

## Carver County 212 INFRA Grant Application

### BASIC PROJECT INFORMATION

What is the project name?	US 212 Rural Freight Mobility and Safety Project
Who is the project sponsor?	Carver County
Was an INFRA application for this project submitted previously?	Yes (US 212 Rural Freight Mobility and Safety Project)

### PROJECT COSTS

INFRA Request Amount	\$19,000,000
Estimated Federal funding (excluding INFRA), anticipated to be used in INFRA funded future project	\$3,500,000
Estimated non-Federal funding anticipated to be used in INFRA funded future project	\$15,961,940
Future Eligible Project Cost (sum of previous three rows)	\$38,461,940
Previously incurred project costs (if applicable)	\$524,000
Total project cost (sum of 'previous incurred' and 'future eligible')	\$38,985,940
Are matching funds restricted to a specific project component? If so, which one?	No

### PROJECT ELIGIBILITY

Approximately how much of the estimated future eligible project costs will be spent on components of the project currently located on the National Highway Freight Network (NHFN)?	100%
Approximately how much of the estimated future eligible project costs will be spent on components of the project currently located on the National Highway System (NHS)?	100%
Approximately how much of the estimated future eligible project costs will be spent on components constituting railway-highway grade crossing or grade separation projects?	0%
Approximately how much of the estimated future eligible project costs will be spent on components constituting intermodal or freight rail projects, or freight projects within the boundaries of a public or private freight rail, water (including ports), or intermodal facility?	NA

### PROJECT LOCATION

State in which project is located	Minnesota
Small or large project	Small
Urbanized Area in which project is located, if applicable	NA
Population of Urbanized Area (according to 2010 Census)	NA
Is the project located (entirely or partially) in Federally designated community development zones?	No

Is the project currently programmed in the:

- TIP
- STIP
- MPO Long Range Transportation Plan
- State Long Range Transportation Plan
- State Freight Plan

- Consistent with Highway Safety Improvement Projects in the [MN TIP](#) directly west and east of the project location
- Identified in the [Metropolitan Council 2040 Transportation Policy Plan](#)
- Included in the [Carver County Transportation Tax Plan](#)
- Identified in the [Carver County 2040 Comprehensive Plan](#)
- Project identified as Critical Rural Freight Corridor in [Minnesota Statewide Freight System and Investment Plan](#)
- Identified in [Carver County's County Roadway Safety Plan \(2013\)](#)

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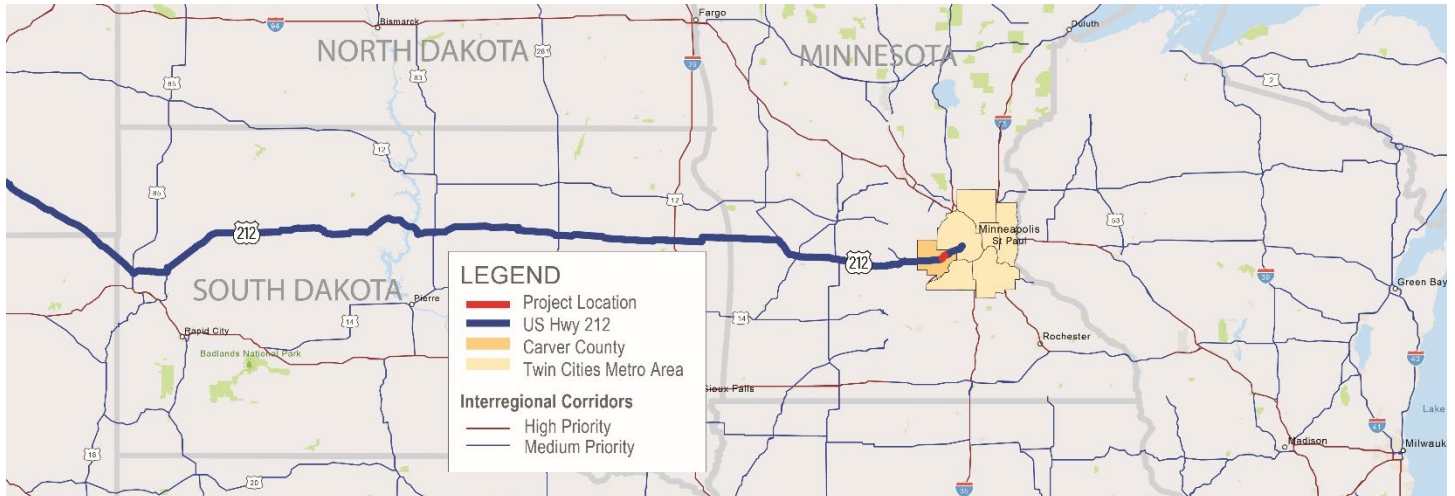
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# PROJECT DESCRIPTION

The US 212 Rural Freight Mobility and Safety Project will expand 3.3 miles of US Highway (US) 212, an existing Principal Arterial roadway, from a rural two-lane undivided highway to a [four-lane divided expressway from County State Aid Highway \(CSAH\) 51 to CSAH 36 and construct Reduced Conflict Intersections \(RCIs\) and a grade-separated quadrant interchange](#). This Project will improve the rural transportation system and freight travel by reconstructing the 90-year-old roadway, adding capacity to address high crash rates, and reconfiguring intersections to address unsafe conditions. **These improvements will vastly improve freight efficiency, improve rural safety, and strengthen rural access to economic opportunities.**

**Figure 1. Project Location in Regional Context**



*US 212 is a vital connection for freight transportation and rural access to education, healthcare, and employment.*



US 212 is identified by the Minnesota Department of Transportation (MnDOT) as a **Critical Rural Freight Corridor** in the [Minnesota Statewide Freight System and Investment Plan \(2018\)](#) through the project area. The roadway provides essential freight connection for over 22,000 square miles of Southwest Minnesota that does not have access to the Minneapolis/St. Paul Metropolitan Area (Twin Cities) using the Interstate Highway System. The roadway has 1,300 heavy commercial annual average daily traffic (HCAADT) and moves large amounts of freight from Minnesota, South Dakota, Wyoming, and Montana. This Project will improve freight mobility and connectivity for freight haulers who utilize the roadway, the over 65 major freight generators who are located along the entirety of US 212 in Minnesota, and most dramatically for the 12 freight generators located immediately adjacent to the project area. As part of the [US Highway 212 Corridor Study](#), 16 major freight generators were interviewed, and all supported the Project. US 212 was identified by every business interviewed as key to receiving inputs to production and shipping manufactured goods to the market.

Expansion of US 212 will directly benefit rural Minnesotans, freight haulers, local and regional businesses, the surrounding environment, commuters, and the local economy. Expanding the roadway will relieve congestion and reduce idling, creating a cost

savings for commuters and freight vehicles, reducing negative impacts on the environment, and improving travel time reliability. Reconstruction of the roadway, improved intersection geometry and decreased delays benefit freight haulers, the regional economy, and local businesses. As freight is less likely to be damaged due to poor pavement, drivers will have more reliable delivery schedules, and vehicles will experience improved safety at intersections, the efficiency and use of US 212 by regional businesses will increase.

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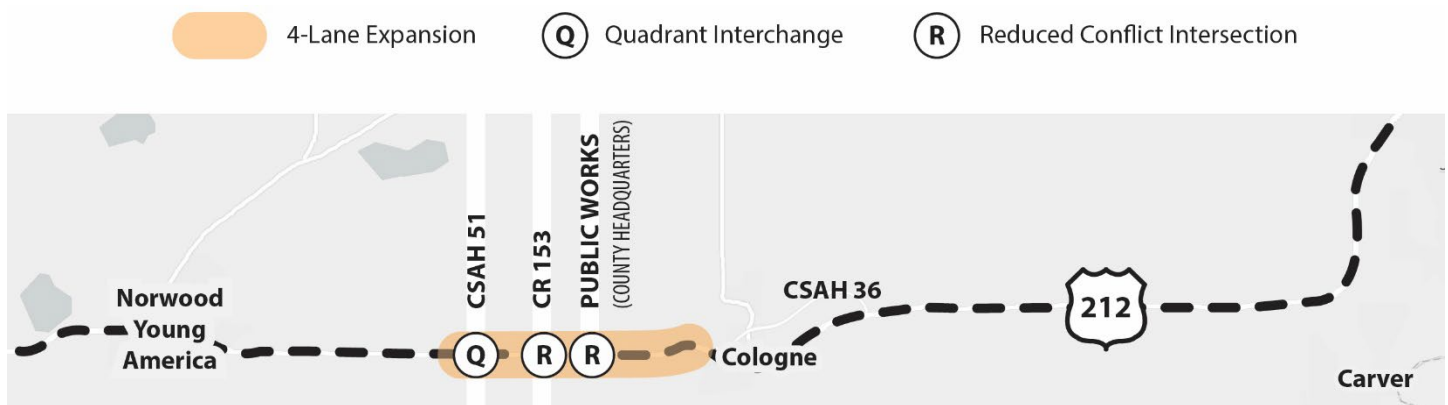
*This Project benefits rural Minnesotans, freight haulers, local businesses, and the regional economy.*

