Application

13860-2020 Roadway Expansion
14015 - TH 282, CSAH 9, TH 169 Grade Separation
Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted
Submitted Date:
05/15/2020 3:46 PM

## Primary Contact



## Organization Information

Jurisdictional Agency (if different):
Organization Type: County Government
Organization Website:
Address: 600 COUNTRY TRAIL E

| * | JORDAN | Minnesota |
| :--- | :--- | :--- |
| County: | City | Scote/Province |
| Postal Code/Zip |  |  |
| Phone:* | $612-496-8355$ |  |
| Fax: |  | Ext. |
| PeopleSoft Vendor Number | $0000024262 A 3$ |  |

## Project Information

| Project Name | TH 169, TH 282 and CSAH 9 Interchange |
| :--- | :--- |
| Primary County where the Project is Located | Scott |
| Cities or Townships where the Project is Located: | Jordan |

Jurisdictional Agency (If Different than the Applicant):

Brief Project Description (Include location, road name/functional class, type of improvement, etc.)

The proposed interchange is located at the intersection of Highway (TH)169, Trunk Highway (TH) 282 and County Highway (CH) 9 in the City of Jordan, Minnesota. The project will include construction of an interchange at the existing atgrade intersection of TH 169, TH 282, and CH 9. The project will include an overpass and supporting road network improvements along TH 169. The cross-street of this project is an A-minor connector. TH 169 is classified as a principal arterial.
(Limit 2,800 characters; approximately 400 words)
TRANSPORTATION IMPROVEMENT PROGRAM (TIP)

DESCRIPTION - will be used in TIP if the project is selected for
funding. See MnDOT's TIP description guidance.
Project Length (Miles)

TH 169, TH 282 and CSAH 9 Interchange 2.64

## Project Funding

Are you applying for competitive funds from another source(s) to Yes
implement this project?
If yes, please identify the source(s)
Federal Amount \$10,000,000.00
Match Amount \$14,000,000.00
Minimum of 20\% of project total
Project Total \$24,000,000.00
For transit projects, the total cost for the application is total cost minus fare revenues.
Match Percentage 58.33\%

Minimum of 20\%
Compute the match percentage by dividing the match amount by the project total
Source of Match Funds Local
A minimum of $20 \%$ of the total project cost must come from non-federal sources; additional match funds over the $20 \%$ minimum can come from other federal sources

Preferred Program Year
Select one:
2024
Select 2022 or 2023 for TDM projects only. For all other applications, select 2024 or 2025.
Additional Program Years: 2023
Select all years that are feasible if funding in an earlier year becomes available.

## Project Information-Roadways

| County, City, or Lead Agency | Scott County |
| :--- | :--- |
| Functional Class of Road | Principal Arterial, A-minor Connector |
| Road System | TH 169, TH 282, CSAH 9 |
| TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET |  |
| Road/Route No. | 1692829 |
| i.e., 53 for CSAH 53 |  |
| Name of Road | US Trunk Highway 169, Trunk Highway 282, and |
| Example; 1st ST., MAIN AVE | CSAH 9 |
| Zip Code where Majority of Work is Being Performed | 55352 |
| (Approximate) Begin Construction Date | $03 / 18 / 2024$ |
| (Approximate) End Construction Date | $11 / 03 / 2025$ |
| TERMINI:(Termini listed must be within 0.3 miles of any work) |  |
| From: | Valley View Drive south |
| (Intersection or Address) |  |

```
To:
(Intersection or Address)
Creek Lane west
DO NOT INCLUDE LEGAL DESCRIPTION
Or At
Miles of Sidewalk (nearest 0.1 miles) 2.02
Miles of Trail (nearest 0.1 miles) 0.33
Miles of Trail on the Regional Bicycle Transportation Network 0
(nearest 0.1 miles)
Primary Types of Work
Examples: GRADE, AGG BASE, BIT BASE, BIT SURF,
SIDEWALK, CURB AND GUTTER,STORM SEWER,
SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS,
BRIDGE, PARK AND RIDE, ETC.
BRIDGE/CULVERT PROJECTS (IF APPLICABLE)
Old Bridge/Culvert No.:
New Bridge/Culvert No.:
Structure is Over/Under
(Bridge or culvert name):
```


## Requirements - All Projects

## All Projects

1.The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan (2018), the 2040 Regional Parks Policy Plan (2018), and the 2040 Water Resources Policy Plan (2015).

Check the box to indicate that the project meets this requirement. Yes
2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.

Briefly list the goals, objectives, strategies, and associated pages:

Goal: Safety and Security, Objective A; (p.60-61);
Strategy B3, (p. 2.21), Strategy B6, (p.2.23)
Goal: Competitive Economy, Objective C; p.64-65;
Strategy D3 (p.2.39)
Goal: Access to Destinations, Objective A, Objective B; p.62-63; Strategy C1 (p.2.24), C7 (p.2.30), Strategy C16 (p.2.36)

Limit 2,800 characters, approximately 400 words
3. The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.

List the applicable documents and pages:

This project is documented in the TH169/TH 282/CSAH 9 Interchange Concept Study completed in November 2018 by Kimley-Horn for the City of Jordan, Scott County, and MnDOT. Additionally, this proposal is identified in the Transportation section of the City of Jordan?s 2040 Comprehensive Plan (Chapter 3 Page 20). The proposal is also identified in Scott County?s 2040 Comprehensive Plan as freight congestion area and an interchange need (Chapter VI Page 61).

Limit 2,800 characters, approximately 400 words
4.The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

Check the box to indicate that the project meets this requirement. Yes
5.Applicants that are not State Aid cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

Check the box to indicate that the project meets this requirement. Yes
6.Applicants must not submit an application for the same project elements in more than one funding application category.

Check the box to indicate that the project meets this requirement. Yes
7.The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.
Strategic Capacity (Roadway Expansion): \$1,000,000 to \$10,000,000
Roadway Reconstruction/Modernization: \$1,000,000 to \$7,000,000
Traffic Management Technologies (Roadway System Management): \$250,000 to \$3,500,000
Spot Mobility and Safety: \$1,000,000 to \$3,500,000
Bridges Rehabilitation/Replacement: \$1,000,000 to \$7,000,000
Check the box to indicate that the project meets this requirement. Yes
8. The project must comply with the Americans with Disabilities Act (ADA).

Check the box to indicate that the project meets this requirement. Yes
9.In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA. The plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

The applicant is a public agency that employs 50 or more people and has a completed ADA transition plan that covers the public Yes right of way/transportation.

Date plan completed: $\quad 10 / 16 / 2018$

Link to plan:

The applicant is a public agency that employs fewer than 50
people and has a completed ADA self-evaluation that covers the
public right of way/transportation.
Date self-evaluation completed:
Link to plan:
Upload plan or self-evaluation if there is no link
Upload as PDF
10. The project must be accessible and open to the general public.

Check the box to indicate that the project meets this requirement. Yes
11.The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017.

Check the box to indicate that the project meets this requirement. Yes
12.The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

Check the box to indicate that the project meets this requirement. Yes
13. The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

Check the box to indicate that the project meets this requirement. Yes
14.The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

Check the box to indicate that the project meets this requirement. Yes

## Roadways Including Multimodal Elements

1.All roadway and bridge projects must be identified as a principal arterial (non-freeway facilities only) or A-minor arterial as shown on the latest TAB approved roadway functional classification map.

Check the box to indicate that the project meets this requirement. Yes
Roadway Expansion and Reconstruction/Modernization and Spot Mobility projects only:
2.The project must be designed to meet 10 -ton load limit standards.

Check the box to indicate that the project meets this requirement. Yes
Bridge Rehabilitation/Replacement and Strategic Capacity projects only:
3.Projects requiring a grade-separated crossing of a principal arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOTs Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

Check the box to indicate that the project meets this requirement.
4.The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

Check the box to indicate that the project meets this requirement.
Bridge Rehabilitation/Replacement projects only:
5.The length of the bridge must equal or exceed 20 feet.

Check the box to indicate that the project meets this requirement.
6. The bridge must have a National Bridge Inventory Rating of 6 or less for rehabilitation projects and 4 or less for replacement projects.

Check the box to indicate that the project meets this requirement.
Roadway Expansion, Reconstruction/Modernization, and Bridge Rehabilitation/Replacement projects only:
7. All roadway projects that involve the construction of a new/expanded interchange or new interchange ramps must have approval by the Metropolitan Council/MnDOT Interchange Planning Review Committee prior to application submittal. Please contact Michael Corbett at MnDOT ( Michael.J.Corbett@state.mn.us or 651-234-7793) to determine whether your project needs to go through this process as described in Appendix F of the 2040 Transportation Policy Plan.

Check the box to indicate that the project meets this requirement. Yes

## Requirements - Roadways Including Multimodal Elements

## Specific Roadway Elements

## CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES <br> Cost

Mobilization (approx. 5\% of total cost)
\$1,000,000.00
Removals (approx. 5\% of total cost) \$246,000.00
Roadway (grading, borrow, etc.) \$650,300.00
Roadway (aggregates and paving) \$2,206,800.00
Subgrade Correction (muck) \$1,404,200.00
Storm Sewer \$250,000.00
Ponds \$750,000.00
Concrete Items (curb \& gutter, sidewalks, median barriers) \$436,000.00
Traffic Control \$150,000.00
Striping \$50,000.00
Signing \$50,000.00
Lighting \$300,000.00
Turf - Erosion \& Landscaping \$200,000.00
Bridge \$3,275,000.00
Retaining Walls $\quad \$ 2,010,000.00$
Noise Wall (not calculated in cost effectiveness measure) \$3,200,000.00
Traffic Signals \$300,000.00
Wetland Mitigation \$750,000.00
Other Natural and Cultural Resource Protection ..... $\$ 0.00$
RR Crossing ..... \$3,900,000.00
Roadway Contingencies ..... \$343,500.00
Other Roadway Elements ..... \$2,033,840.00
Totals ..... \$23,505,640.00
Specific Bicycle and Pedestrian Elements
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES ..... Cost
Path/Trail Construction ..... $\$ 0.00$
Sidewalk Construction ..... $\$ 286,700.00$
On-Street Bicycle Facility Construction ..... $\$ 0.00$
Right-of-Way ..... $\$ 0.00$
Pedestrian Curb Ramps (ADA) ..... \$75,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK) ..... $\$ 0.00$
Pedestrian-scale Lighting ..... \$50,000.00
Streetscaping ..... $\$ 17,900.00$
Wayfinding ..... \$25,760.00
Bicycle and Pedestrian Contingencies ..... \$35,400.00
Other Bicycle and Pedestrian Elements ..... \$3,600.00
Totals ..... \$494,360.00
Specific Transit and TDM Elements
CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES ..... Cost
Fixed Guideway Elements ..... $\$ 0.00$
Stations, Stops, and Terminals ..... $\$ 0.00$
Support Facilities ..... $\$ 0.00$
Transit Systems (e.g. communications, signals, controls, fare collection, etc.) ..... $\$ 0.00$
Vehicles ..... $\$ 0.00$
Contingencies ..... $\$ 0.00$
Right-of-Way ..... $\$ 0.00$
Other Transit and TDM Elements ..... $\$ 0.00$
Totals ..... $\$ 0.00$

## Transit Operating Costs

| Number of Platform hours | 0 |
| :--- | :--- |
| Cost Per Platform hour (full loaded Cost) | $\$ 0.00$ |
| Subtotal | $\$ 0.00$ |
| Other Costs - Administration, Overhead,etc. | $\$ 0.00$ |

## Totals

| Total Cost | $\$ 24,000,000.00$ |
| :--- | :--- |
| Construction Cost Total | $\$ 24,000,000.00$ |
| Transit Operating Cost Total | $\$ 0.00$ |

## Congestion within Project Area:

The measure will analyze the level of congestion within the project area. Council staff will provide travel speed data on the "Level of Congestion" map. The analysis will compare the peak hour travel speed within the project area to fee-flow conditions.

Free-Flow Travel Speed: 56
Peak Hour Travel Speed: 38
Percentage Decrease in Travel Speed in Peak Hour compared to Free-Flow:

Upload Level of Congestion map:
1589511051742_TH282_TH169_CSAH9_Interchange_Conge stion_5_13.pdf

## Congestion on adjacent Parallel Routes:

Adjacent Parallel Corridor
Adjacent Parallel Corridor Start and End Points:

| Start Point: | TH 169 |
| :--- | :--- |
| End Point: | Louisville Road |
| Free-Flow Travel Speed: | 52 |

The Free-Flow Travel Speed is black number.
Peak Hour Travel Speed:
The Peak Hour Travel Speed is red number.
Percentage Decrease in Travel Speed in Peak Hour Compared to Free-Flow:

Upload Level of Congestion Map:

41
TH 14

52
21.15\%

1589566340050_CR 14 map.pdf

## Principal Arterial Intersection Conversion Study:

Proposed interchange or at-grade project that reduces delay at a High Priority Intersection:
(80 Points)
Proposed at-grade project that reduces delay at a Medium Priority Intersection:
(60 Points)
Proposed at-grade project that reduces delay at a Low Priority Intersection:
(50 Points)
Proposed interchange project that reduces delay at a Medium Priority Intersection:
(40 Points)
Proposed interchange project that reduces delay at a Low Priority Intersection:
(0 Points)
Not listed as a priority in the study:
(0 Points)

## Measure B: Project Location Relative to Jobs, Manufacturing, and Education

Existing Employment within 1 Mile:
1635
Existing Manufacturing/Distribution-Related Employment within 1 Mile:

342

Existing Post-Secondary Students within 1 Mile:

Upload Map
1589511229981_TH282_TH169_CSAH9_Interchange_Region
alEconomy_5_13.pdf
Please upload attachment in PDF form.

## Measure C: Current Heavy Commercial Traffic

RESPONSE: Select one for your project, based on the Regional Truck Corridor Study:
Along Tier 1:
Yes
Miles:
1.04
(to the nearest 0.1 miles)
Along Tier 2:
Miles:
0
(to the nearest 0.1 miles)
Along Tier 3:
Miles:
0

The project provides a direct and immediate connection (i.e., intersects) with either a Tier 1, Tier 2, or Tier 3 corridor:

None of the tiers:

## Measure A: Current Daily Person Throughput

| Location | TH 169 / Highway 282 / County Road 9 Intersection |
| :--- | :--- |
| Current AADT Volume | 30500 |
| Existing Transit Routes on the Project | Other |
| For New Roadways only, list transit routes that will likely be diverted to the new proposed roadway (if applicable). |  |
| Upload Transit Connections Map | 1589511493076_TH282_TH169_CSAH9_Interchange_Transit |
|  | _5_13.pdf |

Please upload attachment in PDF form.

## Response: Current Daily Person Throughput

| Average Annual Daily Transit Ridership | 0 |
| :--- | :--- |
| Current Daily Person Throughput | 39650.0 |

## Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT No
volume
If checked, METC Staff will provide Forecast (2040) ADT volume
OR

Identify the approved county or city travel demand model to determine forecast (2040) ADT volume

Forecast (2040) ADT volume

The 2040 Scott County Travel Demand Model was used to determine the forecasted 2040 ADT volumne.

46700

Measure A: Connection to disadvantaged populations and projects benefits, impacts, and mitigation
1.Sub-measure: Equity Population Engagement: A successful project is one that is the result of active engagement of low-income populations, people of color, persons with disabilities, youth and the elderly. Engagement should occur prior to and during a projects development, with the intent to provide direct benefits to, or solve, an expressed transportation issue, while also limiting and mitigating any negative impacts. Describe and map the location of any low-income populations, people of color, disabled populations, youth or the elderly within a $1 / 2$ mile of the proposed project. Describe how these specific populations were engaged and provided outreach to, whether through community planning efforts, project needs identification, or during the project development process. Describe what engagement methods and tools were used and how the input is reflected in the projects purpose and need and design. Elements of quality engagement include: outreach and engagement to specific communities and populations that are likely to be directly impacted by the project; techniques to reach out to populations traditionally not involved in community engagement related to transportation projects; feedback from these populations identifying potential positive and negative elements of the proposed project through engagement, study recommendations, or plans that provide feedback from populations that may be impacted by the proposed project. If relevant, describe how NEPA or Title VI regulations will guide engagement activities.

Response:
Engagement among stakeholders has been ongoing for almost 20 years concerning this intersection. MnDOT developed concepts in the early 2000s at this time no consensus was reached with the City, residents, and businesses. The City of Jordan, knowing this intersection is the lifeline for its residents to employment, food, recreation, and schools have been leading the planning and public engagement for the intersection. In the Citys 2008 Comprehensive Plan engagement efforts, the intersection was identified as the major challenge facing the City of Jordan due to the high number of injury/fatal crashes and congestion at the intersection. In addition to City meetings, a community survey was mailed to all households. The re-engagement/visioning efforts started in late 2017. The City held small outreach meetings with residents/businesses on intersection needs leading up to an October 2018 open house on the intersection. Advertised in the newspaper, and mailers were sent out to residents, including the Valley Green (VG) manufactured home park which located under a half-mile from the intersection.

Through these engagement discussions with residents, bike/pedestrian needs, and concerns for the mobile home park arose which were never part of discussions held over the previous years. Concepts developed early 2019 extended the project limits $1 / 2$ mile and added bike/ped accommodations to VG. This change was a direct result of input received from this early engagement. An EAW was conducted and approved with a negative declaration for an EIS, and a draft Cat-Ex doc was proactively drafted and submitted to MnDOT/FHWA. This was done to review NEPA issues and explore additional issues above and beyond an EAW. Environmental justice and noise walls were reviewed as part of a Cat-Ex document. Noise walls for the VG were included as a result of the NEPA process. An open house was held in

> February 2020 to discuss the project and environmental document findings with residents. An additional open house for residents of VG at their community building was scheduled to be held on March 31 st, 2020. The open house was postponed due to COVID-19.

290 households located in VG are predominantly low-income and historically disadvantaged populations. The purpose of the open house was for additional feedback on the concept elements and a general project check-in. As part of the continued project engagement plan, additional informational boards and pop-up meetings were planned for the Jordan Library/senior housing building, Scott County Fair, and local the grocery store.
2.Sub-measure: Equity Population Benefits and Impacts: A successful project is one that has been designed to provide direct benefits to lowincome populations, people of color, persons with disabilities, youth and the elderly. All projects must mitigate potential negative benefits as required under federal law. Projects that are designed to provide benefits go beyond the mitigation requirement to proactively provide transportation benefits and solve transportation issues experienced by Equity populations.
a.Describe the projects benefits to low-income populations, people of color, children, people with disabilities, and the elderly. Benefits could relate to pedestrian and bicycle safety improvements; public health benefits; direct access improvements for residents or improved access to destinations such as jobs, school, health care or other; travel time improvements; gap closures; new transportation services or modal options, leveraging of other beneficial projects and investments; and/or community connection and cohesion improvements. Note that this is not an exhaustive list.

