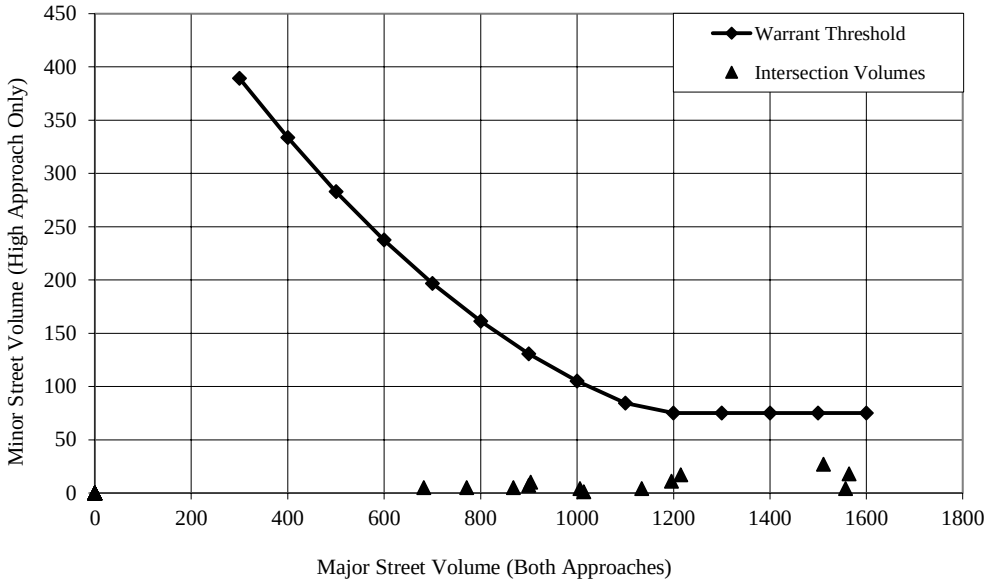


Figure 4C-4
Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Eastbound: CSAH 81	
Number of Lanes:	2
Approach Speed:	55
Total App. Vehicles:	5,948
Rt Turn Percentage:	100%

Westbound: CSAH 81	
Number of Lanes:	2
Approach Speed:	55
Total App. Vehicles:	5,728
Rt Turn Percentage:	100%

Minor Street Approaches:

Northbound: Territorial	
Number of Lanes:	1
Approach Speed:	40
Total App. Vehicles:	0
Rt Turn Percentage:	0%

Southbound: Territorial	
Number of Lanes:	1
Approach Speed:	40
Total App. Vehicles:	353
Rt Turn Percentage:	0%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Minor Street Direction	Minor Street Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	NB	14			
1 AM	0	0	NB	14			
2 AM	0	0	NB	14			
3 AM	0	0	NB	14			
4 AM	0	0	NB	14			
5 AM	0	0	NB	14			
6 AM	792	23	SB	10	Major St	Major St	
7 AM	1267	47	SB	1	Major St	Major St	
8 AM	876	33	SB	3	Major St	Major St	
9 AM	724	30	SB	4	Major St	Major St	
10 AM	606	28	SB	5	Major St		
11 AM	665	16	SB	12	Major St	Major St	
12 PM	715	7	SB	13	Major St	Major St	
1 PM	779	26	SB	7	Major St	Major St	
2 PM	937	28	SB	5	Major St	Major St	
3 PM	1281	20	SB	11	Major St	Major St	
4 PM	1363	26	SB	7	Major St	Major St	
5 PM	1076	43	SB	2	Major St	Major St	
6 PM	595	26	SB	7	Major St		
7 PM	0	0	NB	14			
8 PM	0	0	NB	14			
9 PM	0	0	NB	14			
10 PM	0	0	NB	14			
11 PM	0	0	NB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Warrant 1 - Eight Hour Vehicular Volume
Condition A: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 420 Minor Street 105
Condition B: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 630 Minor Street 53
Condition A+B: **Not satisfied.** Required values reached for 0 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 480 720 Minor Street 120 60

Warrant 2 - Four Hour Vehicular Volume
Not satisfied. Required values reached for 0 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
Condition A: **Minor street delay and volume requirements not met.**
Criteria - Total Approach Volume: 650
- Minor Street High Side Volume: 150
- Minor Street High Side Delay: 5 vehicle-hours
Condition B: **Not satisfied.** Required values reached for 0 hours. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume
Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

Not examined.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Traffic signal warrants are not met.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Delay and volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 21 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 210 vehicles per hour and total volume from the minor approaches of at least 140 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume, crash, and delay criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-2
Warrant 2 - Four-Hour Vehicular Volume

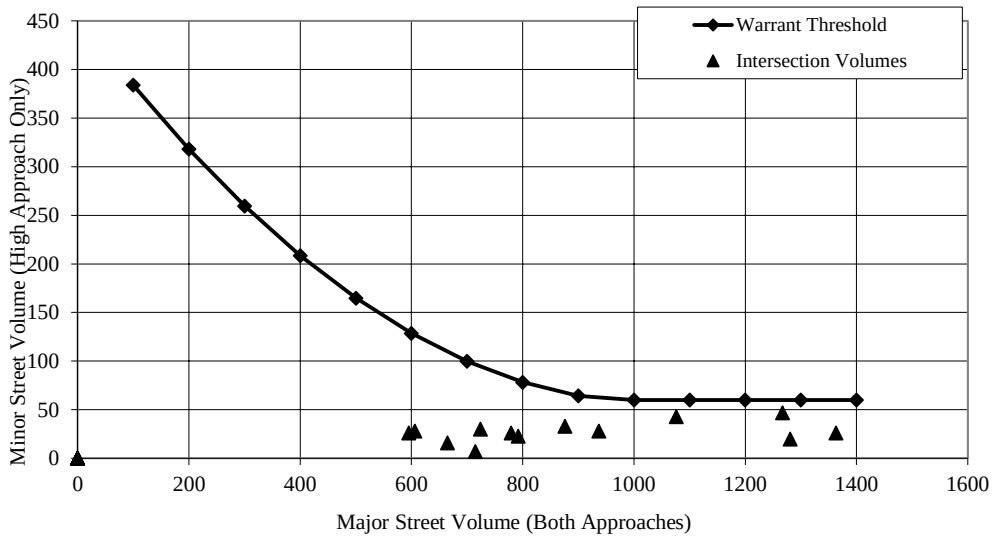
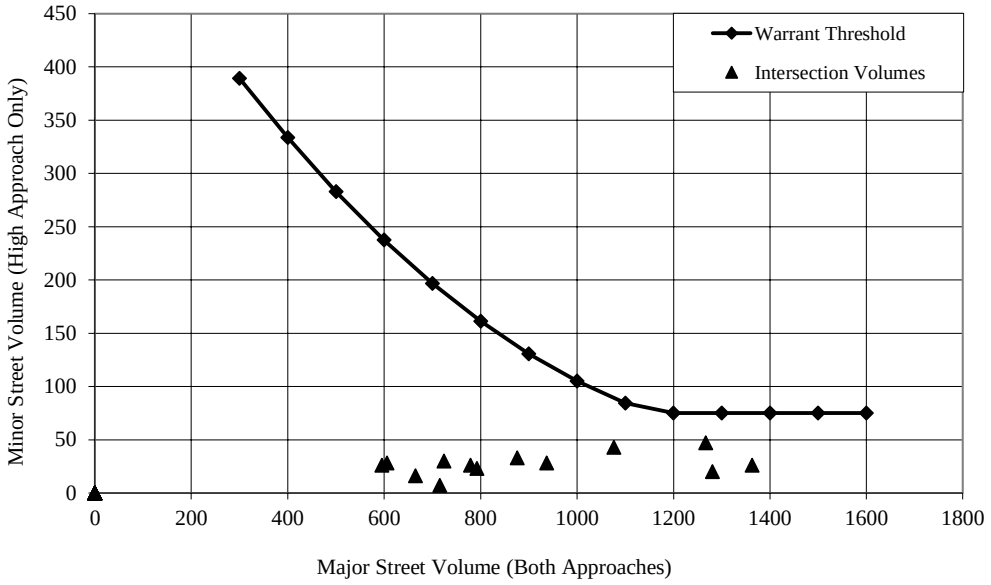


Figure 4C-4
Warrant 3 - Peak-Hour Vehicular Volume



Traffic Signal Warrant Analysis

Count Date: 18-Jan-24 Project No.: 193806685

Major Street Approaches:

Eastbound: S Diamond Lk

Number of Lanes:	1
Approach Speed:	40
Total App. Vehicles:	1,426
Rt Turn Percentage:	100%

Westbound: S Diamond Lk

Number of Lanes:	1
Approach Speed:	40
Total App. Vehicles:	1,505
Rt Turn Percentage:	100%

Minor Street Approaches:

Northbound: Pineview

Number of Lanes:	2
Approach Speed:	40
Total App. Vehicles:	1,689
Rt Turn Percentage:	100%

Southbound: Pineview

Number of Lanes:	2
Approach Speed:	40
Total App. Vehicles:	1,072
Rt Turn Percentage:	100%

Analysis of Warrant 1: 8-Hour Volumes

Hour Begin	Major (Total)	Minor Street Volume	Minor Street Direction	Minor Street Rank	Condition A Meets Criteria?	Condition B Meets Criteria?	Condition A+B Meets Criteria?
12 AM	0	0	NB	14			
1 AM	0	0	NB	14			
2 AM	0	0	NB	14			
3 AM	0	0	NB	14			
4 AM	0	0	NB	14			
5 AM	0	0	NB	14			
6 AM	201	98	SB	10			
7 AM	297	196	SB	3		Minor St	
8 AM	198	100	NB	8		Minor St	
9 AM	201	75	SB	11			
10 AM	136	71	NB	13			
11 AM	147	73	NB	12			
12 PM	176	99	NB	9			
1 PM	162	106	NB	7		Minor St	
2 PM	281	132	NB	6		Minor St	
3 PM	325	196	NB	3		Minor St	
4 PM	392	273	NB	1	Minor St	Minor St	
5 PM	253	269	NB	2	Minor St	Minor St	
6 PM	162	172	NB	5		Minor St	
7 PM	0	0	NB	14			
8 PM	0	0	NB	14			
9 PM	0	0	NB	14			
10 PM	0	0	NB	14			
11 PM	0	0	NB	14			

Condition A is the Minimum Vehicular Volume Warrant.
Condition B is the Interruption of Continuous Traffic Warrant.
Condition A+B is the combination of Conditions A and B at 80%.

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685

Warrant 1 - Eight Hour Vehicular Volume
Condition A: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 500 Minor Street 200
Condition B: **Not satisfied.** Required values reached for 0 hours. Eight hours required.
Criteria - Major Street 750 Minor Street 100
Condition A+B: **Not satisfied.** Required values reached for 0 hours. Requires volumes to meet 80 percent of requirement of A and of B for eight hours, not necessary the same eight hours.
Criteria - Major Street 400 600 Minor Street 160 80

Warrant 2 - Four Hour Vehicular Volume
Not satisfied. Required values reached for 0 hours. Four hours required.
See chart for criteria.

Warrant 3 - Peak Hour Vehicular Volume
Condition A: **Total approach volume and minor street delay requirements not met.**
Criteria - Total Approach Volume: 800
- Minor Street High Side Volume: 150
- Minor Street High Side Delay: 5 vehicle-hours
Condition B: **Not satisfied.** Required values reached for 0 hours. One hour required.
See chart for criteria.

Warrant 4 - Pedestrian Volume
Not examined.
Criteria - Pedestrian volume crossing the major street is at least 100 per hour for any 4 hours or at least 190 during any one hour.

Warrant 5 - School Crossing
Not examined.
Criteria - At least 20 students crossing during the highest crossing hour.
- Consider implementing other measures, such as warning signs and flashers, school speed zones, school crossing guards, or a grade-separated crossing.
- Do not apply at locations where distance to nearest signal is less than 300 feet.

Warrant 6 - Coordinated Signal System
Not examined
Criteria - Adjacent traffic control signals do not provide the necessary degree of platooning.
- Proposed and adjacent traffic control signals will collectively provide a progressive operation.
- Warrant should not be used where resultant spacing of traffic control signals would be less than 1,000 feet.

Traffic Signal Warrant Analysis

Traffic Signal Warrant Summary: 18-Jan-24 Project No.: 193806685 Traffic Signal Warrant Graphs: 18-Jan-24 Project No.: 193806685

Warrant 7 - Crash Experience

Not examined.

Criteria - 5 or more correctable crashes, and
- Vehicular volumes meeting 80 percent of Warrant 1 condition A or B, or.
- Pedestrian volumes meeting 80 percent of Warrant 4 conditions.

Warrant 8 - Roadway Network

Not examined.

Criteria - Total existing entering volume of at least 1,000 vehicles per hour during the peak hour of a typical weekday.
- 5-year projected traffic volumes that meet one or more of Warrants 1, 2, and 3 during an average weekday.
- Common intersection of two or more major routes.

Multiway Stop Warrant Summary

Warrant Condition A - Traffic Signal Warrant

Traffic signal warrants are not met.

Criteria - One or more traffic signal warrants are satisfied.
- Multiway stop may be used as an interim control before traffic signal installation if this warrant is met.

Warrant Condition B - Crash Experience

Not Examined.

Criteria - 5 or more correctable crashes in a twelve month period.

Warrant Condition C - Intersection Volume & Delay

Delay and volume criteria not satisfied.

Criteria - Average delay to minor street vehicular traffic of at least 30 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 300 vehicles per hour and total volume on the minor approaches of at least 200 vehicles per hour for any 8 hours of an average day.

Warrant Condition D - Combination Volume, Crash Experience, & Delay

Volume, crash, and delay criteria not satisfied.

Criteria - 4 or more correctable crashes in a twelve month period.
- Average delay to minor street vehicular traffic of at least 24 seconds per vehicle during the highest hour.
- Total volume from the major approaches of at least 240 vehicles per hour and total volume from the minor approaches of at least 160 vehicles per hour for any 8 hours of an average day.

Figure 4C-1
Warrant 2 - Four-Hour Vehicular Volume

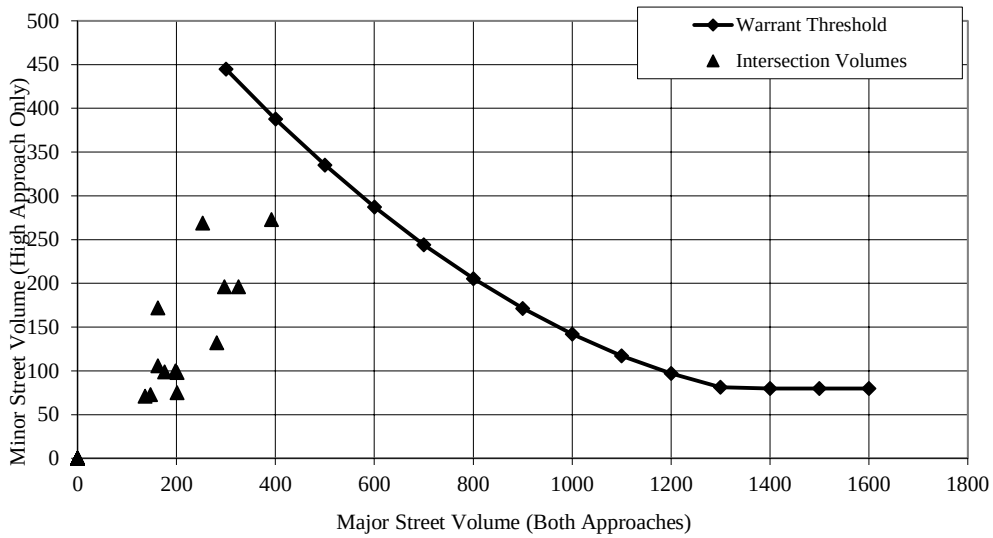
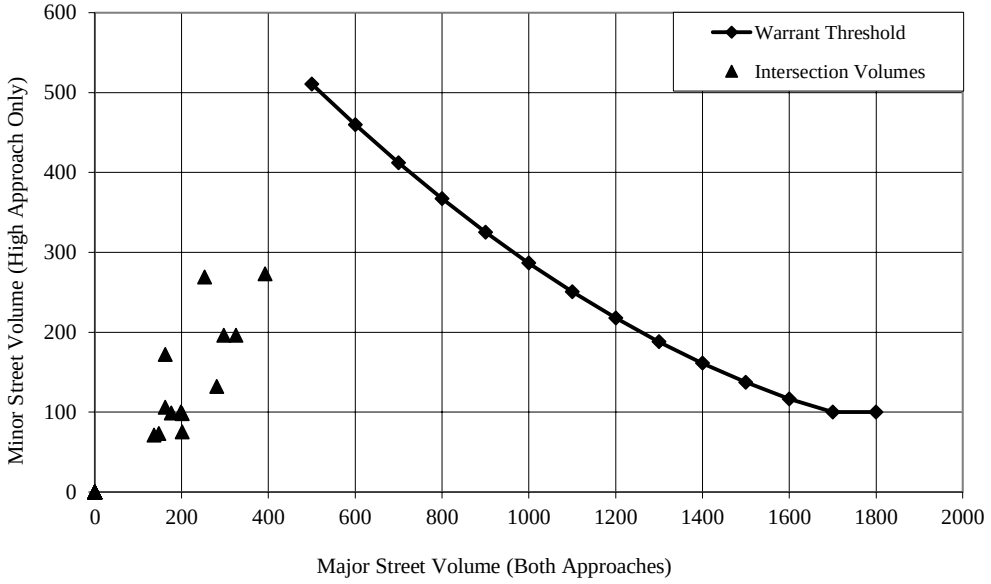


Figure 4C-3
Warrant 3 - Peak-Hour Vehicular Volume



Appendix G - SYNCHRO AND RODEL OUTPUTS

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	421	83	17	144	4	22	4	18	25	18	7
Future Vol, veh/h	8	421	83	17	144	4	22	4	18	25	18	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	13	2	4	6	4	2	9	2	2	4	6	2
Mvmt Flow	11	582	115	23	199	6	30	6	25	35	25	10

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	205	0	0	697	0	0	820	913	349	564	967	103
Stage 1	-	-	-	-	-	-	662	662	-	248	248	-
Stage 2	-	-	-	-	-	-	158	251	-	316	719	-
Critical Hdwy	4.36	-	-	4.22	-	-	7.68	6.54	6.94	7.58	6.62	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.54	-	6.58	5.62	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.54	-	6.58	5.62	-
Follow-up Hdwy	2.33	-	-	2.26	-	-	3.59	4.02	3.32	3.54	4.06	3.32
Pot Cap-1 Maneuver	1287	-	-	869	-	-	255	272	647	404	246	932
Stage 1	-	-	-	-	-	-	401	457	-	728	690	-
Stage 2	-	-	-	-	-	-	808	698	-	664	421	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1287	-	-	869	-	-	224	260	647	370	235	932
Mov Cap-2 Maneuver	-	-	-	-	-	-	224	260	-	370	235	-
Stage 1	-	-	-	-	-	-	395	451	-	718	669	-
Stage 2	-	-	-	-	-	-	747	677	-	622	415	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1	19.4	18.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	311	1287	-	-	869	-	-	330
HCM Lane V/C Ratio	0.196	0.009	-	-	0.027	-	-	0.209
HCM Control Delay (s)	19.4	7.8	0.1	-	9.3	0.1	-	18.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0	-	-	0.1	-	-	0.8

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	421	83	17	144	4	22	4	18	25	18	7
Future Vol, veh/h	8	421	83	17	144	4	22	4	18	25	18	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	13	2	4	6	4	2	9	2	2	4	6	2
Mvmt Flow	15	766	151	31	262	7	40	7	33	46	33	13

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	269	0	0	917	0	0	1082	1203	459	745	1275	135
Stage 1	-	-	-	-	-	-	872	872	-	328	328	-
Stage 2	-	-	-	-	-	-	210	331	-	417	947	-
Critical Hdwy	4.36	-	-	4.22	-	-	7.68	6.54	6.94	7.58	6.62	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.68	5.54	-	6.58	5.62	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.68	5.54	-	6.58	5.62	-
Follow-up Hdwy	2.33	-	-	2.26	-	-	3.59	4.02	3.32	3.54	4.06	3.32
Pot Cap-1 Maneuver	1215	-	-	715	-	-	163	183	549	299	160	889
Stage 1	-	-	-	-	-	-	298	366	-	653	636	-
Stage 2	-	-	-	-	-	-	753	644	-	578	329	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1215	-	-	715	-	-	126	169	549	256	148	889
Mov Cap-2 Maneuver	-	-	-	-	-	-	126	169	-	256	148	-
Stage 1	-	-	-	-	-	-	290	356	-	636	604	-
Stage 2	-	-	-	-	-	-	666	611	-	519	320	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	1.2	37.1	32.4
HCM LOS			E	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	190	1215	-	-	715	-	-	220
HCM Lane V/C Ratio	0.422	0.012	-	-	0.043	-	-	0.414
HCM Control Delay (s)	37.1	8	0.1	-	10.3	0.2	-	32.4
HCM Lane LOS	E	A	A	-	B	A	-	D
HCM 95th %tile Q(veh)	1.9	0	-	-	0.1	-	-	1.9

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	260	43	13	360	14	101	21	28	17	4	7
Future Vol, veh/h	18	260	43	13	360	14	101	21	28	17	4	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	6	4	2	2	2	2	2	2	2	18	2	2
Mvmt Flow	24	344	57	17	476	19	134	28	37	22	5	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	495	0	0	401	0	0	696	950	201	754	969	248
Stage 1	-	-	-	-	-	-	421	421	-	520	520	-
Stage 2	-	-	-	-	-	-	275	529	-	234	449	-
Critical Hdwy	4.22	-	-	4.14	-	-	7.54	6.54	6.94	7.86	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.86	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.86	5.54	-
Follow-up Hdwy	2.26	-	-	2.22	-	-	3.52	4.02	3.32	3.68	4.02	3.32
Pot Cap-1 Maneuver	1037	-	-	1154	-	-	328	259	806	271	252	752
Stage 1	-	-	-	-	-	-	581	587	-	468	530	-
Stage 2	-	-	-	-	-	-	708	525	-	704	571	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1037	-	-	1154	-	-	307	246	806	227	240	752
Mov Cap-2 Maneuver	-	-	-	-	-	-	307	246	-	227	240	-
Stage 1	-	-	-	-	-	-	564	569	-	454	519	-
Stage 2	-	-	-	-	-	-	678	515	-	620	554	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.4	30.4	19.9
HCM LOS			D	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	334	1037	-	-	1154	-	-	278
HCM Lane V/C Ratio	0.594	0.023	-	-	0.015	-	-	0.133
HCM Control Delay (s)	30.4	8.6	0.1	-	8.2	0.1	-	19.9
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	3.6	0.1	-	-	0	-	-	0.5

Intersection	
Int Delay, s/veh	28.3

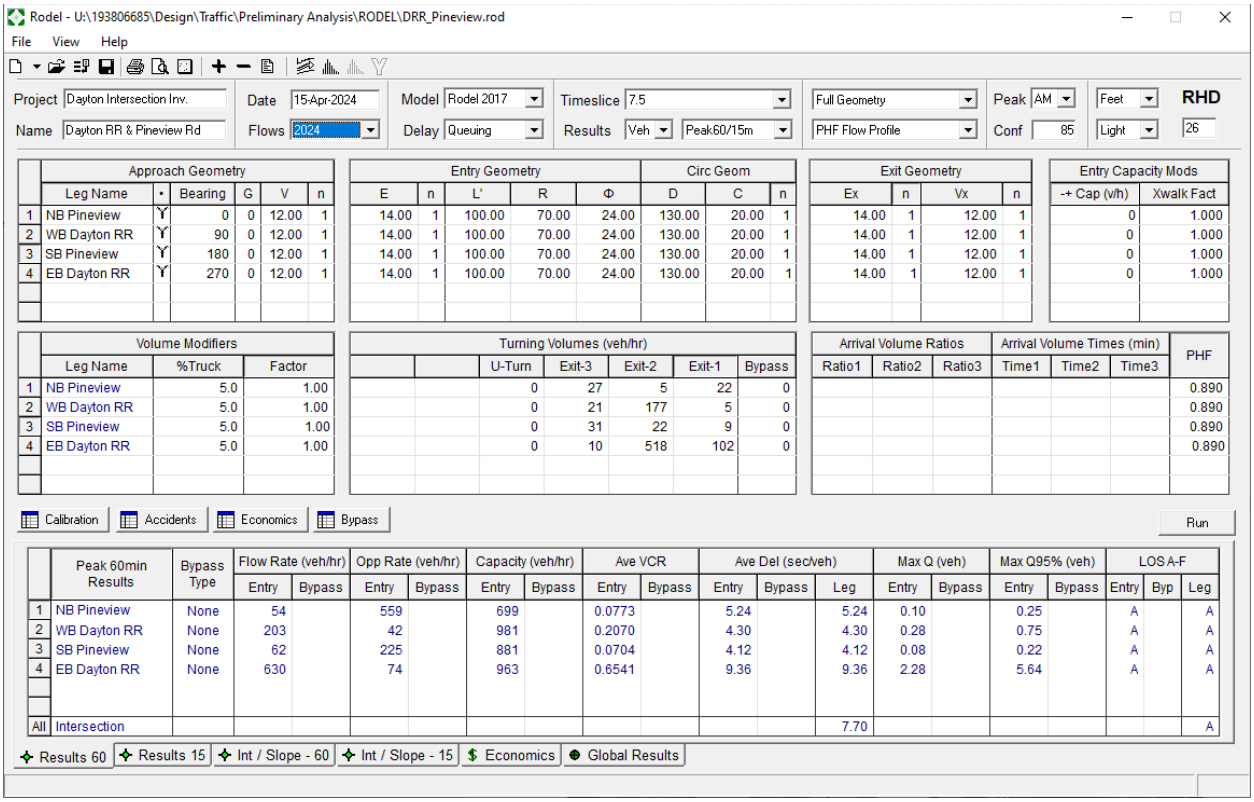
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	260	43	13	360	14	101	21	28	17	4	7
Future Vol, veh/h	18	260	43	13	360	14	101	21	28	17	4	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	6	4	2	2	2	2	2	2	2	18	2	2
Mvmt Flow	31	453	75	23	627	24	176	37	49	30	7	12

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	651	0	0	528	0	0	916	1250	264	992	1275	326
Stage 1	-	-	-	-	-	-	553	553	-	685	685	-
Stage 2	-	-	-	-	-	-	363	697	-	307	590	-
Critical Hdwy	4.22	-	-	4.14	-	-	7.54	6.54	6.94	7.86	6.54	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-	6.54	5.54	-	6.86	5.54	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-	6.86	5.54	-
Follow-up Hdwy	2.26	-	-	2.22	-	-	3.52	4.02	3.32	3.68	4.02	3.32
Pot Cap-1 Maneuver	905	-	-	1035	-	-	227	172	734	178	166	670
Stage 1	-	-	-	-	-	-	485	513	-	369	447	-
Stage 2	-	-	-	-	-	-	628	441	-	635	493	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	905	-	-	1035	-	-	202	158	734	128	152	670
Mov Cap-2 Maneuver	-	-	-	-	-	-	202	158	-	128	152	-
Stage 1	-	-	-	-	-	-	461	488	-	351	431	-
Stage 2	-	-	-	-	-	-	585	426	-	521	469	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.4	157.7	35.7
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	224	905	-	-	1035	-	-	165
HCM Lane V/C Ratio	1.166	0.035	-	-	0.022	-	-	0.296
HCM Control Delay (s)	157.7	9.1	0.2	-	8.6	0.1	-	35.7
HCM Lane LOS	F	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	12.5	0.1	-	-	0.1	-	-	1.2

Dayton River & Pineview – Single Lane



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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD

Name: Dayton RR & Pineview Rd | Flows: 2024 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 26

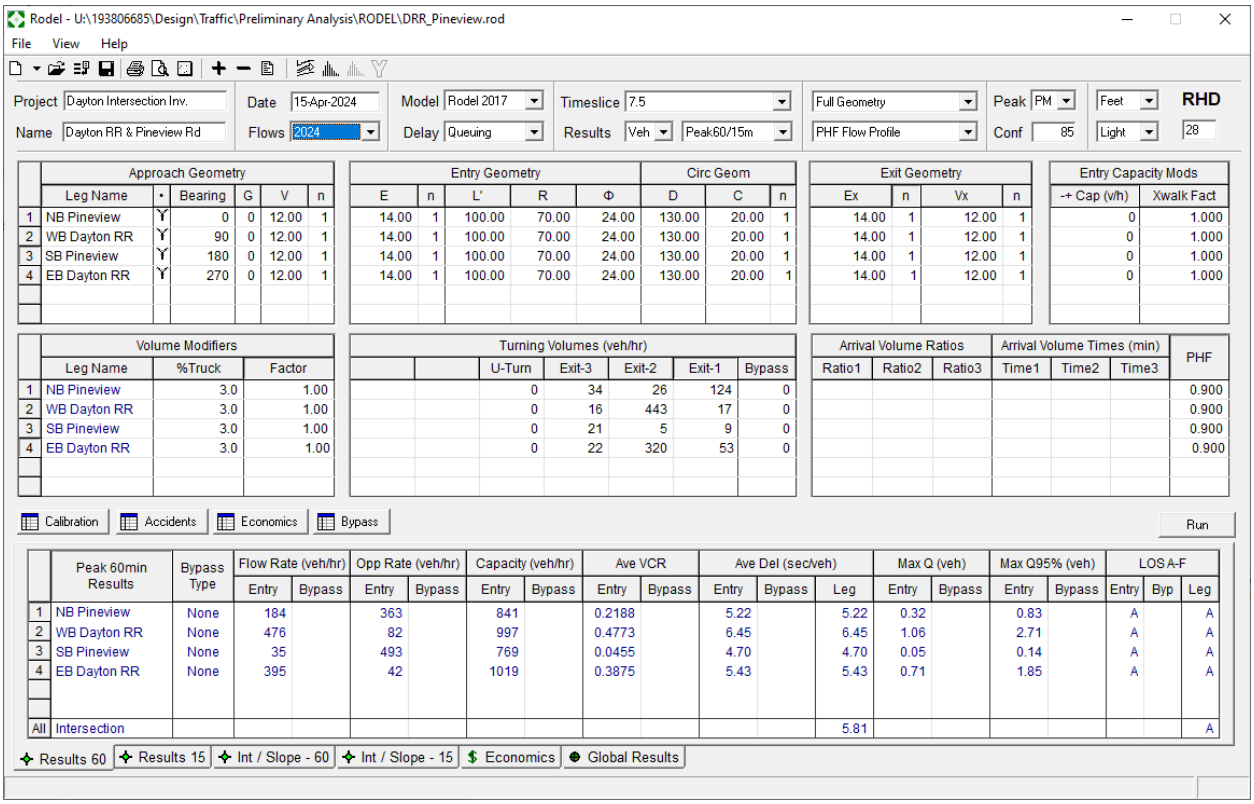
	Approach Geometry						Entry Geometry								Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Pineview	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Dayton RR	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Pineview	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Dayton RR	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Pineview	5.0	1.00			0	27	5	22	0							0.890
2	WB Dayton RR	5.0	1.00			0	21	177	5	0							0.890
3	SB Pineview	5.0	1.00			0	31	22	9	0							0.890
4	EB Dayton RR	5.0	1.00			0	10	518	102	0							0.890

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Pineview	None	54		559		699		0.0773		5.24		5.24	0.10		0.25		A		A
2	WB Dayton RR	None	203		42		981		0.2070		4.30		4.30	0.28		0.75		A		A
3	SB Pineview	None	62		225		881		0.0704		4.12		4.12	0.08		0.22		A		A
4	EB Dayton RR	None	630		74		963		0.6541		9.36		9.36	2.28		5.64		A		A
All	Intersection												7.70							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results



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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD

Name: Dayton RR & Pineview Rd | Flows: 2024 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 28

	Approach Geometry						Entry Geometry								Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Pineview	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Dayton RR	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Pineview	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Dayton RR	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Pineview	3.0	1.00			0	34	26	124	0							0.900
2	WB Dayton RR	3.0	1.00			0	16	443	17	0							0.900
3	SB Pineview	3.0	1.00			0	21	5	9	0							0.900
4	EB Dayton RR	3.0	1.00			0	22	320	53	0							0.900

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Pineview	None	184		363		841		0.2188		5.22		5.22	0.32		0.83		A		A
2	WB Dayton RR	None	476		82		997		0.4773		6.45		6.45	1.06		2.71		A		A
3	SB Pineview	None	35		493		769		0.0455		4.70		4.70	0.05		0.14		A		A
4	EB Dayton RR	None	395		42		1019		0.3875		5.43		5.43	0.71		1.85		A		A
All	Intersection												5.81							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD
Name: Dayton RR & Pineview Rd | Flows: 2044 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 33

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Pineview	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Dayton RR	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Pineview	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Dayton RR	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Pineview	3.0	1.32			0	27	5	22	0							0.890
2	WB Dayton RR	3.0	1.32			0	21	177	5	0							0.890
3	SB Pineview	3.0	1.32			0	31	22	9	0							0.890
4	EB Dayton RR	3.0	1.32			0	10	518	102	0							0.890

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Pineview	None	71		737		633		0.1126		6.14		6.14	0.15		0.40		A		A
2	WB Dayton RR	None	268		55		1012		0.2648		4.59		4.59	0.41		1.06		A		A
3	SB Pineview	None	82		297		878		0.0932		4.33		4.33	0.12		0.31		A		A
4	EB Dayton RR	None	832		98		989		0.8413		19.53		19.53	8.39		18.42		C		C
All	Intersection												14.58							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel - U:\193806685\Design\Traffic\Preliminary Analysis\RODEL\DRR_Pineview.rod

File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD
Name: Dayton RR & Pineview Rd | Flows: 2044 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 35

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Pineview	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Dayton RR	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Pineview	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Dayton RR	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Pineview	3.0	1.32			0	34	26	124	0							0.900
2	WB Dayton RR	3.0	1.32			0	16	443	17	0							0.900
3	SB Pineview	3.0	1.32			0	21	5	9	0							0.900
4	EB Dayton RR	3.0	1.32			0	22	320	53	0							0.900

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Pineview	None	243		479		776		0.3128		6.39		6.39	0.53		1.39		A		A
2	WB Dayton RR	None	628		108		983		0.6394		9.27		9.27	2.19		5.43		A		A
3	SB Pineview	None	46		651		681		0.0678		5.43		5.43	0.08		0.22		A		A
4	EB Dayton RR	None	521		55		1012		0.5152		6.82		6.82	1.24		3.16		A		A
All	Intersection												7.77							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	3	7	75	171	139
Future Vol, veh/h	19	3	7	75	171	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	16	2	2	2	2	2
Mvmt Flow	30	5	11	120	273	222

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	526	384	273	0	-	0
Stage 1	384	-	-	-	-	-
Stage 2	142	-	-	-	-	-
Critical Hdwy	6.56	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.56	-	-	-	-	-
Critical Hdwy Stg 2	5.56	-	-	-	-	-
Follow-up Hdwy	3.644	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	489	664	1290	-	-	-
Stage 1	659	-	-	-	-	-
Stage 2	852	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	485	664	1290	-	-	-
Mov Cap-2 Maneuver	485	-	-	-	-	-
Stage 1	653	-	-	-	-	-
Stage 2	852	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.7	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1290	-	504	-	-
HCM Lane V/C Ratio	0.009	-	0.07	-	-
HCM Control Delay (s)	7.8	0	12.7	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	3	7	75	171	139
Future Vol, veh/h	19	3	7	75	171	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	77	77	77	77	77	77
Heavy Vehicles, %	16	2	2	2	2	2
Mvmt Flow	40	6	15	158	360	292

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	694	506	360	0	-	0
Stage 1	506	-	-	-	-	-
Stage 2	188	-	-	-	-	-
Critical Hdwy	6.56	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.56	-	-	-	-	-
Critical Hdwy Stg 2	5.56	-	-	-	-	-
Follow-up Hdwy	3.644	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	388	566	1199	-	-	-
Stage 1	578	-	-	-	-	-
Stage 2	812	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	383	566	1199	-	-	-
Mov Cap-2 Maneuver	383	-	-	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	812	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	0.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1199	-	401	-	-
HCM Lane V/C Ratio	0.012	-	0.115	-	-
HCM Control Delay (s)	8	0	15.1	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	153	12	9	197	102	42
Future Vol, veh/h	153	12	9	197	102	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	8	2	2	6	5
Mvmt Flow	200	16	12	258	133	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	443	161	133	0	-	0
Stage 1	161	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.42	6.28	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.372	2.218	-	-	-
Pot Cap-1 Maneuver	572	869	1452	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	766	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	566	869	1452	-	-	-
Mov Cap-2 Maneuver	566	-	-	-	-	-
Stage 1	859	-	-	-	-	-
Stage 2	766	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.8	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1452	-	581	-	-
HCM Lane V/C Ratio	0.008	-	0.372	-	-
HCM Control Delay (s)	7.5	0	14.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	1.7	-	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	153	12	9	197	102	42
Future Vol, veh/h	153	12	9	197	102	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	Yield
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	8	2	2	6	5
Mvmt Flow	264	21	16	340	176	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	584	212	176	0	-	0
Stage 1	212	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.42	6.28	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.372	2.218	-	-	-
Pot Cap-1 Maneuver	474	813	1400	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	697	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	467	813	1400	-	-	-
Mov Cap-2 Maneuver	467	-	-	-	-	-
Stage 1	811	-	-	-	-	-
Stage 2	697	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.7	0.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1400	-	482	-	-
HCM Lane V/C Ratio	0.011	-	0.59	-	-
HCM Control Delay (s)	7.6	0	22.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	3.7	-	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	291	1	105	75	0	5	1	219	2	0	0
Future Vol, veh/h	0	291	1	105	75	0	5	1	219	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	390	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	7	2	2	2	2	2	2	2	2
Mvmt Flow	0	402	1	145	104	0	7	1	303	3	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	104	0	0	402	0	0	744	796	402	797	796	52
Stage 1	-	-	-	-	-	-	402	402	-	394	394	-
Stage 2	-	-	-	-	-	-	342	394	-	403	402	-
Critical Hdwy	4.13	-	-	4.205	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.2665	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1487	-	-	1124	-	-	317	319	647	291	319	1005
Stage 1	-	-	-	-	-	-	624	600	-	603	604	-
Stage 2	-	-	-	-	-	-	647	604	-	623	600	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1487	-	-	1124	-	-	284	275	647	138	275	1005
Mov Cap-2 Maneuver	-	-	-	-	-	-	284	275	-	138	275	-
Stage 1	-	-	-	-	-	-	624	600	-	603	521	-
Stage 2	-	-	-	-	-	-	558	521	-	331	600	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.1	15.1	31.6
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	665	1487	-	-	1124	-	-	138
HCM Lane V/C Ratio	0.468	-	-	-	0.129	-	-	0.02
HCM Control Delay (s)	15.1	0	-	-	8.7	0.2	-	31.6
HCM Lane LOS	C	A	-	-	A	A	-	D
HCM 95th %tile Q(veh)	2.5	0	-	-	0.4	-	-	0.1