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## PROPOSED IMPROVEMENTS

The existing Project corridor is a two-lane undivided rural roadway with narrow lanes, narrow shoulders, limited turn lanes, poor roadbed condition, and unsafe intersections. Intersection safety and delay issues are further illustrated [in this video](#). These inadequacies create bottlenecks in the interstate freight supply chain and perpetuate safety issues, which lead to truck travel time delay and reliability uncertainty. Between the Twin Cities and Cologne, US 212 is a continuous four-lane roadway. **This Project will continue the four-lane divided expressway and is a critical piece in completing the two-lane gap.**

**Figure 2. Proposed Project Elements**



Proposed Project improvements will focus on safety, reliability, and efficiency for the local rural community as well as regional freight traffic. According to MnDOT crash data (2020), 20 percent of all crashes within the project area involve medium to heavy freight trucks, and other freight-related vehicles. The proposed improvements, specifically installation of RCIs, a quadrant interchange, wider shoulders, and medians between travel lanes, will reduce overall crash frequency at the intersections along US 212 by up to 78 percent and the frequency of severe (fatal and serious injury) crashes by 100 percent.<sup>1</sup>

The existing US 212 roadway between CSAH 51 and CSAH 36 is currently at capacity<sup>2</sup> and is identified as a future Congested Principal Arterial in the Metropolitan Council's 2040 Regional Travel Demand Model. The Metropolitan Council expects Carver County to grow by over 60 percent by 2040, leading to further congestion and travel time concerns. It is likely that industrial and manufacturing land uses will continue to locate near the corridor, further increasing freight traffic on US 212. Reconstruction of this segment of roadway is key to ensuring freight facilities and transporters have a safe and efficient connection between rural and urban Minnesota communities.

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<sup>1</sup> [Impact of RCIs on Crash Reduction](#)

<sup>2</sup> [Based on analysis completed for Carver County's US 212 Project](#)

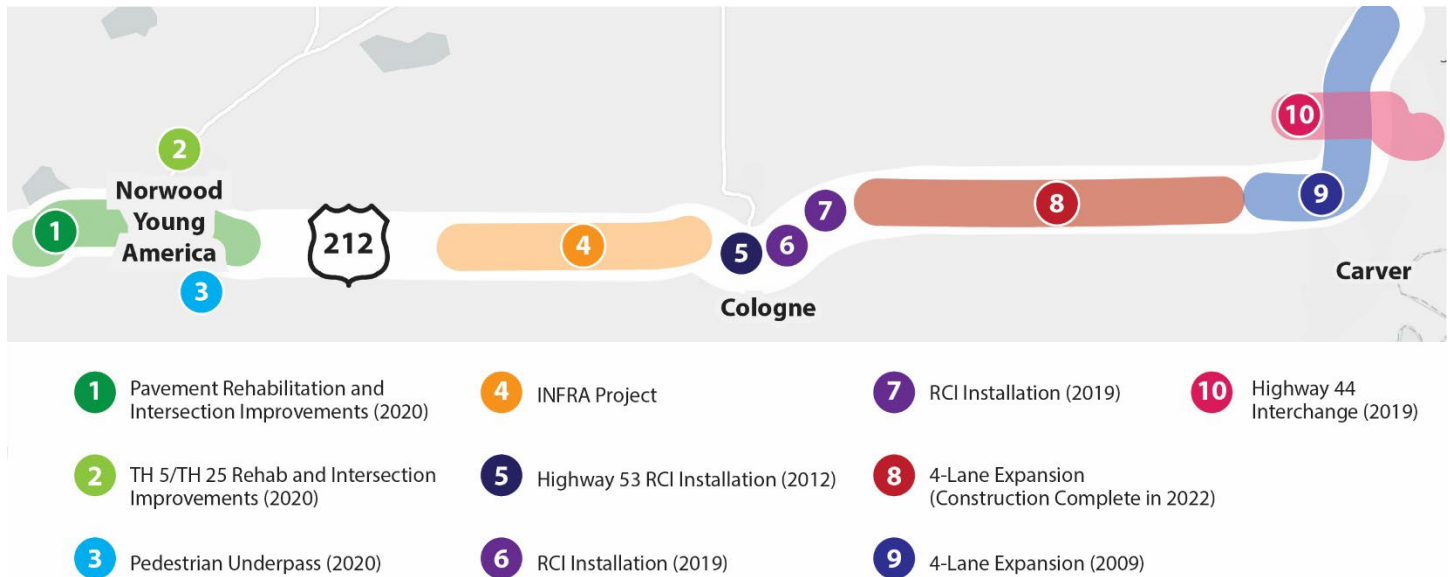
The US 212 Rural Freight Mobility and Safety Project will expand US 212 between CSAH 51 and CSAH 36 from two to four lanes, install RCIs at two key intersections, and construct a grade-separated quadrant interchange at CSAH 51.

## PROJECT HISTORY

MnDOT and Carver County have partnered to develop a vision for the corridor and implement mobility and safety improvements on US 212. The County in partnership with MnDOT, local communities, businesses, elected officials and interested citizens completed the US Highway 212 Corridor Study in 2013 which identified a long-term vision and short-term safety improvements for the corridor. This study identified expansion of the remaining two-lane, undivided sections of US 212 as a critical priority in achieving a seamless freight corridor.

The County and its partners have made several critical investments in the corridor to improve safety and mobility. In 2009, MnDOT upgraded a portion of US 212 from a two-lane highway to a four-lane limited access highway from the eastern terminus of the corridor to the City of Eden Prairie. The expansion of US 212 between CSAH 36 (east of Cologne) and CSAH 11 (Jonathan Carver Parkway) – immediately to the east of this Project – has been fully funded and is anticipated to be completed in October 2022. **If this Project receives INFRA funding, it will remove most of the remaining two-lane gap along the corridor.**

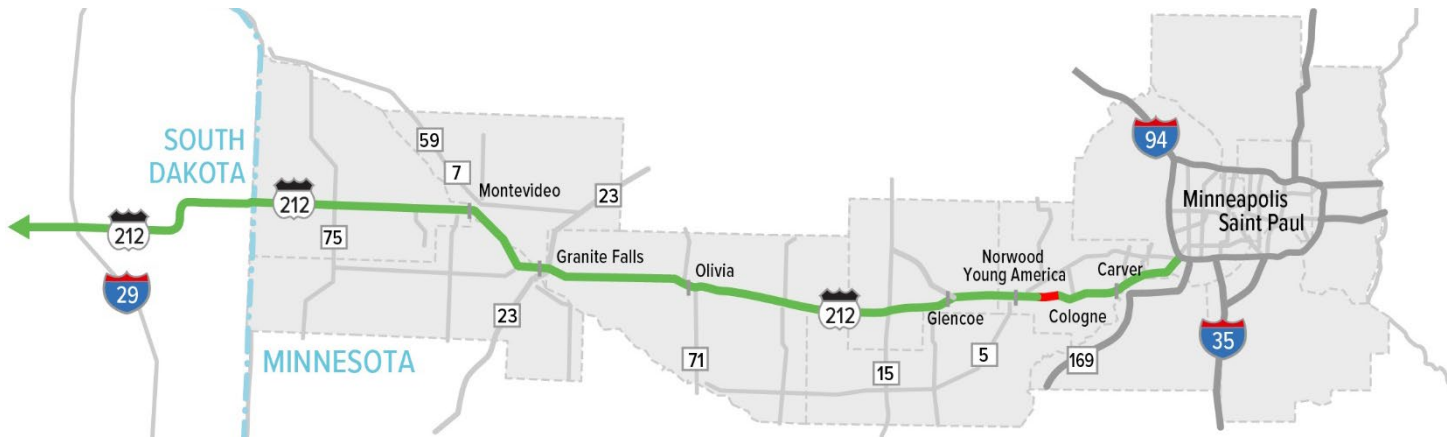
Figure 3. US 212 Project History



## PROJECT LOCATION

US 212 spans 138 miles from the South Dakota state line to Interstate 494 (I-494), connecting regional traffic from the urban Twin Cities and Western Minnesota rural communities to the rest of the Great Plains. US 212 serves as a primary route linking Minnesota's economic regional trade centers. The Project is located approximately 8 miles west of the Minneapolis – St. Paul, MN-WI (Twin Cities) Urbanized Area and is designated as a Rural Area. The Project includes over three miles of US 212 between the Cities of Norwood Young America and Cologne in Carver County, Minnesota.