Response:
TH 169 is a high-speed roadway which severs the community of Jordan in half. Low-income populations of color, children, and the elderly residents live in the Valley Green (VG) manufactured home park a half-mile north of TH 169. These historically disadvantaged households currently walk or bike in the street to cross TH 169 at the at grade signal. There are no bike or pedestrian facilities from VG to the signal. TH 169 is a high-speed and high-volume highway with a high volume of commercial truck traffic and a major uninviting barrier to cross; especially for children and the elderly in VG. The signal also experiences red-light runners due to driver indecisions or inattention, as it's over 50 miles in each direction to the next signal. VG households must travel from the other side of TH 169 to access goods, services, recreation, and schools. Downtown Jordan services are also located on the southside of TH 169, where banks, postal service, pharmacies, auto sales/service, supermarkets, health clinic, library, schools, entertainment, and restaurants are located. Trails on both sides of TH 282 and CH 9 will be an added safety benefit for these populations to access the previously mentioned destinations. With no bike/pedestrian facilities, most VG adult residents rely on the automobile to safely access these destinations, if they have a vehicle. Approximately $7 \%$ of Jordan residents do not own a car. The project will provide grade separation of TH 169.

A trail is included to the VG park from the project area as a new mode choice closing the gap which will allow for residents to walk and bike for a healthier lifestyle or allow non-motorized access to schools, businesses, and services. This trail extension was added during engagement efforts, as the VG park is $1 / 2$ mile from the intersection and wasn?t previously considered during concept efforts in the early 2000s. There are no alternative

# crossings of TH 169 in the area for vehicles/bikes/peds, and thus the project will provide time savings for all City of Jordan residents. 

> Noise will be addressed by the project by providing noise walls for the VG park. With the project, this will be a quality of life improvement. Delay for the VG residents to cross TH 169 will be greatly reduced. Additional project and community benefits from services like ambulance, police, and fire protection will be more time-efficient in reaching both sides of the community.
(Limit 2,800 characters; approximately 400 words)
b. Describe any negative impacts to low-income populations, people of color, children, people with disabilities, and the elderly created by the project, along with measures that will be taken to mitigate them. Negative impacts that are not adequately mitigated can result in a reduction in points.

Below is a list of negative impacts. Note that this is not an exhaustive list.
Increased difficulty in street crossing caused by increased roadway width, increased traffic speed, wider turning radii, or other elements that negatively impact pedestrian access.
Increased noise.
Decreased pedestrian access through sidewalk removal / narrowing, placement of barriers along the walking path, increase in auto-oriented curb cuts, etc.
Project elements that are detrimental to location-based air quality by increasing stop/start activity at intersections, creating vehicle idling areas, directing an increased number of vehicles to a particular point, etc.
Increased speed and/or cut-through traffic.
Removed or diminished safe bicycle access.
Inclusion of some other barrier to access to jobs and other destinations.
Displacement of residents and businesses.
Mitigation of temporary construction/implementation impacts such as dust; noise; reduced access for travelers and to businesses; disruption of utilities; and eliminated street crossings.
Other

Response:
It's anticipated that all residents and businesses in the City of Jordan would experience a delay on TH 169 during the construction of the road improvements due to single lanes and reduced speed for construction. For the Valley Green (VG) manufactured home park, which has a high number of people of color, children, elderly, and people with disabilities, access to TH 169 will be maintained throughout construction. Residents may also experience some delay during construction due to TH 169 single-lane restrictions and lower speed in the corridor during construction. While these delays are not permanent, they are also temporary during one construction season. A major benefit of the project is that the existing delay at the at-grade signalized intersection experienced today by VG residents and others in the community will be removed with the construction of the project. During construction, it's likely to be more difficult for bike and pedestrian users to negotiate. The existing road noise that is generated by the TH 169 expressway will be mitigated by noise walls constructed through the project for the VG residents. Any noise generated from construction equipment during the project?s construction will be mitigated by only being permitted during daytime hours per the City?s noise ordinance.
(Limit 2,800 characters; approximately 400 words)
Select one:
3.Sub-measure: Bonus Points Those projects that score at least $80 \%$ of the maximum total points available through sub-measures 1 and 2 will be awarded bonus points based on the geographic location of the project. These points will be assigned as follows, based on the highestscoring geography the project contacts:
a. 25 points to projects within an Area of Concentrated Poverty with 50\% or more people of color
b. 20 points to projects within an Area of Concentrated Poverty
c. 15 points to projects within census tracts with the percent of population in poverty or population of color above the regional average percent d. 10 points for all other areas

Project is located in an Area of Concentrated Poverty where 50\%
or more of residents are people of color (ACP50):
Project located in Area of Concentrated Poverty:
Projects census tracts are above the regional average for population in poverty or population of color:

Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:
(up to $40 \%$ of maximum score )
Upload the "Socio-Economic Conditions" map used for this measure. The second map created for sub measure A1 can be uploaded on the Other Attachments Form, or can be combined with the "Socio-Economic Conditions" map into a single PDF and uploaded here.

Upload Map
1589566727995_FINAL SOCIO-ECON COMBINED.pdf

## Measure B: Part 1: Housing Performance Score

|  | Segment Length <br> (For stand-alone <br> projects, enter <br> population from <br> Regional Economy <br> map) within each <br> City/Township | Segment <br> Length/Total <br> Project Length | Score | Multiplied by <br> Segment percent |
| :---: | :---: | :---: | :---: | :---: |
| Jordan | 2.64 | 1.0 | 89.0 | 89.0 |

## Total Project Length

Total Project Length 2.64

Project length entered on the Project Information - General form.

## Housing Performance Score

Total Project Length (Miles) or Population 2.64

Total Housing Score 89.0

## Affordable Housing Scoring

## Part 2: Affordable Housing Access

Reference Access to Affordable Housing Guidance located under Regional Solicitation Resources for information on how to respond to this measure and create the map.
If text box is not showing, click Edit or "Add" in top right of page.

Most of Jordan?s affordable housing units are near the project area. Please refer to affordable housing map for location, number of units, number of bedrooms, and level of affordability as this info could not fit in a limited response. The project provides trails on both sides of TH 282/CH 9. These trails benefit all the affordable housing units by providing safe access, other than walking or biking on the busy highway. Trails on both sides allow residents to access their destinations and cross the highway when needed at a safe controlled intersection vs if the trail was on only one side, affordable housing residents would be forced to cross a busy road to access a trail.

Valley Green manufactured home park (VG) will have a direct access benefit. VG, located north of the project has 290 affordable home sites with a disadvantaged population having no bike or pedestrian access to their neighborhood today. A trail was added and project limits are extended from CH 9 to the VG park, improving alternative access. A grade separation of TH 169/TH 282 intersection, will reduce vehicle delay for residents of VG and other housing in Jordan. The grade separation will also reduce delays and improve safety for pedestrians and bikes crossing the high-speed expressway that will come from VG. In addition to the grade separation of TH 169, a grade separation of the railroad will provide a safe crossing for bikes/pedestrians and benefit the nearby VG park and Pineview by providing a safe crossing to businesses, grocery stores, schools, parks, and downtown Jordan.

Other housing nearby includes Britland Apartments, a 24 -unit low-income housing apartment complex within the project area. Schule Haus a 52-unit senior low-income apartment complex, Brentwood Court Apartments, and the soon to be completed

Upload map:

## Measure A: Infrastructure Age

Year of Original
Roadway Construction
or Most Recent
Reconstruction

| 1993.0 | 0.39 | 777.27 | 1253.661 |
| ---: | ---: | ---: | ---: |
| 1988.0 | 0.23 | 457.24 | 737.484 |
|  | $\mathbf{1}$ | $\mathbf{1 2 3 5}$ | $\mathbf{1 9 9 1}$ |

Average Construction Year
Weighted Year
1991.145

## Total Segment Length (Miles)

Total Segment Length
0.62

## Measure A: Congestion Reduction/Air Quality

| Total Peak |  |  |  |  |  | EXPLANA |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hour | Total Peak | Total Peak |  |  |  | TION of |

$$
158951544
$$

8829_169
\& 282
Interchang
e 5A
Synchro
Reports.pdf

## Vehicle Delay Reduced

| Total Peak Hour Delay Reduced | 1065820.0 |
| :--- | :--- |
| Total Peak Hour Delay Reduced | 961492.0 |

## Measure B:Roadway projects that do not include new roadway segments or railroad grade-separation elements

| Total (CO, NOX, and VOC) <br> Peak Hour Emissions <br> without the Project <br> (Kilograms): | Total (CO, NOX, and VOC) <br> Peak Hour Emissions with <br> the Project (Kilograms): | Total (CO, NOX, and VOC) <br> Peak Hour Emissions <br> Reduced by the Project <br> (Kilograms): |
| ---: | ---: | ---: |
| 52.07 | 10.19 | 41.88 |
| 52 | 10 | 42 |

## Total

Total Emissions Reduced:

Upload Synchro Report

1589567403141_169 \& 282 Interchange 5B Synchro Reports.pdf

Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

## Measure B: Roadway projects that are constructing new roadway segments, but do not

 include railroad grade-separation elements (for Roadway Expansion applications only):

Total (CO, NOX, and VOC) Peak Hour Emissions with the Project (Kilograms):

Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):

## Total Parallel Roadway

Emissions Reduced on Parallel Roadways
Upload Synchro Report
Please upload attachment in PDF form. (Save Form, then click 'Edit' in top right to upload file.)

New Roadway Portion:
Cruise speed in miles per hour with the project: ..... 0
Vehicle miles traveled with the project: ..... 0
Total delay in hours with the project: ..... 0
Total stops in vehicles per hour with the project: ..... 0
Fuel consumption in gallons: ..... 0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms): ..... 0 1,400 characters; approximately 200 words)

EXPLANATION of methodology and assumptions used:(Limit1,400 characters; approximately 200 words)
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): ..... 0.0
Measure B:Roadway projects that include railroad grade-separation elements
Cruise speed in miles per hour without the project: ..... 0
Vehicle miles traveled without the project: ..... 0
Total delay in hours without the project: ..... 0
Total stops in vehicles per hour without the project: ..... 0
Cruise speed in miles per hour with the project: ..... 0
Vehicle miles traveled with the project: ..... 0
Total delay in hours with the project: ..... 0
Total stops in vehicles per hour with the project: ..... 0
Fuel consumption in gallons (F1) ..... 0
Fuel consumption in gallons (F2) ..... 0
Fuel consumption in gallons (F3) ..... 0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): ..... 0EXPLANATION of methodology and assumptions used:(Limit1,400 characters; approximately 200 words)
Measure A: Benefit of Crash Reduction

Crash Modification Factor Used:
(Limit 700 Characters; approximately 100 words)

4 crash modification factors were applied at 3 separate locations. A crash modification factor (CMF) of 0.58 was used for converting the at-grade intersection of TH 169/TH 282 into a gradeseparated interchange, A CMF of 1.0 was assumed for removing the stop condition for thru traffic on TH 169 at the intersection with TH 282; this was applied only to rear-end crashes involving thru traffic on TH 169. A CMF of 0.55 was used for modifying the intersection of TH 282/Triangle Ln from a full access intersection to a right-in-right-out intersection. A CMF factor of 0.56 was used for converting the intersection of CSAH 9/Frontage Rd from a minor-road stop-controlled intersection to a roundabout.
-This CMF was assumed because there will no longer be intersection-related rear-end crashes involving thru traffic on 169 once the stop condition at TH 282 is removed.

Convert at-grade intersection into grade-separated interchange (CMF ID: 459)
-This CMF was chosen because it can be applied to all crash types and severity levels. This CMF was applied to all crashes at the intersection except rear end crashes involving thru traffic on TH 169.

Rationale for Crash Modification Selected:
(Limit 1400 Characters; approximately 200 words)
Project Benefit (\$) from B/C Ratio:
\$19,711,742.00
Total Fatal (K) Crashes:
0
Total Serious Injury (A) Crashes:
Total Non-Motorized Fatal and Serious Injury Crashes:
Install right-in-right-out (RIRO) operations at stopcontrolled intersections (CMF ID: 9821)
-This CMF was chosen because it is applicable to 4-6 lane divided roadways and can be applied to all crash types and severity levels.

Convert intersection with minor-road stop control to modern roundabout (CMF ID: 227)
-This CMF was chosen because it is applicable to minor-road stop-controlled intersections, it is applicable to both single and multi-lane roundabouts, and it can be applied to all crash types and severity levels.
Total Crashes: ..... 64
Total Fatal (K) Crashes Reduced by Project: ..... 0
Total Serious Injury (A) Crashes Reduced by Project: ..... 0
Total Non-Motorized Fatal and Serious Injury Crashes Reduced by Project: ..... 0
Total Crashes Reduced by Project: ..... 475
Worksheet AttachmentPlease upload attachment in PDF form.

# Roadway projects that include railroad grade-separation elements: 

Current AADT volume

Average daily trains:
Crash Risk Exposure eliminated:

0

0

01589574500764_Copy of 169282 Interchange Worksheet.pdf

1589574500764_Copy of 169282 Interchange Worksheet.pdf

Measure A: Multimodal Elements and Existing Connections

The project will provide considerable safety improvements over existing conditions for pedestrians. TH 169 is a high-speed expressway with a high volume of truck traffic severing the city of Jordan in half. Residents and businesses are located both north and south of the expressway, but crossing the expressway at the existing at grade signal is not inviting for pedestrians to use due to lack of sufficient pedestrian infrastructure and high speeds on the expressway. This at grade signal is the last signalized on TH 169 in Scott County. Congestion at the signal and running red signals by cars and trucks are a hazard for pedestrians. High-speed running of the red signal from driver indecisiveness or inattention is a major problem, as it is over 30 miles to the north and 30 miles to the south of Jordan on TH 169 until drivers experience the next signal.

The project provides a proven strategy of building grade separation of TH 169 for pedestrians with the bridge construction. TH 282/CSAH 9 will go over TH 169 and provide pedestrian accommodations on both sides of TH 282/CSAH 9 for a mile which is another proven pedestrian safety strategy. The project will also construct a grade separation of the existing Union Pacific Railroad. This pedestrian hazard will also be mitigated by the proven grade separation strategy. FHWA guidance states the benefits of improved crossings boosts the quality of life for pedestrians of all ages and abilities.

Medians will be installed on TH 282/CH 9 where the roadway is currently undivided today. These medians are another proven safety strategy proposed by this project.

This project includes a roundabout at a ramp (proven safety measure) which lowers traffic speeds and has fewer conflict points. Lower speeds and reduced conflict points with vehicles is
beneficial for the safety of pedestrians as these countermeasures have shown to decrease fatalities and increase the chance of surviving a crash. While there have been no pedestrian crashes reported in the last 5 years, there have been 5 injury bike/vehicle crashes on TH 282 in the vicinity.

Pedestrian safety countermeasures like crosswalk visibility enhancements such as lighting, signing, and marking will be installed. These proven enhancements will help drivers see pedestrians, especially during low-light times. These enhancements will improve pedestrian safety, accessibility to goods, services, cultural and recreational activities, and jobs and will improve the quality of life for the people of Jordan.

## Measure A: Multimodal Elements and Existing Connections

Response:
TH 169 severs the community of Jordan in two; residents and businesses are located on the north and south side of TH 169. Connecting the two halves are critical. This project adds 2.35 miles of new sidewalk/trail. Trails will be constructed on both sides of TH 282 and CH 9. The grade separation of TH 169 will create a safe bike/pedestrian space for crossing TH 169 expressway, a major physical barrier for the City of Jordan. The trails will allow residents on both sides of TH 169 to access businesses and services where there wasn?t access before. The trail on both sides of CH 9 will also provide a grade separation of the existing Union Pacific RR crossing on CH 9. This grade separation will be an improvement for all modes, and allow freight trains to move faster by eliminating this road crossing.

The project proposes trail connections along Syndicate Street to the Valley Green manufactured home park which has no alternative modes to access the rest of Jordan.

Sidewalk will be constructed on both sides along Triangle Lane to provide pedestrian access to businesses and a park-and-pool located within the project area. Park-and-Pool lots are TDM tools reducing the number of vehicles on the road. Completing construction of the sidewalk/bike gaps will create new connections that enable residents to walk/bike to local businesses and services in the area.

As a rural center, Jordan was excluded from RBTN planning, however, the project constructs a mile of planned regional trail along TH 282/CH9 consistent with Met Council Park Policy Plan. This alignment will become part of the RBTN as urbanization occurs. This planned trail provides a crossing of the MN River (Tier 1 Barrier) for Jordan residents.

ADA will be met and three ramp locations identified in the Scott County ADA Transition Plan will be addressed.

TransitLink provides transit service and is highly utilized by residents of Jordan, as $7 \%$ of households don?t have a vehicle and $30 \%$ of households have one vehicle. A reduction in delay and congestion in the project area will improve ontime performance and lower TransitLink operational costs. Land-to-Air, an inter-city bus service has a stop in the project area. Land-to-Air provides bus service to communities along the TH 169 corridor to MSP. This inter-city bus is funded through the Federal Inter-City Bus program (5311f) for those living in rural areas without a fixed route service.

# Transit Projects Not Requiring Construction 

If the applicant is completing a transit application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.
Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.
Check Here if Your Transit Project Does Not Require Construction

## Measure A: Risk Assessment - Construction Projects

1)Layout ( 25 Percent of Points)

Layout should include proposed geometrics and existing and proposed right-of-way boundaries.
Layout approved by the applicant and all impacted jurisdictions (i.e., cities/counties that the project goes through or agencies that maintain the roadway(s)). A PDF of the layout must be attached along with letters from each jurisdiction to receive points.

100\%
Attach Layout 1589520282350_EDITED LAYOUT.pdf
Please upload attachment in PDF form.
Layout completed but not approved by all jurisdictions. A PDF of the layout must be attached to receive points.