Intersection	
Int Delay, s/veh	10.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	291	1	105	75	0	5	1	219	2	0	0
Future Vol, veh/h	0	291	1	105	75	0	5	1	219	2	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	390	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	7	2	2	2	2	2	2	2	2
Mvmt Flow	0	530	2	191	137	0	9	2	399	4	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	137	0	0	530	0	0	981	1049	530	1050	1049	69
Stage 1	-	-	-	-	-	-	530	530	-	519	519	-
Stage 2	-	-	-	-	-	-	451	519	-	531	530	-
Critical Hdwy	4.13	-	-	4.205	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.2665	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	1446	-	-	1006	-	-	216	227	548	193	227	980
Stage 1	-	-	-	-	-	-	532	526	-	509	532	-
Stage 2	-	-	-	-	-	-	558	532	-	531	526	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1446	-	-	1006	-	-	182	180	548	44	180	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	180	-	44	180	-
Stage 1	-	-	-	-	-	-	532	526	-	509	423	-
Stage 2	-	-	-	-	-	-	444	423	-	144	526	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	5.6	26.6	94.1
HCM LOS			D	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	563	1446	-	-	1006	-	-	44
HCM Lane V/C Ratio	0.727	-	-	-	0.19	-	-	0.083
HCM Control Delay (s)	26.6	0	-	-	9.4	0.3	-	94.1
HCM Lane LOS	D	A	-	-	A	A	-	F
HCM 95th %tile Q(veh)	6.1	0	-	-	0.7	-	-	0.3

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	162	5	188	283	2	2	1	161	1	0	0
Future Vol, veh/h	0	162	5	188	283	2	2	1	161	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	390	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	3	20	3	2	2	2	2	3	2	2	2
Mvmt Flow	0	221	7	257	387	3	3	1	220	1	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	390	0	0	221	0	0	929	1125	221	1125	1124	195
Stage 1	-	-	-	-	-	-	221	221	-	903	903	-
Stage 2	-	-	-	-	-	-	708	904	-	222	221	-
Critical Hdwy	4.13	-	-	4.145	-	-	7.33	6.53	6.245	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.2285	-	-	3.519	4.019	3.3285	3.519	4.019	3.319
Pot Cap-1 Maneuver	1167	-	-	1340	-	-	235	204	815	171	205	814
Stage 1	-	-	-	-	-	-	781	720	-	299	355	-
Stage 2	-	-	-	-	-	-	392	355	-	780	720	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1167	-	-	1340	-	-	191	154	815	101	155	814
Mov Cap-2 Maneuver	-	-	-	-	-	-	191	154	-	101	155	-
Stage 1	-	-	-	-	-	-	781	720	-	299	268	-
Stage 2	-	-	-	-	-	-	296	268	-	568	720	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	3.5	10.9	41.1
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	830	1167	-	-	1340	-	-	101
HCM Lane V/C Ratio	0.27	-	-	-	0.192	-	-	0.014
HCM Control Delay (s)	10.9	0	-	-	8.3	0.4	-	41.1
HCM Lane LOS	B	A	-	-	A	A	-	E
HCM 95th %tile Q(veh)	1.1	0	-	-	0.7	-	-	0

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	162	5	188	283	2	2	1	161	1	0	0
Future Vol, veh/h	0	162	5	188	283	2	2	1	161	1	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	390	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	3	20	3	2	2	2	2	3	2	2	2
Mvmt Flow	0	292	9	338	509	4	4	2	290	2	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	513	0	0	292	0	0	1223	1481	292	1480	1479	257
Stage 1	-	-	-	-	-	-	292	292	-	1187	1187	-
Stage 2	-	-	-	-	-	-	931	1189	-	293	292	-
Critical Hdwy	4.13	-	-	4.145	-	-	7.33	6.53	6.245	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	2.219	-	-	2.2285	-	-	3.519	4.019	3.3285	3.519	4.019	3.319
Pot Cap-1 Maneuver	1051	-	-	1262	-	-	145	125	744	95	125	743
Stage 1	-	-	-	-	-	-	715	670	-	201	261	-
Stage 2	-	-	-	-	-	-	288	260	-	714	670	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1051	-	-	1262	-	-	103	78	744	40	78	743
Mov Cap-2 Maneuver	-	-	-	-	-	-	103	78	-	40	78	-
Stage 1	-	-	-	-	-	-	715	670	-	201	163	-
Stage 2	-	-	-	-	-	-	180	163	-	435	670	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	4	12.7	99.2
HCM LOS			B	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	758	1051	-	-	1262	-	-	40
HCM Lane V/C Ratio	0.389	-	-	-	0.268	-	-	0.045
HCM Control Delay (s)	12.7	0	-	-	8.9	0.7	-	99.2
HCM Lane LOS	B	A	-	-	A	A	-	F
HCM 95th %tile Q(veh)	1.9	0	-	-	1.1	-	-	0.1

Dayton River & N Diamond Lk – NB Byp

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD
Name: Dayton RR & N Diamond Lk Rc | Flows: 2024 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 14

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB DiamLkRd	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Dayton RR	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB 142nd	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Dayton RR	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB DiamLkRd	2.0	1.00			0	6	5	269	0							0.890
2	WB Dayton RR	6.0	1.00			0	129	92	5	0							0.890
3	SB 142nd	2.0	1.00			0	5	5	5	0							0.890
4	EB Dayton RR	2.0	1.00			0	5	358	5	0							0.890

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB DiamLkRd	None	280		368		857		0.3268		5.99		5.99	0.58		1.52		A		A
2	WB Dayton RR	None	226		16		976		0.2315		4.40		4.40	0.32		0.85		A		A
3	SB 142nd	None	15		227		931		0.0161		3.81		3.81	0.02		0.05		A		A
4	EB Dayton RR	None	368		139		982		0.3746		5.61		5.61	0.71		1.83		A		A
All	Intersection												5.39							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD
Name: Dayton RR & N Diamond Lk Rc | Flows: 2024 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 15

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB DiamLkRd	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Dayton RR	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB 142nd	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Dayton RR	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB DiamLkRd	3.0	1.00			0	5	5	198	0							0.900
2	WB Dayton RR	3.0	1.00			0	231	348	5	0							0.900
3	SB 142nd	3.0	1.00			0	5	5	5	0							0.900
4	EB Dayton RR	3.0	1.00			0	5	199	6	0							0.900

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB DiamLkRd	None	208		209		927		0.2245		4.77		4.77	0.32		0.85		A		A
2	WB Dayton RR	None	584		15		1034		0.5645		7.38		7.38	1.53		3.86		A		A
3	SB 142nd	None	15		584		718		0.0209		4.91		4.91	0.02		0.06		A		A
4	EB Dayton RR	None	210		241		909		0.2311		4.90		4.90	0.34		0.88		A		A
All	Intersection												6.30							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD
Name: Dayton RR & N Diamond Lk Rc | Flows: 2044 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 20

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB DiamLkRd	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Dayton RR	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB 142nd	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Dayton RR	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB DiamLkRd	2.0	1.32			0	6	5	269	0							0.890
2	WB Dayton RR	6.0	1.32			0	129	92	5	0							0.890
3	SB 142nd	2.0	1.32			0	5	5	5	0							0.890
4	EB Dayton RR	2.0	1.32			0	5	358	5	0							0.890

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB DiamLkRd	None	370		486		791		0.4674		8.18		8.18	1.14		2.91		A		A
2	WB Dayton RR	None	298		21		974		0.3064		4.85		4.85	0.48		1.25		A		A
3	SB 142nd	None	20		300		889		0.0223		4.01		4.01	0.03		0.07		A		A
4	EB Dayton RR	None	486		183		957		0.5078		7.27		7.27	1.28		3.27		A		A
All	Intersection												6.89							A

NB OK as single lane

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | $ Economics | Global Results

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD
Name: Dayton RR & N Diamond Lk Rc | Flows: 2044 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 24

	Approach Geometry						Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB DiamLkRd	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Dayton RR	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB 142nd	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Dayton RR	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB DiamLkRd	3.0	1.32			0	5	5	198	0							0.900
2	WB Dayton RR	3.0	1.32			0	231	348	5	0							0.900
3	SB 142nd	3.0	1.32			0	5	5	5	0							0.900
4	EB Dayton RR	3.0	1.32			0	5	199	6	0							0.900

Calibration | Accidents | Economics | Bypass | Run

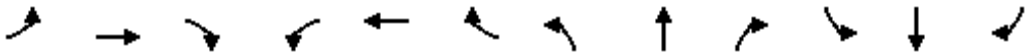
	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB DiamLkRd	None	275		276		889		0.3087		5.54		5.54	0.51		1.33		A		A
2	WB Dayton RR	None	771		20		1032		0.7471		12.21		12.21	3.84		9.15		B		B
3	SB 142nd	None	20		770		614		0.0322		5.81		5.81	0.04		0.10		A		A
4	EB Dayton RR	None	277		318		866		0.3201		5.79		5.79	0.54		1.41		A		A
All	Intersection												9.42							A

NB OK as single lane

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | $ Economics | Global Results

HCM 6th Signalized Intersection Summary
3: Dayton Pkwy & CSAH 81

04-18-2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	687	100	52	312	14	173	30	30	5	17	16
Future Volume (veh/h)	20	687	100	52	312	14	173	30	30	5	17	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1589	1781	1752	1693	1796	1752	1604	1604	1811	1248
Adj Flow Rate, veh/h	30	1018	148	77	462	21	256	44	44	7	25	24
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	7	21	8	10	14	7	10	20	20	6	44
Cap, veh/h	67	1839	725	98	1859	801	374	362	281	145	52	50
Arrive On Green	0.04	0.54	0.54	0.06	0.56	0.56	0.16	0.21	0.21	0.01	0.06	0.06
Sat Flow, veh/h	1781	3413	1346	1697	3328	1434	1711	1752	1359	1527	849	815
Grp Volume(v), veh/h	30	1018	148	77	462	21	256	44	44	7	0	49
Grp Sat Flow(s),veh/h/ln	1781	1706	1346	1697	1664	1434	1711	1752	1359	1527	0	1664
Q Serve(g_s), s	1.9	22.3	6.5	5.1	8.1	0.7	15.3	2.3	3.0	0.5	0.0	3.2
Cycle Q Clear(g_c), s	1.9	22.3	6.5	5.1	8.1	0.7	15.3	2.3	3.0	0.5	0.0	3.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	67	1839	725	98	1859	801	374	362	281	145	0	101
V/C Ratio(X)	0.45	0.55	0.20	0.79	0.25	0.03	0.68	0.12	0.16	0.05	0.00	0.48
Avail Cap(c_a), veh/h	161	1839	725	199	1859	801	486	413	320	239	0	143
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	53.5	17.2	13.6	52.9	12.9	11.2	39.2	36.7	37.0	49.4	0.0	51.6
Incr Delay (d2), s/veh	4.6	1.2	0.6	13.1	0.3	0.1	2.6	0.2	0.3	0.1	0.0	4.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	8.0	2.0	2.4	2.7	0.2	6.5	1.0	1.0	0.2	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.1	18.4	14.2	66.0	13.2	11.3	41.8	36.9	37.3	49.6	0.0	55.9
LnGrp LOS	E	B	B	E	B	B	D	D	D	D	A	E
Approach Vol, veh/h		1196			560			344			56	
Approach Delay, s/veh		18.9			20.4			40.6			55.1	
Approach LOS		B			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	11.2	67.7	22.6	12.1	9.0	70.0	6.0	28.7
Change Period (Y+Rc), s	* 4.7	6.5	* 4.7	* 5.2	* 4.7	6.5	5.0	* 5.2
Max Green Setting (Gmax), s	* 13	60.5	* 25	* 9.8	* 10	63.5	8.0	* 27
Max Q Clear Time (g_c+I1), s	7.1	24.3	17.3	5.2	3.9	10.1	2.5	5.0
Green Ext Time (p_c), s	0.1	28.5	0.6	0.1	0.0	15.5	0.0	0.4

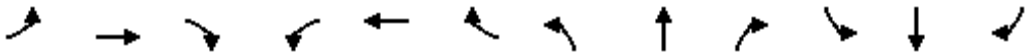
Intersection Summary	
HCM 6th Ctrl Delay	23.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: Dayton Pkwy & CSAH 81

04-18-2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	687	100	52	312	14	173	30	30	5	17	16
Future Volume (veh/h)	20	687	100	52	312	14	173	30	30	5	17	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1796	1589	1781	1752	1693	1796	1752	1604	1604	1811	1248
Adj Flow Rate, veh/h	41	1424	207	108	647	29	359	62	62	10	35	33
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %	2	7	21	8	10	14	7	10	20	20	6	44
Cap, veh/h	76	1699	670	132	1773	764	416	419	325	138	49	46
Arrive On Green	0.04	0.50	0.50	0.08	0.53	0.53	0.20	0.24	0.24	0.01	0.06	0.06
Sat Flow, veh/h	1781	3413	1346	1697	3328	1434	1711	1752	1359	1527	857	808
Grp Volume(v), veh/h	41	1424	207	108	647	29	359	62	62	10	0	68
Grp Sat Flow(s),veh/h/ln	1781	1706	1346	1697	1664	1434	1711	1752	1359	1527	0	1666
Q Serve(g_s), s	2.8	44.4	11.3	7.7	13.9	1.2	24.0	3.4	4.5	0.8	0.0	5.0
Cycle Q Clear(g_c), s	2.8	44.4	11.3	7.7	13.9	1.2	24.0	3.4	4.5	0.8	0.0	5.0
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.49
Lane Grp Cap(c), veh/h	76	1699	670	132	1773	764	416	419	325	138	0	95
V/C Ratio(X)	0.54	0.84	0.31	0.82	0.36	0.04	0.86	0.15	0.19	0.07	0.00	0.72
Avail Cap(c_a), veh/h	149	1699	670	183	1773	764	416	419	325	219	0	132
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	57.9	26.7	18.4	56.1	16.7	13.8	41.9	37.0	37.4	53.9	0.0	57.3
Incr Delay (d2), s/veh	5.8	5.1	1.2	18.3	0.6	0.1	16.7	0.2	0.3	0.2	0.0	12.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	17.4	3.6	3.9	5.0	0.4	11.8	1.5	1.5	0.3	0.0	2.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	63.7	31.8	19.6	74.4	17.3	13.9	58.7	37.2	37.8	54.1	0.0	69.7
LnGrp LOS	E	C	B	E	B	B	E	D	D	D	A	E
Approach Vol, veh/h		1672			784			483			78	
Approach Delay, s/veh		31.1			25.0			53.2			67.7	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	14.3	68.0	29.0	12.2	10.0	72.3	6.5	34.8
Change Period (Y+Rc), s	* 4.7	6.5	* 4.7	* 5.2	* 4.7	6.5	5.0	* 5.2
Max Green Setting (Gmax), s	* 13	61.5	* 24	* 9.8	* 10	64.5	8.0	* 26
Max Q Clear Time (g_c+I1), s	9.7	46.4	26.0	7.0	4.8	15.9	2.8	6.5
Green Ext Time (p_c), s	0.1	14.6	0.0	0.1	0.0	22.2	0.0	0.5

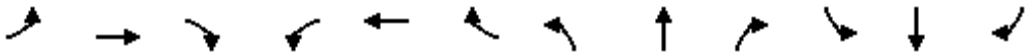
Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: Dayton Pkwy & CSAH 81

04-18-2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	382	109	39	664	15	156	25	51	13	35	24
Future Volume (veh/h)	11	382	109	39	664	15	156	25	51	13	35	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1841	1752	1856	1811	1604	1544	1604	1752	1870	1737	1707
Adj Flow Rate, veh/h	15	534	152	55	928	21	218	35	71	18	49	34
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	4	10	3	6	20	24	20	10	2	11	13
Cap, veh/h	41	1861	790	88	1975	780	308	324	300	184	66	46
Arrive On Green	0.02	0.53	0.53	0.05	0.57	0.57	0.15	0.20	0.20	0.02	0.07	0.07
Sat Flow, veh/h	1781	3497	1485	1767	3441	1359	1471	1604	1485	1781	955	663
Grp Volume(v), veh/h	15	534	152	55	928	21	218	35	71	18	0	83
Grp Sat Flow(s),veh/h/ln	1781	1749	1485	1767	1721	1359	1471	1604	1485	1781	0	1618
Q Serve(g_s), s	1.0	9.9	2.9	3.6	18.5	0.8	15.5	2.1	3.8	1.1	0.0	5.9
Cycle Q Clear(g_c), s	1.0	9.9	2.9	3.6	18.5	0.8	15.5	2.1	3.8	1.1	0.0	5.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	41	1861	790	88	1975	780	308	324	300	184	0	112
V/C Ratio(X)	0.37	0.29	0.19	0.63	0.47	0.03	0.71	0.11	0.24	0.10	0.00	0.74
Avail Cap(c_a), veh/h	156	1861	790	185	1975	780	448	489	452	272	0	204
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	56.5	15.2	3.1	54.7	14.6	10.8	40.1	38.3	26.0	49.4	0.0	53.7
Incr Delay (d2), s/veh	5.3	0.4	0.5	7.1	0.8	0.1	3.0	0.2	0.5	0.2	0.0	11.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.6	2.0	1.7	6.5	0.2	5.7	0.8	1.7	0.5	0.0	2.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.9	15.6	3.7	61.9	15.4	10.9	43.1	38.4	26.5	49.6	0.0	64.8
LnGrp LOS	E	B	A	E	B	B	D	D	C	D	A	E
Approach Vol, veh/h		701			1004			324			101	
Approach Delay, s/veh		14.0			17.8			38.9			62.0	
Approach LOS		B			B			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	12.3	69.0	22.8	13.3	7.4	73.9	7.2	28.9
Change Period (Y+Rc), s	6.5	* 6.5	* 4.7	* 5.2	* 4.7	6.5	5.0	* 5.2
Max Green Setting (Gmax), s	12.3	* 63	* 29	* 15	* 10	64.5	8.0	* 36
Max Q Clear Time (g_c+I1), s	5.6	11.9	17.5	7.9	3.0	20.5	3.1	5.8
Green Ext Time (p_c), s	0.0	18.2	0.6	0.2	0.0	30.3	0.0	0.5

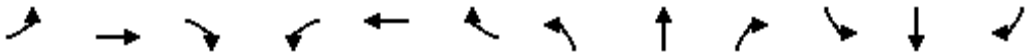
Intersection Summary	
HCM 6th Ctrl Delay	21.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

HCM 6th Signalized Intersection Summary
3: Dayton Pkwy & CSAH 81

04-18-2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	382	109	39	664	15	156	25	51	13	35	24
Future Volume (veh/h)	11	382	109	39	664	15	156	25	51	13	35	24
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1841	1752	1856	1811	1604	1544	1604	1752	1870	1737	1707
Adj Flow Rate, veh/h	22	747	213	76	1298	29	305	49	100	25	68	47
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	4	10	3	6	20	24	20	10	2	11	13
Cap, veh/h	53	1663	706	97	1771	699	373	424	392	205	83	57
Arrive On Green	0.03	0.48	0.48	0.05	0.51	0.51	0.20	0.26	0.26	0.02	0.09	0.09
Sat Flow, veh/h	1781	3497	1485	1767	3441	1359	1471	1604	1485	1781	957	661
Grp Volume(v), veh/h	22	747	213	76	1298	29	305	49	100	25	0	115
Grp Sat Flow(s),veh/h/ln	1781	1749	1485	1767	1721	1359	1471	1604	1485	1781	0	1618
Q Serve(g_s), s	1.5	18.1	5.0	5.4	37.4	1.3	23.1	2.9	5.4	1.6	0.0	8.9
Cycle Q Clear(g_c), s	1.5	18.1	5.0	5.4	37.4	1.3	23.1	2.9	5.4	1.6	0.0	8.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.41
Lane Grp Cap(c), veh/h	53	1663	706	97	1771	699	373	424	392	205	0	140
V/C Ratio(X)	0.42	0.45	0.30	0.79	0.73	0.04	0.82	0.12	0.25	0.12	0.00	0.82
Avail Cap(c_a), veh/h	144	1663	706	171	1771	699	448	476	441	276	0	176
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	60.6	22.2	4.0	59.4	24.1	15.3	39.3	35.5	23.7	51.1	0.0	57.1
Incr Delay (d2), s/veh	5.1	0.9	1.1	13.0	2.7	0.1	9.7	0.1	0.4	0.3	0.0	22.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	7.1	3.6	2.7	14.4	0.4	9.2	1.2	2.4	0.7	0.0	4.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	65.7	23.1	5.1	72.4	26.8	15.4	49.0	35.7	24.1	51.4	0.0	79.4
LnGrp LOS	E	C	A	E	C	B	D	D	C	D	A	E
Approach Vol, veh/h		982			1403			454			140	
Approach Delay, s/veh		20.2			29.0			42.1			74.4	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	13.5	67.0	30.5	16.2	8.5	72.0	7.9	38.8
Change Period (Y+Rc), s	6.5	* 6.5	* 4.7	* 5.2	* 4.7	6.5	5.0	* 5.2
Max Green Setting (Gmax), s	12.3	* 61	* 32	* 14	* 10	62.5	8.0	* 38
Max Q Clear Time (g_c+I1), s	7.4	20.1	25.1	10.9	3.5	39.4	3.6	7.4
Green Ext Time (p_c), s	0.1	23.9	0.7	0.2	0.0	21.3	0.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	30.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection: 2: Bend

Movement	SE	SE
Directions Served	T	
Maximum Queue (ft)	513	321
Average Queue (ft)	29	0
95th Queue (ft)	278	0
Link Distance (ft)	825	825
Upstream Blk Time (%)	0	0
Queuing Penalty (veh)	1	0
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Dayton Pkwy & CSAH 81

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	L	T	T	R	L	T	T	R	L	T	R	L
Maximum Queue (ft)	156	433	407	105	163	234	160	27	269	83	55	34
Average Queue (ft)	26	216	164	34	57	91	24	5	142	26	15	4
95th Queue (ft)	94	360	323	75	119	183	89	20	241	65	43	21
Link Distance (ft)		631	631			825	825		281	281		326
Upstream Blk Time (%)									0			
Queuing Penalty (veh)									0			
Storage Bay Dist (ft)	330			315	375			375			300	
Storage Blk Time (%)		1	0									
Queuing Penalty (veh)		0	0									

Intersection: 3: Dayton Pkwy & CSAH 81

Movement	SB
Directions Served	TR
Maximum Queue (ft)	110
Average Queue (ft)	33
95th Queue (ft)	81
Link Distance (ft)	326
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Bend

Movement	SE	SE
Directions Served	T	
Maximum Queue (ft)	876	878
Average Queue (ft)	499	227
95th Queue (ft)	1172	841
Link Distance (ft)	825	825
Upstream Blk Time (%)	3	1
Queuing Penalty (veh)	20	6
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Dayton Pkwy & CSAH 81

Movement	EB	EB	EB	EB	B1	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	T	T	R	T	L	T	T	R	L	T	R
Maximum Queue (ft)	445	735	679	515	326	152	252	229	40	343	94	95
Average Queue (ft)	204	671	602	225	229	74	128	50	6	214	33	25
95th Queue (ft)	552	847	761	597	425	134	228	149	24	332	80	64
Link Distance (ft)		631	631		269		825	825		281	281	
Upstream Blk Time (%)		22	5		22					5		
Queuing Penalty (veh)		0	0		0					10		
Storage Bay Dist (ft)	330			315		375			375			300
Storage Blk Time (%)		73	33									
Queuing Penalty (veh)		26	60									

Intersection: 3: Dayton Pkwy & CSAH 81

Movement	B14	SB	SB
Directions Served	T	L	TR
Maximum Queue (ft)	62	38	129
Average Queue (ft)	4	5	42
95th Queue (ft)	41	23	93
Link Distance (ft)	556	326	326
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: Bend

Movement	WB
Directions Served	T
Maximum Queue (ft)	407
Average Queue (ft)	19
95th Queue (ft)	204
Link Distance (ft)	631
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 3: Dayton Pkwy & CSAH 81

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	B14
Directions Served	L	T	T	R	L	T	T	R	L	T	R	T
Maximum Queue (ft)	61	255	215	82	99	403	393	30	332	84	55	5
Average Queue (ft)	13	125	69	32	43	197	110	3	156	21	17	0
95th Queue (ft)	42	217	171	63	87	350	297	17	278	62	40	4
Link Distance (ft)		631	631			825	825		281	281		556
Upstream Blk Time (%)									1			
Queuing Penalty (veh)									1			
Storage Bay Dist (ft)	330			315	375			375			300	
Storage Blk Time (%)						1	0					
Queuing Penalty (veh)						1	0					

Intersection: 3: Dayton Pkwy & CSAH 81

Movement	SB	SB
Directions Served	L	TR
Maximum Queue (ft)	52	158
Average Queue (ft)	10	53
95th Queue (ft)	33	120
Link Distance (ft)	326	326
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 1: Bend

Movement	WB	WB
Directions Served	T	
Maximum Queue (ft)	674	532
Average Queue (ft)	88	19
95th Queue (ft)	455	202
Link Distance (ft)	631	631
Upstream Blk Time (%)	1	0
Queuing Penalty (veh)	4	1
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Dayton Pkwy & CSAH 81

Movement	EB	EB	EB	EB	WB	WB	WB	WB	B2	NB	NB	NB
Directions Served	L	T	T	R	L	T	T	R	T	L	T	R
Maximum Queue (ft)	53	330	301	91	490	940	848	590	291	378	107	67
Average Queue (ft)	16	190	133	40	365	899	816	99	235	217	33	24
95th Queue (ft)	43	297	265	73	698	966	882	448	351	351	82	53
Link Distance (ft)		631	631			825	825		229	281	281	
Upstream Blk Time (%)						35	9		44	5		
Queuing Penalty (veh)						0	0		0	12		
Storage Bay Dist (ft)	330			315	375			375				300
Storage Blk Time (%)		0	0			87	44					
Queuing Penalty (veh)		0	0			60	12					

Intersection: 3: Dayton Pkwy & CSAH 81

Movement	B14	SB	SB
Directions Served	T	L	TR
Maximum Queue (ft)	81	53	210
Average Queue (ft)	6	12	79
95th Queue (ft)	39	38	170
Link Distance (ft)	556	326	326
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	168	11	1	65	1	5	0	3	2	0	2
Future Vol, veh/h	1	168	11	1	65	1	5	0	3	2	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	18	2	2	2	2	2	33	2	2	2
Mvmt Flow	2	252	17	2	98	2	8	0	5	3	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	100	0	0	269	0	0	370	369	261	370	376	99
Stage 1	-	-	-	-	-	-	265	265	-	103	103	-
Stage 2	-	-	-	-	-	-	105	104	-	267	273	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.53	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.597	3.518	4.018	3.318
Pot Cap-1 Maneuver	1493	-	-	1295	-	-	587	560	708	587	555	957
Stage 1	-	-	-	-	-	-	740	689	-	903	810	-
Stage 2	-	-	-	-	-	-	901	809	-	738	684	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1493	-	-	1295	-	-	583	558	708	582	553	957
Mov Cap-2 Maneuver	-	-	-	-	-	-	583	558	-	582	553	-
Stage 1	-	-	-	-	-	-	739	688	-	901	808	-
Stage 2	-	-	-	-	-	-	896	807	-	732	683	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	10.9	10
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	624	1493	-	-	1295	-	-	724
HCM Lane V/C Ratio	0.019	0.001	-	-	0.001	-	-	0.008
HCM Control Delay (s)	10.9	7.4	0	-	7.8	0	-	10
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	168	11	1	65	1	5	0	3	2	0	2
Future Vol, veh/h	1	168	11	1	65	1	5	0	3	2	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	2	2	18	2	2	2	2	2	33	2	2	2
Mvmt Flow	2	332	22	2	128	2	10	0	6	4	0	4

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	130	0	0	354	0	0	482	481	343	483	491	129
Stage 1	-	-	-	-	-	-	347	347	-	133	133	-
Stage 2	-	-	-	-	-	-	135	134	-	350	358	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.53	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.597	3.518	4.018	3.318
Pot Cap-1 Maneuver	1455	-	-	1205	-	-	495	485	635	494	478	921
Stage 1	-	-	-	-	-	-	669	635	-	870	786	-
Stage 2	-	-	-	-	-	-	868	785	-	666	628	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1455	-	-	1205	-	-	492	483	635	488	476	921
Mov Cap-2 Maneuver	-	-	-	-	-	-	492	483	-	488	476	-
Stage 1	-	-	-	-	-	-	668	634	-	868	784	-
Stage 2	-	-	-	-	-	-	863	783	-	658	627	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	11.9	10.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	537	1455	-	-	1205	-	-	638
HCM Lane V/C Ratio	0.029	0.001	-	-	0.002	-	-	0.012
HCM Control Delay (s)	11.9	7.5	0	-	8	0	-	10.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	0	93	11	0	192	3	24	0	2	0	0	1
Future Vol, veh/h	0	93	11	0	192	3	24	0	2	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	4	2	2	2	2	2
Mvmt Flow	0	124	15	0	257	4	32	0	3	0	0	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	261	0	0	139	0	0	392	393	132	392	398	259
Stage 1	-	-	-	-	-	-	132	132	-	259	259	-
Stage 2	-	-	-	-	-	-	260	261	-	133	139	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.14	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.536	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1303	-	-	1445	-	-	564	543	917	567	540	780
Stage 1	-	-	-	-	-	-	867	787	-	746	694	-
Stage 2	-	-	-	-	-	-	740	692	-	870	782	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1303	-	-	1445	-	-	563	543	917	565	540	780
Mov Cap-2 Maneuver	-	-	-	-	-	-	563	543	-	565	540	-
Stage 1	-	-	-	-	-	-	867	787	-	746	694	-
Stage 2	-	-	-	-	-	-	739	692	-	867	782	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	11.6	9.6
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	580	1303	-	-	1445	-	-	780
HCM Lane V/C Ratio	0.06	-	-	-	-	-	-	0.002
HCM Control Delay (s)	11.6	0	-	-	0	-	-	9.6
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	93	11	0	192	3	24	0	2	0	0	1
Future Vol, veh/h	0	93	11	0	192	3	24	0	2	0	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	4	2	2	2	2	2
Mvmt Flow	0	164	19	0	338	5	42	0	4	0	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	343	0	0	183	0	0	516	517	174	517	524	341
Stage 1	-	-	-	-	-	-	174	174	-	341	341	-
Stage 2	-	-	-	-	-	-	342	343	-	176	183	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.14	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.14	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.14	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.536	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1216	-	-	1392	-	-	466	462	869	469	458	701
Stage 1	-	-	-	-	-	-	823	755	-	674	639	-
Stage 2	-	-	-	-	-	-	669	637	-	826	748	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1216	-	-	1392	-	-	465	462	869	467	458	701
Mov Cap-2 Maneuver	-	-	-	-	-	-	465	462	-	467	458	-
Stage 1	-	-	-	-	-	-	823	755	-	674	639	-
Stage 2	-	-	-	-	-	-	667	637	-	823	748	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.3	10.1
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	482	1216	-	-	1392	-	-	701
HCM Lane V/C Ratio	0.095	-	-	-	-	-	-	0.003
HCM Control Delay (s)	13.3	0	-	-	0	-	-	10.1
HCM Lane LOS	B	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	14	219	14	7	9	63	87	14	11	349	7
Future Vol, veh/h	19	14	219	14	7	9	63	87	14	11	349	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	0	-	-	-	250	-	250	310	-	310
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	11	7	2	2	2	2	3	6	2	2	2	14
Mvmt Flow	25	18	284	18	9	12	82	113	18	14	452	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	777	775	452	913	766	113	461	0	0	131	0	0
Stage 1	480	480	-	277	277	-	-	-	-	-	-	-
Stage 2	297	295	-	636	489	-	-	-	-	-	-	-
Critical Hdwy	7.21	6.57	6.22	7.12	6.52	6.22	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.21	5.57	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.21	5.57	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.599	4.063	3.318	3.518	4.018	3.318	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	303	323	608	254	333	940	1095	-	-	1454	-	-
Stage 1	550	546	-	729	681	-	-	-	-	-	-	-
Stage 2	693	660	-	466	549	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	274	296	608	121	305	940	1095	-	-	1454	-	-
Mov Cap-2 Maneuver	274	296	-	121	305	-	-	-	-	-	-	-
Stage 1	509	541	-	674	630	-	-	-	-	-	-	-
Stage 2	624	611	-	238	544	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.5	27	3.3	0.2
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1095	-	-	283	608	202	1454	-	-
HCM Lane V/C Ratio	0.074	-	-	0.151	0.466	0.192	0.01	-	-
HCM Control Delay (s)	8.6	-	-	20	16	27	7.5	-	-
HCM Lane LOS	A	-	-	C	C	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	2.5	0.7	0	-	-

Intersection	
Int Delay, s/veh	28.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	14	219	14	7	9	63	87	14	11	349	7
Future Vol, veh/h	19	14	219	14	7	9	63	87	14	11	349	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	0	-	-	-	250	-	250	310	-	310
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	11	7	2	2	2	2	3	6	2	2	2	14
Mvmt Flow	34	25	397	25	13	16	114	158	25	20	632	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1085	1083	632	1276	1071	158	645	0	0	183	0	0
Stage 1	672	672	-	386	386	-	-	-	-	-	-	-
Stage 2	413	411	-	890	685	-	-	-	-	-	-	-
Critical Hdwy	7.21	6.57	6.22	7.12	6.52	6.22	4.13	-	-	4.12	-	-
Critical Hdwy Stg 1	6.21	5.57	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.21	5.57	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.599	4.063	3.318	3.518	4.018	3.318	2.227	-	-	2.218	-	-
Pot Cap-1 Maneuver	187	213	480	144	221	887	935	-	-	1392	-	-
Stage 1	431	447	-	637	610	-	-	-	-	-	-	-
Stage 2	599	586	-	337	448	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	157	184	480	~ 20	191	887	935	-	-	1392	-	-
Mov Cap-2 Maneuver	157	184	-	~ 20	191	-	-	-	-	-	-	-
Stage 1	378	441	-	559	536	-	-	-	-	-	-	-
Stage 2	504	515	-	54	442	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	39	$ 423.5	3.6	0.2
HCM LOS	E	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	935	-	-	167	480	40	1392	-	-
HCM Lane V/C Ratio	0.122	-	-	0.358	0.826	1.358	0.014	-	-
HCM Control Delay (s)	9.4	-	-	38.1	39.1	$ 423.5	7.6	-	-
HCM Lane LOS	A	-	-	E	E	F	A	-	-
HCM 95th %tile Q(veh)	0.4	-	-	1.5	8	5.5	0	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	12	131	15	17	18	180	431	24	11	159	15
Future Vol, veh/h	19	12	131	15	17	18	180	431	24	11	159	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	0	-	-	-	250	-	250	310	-	310
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	4	2	2	2
Mvmt Flow	25	16	170	19	22	23	233	558	31	14	206	19

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1296	1289	206	1361	1277	558	225	0	0	589	0	0
Stage 1	234	234	-	1024	1024	-	-	-	-	-	-	-
Stage 2	1062	1055	-	337	253	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	139	164	835	125	166	529	1344	-	-	986	-	-
Stage 1	769	711	-	284	313	-	-	-	-	-	-	-
Stage 2	270	302	-	677	698	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	100	134	835	78	135	529	1344	-	-	986	-	-
Mov Cap-2 Maneuver	100	134	-	78	135	-	-	-	-	-	-	-
Stage 1	636	701	-	235	259	-	-	-	-	-	-	-
Stage 2	195	250	-	520	688	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	18.9	50	2.3	0.5
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1344	-	-	111	835	142	986	-	-
HCM Lane V/C Ratio	0.173	-	-	0.362	0.203	0.456	0.014	-	-
HCM Control Delay (s)	8.2	-	-	54.8	10.4	50	8.7	-	-
HCM Lane LOS	A	-	-	F	B	F	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	1.5	0.8	2.1	0	-	-

Intersection	
Int Delay, s/veh	52.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	12	131	15	17	18	180	431	24	11	159	15
Future Vol, veh/h	19	12	131	15	17	18	180	431	24	11	159	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	150	-	0	-	-	-	250	-	250	310	-	310
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	4	2	2	2
Mvmt Flow	34	22	237	27	31	33	326	780	43	20	288	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1814	1803	288	1903	1787	780	315	0	0	823	0	0
Stage 1	328	328	-	1432	1432	-	-	-	-	-	-	-
Stage 2	1486	1475	-	471	355	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	60	79	751	52	81	395	1245	-	-	807	-	-
Stage 1	685	647	-	167	200	-	-	-	-	-	-	-
Stage 2	155	190	-	573	630	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 26	57	751	~ 20	58	395	1245	-	-	807	-	-
Mov Cap-2 Maneuver	~ 26	57	-	~ 20	58	-	-	-	-	-	-	-
Stage 1	506	631	-	123	148	-	-	-	-	-	-	-
Stage 2	83	140	-	369	614	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	124.7	$ 642.7	2.5	0.6
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1245	-	-	33	751	46	807	-	-
HCM Lane V/C Ratio	0.262	-	-	1.701	0.316	1.968	0.025	-	-
HCM Control Delay (s)	8.9	-	-	$ 600.9	12	$ 642.7	9.6	-	-
HCM Lane LOS	A	-	-	F	B	F	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	6.3	1.4	9.2	0.1	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Fernbrook & Rush/Elm – EB Byp & NBL?