**Figure 4. Project Location**



**Table 1. Project Area Population**

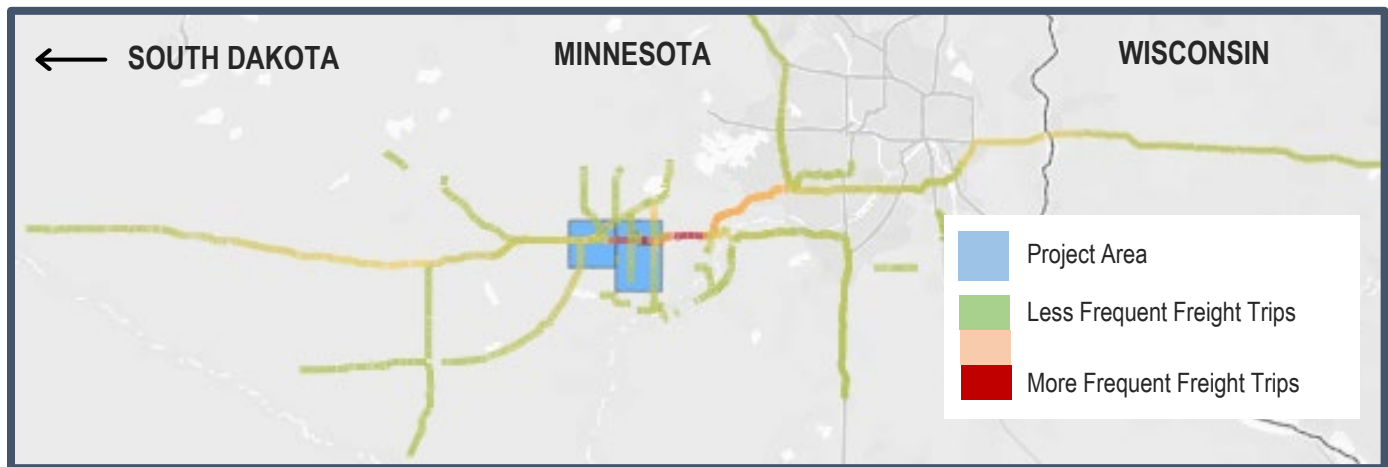
Location	Population
City of Norwood Young America	3,700
Benton Township	777
City of Cologne	1,825

Source: American Community Survey, 2018

The entire Project corridor is in a rural area, outside of designated urbanized areas. The Project intersects communities whose economies depend upon manufacturing and agricultural industries. The proposed safety and capacity improvements will strengthen the rural transportation infrastructure to reduce fatalities and facilitate the efficient movement of goods and people. US 212 impacts freight communities from western South Dakota through

eastern Wisconsin and is an integral part of Minnesota’s interstate freight transportation system (see **Figure 5**).

**Figure 5. Most Utilized Freight Routes from Project Area**



Source: MnDOT Urban Freight Perspectives Study

# PROJECT PARTIES

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## GRANT RECIPIENT

Carver County is the project sponsor of this INFRA grant application. The County has been a proactive leader and advocate for this Project for several years. That the County is leading this effort for major investment on a US highway corridor and investing County funding is a standout feature of this application. The County has extensive experience with procuring and developing transportation improvement projects including several state and federally funded projects. The County owns and operates over 274 miles of road. The [County's 2040 Road Systems Plan \(RSP\)](#) prioritizes major future transportation investments and identifies potential fiscal resources to advance these projects. The RSP identifies \$880 million of road and bridge projects to support projected population and employment growth, which includes \$500 million for County road and bridge projects and \$380 million for critical State highway projects.

## PROJECT PARTNERS

### Minnesota Department of Transportation

MnDOT is a dedicated partner in this Project. MnDOT has established a firm commitment of investment towards improving the US 212 corridor. MnDOT has participated in the NEPA environmental review process and development of the final design. MnDOT has reviewed the design plans and will provide final approval.

MnDOT will operate and maintain the Project as part of the State highway system as stated in MnDOT's letter of support for the Project. MnDOT and Carver County have an established agreement for preliminary engineering for this Project. The County and MnDOT will negotiate agreements on the construction and long-term maintenance of the Project. Section V, Criterion #4 (Performance and Accountability) includes additional details regarding MnDOT's operation and maintenance commitment towards the Project.

MnDOT and the County have successively partnered on past and planned investments on the corridor including the freeway construction from Eden Prairie to Carver in 2009, the construction of the US 212/County Highway 44 Interchange in Chaska, construction of three RCIs in Cologne at US 212/ County Road 53, US 212/County Road 30, and US 212/ CSAH 41. MnDOT and the County have partnered to fund several other projects in the US 212 Corridor including the US 212 pedestrian underpass in the City of Norwood Young America, and the State Highway 5/State Highway 25/CSAH 33 intersection improvements project in the City of Norwood Young America.

### Primary Contact

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# SOUTHWEST CORRIDOR TRANSPORTATION COALITION (SWCTC)



The SWCTC was formed to work cooperatively with MnDOT, local governments, businesses, state, and federal legislators and interested citizens to advocate for transportation improvements on US Highway 212 and State Highway 5. The SWCTC travels to Washington DC every year to meet with Members of Congress and transportation officials to promote the importance of US 212 and request funding assistance. These meetings resulted in \$1.2 million in federal appropriation to allow project development to occur and assist in project readiness. The SWCTC is a strong partnership with broad representation from all sectors. In total, 41 communities and local chambers of commerce have passed resolutions supporting improvements to expand the capacity of this highway including the Board of Commissioners of every county along the corridor. Several agencies and jurisdictions passed specific letters of support for this INFRA grant application. Letters of support have been obtained from key agencies, elected officials, counties, cities, Chambers of Commerce, and businesses (see [agency letters of support here](#)).

## FREIGHT COMMUNITY

Carver County has solicited input on the Project from several freight generators in the US 212 Corridor. As part of the [US Highway 212 Corridor Study](#), the County, in partnership with the SWCTC and MnDOT, conducted interviews with 16 major freight generators to obtain feedback on shipping and transportation infrastructure needs of these businesses. The County incorporated the input received through this outreach to develop the improvements included in this Project. Letters of support have been received by business and industries in the Corridor.

# GRANT FUNDS, SOURCES AND USES OF ALL PROJECT FUNDING

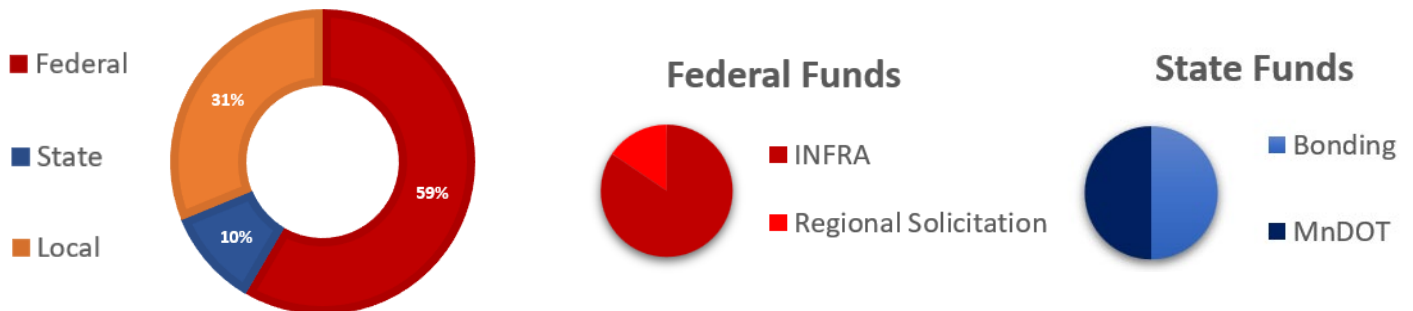
## PROJECT BUDGET

**Total Project Cost: \$38,985,940**

**INFRA Grant Request Amount: \$19,000,000**

Availability and commitment of funding sources: This funding request is the final piece to the total project funding package. All funding identified below is available and is formally committed to this Project (see documentation including [Metropolitan Council Letter of Support](#), [MnDOT Letter of Support](#), and [Carver County Resolution](#)).

Carver County is committed to contributing \$12 million dollars from the adopted County Transportation Local Option Sales Tax, a new local revenue source. At the State level, the Project is receiving funding from MnDOT, bonding, and other grant sources. MnDOT has allocated \$2 million to utilize for construction administration costs, the State bonding will contribute approximately \$2 million to be used for right-of-way and design, and the Project received \$3.5 million from the Metropolitan Council's (the local MPO) Regional Solicitation funding program in 2025.



**Figure 6. Project Funding**

	Project Element	Non-Federal	INFRA	Federal	Total
Past	Highway Corridor Design	\$424,000	-	-	\$424,000
	Concept Design Study	\$100,000	-	-	\$100,000
<b>Total Incurred Expenses</b>					<b>\$524,000</b>
Future	Preliminary Design and Environmental Assessment	\$450,000	-	-	\$450,000
	Final Design Engineering	\$2,000,000	-	-	\$2,000,000
	Right-of-way	\$1,000,000	-	-	\$1,000,000
	Construction	\$7,210,746	\$19,000,000	\$3,500,000 <sup>3</sup>	\$29,710,746
	Contingency	\$3,301,194	-	-	\$3,301,194
	Construction Administration	\$2,000,000	-	-	\$2,000,000
<b>Total Future Costs</b>					<b>\$38,461,940</b>
<b>Total Project Cost</b>					<b>\$38,985,940</b>

For a detailed cost and funding breakdown, please see the [Detailed Cost and Funding Table on the project website](#).

## NON-FEDERAL FUNDING SOURCES

### Carver County Funding

Carver County has served as the champion of the Project and is committed to provide 31 percent of the future project cost. The Carver County Board of Commissioners adopted a resolution to approve the request for INFRA funding and to commit to the local match for the Project. Local funding from Carver County is dedicated to the Project and leverages a new, non-federal revenue source passed by Carver County in 2017. Per Minnesota Statute, Carver County enacted a one-half cent local option sales tax and \$20 wheelage tax on vehicle purchases to finance the local share of this Project. The one-half cent local option sales tax provides approximately \$7 million in annual, non-federal revenue dedicated for transportation improvements within the County. This Project is specifically identified to receive these local funds in the [County's adopted Transportation Tax Plan](#), which designates eligible projects for the tax revenue. Based on current projections, \$12 million from this revenue source will be available for the Project by 2023.