50\%
Attach Layout

Layout has not been started
0\%
Anticipated date or date of completion
2)Review of Section 106 Historic Resources (15 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and Yes project is not located on an identified historic bridge
$100 \%$

There are historical/archeological properties present but determination of no historic properties affected is anticipated.

100\%
Historic/archeological property impacted; determination of no adverse effect anticipated

80\%
Historic/archeological property impacted; determination of adverse effect anticipated

40\%
Unsure if there are any historic/archaeological properties in the project area.

0\%
Project is located on an identified historic bridge
3)Right-of-Way (25 Percent of Points)

Right-of-way, permanent or temporary easements either not required or all have been acquired

100\%
Right-of-way, permanent or temporary easements required, plat, legal descriptions, or official map complete

50\%

Right-of-way, permanent or temporary easements required, parcels identified

## 25\%

Right-of-way, permanent or temporary easements required, parcels not all identified

0\%
Anticipated date or date of acquisition
4)Railroad Involvement (15 Percent of Points)

No railroad involvement on project or railroad Right-of-Way agreement is executed (include signature page, if applicable)

100\%
Signature Page
Please upload attachment in PDF form.

Railroad Right-of-Way Agreement required; negotiations have
begun
Yes

50\%
Railroad Right-of-Way Agreement required; negotiations have not begun.

0\%
Anticipated date or date of executed Agreement
07/29/2022

## 5) Public Involvement (20 percent of points)

Projects that have been through a public process with residents and other interested public entities are more likely than others to be successful.
The project applicant must indicate that events and/or targeted outreach (e.g., surveys and other web-based input) were held to help identify the transportation problem, how the potential solution was selected instead of other options, and the public involvement completed to date on the project. List Dates of most recent meetings and outreach specific to this project:

Meeting with general public:

Meeting with partner agencies:
Targeted online/mail outreach:
Number of respondents:
Meetings specific to this project with the general public and partner agencies have been used to help identify the project need.

100\%
Targeted outreach to this project with the general public and partner agencies have been used to help identify the project need.

75\%
At least one meeting specific to this project with the general public has been used to help identify the project need.

50\%
At least one meeting specific to this project with key partner agencies has been used to help identify the project need.

50\%
No meeting or outreach specific to this project was conducted, but the project was identified through meetings and/or outreach related to a larger planning effort.

25\%
No outreach has led to the selection of this project.
0\%

Response (Limit 2,800 characters; approximately 400 words):
This project has been a part of extensive outreach for the last 20 years with the business community, residents, and partners agencies. Countless meetings and hours invested with partner agencies have been held over the years. Over many years, project layout iterations and discussions occurred, a consensus has finally been reached between the City of Jordan, MnDOT, and Scott County. In the early 2000s MnDOT identified a need in an IRC study/document for improvement with its countless engagement efforts. From the results of the IRC MnDOT started a design effort and proposed concepts for an interchange where consensus was never reached with the City, residents, and business in the area. A 2008 survey result sent to every household in Jordan identified the intersection as Jordan?s top priority/citizen concern. The city in the early 2010s recorded an official map that encompassed several concepts. Through City and County comprehensive plan engagement efforts the need was also identified in the respective comprehensive plans.

The City of Jordan has engaged both Scott County and MnDOT in recent efforts to address the intersection starting in 2017. FHWA was also included for PMT meetings and guidance. The outreach process that was conducted helped identify the need to extend a trail to the Valley Green Manufactured home park where this trail was not considered in the past. A number of business/resident individual meetings took place. There have been 3 public open houses, with planned for March 31, 2020. The March 2020 open house had to be postponed due to COVID-19.

An EAW process was completed for the project with a negative declaration approved. The City proactively funded a cat-ex to be drafted and submitted to MnDOT and FHWA for review and comment. Feedback was received and edits have
been made from the comments. The cat-ex looked at federal issues and went through this process ahead of receiving any federal funding which helped identify the need for noise walls where it was not considered before.

Multiple online and mail outreach efforts have been made to residents, commercial businesses, and disadvantaged populations within the project area. Project webpages have been created on the City of Jordan and Scott County official webpages to inform residents of public input opportunities and project information. The local City of Jordan library/senior building will display project informational boards for local residents to learn about the project and upcoming outreach events.

## Measure A: Cost Effectiveness

| Total Project Cost (entered in Project Cost Form): | $\$ 24,000,000.00$ |
| :--- | :--- |
| Enter Amount of the Noise Walls: | $\$ 3,200,000.00$ |
| Total Project Cost subtract the amount of the noise walls: | $\$ 20,800,000.00$ |
| Enter amount of any outside, competitive funding: | $\$ 0.00$ |
| Attach documentation of award: |  |
| Points Awarded in Previous Criteria | $\$ 0.00$ |

## Other Attachments

| File Name | Description | File Size |
| :--- | :--- | :--- |
| 169 \& 282 Interchange Collision <br> Diagrams (2016-2018).pdf <br> 169_282_9_beforephoto.pdf | Collision Diagrams | 244 KB |
| City of Jordan Support Letter.pdf | Existing Conditions | 277 KB |
| Raw Crash Data.pdf | Raw Crash Data | 401 KB |
| Scott Co US 169_Hwy 282 letter.pdf | MnDOT Support Letter | 487 KB |
| Scott County Board Resolution.pdf | Scott County Board Resolution | 549 KB |
| TH282_TH169_CSAH9_Interchange_On <br> ePageSummary_5_13.pdf | 1 Page Project Summary | 602 KB |
| Valley Green.pdf | Valley Green Open House Invite | 1.2 MB |





## Transit Connections

Roadway Expansion | Map ID: 1589376017680

Results
Transit with a Direct Connection to project:
-- NONE --
*indicates Planned Alignments
Transit Market areas: 5


Project Points • Active Stop
Project
$\square$ Project Area
For complete disclaimer of accuracy, please visit
https://giswebsite.metc.state.mn.us/gissite/notice.aspx



## PROPOSED PROJECT

NOISE WALL
VALLEY GREEN MOBILE HOME PARK
CENTRAL BUSINESS
D ISTRICT
MULTIFAMILY HOUSING

## Socio-Economic Conditions

Project census tracts are above
the regional average for population in poverty or population of color: (0 to 18 Points)

Tracts within half-mile: 8080081300

Lines

Results
Project census tracts are above 8080081300

Area of Concentrated Povertry $>50 \%$ residents of color

For complete disclaimer of accuracy, please visit
For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissite/notice.aspx


AFFORDABLE HOUSING MAP

Project
(\#) Jordan Public Schools
(11) Affordable Housing Location

| Name | Development Stage | Number of Units | Number of Bedrooms Per Unit | Level of Affordability |
| :---: | :---: | :---: | :---: | :---: |
| Pine View Townhomes | Existing | 6 | 3 (1) bedroom units | Developed using TIF and units are rent controlled |
|  |  |  | 3 (2) bedroom units |  |
| Valley Green <br> Manufactured Home Park | Existing | 290 | Models vary | Vouchers are accepted, generally more affordable units, Rent to Own option available |
| Schule Haus | Existing | 52 | 49 (1) bedroom units | Senior disabled low income housing subsidized by HUD |
|  |  |  | 3 (2) bedroom units |  |
| Brentwood Court | Existing | 50 | 3 studio | Senior housing owned by Scott County CDA and vouchers are accepted |
|  |  |  | 37 (1) bedroom units |  |
|  |  |  | 10 (2) bedroom units |  |
| Brentwood Terrace | Under Construction | 59 | 14 (2) bedroom units | Construction is expected to be completed in 2020 and vouchers will be accepted. |
|  |  |  | 37 (1) bedroom units |  |
|  |  |  | 8 studio units |  |
| Britland Apartments | Existing | 24 | 3 (1) bedroom units | Vouchers are accepted and a fair marketing plan is in place. This property is owned by the Scott County CDA. |
|  |  |  | 15 (2) bedroom units |  |
|  |  |  | 6 (3) bedroom units |  |
| Jordan Valley | Existing | 44 | 22 (1) bedroom units | Vouchers are accepted and units are income based |
| Townhomes |  |  | 22 (2) bedroom units |  |

## SECTION 5A- ANALYSSRREPORIS




| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Lane Configurations | ${ }^{7}$ | 44 | 「 | ${ }^{1}$ | 44 | 「 | ${ }^{7}$ | 中 ${ }^{\text {a }}$ |  | ${ }^{*}$ | 中 ${ }^{\text {F }}$ |  |
| Traffic Volume（vph） | 70 | 765 | 320 | 220 | 1385 | 165 | 370 | 605 | 110 | 200 | 1050 | 350 |
| Future Volume（vph） | 70 | 765 | 320 | 220 | 1385 | 165 | 370 | 605 | 110 | 200 | 1050 | 350 |
| Ideal Flow（vphpl） | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Storage Length（ft） | 300 |  | 300 | 550 |  | 350 | 150 |  | 0 | 0 |  | 0 |
| Storage Lanes | 1 |  | 1 | 1 |  | 1 | 1 |  | 0 | 1 |  | 0 |
| Taper Length（ft） | 100 |  |  | 100 |  |  | 50 |  |  | 25 |  |  |
| Satd．Flow（prot） | 1770 | 3539 | 1583 | 1770 | 3539 | 1583 | 1770 | 3458 | 0 | 1770 | 3408 | 0 |
| Flt Permitted | 0.950 |  |  | 0.950 |  |  | 0.081 |  |  | 0.206 |  |  |
| Satd．Flow（perm） | 1770 | 3539 | 1583 | 1770 | 3539 | 1583 | 151 | 3458 | 0 | 384 | 3408 | 0 |
| Right Turn on Red |  |  | Yes |  |  | Yes |  |  | Yes |  |  | Yes |
| Satd．Flow（RTOR） |  |  | 295 |  |  | 125 |  | 14 |  |  | 32 |  |
| Link Speed（mph） |  | 55 |  |  | 55 |  |  | 30 |  |  | 40 |  |
| Link Distance（ft） |  | 2217 |  |  | 1000 |  |  | 466 |  |  | 268 |  |
| Travel Time（s） |  | 27.5 |  |  | 12.4 |  |  | 10.6 |  |  | 4.6 |  |
| Peak Hour Factor | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 | 0.92 |
| Shared Lane Traffic（\％） |  |  |  |  |  |  |  |  |  |  |  |  |
| Lane Group Flow（vph） | 76 | 832 | 348 | 239 | 1505 | 179 | 402 | 778 | 0 | 217 | 1521 | 0 |
| Turn Type | Prot | NA | Perm | Prot | NA | Perm | pm＋pt | NA |  | pm＋pt | NA |  |
| Protected Phases | 5 | 2 |  | 1 | 6 |  | 3 | 8 |  | 7 | 4 |  |
| Permitted Phases |  |  | 2 |  |  | 6 | 8 |  |  | 4 |  |  |
| Detector Phase | 5 | 2 | 2 | 1 | 6 | 6 | 3 | 8 |  | 7 | 4 |  |
| Switch Phase |  |  |  |  |  |  |  |  |  |  |  |  |
| Minimum Initial（s） | 7.0 | 15.0 | 15.0 | 7.0 | 15.0 | 15.0 | 5.0 | 7.0 |  | 5.0 | 7.0 |  |
| Minimum Split（s） | 12.5 | 22.5 | 22.5 | 12.5 | 22.5 | 22.5 | 10.0 | 14.0 |  | 10.0 | 13.5 |  |
| Total Split（s） | 12.5 | 46.2 | 46.2 | 25.8 | 59.5 | 59.5 | 24.0 | 51.0 |  | 27.0 | 54.0 |  |
| Total Split（\％） | 8．3\％ | 30．8\％ | 30．8\％ | 17．2\％ | 39．7\％ | 39．7\％ | 16．0\％ | 34．0\％ |  | 18．0\％ | 36．0\％ |  |
| Yellow Time（s） | 3.0 | 6.0 | 6.0 | 3.0 | 6.0 | 6.0 | 3.0 | 4.0 |  | 3.0 | 4.0 |  |
| All－Red Time（s） | 2.5 | 1.5 | 1.5 | 2.5 | 1.5 | 1.5 | 2.0 | 3.0 |  | 2.0 | 2.5 |  |
| Lost Time Adjust（s） | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 |  |
| Total Lost Time（s） | 5.5 | 7.5 | 7.5 | 5.5 | 7.5 | 7.5 | 5.0 | 7.0 |  | 5.0 | 6.5 |  |
| Lead／Lag | Lag | Lead | Lead | Lag | Lead | Lead | Lead | Lag |  | Lead | Lag |  |
| Lead－Lag Optimize？ | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |  | Yes | Yes |  |
| Recall Mode | None | Min | Min | None | Min | Min | None | None |  | None | None |  |
| Act Effct Green（s） | 7.0 | 38.7 | 38.7 | 20.3 | 52.0 | 52.0 | 70.0 | 49.5 |  | 65.5 | 47.5 |  |
| Actuated g／C Ratio | 0.05 | 0.26 | 0.26 | 0.14 | 0.35 | 0.35 | 0.47 | 0.33 |  | 0.44 | 0.32 |  |
| v／c Ratio | 0.93 | 0.91 | 0.56 | 1.00 | 1.23 | 0.28 | 1.46 | 0.68 |  | 0.68 | 1.38 |  |
| Control Delay | 149.8 | 68.8 | 12.2 | 121.7 | 151.3 | 12.7 | 260.6 | 46.7 |  | 34.2 | 215.4 |  |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |  | 0.0 | 0.0 |  |
| Total Delay | 149.8 | 68.8 | 12.2 | 121.7 | 151.3 | 12.7 | 260.6 | 46.7 |  | 34.2 | 215.4 |  |
| LOS | F | E | B | F | F | B | F | D |  | C | F |  |
| Approach Delay |  | 58.0 |  |  | 134.8 |  |  | 119.6 |  |  | 192.8 |  |
| Approach LOS |  | E |  |  | F |  |  | F |  |  | F |  |
| Intersection Summary |  |  |  |  |  |  |  |  |  |  |  |  |
| Area Type：Other |  |  |  |  |  |  |  |  |  |  |  |  |
| Cycle Length： 150 |  |  |  |  |  |  |  |  |  |  |  |  |
| Actuated Cycle Length： 150 |  |  |  |  |  |  |  |  |  |  |  |  |
| Natural Cycle： 150 |  |  |  |  |  |  |  |  |  |  |  |  |

Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.46
Intersection Signal Delay: $132.6 \quad$ Intersection LOS: F
Intersection Capacity Utilization 125.2\% ICU Level of Service H
Analysis Period (min) 15
Splits and Phases: $\quad$ 1: TH 282/CR 9 \& TH 169






## Scheme Summary

## Control Data

## Control Data and Model Parameters

| TH 169 \& 2nd St Interchange | 2040 PHF Flow Profile (veh) |
| :--- | :--- |
| WB ramps/2nd St/Frontage Rd 2040 PM Peak | 7.5 min Time Slice |
| Rodel-Win1 | Queuing Delays (sec) |
| Right Hand Drive | Daylight conditions |
| PM Peak Hour | Peak 60/15 min Results |
| Full Geometry | Output flows: Vehicles |
| English Units (ft) | $50 \%$ Confidence Level |

## Available Data

| Entry Capacity Calibrated | No |
| :--- | :---: |
| Entry Capacity Modified | No |
| Crosswalks | No |
| Flows Factored | No |
| Approach/Exit Road Capacity Calibrated | No |
| Accidents | No |
| Accident Costs | No |
| Bypass Model | No |
| Bypass Calibration | No |
| Global Results | Yes |

## Operational Data

## Main Geometry (ft)

## Approach and Entry Geometry

| Leg | Leg Names | Approach <br> Bearing <br> (deg) | Grade <br> Separation <br> $\mathbf{G}$ | Half Width <br> $\mathbf{V}$ | Approach <br> Lanes <br> $\mathbf{n}$ | Entry <br> Width <br> $\mathbf{E}$ | Entry <br> Lanes <br> $\mathbf{n}$ | Flare <br> Length <br> $\mathbf{L}^{\prime}$ | Entry <br> Radius <br> $\mathbf{R}$ | Entry <br> Angle <br> $?$ |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2nd St SB | 0 | 0 | 24.00 | 2 | 28.00 | 2 | 131.00 | 66.00 | 30.00 |
| 2 | WB on ramp | 90 | 0 | 12.00 | 1 | 14.00 | 1 | 131.00 | 66.00 | 30.00 |
| 3 | 2nd St NB | 180 | 0 | 24.00 | 2 | 28.00 | 2 | 131.00 | 66.00 | 30.00 |
| 4 | WB off ramp | 270 | 0 | 24.00 | 2 | 28.00 | 2 | 131.00 | 66.00 | 30.00 |
| 5 | Frontage SWB | 315 | 0 | 12.00 | 1 | 14.00 | 1 | 131.00 | 66.00 | 30.00 |

## Circulating and Exit Geometry

| Leg | Leg Names | Inscribed <br> Diameter <br> D | Circulating <br> Width <br> C | Circulating <br> Lanes <br> nc | Exit <br> Width <br> Ex | Exit <br> Lanes <br> nex | Exit <br> Half Width <br> Vx | Exit Half <br> Width Lanes <br> nvx |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2nd St SB | 230.00 | 30.00 | 2 | 28.00 | 2 | 24.00 | 2 |
| 2 | WB on ramp | 230.00 | 30.00 | 2 | 14.00 | 1 | 12.00 | 1 |
| 3 | 2nd St NB | 230.00 | 15.00 | 1 | 28.00 | 2 | 24.00 | 2 |
| 4 | WB off ramp | 230.00 | 30.00 | 2 | 14.00 | 1 | 12.00 | 1 |
| 5 | Frontage SWB | 230.00 | 30.00 | 2 | 14.00 | 1 | 12.00 | 1 |

Capacity Modifiers and Capacity Calibration (veh/hr)

| Leg | Leg Names |  | Entry Capacity <br> Capacity <br> + or - |  | XWalk <br> Factor | Entry Calibration <br> Intercept <br> + or - |  | Slope <br> Factor | Approach Road <br> (ft)   Default <br> Capacity Calib <br> Capacity V <br> (ft) Exit Road <br> Default <br> Capacity Calib <br> Capacity <br> 1        2nd St SB | 0 | 1.000 |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 1.000 | 24.00 | 3584 | 0 | 24.00 | 3584 | 0 |  |  |  |  |
| 2 | WB on ramp | 0 | 1.000 | 0 | 1.000 | 24.00 | 1792 | 0 | 12.00 | 1792 | 0 |
| 3 | 2nd St NB | 0 | 1.000 | 0 | 1.000 | 24.00 | 3584 | 0 | 24.00 | 3584 | 0 |
| 4 | WB off ramp | 0 | 1.000 | 0 | 1.000 | 24.00 | 3584 | 0 | 12.00 | 1792 | 0 |
| 5 | Frontage SWB | 0 | 1.000 | 0 | 1.000 | 24.00 | 1792 | 0 | 12.00 | 1792 | 0 |