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD
Name: Fernbrook & Elm Cr Rd | Flows: 2024 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 37

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Fernbrook	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Elm Cr Rd	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Fernbrook	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Rush Cr Pkwy	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Fernbrook	3.0	1.00			0	77	107	17	0							0.950
2	WB Elm Cr Rd	3.0	1.00			0	17	9	11	0							0.950
3	SB Fernbrook	3.0	1.00			0	14	429	9	0							0.950
4	EB Rush Cr Pkwy	3.0	1.00			0	23	17	269	0							0.950

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Fernbrook	None	201		54		1013		0.1985		4.24		4.24	0.25		0.67		A		A
2	WB Elm Cr Rd	None	37		207		928		0.0399		3.89		3.89	0.04		0.11		A		A
3	SB Fernbrook	None	452		103		986		0.4586		6.32		6.32	0.88		2.26		A		A
4	EB Rush Cr Pkwy	None	309		460		787		0.3926		7.09		7.09	0.68		1.76		A		A
All	Intersection												6.05							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | $ Economics | Global Results

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD
Name: Fernbrook & Elm Cr Rd | Flows: 2024 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 41

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Fernbrook	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Elm Cr Rd	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Fernbrook	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Rush Cr Pkwy	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Fernbrook	3.0	1.00			0	221	530	30	0							0.950
2	WB Elm Cr Rd	3.0	1.00			0	18	21	22	0							0.950
3	SB Fernbrook	3.0	1.00			0	14	196	18	0							0.950
4	EB Rush Cr Pkwy	3.0	1.00			0	23	15	161	0							0.950

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Fernbrook	None	781		52		1014		0.7703		13.27		13.27	3.48		8.37		B		B
2	WB Elm Cr Rd	None	61		774		613		0.0996		6.26		6.26	0.12		0.31		A		A
3	SB Fernbrook	None	228		260		898		0.2538		5.12		5.12	0.35		0.92		A		A
4	EB Rush Cr Pkwy	None	199		228		916		0.2172		4.80		4.80	0.29		0.75		A		A
All	Intersection												10.14							B

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | $ Economics | Global Results

Rodel - U:\193806685\Design\Traffic\Preliminary Analysis\RODEL\Fernbrook_Elm Cr Rd.rod

File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD
Name: Fernbrook & Elm Cr Rd | Flows: 2044 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 46

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Fernbrook	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Elm Cr Rd	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Fernbrook	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Rush Cr Pkwy	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Fernbrook	3.0	1.40			0	77	107	17	0							0.950
2	WB Elm Cr Rd	3.0	1.40			0	17	9	11	0							0.950
3	SB Fernbrook	3.0	1.40			0	14	429	9	0							0.950
4	EB Rush Cr Pkwy	3.0	1.40			0	23	17	269	0							0.950

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Fernbrook	None	281		76		1001		0.2812		4.76		4.76	0.40		1.05		A		A
2	WB Elm Cr Rd	None	52		290		882		0.0587		4.17		4.17	0.06		0.17		A		A
3	SB Fernbrook	None	633		144		963		0.6574		9.84		9.84	2.01		5.01		A		A
4	EB Rush Cr Pkwy	None	433		644		685		0.6317		12.92		12.92	1.89		4.73		B		B
All	Intersection												9.56							A

EB OK as single lane

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel - U:\193806685\Design\Traffic\Preliminary Analysis\RODEL\Fernbrook_Elm Cr Rd.rod

File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD
Name: Fernbrook & Elm Cr Rd | Flows: 2044 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 45

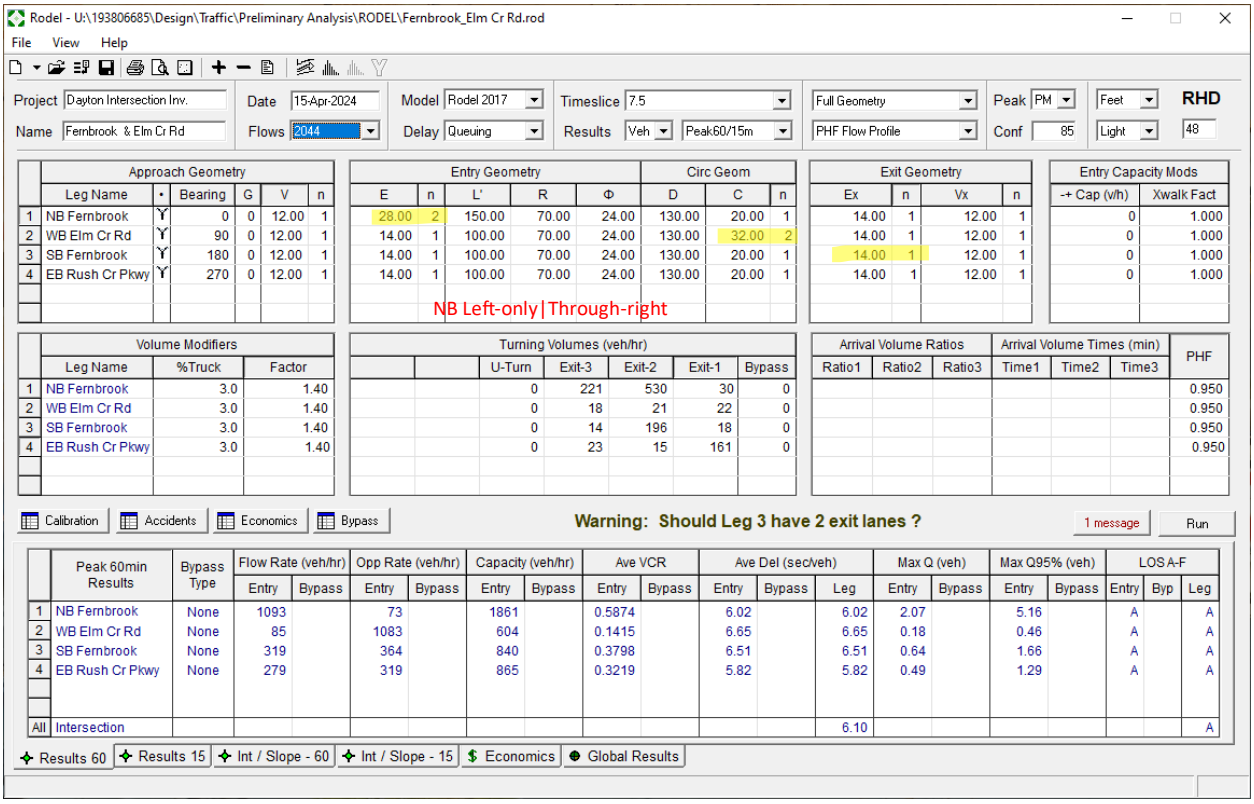
	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Fernbrook	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB Elm Cr Rd	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Fernbrook	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB Rush Cr Pkwy	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Fernbrook	3.0	1.40			0	221	530	30	0							0.950
2	WB Elm Cr Rd	3.0	1.40			0	18	21	22	0							0.950
3	SB Fernbrook	3.0	1.40			0	14	196	18	0							0.950
4	EB Rush Cr Pkwy	3.0	1.40			0	23	15	161	0							0.950

Calibration | Accidents | Economics | Bypass | Run

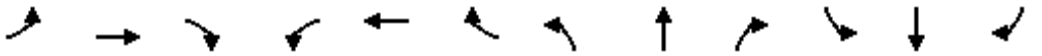
	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Fernbrook	None	1093		73		1002		1.0908		158.97		158.97	81.02		157.99		F		F
2	WB Elm Cr Rd	None	85		996		489		0.1746		8.51		8.51	0.21		0.57		A		A
3	SB Fernbrook	None	319		338		855		0.3734		6.35		6.35	0.61		1.59		A		A
4	EB Rush Cr Pkwy	None	279		319		865		0.3219		5.82		5.82	0.49		1.29		A		A
All	Intersection												100.30							F

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results


Rodel - U:\193806685\Design\Traffic\Preliminary Analysis\RODEL\Fernbrook_Elm Cr Rd.rod
File View Help
Project Dayton Intersection Inv.
Name Fernbrook & Elm Cr Rd
Date 15-Apr-2024
Flows 2044
Model Rodel 2017
Delay Queuing
Timeslice 7.5
Results Veh
Peak60/15m
Full Geometry
PHF Flow Profile
Peak PM
Conf 85
Feet
Light
RHD
48
Approach Geometry
Entry Geometry
Circ Geom
Exit Geometry
Entry Capacity Mods
Leg Name
Bearing
G
V
E
L'
R
Φ
D
C
Ex
Vx
-+ Cap (vh)
Xwalk Fact
1 NB Fernbrook 0 0 12.00 1 28.00 2 150.00 70.00 24.00 130.00 20.00 1 14.00 1 12.00 1 0 1.000
2 WB Elm Cr Rd 90 0 12.00 1 14.00 1 100.00 70.00 24.00 130.00 32.00 2 14.00 1 12.00 1 0 1.000
3 SB Fernbrook 180 0 12.00 1 14.00 1 100.00 70.00 24.00 130.00 20.00 1 14.00 1 12.00 1 0 1.000
4 EB Rush Cr Pkwy 270 0 12.00 1 14.00 1 100.00 70.00 24.00 130.00 20.00 1 14.00 1 12.00 1 0 1.000
NB Left-only|Through-right
Volume Modifiers
Leg Name
%Truck
Factor
1 NB Fernbrook 3.0 1.40
2 WB Elm Cr Rd 3.0 1.40
3 SB Fernbrook 3.0 1.40
4 EB Rush Cr Pkwy 3.0 1.40
Turning Volumes (veh/hr)
U-Turn
Exit-3
Exit-2
Exit-1
Bypass
1 0 221 530 30 0
2 0 18 21 22 0
3 0 14 196 18 0
4 0 23 15 161 0
Arrival Volume Ratios
Ratio1
Ratio2
Ratio3
Arrival Volume Times (min)
Time1
Time2
Time3
PHF
0.950
0.950
0.950
0.950
Calibration
Accidents
Economics
Bypass
Warning: Should Leg 3 have 2 exit lanes ?
1 message
Run
Peak 60min Results
Bypass Type
Flow Rate (veh/hr)
Opp Rate (veh/hr)
Capacity (veh/hr)
Ave VCR
Ave Del (sec/veh)
Max Q (veh)
Max Q95% (veh)
LOS A-F
Entry
Bypass
Leg
Byp
1 NB Fernbrook None 1093 73 1861 0.5874 6.02 6.02 2.07 5.16 A A
2 WB Elm Cr Rd None 85 1083 604 0.1415 6.65 6.65 0.18 0.46 A A
3 SB Fernbrook None 319 364 840 0.3798 6.51 6.51 0.64 1.66 A A
4 EB Rush Cr Pkwy None 279 319 865 0.3219 5.82 5.82 0.49 1.29 A A
All Intersection 6.10 A
Results 60
Results 15
Int / Slope - 60
Int / Slope - 15
Economics
Global Results

HCM 6th Signalized Intersection Summary
3: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd

04-18-2024



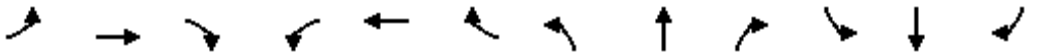
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	14	219	14	7	9	63	87	14	11	349	7
Future Volume (veh/h)	19	14	219	14	7	9	63	87	14	11	349	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1796	1870	1870	1870	1870	1856	1811	1870	1870	1870	1693
Adj Flow Rate, veh/h	25	18	284	18	9	12	82	113	18	14	452	9
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	7	2	2	2	2	3	6	2	2	2	14
Cap, veh/h	333	198	387	257	130	109	393	733	642	654	757	581
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	734	809	1585	469	532	445	924	1811	1585	1259	1870	1434
Grp Volume(v), veh/h	43	0	284	39	0	0	82	113	18	14	452	9
Grp Sat Flow(s),veh/h/ln	1543	0	1585	1445	0	0	924	1811	1585	1259	1870	1434
Q Serve(g_s), s	0.0	0.0	6.1	0.0	0.0	0.0	2.8	1.5	0.3	0.3	7.0	0.1
Cycle Q Clear(g_c), s	0.7	0.0	6.1	0.6	0.0	0.0	9.9	1.5	0.3	1.7	7.0	0.1
Prop In Lane	0.58		1.00	0.46		0.31	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	531	0	387	495	0	0	393	733	642	654	757	581
V/C Ratio(X)	0.08	0.00	0.73	0.08	0.00	0.00	0.21	0.15	0.03	0.02	0.60	0.02
Avail Cap(c_a), veh/h	1296	0	1198	1181	0	0	1241	2395	2096	1810	2474	1897
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.8	0.0	12.9	10.8	0.0	0.0	12.5	7.0	6.6	7.5	8.7	6.6
Incr Delay (d2), s/veh	0.1	0.0	2.7	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	2.0	0.2	0.0	0.0	0.4	0.3	0.0	0.0	1.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.9	0.0	15.6	10.9	0.0	0.0	12.8	7.1	6.7	7.6	9.4	6.6
LnGrp LOS	B	A	B	B	A	A	B	A	A	A	A	A
Approach Vol, veh/h		327			39			213			475	
Approach Delay, s/veh		15.0			10.9			9.2			9.3	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.0		15.0		22.0		15.0				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		49.0		28.0		49.0		28.0				
Max Q Clear Time (g_c+I1), s		11.9		8.1		9.0		2.6				
Green Ext Time (p_c), s		1.0		1.2		2.6		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
3: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd

04-18-2024



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	14	219	14	7	9	63	87	14	11	349	7
Future Volume (veh/h)	19	14	219	14	7	9	63	87	14	11	349	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1737	1796	1870	1870	1870	1870	1856	1811	1870	1870	1870	1693
Adj Flow Rate, veh/h	34	25	397	25	13	16	114	158	25	20	632	13
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	7	2	2	2	2	3	6	2	2	2	14
Cap, veh/h	334	218	471	243	129	117	285	852	746	633	880	675
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.47	0.47	0.47	0.47	0.47	0.47
Sat Flow, veh/h	784	735	1585	501	434	394	779	1811	1585	1201	1870	1434
Grp Volume(v), veh/h	59	0	397	54	0	0	114	158	25	20	632	13
Grp Sat Flow(s),veh/h/ln	1519	0	1585	1329	0	0	779	1811	1585	1201	1870	1434
Q Serve(g_s), s	0.0	0.0	13.1	0.0	0.0	0.0	7.7	2.8	0.5	0.5	15.1	0.3
Cycle Q Clear(g_c), s	1.3	0.0	13.1	1.2	0.0	0.0	22.8	2.8	0.5	3.4	15.1	0.3
Prop In Lane	0.58		1.00	0.46		0.30	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	553	0	471	489	0	0	285	852	746	633	880	675
V/C Ratio(X)	0.11	0.00	0.84	0.11	0.00	0.00	0.40	0.19	0.03	0.03	0.72	0.02
Avail Cap(c_a), veh/h	856	0	794	745	0	0	601	1587	1389	1120	1639	1257
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.3	0.0	18.4	14.3	0.0	0.0	21.0	8.6	8.0	9.6	11.8	7.9
Incr Delay (d2), s/veh	0.1	0.0	4.2	0.1	0.0	0.0	0.9	0.1	0.0	0.0	1.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	4.8	0.4	0.0	0.0	1.2	0.8	0.1	0.1	4.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.4	0.0	22.6	14.4	0.0	0.0	21.9	8.7	8.0	9.6	13.0	7.9
LnGrp LOS	B	A	C	B	A	A	C	A	A	A	B	A
Approach Vol, veh/h		456			54			297			665	
Approach Delay, s/veh		21.6			14.4			13.7			12.8	
Approach LOS		C			B			B			B	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		33.3		22.6		33.3		22.6				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		49.0		28.0		49.0		28.0				
Max Q Clear Time (g_c+I1), s		24.8		15.1		17.1		3.2				
Green Ext Time (p_c), s		1.5		1.5		4.0		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			15.7									
HCM 6th LOS			B									

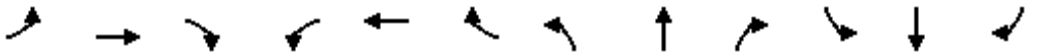
HCM 6th Signalized Intersection Summary
3: Fernbrook Ln & Rush Creek Pkwy/Elm Creek Rd

04-18-2024

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	12	131	15	17	18	180	431	24	11	159	15
Future Volume (veh/h)	19	12	131	15	17	18	180	431	24	11	159	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1841	1870	1870	1870
Adj Flow Rate, veh/h	25	16	170	19	22	23	233	558	31	14	206	19
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	4	2	2	2
Cap, veh/h	293	143	261	185	124	95	653	837	698	391	837	710
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.45	0.45	0.45	0.45	0.45	0.45
Sat Flow, veh/h	729	869	1585	277	755	579	1156	1870	1560	827	1870	1585
Grp Volume(v), veh/h	41	0	170	64	0	0	233	558	31	14	206	19
Grp Sat Flow(s),veh/h/ln	1598	0	1585	1611	0	0	1156	1870	1560	827	1870	1585
Q Serve(g_s), s	0.0	0.0	3.4	0.0	0.0	0.0	5.3	7.9	0.4	0.5	2.3	0.2
Cycle Q Clear(g_c), s	0.6	0.0	3.4	1.1	0.0	0.0	7.5	7.9	0.4	8.3	2.3	0.2
Prop In Lane	0.61		1.00	0.30		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	436	0	261	404	0	0	653	837	698	391	837	710
V/C Ratio(X)	0.09	0.00	0.65	0.16	0.00	0.00	0.36	0.67	0.04	0.04	0.25	0.03
Avail Cap(c_a), veh/h	1049	0	899	1016	0	0	2136	3237	2700	1452	3237	2744
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	12.0	0.0	13.1	12.1	0.0	0.0	8.1	7.3	5.2	10.6	5.7	5.2
Incr Delay (d2), s/veh	0.1	0.0	2.8	0.2	0.0	0.0	0.3	0.9	0.0	0.0	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.1	0.3	0.0	0.0	0.6	1.1	0.0	0.1	0.3	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.1	0.0	15.9	12.3	0.0	0.0	8.4	8.2	5.2	10.6	5.9	5.2
LnGrp LOS	B	A	B	B	A	A	A	A	A	B	A	A
Approach Vol, veh/h		211			64			822			239	
Approach Delay, s/veh		15.1			12.3			8.2			6.1	
Approach LOS		B			B			A			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		22.0		11.5		22.0		11.5				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		58.0		19.0		58.0		19.0				
Max Q Clear Time (g_c+I1), s		9.9		5.4		10.3		3.1				
Green Ext Time (p_c), s		4.5		0.6		1.2		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			9.1									
HCM 6th LOS			A									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	12	131	15	17	18	180	431	24	11	159	15
Future Volume (veh/h)	19	12	131	15	17	18	180	431	24	11	159	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1841	1870	1870	1870
Adj Flow Rate, veh/h	34	22	237	27	31	33	326	780	43	20	288	27
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	4	2	2	2
Cap, veh/h	279	152	311	148	148	113	627	998	833	283	998	846
Arrive On Green	0.20	0.20	0.20	0.20	0.20	0.20	0.53	0.53	0.53	0.53	0.53	0.53
Sat Flow, veh/h	807	776	1585	260	754	577	1065	1870	1560	665	1870	1585
Grp Volume(v), veh/h	56	0	237	91	0	0	326	780	43	20	288	27
Grp Sat Flow(s),veh/h/ln	1583	0	1585	1592	0	0	1065	1870	1560	665	1870	1585
Q Serve(g_s), s	0.0	0.0	6.8	0.0	0.0	0.0	11.7	16.1	0.6	1.2	4.1	0.4
Cycle Q Clear(g_c), s	1.2	0.0	6.8	2.1	0.0	0.0	15.8	16.1	0.6	17.2	4.1	0.4
Prop In Lane	0.61		1.00	0.30		0.36	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	431	0	311	409	0	0	627	998	833	283	998	846
V/C Ratio(X)	0.13	0.00	0.76	0.22	0.00	0.00	0.52	0.78	0.05	0.07	0.29	0.03
Avail Cap(c_a), veh/h	667	0	560	642	0	0	1387	2332	1945	757	2332	1976
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.0	0.0	18.3	16.4	0.0	0.0	10.5	9.0	5.4	15.9	6.2	5.3
Incr Delay (d2), s/veh	0.1	0.0	3.9	0.3	0.0	0.0	0.7	1.4	0.0	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	2.5	0.8	0.0	0.0	1.7	3.3	0.1	0.1	0.8	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	22.2	16.7	0.0	0.0	11.2	10.3	5.4	16.0	6.3	5.3
LnGrp LOS	B	A	C	B	A	A	B	B	A	B	A	A
Approach Vol, veh/h		293			91			1149			335	
Approach Delay, s/veh		21.0			16.7			10.4			6.8	
Approach LOS		C			B			B			A	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		32.7		15.4		32.7		15.4				
Change Period (Y+Rc), s		7.0		6.0		7.0		6.0				
Max Green Setting (Gmax), s		60.0		17.0		60.0		17.0				
Max Q Clear Time (g_c+I1), s		18.1		8.8		19.2		4.1				
Green Ext Time (p_c), s		7.6		0.7		1.7		0.3				

Intersection Summary												
HCM 6th Ctrl Delay			11.7									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	20	20	0	9	50	225	56	24	150	6
Future Vol, veh/h	3	5	20	20	0	9	50	225	56	24	150	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	170	-	170	250	-	250	195	-	195	260	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	20	5	85	2	33	6	5	9	17	9	2
Mvmt Flow	4	7	28	28	0	13	70	314	78	34	210	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	575	810	105	631	740	157	218	0	0	392	0	0
Stage 1	278	278	-	454	454	-	-	-	-	-	-	-
Stage 2	297	532	-	177	286	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.9	7	9.2	6.54	7.56	4.22	-	-	4.44	-	-
Critical Hdwy Stg 1	6.54	5.9	-	8.2	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.9	-	8.2	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.2	3.35	4.35	4.02	3.63	2.26	-	-	2.37	-	-
Pot Cap-1 Maneuver	401	281	920	236	343	771	1320	-	-	1063	-	-
Stage 1	705	636	-	382	568	-	-	-	-	-	-	-
Stage 2	687	481	-	614	674	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	369	258	920	210	315	771	1320	-	-	1063	-	-
Mov Cap-2 Maneuver	369	258	-	210	315	-	-	-	-	-	-	-
Stage 1	668	616	-	362	538	-	-	-	-	-	-	-
Stage 2	640	456	-	570	652	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	20.1	1.2	1.1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1320	-	-	369	258	920	210	-	771	1063	-	-
HCM Lane V/C Ratio	0.053	-	-	0.011	0.027	0.03	0.133	-	0.016	0.032	-	-
HCM Control Delay (s)	7.9	-	-	14.9	19.3	9	24.8	0	9.7	8.5	-	-
HCM Lane LOS	A	-	-	B	C	A	C	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0	0.1	0.1	0.5	-	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	5	20	20	0	9	50	225	56	24	150	6
Future Vol, veh/h	3	5	20	20	0	9	50	225	56	24	150	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	170	-	170	250	-	250	195	-	195	260	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	2	20	5	85	2	33	6	5	9	17	9	2
Mvmt Flow	6	10	39	39	0	18	98	440	109	47	293	12

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	803	1132	147	882	1035	220	305	0	0	549	0	0
Stage 1	387	387	-	636	636	-	-	-	-	-	-	-
Stage 2	416	745	-	246	399	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.9	7	9.2	6.54	7.56	4.22	-	-	4.44	-	-
Critical Hdwy Stg 1	6.54	5.9	-	8.2	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.9	-	8.2	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.2	3.35	4.35	4.02	3.63	2.26	-	-	2.37	-	-
Pot Cap-1 Maneuver	275	176	864	141	230	697	1224	-	-	920	-	-
Stage 1	608	565	-	279	470	-	-	-	-	-	-	-
Stage 2	585	378	-	546	601	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	242	154	864	116	201	697	1224	-	-	920	-	-
Mov Cap-2 Maneuver	242	154	-	116	201	-	-	-	-	-	-	-
Stage 1	559	536	-	257	432	-	-	-	-	-	-	-
Stage 2	525	348	-	486	570	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	38.4	1.2	1.2
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1224	-	-	242	154	864	116	-	697	920	-	-
HCM Lane V/C Ratio	0.08	-	-	0.024	0.063	0.045	0.337	-	0.025	0.051	-	-
HCM Control Delay (s)	8.2	-	-	20.2	30	9.4	51.1	0	10.3	9.1	-	-
HCM Lane LOS	A	-	-	C	D	A	F	A	B	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.1	0.2	0.1	1.3	-	0.1	0.2	-	-

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	2	53	49	6	16	42	214	15	7	166	4
Future Vol, veh/h	11	2	53	49	6	16	42	214	15	7	166	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	170	-	170	250	-	250	195	-	195	260	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	18	100	4	22	17	25	17	19	67	71	10	2
Mvmt Flow	15	3	73	68	8	22	58	296	21	10	229	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	517	682	115	548	667	148	235	0	0	317	0	0
Stage 1	249	249	-	412	412	-	-	-	-	-	-	-
Stage 2	268	433	-	136	255	-	-	-	-	-	-	-
Critical Hdwy	7.86	8.5	6.98	7.94	6.84	7.4	4.44	-	-	5.52	-	-
Critical Hdwy Stg 1	6.86	7.5	-	6.94	5.84	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.86	7.5	-	6.94	5.84	-	-	-	-	-	-	-
Follow-up Hdwy	3.68	5	3.34	3.72	4.17	3.55	2.37	-	-	2.91	-	-
Pot Cap-1 Maneuver	407	223	909	378	349	804	1227	-	-	863	-	-
Stage 1	689	507	-	537	556	-	-	-	-	-	-	-
Stage 2	671	389	-	798	659	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	371	210	909	329	329	804	1227	-	-	863	-	-
Mov Cap-2 Maneuver	371	210	-	329	329	-	-	-	-	-	-	-
Stage 1	657	501	-	512	530	-	-	-	-	-	-	-
Stage 2	612	371	-	721	651	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	16.5	1.3	0.4
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1227	-	-	371	210	909	329	329	804	863	-	-
HCM Lane V/C Ratio	0.047	-	-	0.041	0.013	0.081	0.206	0.025	0.028	0.011	-	-
HCM Control Delay (s)	8.1	-	-	15.1	22.4	9.3	18.8	16.2	9.6	9.2	-	-
HCM Lane LOS	A	-	-	C	C	A	C	C	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0	0.3	0.8	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	2	53	49	6	16	42	214	15	7	166	4
Future Vol, veh/h	11	2	53	49	6	16	42	214	15	7	166	4
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	170	-	170	250	-	250	195	-	195	260	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	18	100	4	22	17	25	17	19	67	71	10	2
Mvmt Flow	21	4	102	95	12	31	81	414	29	14	321	8

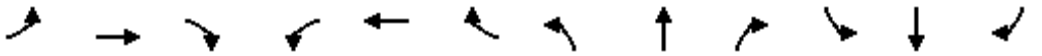
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	724	954	161	767	933	207	329	0	0	443	0	0
Stage 1	349	349	-	576	576	-	-	-	-	-	-	-
Stage 2	375	605	-	191	357	-	-	-	-	-	-	-
Critical Hdwy	7.86	8.5	6.98	7.94	6.84	7.4	4.44	-	-	5.52	-	-
Critical Hdwy Stg 1	6.86	7.5	-	6.94	5.84	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.86	7.5	-	6.94	5.84	-	-	-	-	-	-	-
Follow-up Hdwy	3.68	5	3.34	3.72	4.17	3.55	2.37	-	-	2.91	-	-
Pot Cap-1 Maneuver	285	137	849	258	240	733	1126	-	-	746	-	-
Stage 1	598	439	-	423	465	-	-	-	-	-	-	-
Stage 2	576	302	-	738	591	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	244	125	849	206	218	733	1126	-	-	746	-	-
Mov Cap-2 Maneuver	244	125	-	206	218	-	-	-	-	-	-	-
Stage 1	555	431	-	393	432	-	-	-	-	-	-	-
Stage 2	498	280	-	631	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.5	29.4	1.3	0.4
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBL	SBT	SBR
Capacity (veh/h)	1126	-	-	244	125	849	206	218	733	746	-	-
HCM Lane V/C Ratio	0.072	-	-	0.087	0.031	0.121	0.46	0.053	0.042	0.018	-	-
HCM Control Delay (s)	8.4	-	-	21.2	34.7	9.8	36.5	22.4	10.1	9.9	-	-
HCM Lane LOS	A	-	-	C	D	A	E	C	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.1	0.4	2.2	0.2	0.1	0.1	-	-

HCM 6th Signalized Intersection Summary
8: Dayton Pkwy & Territorial Rd/Holly Ln

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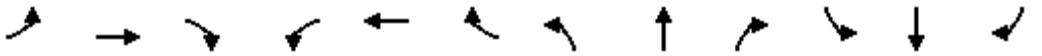
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	5	20	20	0	9	50	225	56	24	150	6
Future Volume (veh/h)	3	5	20	20	0	9	50	225	56	24	150	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1604	1826	640	1870	1411	1811	1826	1767	1648	1767	1870
Adj Flow Rate, veh/h	4	7	28	28	0	13	70	314	78	34	210	8
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	20	5	85	2	33	6	5	9	17	9	2
Cap, veh/h	288	119	115	217	139	89	688	1431	618	556	1289	609
Arrive On Green	0.07	0.07	0.07	0.07	0.00	0.07	0.07	0.41	0.41	0.04	0.38	0.38
Sat Flow, veh/h	1401	1604	1547	470	1870	1196	1725	3469	1497	1570	3357	1585
Grp Volume(v), veh/h	4	7	28	28	0	13	70	314	78	34	210	8
Grp Sat Flow(s),veh/h/ln	1401	1604	1547	470	1870	1196	1725	1735	1497	1570	1678	1585
Q Serve(g_s), s	0.1	0.2	0.7	2.3	0.0	0.4	0.9	2.3	1.3	0.5	1.6	0.1
Cycle Q Clear(g_c), s	0.1	0.2	0.7	2.5	0.0	0.4	0.9	2.3	1.3	0.5	1.6	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	288	119	115	217	139	89	688	1431	618	556	1289	609
V/C Ratio(X)	0.01	0.06	0.24	0.13	0.00	0.15	0.10	0.22	0.13	0.06	0.16	0.01
Avail Cap(c_a), veh/h	740	636	614	369	742	474	990	2087	901	795	1847	872
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.8	16.8	17.0	18.0	0.0	16.9	6.1	7.4	7.1	6.7	7.9	7.4
Incr Delay (d2), s/veh	0.0	0.2	1.1	0.3	0.0	0.7	0.1	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.2	0.2	0.0	0.1	0.2	0.5	0.3	0.1	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	17.0	18.1	18.2	0.0	17.7	6.2	7.5	7.2	6.7	8.0	7.5
LnGrp LOS	B	B	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		39			41			462			252	
Approach Delay, s/veh		17.8			18.0			7.2			7.8	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.0	21.6		9.4	9.2	20.5		9.4				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	7.5	23.5		15.5	9.5	21.5		15.5				
Max Q Clear Time (g_c+I1), s	2.5	4.3		2.7	2.9	3.6		4.5				
Green Ext Time (p_c), s	0.0	2.0		0.1	0.1	1.1		0.2				

Intersection Summary	
HCM 6th Ctrl Delay	8.5
HCM 6th LOS	A

HCM 6th Signalized Intersection Summary
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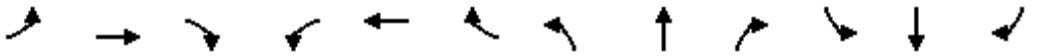
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	5	20	20	0	9	50	225	56	24	150	6
Future Volume (veh/h)	3	5	20	20	0	9	50	225	56	24	150	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1604	1826	640	1870	1411	1811	1826	1767	1648	1767	1870
Adj Flow Rate, veh/h	6	10	39	39	0	18	98	440	109	47	293	12
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	20	5	85	2	33	6	5	9	17	9	2
Cap, veh/h	319	165	159	220	193	123	633	1375	593	488	1225	578
Arrive On Green	0.10	0.10	0.10	0.10	0.00	0.10	0.08	0.40	0.40	0.05	0.36	0.36
Sat Flow, veh/h	1395	1604	1547	464	1870	1196	1725	3469	1497	1570	3357	1585
Grp Volume(v), veh/h	6	10	39	39	0	18	98	440	109	47	293	12
Grp Sat Flow(s),veh/h/ln	1395	1604	1547	464	1870	1196	1725	1735	1497	1570	1678	1585
Q Serve(g_s), s	0.2	0.2	1.0	3.4	0.0	0.6	1.4	3.6	1.9	0.7	2.5	0.2
Cycle Q Clear(g_c), s	0.2	0.2	1.0	3.6	0.0	0.6	1.4	3.6	1.9	0.7	2.5	0.2
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	319	165	159	220	193	123	633	1375	593	488	1225	578
V/C Ratio(X)	0.02	0.06	0.24	0.18	0.00	0.15	0.15	0.32	0.18	0.10	0.24	0.02
Avail Cap(c_a), veh/h	701	605	584	348	705	451	890	1983	856	695	1756	829
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.6	16.6	17.0	18.3	0.0	16.8	6.8	8.6	8.1	7.3	9.1	8.4
Incr Delay (d2), s/veh	0.0	0.2	0.8	0.4	0.0	0.5	0.1	0.1	0.1	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.1	0.3	0.3	0.0	0.2	0.3	0.9	0.4	0.2	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	16.8	17.7	18.7	0.0	17.3	6.9	8.7	8.2	7.4	9.2	8.4
LnGrp LOS	B	B	B	B	A	B	A	A	A	A	A	A
Approach Vol, veh/h		55			57			647			352	
Approach Delay, s/veh		17.5			18.2			8.3			8.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.6	21.8		10.7	9.9	20.5		10.7				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	7.5	23.5		15.5	9.5	21.5		15.5				
Max Q Clear Time (g_c+I1), s	2.7	5.6		3.0	3.4	4.5		5.6				
Green Ext Time (p_c), s	0.0	2.9		0.1	0.1	1.6		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			9.5									
HCM 6th LOS			A									

HCM 6th Signalized Intersection Summary
8: Dayton Pkwy & Territorial Rd/Holly Ln

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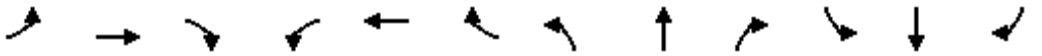
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	2	53	49	6	16	42	214	15	7	166	4
Future Volume (veh/h)	11	2	53	49	6	16	42	214	15	7	166	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1633	418	1841	1574	1648	1530	1648	1618	907	848	1752	1870
Adj Flow Rate, veh/h	15	3	73	68	8	22	58	296	21	10	229	6
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	18	100	4	22	17	25	17	19	67	71	10	2
Cap, veh/h	305	46	170	293	180	141	601	1287	322	361	1239	590
Arrive On Green	0.11	0.11	0.11	0.11	0.11	0.11	0.06	0.42	0.42	0.01	0.37	0.37
Sat Flow, veh/h	1205	418	1560	1114	1648	1296	1570	3075	769	807	3328	1585
Grp Volume(v), veh/h	15	3	73	68	8	22	58	296	21	10	229	6
Grp Sat Flow(s),veh/h/ln	1205	418	1560	1114	1648	1296	1570	1537	769	807	1664	1585
Q Serve(g_s), s	0.5	0.3	1.8	2.4	0.2	0.6	0.9	2.5	0.7	0.3	1.9	0.1
Cycle Q Clear(g_c), s	0.6	0.3	1.8	2.6	0.2	0.6	0.9	2.5	0.7	0.3	1.9	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	305	46	170	293	180	141	601	1287	322	361	1239	590
V/C Ratio(X)	0.05	0.07	0.43	0.23	0.04	0.16	0.10	0.23	0.07	0.03	0.18	0.01
Avail Cap(c_a), veh/h	667	171	639	628	675	531	878	1946	487	541	2107	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	16.1	16.8	17.3	16.1	16.3	6.8	7.5	7.0	7.7	8.5	8.0
Incr Delay (d2), s/veh	0.1	0.6	1.7	0.4	0.1	0.5	0.1	0.1	0.1	0.0	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.6	0.6	0.1	0.2	0.2	0.5	0.1	0.0	0.5	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.4	16.7	18.5	17.7	16.2	16.8	6.9	7.6	7.1	7.7	8.6	8.0
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	A	A
Approach Vol, veh/h		91			98			375			245	
Approach Delay, s/veh		18.1			17.3			7.5			8.5	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	22.4		10.9	8.9	20.5		10.9				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	9.5	25.5		16.5	9.5	25.5		16.5				
Max Q Clear Time (g_c+I1), s	2.3	4.5		3.8	2.9	3.9		4.6				
Green Ext Time (p_c), s	0.0	1.8		0.2	0.0	1.3		0.2				

Intersection Summary												
HCM 6th Ctrl Delay			10.2									
HCM 6th LOS			B									

HCM 6th Signalized Intersection Summary
8: Dayton Pkwy & Territorial Rd/Holly Ln

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	11	2	53	49	6	16	42	214	15	7	166	4
Future Volume (veh/h)	11	2	53	49	6	16	42	214	15	7	166	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1633	418	1841	1574	1648	1530	1648	1618	907	848	1752	1870
Adj Flow Rate, veh/h	21	4	102	95	12	31	81	414	29	14	321	8
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	18	100	4	22	17	25	17	19	67	71	10	2
Cap, veh/h	329	59	220	313	232	183	545	1251	313	318	1172	558
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.07	0.41	0.41	0.02	0.35	0.35
Sat Flow, veh/h	1191	418	1560	1084	1648	1296	1570	3075	769	807	3328	1585
Grp Volume(v), veh/h	21	4	102	95	12	31	81	414	29	14	321	8
Grp Sat Flow(s),veh/h/ln	1191	418	1560	1084	1648	1296	1570	1537	769	807	1664	1585
Q Serve(g_s), s	0.7	0.4	2.6	3.5	0.3	0.9	1.3	3.9	1.0	0.5	2.9	0.1
Cycle Q Clear(g_c), s	0.9	0.4	2.6	3.9	0.3	0.9	1.3	3.9	1.0	0.5	2.9	0.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	329	59	220	313	232	183	545	1251	313	318	1172	558
V/C Ratio(X)	0.06	0.07	0.46	0.30	0.05	0.17	0.15	0.33	0.09	0.04	0.27	0.01
Avail Cap(c_a), veh/h	679	182	678	631	716	563	818	1841	460	446	1759	837
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.2	15.9	16.8	17.6	15.8	16.1	7.5	8.7	7.8	8.6	9.9	9.0
Incr Delay (d2), s/veh	0.1	0.5	1.5	0.5	0.1	0.4	0.1	0.2	0.1	0.1	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.9	0.8	0.1	0.3	0.3	0.9	0.1	0.1	0.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.3	16.3	18.3	18.1	15.9	16.5	7.7	8.8	7.9	8.7	10.0	9.0
LnGrp LOS	B	B	B	B	B	B	A	A	A	A	B	A
Approach Vol, veh/h		127			138			524			343	
Approach Delay, s/veh		17.9			17.6			8.6			9.9	
Approach LOS		B			B			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.3	22.8		12.5	9.6	20.5		12.5				
Change Period (Y+Rc), s	6.5	5.5		6.5	6.5	5.5		6.5				
Max Green Setting (Gmax), s	7.5	25.5		18.5	10.5	22.5		18.5				
Max Q Clear Time (g_c+I1), s	2.5	5.9		4.6	3.3	4.9		5.9				
Green Ext Time (p_c), s	0.0	2.6		0.3	0.1	1.8		0.4				

Intersection Summary												
HCM 6th Ctrl Delay			11.1									
HCM 6th LOS			B									

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	782	485	13	4	8
Future Vol, veh/h	5	782	485	13	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	250	0	180
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	20	10	9	23	25	25
Mvmt Flow	8	1218	755	20	6	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	775	0	-	0	1380	755
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	625	-
Critical Hdwy	4.4	-	-	-	6.975	6.575
Critical Hdwy Stg 1	-	-	-	-	5.775	-
Critical Hdwy Stg 2	-	-	-	-	6.175	-
Follow-up Hdwy	2.39	-	-	-	3.7375	3.5375
Pot Cap-1 Maneuver	747	-	-	-	125	363
Stage 1	-	-	-	-	414	-
Stage 2	-	-	-	-	448	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	747	-	-	-	121	363
Mov Cap-2 Maneuver	-	-	-	-	121	-
Stage 1	-	-	-	-	400	-
Stage 2	-	-	-	-	448	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	22.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	747	-	-	-	121	363
HCM Lane V/C Ratio	0.01	-	-	-	0.051	0.034
HCM Control Delay (s)	9.9	0.2	-	-	36.4	15.3
HCM Lane LOS	A	A	-	-	E	C
HCM 95th %tile Q(veh)	0	-	-	-	0.2	0.1