<sup>3</sup> The Metropolitan Council (federally designated Metropolitan Planning Organization) works with the Transportation Advisory Board every two years to administer the Regional Solicitation and distribute federal transportation funds (federal STPBG funding).

## STATE FUNDING

MnDOT is committed to providing State funding for this highway Project, which is under their jurisdiction. Since the roadway is a US Highway, future ongoing maintenance and operations of the new facility will be managed by MnDOT. **Section V, Criterion #4** provides additional details about MnDOT's operation and maintenance Project commitment.

## OTHER FEDERAL FUNDING SOURCES

The Project was submitted for INFRA funding in FY 2018-2019 and 2019-2020. Carver County and MnDOT have previously secured the following funding for additional improvements within the larger US Highway 212 Corridor.

### Metropolitan Council Regional Solicitation

The Metropolitan Council, the Twin Cities regional metropolitan planning organization, administers the Regional Solicitation program, a competitive process where federal transportation funds are allocated to local governments, state agencies, and transit providers to fund regional transportation needs. In 2020, this Project received \$3.5 million to address safety and congestion issues at the intersection of US 212 and CSAH 51. Additionally, Carver County was awarded \$7 million in federal 2018 Regional Solicitation funding to support the larger US 212 Expansion Project immediately east of this Project.

## COMMITTED INVESTMENTS NOT PART OF THIS INFRA REQUEST

MnDOT and Carver County have partnered to implement safety and preservation improvements within an approximately eight-mile segment of US 212 between Cologne and Carver. Improvements proposed within this portion of the corridor that are not included as part of this INFRA grant request are described below.

### Minnesota Highway Freight Program (MHFP) *Funding for improvements immediately adjacent to this Project*

In 2017, Carver County was awarded \$15 million in federal Minnesota Highway Freight Program (MHFP) funding through MnDOT for the roadway immediately to the East of this Project. Subsequently, the project was added through the MnDOT and Metropolitan Council transportation planning processes to the 2020-2023 State Transportation Improvement Program (STIP) and the Metropolitan Council's 2020-2023 Transportation Improvement Program (TIP) as state project number 010-596-012.

### US Highway 212 Preservation Project

MnDOT is currently advancing a preservation project to resurface the existing pavement, construct a median barrier, rehabilitate two bridges, and install lighting to improve safety and pavement conditions along the existing expressway segment in Cologne from CSAH 36 W to CSAH 36 E. This project is planned to begin construction in 2023.

### US 212/County Highway 36 and 41 Reduced Conflict Intersection

MnDOT installed RCIs at the intersections of US 212 and CSAH 36 and CSAH 41 in 2019 to address safety issues within the corridor.

## INFRA FUNDING NEED

Carver County, in partnership with MnDOT and local communities, has secured approximately \$19.5 million in non-federal and Federal funding to invest in the Project (approximately 51 percent of the total future eligible project costs). Over \$245 million in roadway investments and over \$30 million in transit have been secured and utilized for projects immediately adjacent to this Project to advance US 212 Corridor expansion.

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If the INFRA grant is not awarded, the expansion of US 212 from a two-lane rural highway to four-lane divided highway with wider shoulders would be delayed. The current highway constructed in 1930 would remain. In addition, the geometry of the roadway would be unchanged, meaning the Project corridor would see increases in the crash cost and crash frequency. There have been 11 fatalities from crashes on the existing two-lane segments of US 212 in the last 11 years. None of the planned innovative and safety improvements of the Project would be constructed.

## MERIT CRITERIA

### SUPPORT FOR NATIONAL OR REGIONAL ECONOMIC VITALITY

#### ELIMINATE

the freight bottleneck

#### EXPAND

rural access and opportunity

#### IMPROVE

roadway safety

#### ENSURE

sustainability and equity

### Eliminate the freight bottleneck

US 212, a Critical Rural Freight Corridor, acts as an Interstate System connecting over 22,000 square miles of southwest Minnesota with the Twin Cities metropolitan area, as no actual Interstate connection exists. The roadway officially carries 1,300 trucks daily, which significantly exceeds typical truck percentages on most state highways at over 10 percent.

**Figure 7. Freight along US 212**



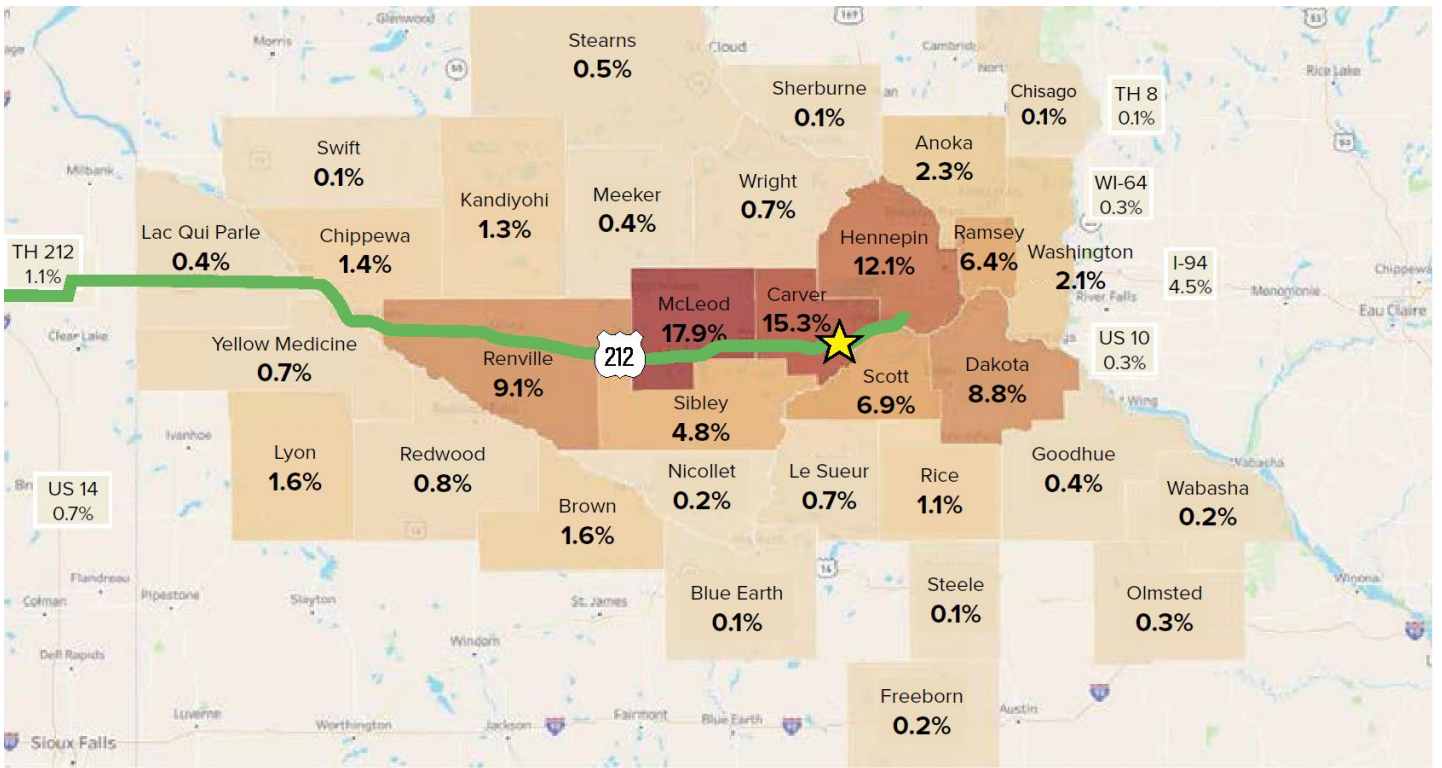
Each proposed improvement of this Project directly benefits the freight community. Increasing capacity of the roadway from two to four lanes and adding wider shoulders and turn lanes will give freight haulers increased free flow speeds, less congestion, increased travel time reliability, eliminate merge bottlenecks, and improved safety. The Project improvements will increase shipping reliability and reduce costs for more than 65 freight generators located adjacent to US 212 that utilize the Project corridor. Based on data collected in 2020, the total daily truck load equivalents directly entering and existing the project area from freight facilities is 765 vehicles.<sup>4</sup> **These improvements will reduce heavy commercial vehicle operational costs by more than 17 percent, or 10,500 hours annually.**

*“We support the four-lane expansion of Highway 212 in Carver County and prefer that these improvements be made in the short-term.” – United Farmers’ Cooperative*

<sup>4</sup> [US 212 MHFP Grant Application](#)

An origin-destination (OD) analysis using *StreetLight* (2020) was completed to quantify the users of this segment of US 212 and the importance of the corridor to the region, Minnesota, and surrounding states. This analysis showed the corridor serves traffic from 85 percent of Minnesota counties and equally serves the Metro and Greater Minnesota Districts on a typical travel day. **The results of the commercial OD analysis show this segment of US 212 supports both intrastate and interstate freight traffic, as over five percent of freight traffic using this segment of US 212 cross the Wisconsin border.**

**Figure 8. Commercial Origin-Destination Analysis**



**The undivided two-lane section of US 212 between CSAH 51 and CSAH 36 presents timing, limited mobility, product quality, and safety reliability issues for freight haulers.** The congestion in this segment makes travel time reliability issues a common occurrence during both AM and PM peak hours, especially to find a gap to access US 212. This situation will only deteriorate, as the County is expected to grow significantly over the next 20 years— adding even more traffic and delay to an already congested two-lane roadway. Unreliable safety conditions also create travel time reliability issues along this segment of US 212, as freight traffic often interacts with inconsistent travel speeds, unsafe pavement conditions, narrow lanes, inadequate shoulders, and crash related delays.