## Traffic Flow Data (veh/hr)

2040 PM Peak Peak Hour Flows

| Leg | Leg Names | U-Turn | Exit-4 | Exit-3 | Exit-2 | Exit-1 | Bypass | Trucks <br> $\%$ | Flow Modifiers <br> Flow <br> Factor | Peak Hour <br> Factor |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2nd St SB | 0 | 30 | 0 | 1075 | 350 | 0 | 5.0 | 1.00 | 0.9 |
| 2 | WB on ramp | 0 | 0 | 0 | 0 | 1 | 0 | 5.0 | 1.00 | 0.9 |
| 3 | 2nd St NB | 0 | 370 | 555 | 110 | 0 | 0 | 5.0 | 1.00 | 0.9 |
| 4 | WB off ramp | 0 | 220 | 0 | 160 | 5 | 0 | 5.0 | 1.00 | 0.9 |
| 5 | Frontage SWB | 0 | 0 | 130 | 40 | 20 | 0 | 5.0 | 1.00 | 0.9 |

## Operational Results

## 2040 PM Peak - 60 minutes

Flows and Capacity

| Leg | Leg Names | Bypass Type | Flows (veh/hr) |  |  |  |  | Capacity (veh/hr) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Arrival Flow |  | Opposing Flow |  | Exit Flow | Capacity |  | Average VCR |  |
|  |  |  | Entry | Bypass | Entry | Bypass |  | Entry | Bypass | Entry | Bypass |
| 1 | 2nd St SB | None | 1455 |  | 760 |  | 735 | 1743 |  | 0.8649 |  |
| 2 | WB on ramp | None | 1 |  | 1454 |  | 760 | 669 |  | 0.0015 |  |
| 3 | 2nd St NB | None | 1035 |  | 30 |  | 1426 | 2165 |  | 0.4847 |  |
| 4 | WB off ramp | None | 385 |  | 1065 |  | 0 | 1563 |  | 0.2510 |  |
| 5 | Frontage SWB | None | 190 |  | 1305 |  | 145 | 767 |  | 0.2533 |  |

Delays, Queues and Level of Service

| Leg | Leg Names | Bypass Type | Average Delay (sec) |  |  | 95\% Queue (veh) |  | Level of Service |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Entry | Bypass | Leg | Entry | Bypass | Entry | Bypass | Leg |
| 1 | 2nd St SB | None | 13.37 |  | 13.37 | 22.16 |  | B |  | B |
| 2 | WB on ramp | None | 0.00 |  | 0.00 | 0.00 |  | A |  | A |
| 3 | 2nd St NB | None | 4.48 |  | 4.48 | 3.99 |  | A |  | A |
| 4 | WB off ramp | None | 4.95 |  | 4.95 | 1.68 |  | A |  | A |
| 5 | Frontage SWB | None | 5.79 |  | 5.79 | 1.00 |  | A |  | A |

## 2040 PM Peak - 15 minutes

Flows and Capacity

| Leg | Leg Names | Bypass Type | Flows (veh/hr) |  |  |  |  | Capacity (veh/hr) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Arrival Flow |  | Opposing Flow |  | Exit Flow | Capacity |  | Average VCR |  |
|  |  |  | Entry | Bypass | Entry | Bypass |  | Entry | Bypass | Entry | Bypass |
| 1 | 2nd St SB | None | 1617 |  | 843 |  | 816 | 1694 |  | 0.9852 |  |
| 2 | WB on ramp | None | 1 |  | 1599 |  | 838 | 626 |  | 0.0018 |  |
| 3 | 2nd St NB | None | 1150 |  | 33 |  | 1567 | 2163 |  | 0.5368 |  |
| 4 | WB off ramp | None | 428 |  | 1181 |  | 0 | 1495 |  | 0.2892 |  |
| 5 | Frontage SWB | None | 211 |  | 1448 |  | 160 | 723 |  | 0.2955 |  |

Delays, Queues and Level of Service

| Leg | Leg Names | Bypass Type | Average Delay (sec) |  |  | 95\% Queue (veh) |  | Level of Service |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Entry | Bypass | Leg | Entry | Bypass | Entry | Bypass | Leg |
| 1 | 2nd St SB | None | 18.01 |  | 18.01 | 22.16 |  | C |  | C |
| 2 | WB on ramp | None | 0.00 |  | 0.00 | 0.00 |  | A |  | A |
| 3 | 2nd St NB | None | 4.63 |  | 4.63 | 3.99 |  | A |  | A |
| 4 | WB off ramp | None | 5.12 |  | 5.12 | 1.68 |  | A |  | A |
| 5 | Frontage SWB | None | 6.06 |  | 6.06 | 1.00 |  | A |  | A |

## Approach Flow Profile

2040 PM Peak - Approach Flows (Veh / Hour)

| Time Slice | 2nd St SB | WB on ramp | 2nd St NB | WB off ramp | Frontage SWB |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $0.0-7.5$ | 175.14 | 0.12 | 124.58 | 46.34 | 22.87 |
| $7.5-15.0$ | 175.14 | 0.12 | 124.58 | 46.34 | 22.87 |
| $15.0-22.5$ | 175.14 | 0.12 | 124.58 | 46.34 | 22.87 |
| $22.5-30.0$ | 202.08 | 0.14 | 143.75 | 53.47 | 26.39 |
| $30.0-37.5$ | 202.08 | 0.14 | 143.75 | 53.47 | 26.39 |
| $37.5-45.0$ | 175.14 | 0.12 | 124.58 | 46.34 | 22.87 |
| $45.0-52.5$ | 175.14 | 0.12 | 124.58 | 46.34 | 22.87 |
| $52.5-60.0$ | 175.14 | 0.12 | 124.58 | 46.34 | 22.87 |
| Peak 15 min | 202.08 | 0.14 | 143.75 | 53.47 | 26.39 |
| Peak 60 min | 181.88 | 0.12 | 129.38 | 48.13 | 23.75 |

## Exit Flow Profile

2040 PM Peak - Exit Flows (Veh / Hour)

| Time Slice | 2nd St SB | WB on ramp | 2nd St NB | WB off ramp | Frontage SWB |
| :--- | :---: | :---: | :---: | :---: | :---: |
| $0.0-7.5$ | 88.38 | 91.24 | 171.02 | 0.00 | 17.42 |
| $7.5-15.0$ | 88.47 | 91.46 | 171.59 | 0.00 | 17.45 |
| $15.0-22.5$ | 88.47 | 91.47 | 171.63 | 0.00 | 17.45 |
| $22.5-30.0$ | 101.82 | 104.21 | 194.21 | 0.00 | 20.00 |
| $30.0-37.5$ | 102.08 | 105.39 | 197.55 | 0.00 | 20.12 |
| $37.5-45.0$ | 88.73 | 93.03 | 176.10 | 0.00 | 17.61 |
| $45.0-52.5$ | 88.48 | 91.51 | 171.72 | 0.00 | 17.46 |
| $52.5-60.0$ | 88.47 | 760 | 171.67 | 0.00 | 17.45 |
| $0-60$ | 735 | 5.00 | 5.00 | 0 | 145 |
| $\%$ Trucks | 5.00 |  | 0.00 | 5.00 |  |

## Economics

## Economic Input Data

2040 - Vehicle Delay Parameters

| Peaks | Peak / Day | Days / Year | Delay Cost <br> (\$ /hour) |
| :---: | :---: | :---: | :---: |
| AM Peak | 1 | 325 | 15.00 |
| OFF Peak | 14 | 325 | 15.00 |
| PM Peak | 1 | 325 | 15.00 |

2040 - Accident Severity Proportions and Costs

| Accident Type | Proportion (\%) | Cost (\$) |
| :--- | :---: | :---: |
| Fatal Vehicle Accident | 0.3 | 0 |
| Incapacitating Vehicle Accident | 17.7 | 0 |
| Non-incapacitating Vehicle Accident | 82 | 0 |
| Damage Only Vehicle Accident | 100 | 0 |
| Pedestrian Injury Accident | 100 | 0 |

## Economics - Results Data

## 2040 Delay and Accident Costs

| Peak | Delay Costs <br> Delays <br> Veh.hrs | Costs <br> (\$) | Accident <br> Types | Accident Costs <br> Annual <br> Accidents | Accident <br> Costs | Total Costs <br> Cost <br> Type | Costs <br> (\$/year) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AM | 0.00 | 0 | Vehicles Injury | 0.00 | 0 | Vehicle Delay Cost | 36683 |
| OFF | 0.00 | 0 | Vehicles DO | 0.00 | 0 | Vehicle Injury Acc Cost | 0 |
| PM | 2445.53 | 36683 | Pedestrians | 0.00 | 0 | Vehicle DO Acc Cost | 0 |
|  |  |  |  |  |  | Pedestrian Accident Cost | 0 |
|  |  |  |  |  |  | Total Accident Cost | 0 |
| Total | 2445.53 | 36683 | Totals | 0.00 | 0 | TOTAL COST | 36683 |

## Global Results

## Performance and Accidents

2040 PM Peak Global Performance

| Parameter | Units | Entries | Bypasses |
| :--- | :---: | :---: | :---: |
| Arrive Flows | $\mathrm{veh} / \mathrm{hr}$ | 3066 |  |
| Capacity | $\mathrm{veh} / \mathrm{hr}$ | 6908 | 3066 |
| Average Delay | $\mathrm{sec} / \mathrm{veh}$ | 8.84 | 6908 |
| L.O.S. (Signal) | $\mathrm{A}-\mathrm{F}$ | A | 8.84 |
| L.O.S. (Unsig) | $\mathrm{A}-\mathrm{F}$ | A | A |
| Total Delay | veh.hrs | 7.52 | A |



Synchro 10 Report



## Scheme Summary

## Control Data

## Control Data and Model Parameters

| TH 169 \& 2nd St Interchange | 2040 PHF Flow Profile (veh) |
| :--- | :--- |
| 2nd St/Creek Ln 2040 PM peak hour | 7.5 min Time Slice |
| Rodel-Win1 | Queuing Delays (sec) |
| Right Hand Drive | Daylight conditions |
| PM Peak Hour | Peak 60/15 min Results |
| Full Geometry | Output flows: Vehicles |
| English Units (ft) | $50 \%$ Confidence Level |

## Available Data

| Entry Capacity Calibrated | No |
| :--- | :---: |
| Entry Capacity Modified | No |
| Crosswalks | No |
| Flows Factored | No |
| Approach/Exit Road Capacity Calibrated | No |
| Accidents | No |
| Accident Costs | No |
| Bypass Model | Yes |
| Bypass Calibration | No |
| Global Results | Yes |

## Operational Data

Main Geometry (ft)

## Approach and Entry Geometry

| Leg | Leg Names | Approach <br> Bearing <br> (deg) | Grade <br> Separation <br> $\mathbf{G}$ | Half Width <br> $\mathbf{V}$ | Approach <br> Lanes <br> $\mathbf{n}$ | Entry <br> Width <br> $\mathbf{E}$ | Entry <br> Lanes <br> $\mathbf{n}$ | Flare <br> Length <br> $\mathbf{L}^{\prime}$ | Entry <br> Radius <br> $\mathbf{R}$ | Entry <br> Angle <br> $\boldsymbol{?}$ |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2nd St SB | 0 | 0 | 24.00 | 2 | 28.00 | 2 | 164.00 | 66.00 | 30.00 |
| 2 | Creek Ln EB | 90 | 0 | 12.00 | 1 | 14.00 | 1 | 164.00 | 66.00 | 30.00 |
| 3 | 2nd St NB | 180 | 0 | 24.00 | 2 | 28.00 | 2 | 164.00 | 66.00 | 30.00 |
| 4 | Creek Ln WB | 270 | 0 | 12.00 | 1 | 14.00 | 1 | 164.00 | 66.00 | 30.00 |

Circulating and Exit Geometry

| Leg | Leg Names | Inscribed <br> Diameter <br> D | Circulating <br> Width <br> C | Circulating <br> Lanes <br> $\mathbf{n c}$ | Exit <br> Width <br> Ex | Exit <br> Lanes <br> nex | Exit <br> Half Width <br> Vx | Exit Half <br> Width Lanes <br> nvx |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2nd St SB | 164.00 | 15.00 | 1 | 28.00 | 2 | 24.00 | 2 |
| 2 | Creek Ln EB | 164.00 | 30.00 | 2 | 14.00 | 1 | 12.00 | 1 |
| 3 | 2nd St NB | 164.00 | 15.00 | 1 | 14.00 | 1 | 12.00 | 1 |
| 4 | Creek Ln WB | 164.00 | 30.00 | 2 | 14.00 | 1 | 12.00 | 1 |

Capacity Modifiers and Capacity Calibration (veh/hr)

| Leg | Leg Names | Entry Capacity |  | Entry Calibration |  | Approach Road |  |  | Exit Road |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Capacity + or - | XWalk Factor | Intercept + or - | Slope Factor | V <br> (ft) | Default Capacity | Calib Capacity | V <br> (ft) | Default Capacity | Calib Capacity |
| 1 | 2nd St SB | 0 | 1.000 | 0 | 1.000 | 24.00 | 3584 | 0 | 24.00 | 3584 | 0 |
| 2 | Creek Ln EB | 0 | 1.000 | 0 | 1.000 | 20.00 | 1792 | 0 | 12.00 | 1792 | 0 |
| 3 | 2nd St NB | 0 | 1.000 | 0 | 1.000 | 20.00 | 3584 | 0 | 12.00 | 1792 | 0 |
| 4 | Creek Ln WB | 0 | 1.000 | 0 | 1.000 | 20.00 | 1792 | 0 | 12.00 | 1792 | 0 |

## Bypass Geometry

Bypass Approach Geometry (ft)

| Leg | Leg Names | Bypass <br> Type | Bypass <br> Flows | V | nv | Vb | nvb | Vt |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2nd St SB | Yield | 410 | 24 | 2 | 12 | 1 | 24 |

Bypass Entry and Exit Geometry (ft)

| Leg | Leg Names | Eb | neb | Lb | Lt | Rb | Phib | Leg | Leg Names | Exit Lanes <br> nex |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2nd St SB | 12 | 1 | 0 | 130 | 66.00008 <br> 87 | 30 | 2 | Creek Ln EB | 1 |

Bypass Entry Capacity Modifiers and Calibration (veh/hr)

| Leg | Leg Names | Capacity <br> + or - | Entry Capacity <br> Cross Walk <br> Factor | Intercept <br> + or - | Salibration <br> Factor |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2nd St SB | 0 | 1.000 | 0 | 1.000 |

## Traffic Flow Data (veh/hr)

2040 PM Peak Peak Hour Flows

| Leg | Leg Names | U-Turn | Exit-3 | Exit-2 | Exit-1 | Bypass | Trucks <br> $\%$ | Flow Modifiers <br> Flow <br> Factor | Peak Hour <br> Factor |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 2nd St SB | 85 | 325 | 980 | 0 | 410 | 5.0 | 1.00 | 0.9 |
| 2 | Creek Ln EB | 0 | 145 | 40 | 90 | 0 | 5.0 | 1.00 | 0.9 |
| 3 | 2nd St NB | 0 | 100 | 840 | 95 | 0 | 5.0 | 1.00 | 0.9 |
| 4 | Creek Ln WB | 0 | 75 | 15 | 30 | 0 | 5.0 | 1.00 | 0.9 |

## Operational Results

## 2040 PM Peak - 60 minutes

Flows and Capacity

| Leg | Leg Names | Bypass Type | Flows (veh/hr) |  |  |  |  | Capacity (veh/hr) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Arrival Flow |  | Opposing Flow |  | Exit <br> Flow | Capacity |  | Average VCR |  |
|  |  |  | Entry | Bypass | Entry | Bypass |  | Entry | Bypass | Entry | Bypass |
| 1 | 2nd St SB | Yield | 1390 | 410 | 190 | 190 | 1100 | 2005 | 962 | 0.7075 | 0.4343 |
| 2 | Creek Ln EB | None | 275 |  | 1465 |  | 525 | 578 |  | 0.4946 |  |
| 3 | 2nd St NB | None | 1035 |  | 595 |  | 1145 | 1607 |  | 0.6576 |  |
| 4 | Creek Ln WB | None | 120 |  | 1170 |  | 460 | 683 |  | 0.1800 |  |

Delays, Queues and Level of Service

| Leg | Leg Names |  | Bypass | Average Delay (sec) |  |  | $95 \%$ Queue (veh) |  | Level of Service <br> Type |  |
| :---: | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Entry | Bypass | Leg | Entry | Bypass | Entry | Bypass | Leg |  |  |
| 1 | 2nd St SB | Yield | 7.13 | 6.44 | 6.97 | 9.31 | 2.33 | A | A | A |
| 2 | Creek Ln EB | None | 10.90 |  | 10.90 | 3.11 |  | B | B |  |
| 3 | 2nd St NB | None | 6.17 |  | 6.17 | 6.44 |  | A |  |  |
| 4 | Creek Ln WB | None | 5.97 |  | 5.97 | 0.65 | A | A |  |  |

## 2040 PM Peak - 15 minutes

Flows and Capacity

| Leg | Leg Names | Bypass Type | Flows (veh/hr) |  |  |  |  | Capacity (veh/hr) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Arrival Flow |  | Opposing Flow |  | Exit <br> Flow | Capacity |  | Average VCR |  |
|  |  |  | Entry | Bypass | Entry | Bypass |  | Entry | Bypass | Entry | Bypass |
| 1 | 2nd St SB | Yield | 1544 | 456 | 211 | 211 | 1217 | 1985 | 952 | 0.7907 | 0.4852 |
| 2 | Creek Ln EB | None | 306 |  | 1622 |  | 582 | 522 |  | 0.5996 |  |
| 3 | 2nd St NB | None | 1150 |  | 658 |  | 1267 | 1545 |  | 0.7548 |  |
| 4 | Creek Ln WB | None | 133 |  | 1295 |  | 509 | 638 |  | 0.2116 |  |