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	782	485	13	4	8
Future Vol, veh/h	5	782	485	13	4	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	250	0	180
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	20	10	9	23	25	25
Mvmt Flow	11	1703	1056	28	9	17

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1084	0	-	0	1930	1056
Stage 1	-	-	-	-	1056	-
Stage 2	-	-	-	-	874	-
Critical Hdwy	4.4	-	-	-	6.975	6.575
Critical Hdwy Stg 1	-	-	-	-	5.775	-
Critical Hdwy Stg 2	-	-	-	-	6.175	-
Follow-up Hdwy	2.39	-	-	-	3.7375	3.5375
Pot Cap-1 Maneuver	562	-	-	-	53	238
Stage 1	-	-	-	-	291	-
Stage 2	-	-	-	-	327	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	562	-	-	-	34	238
Mov Cap-2 Maneuver	-	-	-	-	34	-
Stage 1	-	-	-	-	186	-
Stage 2	-	-	-	-	327	-

Approach	EB	WB	SB
HCM Control Delay, s	2.2	0	62.2
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	562	-	-	-	34	238
HCM Lane V/C Ratio	0.019	-	-	-	0.256	0.073
HCM Control Delay (s)	11.5	2.1	-	-	144.1	21.3
HCM Lane LOS	B	A	-	-	F	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8	0.2

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	465	848	3	21	12
Future Vol, veh/h	5	465	848	3	21	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	250	0	180
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	5	10	2	2	8
Mvmt Flow	7	608	1110	4	27	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1114	0	-	0	1428	1110
Stage 1	-	-	-	-	1110	-
Stage 2	-	-	-	-	318	-
Critical Hdwy	4.13	-	-	-	6.63	6.32
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.83	-
Follow-up Hdwy	2.219	-	-	-	3.519	3.376
Pot Cap-1 Maneuver	625	-	-	-	137	244
Stage 1	-	-	-	-	314	-
Stage 2	-	-	-	-	711	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	625	-	-	-	135	244
Mov Cap-2 Maneuver	-	-	-	-	135	-
Stage 1	-	-	-	-	309	-
Stage 2	-	-	-	-	711	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	32
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	625	-	-	-	135	244
HCM Lane V/C Ratio	0.01	-	-	-	0.204	0.064
HCM Control Delay (s)	10.8	0.1	-	-	38.4	20.8
HCM Lane LOS	B	A	-	-	E	C
HCM 95th %tile Q(veh)	0	-	-	-	0.7	0.2

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	465	848	3	21	12
Future Vol, veh/h	5	465	848	3	21	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	250	0	180
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	5	10	2	2	8
Mvmt Flow	9	851	1552	5	38	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1557	0	-	0	1996	1552
Stage 1	-	-	-	-	1552	-
Stage 2	-	-	-	-	444	-
Critical Hdwy	4.13	-	-	-	6.63	6.32
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.83	-
Follow-up Hdwy	2.219	-	-	-	3.519	3.376
Pot Cap-1 Maneuver	423	-	-	-	59	133
Stage 1	-	-	-	-	191	-
Stage 2	-	-	-	-	614	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	423	-	-	-	57	133
Mov Cap-2 Maneuver	-	-	-	-	57	-
Stage 1	-	-	-	-	183	-
Stage 2	-	-	-	-	614	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	110
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	423	-	-	-	57	133
HCM Lane V/C Ratio	0.022	-	-	-	0.674	0.165
HCM Control Delay (s)	13.7	0.3	-	-	151.5	37.3
HCM Lane LOS	B	A	-	-	F	E
HCM 95th %tile Q(veh)	0.1	-	-	-	2.8	0.6

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	677	321	13	37	54
Future Vol, veh/h	39	677	321	13	37	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	275	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	26	7	11	8	3	7
Mvmt Flow	59	1016	482	20	56	81

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	502	0	-	0	1108	482
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	626	-
Critical Hdwy	4.49	-	-	-	6.645	6.305
Critical Hdwy Stg 1	-	-	-	-	5.445	-
Critical Hdwy Stg 2	-	-	-	-	5.845	-
Follow-up Hdwy	2.447	-	-	-	3.5285	3.3665
Pot Cap-1 Maneuver	928	-	-	-	216	571
Stage 1	-	-	-	-	618	-
Stage 2	-	-	-	-	494	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	928	-	-	-	184	571
Mov Cap-2 Maneuver	-	-	-	-	184	-
Stage 1	-	-	-	-	528	-
Stage 2	-	-	-	-	494	-

Approach	EB	WB	SB
HCM Control Delay, s	1.1	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	928	-	-	-	184	571
HCM Lane V/C Ratio	0.063	-	-	-	0.302	0.142
HCM Control Delay (s)	9.1	0.6	-	-	32.8	12.3
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	1.2	0.5

Intersection	
Int Delay, s/veh	14.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	39	677	321	13	37	54
Future Vol, veh/h	39	677	321	13	37	54
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	275	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	82	82	82	82	82	82
Heavy Vehicles, %	26	7	11	8	3	7
Mvmt Flow	82	1420	673	27	78	113

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	700	0	-	0	1547	673
Stage 1	-	-	-	-	673	-
Stage 2	-	-	-	-	874	-
Critical Hdwy	4.49	-	-	-	6.645	6.305
Critical Hdwy Stg 1	-	-	-	-	5.445	-
Critical Hdwy Stg 2	-	-	-	-	5.845	-
Follow-up Hdwy	2.447	-	-	-	3.5285	3.3665
Pot Cap-1 Maneuver	772	-	-	-	114	443
Stage 1	-	-	-	-	504	-
Stage 2	-	-	-	-	367	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	772	-	-	-	~ 57	443
Mov Cap-2 Maneuver	-	-	-	-	~ 57	-
Stage 1	-	-	-	-	250	-
Stage 2	-	-	-	-	367	-

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	156.8
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	772	-	-	-	57	443
HCM Lane V/C Ratio	0.106	-	-	-	1.362	0.256
HCM Control Delay (s)	10.2	2.3	-	-	$ 362.4	15.9
HCM Lane LOS	B	A	-	-	F	C
HCM 95th %tile Q(veh)	0.4	-	-	-	6.8	1

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	63	412	622	59	24	47
Future Vol, veh/h	63	412	622	59	24	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	275	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	4	5	3	8	6
Mvmt Flow	82	533	805	76	31	61

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	881	0	-	0	1236	805
Stage 1	-	-	-	-	805	-
Stage 2	-	-	-	-	431	-
Critical Hdwy	4.19	-	-	-	6.72	6.29
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.92	-
Follow-up Hdwy	2.257	-	-	-	3.576	3.357
Pot Cap-1 Maneuver	745	-	-	-	174	374
Stage 1	-	-	-	-	426	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	745	-	-	-	147	374
Mov Cap-2 Maneuver	-	-	-	-	147	-
Stage 1	-	-	-	-	360	-
Stage 2	-	-	-	-	609	-

Approach	EB	WB	SB
HCM Control Delay, s	1.9	0	23.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	745	-	-	-	147	374
HCM Lane V/C Ratio	0.109	-	-	-	0.211	0.163
HCM Control Delay (s)	10.4	0.6	-	-	35.9	16.5
HCM Lane LOS	B	A	-	-	E	C
HCM 95th %tile Q(veh)	0.4	-	-	-	0.8	0.6

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	63	412	622	59	24	47
Future Vol, veh/h	63	412	622	59	24	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	275	0	100
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	6	4	5	3	8	6
Mvmt Flow	114	746	1126	107	43	85

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	1233	0	-	0	1727	1126
Stage 1	-	-	-	-	1126	-
Stage 2	-	-	-	-	601	-
Critical Hdwy	4.19	-	-	-	6.72	6.29
Critical Hdwy Stg 1	-	-	-	-	5.52	-
Critical Hdwy Stg 2	-	-	-	-	5.92	-
Follow-up Hdwy	2.257	-	-	-	3.576	3.357
Pot Cap-1 Maneuver	545	-	-	-	84	242
Stage 1	-	-	-	-	298	-
Stage 2	-	-	-	-	498	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	545	-	-	-	54	242
Mov Cap-2 Maneuver	-	-	-	-	54	-
Stage 1	-	-	-	-	192	-
Stage 2	-	-	-	-	498	-

Approach	EB	WB	SB
HCM Control Delay, s	3.3	0	82.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	545	-	-	-	54	242
HCM Lane V/C Ratio	0.209	-	-	-	0.805	0.352
HCM Control Delay (s)	13.3	1.8	-	-	189.2	27.7
HCM Lane LOS	B	A	-	-	F	D
HCM 95th %tile Q(veh)	0.8	-	-	-	3.4	1.5

Intersection	
Intersection Delay, s/veh	10.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	44	26	47	117	4	20	28	25	21	126	12
Future Vol, veh/h	3	44	26	47	117	4	20	28	25	21	126	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	9	4	2	2	2	5	4	8	5	3	2
Mvmt Flow	4	60	36	64	160	5	27	38	34	29	172	16
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	9.3	9.9	8.9	11.5
HCM LOS	A	A	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	100%	0%	13%
Vol Thru, %	0%	53%	0%	63%	0%	97%	79%
Vol Right, %	0%	47%	0%	37%	0%	3%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	53	3	70	47	121	159
LT Vol	20	0	3	0	47	0	21
Through Vol	0	28	0	44	0	117	126
RT Vol	0	25	0	26	0	4	12
Lane Flow Rate	27	72	4	96	64	165	217
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.047	0.108	0.007	0.147	0.107	0.252	0.336
Departure Headway (Hd)	6.225	5.37	6.19	5.542	6.021	5.493	5.563
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	571	661	573	641	591	648	643
Service Time	4.012	3.157	3.981	3.333	3.799	3.27	3.635
HCM Lane V/C Ratio	0.047	0.109	0.007	0.15	0.108	0.255	0.337
HCM Control Delay	9.3	8.8	9	9.3	9.5	10.1	11.5
HCM Lane LOS	A	A	A	A	A	B	B
HCM 95th-tile Q	0.1	0.4	0	0.5	0.4	1	1.5

Intersection	
Intersection Delay, s/veh	12.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	3	44	26	47	117	4	20	28	25	21	126	12
Future Vol, veh/h	3	44	26	47	117	4	20	28	25	21	126	12
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles, %	2	9	4	2	2	2	5	4	8	5	3	2
Mvmt Flow	5	79	47	85	211	7	36	50	45	38	227	22
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	10.6	11.7	10	14.6
HCM LOS	B	B	A	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	100%	0%	13%
Vol Thru, %	0%	53%	0%	63%	0%	97%	79%
Vol Right, %	0%	47%	0%	37%	0%	3%	8%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	20	53	3	70	47	121	159
LT Vol	20	0	3	0	47	0	21
Through Vol	0	28	0	44	0	117	126
RT Vol	0	25	0	26	0	4	12
Lane Flow Rate	36	95	5	126	85	218	286
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.068	0.159	0.01	0.216	0.154	0.364	0.481
Departure Headway (Hd)	6.843	5.983	6.826	6.174	6.545	6.015	6.056
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	523	598	524	581	548	599	595
Service Time	4.59	3.73	4.573	3.921	4.284	3.753	4.094
HCM Lane V/C Ratio	0.069	0.159	0.01	0.217	0.155	0.364	0.481
HCM Control Delay	10.1	9.9	9.6	10.6	10.5	12.2	14.6
HCM Lane LOS	B	A	A	B	B	B	B
HCM 95th-tile Q	0.2	0.6	0	0.8	0.5	1.7	2.6

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	128	42	33	78	30	39	140	43	13	64	4
Future Vol, veh/h	7	128	42	33	78	30	39	140	43	13	64	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	3	13	10	3	2	2	8	2	2
Mvmt Flow	9	164	54	42	100	38	50	179	55	17	82	5
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	11.5	10.4	11.4	10.8
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	100%	0%	16%
Vol Thru, %	0%	77%	0%	75%	0%	72%	79%
Vol Right, %	0%	23%	0%	25%	0%	28%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	39	183	7	170	33	108	81
LT Vol	39	0	7	0	33	0	13
Through Vol	0	140	0	128	0	78	64
RT Vol	0	43	0	42	0	30	4
Lane Flow Rate	50	234	9	218	42	138	104
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.089	0.373	0.016	0.35	0.077	0.231	0.182
Departure Headway (Hd)	6.413	5.725	6.474	5.792	6.552	6.02	6.319
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	560	628	553	621	547	596	568
Service Time	4.143	3.454	4.207	3.525	4.286	3.754	4.356
HCM Lane V/C Ratio	0.089	0.373	0.016	0.351	0.077	0.232	0.183
HCM Control Delay	9.8	11.8	9.3	11.6	9.8	10.6	10.8
HCM Lane LOS	A	B	A	B	A	B	B
HCM 95th-tile Q	0.3	1.7	0	1.6	0.2	0.9	0.7

Intersection	
Intersection Delay, s/veh	14.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	128	42	33	78	30	39	140	43	13	64	4
Future Vol, veh/h	7	128	42	33	78	30	39	140	43	13	64	4
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles, %	2	2	2	3	13	10	3	2	2	8	2	2
Mvmt Flow	12	216	71	56	132	51	66	236	73	22	108	7
Number of Lanes	1	1	0	1	1	0	1	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	2	1	2
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	2	2	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	2	1	2	2
HCM Control Delay	15.7	12.5	15.4	12.9
HCM LOS	C	B	C	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2	SBLn1
Vol Left, %	100%	0%	100%	0%	100%	0%	16%
Vol Thru, %	0%	77%	0%	75%	0%	72%	79%
Vol Right, %	0%	23%	0%	25%	0%	28%	5%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	39	183	7	170	33	108	81
LT Vol	39	0	7	0	33	0	13
Through Vol	0	140	0	128	0	78	64
RT Vol	0	43	0	42	0	30	4
Lane Flow Rate	66	309	12	287	56	182	137
Geometry Grp	7	7	7	7	7	7	6
Degree of Util (X)	0.128	0.542	0.023	0.512	0.113	0.344	0.273
Departure Headway (Hd)	7.005	6.313	7.107	6.42	7.336	6.8	7.193
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	508	565	500	557	492	532	502
Service Time	4.804	4.111	4.907	4.22	5.036	4.5	5.204
HCM Lane V/C Ratio	0.13	0.547	0.024	0.515	0.114	0.342	0.273
HCM Control Delay	10.8	16.4	10.1	15.9	11	13	12.9
HCM Lane LOS	B	C	B	C	B	B	B
HCM 95th-tile Q	0.4	3.2	0.1	2.9	0.4	1.5	1.1

S Diamond Lake & Pineview – Single lane

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD
Name: Diam LkRd & Pineview | Flows: 2024 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 50

	Approach Geometry						Entry Geometry								Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Pinview	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB S Diam LkRd	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Pineview	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB S Diam LkRd	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Pinview	7.0	1.00			0	25	34	31	0							0.900
2	WB S Diam LkRd	3.0	1.00			0	58	144	5	0							0.900
3	SB Pineview	4.0	1.00			0	26	155	15	0							0.900
4	EB S Diam LkRd	6.0	1.00			0	4	54	32	0							0.900

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)		Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Pinview	None	90		84		922		0.0976		3.97		3.97	0.11		0.30		A		A
2	WB S Diam LkRd	None	207		63		1006		0.2057		4.29		4.29	0.28		0.75		A		A
3	SB Pineview	None	196		227		899		0.2181		4.82		4.82	0.31		0.81		A		A
4	EB S Diam LkRd	None	90		239		858		0.1049		4.34		4.34	0.13		0.33		A		A
All	Intersection												4.43							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

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File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD
Name: Diam LkRd & Pineview | Flows: 2024 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 55

	Approach Geometry						Entry Geometry								Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Pinview	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB S Diam LkRd	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Pineview	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB S Diam LkRd	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Pinview	3.0	1.00			0	48	172	53	0							0.960
2	WB S Diam LkRd	11.0	1.00			0	41	96	37	0							0.960
3	SB Pineview	6.0	1.00			0	16	79	5	0							0.960
4	EB S Diam LkRd	3.0	1.00			0	9	157	52	0							0.960

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)		Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Pinview	None	273		182		941		0.2900		5.13		5.13	0.41		1.08		A		A
2	WB S Diam LkRd	None	174		229		788		0.2207		5.10		5.10	0.26		0.69		A		A
3	SB Pineview	None	100		185		882		0.1134		4.29		4.29	0.13		0.33		A		A
4	EB S Diam LkRd	None	218		136		964		0.2262		4.61		4.61	0.30		0.78		A		A
All	Intersection												4.86							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel - U:\193806685\Design\Traffic\Preliminary Analysis\RODEL\DiamLkRd_Pineview.rod

File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: AM | Feet | RHD
Name: Diam LkRd & Pineview | Flows: 2044 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 54

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Pinview	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB S Diam LkRd	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Pineview	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB S Diam LkRd	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Pinview	7.0	1.32			0	25	34	31	0							0.900
2	WB S Diam LkRd	3.0	1.32			0	58	144	5	0							0.900
3	SB Pineview	4.0	1.32			0	26	155	15	0							0.900
4	EB S Diam LkRd	6.0	1.32			0	4	54	32	0							0.900

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Pinview	None	119		111		908		0.1309		4.18		4.18	0.16		0.42		A		A
2	WB S Diam LkRd	None	273		83		995		0.2747		4.73		4.73	0.42		1.10		A		A
3	SB Pineview	None	259		300		859		0.3013		5.61		5.61	0.49		1.27		A		A
4	EB S Diam LkRd	None	119		315		818		0.1453		4.76		4.76	0.18		0.48		A		A
All	Intersection												4.95							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Rodel - U:\193806685\Design\Traffic\Preliminary Analysis\RODEL\DiamLkRd_Pineview.rod

File View Help

Project: Dayton Intersection Inv. | Date: 15-Apr-2024 | Model: Rodel 2017 | Timeslice: 7.5 | Full Geometry | Peak: PM | Feet | RHD
Name: Diam LkRd & Pineview | Flows: 2044 | Delay: Queuing | Results: Veh | Peak60/15m | PHF Flow Profile | Conf: 85 | Light | 57

	Approach Geometry					Entry Geometry					Circ Geom			Exit Geometry				Entry Capacity Mods	
	Leg Name	•	Bearing	G	V	n	E	n	L'	R	Φ	D	C	n	Ex	n	Vx	n	-+ Cap (v/h)	Xwalk Fact
1	NB Pinview	Y	0	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
2	WB S Diam LkRd	Y	90	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
3	SB Pineview	Y	180	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000
4	EB S Diam LkRd	Y	270	0	12.00	1	14.00	1	100.00	70.00	24.00	130.00	20.00	1	14.00	1	12.00	1	0	1.000

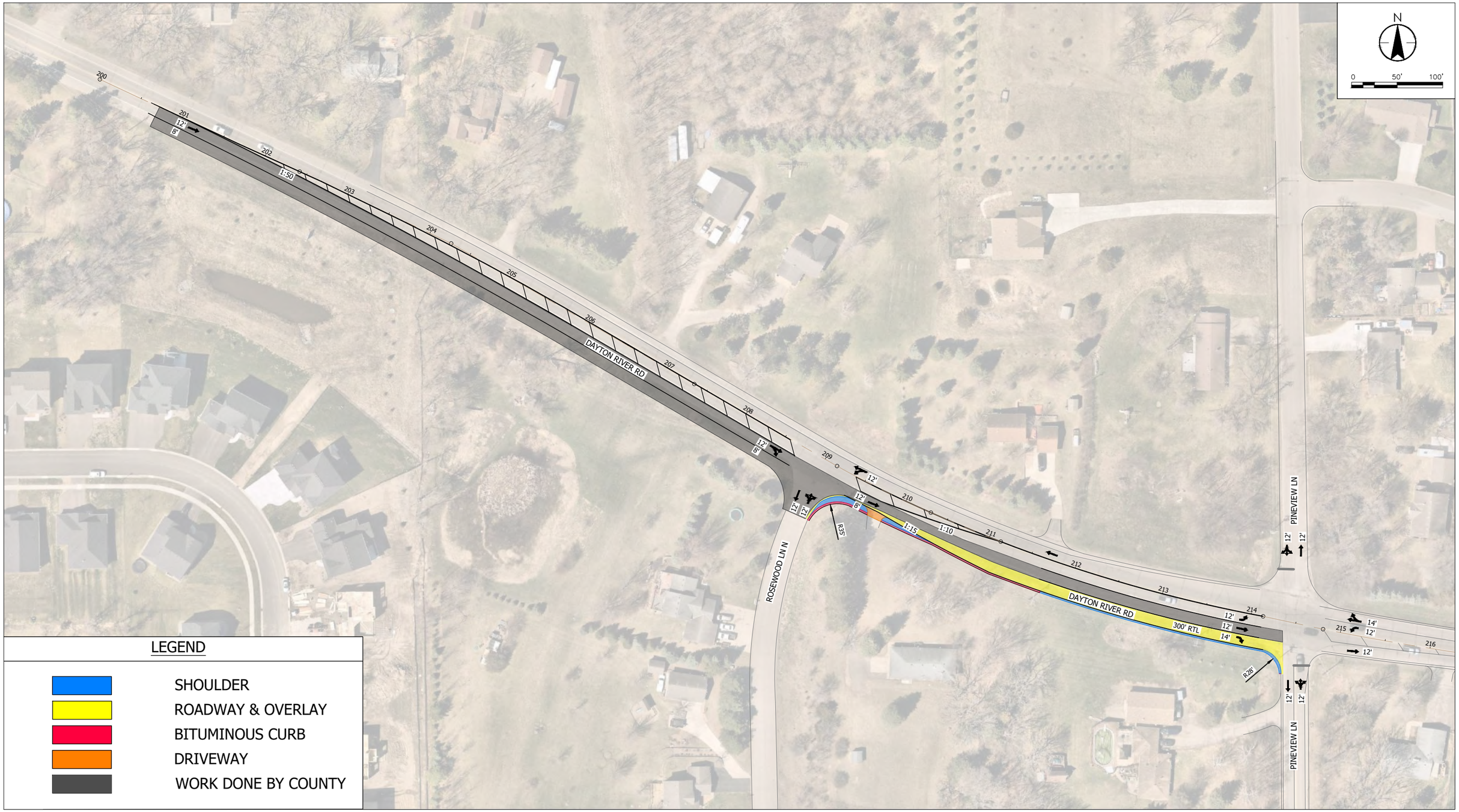
	Volume Modifiers			Turning Volumes (veh/hr)					Arrival Volume Ratios			Arrival Volume Times (min)			PHF
	Leg Name	%Truck	Factor			U-Turn	Exit-3	Exit-2	Exit-1	Bypass	Ratio1	Ratio2	Ratio3	Time1	Time2	Time3	
1	NB Pinview	3.0	1.32			0	48	172	53	0							0.960
2	WB S Diam LkRd	11.0	1.32			0	41	96	37	0							0.960
3	SB Pineview	6.0	1.32			0	16	79	5	0							0.960
4	EB S Diam LkRd	3.0	1.32			0	9	157	52	0							0.960

Calibration | Accidents | Economics | Bypass | Run

	Peak 60min Results	Bypass Type	Flow Rate (veh/hr)		Opp Rate (veh/hr)		Capacity (veh/hr)		Ave VCR		Ave Del (sec/veh)			Max Q (veh)		Max Q95% (veh)		LOS A-F		
			Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Entry	Bypass	Leg	Entry	Bypass	Entry	Bypass	Entry	Byp	Leg
1	NB Pinview	None	360		240		909		0.3965		6.19		6.19	0.67		1.74		A		A
2	WB S Diam LkRd	None	230		302		753		0.3049		5.89		5.89	0.40		1.05		A		A
3	SB Pineview	None	132		244		849		0.1555		4.66		4.66	0.18		0.48		A		A
4	EB S Diam LkRd	None	288		180		939		0.3066		5.26		5.26	0.45		1.17		A		A
All	Intersection												5.65							A

Results 60 | Results 15 | Int / Slope - 60 | Int / Slope - 15 | Economics | Global Results

Appendix H - PRELIMINARY IMPROVEMENT LAYOUTS AND COST ESTIMATES



DAYTON RIVER RD & PINEVIEW LN - OPTION 1

CITY OF DAYTON, MN

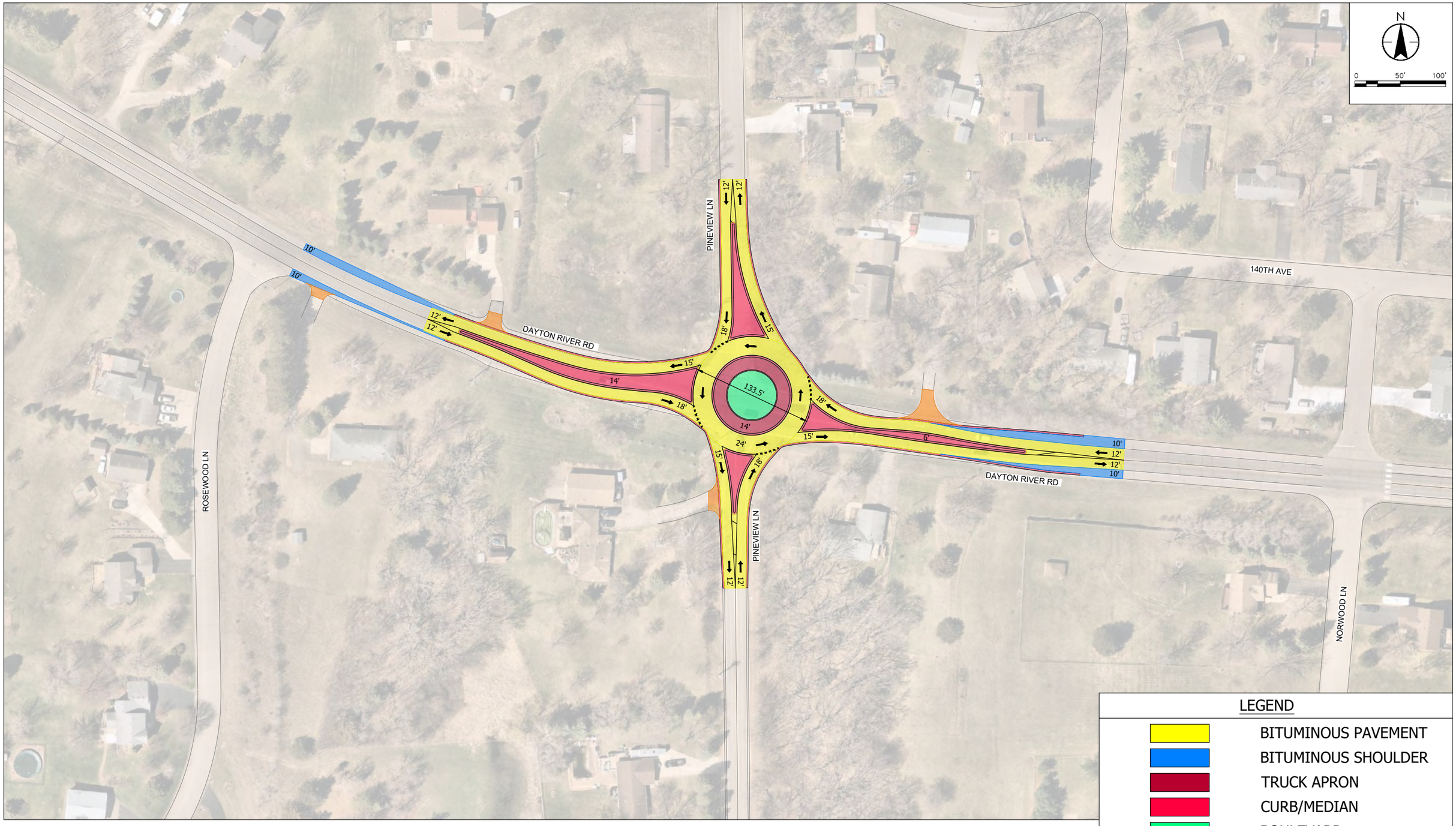
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 1.1

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Plot Date: 04/15/2024 - 12:47pm
Drawing name: \\US0291-PPFSS01\shared_projects\193806685\CAD\Dwg\LAYOUT_1_Pineview & Dayton\193806685_1.1_PineviewRTLANE.dwg
Xrefs: 193806685_REM_PineviewRTLANE



DAYTON RIVER RD & PINEVIEW LN - OPTION 2

CITY OF DAYTON, MN

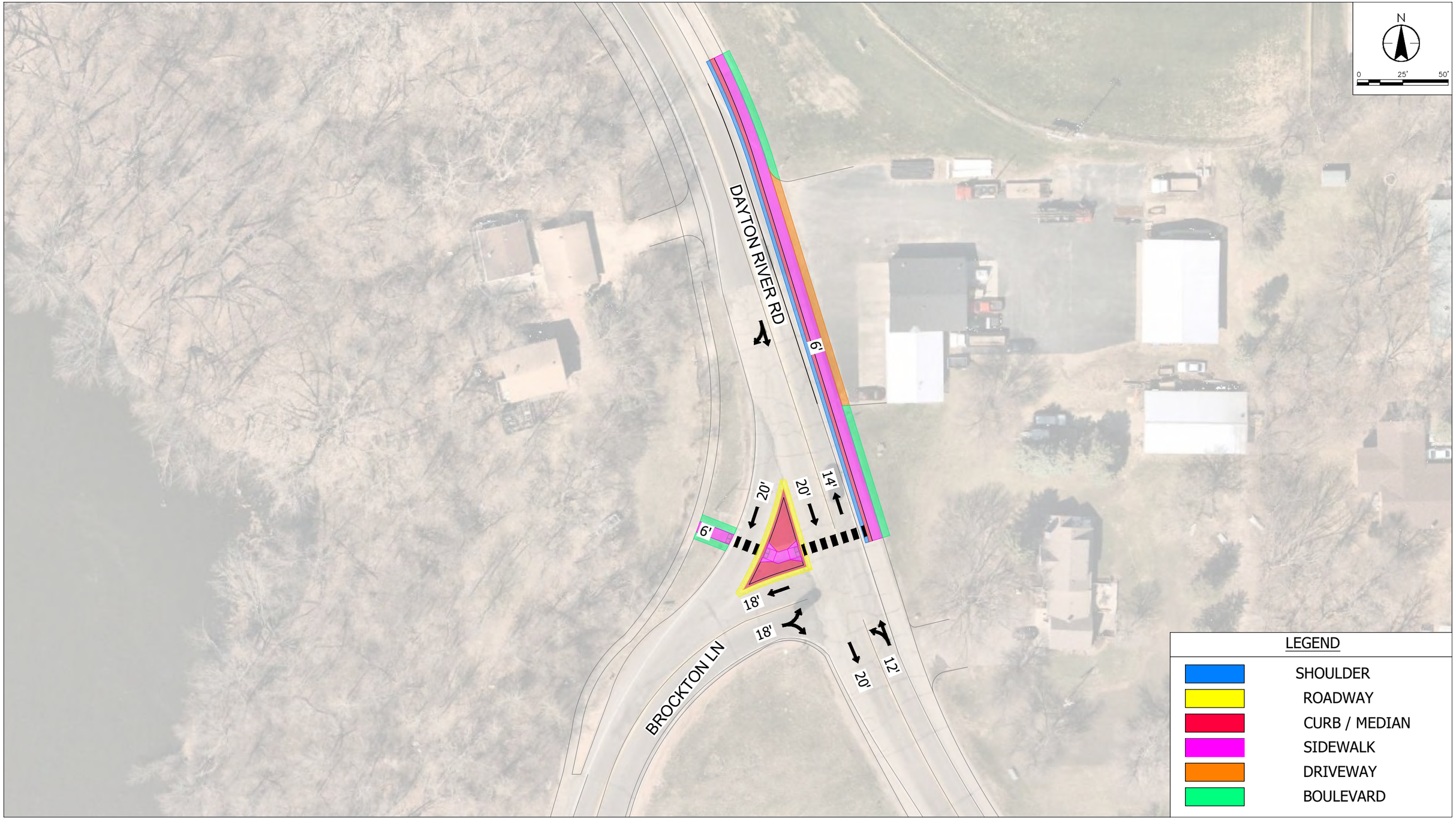
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 1.2

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Plot Date: 04/12/2024 - 4:29pm
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Xrefs:



DAYTON RIVER RD & BROCKTON LN - OPTION 1

CITY OF DAYTON, MN

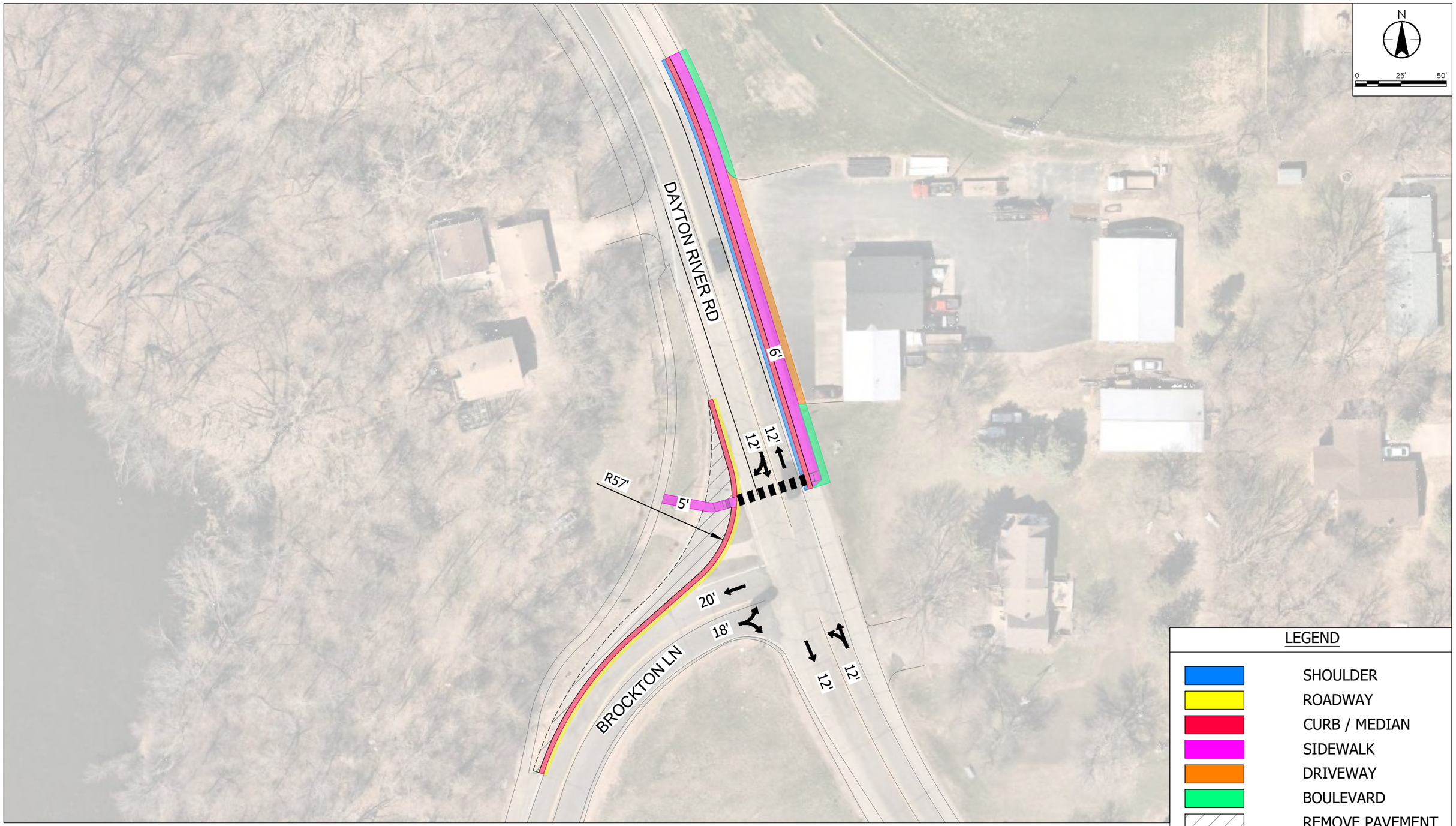
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 2.1

DATE 4/10/2024 PROJ. NO. 193806685

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Minneapolis, MN 55402
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Plot Date: 04/15/2024 - 12:52pm
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Xrefs: 193806685_BORDER



DAYTON RIVER RD & BROCKTON LN - OPTION 2

CITY OF DAYTON, MN

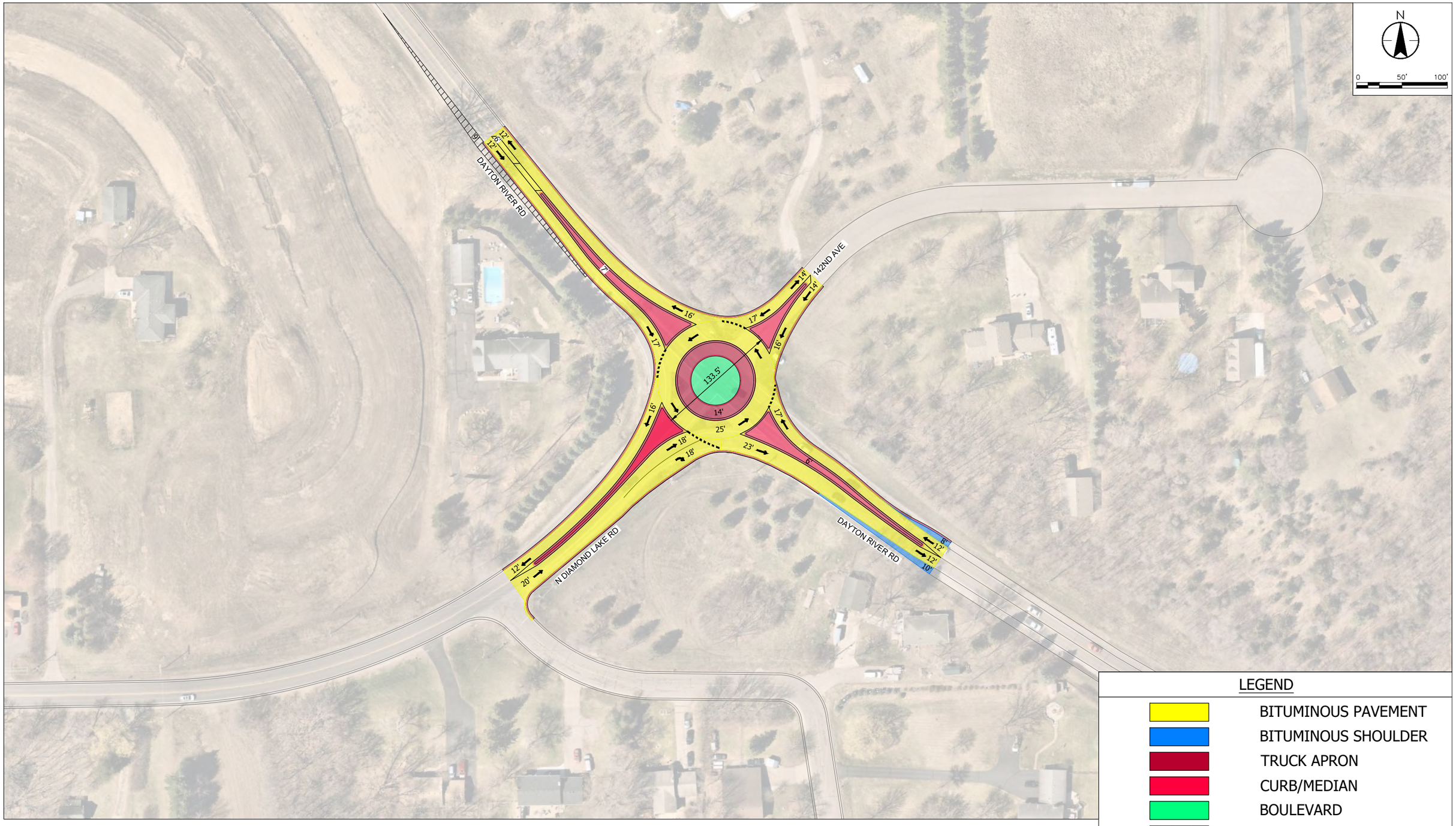
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 2.2