Currently, travel time reliability is low and fluctuates based on time of day, freight traffic demands, and crashes. Per the Metropolitan Council's traffic data analysis, the free-flow travel speed on US 212 within the project limits is 60 mph. **During peak hours, the through-traffic travel speed is reduced by 13 percent to a speed of 52 mph.** Additionally, Highway 5 through Waconia operates as a parallel reliever route to US 212. Free-flow through-traffic travel speed on Highway 5 is 38 mph with a reduction of 39 percent to a speed of 23 mph during peak hours. The proposed Project will have significant improvement on the travel speed on both US 212 and the parallel route of Highway 5 as vehicles will likely utilize US 212, the safer, more efficient route through Carver County.



Poor roadway condition adds to the limited mobility of freight vehicles, often limiting their ability to transport goods in a time efficient and high-quality manner and causing delivery drivers to travel at reduced speeds. Prior to 2020, the roadway had not been reconstructed since 1930, and continuous overlays will be necessary temporary solutions until a full reconstruction project is completed. Several freight facilities along the corridor stated their freight loads often shift or bounce along this segment, leading to damaged product and increased cost.

Freight mobility is also severely impacted by the existing geometrics of the roadway. Trucks attempting to enter the roadway face inadequate turning radii and often experience extended wait times to begin the turn. At intersections such as CSAH 51 and CSAH 36 trucks have limited movement within the intersection to move safely and are often in conflict with other turning vehicles. The 4-lane to 2-lane merge in the project corridor also creates a mobility bottleneck condition for the movement of freight.

To quantify travel delay and reliability issues related to crashes along the corridor, an analysis was completed to combine travel time information with weather and crash data. The data show that 75 percent of the major congested days on the corridor were due to a crash or snow event or a combined snow and crash event. The proposed improvements will mitigate these major congestion and delay days by implementing safer intersection designs and upgrading the highway to a four-lane divided expressway. Crash-related congestion and delay will be mitigated by not having to close or block the highway to one-way traffic when a crash occurs, which was necessary when the crash pictured below occurred.



*Crash along the eastern end of US 212 (4-lane to 2-lane transition)*

Furthermore, oversized loads are not permitted to operate in narrow segments of the corridor, requiring a State Patrol escort. Due to the increased cost of this escort, oversized shipments often divert onto the county road system. This rerouting adds time and expense to a trip, increases the potential for damaged goods, reduces safety, and affects the local roadway system. Expansion to a four-lane facility will alleviate the need for a State Patrol escort.

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***“Expanding Highway 212 to four lanes will save us time and money, but the safety benefits of the expansion are the most valuable to us.” – Michael Foods Inc.***

***“Many production inputs at our 1,500-person Hutchinson facility come via the Highway 212 corridor. Any delay in receiving these inputs hurts our bottom line.” – 3M***

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## Expand Rural Access and Opportunity

**US 212 serves as a critical link between rural communities in Carver County and job opportunities in the Twin Cities urban center.** As a Principal Arterial roadway through the rural area, US Highway 212 is depended on as a safe and reliable commuting option without similar alternative routes available. The Project will expand rural employment access and opportunity for the over 12,000 employees who live within one mile of US 212 in Carver County. There are approximately 700 employment opportunities within one mile of the Project, with almost 400 being manufacturing or distribution related employment opportunities. By increasing efficiency, safety, and reliability of US 212, rural employees will have greater access to these job opportunities. They will also have improved access to employment opportunities outside the County, as US 212 serves as a primary connection the Twin Cities Urbanized Area, a major job center in Minnesota. Additional benefits provided to rural communities near US 212 are detailed in the **Improve Roadway Safety, Environmental Justice Impacts, and Barriers to Opportunity** sections of this application.

## Improve Roadway Safety

*The installation of RCIs, a quadrant interchange, median, wider shoulders, snow fence, and ensuring adequate clear zone will reduce the crash rate for fatal and serious injury crashes by up to 100 percent.*

This Project supports the ROUTES initiative by implementing key design interventions to reduce the number of fatal and serious injury crashes along US 212. Approximately 65 percent of Minnesota’s severe lane-departure crashes occurred on rural roadways. Of these, over three-fourths occurred on 2-lane roads with speeds of 45 MPH or greater – such as US 212. This Project will implement shoulder rumble strips and stripes, widen shoulders, expand to 4-lanes, install RCIs, and construct a grade-separated interchange – all of which are significantly linked to a decrease in fatal and severe accidents. **The existing geometry and alignment of US 212 presents a serious safety issue.** Within the past ten years (2010-2020)<sup>5</sup>, there has been:



The US 212/CSAH 51 intersection was included as a “study intersection” as part of the MnDOT County Road Safety Plan Update workshops. Crash data was obtained for the years 2015 through 2019 from the Minnesota Crash Mapping Analysis Tool ([MnCMAT](#)). Following extensive analysis, community engagement and expert review, the following key takeaways emerged: 1) Current crash rates for the segment of US 212 between CSAH 51 and CSAH 36 is over the statewide average crash rate. 2) In the past ten years, 50 percent of the freight-related crashes resulted in serious, minor, or possible injury. **The implementation of strategic improvements will greatly reduce the crash rate occurrence and crash severity along US 212.** Using relevant studies<sup>6</sup> and research and Crash Modification Factors<sup>7</sup>, the estimated crash rate following Project implementation was estimated.

<sup>5</sup> Crashes between 2010 and 2020 for the full 2-lane section of US 212

<sup>6</sup> [Relevant Crash Reduction Studies](#)

<sup>7</sup> [Relevant Crash Modification Factors](#)

**Table 2. Crash Rate (All types)**

	Location along US 212	Existing Crash Rate	Statewide Average Crash Rate for Similar Intersections	Statewide Critical Crash Rate for Similar Intersections	Critical Index	Estimated Crash Rate After Project	Crash Rate Change
Intersection (All Types)	CSAH 51	0.36	0.25	0.53	<b>0.68</b>	<b>0.08</b>	<b>-78%</b>
	CR 153	0.13	0.25	0.54	<b>0.24</b>	<b>0.04</b>	<b>-69%</b>
	CSAH 36	0.36	0.25	0.55	<b>0.65</b>	<b>0.16</b>	<b>-56%</b>
Intersection (K & A Only)	CSAH 51	8.07	1.05	5.70	<b>1.42</b>	<b>0.0</b>	<b>-100%</b>
Segment (All Types)	CSAH 36	0.78	0.76	1.08	<b>0.72</b>	<b>0.27</b>	<b>-65%</b>
Segment (K & A Only)	CSAH 36	3.88	1.97	5.45	<b>0.71</b>	<b>0.0</b>	<b>-100%</b>

Source: Technical Analysis based on Crash Modification Factors from the CMF Clearinghouse

## CLIMATE CHANGE AND ENVIRONMENTAL JUSTICE IMPACTS

This project incorporates climate change and environmental justice in both the **project planning efforts and project elements.**

### Project Planning Efforts

As part of Project planning, Carver County studied the impact on environmental justice communities. **Carver County is home to approximately 4,100 Hispanic/Latino, 2,800 Asian, 1,800 Black/African American, and 200 American Indian residents, most of whom utilize US 212 to access employment, healthcare, or education.** Within four miles of the Project corridor there are four senior housing facilities, seven schools, five healthcare facilities, and 11 affordable housing sites with 155 units- providing services and housing for low income, persons with disabilities, and youth/ elderly populations. **This data was obtained from the EPA’s EJSCREEN online tool.** This Project improves a regionally significant corridor and provides direct economic, safety, and social benefits to these diverse populations.

**Environmental justice communities - including low-income populations, communities of color, and senior and youth communities – were engaged throughout project development.** A survey was distributed to over 600 locations, specifically chosen to include senior/assisted living and low-income housing locations, and representative of locations that use the corridor everyday as there is no other similar connecting highway serving this rural area. Through direct mail and online distribution, surveys were targeted toward populations not typically involved in transportation projects, such as residents under age 18, disabled, and low-income. Over 430 responses were received, of which 70 identified as members of diverse populations (over the age of 65, or Hispanic/Latino, Asian, Black/African American or American Indian). Over 60 percent of respondents listed difficulty turning on and off US 212 and the



number of crashes on US 212 as their top two concerns along the corridor. The Project specifically addresses these concerns, calling for dramatic safety improvements to improve highway access and reduction of crash rates.

To address these concerns, the Project will install RCIs, a grade-separated quadrant interchange, construct medians and wider shoulders, and expand the roadway to improve safety and reduce crashes on US 212. Roughly 40 percent of respondents listed safety concerns while driving in snow as a primary concern, which was directly translated to a project need. The Project will install snow fencing along US 212 to prevent snow drifts and improve winter driving for residents. To keep all residents informed and provide opportunities for feedback, a [project website](#) was created. The site displays information on design development, construction schedules, open houses, and other opportunities for informational meetings and feedback. Additional public meetings will be held throughout the project development process.