Delays, Queues and Level of Service

| Leg | Leg Names | Bypass Type | Average Delay (sec) |  |  | 95\% Queue (veh) |  | Level of Service |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Entry | Bypass | Leg | Entry | Bypass | Entry | Bypass | Leg |
| 1 | 2nd St SB | Yield | 8.10 | 6.69 | 7.78 | 9.31 | 2.33 | A | A | A |
| 2 | Creek Ln EB | None | 12.62 |  | 12.62 | 3.11 |  | B |  | B |
| 3 | 2nd St NB | None | 7.22 |  | 7.22 | 6.44 |  | A |  | A |
| 4 | Creek Ln WB | None | 6.21 |  | 6.21 | 0.65 |  | A |  | A |

2040 PM Peak
50\% Confidence Level
Daylight conditions

Project: TH 169 \& 2nd St Interchange
Scheme: 2nd St/Creek Ln 2040 PM peak hour
Rodel-Win1 - Full Geometry

## Approach Flow Profile

2040 PM Peak - Approach Flows (Veh / Hour)

| Time Slice | 2nd St SB | Creek Ln EB | 2nd St NB | Creek Ln WB |
| :--- | :---: | :---: | :---: | :---: |
| $0.0-7.5$ | 216.67 | 33.10 | 124.58 | 14.44 |
| $7.5-15.0$ | 216.67 | 33.10 | 124.58 | 14.44 |
| $15.0-22.5$ | 216.67 | 33.10 | 124.58 | 14.44 |
| $22.5-30.0$ | 250.00 | 38.19 | 143.75 | 16.67 |
| $30.0-37.5$ | 250.00 | 38.19 | 143.75 | 16.67 |
| $37.5-45.0$ | 216.67 | 33.10 | 124.58 | 14.44 |
| $45.0-52.5$ | 216.67 | 33.10 | 124.58 | 14.44 |
| $52.5-60.0$ | 216.67 | 33.10 | 143.58 | 14.44 |
| Peak 15 min | 250.00 | 38.19 | 129.38 | 16.67 |
| Peak 60 min | 225.00 | 34.38 | 15.00 |  |

## Exit Flow Profile

2040 PM Peak - Exit Flows (Veh / Hour)

| Time Slice | 2nd St SB | Creek Ln EB | 2nd St NB | Creek Ln WB |
| :--- | :---: | :---: | :---: | :---: |
| $0.0-7.5$ | 132.13 | 63.03 | 137.53 | 55.25 |
| $7.5-15.0$ | 132.39 | 63.19 | 137.81 | 55.36 |
| $15.0-22.5$ | 132.40 | 63.19 | 137.82 | 55.37 |
| $22.5-30.0$ | 151.62 | 72.61 | 157.88 | 63.41 |
| $30.0-37.5$ | 152.72 | 72.90 | 158.97 | 63.87 |
| $37.5-45.0$ | 133.58 | 63.50 | 138.97 | 55.85 |
| $45.0-52.5$ | 132.43 | 63.20 | 137.84 | 55.38 |
| $52.5-60.0$ | 132.41 | 63.20 | 137.83 | 55.37 |
| $0-60$ | 1100 | 525 | 1145 | 460 |
| $\%$ Trucks | 5.00 | 5.00 | 5.00 | 5.00 |

## Economics

## Economic Input Data

2040 - Vehicle Delay Parameters

| Peaks | Peak / Day | Days / Year | Delay Cost <br> (\$ / hour) |
| :---: | :---: | :---: | :---: |
| AM Peak | 1 | 325 | 15.00 |
| OFF Peak | 14 | 325 | 15.00 |
| PM Peak | 1 | 325 | 15.00 |

2040 - Accident Severity Proportions and Costs

| Accident Type | Proportion (\%) | Cost (\$) |
| :--- | :---: | :---: |
| Fatal Vehicle Accident | 0.3 | 0 |
| Incapacitating Vehicle Accident | 17.7 | 0 |
| Non-incapacitating Vehicle Accident | 82 | 0 |
| Damage Only Vehicle Accident | 100 | 0 |
| Pedestrian Injury Accident | 100 | 0 |

## Economics - Results Data

2040 Delay and Accident Costs

|  | Delay Costs <br> Delays <br> Veh.hrs | Costs <br> $(\$)$ | Accident <br> Types | Accident Costs <br> Annual <br> Accidents | Accident <br> Costs | Total Costs <br> Cost <br> Type | Costs <br> (\$/year) |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AM | 0.00 | 0 | Vehicles Injury | 0.00 | 0 | Vehicle Delay Cost | 30666 |
| OFF | 0.00 | 0 | Vehicles DO | 0.00 | 0 | Vehicle Injury Acc Cost | 0 |
| PM | 2044.40 | 30666 | Pedestrians | 0.00 | 0 | Vehicle DO Acc Cost | 0 |
|  |  |  |  |  |  | Pedestrian Accident Cost | 0 |
|  |  |  |  |  |  | Total Accident Cost | 0 |
| Total | 2044.40 | 30666 | Totals | 0.00 | 0 | TOTAL COST | 30666 |

## Global Results

## Performance and Accidents

2040 PM Peak Global Performance

| Parameter | Units | Entries | Bypasses | Total |
| :--- | :---: | :---: | :---: | :---: |
| Arrive Flows | $\mathrm{veh} / \mathrm{hr}$ | 2820 | 410 | 3230 |
| Capacity | $\mathrm{veh} / \mathrm{hr}$ | 4873 | 962 | 5835 |
| Average Delay | $\mathrm{sec} / \mathrm{veh}$ | 7.09 | 6.44 | 7.01 |
| L.O.S. (Signal) | $\mathrm{A}-\mathrm{F}$ | A | A | A |
| L.O.S. (Unsig) | $\mathrm{A}-\mathrm{F}$ | A | A | A |
| Total Delay | veh.hrs | 5.56 | 0.73 | 6.29 |

## SECTION 5B- ANALYSSREPORIS

8: CR 9 \& CR 57/Valley View Drive

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 2604 |
| CO Emissions $(\mathrm{kg})$ | 3.30 |
| NOx Emissions $(\mathrm{kg})$ | 0.64 |
| VOC Emissions $(\mathrm{kg})$ | 0.77 |

## 7: CR 9 \& Frontage Road

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 2485 |
| CO Emissions $(\mathrm{kg})$ | 1.51 |
| NOX Emissions $(\mathrm{kg})$ | 0.29 |
| VOC Emissions $(\mathrm{kg})$ | 0.35 |

1: TH 282/CR 9 \& TH 169

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 5610 |
| CO Emissions (kg) | 17.74 |
| NOx Emissions (kg) | 3.45 |
| VOC Emissions (kg) | 4.11 |

2: Driveway/Triangle Lane \& TH 282

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 2834 |
| CO Emissions (kg) | 2.98 |
| NOx Emissions $(\mathrm{kg})$ | 0.58 |
| VOC Emissions $(\mathrm{kg})$ | 0.69 |

3: Rademachers Driveway \& TH 282

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 2731 |
| CO Emissions (kg) | 10.77 |
| NOx Emissions $(\mathrm{kg})$ | 2.10 |
| VOC Emissions $(\mathrm{kg})$ | 2.50 |

4: Creek Lane \& TH 282

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 2901 |
| CO Emissions $(\mathrm{kg})$ | 3.51 |
| NOx Emissions $(\mathrm{kg})$ | 0.68 |
| VOC Emissions $(\mathrm{kg})$ | 0.81 |

8: CR 9 \& CR 57/Valley View Drive

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 2675 |
| CO Emissions $(\mathrm{kg})$ | 3.46 |
| NOx Emissions $(\mathrm{kg})$ | 0.67 |
| VOC Emissions $(\mathrm{kg})$ | 0.80 |

INTERSECTION SUMMARY
Site: 101 [TH 282 at TH 169]
New Site
Site Category: (None)
Roundabout

| Intersection Performance - Hourly Values |  |  |
| :---: | :---: | :---: |
| Performance Measure | Vehicles | Persons |
| Travel Speed (Average) | 16.7 mph | 16.7 mph |
| Travel Distance (Total) | 2113.6 veh-mi/h | 2536.4 pers-mi/h |
| Travel Time (Total) | 126.4 veh-h/h | 151.6 pers-h/h |
| Demand Flows (Total) | 3326 veh/h | 3991 pers/h |
| Percent Heavy Vehicles (Demand) | 3.0 \% |  |
| Degree of Saturation | 1.247 |  |
| Practical Spare Capacity | -31.8 \% |  |
| Effective Intersection Capacity | 2667 veh/h |  |
| Control Delay (Total) | 69.41 veh-h/h | 83.29 pers-h/h |
| Control Delay (Average) | 75.1 sec | 75.1 sec |
| Control Delay (Worst Lane) | 147.0 sec |  |
| Control Delay (Worst Movement) | 147.0 sec | 147.0 sec |
| Geometric Delay (Average) | 0.0 sec |  |
| Stop-Line Delay (Average) | 75.1 sec |  |
| Idling Time (Average) | 46.3 sec |  |
| Intersection Level of Service (LOS) | LOS F |  |
| 95\% Back of Queue - Vehicles (Worst Lane) | 67.2 veh |  |
| 95\% Back of Queue - Distance (Worst Lane) | 1720.2 ft |  |
| Queue Storage Ratio (Worst Lane) | 0.43 |  |
| Total Effective Stops | 6622 veh/h | 7946 pers/h |
| Effective Stop Rate | 1.99 | 1.99 |
| Proportion Queued | 0.67 | 0.67 |
| Performance Index | 326.7 | 326.7 |
| Cost (Total) | 1935.61 \$/h | 1935.61 \$/h |
| Fuel Consumption (Total) | $115.7 \mathrm{gal} / \mathrm{h}$ |  |
| Carbon Dioxide (Total) | $1036.3 \mathrm{~kg} / \mathrm{h}$ |  |
| Hydrocarbons (Total) | $0.103 \mathrm{~kg} / \mathrm{h}$ |  |
| Carbon Monoxide (Total) | $1.146 \mathrm{~kg} / \mathrm{h}$ |  |
| NOx (Total) | $1.505 \mathrm{~kg} / \mathrm{h}$ |  |

Site Level of Service (LOS) Method: Delay \& v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Intersection LOS value for Vehicles is based on average delay for all vehicle movements.
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Site Model Variability Index (Iterations 3 to N): 0.3 \%
Number of Iterations: 3 (Maximum: 10)
Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0\% 94.9\% 0.3\%

| Intersection Performance - Annual Values |  |  |
| :--- | :---: | :---: |
| Performance Measure | Vehicles | Persons |
| Demand Flows (Total) | $1,596,522 \mathrm{veh} / \mathrm{y}$ | $1,915,826 \mathrm{pers} / \mathrm{y}$ |
| Delay | $33,315 \mathrm{veh}-\mathrm{h} / \mathrm{y}$ | $39,978 \mathrm{pers}-\mathrm{h} / \mathrm{y}$ |
| Effective Stops | $3,178,324 \mathrm{veh} / \mathrm{y}$ | $3,813,989 \mathrm{pers} / \mathrm{y}$ |
| Travel Distance | $1,014,548 \mathrm{veh} \mathrm{mi} / \mathrm{y}$ | $1,217,458 \mathrm{pers} \mathrm{mi} / \mathrm{y}$ |
| Travel Time | $60,657 \mathrm{veh}-\mathrm{h} / \mathrm{y}$ | $72,788 \mathrm{pers}-\mathrm{h} / \mathrm{y}$ |
| Cost | $929,091 \$ / \mathrm{y}$ | $929,091 \mathrm{\$} / \mathrm{y}$ |


| Fuel Consumption | $55,550 \mathrm{gal} / \mathrm{y}$ |
| :--- | ---: |
| Carbon Dioxide | $497,410 \mathrm{~kg} / \mathrm{y}$ |
| Hydrocarbons | $49 \mathrm{~kg} / \mathrm{y}$ |
| Carbon Monoxide | $550 \mathrm{~kg} / \mathrm{y}$ |
| NOx | $722 \mathrm{~kg} / \mathrm{y}$ |

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## 29: TH 169 EB Off Ramp \& CR 9

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 2780 |
| CO Emissions (kg) | 1.93 |
| NOX Emissions (kg) | 0.38 |
| VOC Emissions (kg) | 0.45 |

9: TH 282 \& Triangle Ln N

| Dill |  |
| :--- | :---: |
| Duture Volume (vph) | 2870 |
| CO Emissions $(\mathrm{kg})$ | 0.54 |
| NOx Emissions $(\mathrm{kg})$ | 0.11 |
| VOC Emissions $(\mathrm{kg})$ | 0.13 |

1: Site Access \& TH 282

| Direction | All |
| :--- | ---: |
| Future Volume (vph) | 2985 |
| CO Emissions $(\mathrm{kg})$ | 0.86 |
| NOx Emissions $(\mathrm{kg})$ | 0.17 |
| VOC Emissions $(\mathrm{kg})$ | 0.20 |

INTERSECTION SUMMARY
$\theta$ Site: 101 [TH 282 at Creek Lane]
2040 PM Build
Site Category: (None)
Roundabout

| Intersection Performance - Hourly Values |  |  |
| :---: | :---: | :---: |
| Performance Measure | Vehicles | Persons |
| Travel Speed (Average) | 26.4 mph | 26.4 mph |
| Travel Distance (Total) | 2220.9 veh-mi/h | 2665.0 pers-mi/h |
| Travel Time (Total) | 84.2 veh-h/h | 101.0 pers-h/h |
| Demand Flows (Total) | 3511 veh/h | 4213 pers/h |
| Percent Heavy Vehicles (Demand) | 3.0 \% |  |
| Degree of Saturation | 0.874 |  |
| Practical Spare Capacity | -2.8\% |  |
| Effective Intersection Capacity | 4017 veh/h |  |
| Control Delay (Total) | 24.39 veh-h/h | 29.26 pers-h/h |
| Control Delay (Average) | 25.0 sec | 25.0 sec |
| Control Delay (Worst Lane) | 56.9 sec |  |
| Control Delay (Worst Movement) | 56.9 sec | 56.9 sec |
| Geometric Delay (Average) | 0.0 sec |  |
| Stop-Line Delay (Average) | 25.0 sec |  |
| Idling Time (Average) | 13.0 sec |  |
| Intersection Level of Service (LOS) | LOS D |  |
| 95\% Back of Queue - Vehicles (Worst Lane) | 29.3 veh |  |
| 95\% Back of Queue - Distance (Worst Lane) | 749.8 ft |  |
| Queue Storage Ratio (Worst Lane) | 0.19 |  |
| Total Effective Stops | $4344 \mathrm{veh} / \mathrm{h}$ | 5213 pers/h |
| Effective Stop Rate | 1.24 | 1.24 |
| Proportion Queued | 0.93 | 0.93 |
| Performance Index | 213.7 | 213.7 |
| Cost (Total) | 1313.21 \$/h | 1313.21 \$/h |
| Fuel Consumption (Total) | $105.1 \mathrm{gal} / \mathrm{h}$ |  |
| Carbon Dioxide (Total) | $941.8 \mathrm{~kg} / \mathrm{h}$ |  |
| Hydrocarbons (Total) | $0.087 \mathrm{~kg} / \mathrm{h}$ |  |
| Carbon Monoxide (Total) | $1.104 \mathrm{~kg} / \mathrm{h}$ |  |
| NOx (Total) | $1.469 \mathrm{~kg} / \mathrm{h}$ |  |

Site Level of Service (LOS) Method: Delay \& v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Intersection LOS value for Vehicles is based on average delay for all vehicle movements.
Roundabout Capacity Model: US HCM 6.
HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Site Model Variability Index (Iterations 3 to N): 0.0 \%
Number of Iterations: 3 (Maximum: 10)
Largest change in Lane Degrees of Saturation for the last three Flow-Capacity Iterations: 100.0\% 96.6\% 0.0\%

| Intersection Performance - Annual Values |  |  |
| :--- | :---: | :---: |
| Performance Measure | Vehicles | Persons |
| Demand Flows (Total) | $1,685,217 \mathrm{veh} / \mathrm{y}$ | $2,022,261 \mathrm{pers} / \mathrm{y}$ |
| Delay | $11,706 \mathrm{veh}-\mathrm{h} / \mathrm{y}$ | $14,047 \mathrm{pers}-\mathrm{h} / \mathrm{y}$ |
| Effective Stops | $2,085,198 \mathrm{veh} / \mathrm{y}$ | $2,502,238 \mathrm{pers} / \mathrm{y}$ |
| Travel Distance | $1,066,018 \mathrm{veh} \mathrm{mi} / \mathrm{y}$ | $1,279,222 \mathrm{pers} \mathrm{mi} / \mathrm{y}$ |
| Travel Time | $40,417 \mathrm{veh}-\mathrm{h} / \mathrm{y}$ | $48,501 \mathrm{pers}-\mathrm{h} / \mathrm{y}$ |
| Cost | $630,343 \$ / \mathrm{y}$ | $630,343 \mathrm{\$} / \mathrm{y}$ |


| Fuel Consumption | $50,464 \mathrm{gal} / \mathrm{y}$ |
| :--- | ---: |
| Carbon Dioxide | $452,080 \mathrm{~kg} / \mathrm{y}$ |
| Hydrocarbons | $42 \mathrm{~kg} / \mathrm{y}$ |
| Carbon Monoxide | $530 \mathrm{~kg} / \mathrm{y}$ |
| NOx | $705 \mathrm{~kg} / \mathrm{y}$ |

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## Project Cost

\$ 24,000,000.00 B/C 0.82
Project Benefit
169/282 \$ 18,355,047.54
282/Triangle Ln \$ 1,272,952.59
CSAH 9/Frontage Rd \$ 83,741.10
Total \$ 19,711,741.24
Crashes Prevented 169/282 448.2
282/Triangle Ln 13.5
CSAH 9/Frontage Rd 13.2
Total 475


Amortizing...

| Year | Crash <br> Benefits |  | Present Worth <br> Benefits | Present Worth <br> Costs |
| :---: | :--- | ---: | ---: | ---: |
| 2024 | $\$$ | 752,253 | $\$$ | 752,253 |
| 2025 | $\$ 56,015$ | $\$$ | 741,191 | $24,000,000$ |
| 2026 | $\$$ | 759,795 | $\$$ | 730,291 |

year $(n)=1,2,3, \ldots$
discount rate (i) $=7 \%$
$\underset{(@ \text { year } \mathrm{n})}{\text { Crash Benefits }}=(\text { Crash Benefits })_{\mathrm{n}-1} \quad$ X $\quad(1+$ Traffic Growth Factor $)$

Present Worth Benefits
$\left(@_{\text {year }}\right)=(\text { Crash Benefits })_{n} \quad$ X $\quad 1 /(1+\text { Discount Rate })^{\mathrm{n}}$

| Type of Crash | Crash Severity | Cost per Crash |  |
| :--- | :--- | :--- | ---: |
| Fatal | K | $\$$ | $1,140,000$ |
| Personal Injury | A Incapacitating | $\$$ | 570,000 |
|  | B Non-Incapacitating | $\$$ | 170,000 |
|  | C Possible | $\$$ | 83,000 |
|  | $\$ 1000$ |  |  |

Source: MnDOT Office of Transportation System Management (July 2015)


Amortizing...