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
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Plot Date: 04/15/2024 - 12:54pm
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Xrefs:



LEGEND

- BITUMINOUS PAVEMENT
- BITUMINOUS SHOULDER
- TRUCK APRON
- CURB/MEDIAN
- BOULEVARD
- REMOVE PAVEMENT

DAYTON RIVER RD & N DIAMOND LAKE RD/142ND AVE

CITY OF DAYTON, MN

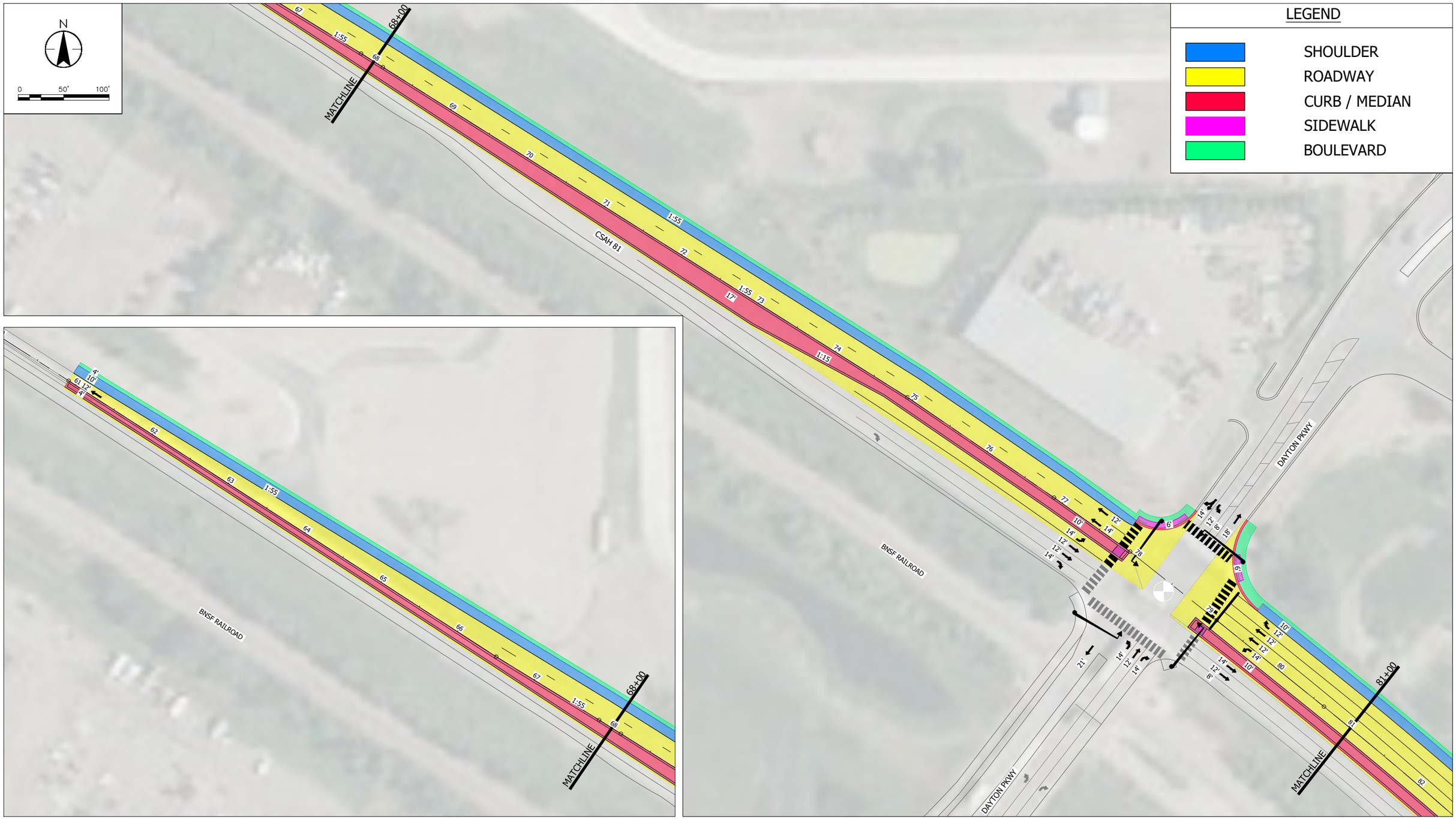
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 3

DATE 4/10/2024 PROJ. NO. 193806685

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733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Plot Date: 04/12/2024 - 4:34pm
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Xrefs:



CSAH 81 & DAYTON PKWY

CITY OF DAYTON, MN

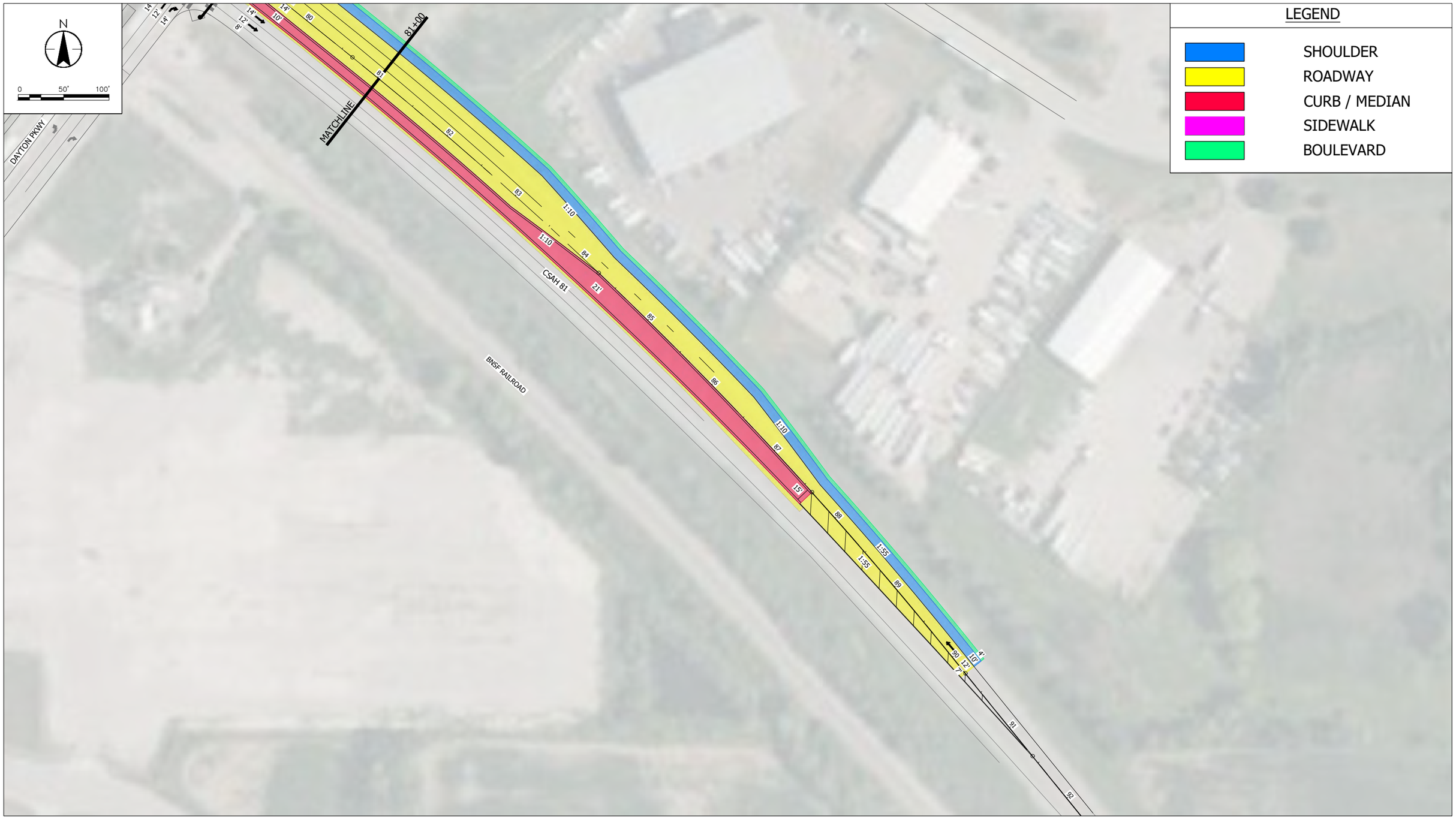
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 4 (PAGE 1)

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Plot Date: 04/15/2024 - 12:57pm
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Xrefs:



CSAH 81 & DAYTON PKWY

CITY OF DAYTON, MN

INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 4 (PAGE 2)

DATE 4/10/2024 PROJ. NO. 193806685

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Plot Date: 04/15/2024 - 12:57pm
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Xrefs:



DAYTON RIVER RD & LAWNDALE LN - OPTION 1

CITY OF DAYTON, MN

INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 5.1

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Plot Date: 04/15/2024 - 1:01pm
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Xrefs:



DAYTON RIVER RD & LAWNDALE LN - OPTION 2

CITY OF DAYTON, MN

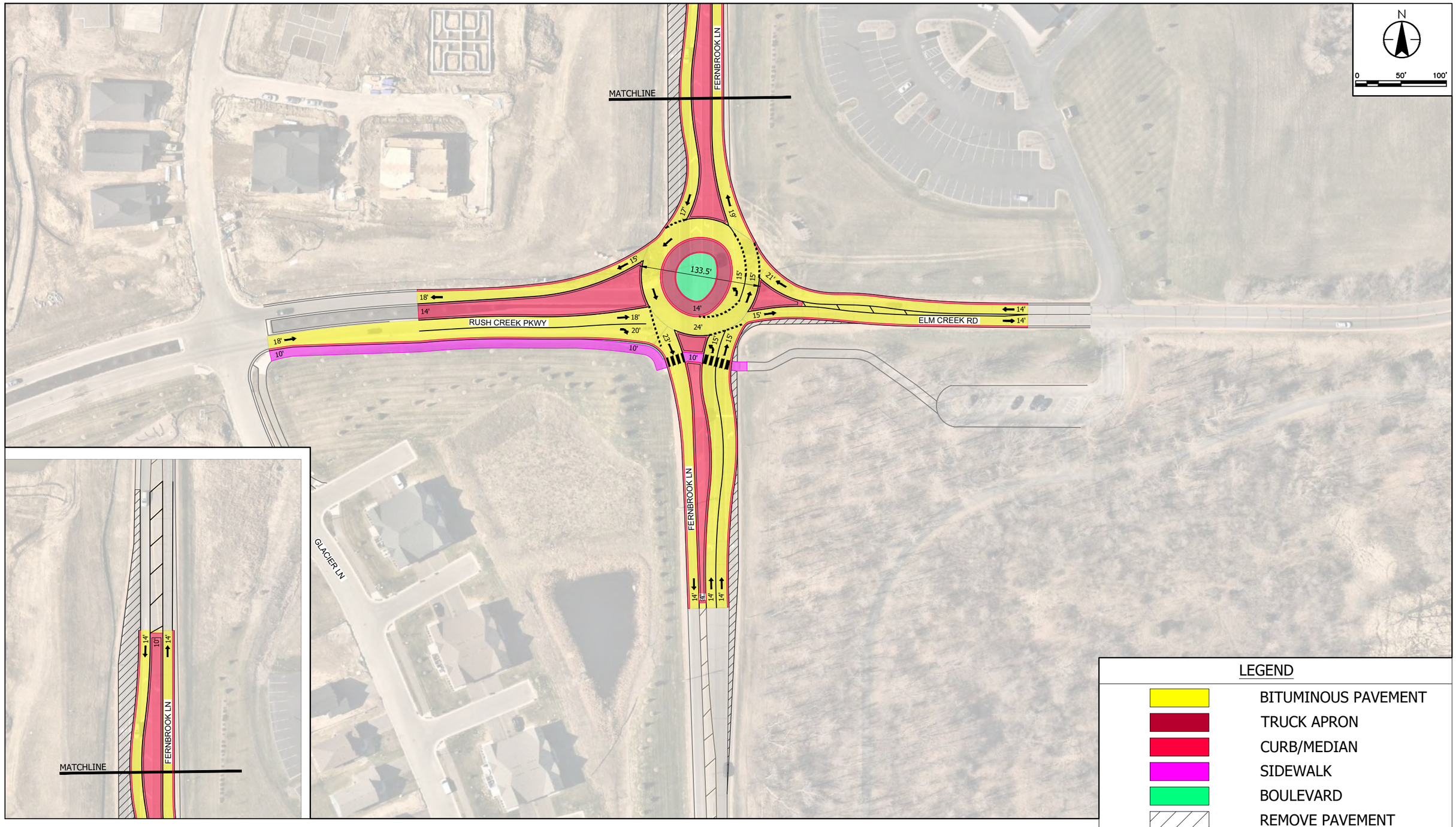
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 5.2

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
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Xrefs:



FERNBROOK LN & RUSH CREEK PKWY/ELM CREEK RD - OPTION 1

CITY OF DAYTON, MN

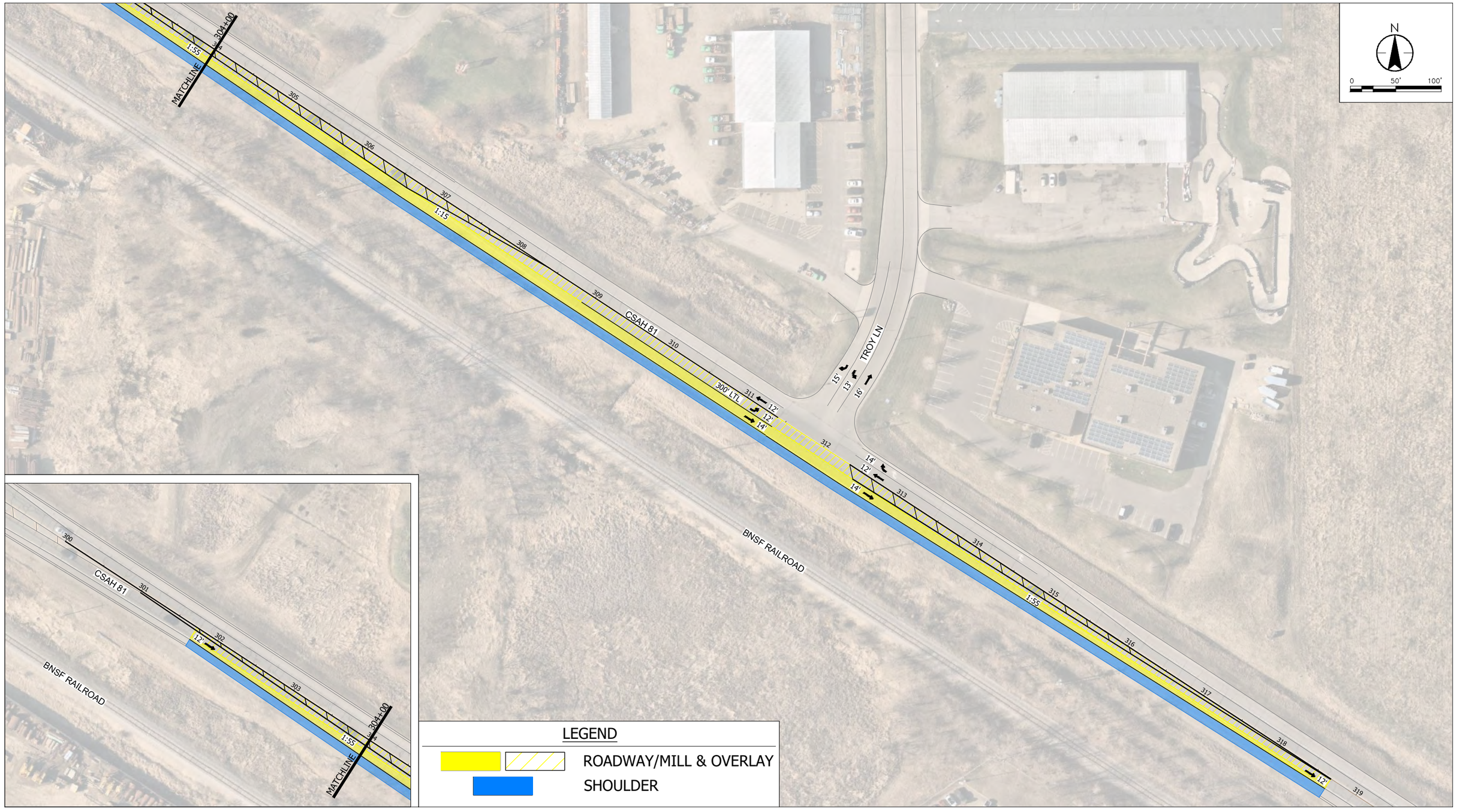
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 6

DATE 4/11/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Plot Date: 05/24/2024 - 1:09pm
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Xrefs:



CSAH 81 & TROY LN

CITY OF DAYTON, MN

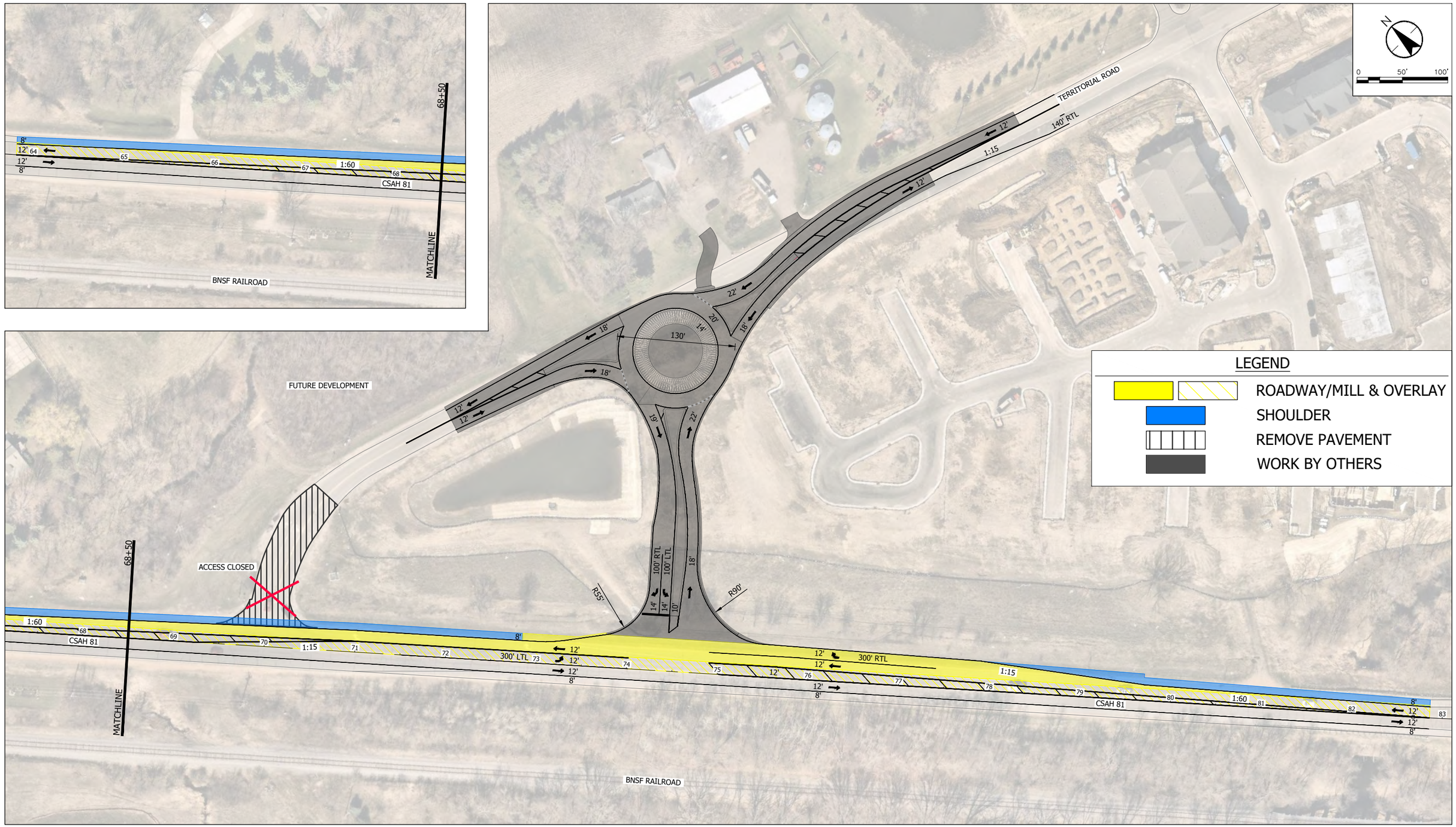
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 7

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
www.stantec.com

Plot Date: 04/15/2024 - 1:19pm
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Xrefs: 193806685-LDAR



CSAH 81 & TERRITORIAL RD

CITY OF DAYTON, MN

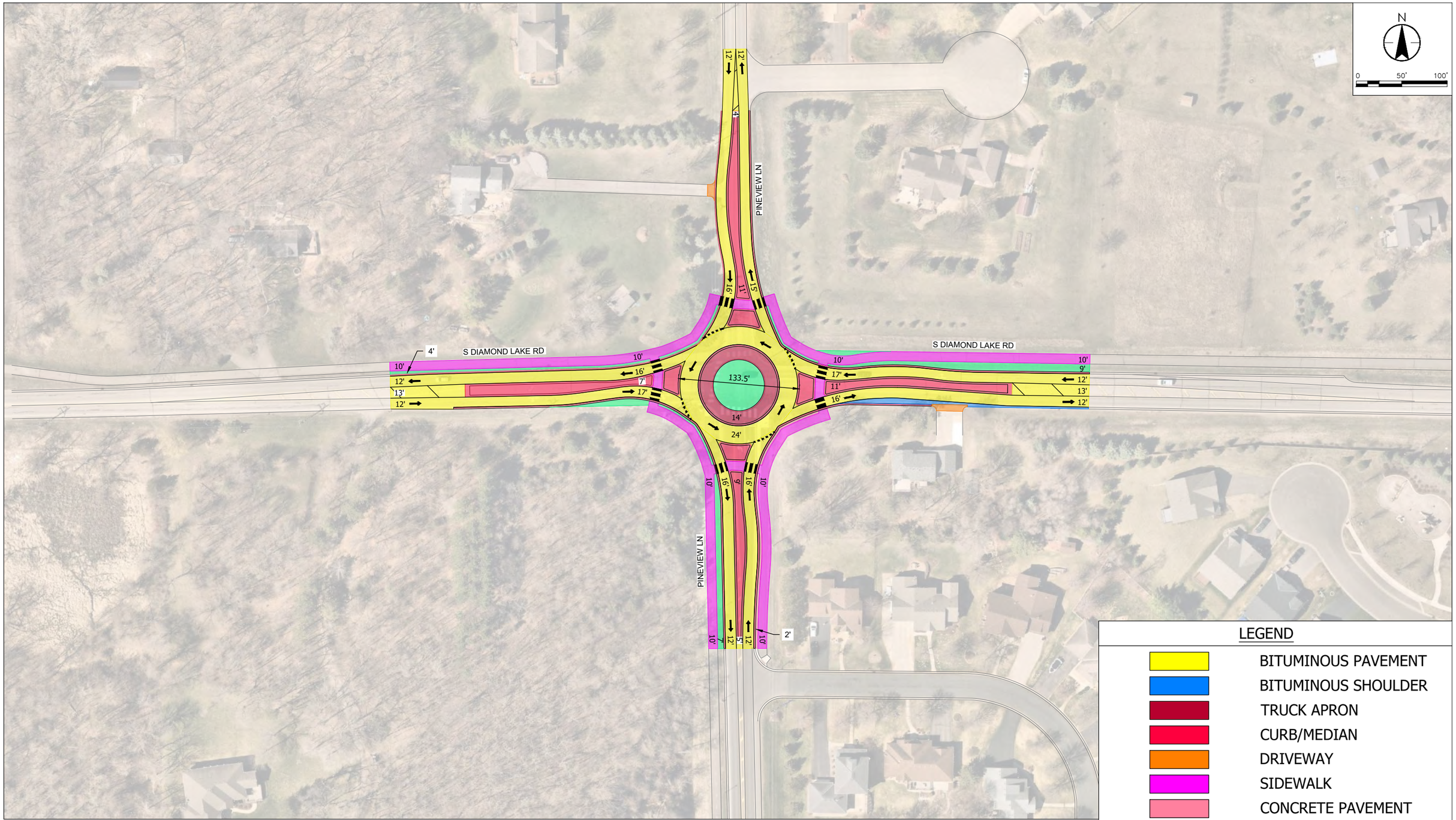
INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 8

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
733 Marquette Avenue, Suite 1000
Minneapolis, MN 55402
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Plot Date: 04/15/2024 - 1:07pm
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Xrefs: 193806722-ASAP, 193806685-ASPMTerritorial, 193806685-XPMTerritorial



S DIAMOND LAKE RD & PINEVIEW LN

CITY OF DAYTON, MN

INTERSECTION INVENTORY & SAFETY ASSESSMENT

FIGURE 9

DATE 4/10/2024 PROJ. NO. 193806685

Stantec
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Minneapolis, MN 55402
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Plot Date: 04/12/2024 - 12:35pm
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Xrefs:

Alternative Constuction Costs

30% Contingency

25% Indirect Costs

Dayton River Rd & Pineview Ln			
1.1	Add EB right turn lane and regrade	$	150,000.00
1.2	Single lane roundabout (and regrade)	$	2,007,700.00
Dayton River Rd & Brockton Ln			
2.1	Rebuild channel and complete ped path	$	88,000.00
2.2	Remove channel and complete ped path	$	88,400.00

Dayton River Rd & 142 Ave/N Diamond Lake Rd			
3	Single lane roundabout	$	1,943,800.00

CSAH 81 & Dayton Pkwy			
4.1	Upgrade traffic signal system	$	709,600.00
4.2	Add railroad crossing measures	$	107,000.00
4.3	Widen CSAH 81 to include 10' median	$	2,449,400.00

Dayton River Rd & Lawndale Ln			
5.1	Add retaining wall and regrade NE quadrant	$	91,100.00
5.2	Offset intersection	$	727,600.00

Fernbrook Ln & Elm Creek Rd/Rush Creek Pkwy			
6.1	Single lane roundabout	$	2,161,100.00
6.2	Add traffic signal system	$	668,900.00

CSAH 81 & Troy Ln			
7	Add EB left turn lane	$	652,600.00

CSAH 81 & Territorial Rd			
8	Widen CSAH 81 and relocate intersection	$	918,500.00

S Diamond Lake Rd & Pineview Ln			
9	Single lane roundabout	$	2,329,000.00

Dayton Pkwy & Holly Ln/Territorial Rd			
10.1	Add RRFB system and crosswalk on Dayton Pkwy	$	30,100.00
10.2	Add traffic signal system	$	668,900.00

INTERSECTION INVENTORY AND ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 1.1 - ADD EASTBOUND RIGHT TURN LANE

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON RIVER RD & PINEVIEW LN	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 4,202.00	1.00	$ 4,202.00	1.00	$ 4,202.00
2	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	631	$ 15,775.00	631	$ 15,775.00
3	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	356	$ 8,900.00	356	$ 8,900.00
4	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 25.00	356	$ 8,888.89	356	$ 8,888.89
5	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	217	$ 11,935.00	217	$ 11,935.00
6	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	183	$ 18,300.00	183	$ 18,300.00
7	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	92	$ 8,280.00	92	$ 8,280.00
8	2531.503	CONCRETE CURB & GUTTER DESIGN B424	LIN FT	$ 40.00	265	$ 10,600.00	265	$ 10,600.00
9	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	$ 80.00	17	$ 1,360.00	17	$ 1,360.00
10	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 3,000.00	1.00	$ 3,000.00	1.00	$ 3,000.00
11	2573.601	EROSION CONTROL	LUMP SUM	$ 1,000.00	1.00	$ 1,000.00	1.00	$ 1,000.00
12	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 2,000.00	1.00	$ 2,000.00	1.00	$ 2,000.00
13	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 2,500.00	1.00	$ 2,500.00	1.00	$ 2,500.00
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 96,740.89		$ 96,740.89
30% CONTINGENCY						$ 29,022.27		$ 29,022.27
25% INDIRECT COSTS						$ 24,185.22		$ 24,185.22
TOTAL CONSTRUCTION ESTIMATE						$149,948.38		$149,948.38

INTERSECTION INVENTORY AND ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 1.2 - SINGLE LANE ROUNDABOUT

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON RIVER RD & PINEVIEW LN	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 44,632.00	1.00	$ 44,632.00	1.00	$ 44,632.00
2	2104.601	REMOVALS	LUMP SUM	$ 50,000.00	1.00	$ 50,000.00	1.00	$ 50,000.00
3	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	5,829	$ 145,725.00	5,829	$ 145,725.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	3,352	$ 83,800.00	3,352	$ 83,800.00
5	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 25.00	200	$ 5,000.00	200	$ 5,000.00
6	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	2,068	$ 113,740.00	2,068	$ 113,740.00
7	2301.504	CONCRETE PAVEMENT 7.0"	SQ YD	$ 150.00	342	$ 51,300.00	342	$ 51,300.00
8	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	162	$ 16,200.00	162	$ 16,200.00
9	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	62	$ 5,580.00	62	$ 5,580.00
10	2360.509	TYPE SP 12.5 WEARING COURSE MIX (4,F)	TON	$ 110.00	2,530	$ 278,300.00	2,530	$ 278,300.00
11	2502.601	DRAINAGE SYSTEM	LUMP SUM	$ 120,000.00	1.00	$ 120,000.00	1.00	$ 120,000.00
12	2521.518	4" CONCRETE WALK	SQ FT	$ 40.00	753	$ 30,120.00	753	$ 30,120.00
13	2531.503	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	$ 40.00	170	$ 6,800.00	170	$ 6,800.00
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	$ 40.00	3,570	$ 142,800.00	3,570	$ 142,800.00
15	2531.503	CONCRETE CURB & GUTTER DESIGN R418	LIN FT	$ 40.00	264	$ 10,560.00	264	$ 10,560.00
16	2531.504	6" CONCRETE DRIVEWAY PAVEMENT	SQ YD	$ 80.00	34	$ 2,720.00	34	$ 2,720.00
17	2545.501	LIGHTING SYSTEM	LUMP SUM	$ 70,000.00	1.00	$ 70,000.00	1.00	$ 70,000.00
18	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 25,000.00	1.00	$ 25,000.00	1.00	$ 25,000.00
19	2573.601	EROSION CONTROL	LUMP SUM	$ 8,000.00	1.00	$ 8,000.00	1.00	$ 8,000.00
20	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 25,000.00	1.00	$ 25,000.00	1.00	$ 25,000.00
21	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 60,000.00	1.00	$ 60,000.00	1.00	$ 60,000.00
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 1,295,277.00		$ 1,295,277.00
30% CONTINGENCY						$ 388,583.10		$ 388,583.10
25% INDIRECT COSTS						$ 323,819.25		$ 323,819.25
TOTAL CONSTRUCTION ESTIMATE						$2,007,679.35		$2,007,679.35

INTERSECTION INVENTORY AND ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 2.1 - REBUILD SOUTHBOUND RIGHT TURN CHANNEL AND COMPLETE PEDESTRIAN PATH

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON RIVER RD & BROCKTON LN	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 2,060.00	1.00	$ 2,060.00	1.00	$ 2,060.00
2	2104.601	REMOVALS	LUMP SUM	$ 1,500.00	1.00	$ 1,500.00	1.00	$ 1,500.00
3	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	103	$ 2,575.00	103	$ 2,575.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	113	$ 2,825.00	113	$ 2,825.00
5	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	84	$ 4,620.00	84	$ 4,620.00
6	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	42	$ 4,200.00	42	$ 4,200.00
7	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	14	$ 1,260.00	14	$ 1,260.00
8	2502.601	DRAINAGE SYSTEM	LUMP SUM	$ 3,000.00	1.00	$ 3,000.00	1.00	$ 3,000.00
9	2521.518	4" CONCRETE WALK	SQ FT	$ 40.00	255	$ 10,200.00	255	$ 10,200.00
10	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	$ 40.00	388	$ 15,520.00	388	$ 15,520.00
11	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 5,000.00	1.00	$ 5,000.00	1.00	$ 5,000.00
12	2573.601	EROSION CONTROL	LUMP SUM	$ 1,000.00	1.00	$ 1,000.00	1.00	$ 1,000.00
13	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 1,500.00	1.00	$ 1,500.00	1.00	$ 1,500.00
14	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 1,500.00	1.00	$ 1,500.00	1.00	$ 1,500.00
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 56,760.00		$ 56,760.00
30% CONTINGENCY						$ 17,028.00		$ 17,028.00
25% INDIRECT COSTS						$ 14,190.00		$ 14,190.00
TOTAL CONSTRUCTION ESTIMATE						$87,978.00		$87,978.00

Stantec

INTERSECTION INVENTORY AND ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 2.2 - REMOVE SOUTHBOUND RIGHT TURN CHANNEL AND COMPLETE PEDESTRIAN PATH

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON RIVER RD & BROCKTON LN	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 2,142.00	1.00	$ 2,142.00	1.00	$ 2,142.00
2	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	$ 3.00	206	$ 618.00	206	$ 618.00
3	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	107	$ 2,675.00	107	$ 2,675.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	110	$ 2,750.00	110	$ 2,750.00
5	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	88	$ 4,840.00	88	$ 4,840.00
6	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	43	$ 4,300.00	43	$ 4,300.00
7	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	14	$ 1,260.00	14	$ 1,260.00
8	2502.601	DRAINAGE SYSTEM	LUMP SUM	$ 3,000.00	1.00	$ 3,000.00	1.00	$ 3,000.00
9	2521.518	4" CONCRETE WALK	SQ FT	$ 40.00	189	$ 7,560.00	189	$ 7,560.00
10	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	$ 40.00	471	$ 18,840.00	471	$ 18,840.00
11	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 5,000.00	1.00	$ 5,000.00	1.00	$ 5,000.00
12	2573.601	EROSION CONTROL	LUMP SUM	$ 1,000.00	1.00	$ 1,000.00	1.00	$ 1,000.00
13	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 1,500.00	1.00	$ 1,500.00	1.00	$ 1,500.00
14	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 1,500.00	1.00	$ 1,500.00	1.00	$ 1,500.00
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 56,985.00		$ 56,985.00
30% CONTINGENCY						$ 17,095.50		$ 17,095.50
25% INDIRECT COSTS						$ 14,246.25		$ 14,246.25
TOTAL CONSTRUCTION ESTIMATE						$88,326.75		$88,326.75

INTERSECTION INVENTORY AND ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 3 - SINGLE LANE ROUNDABOUT

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON RIVER RD & N DIAMOND LAKE RD/142 AVE	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 42,668.00	1.00	$ 42,668.00	1.00	$ 42,668.00
2	2104.601	REMOVALS	LUMP SUM	$ 50,000.00	1.00	$ 50,000.00	1.00	$ 50,000.00
3	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	5,475	$ 136,875.00	5,475	$ 136,875.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	3,183	$ 79,575.00	3,183	$ 79,575.00
5	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 25.00	200	$ 5,000.00	200	$ 5,000.00
6	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	1,966	$ 108,130.00	1,966	$ 108,130.00
7	2301.504	CONCRETE PAVEMENT 7.0"	SQ YD	$ 150.00	342	$ 51,300.00	342	$ 51,300.00
8	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	29	$ 2,900.00	29	$ 2,900.00
9	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	15	$ 1,350.00	15	$ 1,350.00
10	2360.509	TYPE SP 12.5 WEARING COURSE MIX (4,F)	TON	$ 110.00	2,530	$ 278,300.00	2,530	$ 278,300.00
11	2502.601	DRAINAGE SYSTEM	LUMP SUM	$ 120,000.00	1.00	$ 120,000.00	1.00	$ 120,000.00
12	2521.518	4" CONCRETE WALK	SQ FT	$ 40.00	744	$ 29,760.00	744	$ 29,760.00
13	2531.503	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	$ 40.00	170	$ 6,800.00	170	$ 6,800.00
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	$ 40.00	3,570	$ 142,800.00	3,570	$ 142,800.00
15	2531.503	CONCRETE CURB & GUTTER DESIGN R418	LIN FT	$ 40.00	264	$ 10,560.00	264	$ 10,560.00
16	2545.501	LIGHTING SYSTEM	LUMP SUM	$ 70,000.00	1.00	$ 70,000.00	1.00	$ 70,000.00
17	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 25,000.00	1.00	$ 25,000.00	1.00	$ 25,000.00
18	2573.601	EROSION CONTROL	LUMP SUM	$ 8,000.00	1.00	$ 8,000.00	1.00	$ 8,000.00
19	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 25,000.00	1.00	$ 25,000.00	1.00	$ 25,000.00
20	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 60,000.00	1.00	$ 60,000.00	1.00	$ 60,000.00
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 1,254,018.00		$ 1,254,018.00
30% CONTINGENCY						$ 376,205.40		$ 376,205.40
25% INDIRECT COSTS						$ 313,504.50		$ 313,504.50
TOTAL CONSTRUCTION ESTIMATE						$1,943,727.90		$1,943,727.90

INTERSECTION INVENTORY & ANALYSIS
193806685
CITY OF DAYTON, MN
ALT 4.1 - UPGRADE TRAFFIC SIGNAL SYSTEM

PREPARED BY: MJF
DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		CSAH 81 & DAYTON PKWY	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 21,250.00	1.00	$ 21,250.00	1.00	$ 21,250.00
2	2104.502	REMOVE SIGNAL SYSTEM	EACH	$ 25,000.00	1	$ 25,000.00	1	$ 25,000.00
3	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 10,000.00	1.00	$ 10,000.00	1.00	$ 10,000.00
4	2565.516	TRAFFIC CONTROL SIGNAL SYSTEM	SYSTEM	$ 400,000.00	1	$ 400,000.00	1	$ 400,000.00
5	2573.601	EROSION CONTROL	LUMP SUM	$ 500.00	1.00	$ 500.00	1.00	$ 500.00
6	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 1,000.00	1.00	$ 1,000.00	1.00	$ 1,000.00
7				$ -				
8				$ -				
9				$ -				
10				$ -				
11				$ -				
12				$ -				
13				$ -				
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 457,750.00		$ 457,750.00
30% CONTINGENCY						$ 137,325.00		$ 137,325.00
25% INDIRECT COSTS						$ 114,437.50		$ 114,437.50
TOTAL CONSTRUCTION ESTIMATE						$709,512.50		$709,512.50