**The Project benefits low-income populations by improving access, safety, and efficiency for residents travelling to the Twin Cities for employment, healthcare, or education.** Sixty-one percent of Carver County residents travel outside the County for work – and most commute to the Twin Cities along US 212. Expanded capacity along US 212 will result in a safer commute for workers, with increased travel time reliability, fewer crashes, and decreased congestion for the 12,000 workers in the County who live within one mile of US 212. The project benefits children by improving safety at school bus stops within the project area. Currently, children are required to wait in the narrow shoulder area of the two-lane undivided roadway. The bus needs to pull onto the shoulder for pickup and cars and freight vehicles in all lanes of US 212 are required to stop. As a result of the proposed project, children will be able to wait along an expanded shoulder, providing greater distance from vehicular traffic. In addition, the median construction will prevent two lanes of traffic from interacting with the bus loading area. These two separated lanes will also experience decreased congestion as they will no longer need to brake for a stopped bus.

**The Project benefits people with disabilities by improving accessibility along the corridor.** The Project will integrate Americans with Disabilities Act (ADA) compliant pedestrian ramps and crossings at the intersections of US 212 and CSAH 51, County Road 153, and CSAH 36. These improvements will ensure safe and accessible pedestrian crossings for residents of all abilities. With the introduction of an RCI, the number of conflict points between pedestrian and vehicular traffic will be decreased. Instead of pedestrians crossing the roadway with four directions of vehicular traffic, pedestrians will only interact with two directions of vehicles. The project will improve access for residents relying on public transit for employment, healthcare, or education. Nearby transit and commuting facilities, such as the SmartLink (TransitLink) bus garage (adjacent to US 212) and a SouthWest Transit Park and Ride (east of project), will benefit from improved safety, efficiency, and travel time reliability along the roadway. Roadway benefits will translate to travel time savings, improved safety, and increased reliability for residents who utilize these services.

**As elderly, youth, low income and disabled populations are often frequent users of public transit, the Project will provide direct benefits to these equity populations** with a connection to the park and ride a few miles east of the project area. The expansion from two to four lanes will significantly improve travel time savings along US 212. The Project will result in approximately \$61 million in travel time benefits (between the years of 2018 and 2053). All users of US 212, including equity populations, will gain monetary or time benefits from these travel time savings.

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## Project Elements

This project directly supports the [State of Minnesota's Climate Action Plan](#), specifically the following goals:

Strengthen efforts to [...] <b>reduce reliance on single occupancy, internal combustion engine vehicles</b>	<b>Reducing surface transportation emissions</b> by reducing the number of trips taken, making shorter trips, and increasing the efficiency of vehicles or traveling by foot or bike
<b>Promote transit and multimodal travel</b>	<b>Increase availability of multimodal travel options</b>

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*The proposed project elements will promote transit use, decrease vehicle idling, promote pedestrian and bicycle travel, and reduce congestion related emissions.*

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Many of the specific sustainability benefits from this Project are discussed in previous Plan sections (see **Climate Change and Environmental Justice**). A summary of the positive environmental impacts is provided below.

### PROMOTE TRANSIT USE



Improve transit travel time reliability, safety, and efficiency for the 12,000 workers who live within 1 mile of US 212.

Provide improved connection and speed for existing transit operations such as the SmartLink (TransitLink) bus garage adjacent to the corridor, and the SouthWest Transit Park and Ride immediately east of the project.

### DECREASE VEHICLE EMISSIONS



Decrease heavy commercial vehicle operational time by 10,500 hours annually.

Reduce the 13% through traffic travel speed reduction during peak hours.

Reduce vehicle idling (both personal and commercial) by reducing congestion, crash, and snow-related delays.

### PROMOTE PEDESTRIAN AND BICYCLE TRAVEL



Increase safety for pedestrians and bicyclists with wider shoulders, divided medians, RCIs and improved visibility.

Upgrade sidewalks and curbs to meet ADA requirements.

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**Table 3. Emission Impacts at US 212 & CSAH 51**

	Existing Value	Future Value	Change
Volume (vehicles per hour)	1,543	1,083	Reduction of <b>460 vehicles</b>
Total Delay per Vehicle (seconds/vehicle)	5	1	Reduction of <b>4 seconds</b>
CO Emissions (kg)	2.96	0.61	CO emission reduction of <b>2.35 kg</b>
NOx Emissions (kg)	0.58	0.12	NOx emission reduction of <b>0.46 kg</b>
VOC Emissions (kg)	0.69	0.14	VOC emission reduction of <b>0.55 kg</b>

Source: Synchro Analysis completed as part of the US 212 Expansion [Regional Solicitation Application](#) (2020)

The existing corridor contains minimal stormwater management practices which reduce nutrient loading or runoff volume to downstream water resources. Sediment and nutrients picked up along paved surfaces by runoff are discharged to surrounding wetlands, streams and lakes. The Project will incorporate new stormwater management practices that reduce nutrient loading and runoff volume. Proposed improvements include sedimentation, filtration, plant uptake, and groundwater recharge methods. The Project includes many wet ponds and infiltration basins (see detailed map [here](#)).

These are designed to meet Carver County Water Management Organization (CCWMO) and MnDOT standards. The cumulative treatment capacity along the corridor will remove nutrients from more than 270,000 cubic-feet of runoff (generated by a 1-inch storm). The new improvements will also capture and retain more than 130,000 cubic-feet of runoff (from a 1-inch storm). 90 percent of the total suspended solids and 90 percent of total phosphorus of this runoff will be removed through stormwater management design.

## RACIAL EQUITY AND BARRIERS TO OPPORTUNITY

The Project addresses racial equity and barriers to equal opportunity in both **planning & policies and project investments.**

### Planning and Policies

This Project utilized equity-focused community outreach and public engagement in the project’s planning in underserved communities, as documented in detail as part of the **Environmental Justice Criteria**.

### Project Investments

The project investments address barriers to opportunity for underserved communities. Many of these benefits are detailed in other sections of this Plan, including:

- Mitigation of a physical barrier for those crossing US 212 for employment, healthcare, and education (see **Environmental Justice Criteria**)
- Creates new connections and opportunities for underserved communities (see **Environmental Justice Criteria**)
- Creates new and improved walking, biking, and rolling access (see **Climate Change Criteria**)
- Improves freight access to underserved communities to increase access to goods and job opportunities for underserved communities (see **Eliminate the Freight Bottleneck Section**)

**In addition to the previously discussed investments, this Project will also install broadband along the corridor.** The Project will connect rural communities to fiber-optic internet access by utilizing the existing CarverLink, the publicly owned broadband fiber optics network that runs adjacent to the Corridor. The fiber ring connection runs along the US Highway 212 Corridor.

Providing reliable and fast data communications is becoming necessary as local agencies and communities adopt technology. Fiber optic communications can vastly improve the speed and reliability of internet service – a requirement as population and employment centers continue to grow. CarverLink, the publicly owned broadband fiber optics network that covers hundreds of miles of Carver County, provides internet service and network connectivity to communities, businesses, and people across the County, though there is still room for the network to expand. Improving internet access along the US 212 corridor will benefit the businesses, employees, and residents who work and live near the roadway, providing more reliable connections to help small businesses compete. Fiber optic networks will guarantee quality internet speeds along the corridor and serve as a reliable communication method for transportation applications such as traditional ITS applications as well as connected and automated vehicles.

Rural internet access is a growing concern. Rural communities are far less likely to have access to reliable internet service. Fiber-optic rings can vastly improve internet service in rural areas. Federal internet service standards have increased, and many rural areas have not been able to maintain quality internet access. Carver County can resolve this issue by ensuring fiber optic internet access along higher population and employment densities, including US 212.

## **LEVERAGING OF FEDERAL FUNDING**

Carver County and MnDOT have partnered to secure \$16 million in local and State funding to support the Project. This non-federal share represents approximately 40 percent of the anticipated total future eligible project costs. The County has successfully obtained an additional \$3.5 million in other Federal funding to implement the Project. In total, Carver County has secured \$19.5 million in non-federal and Federal funding for this Project (approximately 51 percent of the total future eligible project costs). **An INFRA grant award will enable the County to leverage existing non-federal and Federal funding to implement all safety and mobility improvements within the entire corridor.**

The SWCTC has continuously advocated for funding solutions to alleviate this regional challenge that impacts the economy far beyond Carver County. However, because of its unique nature and geographic position (rural project, next to a major metropolitan area), competing with other urban projects for regional funding has been challenging.

MnDOT Metro District has re-focused mobility funding priorities from the Interregional Corridors to rebuilding major corridors in the Twin Cities and incorporating MnPASS High Occupancy Vehicle (HOV) lanes. The Project's locations within MnDOT Metro District and Metropolitan Council planning boundaries forces US 212 to compete for funding with urban freeways and arterials. There is simply not adequate transportation funding to allow US 212 to receive traditional program mobility funds from MnDOT.

This has left Carver County in a difficult funding environment. Carver County is a predominately rural county. While it benefits from being along the US Highway 212 corridor, the larger benefits are spread across the multi-state corridor, while the negative impacts of the two-lane bottlenecks entering the Twin Cities metro occur in Carver County. Because of this paradox, the County's Congressional Delegation strongly suggested applying for a Rural INFRA grant.