$\operatorname{year}(n)=1,2,3, \ldots$
discount rate (i) $=7 \%$
$\underset{(@ \text { year } \mathrm{n})}{\text { Crash Benefits }}=(\text { Crash Benefits })_{\mathrm{n}-1} \quad$ X $\quad(1+$ Traffic Growth Factor $)$

Present Worth Benefits
$\left(@_{\text {year }} \mathrm{n}\right)=(\text { Crash Benefits })_{\mathrm{n}} \quad$ X $\quad 1 /\left(1+{\text { Discount Rate })^{\mathrm{n}}}^{\text {n }}\right.$

| Type of Crash | Crash Severity | Cost per Crash |  |
| :--- | :--- | :--- | ---: |
| Fatal | K | $\$$ | $1,140,000$ |
| Personal Injury | A Incapacitating | $\$$ | 570,000 |
|  | B Non-Incapacitating | $\$$ | 170,000 |
|  | C Possible | $\$$ | 83,000 |
|  | $\$ 1000$ |  |  |

Source: MnDOT Office of Transportation System Management (July 2015)


Amortizing...

| Year | $\begin{aligned} & \text { Crash } \\ & \text { Benefits } \end{aligned}$ |  | Present Worth Benefīts |  | Present Worth Costs |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2024 | \$ | 3,432 | \$ | 3,432 | \$ | 24,000,000 |
| 2025 | \$ | 3,449 | \$ | 3,382 |  |  |
| 2026 | \$ | 3,466 | \$ | 3,332 |  |  |
| 2027 | \$ | 3,484 | \$ | 3,283 |  |  |
| 2028 | \$ | 3,501 | \$ | 3,235 |  |  |
| 2029 | \$ | 3,519 | \$ | 3,187 |  |  |
| 2030 | \$ | 3,536 | \$ | 3,140 |  |  |
| 2031 | \$ | 3,554 | \$ | 3,094 |  |  |
| 2032 | \$ | 3,572 | \$ | 3,048 |  |  |
| 2033 | \$ | 3,590 | \$ | 3,004 |  |  |
| 2034 | \$ | 3,608 | \$ | 2,959 |  |  |
| 2035 | \$ | 3,626 | \$ | 2,916 |  |  |
| 2036 | \$ | 3,644 | \$ | 2,873 |  |  |
| 2037 | \$ | 3,662 | S | 2,831 |  |  |
| 2038 | \$ | 3,680 | \$ | 2,789 |  |  |
| 2039 | \$ | 3,699 | \$ | 2,748 |  |  |
| 2040 | \$ | 3,717 | \$ | 2,708 |  |  |
| 2041 | \$ | 3,736 | \$ | 2,668 |  |  |
| 2042 | \$ | 3,754 |  | 2,629 |  |  |
| 2043 | \$ | 3,773 | \$ | 2,590 |  |  |
| 2044 | \$ | 3,792 | \$ | 2,552 |  |  |
| 2045 | \$ | 3,811 | \$ | 2,514 |  |  |
| 2046 | \$ | 3,830 | \$ | 2,477 |  |  |
| 2047 | \$ | 3,849 | \$ | 2,441 |  |  |
| 2048 | \$ | 3,868 | \$ | 2,405 |  |  |
| 2049 | \$ | 3,888 | \$ | 2,370 |  |  |
| 2050 | \$ | 3,907 | \$ | 2,335 |  |  |
| 2051 | \$ | 3,927 | \$ | 2,301 |  |  |
| 2052 | \$ | 3,946 | \$ | 2,267 |  |  |
| 2053 | \$ | 3,966 | \$ | 2,233 |  |  |
| 0 | \$ | - | \$ | - |  |  |
| Totals = |  |  | \$ | $\overline{741}$ | \$ | $\begin{aligned} & 1,000,000 \\ & (\mathbf{C}) \end{aligned}$ |

$\operatorname{year}(n)=1,2,3, \ldots$
discount rate (i) $=7 \%$
$\underset{(@ \text { year } \mathrm{n})}{\text { Crash Benefits }}=(\text { Crash Benefits })_{\mathrm{n}-1} \quad$ X $\quad(1+$ Traffic Growth Factor $)$

Present Worth Benefits
$\left(@_{\text {year }} \mathrm{n}\right)=(\text { Crash Benefits })_{\mathrm{n}} \quad$ X $\quad 1 /\left(1+{\text { Discount Rate })^{\mathrm{n}}}^{\text {n }}\right.$

| Type of Crash | Crash Severity | Cost per Crash |  |
| :--- | :--- | :--- | ---: |
| Fatal | K | $\$$ | $1,140,000$ |
| Personal Injury | A Incapacitating | $\$$ | 570,000 |
|  | B Non-Incapacitating | $\$$ | 170,000 |
|  | C Possible | $\$$ | 83,000 |
|  | $\$ 1000$ |  |  |

Source: MnDOT Office of Transportation System Management (July 2015)


## Collision Diagram

Location: CSAH 9/TH 282 \& US 169
Time Period: JAN 01, 2016 to DEC 31, 2018 Date: MAR 26, 2020


## Collision Diagram

Location: TH 282 \& TRIANGLE LN
Time Period: JAN 01, 2016 to DEC 31, 2018 Date: MAR 25, 2020
Prepared By:JWR


No. of Crashes

| Fatal $=$ | 0 |
| :--- | :--- |
| A Injury $=$ | 0 |
| B Injury $=$ | 2 |
| C Injury $=$ | 0 |
| Injury Total $=$ | 2 |
| Property Damage $=$ | 1 |
| Total Crashes $=$ | 3 |

TRIANGLE LN


## Collision Diagram

Location: CSAH 9 \& FRONTAGE RD (SYNDICATE ST)
Time Period: JAN 01, 2016 to DEC 31, 2018 Date: MAR 25, 2020
Prepared By:JWR


## TH 169, TH 282, CSAH 9 Interchange Before Photo


/ Scott

May $5^{\text {th }}, 2020$

Mrs. Lisa Freese<br>Transportation Services Director<br>Scott County Transportation Services<br>600 County Trail East<br>Jordan, MN 55352

RE: Support for the 2020 Metropolitan Council Regional Solicitation: TH 169/282 and CSAH 9
Interchange Project
Dear Mrs. Freese,
I am writing to express our support for the 2020 TH 169/282 and CSAH 9 Interchange Project submitted by Scott County in partnership with the City of Jordan, and the Minnesota Department of Transportation (MnDOT).

The 2020 TH 169, TH 282, and CSAH 9 Interchange Project has been identified as the top priority for the City. The Project will remove the last signalized intersection on the U.S. 169 freight corridor for over 50 miles from southern Minnesota to the Twin Cities creating a safer and more efficient route for all corridor users. TH 169 is a vital corridor facilitating grain and agricultural commodity movements between the Ports of Savage (the upper Midwest's largest inland waterway grain facility) and other parts of the state and region utilizing U.S. 169. The project would improve the regional transportation network by reducing congestion, increasing commercial productivity, and increasing mobility. Scott County, the City of Jordan, and other project partners have invested substantial resources to develop a project concept to eliminate this signalized intersection and construct an overpass to improve mobility and safety. The City of Jordan is in agreement to maintain the local road work contained in the project as local cost share. The project partners have advanced the project into the preliminary design phase and can meet the Metropolitan Council's 2020 Regional Solicitation deadlines for project delivery.

On behalf of the City of Jordan, I am pleased to offer the support of Scott County's TH 169/282 and CSAH 9 Interchange Regional Solicitation Grant Application.


City Administrator
City of Jordan
objectid Incident ID Date and TYear Crash Seve Number Ki Number of Officer Nar Constructic County






|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | TRAVELIN |  |  |
|  |  |  |  |  | G W/B ON |  |  |
|  |  |  |  |  | 2ND AVE, |  |  |
|  |  |  |  |  | TURNING |  |  |
|  |  |  |  |  | LEFT TO |  |  |
|  |  |  |  |  | GO S/B |  |  |
|  |  |  |  |  | HWY 169 |  |  |
|  |  |  |  |  | ON A |  |  |
|  |  |  |  |  | GREEN |  |  |
|  |  |  |  |  | LIGHT. V2 |  |  |
|  |  |  |  |  | TRAVELIN |  |  |
|  |  |  |  |  | G E/B ON |  |  |
|  |  |  |  |  | QUAKER |  |  |
|  |  |  |  |  | AVE |  |  |
|  |  |  |  |  | CROSSING |  |  |
|  |  |  |  |  | HWY 169 |  |  |
|  |  |  |  |  | ON A |  |  |
|  |  |  |  |  | GREEN |  |  |
|  |  |  |  |  | LIGHT. V1 |  |  |
|  |  |  |  |  | FAILED TO |  |  |
|  |  |  |  |  | YIELD |  |  |
|  |  |  |  |  | RIGHT OF |  |  |
|  |  |  |  |  | WAY |  |  |
|  |  |  |  |  | MAKING |  |  |
|  |  |  |  |  | LEFT |  |  |
|  |  |  |  |  | TURN IN |  |  |
|  |  |  |  |  | FRONT OF |  |  |
| 2189051 | 398395 11/27/201 | 2016 | 18 Minor Inju | 0 | $2 \mathrm{~V} 2, \quad \mathrm{M}$ | Scott | Jordan |
| 2114230 | 663887 11/8/2018 | 2018 | 19 Possible In. | 0 | 3 All Veh's in M | Scott | Jordan |
| 2481583 | 658323 11/8/2018 | 2018 | 19 Property D | 0 | 2 V1 slowing M | SCOTT | Jordan |
| 2052549 | 664664 12/1/2018 | 2018 | 14 Property D | 0 | 2 V1/ Barani M | Scott | Jordan |
| 1790835 | 401964 12/10/201 | 2016 | 17 Possible In. | 0 | 2 The Ford u M | Scott | Jordan |
| 2026735 | 667839 12/12/201 | 2018 | 17 Property D | 0 | $2 \mathrm{~V} 1 /$ Lennox M | Scott | Jordan |
| 2582405 | 405848 12/18/201 | 2016 | 14 Possible In. | 0 | 2 The Impala M | Scott | Jordan |


|  |  |  |  |  | OCCURRE |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | D AT THE |  |  |
|  |  |  |  |  | INTERSEC |  |  |
|  |  |  |  |  | TION OF |  |  |
|  |  |  |  |  | HWY |  |  |
|  |  |  |  |  | 169/HWY |  |  |
|  |  |  |  |  | 282 |  |  |
|  |  |  |  |  | -DV1 WAS |  |  |
|  |  |  |  |  | MAKING |  |  |
|  |  |  |  |  | A LT |  |  |
|  |  |  |  |  | TURN |  |  |
|  |  |  |  |  | FROM CR |  |  |
|  |  |  |  |  | 9 TO GO |  |  |
|  |  |  |  |  | NB 169 |  |  |
|  |  |  |  |  | -DV2 WAS |  |  |
|  |  |  |  |  | WB 282 |  |  |
|  |  |  |  |  | CROSSING |  |  |
|  |  |  |  |  | 169 |  |  |
|  |  |  |  |  | -BOTH |  |  |
|  |  |  |  |  | DRIVERS |  |  |
|  |  |  |  |  | HAD A |  |  |
|  |  |  |  |  | GREEN |  |  |
|  |  |  |  |  | LIGHT |  |  |
|  |  |  |  |  | -VEHICLES |  |  |
|  |  |  |  |  | COLLIDE |  |  |
|  |  |  |  |  | IN THE |  |  |
|  |  |  |  |  | INTERSEC |  |  |
| 2290688 | 523634 12/8/2017 | 2017 | 17 Property D | 0 | 2 TION M | Scott | Jordan |
| 1868123 | 420388 2/1/2017, | 2017 | 16 Property D | 0 | 2 V 1 WB on 1 M | SCOTT | Jordan |
| 2162150 | 566500 2/16/2018 | 2018 | 15 Property D | 0 | 2 Driver of viM | SCOTT | Jordan |
| 2293540 | 568712 2/23/2018 | 2018 | 17 Property D | 0 | 2 Both vehic M | SCOTT | Jordan |
| 1807373 | 328838 2/7/2016, | 2016 | 15 Possible In. | 0 | 2 Vehicle on M | Scott | Jordan |



|  |  |  |  |  | - ${ }^{\text {, }}$, |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | VEHICLES |  |  |
|  |  |  |  |  | S/B ON |  |  |
|  |  |  |  |  | HWY 169 |  |  |
|  |  |  |  |  | IN THE |  |  |
|  |  |  |  |  | LEFT |  |  |
|  |  |  |  |  | LANE. |  |  |
|  |  |  |  |  | TRAFFIC |  |  |
|  |  |  |  |  | STOPPED |  |  |
|  |  |  |  |  | FOR RED |  |  |
|  |  |  |  |  | LIGHT. |  |  |
|  |  |  |  |  | LIGHT |  |  |
|  |  |  |  |  | TURNED |  |  |
|  |  |  |  |  | GREEN, |  |  |
|  |  |  |  |  | V1 REAR |  |  |
|  |  |  |  |  | ENDED |  |  |
|  |  |  |  |  | V2. SLOW |  |  |
|  |  |  |  |  | SPEED |  |  |
|  |  |  |  |  | IMPACT, |  |  |
|  |  |  |  |  | MINOR |  |  |
|  |  |  |  |  | DAMAGE |  |  |
|  |  |  |  |  | TO BOTH |  |  |
|  |  |  |  |  | VEHICLES. |  |  |
|  |  |  |  |  | D1 |  |  |
|  |  |  |  |  | STATED |  |  |
|  |  |  |  |  | THAT |  |  |
|  |  |  |  |  | TRAFFIC |  |  |
| 1952619 | 335095 3/11/2016 | 2016 | 18 Possible In. | 0 | 2 STARTED M | Scott | Jordan |
| 2184431 | 430393 3/19/2017 | 2017 | 19 Minor Inju | 0 | 3 Unit 3 was M | SCOTT | Jordan |
| 1914274 | 431876 3/27/2017 | 2017 | 13 Property D | 0 | 2 Both vehic M | SCOTT | Jordan |
| 2582829 | 588822 4/1/2018, | 2018 | 19 Property D | 0 | 2 V 1 stopper M | Scott | Jordan |




|  |  |  |  |  | uc..' |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | DRIVERS |  |  |
|  |  |  |  |  | REPORTE |  |  |
|  |  |  |  |  | D |  |  |
|  |  |  |  |  | TRAVELIN |  |  |
|  |  |  |  |  | G NORTH |  |  |
|  |  |  |  |  | ON 169 |  |  |
|  |  |  |  |  | AND |  |  |
|  |  |  |  |  | BEING |  |  |
|  |  |  |  |  | STOPPED |  |  |
|  |  |  |  |  | FOR THE |  |  |
|  |  |  |  |  | LIGHT AT |  |  |
|  |  |  |  |  | 282 IN |  |  |
|  |  |  |  |  | JORDAN. |  |  |
|  |  |  |  |  | WHEN |  |  |
|  |  |  |  |  | THE |  |  |
|  |  |  |  |  | LIGHT |  |  |
|  |  |  |  |  | TURNED |  |  |
|  |  |  |  |  | GREEN |  |  |
|  |  |  |  |  | BOTH |  |  |
|  |  |  |  |  | CARS |  |  |
|  |  |  |  |  | STARTED. |  |  |
|  |  |  |  |  | THE |  |  |
|  |  |  |  |  | DRIVER |  |  |
|  |  |  |  |  | OF THE |  |  |
|  |  |  |  |  | HYUNDAI |  |  |
|  |  |  |  |  | REPORTE |  |  |
|  |  |  |  |  | D BEING |  |  |
| 2215810 | 594921 5/3/2018, | 2018 | 7 Property D | 0 | 2 REAR M | Scott | Jordan |
| 1856050 | 456082 5/31/2017 | 2017 | 18 Property D | 0 | $2 \mathrm{~V} 1 / \mathrm{Korba}$, M | Scott | Jordan |
| 1796793 | 355826 6/10/2016 | 2016 | 12 Minor Inju | 0 | 2 Unit 1 was M | SCOTT | Jordan |
| 2455571 | 604902 6/17/2018 | 2018 | 11 Possible In. | 0 | $3 \mathrm{~V} 1 /$ Beyak ıM | Scott | Jordan |
| 1798209 | 606103 6/22/2018 | 2018 | 8 Property D | 0 | 1 Unit one tr M | Scott | Jordan |






|  |  |  |  |  | - $\quad$.', |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | VEHICLES |  |  |
|  |  |  |  |  | WERE ON |  |  |
|  |  |  |  |  | 169NB AT |  |  |
|  |  |  |  |  | THE 282 |  |  |
|  |  |  |  |  | INTERSEC |  |  |
|  |  |  |  |  | TION. V2 |  |  |
|  |  |  |  |  | WAS |  |  |
|  |  |  |  |  | STOPPED |  |  |
|  |  |  |  |  | AT THE |  |  |
|  |  |  |  |  | RED |  |  |
|  |  |  |  |  | LIGHT |  |  |
|  |  |  |  |  | WAITING |  |  |
|  |  |  |  |  | FOR IT. |  |  |
|  |  |  |  |  | D1 SAID |  |  |
|  |  |  |  |  | HE GOT |  |  |
|  |  |  |  |  | BLINDED |  |  |
|  |  |  |  |  | BY THE |  |  |
|  |  |  |  |  | SUNRISE |  |  |
|  |  |  |  |  | AND DID |  |  |
|  |  |  |  |  | NOT SEE |  |  |
|  |  |  |  |  | V2 |  |  |
|  |  |  |  |  | STOPPED |  |  |
|  |  |  |  |  | IN FRONT |  |  |
|  |  |  |  |  | OF HIM. |  |  |
|  |  |  |  |  | V1 REAR |  |  |
|  |  |  |  |  | ENDED V2 |  |  |
|  |  |  |  |  | VERY |  |  |
| 1777710 | 476044 7/8/2017, | 2017 | 6 Property D | 0 | 2 HARD M | Scott | Jordan |
| 2094084 | 476295 7/9/2017, | 2017 | 13 Property D | 0 | 2 Officer res\|M | SCOTT | Jordan |
| 2212695 | 371528 8/14/2016 | 2016 | 21 Property D | 0 | 2 Both vehic M | SCOTT | Jordan |
| 2108028 | 499010 8/18/2017 | 2017 | 18 Property D | 0 | 2 Vehicle twiM | Scott | Jordan |