Stantec

INTERSECTION INVENTORY & ANALYSIS
193806685
CITY OF DAYTON, MN
ALT 4.2 - ADD RAILROAD CROSSING MEASURES

PREPARED BY: AVC
DATE: 2024-05-29

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		CSAH 81 & DAYTON PKWY	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 286.00	1.00	$ 286.00	1.00	$ 286.00
2	2540.601	INSTALL RAILROAD MEASURES	LUMP SUM	$ 63,000.00	1.00	$ 63,000.00	1.00	$ 63,000.00
3	2564.602	INSTALL SIGN SPECIAL	EACH	$ 5,725.00	1.00	$ 5,725.00	1.00	$ 5,725.00
4				$ -				
5				$ -				
6				$ -				
7				$ -				
8				$ -				
9				$ -				
10				$ -				
11				$ -				
12				$ -				
13				$ -				
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 69,011.00		$ 69,011.00
30% CONTINGENCY						$ 20,703.30		$ 20,703.30
25% INDIRECT COSTS						$ 17,252.75		$ 17,252.75
TOTAL CONSTRUCTION ESTIMATE						$106,967.05		$106,967.05

INTERSECTION INVENTORY & ANALYSIS
193806685
CITY OF DAYTON, MN
ALT 4.3 - WIDEN CSAH 81 TO CREATE 10 FOOT CENTER MEDIAN

PREPARED BY: MJF
DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		CSAH 81 & DAYTON PKWY	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 70,057.00	1.00	$ 70,057.00	1.00	$ 70,057.00
2	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	$ 3.00	17,778	$ 53,333.33	17,778	$ 53,333.33
3	2106.507	EXCAVATION - COMMON	CU YD	$ 12.00	11,663	$ 139,956.00	11,663	$ 139,956.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	7,455	$ 186,375.00	7,455	$ 186,375.00
5	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 25.00	2,333	$ 58,333.33	2,333	$ 58,333.33
6	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	4,208	$ 231,440.00	4,208	$ 231,440.00
7	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	3,377	$ 337,700.00	3,377	$ 337,700.00
8	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	1,689	$ 152,010.00	1,689	$ 152,010.00
9	2521.518	4" CONCRETE WALK	SQ FT	$ 40.00	3,286	$ 131,440.00	3,286	$ 131,440.00
10	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	$ 40.00	2,764	$ 110,560.00	2,764	$ 110,560.00
11	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 30,000.00	1.00	$ 30,000.00	1.00	$ 30,000.00
12	2573.601	EROSION CONTROL	LUMP SUM	$ 9,000.00	1.00	$ 9,000.00	1.00	$ 9,000.00
13	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 45,000.00	1.00	$ 45,000.00	1.00	$ 45,000.00
14	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 25,000.00	1.00	$ 25,000.00	1.00	$ 25,000.00
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 1,580,204.67		$ 1,580,204.67
30% CONTINGENCY						$ 474,061.40		$ 474,061.40
25% INDIRECT COSTS						$ 395,051.17		$ 395,051.17
TOTAL CONSTRUCTION ESTIMATE						$2,449,317.23		$2,449,317.23

INTERSECTION INVENTORY & ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 5.1 - ADD RETAINING WALL AND REGRADE NORTHEAST QUADRANT

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON RIVER RD & LAWNDALE LN	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 2,796.00	1.00	$ 2,796.00	1.00	$ 2,796.00
2	2104.503	REMOVE RETAINING WALL	LIN FT	$ 35.00	136	$ 4,760.00	136	$ 4,760.00
3	2106.507	EXCAVATION - COMMON	CU YD	$ 50.00	23	$ 1,157.41	23	$ 1,157.41
4	2411.603	INSTALL RETAINING WALL	LIN FT	$ 200.00	250	$ 50,000.00	250	$ 50,000.00
5				$ -				
6				$ -				
7				$ -				
8				$ -				
9				$ -				
10				$ -				
11				$ -				
12				$ -				
13				$ -				
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 58,713.41		$ 58,713.41
30% CONTINGENCY						$ 17,614.02		$ 17,614.02
25% INDIRECT COSTS						$ 14,678.35		$ 14,678.35
TOTAL CONSTRUCTION ESTIMATE						$91,005.78		$91,005.78

INTERSECTION INVENTORY AND ANALYSIS
193806685
CITY OF DAYTON, MN
ALT 5.2 - OFFSET INTERSECTION

PREPARED BY: MJF
DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON RIVER RD & LAWNDALE LN	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 18,757.00	1.00	$ 18,757.00	1.00	$ 18,757.00
2	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	$ 3.00	2,778	$ 8,333.33	2,778	$ 8,333.33
3	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	2,671	$ 66,775.00	2,671	$ 66,775.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	1,344	$ 33,600.00	1,344	$ 33,600.00
5	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 20.00	5,224	$ 104,481.48	5,224	$ 104,481.48
6	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	747	$ 41,085.00	747	$ 41,085.00
7	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	827	$ 82,700.00	827	$ 82,700.00
8	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	380	$ 34,200.00	380	$ 34,200.00
9	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	$ 40.00	99	$ 3,960.00	99	$ 3,960.00
10	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 20,000.00	1.00	$ 20,000.00	1.00	$ 20,000.00
11	2573.601	EROSION CONTROL	LUMP SUM	$ 7,500.00	1.00	$ 7,500.00	1.00	$ 7,500.00
12	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 18,000.00	1.00	$ 18,000.00	1.00	$ 18,000.00
13	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 30,000.00	1.00	$ 30,000.00	1.00	$ 30,000.00
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 469,391.81		$ 469,391.81
30% CONTINGENCY						$ 140,817.54		$ 140,817.54
25% INDIRECT COSTS						$ 117,347.95		$ 117,347.95
TOTAL CONSTRUCTION ESTIMATE						$727,557.31		$727,557.31

INTERSECTION INVENTORY AND ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 6.1 - SINGLE LANE ROUNDABOUT

PREPARED BY: MJF

DATE: 5/28/2024

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		FERNBROOK LN & ELM CREEK RD/ RUSH CREEK PKWY	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 48,844.00	1.00	$ 48,844.00	1.00	$ 48,844.00
2	2104.601	REMOVALS	LUMP SUM	$ 55,000.00	1.00	$ 55,000.00	1.00	$ 55,000.00
3	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	5,796	$ 144,900.00	5,796	$ 144,900.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	3,628	$ 90,700.00	3,628	$ 90,700.00
5	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 25.00	533	$ 13,333.33	533	$ 13,333.33
6	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	2,220	$ 122,100.00	2,220	$ 122,100.00
7	2301.504	CONCRETE PAVEMENT 7.0"	SQ YD	$ 150.00	320	$ 48,000.00	320	$ 48,000.00
8	2360.509	TYPE SP 12.5 WEARING COURSE MIX (4,F)	TON	$ 110.00	2,727	$ 299,970.00	2,727	$ 299,970.00
9	2502.601	DRAINAGE SYSTEM	LUMP SUM	$ 120,000.00	1.00	$ 120,000.00	1.00	$ 120,000.00
10	2521.518	4" CONCRETE WALK	SQ FT	$ 40.00	2,042	$ 81,680.00	2,042	$ 81,680.00
11	2531.503	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	$ 40.00	155	$ 6,200.00	155	$ 6,200.00
12	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	$ 40.00	4,000	$ 160,000.00	4,000	$ 160,000.00
13	2531.503	CONCRETE CURB & GUTTER DESIGN R418	LIN FT	$ 40.00	250	$ 10,000.00	250	$ 10,000.00
14	2545.501	LIGHTING SYSTEM	LUMP SUM	$ 70,000.00	1.00	$ 70,000.00	1.00	$ 70,000.00
15	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 25,000.00	1.00	$ 25,000.00	1.00	$ 25,000.00
16	2573.601	EROSION CONTROL	LUMP SUM	$ 8,500.00	1.00	$ 8,500.00	1.00	$ 8,500.00
17	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 30,000.00	1.00	$ 30,000.00	1.00	$ 30,000.00
18	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 60,000.00	1.00	$ 60,000.00	1.00	$ 60,000.00
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 1,394,227.33		$ 1,394,227.33
30% CONTINGENCY						$ 418,268.20		$ 418,268.20
25% INDIRECT COSTS						$ 348,556.83		$ 348,556.83
TOTAL CONSTRUCTION ESTIMATE						**$2,161,052.37**		**$2,161,052.37**

INTERSECTION INVENTORY & ANALYSIS
193806685
CITY OF DAYTON, MN
ALT 6.2 - ADD TRAFFIC SIGNAL SYSTEM

PREPARED BY: MJF
DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		FERNBROOK LN & ELM CREEK RD/ RUSH CREEK PKWY	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 20,000.00	1.00	$ 20,000.00	1.00	$ 20,000.00
2	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 10,000.00	1.00	$ 10,000.00	1.00	$ 10,000.00
3	2565.516	TRAFFIC CONTROL SIGNAL SYSTEM	SYSTEM	$ 400,000.00	1	$ 400,000.00	1	$ 400,000.00
4	2573.601	EROSION CONTROL	LUMP SUM	$ 500.00	1.00	$ 500.00	1.00	$ 500.00
5	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 1,000.00	1.00	$ 1,000.00	1.00	$ 1,000.00
6				$ -				
7				$ -				
8				$ -				
9				$ -				
10				$ -				
11				$ -				
12				$ -				
13				$ -				
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 431,500.00		$ 431,500.00
30% CONTINGENCY						$ 129,450.00		$ 129,450.00
25% INDIRECT COSTS						$ 107,875.00		$ 107,875.00
TOTAL CONSTRUCTION ESTIMATE						$668,825.00		$668,825.00

INTERSECTION INVENTORY AND ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 7 - ADD EASTBOUND LEFT TURN LANE

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		CSAH 81 & TROY LN	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 19,285.00	1.00	$ 19,285.00	1.00	$ 19,285.00
2	2104.504	REMOVE BITUMINOUS PAVEMENT	SQ YD	$ 3.00	3,585	$ 10,756.00	3,585	$ 10,756.00
3	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	3,133	$ 78,325.00	3,133	$ 78,325.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	1,591	$ 39,775.00	1,591	$ 39,775.00
5	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 25.00	1,400	$ 35,000.00	1,400	$ 35,000.00
6	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	877	$ 48,235.00	877	$ 48,235.00
7	2232.504	MILL BITUMINOUS SURFACE (2.0")	SQ YD	$ 4.00	3,585	$ 14,341.33	3,585	$ 14,341.33
8	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	1,184	$ 118,400.00	1,184	$ 118,400.00
9	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	454	$ 40,860.00	454	$ 40,860.00
10	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 3,000.00	1.00	$ 3,000.00	1.00	$ 3,000.00
11	2573.601	EROSION CONTROL	LUMP SUM	$ 3,000.00	1.00	$ 3,000.00	1.00	$ 3,000.00
12	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 7,000.00	1.00	$ 7,000.00	1.00	$ 7,000.00
13	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 3,000.00	1.00	$ 3,000.00	1.00	$ 3,000.00
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 420,977.33		$ 420,977.33
30% CONTINGENCY						$ 126,293.20		$ 126,293.20
25% INDIRECT COSTS						$ 105,244.33		$ 105,244.33
TOTAL CONSTRUCTION ESTIMATE						$652,514.87		$652,514.87

INTERSECTION INVENTORY & ANALYSIS
193806685
CITY OF DAYTON, MN
ALT 8 - WIDEN CSAH 81

PREPARED BY: MJF
DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		CSAH 81 & TERRITORIAL RD	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 26,620.00	1.00	$ 26,620.00	1.00	$ 26,620.00
2	2104.503	SAWING BIT PAVEMENT (FULL DEPTH)	LIN FT	$ 4.00	1,958	$ 7,832.00	1,958	$ 7,832.00
3	2104.518	REMOVE BITUMINOUS PAVEMENT	SQ FT	$ 3.00	24,911	$ 74,733.00	24,911	$ 74,733.00
4	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	3,098	$ 77,450.00	3,098	$ 77,450.00
5	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	1,573	$ 39,325.00	1,573	$ 39,325.00
6	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 25.00	4,400	$ 110,000.00	4,400	$ 110,000.00
7	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	867	$ 47,685.00	867	$ 47,685.00
8	2232.504	MILL BITUMINOUS SURFACE (2.0")	SQ YD	$ 4.00	2,718	$ 10,872.00	2,718	$ 10,872.00
9	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	1,241	$ 124,100.00	1,241	$ 124,100.00
10	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	449	$ 40,410.00	449	$ 40,410.00
11	2545.501	LIGHTING SYSTEM	LUMP SUM	$ 3,000.00	1.00	$ 3,000.00	1.00	$ 3,000.00
12	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 3,000.00	1.00	$ 3,000.00	1.00	$ 3,000.00
13	2573.601	EROSION CONTROL	LUMP SUM	$ 5,000.00	1.00	$ 5,000.00	1.00	$ 5,000.00
14	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 10,000.00	1.00	$ 10,000.00	1.00	$ 10,000.00
15	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 12,500.00	1.00	$ 12,500.00	1.00	$ 12,500.00
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 592,527.00		$ 592,527.00
30% CONTINGENCY						$ 177,758.10		$ 177,758.10
25% INDIRECT COSTS						$ 148,131.75		$ 148,131.75
TOTAL CONSTRUCTION ESTIMATE						$918,416.85		$918,416.85

INTERSECTION INVENTORY AND ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 9 - SINGLE LANE ROUNDABOUT

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		S DIAMOND LAKE RD & PINEVIEW LN	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 54,002.00	1.00	$ 54,002.00	1.00	$ 54,002.00
2	2104.601	REMOVALS	LUMP SUM	$ 55,000.00	1.00	$ 55,000.00	1.00	$ 55,000.00
3	2106.507	EXCAVATION - COMMON	CU YD	$ 25.00	6,664	$ 166,600.00	6,664	$ 166,600.00
4	2106.507	SELECT GRANULAR EMBANKMENT (CV)	CU YD	$ 25.00	3,718	$ 92,950.00	3,718	$ 92,950.00
5	2106.507	COMMON EMBANKMENT (CV)	CU YD	$ 25.00	793	$ 19,814.81	793	$ 19,814.81
6	2211.507	AGGREGATE BASE (CV) CLASS 5	CU YD	$ 55.00	2,318	$ 127,490.00	2,318	$ 127,490.00
7	2301.504	CONCRETE PAVEMENT 7.0"	SQ YD	$ 150.00	343	$ 51,450.00	343	$ 51,450.00
8	2360.509	TYPE SP 9.5 WEARING COURSE MIX (4,C)	TON	$ 100.00	29	$ 2,900.00	29	$ 2,900.00
9	2360.509	TYPE SP 12.5 NON WEAR COURSE MIX (2,B)	TON	$ 90.00	13	$ 1,170.00	13	$ 1,170.00
10	2360.509	TYPE SP 12.5 WEARING COURSE MIX (4,F)	TON	$ 110.00	3,093	$ 340,230.00	3,093	$ 340,230.00
11	2502.601	DRAINAGE SYSTEM	LUMP SUM	$ 120,000.00	1.00	$ 120,000.00	1.00	$ 120,000.00
12	2521.518	4" CONCRETE WALK	SQ FT	$ 40.00	2,310	$ 92,400.00	2,310	$ 92,400.00
13	2531.503	CONCRETE CURB & GUTTER DESIGN B612	LIN FT	$ 40.00	177	$ 7,080.00	177	$ 7,080.00
14	2531.503	CONCRETE CURB & GUTTER DESIGN B618	LIN FT	$ 40.00	4,180	$ 167,200.00	4,180	$ 167,200.00
15	2531.503	CONCRETE CURB & GUTTER DESIGN R418	LIN FT	$ 40.00	269	$ 10,760.00	269	$ 10,760.00
16	2545.501	LIGHTING SYSTEM	LUMP SUM	$ 70,000.00	1.00	$ 70,000.00	1.00	$ 70,000.00
17	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 25,000.00	1.00	$ 25,000.00	1.00	$ 25,000.00
18	2573.601	EROSION CONTROL	LUMP SUM	$ 8,500.00	1.00	$ 8,500.00	1.00	$ 8,500.00
19	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 30,000.00	1.00	$ 30,000.00	1.00	$ 30,000.00
20	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 60,000.00	1.00	$ 60,000.00	1.00	$ 60,000.00
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 1,502,546.81		$ 1,502,546.81
30% CONTINGENCY						$ 450,764.04		$ 450,764.04
25% INDIRECT COSTS						$ 375,636.70		$ 375,636.70
TOTAL CONSTRUCTION ESTIMATE						$2,328,947.56		$2,328,947.56

INTERSECTION INVENTORY & ANALYSIS

193806685

CITY OF DAYTON, MN

ALT 10.1 - ADD RRFB SYSTEM AND CROSSWALK ON DAYTON PARKWAY

PREPARED BY: MJF

DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON PKWY & HOLLY LN/TERRITORIAL RD	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 898.00	1.00	$ 898.00	1.00	$ 898.00
2	2565.616	PEDESTRIAN CROSSWALK FLASHER SYSTEM	SYSTEM	$ 17,965.00	1	$ 17,965.00	1	$ 17,965.00
3	2582.601	SIGNING AND PAVEMENT MARKINGS	LUMP SUM	$ 500.00	1.00	$ 500.00	1.00	$ 500.00
4				$ -				
5				$ -				
6				$ -				
7				$ -				
8				$ -				
9				$ -				
10				$ -				
11				$ -				
12				$ -				
13				$ -				
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 19,363.00		$ 19,363.00
30% CONTINGENCY						$ 5,808.90		$ 5,808.90
25% INDIRECT COSTS						$ 4,840.75		$ 4,840.75
TOTAL CONSTRUCTION ESTIMATE						$30,012.65		$30,012.65

INTERSECTION INVENTORY & ANALYSIS
193806685
CITY OF DAYTON, MN
ALT 10.2 - ADD TRAFFIC SIGNAL SYSTEM

PREPARED BY: MJF
DATE: 2024-05-21

NO.	MATERIAL NUMBER	ITEM	UNIT	UNIT PRICE	TOTAL PROJECT		DAYTON PKWY & HOLLY LN/ TERRITORIAL RD	
					QTY	COST	QUANTITY	COST
1	2021.501	MOBILIZATION	LUMP SUM	$ 20,000.00	1.00	$ 20,000.00	1.00	$ 20,000.00
2	2563.601	TRAFFIC CONTROL	LUMP SUM	$ 10,000.00	1.00	$ 10,000.00	1.00	$ 10,000.00
3	2565.516	TRAFFIC CONTROL SIGNAL SYSTEM	SYSTEM	$ 400,000.00	1	$ 400,000.00	1	$ 400,000.00
4	2573.601	EROSION CONTROL	LUMP SUM	$ 500.00	1.00	$ 500.00	1.00	$ 500.00
5	2575.501	TURF ESTABLISHMENT	LUMP SUM	$ 1,000.00	1.00	$ 1,000.00	1.00	$ 1,000.00
6				$ -				
7				$ -				
8				$ -				
9				$ -				
10				$ -				
11				$ -				
12				$ -				
13				$ -				
14				$ -				
15				$ -				
16				$ -				
17				$ -				
18				$ -				
19				$ -				
20				$ -				
21				$ -				
22				$ -				
23				$ -				
24				$ -				
25				$ -				
SUBTOTAL						$ 431,500.00		$ 431,500.00
30% CONTINGENCY						$ 129,450.00		$ 129,450.00
25% INDIRECT COSTS						$ 107,875.00		$ 107,875.00
TOTAL CONSTRUCTION ESTIMATE						$668,825.00		$668,825.00

Appendix I - BENEFIT COST ANALYSIS CALCULATIONS

Dayton River Rd & Pineview Ln (LTRT)

IHSDM SUMMARY

Expected

No Build 2023	Annual Crashes
FI Crashes	0.34
PDO Crashes	0.47

Opt 1 2023	Annual Crashes
FI Crashes	0.31
PDO Crashes	0.44

Opt 2 2023	Annual Crashes
FI Crashes	
PDO Crashes	

No Build 2043	Annual Crashes
FI Crashes	0.45
PDO Crashes	0.6

Opt 1 2043	Annual Crashes
FI Crashes	0.41
PDO Crashes	0.56

Opt 2 2043	Annual Crashes
FI Crashes	
PDO Crashes	

SYNCHRO SUMMARY

				Vehicle Occupancy	1.29
No Build 2024 AM		**Opt 1 2024 AM**		**Opt 2 2024 AM**	
	VHT (vehicle-hrs)		VHT (vehicle-hrs)		VHT (vehicle-hrs)
Peak Hour	3.6	Peak Hour	3.3	Peak Hour	
Person-hrs	4.63896	*Person-hrs*	4.25238	*Person-hrs*	0
No Build 2024 PM		**Opt 1 2024 PM**		**Opt 2 2024 PM**	
	VHT (vehicle-hrs)		VHT (vehicle-hrs)		VHT (vehicle-hrs)
Peak Hour	4.4	Peak Hour	4.3	Peak Hour	
Person-hrs	5.66984	*Person-hrs*	5.54098	*Person-hrs*	0
No Build 2044 AM		**Opt 1 2044 AM**		**Opt 2 2044 AM**	
	VHT (vehicle-hrs)		VHT (vehicle-hrs)		VHT (vehicle-hrs)
Peak Hour	5.9	Peak Hour	4.8	Peak Hour	
Person-hrs	7.60274	*Person-hrs*	6.18528	*Person-hrs*	0
No Build 2044 PM		**Opt 1 2044 PM**		**Opt 2 2044 PM**	
	VHT (vehicle-hrs)		VHT (vehicle-hrs)		VHT (vehicle-hrs)
Peak Hour	16.3	Peak Hour	13.2	Peak Hour	
Person-hrs	21.00418	*Person-hrs*	17.00952	*Person-hrs*	0

Peak hour to daily conversion

Total		AADT (2023)			AADT (2023)
15479	**Pineview**	919		**Pineview**	1994

	Counts (2024)	Adj Factor	1.23	Counts (2024)	
AM	82	0.1097		199	0.1228
PM	100	0.1338		258	0.1591
		0.2436			0.2819

		AADT (2023)			AADT (2023)
	Dayton Rv	6336		**Dayton Rv**	6230

	Counts (2024)			Counts (2024)	
AM	774	0.1503		843	0.1664
PM	851	0.1652		971	0.1917
		0.3155			0.3581

Weight Avg Percent	**32.40%**
Time and Mileage Conversion Factor	3.09

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.00	0.02	0.11	0.20	0.47	0.00	0.02	0.10	0.18	0.44					
2043	0.01	0.03	0.15	0.26	0.60	0.01	0.03	0.14	0.24	0.56					
Percent FI Dist	1.36%	6.30%	33.82%	58.53%											

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)				
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.00	0.02	0.12	0.20	0.48	0.00	0.02	0.11	0.19	0.45						$ 150,447	$ 137,337	$ -	$ 13,006		0.9921
2026	0.00	0.02	0.12	0.21	0.49	0.00	0.02	0.11	0.19	0.46						$ 152,557	$ 139,257	$ -	$ 13,090		0.9842
2027	0.00	0.02	0.12	0.21	0.49	0.00	0.02	0.11	0.19	0.46						$ 154,697	$ 141,204	$ -	$ 13,174		0.9764
2028	0.00	0.02	0.12	0.21	0.50	0.00	0.02	0.11	0.19	0.47						$ 156,866	$ 143,178	$ -	$ 13,259		0.9686
2029	0.01	0.02	0.13	0.22	0.51	0.00	0.02	0.11	0.20	0.47						$ 159,067	$ 145,180	$ -	$ 13,344		0.9609
2030	0.01	0.02	0.13	0.22	0.51	0.00	0.02	0.12	0.20	0.48						$ 161,298	$ 147,210	$ -	$ 13,430		0.9533
2031	0.01	0.02	0.13	0.22	0.52	0.00	0.02	0.12	0.20	0.48						$ 163,560	$ 149,269	$ -	$ 13,516		0.9457
2032	0.01	0.02	0.13	0.23	0.52	0.00	0.02	0.12	0.21	0.49						$ 165,855	$ 151,356	$ -	$ 13,603		0.9382
2033	0.01	0.02	0.13	0.23	0.53	0.00	0.02	0.12	0.21	0.50						$ 168,181	$ 153,472	$ -	$ 13,691		0.9308
2034	0.01	0.02	0.13	0.23	0.54	0.00	0.02	0.12	0.21	0.50						$ 170,540	$ 155,618	$ -	$ 13,779		0.9234
2035	0.01	0.03	0.14	0.24	0.54	0.00	0.02	0.12	0.21	0.51						$ 172,932	$ 157,794	$ -	$ 13,868		0.9161
2036	0.01	0.03	0.14	0.24	0.55	0.01	0.02	0.13	0.22	0.51						$ 175,358	$ 160,001	$ -	$ 13,957		0.9088
2037	0.01	0.03	0.14	0.24	0.56	0.01	0.02	0.13	0.22	0.52						$ 177,818	$ 162,238	$ -	$ 14,047		0.9016
2038	0.01	0.03	0.14	0.25	0.56	0.01	0.02	0.13	0.22	0.53						$ 180,312	$ 164,507	$ -	$ 14,137		0.8944
2039	0.01	0.03	0.14	0.25	0.57	0.01	0.02	0.13	0.23	0.53						$ 182,842	$ 166,807	$ -	$ 14,228		0.8873
2040	0.01	0.03	0.15	0.25	0.58	0.01	0.02	0.13	0.23	0.54						$ 185,407	$ 169,140	$ -	$ 14,320		0.8803
2041	0.01	0.03	0.15	0.26	0.59	0.01	0.03	0.13	0.23	0.55						$ 188,008	$ 171,505	$ -	$ 14,412		0.8733
2042	0.01	0.03	0.15	0.26	0.59	0.01	0.03	0.14	0.24	0.55						$ 190,645	$ 173,904	$ -	$ 14,505		0.8664
2043	0.01	0.03	0.15	0.26	0.60	0.01	0.03	0.14	0.24	0.56						$ 193,320	$ 176,336	$ -	$ 14,598		0.8595
2044	0.01	0.03	0.15	0.27	0.61	0.01	0.03	0.14	0.24	0.57						$ 196,032	$ 178,802	$ -	$ 14,692		0.8527
Total																			$ 276,653		
Annual Average																			$ 13,833		

Net Differences KABC -0.71 O -0.71 KABC -8.02 O -10.84

VHT SUMMARY

Base Year of Analysis: 2024

Year	VHT (person-hours) No-Build	Opt 1	Opt 2
2024	9,012	8,562	
2044	25,009	20,278	

Travel Time Parameters		Fleet Mix	
Auto Travel Time	$ 23.90	Auto Proportion	96.2%
Truck Travel Time	$ 37.60	Truck Proportion	3.8%
Composite Travel Time	$ 24.42		

Discount Rate: 0.8%

Year	VHT (person-hours) No-Build	Opt 1	Opt 2	Travel Time ($) No-Build	Opt 1	Opt 2	NPV Travel Time Savings Opt 1	NPV Travel Time Savings Opt 2	Discount Factors
2025	9,484	8,939		231610.0075	$ 218,293	$ -	$ 13,211		0.9921
2026	9,981	9,333		$ 243,736	$ 227,910	$ -	$ 15,576		0.9842
2027	10,503	9,744		$ 256,498	$ 237,950	$ -	$ 18,109		0.9764
2028	11,053	10,173		$ 269,927	$ 248,433	$ -	$ 20,820		0.9686
2029	11,632	10,621		$ 284,060	$ 259,378	$ -	$ 23,718		0.9609
2030	12,241	11,089		$ 298,932	$ 270,804	$ -	$ 26,815		0.9533
2031	12,882	11,578		$ 314,584	$ 282,734	$ -	$ 30,122		0.9457
2032	13,556	12,088		$ 331,054	$ 295,190	$ -	$ 33,650		0.9382
2033	14,266	12,620		$ 348,387	$ 308,194	$ -	$ 37,412		0.9308
2034	15,013	13,176		$ 366,628	$ 321,771	$ -	$ 41,421		0.9234
2035	15,799	13,757		$ 385,824	$ 335,947	$ -	$ 45,691		0.9161
2036	16,626	14,363		$ 406,024	$ 350,746	$ -	$ 50,237		0.9088
2037	17,497	14,995		$ 427,283	$ 366,198	$ -	$ 55,074		0.9016
2038	18,413	15,656		$ 449,654	$ 382,331	$ -	$ 60,217		0.8944
2039	19,377	16,346		$ 473,196	$ 399,174	$ -	$ 65,684		0.8873
2040	20,391	17,066		$ 497,972	$ 416,759	$ -	$ 71,492		0.8803
2041	21,459	17,818		$ 524,044	$ 435,119	$ -	$ 77,660		0.8733
2042	22,583	18,603		$ 551,481	$ 454,288	$ -	$ 84,207		0.8664
2043	23,765	19,422		$ 580,355	$ 474,301	$ -	$ 91,155		0.8595
2044	25,009	20,278		$ 610,741	$ 495,196	$ -	$ 98,524		0.8527
						Total	$ 960,794		
						Annual Average	$ 48,040		
							$ 1,237,447		

Dayton River Rd & Pineview Ln (Rdbt)

IHSDM SUMMARY

Expected

No Build 2023	Annual Crashes
FI Crashes	0.47
PDO Crashes	0.59

Opt 1 2023	Annual Crashes
FI Crashes	
PDO Crashes	

Opt 2 2023	Annual Crashes
FI Crashes	0.23
PDO Crashes	0.53

No Build 2043	Annual Crashes
FI Crashes	0.63
PDO Crashes	0.76

Opt 1 2043	Annual Crashes
FI Crashes	
PDO Crashes	

Opt 2 2043	Annual Crashes
FI Crashes	0.3
PDO Crashes	0.64

SYNCHRO SUMMARY

Vehicle Occupancy: 1.29

No Build 2024 AM	VHT (vehicle-hrs)	**Opt 1 2024 AM**	VHT (vehicle-hrs)	**Opt 2 2024 AM**	VHT (vehicle-hrs)
Peak Hour	3.1	Peak Hour		Peak Hour	4.2
Person-hrs	3.99466	*Person-hrs*	0	*Person-hrs*	5.41212

No Build 2024 PM	VHT (vehicle-hrs)	**Opt 1 2024 PM**	VHT (vehicle-hrs)	**Opt 2 2024 PM**	VHT (vehicle-hrs)
Peak Hour	3.8	Peak Hour		Peak Hour	4.3
Person-hrs	4.89668	*Person-hrs*	0	*Person-hrs*	5.54098

No Build 2044 AM	VHT (vehicle-hrs)	**Opt 1 2044 AM**	VHT (vehicle-hrs)	**Opt 2 2044 AM**	VHT (vehicle-hrs)
Peak Hour	4.7	Peak Hour		Peak Hour	10.7
Person-hrs	6.05642	*Person-hrs*	0	*Person-hrs*	13.78802

No Build 2044 PM	VHT (vehicle-hrs)	**Opt 1 2044 PM**	VHT (vehicle-hrs)	**Opt 2 2044 PM**	VHT (vehicle-hrs)
Peak Hour	9.2	Peak Hour		Peak Hour	6.4
Person-hrs	11.85512	*Person-hrs*	0	*Person-hrs*	8.24704

Peak hour to daily conversion

Total		AADT (2023)			AADT (2023)
15479	**Pineview**	919		**Pineview**	1994

	Counts (2024)	Adj Factor	1.23	Counts (2024)	
AM	82	0.1097		199	0.1228
PM	100	0.1338		258	0.1591
		0.2436			0.2819

		AADT (2023)			AADT (2023)
	Dayton Rv	6336		**Dayton Rv**	6230

	Counts (2024)			Counts (2024)	
AM	774	0.1503		843	0.1664
PM	851	0.1652		971	0.1917
		0.3155			0.3581

Weight Avg Percent	**32.40%**
Time and Mileage Conversion Factor	3.09

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.01	0.03	0.16	0.28	0.59						0.00	0.01	0.08	0.13	0.53
2043	0.01	0.04	0.21	0.37	0.76						0.00	0.02	0.10	0.18	0.64
Percent FI Dist	1.36%	6.30%	33.82%	58.53%											

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)				
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.01	0.03	0.16	0.28	0.61						0.00	0.01	0.08	0.14	0.54	$ 207,312	$ -	$ 104,846		$ 101,653	0.9921
2026	0.01	0.03	0.17	0.29	0.61						0.00	0.02	0.08	0.14	0.55	$ 210,353	$ -	$ 106,216		$ 102,490	0.9842
2027	0.01	0.03	0.17	0.29	0.62						0.00	0.02	0.08	0.14	0.55	$ 213,439	$ -	$ 107,605		$ 103,334	0.9764
2028	0.01	0.03	0.17	0.30	0.63						0.00	0.02	0.08	0.14	0.56	$ 216,570	$ -	$ 109,012		$ 104,184	0.9686
2029	0.01	0.03	0.17	0.30	0.64						0.00	0.02	0.08	0.15	0.56	$ 219,747	$ -	$ 110,437		$ 105,040	0.9609
2030	0.01	0.03	0.18	0.30	0.64						0.00	0.02	0.09	0.15	0.57	$ 222,970	$ -	$ 111,881		$ 105,903	0.9533
2031	0.01	0.03	0.18	0.31	0.65						0.00	0.02	0.09	0.15	0.57	$ 226,241	$ -	$ 113,345		$ 106,772	0.9457
2032	0.01	0.03	0.18	0.31	0.66						0.00	0.02	0.09	0.15	0.58	$ 229,560	$ -	$ 114,827		$ 107,648	0.9382
2033	0.01	0.03	0.18	0.32	0.67						0.00	0.02	0.09	0.15	0.58	$ 232,928	$ -	$ 116,329		$ 108,530	0.9308
2034	0.01	0.03	0.19	0.32	0.68						0.00	0.02	0.09	0.16	0.59	$ 236,345	$ -	$ 117,851		$ 109,419	0.9234
2035	0.01	0.04	0.19	0.33	0.69						0.00	0.02	0.09	0.16	0.59	$ 239,812	$ -	$ 119,392		$ 110,315	0.9161
2036	0.01	0.04	0.19	0.33	0.70						0.00	0.02	0.09	0.16	0.60	$ 243,331	$ -	$ 120,954		$ 111,217	0.9088
2037	0.01	0.04	0.20	0.34	0.70						0.00	0.02	0.09	0.16	0.60	$ 246,900	$ -	$ 122,537		$ 112,126	0.9016
2038	0.01	0.04	0.20	0.34	0.71						0.00	0.02	0.09	0.16	0.61	$ 250,523	$ -	$ 124,140		$ 113,042	0.8944
2039	0.01	0.04	0.20	0.35	0.72						0.00	0.02	0.10	0.17	0.62	$ 254,198	$ -	$ 125,765		$ 113,964	0.8873
2040	0.01	0.04	0.20	0.35	0.73						0.00	0.02	0.10	0.17	0.62	$ 257,927	$ -	$ 127,411		$ 114,894	0.8803
2041	0.01	0.04	0.21	0.36	0.74						0.00	0.02	0.10	0.17	0.63	$ 261,712	$ -	$ 129,078		$ 115,831	0.8733
2042	0.01	0.04	0.21	0.36	0.75						0.00	0.02	0.10	0.17	0.63	$ 265,551	$ -	$ 130,768		$ 116,774	0.8664
2043	0.01	0.04	0.21	0.37	0.76						0.00	0.02	0.10	0.18	0.64	$ 269,447	$ -	$ 132,480		$ 117,725	0.8595
2044	0.01	0.04	0.22	0.37	0.77						0.00	0.02	0.10	0.18	0.65	$ 273,401	$ -	$ 134,214		$ 118,683	0.8527
Total																				$ 2,199,543	
Annual Average																				$ 109,977	

Net Differences KABC -11.17 O -13.69 KABC -5.79 O -1.85

VHT SUMMARY

Base Year of Analysis: 2024

Year	VHT (person-hours) No-Build	Opt 1	Opt 2
2024	7,773		9,576
2044	15,659		19,264

Travel Time Parameters		Fleet Mix	
Auto Travel Time	$ 23.90	Auto Proportion	96.2%
Truck Travel Time	$ 37.60	Truck Proportion	3.8%
Composite Travel Time	$ 24.42		

Discount Rate: 0.8%

Year	VHT (person-hours) No-Build	Opt 1	Opt 2	Travel Time ($) No-Build	Opt 1	Opt 2	NPV Travel Time Savings Opt 1	NPV Travel Time Savings Opt 2	Discount Factors
2025	8,050		9,916	196590.0624	$ -	$ 242,160		$ (45,208)	0.9921
2026	8,337		10,269	$ 203,596	$ -	$ 250,773		$ (46,431)	0.9842
2027	8,634		10,634	$ 210,852	$ -	$ 259,693		$ (47,687)	0.9764
2028	8,942		11,012	$ 218,367	$ -	$ 268,930		$ (48,977)	0.9686
2029	9,261		11,404	$ 226,149	$ -	$ 278,495		$ (50,301)	0.9609
2030	9,591		11,810	$ 234,209	$ -	$ 288,401		$ (51,662)	0.9533
2031	9,932		12,230	$ 242,556	$ -	$ 298,659		$ (53,059)	0.9457
2032	10,286		12,665	$ 251,200	$ -	$ 309,282		$ (54,495)	0.9382
2033	10,653		13,115	$ 260,152	$ -	$ 320,282		$ (55,969)	0.9308
2034	11,033		13,582	$ 269,424	$ -	$ 331,674		$ (57,483)	0.9234
2035	11,426		14,065	$ 279,026	$ -	$ 343,471		$ (59,037)	0.9161
2036	11,833		14,565	$ 288,970	$ -	$ 355,688		$ (60,634)	0.9088
2037	12,255		15,083	$ 299,268	$ -	$ 368,339		$ (62,274)	0.9016
2038	12,691		15,620	$ 309,934	$ -	$ 381,441		$ (63,959)	0.8944
2039	13,144		16,175	$ 320,980	$ -	$ 395,008		$ (65,689)	0.8873
2040	13,612		16,751	$ 332,419	$ -	$ 409,058		$ (67,465)	0.8803
2041	14,097		17,346	$ 344,266	$ -	$ 423,608		$ (69,290)	0.8733
2042	14,600		17,963	$ 356,535	$ -	$ 438,675		$ (71,164)	0.8664
2043	15,120		18,602	$ 369,242	$ -	$ 454,278		$ (73,089)	0.8595
2044	15,659		19,264	$ 382,401	$ -	$ 470,436		$ (75,066)	0.8527
						Total		$ (1,178,940)	
						Annual Average		$ (58,947)	
								$ 1,020,603	