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## POTENTIAL FOR INNOVATION

### Innovative Technology

#### *Broadband Deployment*

The Project will connect rural communities to fiber-optic internet access by utilizing the existing CarverLink, the publicly owned broadband fiber optics network that runs adjacent to the Corridor. The fiber ring connection runs along the US 212 corridor. Details about this installation can be found in the **Racial Equity and Barriers to Opportunity Criteria**).

#### *Blow Ice Warning Systems*

Ice on roadways is a significant concern for a region that experiences below-freezing temperatures for the better part of three months. Even the most experienced drivers can be caught off-guard when traveling over black ice, through freezing rain, and on snow-packed roadways. “Blow ice” forms when snow blows across the highway, creating an unexpected sheet of ice for travelers. This blow ice phenomenon has caused numerous accidents. Carver County and MnDOT have modeled the snow drifting issues along US 212 and will install permanent snow fences at critical locations along the Project.

#### *Intelligent Transportation Systems (ITS)*

The Project will incorporate appropriate Intelligent Transportation Systems (ITS) elements within the Project. ITS technologies advance transportation safety, mobility, and efficiency by integrating advanced technologies into transportation infrastructure or vehicles. ITS encompasses a broad range of electronic communication and sensing technologies but traditionally includes elements such as dynamic message signs, CCTV cameras, and vehicle detection. By deploying these ITS elements along US 212, the County can provide traveler information such as travel times, alternate routes, and incident notifications. These enhance driver awareness and allow drivers to make informed decisions while traveling. These deployments can also be used for incident management purposes such as identifying crashes, detecting queued traffic, and emergency response.

The Project will explore installation of wireless dynamic message signs that provide real-time traffic advisory and route guidance information to road users. By providing information to road users in advance of a situation, they help to improve safety and reduce congestion when an incident occurs or in the event of poor road or weather conditions.

### Innovative Project Delivery

#### *Civil Information Management Software*

During public engagement of the corridor study, project designers used innovative Civil Information Management (CIM) software for preliminary modeling and visualization of the proposed project to understand and mitigate impacts. This allowed stakeholders and partners to make decisions through a visual compare and contrast in real-time.

The Project will continue to utilize CIM software to model and visualize the project, as well as increased transparency of the project. The transparency will enable owners, consultants, contractors, and stakeholders to work together easily. The CIM software enables designers to make constant adjustments to the design to ensure the best alternatives. The software also uses embedded 3D visualization as part of the process. This enables an effective conflict detection, rapid design review and validation. These efforts will reduce project schedule timelines and overall costs.

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## *Best Value Procurement*

Since 2007, public agencies in Minnesota have been explicitly enabled and encouraged to use the best value method to procure construction contracts. MnDOT and related transportation agencies utilize the best value procurement process to deliver high-quality projects faster and more cost effectively by awarding contracts based on quality rather than price alone. It is anticipated that best value procurement will help the Project deliver long-term benefits on an efficient schedule and budget. Carver County has utilized the best value procurement process for several transportation projects and will consider applying this procurement process for this Project.

## *Design-Build Process*

Carver County will consider a design-build procurement process for this project. Design-build project delivery methods significantly accelerates project completion, which will result in project savings by avoiding inflation in construction and other associated costs. Design-build projects are typically led by the state, so Carver County's efforts are unique and innovative. Carver County's leadership in this project showcases how vital the US Highway 212 corridor is to the county network. The County will ensure that the project delivery will be completed efficiently.

The following is a summary of the design-build options that will be pursued:

- [MnDOT State Aid Design-Build Contracting](#): Recent legislation allows for the use of the design-build program for Minnesota cities and counties through a program administered by MnDOT's State Aid for Local Transportation (SALT) Division.
- Cooperative Agreement: There is recent precedent in the metro area of MnDOT and local agencies administering design-build contracts via cooperative agreements. MnDOT's authority would be utilized to administer the design-build procurement and administration process, while Carver County would be responsible for leading the overall project.
- Local Agency Led Design-Build: Precedent exists for the local agencies to be granted temporary legislative authority to administer design-build transportation projects. There is significant political backing and agency support (see letters of support) for this highly visible and beneficial project.

## *Environmental Review and Permitting*

Development of the Environmental Assessment and preliminary design for this Project is in progress. Wetland delineation is planned for the summer of 2021. The Project will benefit from existing MnDOT programmatic agreements and agency liaisons to maximize the efficiency of environmental review and permitting processes. MnDOT has executed a programmatic agreement with FHWA and the State Historic Preservation Office (SHPO) to streamline the Section 106 review process. Additionally, MnDOT has established an agency liaison with the US Army Corps of Engineers (USACE) to directly manage the Section 404 permitting process for state highway projects.

## *Innovative Financing*

Carver County is one of the leading counties in Minnesota to implement both a one-half percent sales tax and an excise tax to create a new, non-federal transportation revenue source for county and state transportation projects in the County. By the year 2037, the collected revenue is expected to be approximately \$181 million. This new dedicated transportation funding source will enable the County to provide a local match to state and federal funding for critical infrastructure projects, including this Project.

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In 2017, Carver County passed resolutions to approve a new, dedicated, non-federal transportation revenue. The resolutions enabled Carver County to implement a one-half percent sales tax, a \$20 excise tax on vehicle purchases, and to increase the wheelage tax to \$20 per vehicle (See [Carver County Resolutions #25-17 and #26-17](#)).

## PERFORMANCE AND ACCOUNTABILITY

Carver County has extensive experience with managing roadway improvement projects and has worked with MnDOT on numerous highway improvement projects. In coordination with MnDOT, the County has identified the anticipated cost estimates to effectively operate and maintain the Project corridor once it is constructed. MnDOT will be responsible for the operation and maintenance of the state highway and has dedicated funding available to ensure that the roadway is properly maintained. The County has committed to meeting construction start and end dates and is willing to implement an accountability measures based on these dates.

### Lifecycle Costs

#### *US 212 Operation and Maintenance Plan*

MnDOT will operate and maintain US 212 as it does the 12,000-mile state highway system. Long-term maintenance operations will be performed by MnDOT based upon its typical maintenance schedule for bituminous roadways. The table below presents key maintenance improvements that would be required during the lifecycle of the Project based on guidance from MnDOT’s Metro District Materials and Pavements Engineer.

**Table 4. Operation and Maintenance Schedule**

Activity	Year	Cost (per mile)	Total Cost
Annual Maintenance	Annual	\$8,100	\$26,730
2-inch bituminous mill & overlay	20	\$250,000	\$825,000
4-inch bituminous mill and overlay	35	\$350,000	\$1,155,000

#### *Operation and Maintenance Funding*

Financial trends indicate that operation and maintenance revenues have slowed compared to previous decades. Consequently, MnDOT is committed to implementing timely investments in capital and preventative maintenance treatments to extend the service life of assets while reducing lifecycle costs. Ongoing operation and maintenance (O&M) costs on the state highway system are funded by taxes and fees from four main revenue sources:

- State gas tax (motor fuel excise tax)
- State tab fees (motor vehicle registration tax)
- State motor vehicle sales tax
- Federal highway funds (highway user tax distributions, flexible highway account, and County State Aid Highway Fund)

#### *MnDOT Transportation Asset Management Plan (TAMP)*

MnDOT has a demonstrated history of fully funding maintenance improvements and is an established national leader in asset management. MnDOT developed its first Transportation Asset Management Plan (TAMP) in accordance with the 2012 Moving Ahead for Progress in the 21st Century Act (MAP-21). MnDOT’s TAMP expanded beyond minimum requirements per MAP-21 to include the entire state highway system as well as other infrastructure within the right-of-way corridor. MnDOT’s TAMP was a national pilot project and serves as a guide for other states.

MnDOT applies the TAMP, which has been updated to reflect current guidance per the Fixing America's Surface Transportation (FAST) Act which replaced MAP-21 in 2015, as a guide to analyze life-cycle costs, evaluate risks and develop mitigation strategies, establish asset condition performance measures and targets, and develop investment strategies. The TAMP will serve as a guide to ensure all necessary Project operation and maintenance is implemented.

### *Accountability Measure*

Carver County is willing to meet specific construction start and completion dates subject to forfeit of up to 10 percent or \$1.9 million if not met. As proposed in the [detailed project schedule](#), the County intends to begin construction April of 2024, and end construction by November of 2025.

## PROJECT READINESS

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### TECHNICAL FEASIBILITY

The County is the lead agency on the US Highway 212 Corridor Study and all other project development activities which utilize federal funds. The County has delivered several federally funded highway projects and understands the rules and procedures to manage a federal grant.

Carver County and MnDOT have worked together to explore the best ways to address access, safety, freight movement, and mobility needs along US Highway 212. To move the project forward and fully understand the impacts and cost, Carver County has proceeded with an alignment concept study, preliminary design, and environmental documentation. With this work, Carver County will also identify R/W impacts and needs. Final design and right-of-way acquisition will be completed by December of 2023.

The Environmental Assessment is scheduled to begin in April of 2021, with completion by October of 2022. No known historic properties eligible for or listed in the National Register of Historic Places nor Section 4f/6f resources are located within the project area.