|  |  |  |  |  | のレー－ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | VEHICLES |  |  |
|  |  |  |  |  | TRAVELIN |  |  |
|  |  |  |  |  | G IN LEFT |  |  |
|  |  |  |  |  | LANE OF |  |  |
|  |  |  |  |  | N／B HWY |  |  |
|  |  |  |  |  | 169 AT |  |  |
|  |  |  |  |  | HWY 282. |  |  |
|  |  |  |  |  | V2，V3 |  |  |
|  |  |  |  |  | AND V4 |  |  |
|  |  |  |  |  | WERE |  |  |
|  |  |  |  |  | STOPPED |  |  |
|  |  |  |  |  | FOR RED |  |  |
|  |  |  |  |  | LIGHT AT |  |  |
|  |  |  |  |  | INTERSEC |  |  |
|  |  |  |  |  | TION．V1 |  |  |
|  |  |  |  |  | DID NOT |  |  |
|  |  |  |  |  | STOP， |  |  |
|  |  |  |  |  | CRASHIN |  |  |
|  |  |  |  |  | G INTO |  |  |
|  |  |  |  |  | THE BACK |  |  |
|  |  |  |  |  | OF V2， |  |  |
|  |  |  |  |  | PUSHING |  |  |
|  |  |  |  |  | V2 INTO |  |  |
|  |  |  |  |  | V3 AND |  |  |
|  |  |  |  |  | THEN V3 |  |  |
|  |  |  |  |  | INTO V4． |  |  |
| 2505966 | 496504 8／24／2017 | 2017 | 16 Possible In． | 0 | 4 D1 M | Scott | Jordan |
| 2112877 | 630460 8／26／2018 | 2018 | 16 Possible In． | 0 | 4 The crash（M | Scott | Jordan |
| 2048313 | 375976 8／28／2016 | 2016 | 22 Property D | 0 | 2 The vehicle M | Scott | Jordan |
| 2481340 | 626051 8／6／2018， | 2018 | 9 Possible In． | 0 | 3 V 1 and V3 M | Scott | Jordan |





|  |  |  |  |  | - ${ }^{\text {- }}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | VEHI |  |  |  |
|  |  |  |  |  | TURN |  |  |  |
|  |  |  |  |  | FROM |  |  |  |
|  |  |  |  |  | W/B |  |  |  |
|  |  |  |  |  | 282 |  |  |  |
|  |  |  |  |  | S/B |  |  |  |
|  |  |  |  |  | 169. |  |  |  |
|  |  |  |  |  | CRAS |  |  |  |
|  |  |  |  |  | INTO |  |  |  |
|  |  |  |  |  | DRIV |  |  |  |
|  |  |  |  |  | SIDE |  |  |  |
|  |  |  |  |  | V2 W |  |  |  |
|  |  |  |  |  | TURN |  |  |  |
|  |  |  |  |  | V1 T |  |  |  |
|  |  |  |  |  | LEFT |  |  |  |
|  |  |  |  |  | SCEN |  |  |  |
|  |  |  |  |  | DID |  |  |  |
|  |  |  |  |  | PROV |  |  |  |
|  |  |  |  |  | INSU |  |  |  |
|  |  |  |  |  | CE |  |  |  |
|  |  |  |  |  | INFO |  |  |  |
|  |  |  |  |  | TION |  |  |  |
|  |  |  |  |  | D2 |  |  |  |
|  |  |  |  |  | STAT |  |  |  |
|  |  |  |  |  | SHE |  |  |  |
|  |  |  |  |  | TURN |  |  |  |
| 2362799 | 507487 9/22/2017 | 2017 | 15 Property D | 0 | 1 AND | M | Scott | Jordan |



U.S. Trunk 02000000 97.91345 USTH 169 South
U.S. Trunk 02000000 97.90637 USTH 169

Front to $\mathrm{R} \in$ Motor Veh On Roadwi Dark (Stre $\epsilon$ None
Angle Motor Veh On Roadwi Daylight None
U.S. Trunk 02000000( 97.89684 USTH 169 Not Applicable U.S. Trunk 02000000( 97.94166 USTH 169 . North
U.S. Trunk 02000000( 97.91283 USTH 169 South

Angle Motor Veh On Roadw: Daylight None Front to $R \in$ Motor Veh On Roadwi Daylight None Front to $R \in$ Motor Veh On Roadwi Daylight None
U.S. Trunk 02000000( 97.94491 USTH 169 South U.S. Trunk 02000000( 97.92546 USTH 169 South U.S. Trunk 02000000( 97.91046 USTH 169 South U.S. Trunk 02000000C 97.90405 USTH 169 North U.S. Trunk 02000000C 97.92459 USTH 169 North

Front to $R \in$ Motor Veh On Roadw: Dark (Stre $\in$ None Front to Rє Motor Veh On Roadwi Dark (Streє None Front to $R \in$ Motor Veh On Roadwi Daylight None Front to $R \in$ Motor Veh On Roadwi Dark (Stre $\epsilon$ None Front to R $\in$ Motor Veh On Roadwi Daylight None

County Sta 04000065〔 0.012748 QUAKER A' West U.S. Trunk 02000000 ( 97.86294 USTH 169 North U.S. Trunk 02000000( 97.89967 USTH 169 North U.S. Trunk 02000000C 97.89819 USTH 169 North U.S. Trunk 02000000C 97.8762 USTH 169 North U.S. Trunk 02000000( 98.13044 USTH 169 East U.S. Trunk 02000000 97.90809 USTH 169 South

Front to Fr Motor Veh On Roadw; Dark (Stre $\epsilon$ None
Front to Rє Motor Veh On Roadw; Dark (Stre $\in$ Road Surface Condition (wet, icy, Front to Rє Motor Veh On Roadw; Dark (Stre $\in$ Road Surface Condition (wet, icy, Angle Motor Veh On Roadw: Daylight Road Surface Condition (wet, icy, Front to Re Motor Veh On Roadwi Dark (No S Road Surface Condition (wet, icy, Angle Motor Veh On Roadw; Dark (Stre $\epsilon$ None
Front to Rє Motor Veh On Roadw: Daylight Road Surface Condition (wet, icy,
U.S. Trunk 02000000( 98.08353 USTH 169 Not Applicable Municipal !05000239! 0.000869 SYNDICATE West County Sta 04000065〔 0.014445 QUAKER A' East County Sta 04000065〔 0.021388 QUAKER A' Not Applici USTH 169 U.S. Trunk 02000000( 97.89929 USTH 169 South

Angle
Motor Veh On Roadwi Dark (Stre $\in$ None Angle Motor Veh On Roadwi Daylight None Front to Fr Motor Veh On Roadw; Daylight None Front to R $\in$ Motor Veh On Roadw: Daylight None Front to $R \in$ Motor Veh On Roadw; Daylight None
U.S. Trunk 02000000( 97.91212 USTH 169 Not Applicable Municipal!05000239 0.004041 SYNDICATE West

Angle Motor Veh On Roadw: Dark (Stre $\in$ None
Front to Rє Motor Veh On Roadwi Daylight Congestion Backup Other
U.S. Trunk 02000000( 97.92051 USTH 169 South U.S. Trunk 02000000( 97.8913 USTH 169 North U.S. Trunk 02000000( 97.89532 USTH 169 North U.S. Trunk 02000000( 98.0323 USTH 169 North

Front to $R \in$ Motor Veh On Roadw; Daylight None
Front to $R \in$ Motor Veh On Roadwi Daylight None
Front to $R \in$ Motor Veh On Roadw; Daylight None
Front to $R \in$ Motor Veh On Roadw; Dark (Stre $\epsilon$ None
U.S. Trunk 02000000( 97.86855 USTH 169 North U.S. Trunk 02000000( 97.93134 USTH 169 South U.S. Trunk 02000000( 97.90333 USTH 169 South

## Front to R $\in$ Motor Veh On Roadwi Daylight None

Front to R $\in$ Motor Veh On Roadwi Daylight None
Angle Motor Veh On Roadwi Daylight None
U.S. Trunk 02000000( 97.91708 USTH 169 / MNTH 282
U.S. Trunk 02000000( 97.90836 USTH 169 West

Angle Motor Veh On Roadw: Daylight None Front to R $\in$ Motor Veh On Roadwi Daylight None
U.S. Trunk 02000000( 97.86648 USTH 169 North State Trunl 03000000 ( 0.081433 2ND ST NV South Municipal!05000239! 3E-08 TRIANGLE Not Applicable U.S. Trunk 02000000( 97.9129 USTH 169 North U.S. Trunk 02000000C 97.92056 NB USTH 1 North

| Front to R $\in$ Motor Veh On Roadwi Daylight | None |  |
| :--- | :--- | :--- |
| Front to Fr Motor Veh On Roadwi Daylight | None |  |
| Angle | Motor Veh On Roadwi Daylight | Congestion Backup Ot None |
| Angle | Motor Veh On Roadwi Daylight | None |
|  | Overturn/F On Roadwi Daylight | None |

Front to Fr Motor Veh On Roadw; Daylight None
Angle Motor Veh On Roadwi Daylight Motor Veh On Roadw: Daylight Overturn/F On Roadw; Daylight
U.S. Trunk 02000000( 97.86721 USTH 169 North U.S. Trunk 02000000( 97.83038 NB 169 /JS North U.S. Trunk 02000000( 97.90045 USTH 169 South U.S. Trunk 02000000( 97.92246 USTH 169 / HWY 282

Front to $R \in$ Motor Veh On Roadwi Daylight None
Front to $R \in$ Motor Veh On Roadwi Daylight None
Front to $R \in$ Motor Veh On Roadwi Daylight None
Angle Motor Veh On Roadwi Daylight None
U.S. Trunk 02000000( 97.88513 USTH 169 North U.S. Trunk 02000000C 97.92192 USTH 169
U.S. Trunk 02000000( 97.88611 USTH 169 North
U.S. Trunk 02000000( 97.79797 USTH 169 I North

Front to $R \in$ Motor Veh On Roadwi Daylight None
Front to $R \in$ Motor Veh On Roadwi Daylight None
Front to $R \in$ Motor Veh On Roadw; Dark (Stre $\epsilon$ None Front to $R \in$ Motor Veh On Roadwi Daylight None
U.S. Trunk 02000000( 97.84141 N/B USTH North U.S. Trunk 02000000 ( 97.87113 USTH 169 North U.S. Trunk 02000000( 97.914 USTH 169 South U.S. Trunk 02000000( 97.88172 USTH 169 North

Front to $R \in$ Motor Veh On Roadwi Daylight None
Front to $R \in$ Motor Veh On Roadwi Daylight None
Front to R $\in$ Motor Veh On Roadwi Dark (Stre $\in$ None Front to $R \in$ Motor Veh On Roadw; Daylight None

County Sta 04000065〔0.003431 QUAKER A' South State Trunl 03000000 ( 0.078003 2ND ST NV Not Applicable U.S. Trunk 02000000( 97.85444 USTH 169 North

Front to $R \in$ Motor Veh On Roadw: Daylight
Angle Motor Veh On Roadwi Daylight
Other
None
Front to R $\in$ Motor Veh On Roadwi Daylight None

Yellow light

| Dry | 2 |
| :--- | :--- |
| Dry | 2 |

NOT APPLICABLE
NOT APPLICABLE

Motor Veh Sport Utilit Southboun Motor Veh Passenger Northboun

| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Pickup | Eastbound |
| :--- | :--- | :--- | :--- | :--- | ---: |
| Not at Inte No Control Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Pickup Northboun |  |
| Intersectio Traffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport UtilitSouthboun |  |

Four-Way ITraffic Con Snow Four-Way ITraffic Con Clear Four-Way ITraffic Con Clear Four-Way ITraffic Con Clear Four-Way ITraffic Con Clear

| Dry | 2 |
| :--- | :--- |
| Dry | 2 |
| Dry | 2 |
| Dry | 2 |
| Dry | 2 |

NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE

Motor Veh Passenger Southboun Motor Veh Passenger Southboun Motor Veh Pickup Southboun Motor Veh Passenger Northboun Motor Veh Sport Utilit Northboun

| Four-Way ITraffic Con Rain |  | Wet | 2 |
| :---: | :---: | :---: | :---: |
| snow, slusl Four-Way ITraffic Con Snow |  | Ice/Frost | 2 |
| snow, slusl Not at Inte No Control Snow | Sleet, Hail | Ice/Frost | 2 |
| snow, slusl Four-Way ITraffic ConSnow |  | Snow | 2 |
| snow, slusl Intersectio Traffic Con Cloudy | Snow | Snow | 2 |
| Four-Way ITraffic Con Cloudy |  | Dry | 2 |
| snow, slusl Four-Way ITraffic Con Clear |  | Ice/Frost | 2 |

Four-Way ITraffic Con Rain snow, slusl Four-Way ITraffic Con Snow Four-Way ITraffic Con Cloudy snow, slusl Four-Way ITraffic Con Clear

Wet

## Sleet, Hail Ice/Frost


SnowIce/Frost2

Motor Veh Passenger Westboun Motor Veh Medium / Northboun Motor Veh Pickup Northbour Motor Veh Sport Utilit Northboun Motor Veh Sport Utilit Northbour Motor Veh Sport Utilit Eastbound Motor Veh Passenger Southboun

Four-Way ITraffic Con Cloudy Intersectio Stop Sign Clear Four-Way ITraffic Con Clear Four-Way ITraffic Con Clear Not at Inte No Control Cloudy

| Dry | 2 |
| :--- | :--- |
| Dry | 2 |
| Dry | 2 |
| Dry | 2 |
| Dry | 2 |

NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE NOT APPLICABLE

Motor Veh Passenger Northboun Motor Veh Passenger Westboun Motor Veh Passenger Northbour Motor Veh Sport Utilit Southboun Motor Veh Passenger Southboun

Motor Veh Passenger Northboun Motor Veh Passenger Westbounı

| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Southboun |
| :--- | :--- | :--- | :--- | :--- |
| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Northboun |
| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Northboun |
| Intersectio Traffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Northboun |


| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Northboun |
| :--- | :--- | :--- | :--- | :--- |
| Five-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Southboun |
| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Pickup Westbounı |

Four-Way ITraffic Con Cloudy
Four-Way ITraffic Con Clear

Dry

Motor Veh Passenger Westboun Motor Veh Passenger Westbounı

| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Northboun |
| :--- | :--- | :--- | :--- | :--- |
| Four-Way IStop Sign Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Northboun |
| T Intersect Stop Sign Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Westbounı |
| Four-Way ITraffic Con Cloudy | Dry | 1 Transition Lane Closu No | Motor Veh Pickup Northboun |  |
| Intersectio Traffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Medium / Northboun |


| Four-Way ITraffic Con Cloudy | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Northboun |
| :--- | :--- | :--- | :--- | :--- |
| Not at Inte No Control Cloudy | Dry | 2 | NOT APPLICABLE | Motor Veh Pickup Northboun |
| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Southboun |
| Four-Way ITraffic Con Clear | Dry | 1 Transition Lane Closu No | Motor Veh Sport Utilit Eastbound |  |


| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Northboun |
| :--- | :--- | :--- | :--- | :--- |
| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Southboun |
| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Pickup Northboun |
| Not at Inte No Control Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Northboun |


| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Northboun |
| :--- | :--- | :--- | :--- | :--- |
| Intersectio No Control Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Northboun |
| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Pickup Southboun |
| Intersectio Traffic Con Cloudy | Dry | 1 Terminatic Lane Shift/ No | Motor Veh Passenger Northboun |  |


| Four-Way ITraffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Passenger Southboun |
| :--- | :--- | :--- | :--- | :--- |
| Four-Way IStop Sign Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Eastbound |
| Intersectio Traffic Con Clear | Dry | 2 | NOT APPLICABLE | Motor Veh Sport Utilit Westbounı |

Operated Motor Vehir Motor Veh Moving Fo Two-Way, 55 Straight Level
No Clear Contributing Motor Veh Turning Le Two-Way, Divided, MıStraight Level

## Possible In Apparently

No Appare Apparently

64 Male
62 Male

No Clear Contributing Motor Veh Moving Fo Two-Way, Divided, Ur Straight Leve
No Clear Contributing Motor VehSlowing Two-Way, 55 Straight Level
No Clear Contributing Motor Veh Vehicle Stc Two-Way,

55 Straight Level

No Appare Apparently
No Appare Apparently
No Appare Apparently

57 Male
64 Male
39 Female

Operated Motor Vehir Motor Veh Slowing Two-Way, Following Too Closely Motor Veh Moving Fo Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way, No Clear Contributing Motor Veh Moving Fo Two-Way, Not Dividec Straight Level

60 Straight Level
55 Straight Level
65 Straight Level
60 Straight Level

No Appare Apparently
No Appare Apparently
Possible In Apparently
No Appare Apparently
No Appare Apparently

62 Male
21 Female
65 Male
44 Male
20 Male

Failure to Yield Right-c Motor Veh Turning Le Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way, No Clear Contributing Motor Veh Slowing Two-Way, Failed to Keep in Prop Motor Veh Turning Rig Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way, No Clear Contributing Motor Veh Moving Fo Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way,

| 45 Straight | Level |
| :--- | :--- |
| 60 Straight | Level |
| 55 Straight | Level |
| 60 Straight | Level |
| 55 Straight | Level |
| 35 Straight | Level |
| 55 Straight | Level |

No Appare Apparently
No Appare Apparently
No Appare Apparently
No Appare Apparently
Possible In Apparently
No Appare Apparently
No Appare Apparently