Dayton River Rd & Brockton Ln

IHSDM SUMMARY

Expected

No Build 2023	Annual Crashes
FI Crashes	0.13
PDO Crashes	0.14

Opt 2 2023	Annual Crashes
FI Crashes	0.18
PDO Crashes	0.19

Opt 3 2023	Annual Crashes
FI Crashes	0.11
PDO Crashes	0.13

No Build 2043	Annual Crashes
FI Crashes	0.18
PDO Crashes	0.19

Opt 2 2043	Annual Crashes
FI Crashes	0.25
PDO Crashes	0.26

Opt 3 2043	Annual Crashes
FI Crashes	0.15
PDO Crashes	0.18

SYNCHRO SUMMARY

Vehicle Occupancy

No Build 2024 AM	VHT (vehicle-hrs)	**Opt 2 2024 AM**	VHT (vehicle-hrs)	**Opt 3 2024 AM**	VHT (vehicle-hrs)
Peak Hour	1.1	Peak Hour	1.1	Peak Hour	
Person-hrs		*Person-hrs*		*Person-hrs*	

No Build 2024 PM	VHT (vehicle-hrs)	**Opt 2 2024 PM**	VHT (vehicle-hrs)	**Opt 3 2024 PM**	VHT (vehicle-hrs)
Peak Hour	1.5	Peak Hour	1.5	Peak Hour	
Person-hrs		*Person-hrs*		*Person-hrs*	

No Build 2044 AM	VHT (vehicle-hrs)	**Opt 2 2044 AM**	VHT (vehicle-hrs)	**Opt 3 2044 AM**	VHT (vehicle-hrs)
Peak Hour	1.5	Peak Hour	1.5	Peak Hour	
Person-hrs		*Person-hrs*		*Person-hrs*	

No Build 2044 PM	VHT (vehicle-hrs)	**Opt 2 2044 PM**	VHT (vehicle-hrs)	**Opt 3 2044 PM**	VHT (vehicle-hrs)
Peak Hour	2.3	Peak Hour	2.3	Peak Hour	
Person-hrs		*Person-hrs*		*Person-hrs*	

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 2					Opt 3				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.00	0.01	0.04	0.08	0.14	0.00	0.01	0.06	0.10	0.19	0.00	0.01	0.04	0.06	0.13
2043	0.00	0.01	0.06	0.11	0.19	0.00	0.02	0.08	0.14	0.26	0.00	0.01	0.05	0.09	0.18

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Percent FI Dist: 1.36% | 6.30% | 33.82% | 58.53%

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)					
	No-Build					Opt 2					Opt 3								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 2	Opt 3	Savings Opt 2	Savings Opt 3	Factors
2025	0.00	0.01	0.05	0.08	0.14	0.00	0.01	0.06	0.11	0.20	0.00	0.01	0.04	0.06	0.14	$ 57,174	$ 77,894	$ 46,637	$ (20,555)	$ 10,454	0.9921
2026	0.00	0.01	0.05	0.08	0.15	0.00	0.01	0.06	0.11	0.20	0.00	0.01	0.04	0.06	0.14	$ 58,110	$ 79,169	$ 47,400	$ (20,726)	$ 10,541	0.9842
2027	0.00	0.01	0.05	0.08	0.15	0.00	0.01	0.06	0.11	0.20	0.00	0.01	0.04	0.07	0.14	$ 59,061	$ 80,465	$ 48,175	$ (20,898)	$ 10,629	0.9764
2028	0.00	0.01	0.05	0.08	0.15	0.00	0.01	0.06	0.11	0.21	0.00	0.01	0.04	0.07	0.15	$ 60,028	$ 81,781	$ 48,963	$ (21,071)	$ 10,717	0.9686
2029	0.00	0.01	0.05	0.08	0.15	0.00	0.01	0.07	0.11	0.21	0.00	0.01	0.04	0.07	0.15	$ 61,010	$ 83,120	$ 49,764	$ (21,246)	$ 10,807	0.9609
2030	0.00	0.01	0.05	0.09	0.16	0.00	0.01	0.07	0.12	0.21	0.00	0.01	0.04	0.07	0.15	$ 62,008	$ 84,480	$ 50,578	$ (21,423)	$ 10,897	0.9533
2031	0.00	0.01	0.05	0.09	0.16	0.00	0.01	0.07	0.12	0.22	0.00	0.01	0.04	0.07	0.15	$ 63,023	$ 85,863	$ 51,406	$ (21,600)	$ 10,987	0.9457
2032	0.00	0.01	0.05	0.09	0.16	0.00	0.01	0.07	0.12	0.22	0.00	0.01	0.04	0.07	0.15	$ 64,055	$ 87,268	$ 52,247	$ (21,780)	$ 11,079	0.9382
2033	0.00	0.01	0.05	0.09	0.16	0.00	0.01	0.07	0.12	0.22	0.00	0.01	0.04	0.07	0.16	$ 65,103	$ 88,696	$ 53,101	$ (21,960)	$ 11,171	0.9308
2034	0.00	0.01	0.05	0.09	0.17	0.00	0.01	0.07	0.12	0.23	0.00	0.01	0.04	0.07	0.16	$ 66,168	$ 90,148	$ 53,970	$ (22,143)	$ 11,264	0.9234
2035	0.00	0.01	0.05	0.09	0.17	0.00	0.01	0.07	0.13	0.23	0.00	0.01	0.04	0.07	0.16	$ 67,251	$ 91,623	$ 54,853	$ (22,327)	$ 11,358	0.9161
2036	0.00	0.01	0.05	0.09	0.17	0.00	0.01	0.07	0.13	0.23	0.00	0.01	0.04	0.08	0.16	$ 68,352	$ 93,123	$ 55,750	$ (22,512)	$ 11,453	0.9088
2037	0.00	0.01	0.06	0.10	0.17	0.00	0.01	0.08	0.13	0.24	0.00	0.01	0.04	0.08	0.17	$ 69,471	$ 94,647	$ 56,662	$ (22,699)	$ 11,548	0.9016
2038	0.00	0.01	0.06	0.10	0.18	0.00	0.01	0.08	0.13	0.24	0.00	0.01	0.05	0.08	0.17	$ 70,608	$ 96,196	$ 57,589	$ (22,887)	$ 11,644	0.8944
2039	0.00	0.01	0.06	0.10	0.18	0.00	0.01	0.08	0.13	0.24	0.00	0.01	0.05	0.08	0.17	$ 71,763	$ 97,770	$ 58,531	$ (23,077)	$ 11,741	0.8873
2040	0.00	0.01	0.06	0.10	0.18	0.00	0.01	0.08	0.14	0.25	0.00	0.01	0.05	0.08	0.17	$ 72,938	$ 99,370	$ 59,489	$ (23,269)	$ 11,839	0.8803
2041	0.00	0.01	0.06	0.10	0.18	0.00	0.01	0.08	0.14	0.25	0.00	0.01	0.05	0.08	0.18	$ 74,131	$ 100,997	$ 60,462	$ (23,462)	$ 11,938	0.8733
2042	0.00	0.01	0.06	0.10	0.19	0.00	0.02	0.08	0.14	0.25	0.00	0.01	0.05	0.08	0.18	$ 75,345	$ 102,649	$ 61,451	$ (23,656)	$ 12,037	0.8664
2043	0.00	0.01	0.06	0.11	0.19	0.00	0.02	0.08	0.14	0.26	0.00	0.01	0.05	0.09	0.18	$ 76,578	$ 104,329	$ 62,456	$ (23,853)	$ 12,137	0.8595
2044	0.00	0.01	0.06	0.11	0.19	0.00	0.02	0.08	0.15	0.26	0.00	0.01	0.05	0.09	0.19	$ 77,831	$ 106,037	$ 63,478	$ (24,051)	$ 12,239	0.8527
Total																			$ (445,194)	$ 226,481	
Annual Average																			$ (22,260)	$ 11,324	

Net Differences KABC 1.14 O 1.21 KABC -0.60 O -0.13

Dayton River Rd & N Diamond Lake

IHSDM SUMMARY

Expected

No Build 2023	Annual Crashes
FI Crashes	1.67
PDO Crashes	0.88

Opt 1 2023	Annual Crashes
FI Crashes	0.47
PDO Crashes	0.66

Opt 2 2023	Annual Crashes
FI Crashes	
PDO Crashes	

No Build 2043	Annual Crashes
FI Crashes	2.25
PDO Crashes	1.13

Opt 1 2043	Annual Crashes
FI Crashes	0.60
PDO Crashes	0.80

Opt 2 2043	Annual Crashes
FI Crashes	
PDO Crashes	

SYNCHRO SUMMARY

Vehicle Occupancy: 1.29

No Build 2024 AM	VHT (vehicle-hrs)	**Opt 1 2024 AM**	VHT (vehicle-hrs)	**Opt 2 2024 AM**	VHT (vehicle-hrs)
Peak Hour	2.9	Peak Hour	3.5	Peak Hour	
Person-hrs	3.74129	*Person-hrs*	4.51535	*Person-hrs*	0

No Build 2024 PM	VHT (vehicle-hrs)	**Opt 1 2024 PM**	VHT (vehicle-hrs)	**Opt 2 2024 PM**	VHT (vehicle-hrs)
Peak Hour	2.5	Peak Hour	3	Peak Hour	
Person-hrs	3.22525	*Person-hrs*	3.8703	*Person-hrs*	0

No Build 2044 AM	VHT (vehicle-hrs)	**Opt 1 2044 AM**	VHT (vehicle-hrs)	**Opt 2 2044 AM**	VHT (vehicle-hrs)
Peak Hour	4.8	Peak Hour	4.9	Peak Hour	
Person-hrs	6.19248	*Person-hrs*	6.32149	*Person-hrs*	0

No Build 2044 PM	VHT (vehicle-hrs)	**Opt 1 2044 PM**	VHT (vehicle-hrs)	**Opt 2 2044 PM**	VHT (vehicle-hrs)
Peak Hour	3.5	Peak Hour	4.2	Peak Hour	
Person-hrs	4.51535	*Person-hrs*	5.41842	*Person-hrs*	0

Peak hour to daily conversion

Total		AADT (2023)			AADT (2023)
13293	**142nd**	87		**N Diamond Lk**	3703

	Counts (2024)	Adj Factor	1.23	Counts (2024)	
AM	3	0.0424		406	0.1349
PM	4	0.0566		438	0.1455
		0.0990			0.2803

		AADT (2023)			AADT (2023)
	Dayton Rv	6230		**Dayton Rv**	3273

	Counts (2024)		Counts (2024)	
AM	850	0.1678	457	0.1717
PM	979	0.1933	555	0.2086
		0.3611		0.3803

Weight Avg Percent	**34.16%**
Time and Mileage Conversion Factor	2.93

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.02	0.11	0.56	0.98	0.88	0.01	0.03	0.16	0.28	0.66					
2043	0.03	0.14	0.76	1.32	1.13	0.01	0.04	0.20	0.35	0.80					
Percent FI Dist	1.36%	6.30%	33.82%	58.53%											

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)				
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.02	0.11	0.58	1.01	0.90	0.01	0.03	0.16	0.28	0.67						$ 718,263	$ 207,363	$ -	$ 506,845		0.9921
2026	0.02	0.11	0.59	1.02	0.91	0.01	0.03	0.16	0.29	0.68						$ 729,016	$ 209,884	$ -	$ 510,925		0.9842
2027	0.02	0.11	0.60	1.04	0.93	0.01	0.03	0.17	0.29	0.69						$ 739,930	$ 212,435	$ -	$ 515,035		0.9764
2028	0.02	0.11	0.61	1.05	0.94	0.01	0.03	0.17	0.29	0.69						$ 751,008	$ 215,018	$ -	$ 519,176		0.9686
2029	0.02	0.12	0.62	1.07	0.95	0.01	0.03	0.17	0.30	0.70						$ 762,252	$ 217,632	$ -	$ 523,348		0.9609
2030	0.03	0.12	0.63	1.08	0.96	0.01	0.03	0.17	0.30	0.71						$ 773,664	$ 220,278	$ -	$ 527,551		0.9533
2031	0.03	0.12	0.64	1.10	0.97	0.01	0.03	0.18	0.30	0.71						$ 785,247	$ 222,957	$ -	$ 531,786		0.9457
2032	0.03	0.12	0.65	1.12	0.98	0.01	0.03	0.18	0.31	0.72						$ 797,003	$ 225,668	$ -	$ 536,052		0.9382
2033	0.03	0.12	0.66	1.13	1.00	0.01	0.03	0.18	0.31	0.73						$ 808,936	$ 228,412	$ -	$ 540,350		0.9308
2034	0.03	0.12	0.67	1.15	1.01	0.01	0.03	0.18	0.31	0.73						$ 821,047	$ 231,189	$ -	$ 544,681		0.9234
2035	0.03	0.13	0.68	1.17	1.02	0.01	0.03	0.18	0.32	0.74						$ 833,340	$ 234,000	$ -	$ 549,044		0.9161
2036	0.03	0.13	0.69	1.19	1.04	0.01	0.03	0.19	0.32	0.75						$ 845,817	$ 236,846	$ -	$ 553,439		0.9088
2037	0.03	0.13	0.70	1.20	1.05	0.01	0.04	0.19	0.33	0.76						$ 858,481	$ 239,726	$ -	$ 557,868		0.9016
2038	0.03	0.13	0.71	1.22	1.06	0.01	0.04	0.19	0.33	0.76						$ 871,334	$ 242,641	$ -	$ 562,330		0.8944
2039	0.03	0.13	0.72	1.24	1.07	0.01	0.04	0.19	0.33	0.77						$ 884,380	$ 245,592	$ -	$ 566,825		0.8873
2040	0.03	0.14	0.73	1.26	1.09	0.01	0.04	0.20	0.34	0.78						$ 897,621	$ 248,579	$ -	$ 571,353		0.8803
2041	0.03	0.14	0.74	1.28	1.10	0.01	0.04	0.20	0.34	0.78						$ 911,061	$ 251,602	$ -	$ 575,916		0.8733
2042	0.03	0.14	0.75	1.30	1.12	0.01	0.04	0.20	0.35	0.79						$ 924,702	$ 254,662	$ -	$ 580,512		0.8664
2043	0.03	0.14	0.76	1.32	1.13	0.01	0.04	0.20	0.35	0.80						$ 938,548	$ 257,759	$ -	$ 585,143		0.8595
2044	0.03	0.14	0.77	1.34	1.14	0.01	0.04	0.21	0.36	0.81						$ 952,601	$ 260,894	$ -	$ 589,808		0.8527
Total																			$ 10,947,987		
Annual Average																			$ 547,399		

Net Differences KABC -28.95 O -5.61 KABC -39.80 O -20.37

VHT SUMMARY

Base Year of Analysis	2024

	VHT (person-hours)		
Year	No-Build	Opt 1	Opt 2
2024	5,770	6,945	
2044	8,869	9,723	

Travel Time Parameters		Fleet Mix	
Auto Travel Time	$ 23.90	Auto Proportion	96.7%
Truck Travel Time	$ 37.60	Truck Proportion	3.3%
Composite Travel Time	$ 24.35		

								Discount Rate	0.8%
	VHT (person-hours)			Travel Time ($)			NPV Travel Time	NPV Travel Time	Discount
Year	No-Build	Opt 1	Opt 2	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	5,895	7,063		143561.9661	$ 172,001	$ -	$ (28,213)		0.9921
2026	6,023	7,183		$ 146,681	$ 174,919	$ -	$ (27,792)		0.9842
2027	6,154	7,305		$ 149,868	$ 177,887	$ -	$ (27,357)		0.9764
2028	6,288	7,429		$ 153,124	$ 180,905	$ -	$ (26,910)		0.9686
2029	6,425	7,555		$ 156,450	$ 183,974	$ -	$ (26,449)		0.9609
2030	6,564	7,683		$ 159,849	$ 187,095	$ -	$ (25,974)		0.9533
2031	6,707	7,813		$ 163,322	$ 190,270	$ -	$ (25,486)		0.9457
2032	6,852	7,946		$ 166,870	$ 193,498	$ -	$ (24,983)		0.9382
2033	7,001	8,081		$ 170,496	$ 196,781	$ -	$ (24,466)		0.9308
2034	7,153	8,218		$ 174,200	$ 200,119	$ -	$ (23,934)		0.9234
2035	7,309	8,357		$ 177,984	$ 203,514	$ -	$ (23,388)		0.9161
2036	7,468	8,499		$ 181,851	$ 206,967	$ -	$ (22,826)		0.9088
2037	7,630	8,643		$ 185,802	$ 210,479	$ -	$ (22,249)		0.9016
2038	7,796	8,790		$ 189,838	$ 214,050	$ -	$ (21,655)		0.8944
2039	7,965	8,939		$ 193,963	$ 217,681	$ -	$ (21,046)		0.8873
2040	8,138	9,091		$ 198,177	$ 221,374	$ -	$ (20,421)		0.8803
2041	8,315	9,245		$ 202,482	$ 225,130	$ -	$ (19,779)		0.8733
2042	8,495	9,402		$ 206,881	$ 228,950	$ -	$ (19,120)		0.8664
2043	8,680	9,561		$ 211,376	$ 232,834	$ -	$ (18,443)		0.8595
2044	8,869	9,723		$ 215,968	$ 236,784	$ -	$ (17,750)		0.8527
						Total	$ (468,242)		
						Annual Average	$ (23,412)		
							$ 10,479,745		

CSAH 81 & Dayton Pkwy

IHSDM SUMMARY

Predicted

No Build 2023	Annual Crashes
FI Crashes	1.2
PDO Crashes	2.39

Opt 1 2023	Annual Crashes
FI Crashes	1.18
PDO Crashes	2.35

Opt X 2023 (PmPt)	Annual Crashes
FI Crashes	1.32
PDO Crashes	2.65

No Build 2043	Annual Crashes
FI Crashes	1.88
PDO Crashes	3.62

Opt 1 2043	Annual Crashes
FI Crashes	1.85
PDO Crashes	3.56

Opt X 2043 (PmPt)	Annual Crashes
FI Crashes	2.09
PDO Crashes	4.02

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt X				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.02	0.08	0.41	0.70	2.39	0.02	0.07	0.40	0.69	2.35	0.02	0.08	0.45	0.77	2.65
2043	0.03	0.12	0.64	1.10	3.62	0.03	0.12	0.63	1.08	3.56	0.03	0.13	0.71	1.22	4.02

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Percent FI Dist: 1.36% | 6.30% | 33.82% | 58.53%

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)					
	No-Build					Opt 1					Opt X								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt X	Savings Opt 1	Savings Opt X	Factors
2025	0.02	0.08	0.42	0.73	2.49	0.02	0.08	0.42	0.72	2.45	0.02	0.09	0.47	0.81	2.76	$ 551,458	$ 542,525	$ 607,537	$ 8,863	$ (55,634)	0.9921
2026	0.02	0.08	0.43	0.75	2.54	0.02	0.08	0.43	0.74	2.50	0.02	0.09	0.48	0.83	2.82	$ 563,913	$ 554,777	$ 621,568	$ 8,991	$ (56,743)	0.9842
2027	0.02	0.08	0.44	0.77	2.60	0.02	0.08	0.44	0.76	2.55	0.02	0.09	0.49	0.85	2.88	$ 576,648	$ 567,307	$ 635,922	$ 9,121	$ (57,873)	0.9764
2028	0.02	0.08	0.45	0.79	2.65	0.02	0.08	0.45	0.77	2.61	0.02	0.09	0.50	0.87	2.94	$ 589,672	$ 580,119	$ 650,608	$ 9,253	$ (59,024)	0.9686
2029	0.02	0.09	0.46	0.80	2.71	0.02	0.09	0.46	0.79	2.66	0.02	0.10	0.51	0.89	3.00	$ 602,989	$ 593,221	$ 665,633	$ 9,387	$ (60,197)	0.9609
2030	0.02	0.09	0.47	0.82	2.76	0.02	0.09	0.47	0.81	2.72	0.02	0.10	0.52	0.91	3.07	$ 616,608	$ 606,619	$ 681,006	$ 9,523	$ (61,391)	0.9533
2031	0.02	0.09	0.49	0.84	2.82	0.02	0.09	0.48	0.83	2.78	0.02	0.10	0.54	0.93	3.13	$ 630,534	$ 620,320	$ 696,733	$ 9,661	$ (62,608)	0.9457
2032	0.02	0.09	0.50	0.86	2.88	0.02	0.09	0.49	0.85	2.83	0.02	0.10	0.55	0.95	3.20	$ 644,775	$ 634,330	$ 712,824	$ 9,800	$ (63,847)	0.9382
2033	0.02	0.09	0.51	0.88	2.94	0.02	0.09	0.50	0.86	2.89	0.02	0.10	0.56	0.97	3.26	$ 659,338	$ 648,657	$ 729,287	$ 9,942	$ (65,109)	0.9308
2034	0.02	0.10	0.52	0.90	3.00	0.02	0.10	0.51	0.88	2.95	0.02	0.11	0.57	0.99	3.33	$ 674,230	$ 663,307	$ 746,131	$ 10,086	$ (66,394)	0.9234
2035	0.02	0.10	0.53	0.92	3.07	0.02	0.10	0.52	0.90	3.02	0.02	0.11	0.59	1.02	3.40	$ 689,458	$ 678,289	$ 763,364	$ 10,232	$ (67,703)	0.9161
2036	0.02	0.10	0.54	0.94	3.13	0.02	0.10	0.53	0.93	3.08	0.02	0.11	0.60	1.04	3.47	$ 705,030	$ 693,609	$ 780,994	$ 10,380	$ (69,037)	0.9088
2037	0.02	0.10	0.56	0.96	3.20	0.02	0.10	0.55	0.95	3.14	0.02	0.11	0.62	1.07	3.55	$ 720,954	$ 709,275	$ 799,033	$ 10,530	$ (70,395)	0.9016
2038	0.02	0.11	0.57	0.98	3.26	0.02	0.10	0.56	0.97	3.21	0.03	0.12	0.63	1.09	3.62	$ 737,238	$ 725,295	$ 817,488	$ 10,683	$ (71,779)	0.8944
2039	0.02	0.11	0.58	1.01	3.33	0.02	0.11	0.57	0.99	3.28	0.03	0.12	0.64	1.12	3.70	$ 753,890	$ 741,677	$ 836,370	$ 10,837	$ (73,188)	0.8873
2040	0.02	0.11	0.59	1.03	3.40	0.02	0.11	0.58	1.01	3.35	0.03	0.12	0.66	1.14	3.78	$ 770,918	$ 758,429	$ 855,688	$ 10,994	$ (74,623)	0.8803
2041	0.02	0.11	0.61	1.05	3.47	0.02	0.11	0.60	1.04	3.42	0.03	0.13	0.68	1.17	3.86	$ 788,331	$ 775,560	$ 875,452	$ 11,153	$ (76,084)	0.8733
2042	0.03	0.12	0.62	1.08	3.55	0.02	0.11	0.61	1.06	3.49	0.03	0.13	0.69	1.20	3.94	$ 806,137	$ 793,078	$ 895,673	$ 11,314	$ (77,572)	0.8664
2043	0.03	0.12	0.64	1.10	3.62	0.03	0.12	0.63	1.08	3.56	0.03	0.13	0.71	1.22	4.02	$ 824,346	$ 810,992	$ 916,362	$ 11,478	$ (79,088)	0.8595
2044	0.03	0.12	0.65	1.13	3.70	0.03	0.12	0.64	1.11	3.64	0.03	0.13	0.72	1.25	4.10	$ 842,966	$ 829,310	$ 937,529	$ 11,644	$ (80,632)	0.8527
Total																			$ 203,872	$ (1,348,922)	
Annual Average																			$ 10,194	$ (67,446)	

Net Differences KABC -0.51 O -0.99 KABC 3.36 O 6.71

Dayton River Rd & Lawndale

IHSDM SUMMARY

Expected

No Build 2023	Annual Crashes
FI Crashes	0.15
PDO Crashes	0.22

Opt 1 2023	Annual Crashes
FI Crashes	
PDO Crashes	

Opt 2 2023	Annual Crashes
FI Crashes	0.12
PDO Crashes	0.12

No Build 2043	Annual Crashes
FI Crashes	0.2
PDO Crashes	0.28

Opt 1 2043	Annual Crashes
FI Crashes	
PDO Crashes	

Opt 2 2043	Annual Crashes
FI Crashes	0.17
PDO Crashes	0.17

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.00	0.01	0.05	0.09	0.22						0.00	0.01	0.04	0.07	0.12
2043	0.00	0.01	0.07	0.12	0.28						0.00	0.01	0.06	0.10	0.17

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Percent FI Dist: 1.36% | 6.30% | 33.82% | 58.53%

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)					
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.00	0.01	0.05	0.09	0.23						0.00	0.01	0.04	0.07	0.12	$ 66,614	$ -	$ 52,758		$ 13,746	0.9921
2026	0.00	0.01	0.05	0.09	0.23						0.00	0.01	0.04	0.07	0.13	$ 67,571	$ -	$ 53,685		$ 13,667	0.9842
2027	0.00	0.01	0.05	0.09	0.23						0.00	0.01	0.04	0.08	0.13	$ 68,542	$ -	$ 54,628		$ 13,585	0.9764
2028	0.00	0.01	0.05	0.09	0.23						0.00	0.01	0.04	0.08	0.13	$ 69,526	$ -	$ 55,587		$ 13,502	0.9686
2029	0.00	0.01	0.06	0.10	0.24						0.00	0.01	0.05	0.08	0.13	$ 70,526	$ -	$ 56,564		$ 13,416	0.9609
2030	0.00	0.01	0.06	0.10	0.24						0.00	0.01	0.05	0.08	0.14	$ 71,539	$ -	$ 57,558		$ 13,328	0.9533
2031	0.00	0.01	0.06	0.10	0.24						0.00	0.01	0.05	0.08	0.14	$ 72,567	$ -	$ 58,569		$ 13,239	0.9457
2032	0.00	0.01	0.06	0.10	0.25						0.00	0.01	0.05	0.08	0.14	$ 73,610	$ -	$ 59,598		$ 13,147	0.9382
2033	0.00	0.01	0.06	0.10	0.25						0.00	0.01	0.05	0.08	0.14	$ 74,668	$ -	$ 60,645		$ 13,052	0.9308
2034	0.00	0.01	0.06	0.10	0.25						0.00	0.01	0.05	0.09	0.15	$ 75,741	$ -	$ 61,710		$ 12,956	0.9234
2035	0.00	0.01	0.06	0.10	0.25						0.00	0.01	0.05	0.09	0.15	$ 76,829	$ -	$ 62,794		$ 12,857	0.9161
2036	0.00	0.01	0.06	0.11	0.26						0.00	0.01	0.05	0.09	0.15	$ 77,933	$ -	$ 63,898		$ 12,756	0.9088
2037	0.00	0.01	0.06	0.11	0.26						0.00	0.01	0.05	0.09	0.15	$ 79,053	$ -	$ 65,020		$ 12,652	0.9016
2038	0.00	0.01	0.06	0.11	0.26						0.00	0.01	0.05	0.09	0.16	$ 80,189	$ -	$ 66,162		$ 12,546	0.8944
2039	0.00	0.01	0.06	0.11	0.27						0.00	0.01	0.05	0.09	0.16	$ 81,342	$ -	$ 67,325		$ 12,438	0.8873
2040	0.00	0.01	0.06	0.11	0.27						0.00	0.01	0.05	0.09	0.16	$ 82,511	$ -	$ 68,507		$ 12,327	0.8803
2041	0.00	0.01	0.07	0.11	0.27						0.00	0.01	0.06	0.10	0.16	$ 83,697	$ -	$ 69,711		$ 12,214	0.8733
2042	0.00	0.01	0.07	0.12	0.28						0.00	0.01	0.06	0.10	0.17	$ 84,900	$ -	$ 70,936		$ 12,098	0.8664
2043	0.00	0.01	0.07	0.12	0.28						0.00	0.01	0.06	0.10	0.17	$ 86,120	$ -	$ 72,182		$ 11,980	0.8595
2044	0.00	0.01	0.07	0.12	0.28						0.00	0.01	0.06	0.10	0.17	$ 87,358	$ -	$ 73,450		$ 11,859	0.8527
Total																				$ 257,364	
Annual Average																				$ 12,868	

Net Differences KABC -3.55 O -5.07 KABC -0.60 O -2.12

Fernbrook & Rush Cr/Elm Cr

IHSDM SUMMARY

Predicted

No Build 2023	Annual Crashes
FI Crashes	0.71
PDO Crashes	1.17

Opt 1 2023	Annual Crashes
FI Crashes	0.20
PDO Crashes	1.13

Opt 2 2023	Annual Crashes
FI Crashes	0.50
PDO Crashes	1.08

No Build 2043	Annual Crashes
FI Crashes	1.04
PDO Crashes	1.59

Opt 1 2043	Annual Crashes
FI Crashes	0.27
PDO Crashes	1.43

Opt 2 2043	Annual Crashes
FI Crashes	0.79
PDO Crashes	1.64

SYNCHRO SUMMARY

Vehicle Occupancy: 1.29

No Build 2024 AM	VHT (vehicle-hrs)	**Opt 1 2024 AM**	VHT (vehicle-hrs)	**Opt 2 2024 AM**	VHT (vehicle-hrs)
Peak Hour	6.7	Peak Hour	6.8	Peak Hour	8
Person-hrs	8.64769	*Person-hrs*	8.77676	*Person-hrs*	10.3256

No Build 2024 PM	VHT (vehicle-hrs)	**Opt 1 2024 PM**	VHT (vehicle-hrs)	**Opt 2 2024 PM**	VHT (vehicle-hrs)
Peak Hour	7.5	Peak Hour	8.6	Peak Hour	9.2
Person-hrs	9.68025	*Person-hrs*	11.10002	*Person-hrs*	11.87444

No Build 2044 AM	VHT (vehicle-hrs)	**Opt 1 2044 AM**	VHT (vehicle-hrs)	**Opt 2 2044 AM**	VHT (vehicle-hrs)
Peak Hour	29.9	Peak Hour	10.2	Peak Hour	14.3
Person-hrs	38.59193	*Person-hrs*	13.16514	*Person-hrs*	18.45701

No Build 2044 PM	VHT (vehicle-hrs)	**Opt 1 2044 PM**	VHT (vehicle-hrs)	**Opt 2 2044 PM**	VHT (vehicle-hrs)
Peak Hour	14.3	Peak Hour	14.5	Peak Hour	14.8
Person-hrs	18.45701	*Person-hrs*	18.71515	*Person-hrs*	19.10236

Peak hour to daily conversion

Total		AADT (2023)			AADT (2023)
19451	**Fernbrook**	8023		**Fernbrook**	8023
	Counts (2024)	Adj Factor	1.23	Counts (2024)	
AM	593	0.0909		916	0.1404
PM	803	0.1231		1156	0.1772
		0.2140			0.3177
		AADT (2023)			AADT (2023)
	Elm Creek	695		**Rush Creek**	2710
	Counts (2024)			Counts (2024)	
AM	85	0.1504		404	0.1834
PM	120	0.2124		459	0.2083
		0.3628			0.3917

Weight Avg Percent	**28.68%**
Time and Mileage Conversion Factor	3.49

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.01	0.04	0.24	0.42	1.17	0.00	0.01	0.07	0.12	1.13	0.01	0.03	0.17	0.29	1.08
2043	0.01	0.07	0.35	0.61	1.59	0.00	0.02	0.09	0.16	1.43	0.01	0.05	0.27	0.46	1.64

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Percent FI Dist: 1.36% | 6.30% | 33.82% | 58.53%

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)				
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.01	0.05	0.25	0.43	1.21	0.00	0.01	0.07	0.12	1.16	0.01	0.03	0.18	0.31	1.13	$ 320,227	$ 101,769	$ 231,276	$ 216,724	$ 88,245	0.9921
2026	0.01	0.05	0.25	0.44	1.23	0.00	0.01	0.07	0.12	1.17	0.01	0.03	0.18	0.31	1.15	$ 326,329	$ 103,251	$ 236,592	$ 219,551	$ 88,317	0.9842
2027	0.01	0.05	0.26	0.45	1.24	0.00	0.01	0.07	0.12	1.18	0.01	0.03	0.19	0.32	1.17	$ 332,547	$ 104,755	$ 242,031	$ 222,411	$ 88,378	0.9764
2028	0.01	0.05	0.26	0.46	1.26	0.00	0.01	0.07	0.13	1.20	0.01	0.04	0.19	0.33	1.20	$ 338,883	$ 106,280	$ 247,595	$ 225,306	$ 88,425	0.9686
2029	0.01	0.05	0.27	0.47	1.28	0.00	0.01	0.07	0.13	1.21	0.01	0.04	0.19	0.34	1.22	$ 345,341	$ 107,828	$ 253,286	$ 228,236	$ 88,459	0.9609
2030	0.01	0.05	0.27	0.47	1.30	0.00	0.01	0.08	0.13	1.23	0.01	0.04	0.20	0.34	1.25	$ 351,922	$ 109,399	$ 259,109	$ 231,201	$ 88,480	0.9533
2031	0.01	0.05	0.28	0.48	1.32	0.00	0.01	0.08	0.13	1.24	0.01	0.04	0.20	0.35	1.28	$ 358,628	$ 110,992	$ 265,065	$ 234,202	$ 88,487	0.9457
2032	0.01	0.05	0.29	0.49	1.34	0.00	0.01	0.08	0.13	1.26	0.01	0.04	0.21	0.36	1.30	$ 365,463	$ 112,609	$ 271,158	$ 237,239	$ 88,481	0.9382
2033	0.01	0.05	0.29	0.50	1.36	0.00	0.01	0.08	0.14	1.27	0.01	0.04	0.21	0.37	1.33	$ 372,428	$ 114,250	$ 277,392	$ 240,312	$ 88,459	0.9308
2034	0.01	0.06	0.30	0.51	1.39	0.00	0.01	0.08	0.14	1.29	0.01	0.04	0.22	0.38	1.36	$ 379,526	$ 115,915	$ 283,769	$ 243,422	$ 88,423	0.9234
2035	0.01	0.06	0.30	0.52	1.41	0.00	0.02	0.08	0.14	1.30	0.01	0.04	0.22	0.39	1.39	$ 386,760	$ 117,604	$ 290,292	$ 246,569	$ 88,372	0.9161
2036	0.01	0.06	0.31	0.53	1.43	0.00	0.02	0.08	0.14	1.32	0.01	0.04	0.23	0.39	1.42	$ 394,132	$ 119,318	$ 296,966	$ 249,754	$ 88,306	0.9088
2037	0.01	0.06	0.31	0.54	1.45	0.00	0.02	0.08	0.14	1.33	0.01	0.04	0.23	0.40	1.45	$ 401,645	$ 121,057	$ 303,793	$ 252,977	$ 88,223	0.9016
2038	0.01	0.06	0.32	0.55	1.47	0.00	0.02	0.08	0.15	1.35	0.01	0.04	0.24	0.41	1.48	$ 409,301	$ 122,822	$ 310,777	$ 256,239	$ 88,124	0.8944
2039	0.01	0.06	0.33	0.56	1.50	0.00	0.02	0.09	0.15	1.36	0.01	0.05	0.24	0.42	1.51	$ 417,104	$ 124,612	$ 317,922	$ 259,540	$ 88,008	0.8873
2040	0.01	0.06	0.33	0.57	1.52	0.00	0.02	0.09	0.15	1.38	0.01	0.05	0.25	0.43	1.54	$ 425,055	$ 126,429	$ 325,231	$ 262,881	$ 87,875	0.8803
2041	0.01	0.06	0.34	0.59	1.54	0.00	0.02	0.09	0.15	1.40	0.01	0.05	0.26	0.44	1.57	$ 433,159	$ 128,273	$ 332,709	$ 266,261	$ 87,725	0.8733
2042	0.01	0.06	0.35	0.60	1.57	0.00	0.02	0.09	0.16	1.41	0.01	0.05	0.26	0.45	1.61	$ 441,417	$ 130,144	$ 340,358	$ 269,682	$ 87,556	0.8664
2043	0.01	0.07	0.35	0.61	1.59	0.00	0.02	0.09	0.16	1.43	0.01	0.05	0.27	0.46	1.64	$ 449,833	$ 132,042	$ 348,183	$ 273,144	$ 87,369	0.8595
2044	0.01	0.07	0.36	0.62	1.61	0.00	0.02	0.09	0.16	1.45	0.01	0.05	0.27	0.47	1.67	$ 458,410	$ 133,968	$ 356,188	$ 276,647	$ 87,163	0.8527
Total																			$ 4,912,300	$ 1,762,875	
Annual Average																			$ 245,615	$ 88,144	

Net Differences: KABC -13.02 O -2.09 KABC -4.67 O -0.36

VHT SUMMARY

Base Year of Analysis: 2024

Year	VHT (person-hours) No-Build	Opt 1	Opt 2
2024	18,072	19,599	21,890
2044	56,252	31,435	37,035

Travel Time Parameters		Fleet Mix	
Auto Travel Time	$ 23.90	Auto Proportion	96.9%
Truck Travel Time	$ 37.60	Truck Proportion	3.1%
Composite Travel Time	$ 24.32		

Discount Rate: 0.8%

Year	VHT (person-hours) No-Build	Opt 1	Opt 2	Travel Time ($) No-Build	Opt 1	Opt 2	NPV Travel Time Savings Opt 1	NPV Travel Time Savings Opt 2	Discount Factors
2025	19,128	20,067	22,473	465271.2858	$ 488,136	$ 546,648	$ (22,683)	$ (80,731)	0.9921
2026	20,245	20,547	23,072	$ 492,451	$ 499,804	$ 561,211	$ (7,237)	$ (67,673)	0.9842
2027	21,428	21,038	23,686	$ 521,218	$ 511,751	$ 576,162	$ 9,244	$ (53,646)	0.9764
2028	22,679	21,541	24,317	$ 551,666	$ 523,983	$ 591,511	$ 26,815	$ (38,595)	0.9686
2029	24,004	22,056	24,965	$ 583,893	$ 536,508	$ 607,269	$ 45,534	$ (22,463)	0.9609
2030	25,406	22,583	25,630	$ 618,002	$ 549,332	$ 623,446	$ 65,464	$ (5,190)	0.9533
2031	26,891	23,123	26,313	$ 654,103	$ 562,463	$ 640,055	$ 86,669	$ 13,286	0.9457
2032	28,461	23,676	27,014	$ 692,314	$ 575,907	$ 657,106	$ 109,218	$ 33,034	0.9382
2033	30,124	24,242	27,734	$ 732,757	$ 589,673	$ 674,611	$ 133,182	$ 54,121	0.9308
2034	31,884	24,821	28,472	$ 775,562	$ 603,768	$ 692,583	$ 158,636	$ 76,624	0.9234
2035	33,746	25,414	29,231	$ 820,868	$ 618,200	$ 711,034	$ 185,660	$ 100,617	0.9161
2036	35,718	26,022	30,010	$ 868,820	$ 632,977	$ 729,976	$ 214,337	$ 126,183	0.9088
2037	37,804	26,644	30,809	$ 919,574	$ 648,107	$ 749,422	$ 244,754	$ 153,408	0.9016
2038	40,013	27,281	31,630	$ 973,292	$ 663,598	$ 769,387	$ 277,004	$ 182,382	0.8944
2039	42,350	27,933	32,472	$ 1,030,149	$ 679,460	$ 789,884	$ 311,181	$ 213,198	0.8873
2040	44,824	28,601	33,338	$ 1,090,327	$ 695,701	$ 810,926	$ 347,389	$ 245,957	0.8803
2041	47,442	29,284	34,226	$ 1,154,020	$ 712,331	$ 832,529	$ 385,734	$ 280,763	0.8733
2042	50,214	29,984	35,137	$ 1,221,434	$ 729,358	$ 854,708	$ 426,327	$ 317,726	0.8664
2043	53,147	30,701	36,074	$ 1,292,786	$ 746,791	$ 877,477	$ 469,287	$ 356,961	0.8595
2044	56,252	31,435	37,035	$ 1,368,307	$ 764,642	$ 900,854	$ 514,737	$ 398,591	0.8527
						Total	$ 3,981,254	$ 2,284,554	
						Annual Average	$ 199,063	$ 114,228	
							$ 8,893,554	$ 4,047,430	