The proposed design will meet all current USDOT, AASHTO, and MnDOT standards for multi-lane highways. General details of the design include: 70 mph design speed, 12-foot lanes, 10-foot outside shoulder, 4-foot inside shoulder, rural ditch drainage (NOAA Atlas 14 - Precipitation Frequency met for design), 84-foot centerline spacing, and bituminous pavement. Expected unit costs are based on the most recent record of similar highway construction projects in Minnesota.

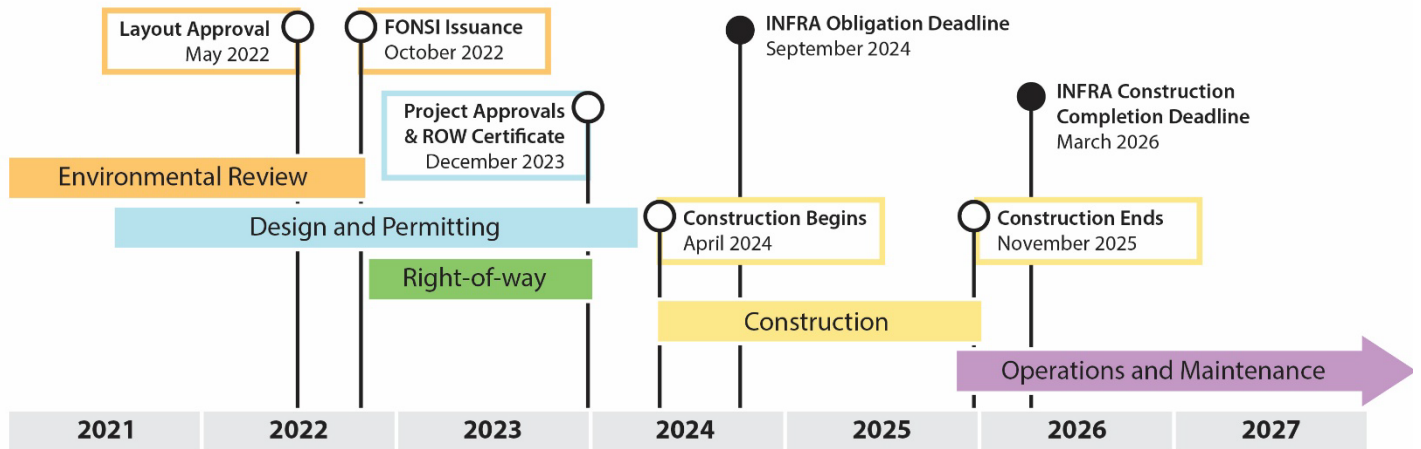
### PROJECT SCHEDULE

The Project schedule demonstrates that grant funds can be obligated by March 2024 in advance of the INFRA funding obligation date requirement of September 30, 2024. Carver County anticipates that construction will begin by April of 2024, and end construction by November of 2025. All property and right-of-way acquisition will be completed in accordance with 49 CFR Part 24 and other Federal regulations. The County has an experienced right-of-way acquisition staff that have been actively involved during the project development process and have worked with MnDOT on numerous state highway projects.

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**Figure 9. Project Schedule**



For a detailed breakdown of the Project schedule, please see the [“Detailed Project Schedule” on the project website.](#)

## REQUIRED APPROVALS

### State and Local Approvals

Support for the Project is provided for by several different levels. There is a broad base of support for the project, as shown by the letters of support submitted for this application. These include Letters of Support from MnDOT, Metropolitan Council, and US Congress Representatives from MN to cities and local businesses along the US 212 Corridor. The portion of US 212 immediately adjacent to this Project is programmed in MnDOT’s State Transportation Improvement Program (STIP) and in the Metropolitan Council’s Transportation Improvement Program (TIP) as state project number 010-596-012. A portion of the Project will be included in the upcoming STIP and TIP due to recently awarded funds. The segment to the east of the Project is also currently listed in the Metropolitan Council Transportation Policy Plan (TPP) for four-lane expansion from Carver to Cologne. The TPP would be amended to incorporate the full project scope. This project is specifically identified to receive Carver County local sales tax funds in the County’s adopted Transportation Tax Plan and is in the Capital Improvement Plan as the highest priority project. Based on current annual revenues of the adopted one-half percent sales tax, \$12 million is allocated for the project by 2022.

The US 212 Project is included in all relevant local, metropolitan, and state planning documents. This includes the MN Statewide Freight System and Investment Plan (2018) and related Metropolitan Council and Carver County comprehensive planning elements.

## RISK ASSESSMENT AND MITIGATION

Identification of right-of-way requirements has been initiated, and conservative cost estimates are included in the Project budget. The estimate includes significant contingency for acquisition cost. The County will exercise eminent domain if necessary, to gain access to the property to construct the Project within the required schedule constraints.

## FREIGHT BENEFITS

This Project benefits freight haulers, local businesses, and the regional economy. The detailed analysis of freight benefits provided by this Project are provided in the **Merit Criteria** section of this application (see “**Eliminate the Freight Bottleneck**”). In summary, the freight benefits on the following page will be provided:

<b>Cost savings</b> on fuel from decreased idling	<b>Decrease in damaged goods</b> from poor road conditions
More <b>reliable schedules</b> and travel time reliability	Enhanced <b>delivery efficiency</b> from congestion reduction
<b>Fewer accidents and delays</b> due to crashes with safer intersection and geometry improvements	<b>Improved connection</b> to the Twin Cities urbanized area and regional business opportunities
Vehicle maintenance <b>cost savings</b> from new pavement	<b>Improved freight reliability</b> with increased turning radii and reduced waiting time

*These improvements will reduce heavy commercial vehicle operational costs by more than 17 percent, or 10,500 hours annually.*

## BENEFIT COST ANALYSIS

The objective of a benefit-cost analysis (BCA) is to bring all the direct effects of a transportation investment into a common measure (dollars), and to account for the fact that benefits accrue over an extended period while costs are incurred primarily in the initial years. The primary elements that can be monetized are travel time, changes in vehicle operating costs, vehicle crashes, environmental impacts, remaining capital value, and maintenance costs. The results of the BCA are briefly summarized below. A detailed technical memorandum of the analysis is available to view at the grant application website: <https://www.srfconsulting.com/us-212-infra-grant/>

### NO BUILD ALTERNATIVE

The No Build Alternative included leaving the US 212 corridor between the cities of Norwood Young America to Cologne in its current geometric and operational condition, with no modifications or restrictions to current access. Regional roadway improvements that are currently programmed were included as part of the regional transportation network.

### BUILD ALTERNATIVE

The proposed project replaces approximately three miles of the existing two-lane undivided section with a four-lane divided roadway. Several spot mobility and safety improvements were also assumed throughout the study corridor. The comprehensive list of improvements that were considered in the BCA is summarized below:

- Conversion from two-lane undivided to four-lane divided expressway with restricted side-street left turn movements at all at-grade access locations from Cologne to roughly 0.5 miles west of CSAH 51
- US 212 and CSAH 51 intersection – conversion from at-grade, side-street stop control to grade separated interchange
- US 212 and County Road (CR) 153 intersection – conversion from side-street stop control to reduced conflict intersection (RCI) with restricted side-street left-turn movements
- US 212 and access to Carver County government building – conversion from side-street stop control to reduced conflict intersection (RCI) with restricted side-street left-turn movements
- US 212 and CSAH 36 intersection – conversion from side-street stop control to three-quarter access (i.e. removing left turns from side-street only)

The Build Alternative also included the same programmed improvements to the regional transportation system that were assumed in the No Build Alternative.

## BCA METHODOLOGY

The primary cost and benefit components analyzed in the BCA included:

- Travel time/delay (vehicle hours traveled -VHT)
- Operating costs (vehicle miles traveled-VMT)
- Environmental and air quality impacts
- Crashes by severity
- Initial capital costs
- Remaining Capital Value: The remaining capital value (value of improvement beyond the analysis period) was considered a benefit and was added to other user benefits
- Maintenance and rehabilitation costs
- Other analysis considerations included:
  - This analysis assumed that construction would take place from year 2024 to 2025. Therefore, year 2026 was assumed to be the first full year that benefits will be accrued from the project.
  - The analysis used the Carver County Regional Travel Demand Model to compare the No Build and Build Alternatives. This TDM was developed in 2017 and has a forecast planning horizon of year 2040.

## PROJECT COSTS

Year 2019 project cost for the INFRA Grant components of the overall project is expected to be about \$26.1 million.

## BCA RESULTS

**Table 5. Benefit Cost Analysis Summary**

	Cost (in millions)
Benefits	\$69.5
Costs	\$26.1
<b>B/C Ratio</b>	<b>2.7</b>
Net Present Value	\$43.4

The benefit-cost analysis provides an indication of the economic desirability of a scenario, but results must be weighed by decision-makers along with the assessment of other effects and impacts. Projects are considered cost-effective if the benefit-cost ratio is greater than 1.0. The larger the ratio number, the greater the benefits per unit cost. **The BCA Analysis for this Project resulted in a benefit-cost ratio of 2.7.** Results of the benefit-cost analysis are included in Table 5.

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*The BCA Analysis for this Project resulted in a benefit-cost ratio of 2.7*

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## SUPPORTING DOCUMENTS

Links to supporting documents are included throughout this narrative. All supporting documents and the INFRA grant application narrative are available to view at the following webpage: <https://www.srfconsulting.com/us-212-infra-grant/>

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