21 Male
62 Male
29 Male
34 Female
21 Female
17 Female
28 Male

Failure to Yield Right-of-Way Turning Le Two-Way, Failure to Yield Right-c Motor Veh Moving Fo Two-Way, Failure to Yield Right-c Motor Veh Turning Le Other No Clear Contributing Motor Veh Moving Fo Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way,

| 55 Straight | Level |
| :--- | :--- |
| 30 Straight | Level |
| 60 Straight | Level |
| 40 Straight | Level |
| 55 Straight | Level |

No Appare Apparently No Appare Other
No Appare Apparently 16 Male
No Appare Apparently
No Appare Apparently

32 Female
28 Male
16 Male
23 Male
41 Male

Failure to Yield Right-of-Way Turning Le Two-Way, Other Contributing Ac Motor Veh Moving Fo Two-Way,

55 Straight Level
30 Straight Level

Suspected Apparently
No Appare Apparently

36 Female
40 Female

Following Too Closely Motor Veh Moving Fo Two-Way, Operated I Following ${ }^{-}$Motor Veh Moving Fo Two-Way, Following - No Clear Ci Motor Veh Moving Fo Two-Way, Divided, No Clear Contributing Motor Veh Vehicle Stc Two-Way,

55 Straight Level
55 Straight Level
Level
60 Straight Level

No Appare Apparently
No Appare Has Been [
No Appare Apparently
No Appare Apparently

34 Female
33 Male
34 Male
33 Male

Other Contributing Ac Motor Veh Moving Fo Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way, Failure to Yield Right-of-Way

Turning Le Two-Way

55 Straight Level
60 Straight Level
30 Straight Level

No Appare Apparently
No Appare Apparently
No Appare Apparently

32 Male
41 Female
70 Male

Failure to Yield Right-c Motor Veh Turning Le Two-Way, Other Contributing Ac Motor Veh Turning Le Two-Way,

30 Straight Level
60 Straight Level

No Appare Apparently
No Appare Apparently

57 Female
32 Female

Following ${ }^{-}$Failure to \Motor Veh Moving Fo Two-Way, No Clear Contributing Motor Veh Moving Fo Two-Way, Failure to Yield Right-c Motor Veh Turning Le Two-Way, No Clear Contributing Motor Veh Moving Fo Two-Way, Other Contributing Ac Overturn/F Turning Le Two-Way,

60 Straight Level
30 Straight Level
30 Straight Level
45 Straight Downhill
60 Straight Level

No Appare Apparently
No Appare Apparently
No Appare Apparently
No Appare Apparently
No Appare Apparently

27 Female
61 Male
26 Male
39 Female
52 Male

No Clear Contributing Motor Veh Moving Fo Two-Way, Following Too Closely Motor Veh Moving Fo Two-Way, Following ` Operated 1 Motor Veh Moving Fo Two-Way, Failure to Yield Right-c Motor Veh Turning Le Two-Way,

65 Straight Level
55 Straight Level
55 Straight Level
40 Straight Level

No Appare Apparently
No Appare Apparently
No Appare Has Been [
Possible In Apparently

22 Female
24 Male
40 Male
33 Female

Operated Motor Vehicle in Carelє Moving Fo Two-Way,
No Clear Contributing Motor Veh Moving Fo Two-Way, Divided No Clear Contributing Motor Veh Vehicle Stc Two-Way, Driver Distracted

Motor Veh Moving Fo Two-Way,

65 Straight Level
, MıStraight Level
55 Straight Level
55 Straight Level

No Appare Apparently
18 Male
No Appare Apparently
No Appare Apparently
No Appare Apparently

51 Male
32 Male
23 Female

Operated Motor Vehiı Motor Veh Moving Fo Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way, No Clear Contributing Motor Veh Slowing Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way,

55 Straight Level
60 Straight Level
55 Straight Level
60 Straight Level

No Appare Apparently
Possible In Apparently
No Appare Unknown
Possible In Apparently

22 Female
35 Female
22 Male
54 Male

No Clear Contributing Motor Veh Slowing Two-Way, Unknown Overturn/f Moving Fo Two-Way, No Clear Contributing Motor Veh Vehicle Stc Two-Way,

55 Straight Level
30 Straight Level
55 Straight Level

No Appare Apparently
No Appare Apparently
Suspected Apparently

20 Female
56 Male
44 Male

Unit2 Type Unit2 Vehi Unit2 Direr Unit2 Factı Unit2 Factı Unit2 Mos Unit2 Vehi Unit2 Nonı Unit2 Injur Unit2 Phys Unit2 Age Unit2 Sex Unit3 Type

Motor Veh Passenger Southboun Failure to INo Clear C1 Motor Veh Turning Left
Motor Veh Passenger Northbour Following Too Closely Motor Veh Moving Forward
Hit-And-Ru Passenger Southbound
Motor Veh Moving Forward

No Appare Apparently
No Appare Apparently

25 Male
46 Female

Motor Veh Pickup Southboun Following ` Failure to \Motor Veh Moving Forward Motor Veh Sport Utilit Southboun No Clear Contributing Motor Veh Moving Forward Motor Veh Sport Utilit Southboun Other Contributing Ac Motor Veh Moving Forward Hit-And-Ru Passenger Northbound

Motor Vehicle In Transport

No Appare Apparently No Appare Apparently No Appare Apparently

No Appare Apparently

23 Male 48 Female 42 Female

19 Male


Motor Veh Sport Utilit Northbour No Clear Contributing Motor Veh Moving Forward Motor Veh Passenger Northbour No Clear Contributing Motor Veh Moving Forward Motor Veh Sport Utilit Westbounı No Clear Contributing Motor Veh Moving Forward Motor Veh Passenger Southboun No Clear Contributing Motor Veh Vehicle Stopped or St; No Appare Apparently Motor Veh Passenger Southboun Following Too Closely

51 Female
57 Female
74 Female
20 Male
21 Male

Motor Veh Sport Utilit Northbour No Clear Contributing Motor Veh Moving Forward Motor Veh Sport Utilit Westbounı No Clear Contributing Motor Veh Moving Forward

61 Male 44 Female

Motor Veh Passenger Southboun No Clear Contributing Motor Veh Vehicle Stopped or St: Possible In Apparently Motor Veh Passenger Northbour No Clear Contributing Motor Veh Vehicle Stopped or St: Suspected Apparently Motor Veh Sport Utilit Northbour No Clear Contributing Motor Veh Moving Forward Motor Veh Passenger Northbour Driver Distracted

Motor Veh Moving Forward

58 Female
49 Female
46 Male
30 Female

Motor Veh

Motor Veh Sport Utilit Northbour No Clear Contributing Motor Veh Slowing Hit-And-Run Vehicle o Southbound

Motor Veh Moving Forward
Motor Veh Sport Utilit Westbounı No Clear Contributing Motor Veh Moving Forward

36 Male

35 Male

Motor Veh Passenger Northbour No Clear Contributing Motor Veh Moving Forward Motor Veh Passenger Southboun Failure to Yield Right-ı Motor Veh Turning Left Motor Veh Passenger Southboun No Clear Contributing Motor Veh Turning Left Motor Veh Sport Utilit Eastbound Ran Red Lį Failure to IMotor Veh Turning Left

No Appare Apparently No Appare Apparently Suspected Apparently Possible In Apparently

49 Female
40 Male
34 Female
80 Male

[^0]Motor Veh Passenger Northbour No Clear Contributing Motor Veh Vehicle Stopped or St: Possible In Apparently Motor Veh Sport Utilit Northbour No Clear Contributing Motor Veh Vehicle Stopped or St: No Appare Apparently Motor Veh Passenger Southboun Following Too Closely Motor Veh Moving Forward No Appare Unknown Motor Veh Passenger Northbour No Clear Contributing Motor Veh Vehicle Stopped or St; No Appare Apparently

Motor Veh
Motor Veh

Motor Veh

Motor Veh Passenger Southboun Operated I No Clear C Motor Veh Slowing
Motor Veh Passenger Northbour Unknown
Motor Veh Moving Forward
Motor Veh Passenger Westbounı Driver Dist Following ` Motor Veh Moving Forward

No Appare Apparently
Suspected Apparently
No Appare Apparently

25 Male
67 Female
39 Male

Passenger Northboun No Clear Contributing Motor Veh Vehicle Stopped or St; No Appare Apparently Passenger Northboun No Clear Contributing Motor Veh Vehicle Stopped or Sti Possible In Apparently

Sport Utilit Northboun Driver Distracted Motor Veh Moving Forward No Appare Apparently

19 Male 57 Male

Motor Veh Passenger
Motor Veh Pickup

42 Female

USTH 169 AND 2ND S
USTH 169 AND 2ND S

2ND ST AN MN282@」
2ND ST AND TRIANGL USTH 169 ,US169@Jo

|  | US169@Jo |
| ---: | ---: |
| Northbour No Clear Contributing Motor Veh Vehicle Stopped or St: No Appare Apparently | 42 Male |
| US169@Jo |  |
| US169@Jo |  |

## USTH 169 , US169@Jo

US169@Jo

| 449303.6 | 4946576 | 449303.6 | 4946576 |
| :--- | :--- | :--- | :--- |
| 449246.5 | 4946529 | 449246.5 | 4946529 |
| 449301.2 | 4946552 | 449301.2 | 4946552 |
| 449299.4 | 4946551 | 449299.4 | 4946551 |
| 449290.9 | 4946540 | 449290.9 | 4946540 |
| 449635.9 | 4946716 | 449635.9 | 4946716 |
| 449320.6 | 4946582 | 449320.6 | 4946582 |


| 449585.1 | 4946699 | 449585.1 | 4946699 |
| ---: | ---: | ---: | ---: |
| 449273.8 | 4946631 | 449273.8 | 4946631 |
| 449303 | 4946579 | 449303 | 4946579 |
| 449296.1 | 4946588 | 449296.1 | 4946588 |
| 449305.7 | 4946580 | 449305.7 | 4946580 |


| 449250.7 | 4946534 | 449250.7 | 4946534 |
| ---: | ---: | ---: | ---: |
| 449401 | 4946468 | 449401 | 4946468 |
| 449397.5 | 4946471 | 449397.5 | 4946471 |
| 449320.6 | 4946561 | 449320.6 | 4946561 |
| 449331.1 | 4946568 | 449331.1 | 4946568 |

MnDOT Metro District<br>1500 West County Road B-2<br>Roseville, MN 55113

May 12, 2020
Monika Mlynarska
Transportation Planner
Scott County

## Re: MnDOT Letter for Scott County Metropolitan Council/Transportation Advisory Board 2020 Regional Solicitation Funding Request for US 169/ Hwy 282/ CR 9 Interchange in Jordan

Dear Monika Mlynarska,

This letter documents MnDOT Metro District's recognition for Scott County to pursue funding for the Metropolitan Council/Transportation Advisory Board's (TAB) 2020 Regional Solicitation for the construction of US 169/ Hwy 282/ CR 9 Interchange in Jordan.

As proposed, this project impacts MnDOT right-of-way on US 169 and Hwy 282. As the agency with jurisdiction over these highways, MnDOT will allow Scott County to seek improvements proposed in the application for the US 169/Hwy 282/ CR 9 Interchange in Jordan. If funded, details of any future maintenance agreement with Scott County will need to be determined during project development to define how the improvements will be maintained for the project's useful life.

There is no funding from MnDOT currently planned or programmed for this project. Due to expected loss of future state and federal transportation revenues as a result of the COVID-19 pandemic, there is likely to be significant disruptions to the current MnDOT construction program that will surface in the next year. MnDOT does not anticipate partnering on local projects beyond current agreements.

In addition, the Metro District currently does not anticipate any significant discretionary funding in state fiscal years 2024 or 2025 that could fund project construction, nor do we have the resources to assist with MnDOT services such as the design or construction engineering of the project. If your project receives funding, continue to work with MnDOT Area staff to coordinate project development and to periodically review needs and opportunities for cooperation.

MnDOT Metro District looks forward to continued cooperation with Scott County as this project moves forward and as we work together to improve safety and travel options within the Metro Area.

If you have questions or require additional information at this time, please reach out to Mark Lindeberg, South Area Manager, at mark.lindeberg@state.mn.us or 651-234-7729.

Sincerely,

> Michael Michael Barnes
Date: 2020.05.12
> Barnes 16:47:42-05'00'

Michael Barnes, PE
Metro District Engineer

## CC: Mark Lindeberg, Metro District South Area Manager <br> Molly McCartney, Metro Program Director <br> Dan Erickson, Metro State Aid Engineer

| Date: | May 5, 2020 |
| ---: | :--- |
| Resolution No.: | $2020-083$ |
| Motion by Commissioner: | Wolf |
| Seconded by Commissioner: | Weckman Brekke |

## RESOLUTION NO. 2020-083; AUTHORIZING SUBMITTAL OF TRANSPORTATION PROJECTS TO THE TRANSPORTATION ADVISORY BOARD FOR CONSIDERATION IN THE 2020 REGIONAL SOLICITATION PROCESS

WHEREAS, the Transportation Advisory Board (TAB) is requesting project submittal s for federal funding under the Surface Transportation Block Grant Program (STBGP), the Transportation Alternatives Program (TAP), and the Congestion Mitigation and Air Quality Program (CMAQ); and

WHEREAS, funding is available in the 2023-2024 federal fiscal years; and
WHEREAS, funding provides up to 80 percent of project construction costs; and
WHEREAS, this federal funding of projects reduces the burden on local taxpayers for regional improvements; and

WHEREAS, Scott County has identified projects that improve the safety and transportation system of the region; and

WHEREAS, the projects are also consistent with the Scott County Transportation Plan and Scott County Parks Plan; and

WHEREAS, the Scott County Board of Commissioners desires to submit and support these projects: 1. Trunk Highway (TH) 282, County State Aid Highway 9, and TH 169 Interchange 2. 169 Overpass south of $166^{\text {th }}$ Street (on behalf of Sand Creek Township) 3. Merriam Junction Trail.

NOW, THEREFORE BE IT RESOLVED, that the Scott County Board of Commissioners hereby supports the submittal of the above-named projects to the Transportation Advisory Board for consideration in the 2020 Regional Solicitation Process.

| COMMISSIONERS | VOTE |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Weckman Brake | 「 Yes | $\Gamma$ No | $\Gamma$ Absent | $\Gamma$ Abstain |
| Wolf |  | Yes | $\Gamma$ No | $\Gamma$ Absent |
| Abstain |  |  |  |  |
| Beard |  | Yes | $\Gamma$ No | $\Gamma$ Absent |
| Beer |  | Abstain |  |  |
| Ulrich | Yes | $\Gamma$ No | $\Gamma$ Absent | $\Gamma$ Abstain |

[^1]

## TH169, TH282, and CSAH 9 Interchange

## Applicant: Scott County Counties where project is located: Scott Location: City of Jordan <br> Requested award amount: \$10,000,000 <br> Total project cost: \$24,000,000



PROJECT LOCATION MAP

## Project Description

This project is a collaboration between Scott County, the City of Jordan, and the Minnesota Department of Transportation to improve connectivity; reduce delay, congestion, and emissions; and make safer multimodal connections in the southwest Twin Cities region. The project includes a new interchange in the community of Joran, Minnesota which utilizes a design that adapts to the needs of local and regional stakeholders while improving freight operations in this critical freight corridor. Ultimately, the new interchange will make the area safer for all modes and is supported by local businesses, residents, and agencies.

## Benefits

- The Jordan Interchange alone reduces freight truck, and commuter delay by 657 hours daily; especially with a projected $40 \%$ increase in vehicles passing through per day by 2040.
- Create a multi-modal crossing through increasing automobile, bicycle, and pedestrian safety through two gradeseparations.
- Decrease crash rates through two grade-separation.
- Decrease delay for freight utilizing the US 169 corridor and freight entering the corridor from the City of Jordan and Sand Creek Township.
- Expedite agricultural and rural business shipping as $22 \%$ of all traffic is freight truck traffic.



## صDEPARTMENT OF TRANSPORTATION

2 JORDAN

## Dear Resident:

The City of Jordan, along with project partners Scott County and MnDOT, have been studying the intersection of TH169/TH282/CR9. Preliminary design plans and an environmental review document have been developed for the intersection.

We will be hosting an open house in your neighborhood for an opportunity to review the design and provide feedback. County and City staff will be available to discuss the design and answer any questions that you may have. There will be no formal presentation. The intersection improvements are not funded so there is no schedule for construction.

> TH169/TH282/CR9 Intersection Design Valley Green Neighborhood Open House

Tuesday, March 31, 2020
4:00 pm-6:00 pm
Valley Green Community Room 300 Valley Green Park
Jordan, MN 55352

More project information can be found on the City's project webpage: https://clients.bolton-menk.com/jordanengineering/us169-hwy282-cr9interchange/


Estimado Residente:

La Ciudad de Jordan, junto con los socios de proyecto, Condado Scott y MnDOT, han estado estudiando la intersección de TH169/TH282/CR9. Se han desarrollado para la intersección los planos de diseño preliminar y un documento de revisión ambiental.

Estaremos organizando un open house en su vecindario para dar la oportunidad de revisar el diseño y escuchar comentarios. El personal del Condado y la Ciudad estarán disponibles para hablar del diseño y contestar cualquier pregunta que pudieran tener. No habrá presentación formal. Las mejoras para la intersección no son financiadas por lo que no hay fecha programada para la construcción.

## Diseño de la Intersección TH169/TH282/CR9 <br> Open House del Vecindario de Valley Green

Martes, 31 de marzo, 2020 4:00 pm-6:00 pm

Salón Comunitario de Valley Green 300 Valley Green Park<br>Jordan, MN 55352

Por más información sobre el proyecto puede localizarse en la página web del proyecto de la ciudad: https://clients.bolton-menk.com/jordanengineering/us169-hwy282-cr9interchange/
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[^0]:    Motor Veh Pickup Northbour No Clear Contributing Action Vehicle Stopped or St: No Appare Apparently Motor Veh Passenger Southboun No Clear Contributing Motor Veh Vehicle Stopped or St: No Appare Has Been 7

[^1]:    State of Minnesota)
    County of Scott )
    I, Lezlie A. Vermilion, duly appointed qualified County Administrator for the County of Scott, State of Minnesota, do hereby certify that I have compared the foregoing copy of a resolution with the original minutes of the proceedings of the Board of County Commissioners, Scott County, Minnesota, at their session held on the $5^{\text {th }}$ day of May, 2020 now on file in my office, and have found the same to be a true and correct copy thereof. Witness my hand and official seal at Shakopee, Minnesota, this 5th day of May, 2020.