Dayton Pkwy & Territorial/Holly

IHSDM SUMMARY
Predicted

No Build 2023	Annual Crashes
FI Crashes	0.45
PDO Crashes	0.78

Opt 1 2023	Annual Crashes
FI Crashes	
PDO Crashes	

Opt 2 2023	Annual Crashes
FI Crashes	0.32
PDO Crashes	0.69

No Build 2043	Annual Crashes
FI Crashes	0.65
PDO Crashes	1.05

Opt 1 2043	Annual Crashes
FI Crashes	
PDO Crashes	

Opt 2 2043	Annual Crashes
FI Crashes	0.49
PDO Crashes	1.05

SYNCHRO SUMMARY

Vehicle Occupancy: 1.24

No Build 2024 AM	VHT (vehicle-hrs)	**Opt 1 2024 AM**	VHT (vehicle-hrs)	**Opt 2 2024 AM**	VHT (vehicle-hrs)
Peak Hour	2.6	Peak Hour		Peak Hour	3
Person-hrs	3.23024	*Person-hrs*	0	*Person-hrs*	3.7272

No Build 2024 PM	VHT (vehicle-hrs)	**Opt 1 2024 PM**	VHT (vehicle-hrs)	**Opt 2 2024 PM**	VHT (vehicle-hrs)
Peak Hour	3.1	Peak Hour		Peak Hour	3.7
Person-hrs	3.85144	*Person-hrs*	0	*Person-hrs*	4.59688

No Build 2044 AM	VHT (vehicle-hrs)	**Opt 1 2044 AM**	VHT (vehicle-hrs)	**Opt 2 2044 AM**	VHT (vehicle-hrs)
Peak Hour	3.7	Peak Hour		Peak Hour	4.4
Person-hrs	4.59688	*Person-hrs*	0	*Person-hrs*	5.46656

No Build 2044 PM	VHT (vehicle-hrs)	**Opt 1 2044 PM**	VHT (vehicle-hrs)	**Opt 2 2044 PM**	VHT (vehicle-hrs)
Peak Hour	4.5	Peak Hour		Peak Hour	5.3
Person-hrs	5.5908	*Person-hrs*	0	*Person-hrs*	6.58472

Peak hour to daily conversion

Total		AADT (2023)			AADT (2023)
14896	**Dayton**	5785		**Dayton**	5785

	Counts (2024)	Adj Factor	1.23	Counts (2024)	
AM	514	0.1093		643	0.1367
PM	515	0.1095		662	0.1408
		0.2188			0.2775

		AADT (2023)			AADT (2023)
	Holly	1803		**Territorial**	1523

	Counts (2024)			Counts (2024)	
AM	141	0.0962		104	0.0840
PM	116	0.0791		145	0.1171
		0.1753			0.2011

Weight Avg Percent	**23.45%**
Time and Mileage Conversion Factor	4.26

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.01	0.03	0.15	0.26	0.78						0.00	0.02	0.11	0.19	0.69
2043	0.01	0.04	0.22	0.38	1.05						0.01	0.03	0.17	0.29	1.05
Percent FI Dist	1.36%	6.30%	33.82%	58.53%											

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)				
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.01	0.03	0.16	0.27	0.80						0.00	0.02	0.11	0.20	0.72	$ 203,277	$ -	$ 147,571		$ 55,264	0.9921
2026	0.01	0.03	0.16	0.28	0.82						0.00	0.02	0.12	0.20	0.73	$ 207,005	$ -	$ 150,745		$ 55,371	0.9842
2027	0.01	0.03	0.16	0.28	0.83						0.00	0.02	0.12	0.20	0.75	$ 210,803	$ -	$ 153,988		$ 55,473	0.9764
2028	0.01	0.03	0.17	0.29	0.84						0.00	0.02	0.12	0.21	0.77	$ 214,670	$ -	$ 157,300		$ 55,571	0.9686
2029	0.01	0.03	0.17	0.29	0.85						0.00	0.02	0.12	0.21	0.78	$ 218,608	$ -	$ 160,683		$ 55,663	0.9609
2030	0.01	0.03	0.17	0.30	0.87						0.01	0.02	0.13	0.22	0.80	$ 222,619	$ -	$ 164,139		$ 55,750	0.9533
2031	0.01	0.03	0.18	0.31	0.88						0.01	0.02	0.13	0.22	0.82	$ 226,704	$ -	$ 167,670		$ 55,831	0.9457
2032	0.01	0.03	0.18	0.31	0.89						0.01	0.02	0.13	0.23	0.83	$ 230,863	$ -	$ 171,276		$ 55,907	0.9382
2033	0.01	0.03	0.18	0.32	0.90						0.01	0.02	0.13	0.23	0.85	$ 235,099	$ -	$ 174,961		$ 55,977	0.9308
2034	0.01	0.03	0.19	0.32	0.92						0.01	0.03	0.14	0.24	0.87	$ 239,413	$ -	$ 178,724		$ 56,041	0.9234
2035	0.01	0.04	0.19	0.33	0.93						0.01	0.03	0.14	0.24	0.89	$ 243,807	$ -	$ 182,568		$ 56,099	0.9161
2036	0.01	0.04	0.19	0.33	0.95						0.01	0.03	0.14	0.25	0.91	$ 248,281	$ -	$ 186,495		$ 56,151	0.9088
2037	0.01	0.04	0.20	0.34	0.96						0.01	0.03	0.15	0.25	0.93	$ 252,837	$ -	$ 190,507		$ 56,197	0.9016
2038	0.01	0.04	0.20	0.35	0.97						0.01	0.03	0.15	0.26	0.95	$ 257,477	$ -	$ 194,604		$ 56,236	0.8944
2039	0.01	0.04	0.20	0.35	0.99						0.01	0.03	0.15	0.26	0.97	$ 262,202	$ -	$ 198,790		$ 56,269	0.8873
2040	0.01	0.04	0.21	0.36	1.00						0.01	0.03	0.16	0.27	0.99	$ 267,015	$ -	$ 203,066		$ 56,294	0.8803
2041	0.01	0.04	0.21	0.37	1.02						0.01	0.03	0.16	0.27	1.01	$ 271,916	$ -	$ 207,434		$ 56,313	0.8733
2042	0.01	0.04	0.22	0.37	1.03						0.01	0.03	0.16	0.28	1.03	$ 276,907	$ -	$ 211,896		$ 56,324	0.8664
2043	0.01	0.04	0.22	0.38	1.05						0.01	0.03	0.17	0.29	1.05	$ 281,989	$ -	$ 216,454		$ 56,329	0.8595
2044	0.01	0.04	0.22	0.39	1.07						0.01	0.03	0.17	0.29	1.07	$ 287,166	$ -	$ 221,109		$ 56,325	0.8527
Total																				$ 1,119,385	
Annual Average																				$ 55,969	

Net Differences KABC -11.18 O -18.58 KABC -2.94 O -0.88

VHT SUMMARY

Base Year of Analysis: 2024

Year	VHT (person-hours) No-Build	Opt 1	Opt 2
2024	8,872		10,429
2044	12,763		15,098

Travel Time Parameters		Fleet Mix	
Auto Travel Time	$ 23.90	Auto Proportion	80.8%
Truck Travel Time	$ 37.60	Truck Proportion	19.2%
Composite Travel Time	$ 26.53		

Discount Rate: 0.8%

Year	VHT (person-hours) No-Build	Opt 1	Opt 2	Travel Time ($) No-Build	Opt 1	Opt 2	NPV Travel Time Savings Opt 1	NPV Travel Time Savings Opt 2	Discount Factors
2025	9,035		10,623	239698.6681	$ -	$ 281,841		$ (41,807)	0.9921
2026	9,201		10,822	$ 244,097	$ -	$ 287,103		$ (42,326)	0.9842
2027	9,369		11,024	$ 248,576	$ -	$ 292,464		$ (42,852)	0.9764
2028	9,541		11,230	$ 253,137	$ -	$ 297,926		$ (43,383)	0.9686
2029	9,716		11,439	$ 257,782	$ -	$ 303,489		$ (43,921)	0.9609
2030	9,895		11,653	$ 262,513	$ -	$ 309,156		$ (44,466)	0.9533
2031	10,076		11,870	$ 267,330	$ -	$ 314,929		$ (45,017)	0.9457
2032	10,261		12,092	$ 272,235	$ -	$ 320,810		$ (45,575)	0.9382
2033	10,450		12,318	$ 277,231	$ -	$ 326,800		$ (46,139)	0.9308
2034	10,641		12,548	$ 282,318	$ -	$ 332,903		$ (46,711)	0.9234
2035	10,837		12,782	$ 287,498	$ -	$ 339,119		$ (47,289)	0.9161
2036	11,035		13,021	$ 292,774	$ -	$ 345,451		$ (47,874)	0.9088
2037	11,238		13,264	$ 298,146	$ -	$ 351,902		$ (48,466)	0.9016
2038	11,444		13,512	$ 303,617	$ -	$ 358,473		$ (49,066)	0.8944
2039	11,654		13,764	$ 309,188	$ -	$ 365,167		$ (49,672)	0.8873
2040	11,868		14,021	$ 314,862	$ -	$ 371,986		$ (50,286)	0.8803
2041	12,086		14,283	$ 320,639	$ -	$ 378,932		$ (50,908)	0.8733
2042	12,308		14,550	$ 326,523	$ -	$ 386,008		$ (51,537)	0.8664
2043	12,533		14,821	$ 332,515	$ -	$ 393,216		$ (52,173)	0.8595
2044	12,763		15,098	$ 338,616	$ -	$ 400,558		$ (52,817)	0.8527
						Total		$ (942,284)	
						Annual Average		$ (47,114)	
								$ 177,101	

CSAH 81 & Troy

IHSDM SUMMARY

Expected

No Build 2023	Annual Crashes
FI Crashes	0.46
PDO Crashes	0.46

Opt 1 2023	Annual Crashes
FI Crashes	0.46
PDO Crashes	0.46

Opt 2 2023	Annual Crashes
FI Crashes	
PDO Crashes	

No Build 2043	Annual Crashes
FI Crashes	0.71
PDO Crashes	0.77

Opt 1 2043	Annual Crashes
FI Crashes	0.71
PDO Crashes	0.77

Opt 2 2043	Annual Crashes
FI Crashes	
PDO Crashes	

SYNCHRO SUMMARY

Vehicle Occupancy: 1.27

No Build 2024 AM	VHT (vehicle-hrs)	**Opt 1 2024 AM**	VHT (vehicle-hrs)	**Opt 2 2024 AM**	VHT (vehicle-hrs)
Peak Hour	3.9	Peak Hour	5.2	Peak Hour	
Person-hrs	4.93896	*Person-hrs*	6.58528	*Person-hrs*	0

No Build 2024 PM	VHT (vehicle-hrs)	**Opt 1 2024 PM**	VHT (vehicle-hrs)	**Opt 2 2024 PM**	VHT (vehicle-hrs)
Peak Hour	5.5	Peak Hour	6.2	Peak Hour	
Person-hrs	6.9652	*Person-hrs*	7.85168	*Person-hrs*	0

No Build 2044 AM	VHT (vehicle-hrs)	**Opt 1 2044 AM**	VHT (vehicle-hrs)	**Opt 2 2044 AM**	VHT (vehicle-hrs)
Peak Hour	15.9	Peak Hour	9.1	Peak Hour	
Person-hrs	20.13576	*Person-hrs*	11.52424	*Person-hrs*	0

No Build 2044 PM	VHT (vehicle-hrs)	**Opt 1 2044 PM**	VHT (vehicle-hrs)	**Opt 2 2044 PM**	VHT (vehicle-hrs)
Peak Hour	17.6	Peak Hour	20.6	Peak Hour	
Person-hrs	22.28864	*Person-hrs*	26.08784	*Person-hrs*	0

Peak hour to daily conversion

Total		AADT (2023)			AADT (2023)
34483	**Troy**	401		**N/A**	

	Counts (2024)	Adj Factor	1.23	Counts (2024)
AM	37	0.1135		
PM	51	0.1564		
		0.2699		

		AADT (2023)			AADT (2023)
	CSAH 81	17041		**CSAH 81**	17041

	Counts (2024)		Counts (2024)	
AM	1580	0.1140	1575	0.1137
PM	1645	0.1187	1636	0.1181
		0.2328		0.2318

Weight Avg Percent	**23.27%**
Time and Mileage Conversion Factor	4.30

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.01	0.03	0.16	0.27	0.46	0.01	0.03	0.16	0.27	0.46					
2043	0.01	0.04	0.24	0.42	0.77	0.01	0.04	0.24	0.42	0.77					

Percent FI Dist	1.36%	6.30%	33.82%	58.53%

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)					
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.01	0.03	0.16	0.28	0.48	0.01	0.03	0.16	0.28	0.48						$ 204,038	$ 204,038	$ -	$ -		0.9921
2026	0.01	0.03	0.17	0.29	0.50	0.01	0.03	0.17	0.29	0.50						$ 208,545	$ 208,545	$ -	$ -		0.9842
2027	0.01	0.03	0.17	0.29	0.51	0.01	0.03	0.17	0.29	0.51						$ 213,151	$ 213,151	$ -	$ -		0.9764
2028	0.01	0.03	0.17	0.30	0.52	0.01	0.03	0.17	0.30	0.52						$ 217,859	$ 217,859	$ -	$ -		0.9686
2029	0.01	0.03	0.18	0.31	0.54	0.01	0.03	0.18	0.31	0.54						$ 222,672	$ 222,672	$ -	$ -		0.9609
2030	0.01	0.03	0.18	0.31	0.55	0.01	0.03	0.18	0.31	0.55						$ 227,590	$ 227,590	$ -	$ -		0.9533
2031	0.01	0.03	0.19	0.32	0.57	0.01	0.03	0.19	0.32	0.57						$ 232,618	$ 232,618	$ -	$ -		0.9457
2032	0.01	0.04	0.19	0.33	0.58	0.01	0.04	0.19	0.33	0.58						$ 237,756	$ 237,756	$ -	$ -		0.9382
2033	0.01	0.04	0.19	0.33	0.60	0.01	0.04	0.19	0.33	0.60						$ 243,009	$ 243,009	$ -	$ -		0.9308
2034	0.01	0.04	0.20	0.34	0.61	0.01	0.04	0.20	0.34	0.61						$ 248,377	$ 248,377	$ -	$ -		0.9234
2035	0.01	0.04	0.20	0.35	0.63	0.01	0.04	0.20	0.35	0.63						$ 253,864	$ 253,864	$ -	$ -		0.9161
2036	0.01	0.04	0.21	0.36	0.64	0.01	0.04	0.21	0.36	0.64						$ 259,473	$ 259,473	$ -	$ -		0.9088
2037	0.01	0.04	0.21	0.36	0.66	0.01	0.04	0.21	0.36	0.66						$ 265,206	$ 265,206	$ -	$ -		0.9016
2038	0.01	0.04	0.22	0.37	0.68	0.01	0.04	0.22	0.37	0.68						$ 271,065	$ 271,065	$ -	$ -		0.8944
2039	0.01	0.04	0.22	0.38	0.69	0.01	0.04	0.22	0.38	0.69						$ 277,054	$ 277,054	$ -	$ -		0.8873
2040	0.01	0.04	0.22	0.39	0.71	0.01	0.04	0.22	0.39	0.71						$ 283,176	$ 283,176	$ -	$ -		0.8803
2041	0.01	0.04	0.23	0.40	0.73	0.01	0.04	0.23	0.40	0.73						$ 289,433	$ 289,433	$ -	$ -		0.8733
2042	0.01	0.04	0.23	0.41	0.75	0.01	0.04	0.23	0.41	0.75						$ 295,828	$ 295,828	$ -	$ -		0.8664
2043	0.01	0.04	0.24	0.42	0.77	0.01	0.04	0.24	0.42	0.77						$ 302,365	$ 302,365	$ -	$ -		0.8595
2044	0.01	0.05	0.25	0.42	0.79	0.01	0.05	0.25	0.42	0.79						$ 309,047	$ 309,047	$ -	$ -		0.8527
Total																			$ -		
Annual Average																			$ -		

Net Differences KABC 0.00 O 0.00 KABC -11.90 O -12.51

VHT SUMMARY

Base Year of Analysis	2024

	VHT (person-hours)		
Year	No-Build	Opt 1	Opt 2
2024	14,744	17,881	
2044	52,546	46,586	

Travel Time Parameters		Fleet Mix	
Auto Travel Time	$ 23.90	Auto Proportion	88.8%
Truck Travel Time	$ 37.60	Truck Proportion	11.2%
Composite Travel Time	$ 25.43		

								Discount Rate	0.8%
	VHT (person-hours)			Travel Time ($)			NPV Travel Time	NPV Travel Time	Discount
Year	No-Build	Opt 1	Opt 2	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	15,712	18,758		399614.906	$ 477,107	$ -	-76876.66425		0.9921
2026	16,742	19,678		$ 425,831	$ 500,505	$ -	$ (73,493)		0.9842
2027	17,841	20,643		$ 453,767	$ 525,050	$ -	$ (69,599)		0.9764
2028	19,011	21,656		$ 483,536	$ 550,799	$ -	$ (65,153)		0.9686
2029	20,258	22,718		$ 515,258	$ 577,811	$ -	$ (60,109)		0.9609
2030	21,587	23,832		$ 549,061	$ 606,147	$ -	$ (54,421)		0.9533
2031	23,004	25,001		$ 585,082	$ 635,874	$ -	$ (48,036)		0.9457
2032	24,513	26,227		$ 623,466	$ 667,058	$ -	$ (40,900)		0.9382
2033	26,121	27,513		$ 664,368	$ 699,771	$ -	$ (32,954)		0.9308
2034	27,834	28,862		$ 707,953	$ 734,089	$ -	$ (24,134)		0.9234
2035	29,661	30,277		$ 754,397	$ 770,090	$ -	$ (14,375)		0.9161
2036	31,606	31,762		$ 803,889	$ 807,856	$ -	$ (3,605)		0.9088
2037	33,680	33,320		$ 856,627	$ 847,474	$ -	$ 8,253		0.9016
2038	35,889	34,954		$ 912,825	$ 889,035	$ -	$ 21,279		0.8944
2039	38,244	36,668		$ 972,710	$ 932,635	$ -	$ 35,561		0.8873
2040	40,753	38,466		$ 1,036,524	$ 978,372	$ -	$ 51,191		0.8803
2041	43,426	40,353		$ 1,104,524	$ 1,026,353	$ -	$ 68,268		0.8733
2042	46,275	42,332		$ 1,176,985	$ 1,076,687	$ -	$ 86,897		0.8664
2043	49,311	44,408		$ 1,254,200	$ 1,129,489	$ -	$ 107,191		0.8595
2044	52,546	46,586		$ 1,336,481	$ 1,184,880	$ -	$ 129,268		0.8527
						Total	$ (55,747)		
						Annual Average	$ (2,787)		

CSAH 81 & Territorial

IHSDM SUMMARY

Expected

No Build 2023	Annual Crashes
FI Crashes	0.72
PDO Crashes	0.89

Opt 1 2023	Annual Crashes
FI Crashes	0.72
PDO Crashes	0.89

Opt 2 2023	Annual Crashes
FI Crashes	
PDO Crashes	

No Build 2043	Annual Crashes
FI Crashes	1.11
PDO Crashes	1.47

Opt 1 2043	Annual Crashes
FI Crashes	1.11
PDO Crashes	1.47

Opt 2 2043	Annual Crashes
FI Crashes	
PDO Crashes	

SYNCHRO SUMMARY

Vehicle Occupancy: 1.28

No Build 2024 AM	VHT (vehicle-hrs)	**Opt 1 2024 AM**	VHT (vehicle-hrs)	**Opt 2 2024 AM**	VHT (vehicle-hrs)
Peak Hour	5.2	Peak Hour	5	Peak Hour	
Person-hrs	6.63052	*Person-hrs*	6.3755	*Person-hrs*	0

No Build 2024 PM	VHT (vehicle-hrs)	**Opt 1 2024 PM**	VHT (vehicle-hrs)	**Opt 2 2024 PM**	VHT (vehicle-hrs)
Peak Hour	6.2	Peak Hour	5.9	Peak Hour	
Person-hrs	7.90562	*Person-hrs*	7.52309	*Person-hrs*	0

No Build 2044 AM	VHT (vehicle-hrs)	**Opt 1 2044 AM**	VHT (vehicle-hrs)	**Opt 2 2044 AM**	VHT (vehicle-hrs)
Peak Hour	26.5	Peak Hour	18.8	Peak Hour	
Person-hrs	33.79015	*Person-hrs*	23.97188	*Person-hrs*	0

No Build 2044 PM	VHT (vehicle-hrs)	**Opt 1 2044 PM**	VHT (vehicle-hrs)	**Opt 2 2044 PM**	VHT (vehicle-hrs)
Peak Hour	21.9	Peak Hour	20.2	Peak Hour	
Person-hrs	27.92469	*Person-hrs*	25.75702	*Person-hrs*	0

Peak hour to daily conversion

Total		AADT (2023)			AADT (2023)
36116	**Territorial**	1745		**N/A**	

	Counts (2024)	Adj Factor	1.23	Counts (2024)
AM	176	0.1241		
PM	238	0.1678		
		0.2918		

		AADT (2023)			AADT (2023)
	CSAH 81	17330		**CSAH 81**	17041

	Counts (2024)		Counts (2024)	
AM	1290	0.0916	1342	0.0969
PM	1375	0.0976	1407	0.1016
		0.1891		0.1984

Weight Avg Percent	**19.85%**
Time and Mileage Conversion Factor	5.04

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.01	0.05	0.24	0.42	0.89	0.01	0.05	0.24	0.42	0.89					
2043	0.02	0.07	0.38	0.65	1.47	0.02	0.07	0.38	0.65	1.47					

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Percent FI Dist: 1.36% | 6.30% | 33.82% | 58.53%

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)				
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.01	0.05	0.25	0.44	0.94	0.01	0.05	0.25	0.44	0.94						$ 321,994	$ 321,994	$ -	$ -		0.9921
2026	0.01	0.05	0.26	0.45	0.96	0.01	0.05	0.26	0.45	0.96						$ 329,089	$ 329,089	$ -	$ -		0.9842
2027	0.01	0.05	0.27	0.46	0.98	0.01	0.05	0.27	0.46	0.98						$ 336,340	$ 336,340	$ -	$ -		0.9764
2028	0.01	0.05	0.27	0.47	1.01	0.01	0.05	0.27	0.47	1.01						$ 343,751	$ 343,751	$ -	$ -		0.9686
2029	0.01	0.05	0.28	0.48	1.03	0.01	0.05	0.28	0.48	1.03						$ 351,325	$ 351,325	$ -	$ -		0.9609
2030	0.01	0.05	0.28	0.49	1.06	0.01	0.05	0.28	0.49	1.06						$ 359,066	$ 359,066	$ -	$ -		0.9533
2031	0.01	0.05	0.29	0.50	1.09	0.01	0.05	0.29	0.50	1.09						$ 366,979	$ 366,979	$ -	$ -		0.9457
2032	0.01	0.06	0.30	0.51	1.12	0.01	0.06	0.30	0.51	1.12						$ 375,065	$ 375,065	$ -	$ -		0.9382
2033	0.01	0.06	0.30	0.52	1.14	0.01	0.06	0.30	0.52	1.14						$ 383,330	$ 383,330	$ -	$ -		0.9308
2034	0.01	0.06	0.31	0.53	1.17	0.01	0.06	0.31	0.53	1.17						$ 391,778	$ 391,778	$ -	$ -		0.9234
2035	0.01	0.06	0.32	0.55	1.20	0.01	0.06	0.32	0.55	1.20						$ 400,412	$ 400,412	$ -	$ -		0.9161
2036	0.01	0.06	0.32	0.56	1.23	0.01	0.06	0.32	0.56	1.23						$ 409,236	$ 409,236	$ -	$ -		0.9088
2037	0.01	0.06	0.33	0.57	1.26	0.01	0.06	0.33	0.57	1.26						$ 418,255	$ 418,255	$ -	$ -		0.9016
2038	0.01	0.06	0.34	0.58	1.30	0.01	0.06	0.34	0.58	1.30						$ 427,473	$ 427,473	$ -	$ -		0.8944
2039	0.01	0.06	0.34	0.60	1.33	0.01	0.06	0.34	0.60	1.33						$ 436,894	$ 436,894	$ -	$ -		0.8873
2040	0.01	0.07	0.35	0.61	1.36	0.01	0.07	0.35	0.61	1.36						$ 446,524	$ 446,524	$ -	$ -		0.8803
2041	0.01	0.07	0.36	0.62	1.40	0.01	0.07	0.36	0.62	1.40						$ 456,365	$ 456,365	$ -	$ -		0.8733
2042	0.01	0.07	0.37	0.64	1.43	0.01	0.07	0.37	0.64	1.43						$ 466,424	$ 466,424	$ -	$ -		0.8664
2043	0.02	0.07	0.38	0.65	1.47	0.02	0.07	0.38	0.65	1.47						$ 476,705	$ 476,705	$ -	$ -		0.8595
2044	0.02	0.07	0.38	0.66	1.51	0.02	0.07	0.38	0.66	1.51						$ 487,213	$ 487,213	$ -	$ -		0.8527
Total																			$ -		
Annual Average																			$ -		

Net Differences: KABC 0.00 O 0.00 | KABC -18.62 O -24.00

VHT SUMMARY

Base Year of Analysis: 2024

Year	VHT (person-hours) No-Build	Opt 1	Opt 2
2024	20,962	20,043	
2044	88,997	71,713	

Travel Time Parameters		Fleet Mix	
Auto Travel Time	$ 23.90	Auto Proportion	91.7%
Truck Travel Time	$ 37.60	Truck Proportion	8.3%
Composite Travel Time	$ 25.04		

Discount Rate: 0.8%

Year	VHT (person-hours) No-Build	Opt 1	Opt 2	Travel Time ($) No-Build	Opt 1	Opt 2	NPV Travel Time Savings Opt 1	NPV Travel Time Savings Opt 2	Discount Factors
2025	22,534	21,362		564180.7374	$ 534,841	$ -	$ 29,107		0.9921
2026	24,223	22,768		$ 606,478	$ 570,042	$ -	$ 35,860		0.9842
2027	26,039	24,266		$ 651,947	$ 607,559	$ -	$ 43,339		0.9764
2028	27,991	25,863		$ 700,825	$ 647,546	$ -	$ 51,607		0.9686
2029	30,090	27,566		$ 753,367	$ 690,164	$ -	$ 60,734		0.9609
2030	32,346	29,380		$ 809,848	$ 735,587	$ -	$ 70,794		0.9533
2031	34,771	31,314		$ 870,563	$ 784,000	$ -	$ 81,867		0.9457
2032	37,378	33,374		$ 935,831	$ 835,599	$ -	$ 94,042		0.9382
2033	40,180	35,571		$ 1,005,992	$ 890,595	$ -	$ 107,412		0.9308
2034	43,192	37,912		$ 1,081,413	$ 949,209	$ -	$ 122,078		0.9234
2035	46,431	40,407		$ 1,162,488	$ 1,011,682	$ -	$ 138,151		0.9161
2036	49,912	43,067		$ 1,249,642	$ 1,078,266	$ -	$ 155,749		0.9088
2037	53,654	45,901		$ 1,343,330	$ 1,149,232	$ -	$ 174,998		0.9016
2038	57,676	48,922		$ 1,444,041	$ 1,224,869	$ -	$ 196,037		0.8944
2039	62,000	52,142		$ 1,552,303	$ 1,305,484	$ -	$ 219,014		0.8873
2040	66,648	55,574		$ 1,668,682	$ 1,391,404	$ -	$ 244,088		0.8803
2041	71,645	59,231		$ 1,793,786	$ 1,482,980	$ -	$ 271,432		0.8733
2042	77,016	63,130		$ 1,928,269	$ 1,580,583	$ -	$ 301,230		0.8664
2043	82,791	67,285		$ 2,072,835	$ 1,684,609	$ -	$ 333,683		0.8595
2044	88,997	71,713		$ 2,228,239	$ 1,795,482	$ -	$ 369,006		0.8527
						Total	$ 3,100,229		
						Annual Average	$ 155,011		

S Diamond Lake & Pineview

IHSDM SUMMARY

Expected

No Build 2023	Annual Crashes
FI Crashes	0.38
PDO Crashes	0.75

Opt 1 2023	Annual Crashes
FI Crashes	0.22
PDO Crashes	0.81

Opt 2 2023	Annual Crashes
FI Crashes	
PDO Crashes	

No Build 2043	Annual Crashes
FI Crashes	0.53
PDO Crashes	0.99

Opt 1 2043	Annual Crashes
FI Crashes	0.29
PDO Crashes	0.98

Opt 2 2043	Annual Crashes
FI Crashes	
PDO Crashes	

SYNCHRO SUMMARY

Vehicle Occupancy: 1.29

No Build 2024 AM	VHT (vehicle-hrs)	**Opt 1 2024 AM**	VHT (vehicle-hrs)	**Opt 2 2024 AM**	VHT (vehicle-hrs)
Peak Hour	4.5	Peak Hour	3.7	Peak Hour	
Person-hrs	5.796	*Person-hrs*	4.7656	*Person-hrs*	0

No Build 2024 PM	VHT (vehicle-hrs)	**Opt 1 2024 PM**	VHT (vehicle-hrs)	**Opt 2 2024 PM**	VHT (vehicle-hrs)
Peak Hour	5.9	Peak Hour	4.8	Peak Hour	
Person-hrs	7.5992	*Person-hrs*	6.1824	*Person-hrs*	0

No Build 2044 AM	VHT (vehicle-hrs)	**Opt 1 2044 AM**	VHT (vehicle-hrs)	**Opt 2 2044 AM**	VHT (vehicle-hrs)
Peak Hour	6.1	Peak Hour	5	Peak Hour	
Person-hrs	7.8568	*Person-hrs*	6.44	*Person-hrs*	0

No Build 2044 PM	VHT (vehicle-hrs)	**Opt 1 2044 PM**	VHT (vehicle-hrs)	**Opt 2 2044 PM**	VHT (vehicle-hrs)
Peak Hour	8.1	Peak Hour	6.4	Peak Hour	
Person-hrs	10.4328	*Person-hrs*	8.2432	*Person-hrs*	0

Peak hour to daily conversion

Total		AADT (2023)			AADT (2023)
11738	**Pineview**	1994		**Pineview**	4175

	Counts (2024)	Adj Factor	1.23	Counts (2024)	
AM	239	0.1474		335	0.0987
PM	318	0.1962		445	0.1311
		0.3436			0.2298

		AADT (2023)			AADT (2023)
	S Diamond Lk	3392		**S Diamond Lk**	2177

	Counts (2024)		Counts (2024)	
AM	318	0.1153	274	0.1548
PM	400	0.1450	367	0.2074
		0.2604		0.3622

Weight Avg Percent	**28.25%**
Time and Mileage Conversion Factor	3.54

CRASH SUMMARY

Base Year of Analysis: 2024

	Annual Crashes														
	No-Build					Opt 1					Opt 2				
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O
2023	0.01	0.02	0.13	0.22	0.75	0.00	0.01	0.07	0.13	0.81					
2043	0.01	0.03	0.18	0.31	0.99	0.00	0.02	0.10	0.17	0.98					
Percent FI Dist	1.36%	6.30%	33.82%	58.53%											

Crash Cost Parameters (per crash)	
K	$ 14,600,000
A	$ 800,000
B	$ 250,000
C	$ 130,000
O	$ 15,000

Discount Rate: 0.8%

	Annual Crashes															Total Crash Costs ($)				
	No-Build					Opt 1					Opt 2								NPV Crash Costs	NPV Crash Costs	Discount
Year	K	A	B	C	O	K	A	B	C	O	K	A	B	C	O	No-Build	Opt 1	Opt 2	Savings Opt 1	Savings Opt 2	Factors
2025	0.01	0.02	0.13	0.23	0.77	0.00	0.01	0.08	0.13	0.83						$ 172,480	$ 105,020	$ -	$ 66,925		0.9921
2026	0.01	0.03	0.14	0.23	0.78	0.00	0.01	0.08	0.13	0.83						$ 175,341	$ 106,427	$ -	$ 67,825		0.9842
2027	0.01	0.03	0.14	0.24	0.79	0.00	0.01	0.08	0.14	0.84						$ 178,249	$ 107,853	$ -	$ 68,734		0.9764
2028	0.01	0.03	0.14	0.24	0.80	0.00	0.01	0.08	0.14	0.85						$ 181,206	$ 109,298	$ -	$ 69,652		0.9686
2029	0.01	0.03	0.14	0.25	0.82	0.00	0.02	0.08	0.14	0.86						$ 184,212	$ 110,763	$ -	$ 70,580		0.9609
2030	0.01	0.03	0.14	0.25	0.83	0.00	0.02	0.08	0.14	0.87						$ 187,268	$ 112,247	$ -	$ 71,518		0.9533
2031	0.01	0.03	0.15	0.25	0.84	0.00	0.02	0.08	0.14	0.87						$ 190,374	$ 113,752	$ -	$ 72,465		0.9457
2032	0.01	0.03	0.15	0.26	0.85	0.00	0.02	0.08	0.15	0.88						$ 193,533	$ 115,278	$ -	$ 73,422		0.9382
2033	0.01	0.03	0.15	0.26	0.86	0.00	0.02	0.09	0.15	0.89						$ 196,744	$ 116,824	$ -	$ 74,389		0.9308
2034	0.01	0.03	0.15	0.27	0.87	0.00	0.02	0.09	0.15	0.90						$ 200,008	$ 118,390	$ -	$ 75,366		0.9234
2035	0.01	0.03	0.16	0.27	0.89	0.00	0.02	0.09	0.15	0.91						$ 203,326	$ 119,979	$ -	$ 76,353		0.9161
2036	0.01	0.03	0.16	0.28	0.90	0.00	0.02	0.09	0.15	0.92						$ 206,700	$ 121,588	$ -	$ 77,350		0.9088
2037	0.01	0.03	0.16	0.28	0.91	0.00	0.02	0.09	0.16	0.93						$ 210,129	$ 123,220	$ -	$ 78,357		0.9016
2038	0.01	0.03	0.16	0.29	0.92	0.00	0.02	0.09	0.16	0.93						$ 213,616	$ 124,873	$ -	$ 79,375		0.8944
2039	0.01	0.03	0.17	0.29	0.94	0.00	0.02	0.09	0.16	0.94						$ 217,160	$ 126,549	$ -	$ 80,403		0.8873
2040	0.01	0.03	0.17	0.30	0.95	0.00	0.02	0.09	0.16	0.95						$ 220,764	$ 128,248	$ -	$ 81,442		0.8803
2041	0.01	0.03	0.17	0.30	0.96	0.00	0.02	0.10	0.17	0.96						$ 224,427	$ 129,970	$ -	$ 82,491		0.8733
2042	0.01	0.03	0.18	0.31	0.98	0.00	0.02	0.10	0.17	0.97						$ 228,151	$ 131,715	$ -	$ 83,551		0.8664
2043	0.01	0.03	0.18	0.31	0.99	0.00	0.02	0.10	0.17	0.98						$ 231,937	$ 133,484	$ -	$ 84,622		0.8595
2044	0.01	0.03	0.18	0.32	1.00	0.00	0.02	0.10	0.17	0.99						$ 235,787	$ 135,277	$ -	$ 85,704		0.8527
Total																			$ 1,520,526		
Annual Average																			$ 76,026		

Net Differences KABC -4.07 O 0.45 KABC -9.25 O -17.65

VHT SUMMARY

Base Year of Analysis: 2024

Year	VHT (person-hours) No-Build	Opt 1	Opt 2
2024	13,437	10,982	
2044	18,347	14,729	

Travel Time Parameters		Fleet Mix	
Auto Travel Time	$ 23.90	Auto Proportion	96.0%
Truck Travel Time	$ 37.60	Truck Proportion	4.0%
Composite Travel Time	$ 24.45		

Discount Rate: 0.8%

Year	VHT (person-hours) No-Build	Opt 1	Opt 2	Travel Time ($) No-Build	Opt 1	Opt 2	NPV Travel Time Savings Opt 1	NPV Travel Time Savings Opt 2	Discount Factors
2025	13,648	11,145		333667.4472	$ 272,465	$ -	60716.5585		0.9921
2026	13,862	11,309		$ 338,904	$ 276,494	$ -	$ 61,423		0.9842
2027	14,080	11,477		$ 344,223	$ 280,582	$ -	$ 62,137		0.9764
2028	14,301	11,646		$ 349,625	$ 284,730	$ -	$ 62,859		0.9686
2029	14,525	11,819		$ 355,112	$ 288,940	$ -	$ 63,587		0.9609
2030	14,753	11,993		$ 360,685	$ 293,212	$ -	$ 64,322		0.9533
2031	14,985	12,171		$ 366,345	$ 297,548	$ -	$ 65,065		0.9457
2032	15,220	12,351		$ 372,094	$ 301,947	$ -	$ 65,815		0.9382
2033	15,459	12,533		$ 377,934	$ 306,412	$ -	$ 66,573		0.9308
2034	15,701	12,719		$ 383,865	$ 310,942	$ -	$ 67,338		0.9234
2035	15,948	12,907		$ 389,889	$ 315,540	$ -	$ 68,110		0.9161
2036	16,198	13,097		$ 396,008	$ 320,205	$ -	$ 68,891		0.9088
2037	16,452	13,291		$ 402,223	$ 324,940	$ -	$ 69,679		0.9016
2038	16,710	13,488		$ 408,535	$ 329,744	$ -	$ 70,474		0.8944
2039	16,973	13,687		$ 414,947	$ 334,619	$ -	$ 71,278		0.8873
2040	17,239	13,889		$ 421,459	$ 339,567	$ -	$ 72,089		0.8803
2041	17,510	14,095		$ 428,073	$ 344,588	$ -	$ 72,909		0.8733
2042	17,784	14,303		$ 434,791	$ 349,683	$ -	$ 73,737		0.8664
2043	18,063	14,515		$ 441,615	$ 354,853	$ -	$ 74,572		0.8595
2044	18,347	14,729		$ 448,545	$ 360,100	$ -	$ 75,416		0.8527
						Total	$ 1,356,991		
						Annual Average	$ 67,850		
							$ 2,877,517		