## Anoka Highway 10/169 Safety and Mobility Improvements Project 2018 BUILD Funding Application

THE REAL PROVIDENCE

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210

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River

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St. Cloud 23

Project Location 47

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Minneapolis/ St. Paul

[169]

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Fargo



City of Anoka 2015 First Avenue Anoka, MN 55303

## **Table of Contents**

## Contents

I.	Introduction										
	Wha	What major issues will the Project address?									
	Where is the project located?										
	Wha	t is the function and importance of Highway 10/169 within the State and Regional									
		Transportation Network?									
	Wha	What will happen if the Project isn't constructed?									
	Wha	What will Project outcomes include?									
	Why	is the City of Anoka applying for BUILD 2018 funding?	3								
II.	Proi	ect Description	4								
	Α.	Highway 10/169 Safety and Mobility Improvements Project Elements	4								
	B.	Existing Transportation Challenges and How the Project Addresses These	7								
		1. Mobility Challenges	7								
		2. Safety Challenges	9								
		3. Geometric Design	9								
		4. Supporting Roadways	9								
	C.	Project History: Previous Planning Efforts and Agency Support	10								
III.	Proi	ect Location	12								
			4.0								
IV.	Proj	ect Parties	12								
	A.	Project Lead and Applicant: City of Anoka, Minnesota	12								
	В.	Project Partners	12								
	C.	Project Supporters	12								
V.	Gran	t Funds, Sources, and Uses of All Project Funding	12								
	A.	Grant Funds and Funding Sources	12								
	B.	Project Budget	14								
VI.	Meri	t Criteria	15								
	A.	Safety	15								
	B.	State of Good Repair	16								
	C.	Economic Competitiveness	16								
		a. Support Existing and Future Traffic Demands	16								
		b. Support Economic Development	17								
	D.	Environmental Protection	19								
	E.	Quality of Life	20								
		1. Non-motorized Transportation	20								
		2. Transit	21								
		3. Freight Traffic	21								
	F.	Innovation	22								
	G.	Partnership	22								
	H.	Non-Federal Revenue	24								



VII.	Proi	ect Readiness	24
	А.	Technical Feasibility	24
	B.	Project Schedule	24
	I.	Required Approvals	
	C.	Assessment of Project Risks and Mitigation Strategies	25
VIII.	Ben	efit Cost Analysis	25

#### **Attachments**

### All attachments are available on the Highway 10/169 Safety and Mobility Improvement

Project Website at: <u>https://clients.bolton-menk.com/anokafunding/</u> Password: anoka2018

- A Project Location Figure
- B Project Layout Figure
- C Thurston Avenue Interchange Approval
- D Traffic Figures
  - 1. Queuing
  - 2. Major Freight Trip Generators and Truck Movements
  - 3. Existing and Future Traffic Volumes
  - 4. Average Speeds
  - 5. Factors Impacting Local Trips
- E City of Anoka Resolutions and Planning Documents
  - 1. City of Anoka Resolution Accepting Highway 10 Access Planning Study
  - 2. Anoka Solution Plan
  - 3. City Resolution Adopting Anoka Solution Plan
  - 4. City of Anoka Comprehensive Plan Excerpt
  - 5. City of Anoka Resolution Supporting BUILD Application
- F Metropolitan Council Principal Arterial Intersection Conversion Study Excerpt
- G Elected Officials, Agency, and Community Letters/Resolutions of Support
  - 1. US Senator Amy Klobuchar Letter
  - 2. US Representative Tom Emmer Letter
  - 3. State Senator Abigail Whelan Letter
  - 4. Twin Cities Metropolitan Council Letter
  - 5. Anoka County Letter
  - 6. City of Ramsey Letter
  - 7. City of Ramsey Resolution
  - 8. City of Coon Rapids Letter
- H Business and Business Agency Letters of Support
- I Preliminary Funding Plan
- J Highway 10/169 Project Schedule
- K Benefit-Cost Analysis Memorandum and Excel Spreadsheet
  - 1. Highway 10/169 Safety and Mobility Benefit-Cost Analysis Memo
  - 2. Highway 10/169 Safety and Mobility Benefit-Cost Analysis Spreadsheet



## I. Introduction

The City of Anoka is seeking \$13.04 million in BUILD funds to introduce grade separation on a portion of U.S. Highway 10/169 (Highway 10/169) that is now characterized with substantial congestion and crash issues. This amount will close the final funding gap for the project. This portion of Highway 10/169 is viewed by state, regional, and local transportation agencies as one of the highest regional priorities. In fact, a portion of this project was ranked as the number one roadway reconstruction and modernization need within the Twin Cities region during the 2017 round of Surface Transportation Program Funding.

Development of this \$92.9 million project is being led by the City of Anoka, Minnesota, in close coordination and with support from the Minnesota Department of Transportation (MnDOT), the regional planning agency (Metropolitan Council), and Anoka County.

What is the Highway 10/169 Safety and Mobility Improvements Project? The Project, which involves Highway 10/169 from the Anoka/Ramsey city limits to east of the Main Street interchange (1.5 miles), will result in removal of two traffic signals on the mainline, replacing these with one interchange and one a local underpass. The project will also eliminate all other atgrade access points on Highway 10/169 within the Project area. Improvements to the local frontage road system within the city will also encourage local travelers to use local roadways, removing this traffic from Highway 10/169.



This 1+ mile backup occurs every weekday. The Highway 10/169 Project area is a mile west of where this photo was taken.

#### What major issues will the Project address?

*Mobility* - Highway 10/169 transitions from a suburban freeway to a signalized expressway within the Project area. Highway 10/169 is a freeway east of the signalized intersection at Fairoak Avenue. West of Fairoak Avenue the highway is a signalized expressway. The transition of the highway's facility type in Anoka contributes to severe traffic back-ups that result in severe travel delays.



Safety - Highway 10/169 through Anoka experiences over 100 crashes per year. Each week there is at least one crash during a peak period resulting in substantial delays stretching for miles. Many pedestrians cross Highway 10/169 at un-signalized and unmarked locations due to delays or inconvenience. There were 8 pedestrian and bicycle crashes (1 fatal) in the project area in a recent 10year period (2006-2015).

#### Where is the project located? The

Project corridor is located in the Minneapolis-St. Paul metropolitan area (also known as the Twin Cities). The



Attachment A for larger image

study corridor is located between the Mississippi River (to the south) and the Burlington, Northern and Santa Fe (BNSF)/Northstar Rail Corridor (to the north). See **Attachment A** for detailed project location.

The map to the right, from Anoka County's "Greater MN Gateway" webpage, demonstrates the overall Highway 10 corridor within the State of Minnesota and how a large portion of major roadways in the state connect to it. Highway 10 connects the Fargo (North Dakota)/Moorehead (Minnesota) and St. Cloud with the Twin Cities. These are important regional centers.

#### What is the function and importance of Highway 10/169 within the State and Regional Transportation Network? Highway

10/169 is a major corridor for those traveling/commuting and hauling freight between St. Cloud and the Minneapolis-St. Paul area. The highway is also a key link between the Twin Cities and the lakes region in northwestern Minnesota (including the Brainerd area) which is a large draw for outdoor recreational tourism. This is evidenced by frequent congestion on Highway 10/169 on Friday and Sunday afternoons, as well as holiday weekends, as tourists from the Twin Cities and beyond travel to and from the lakes area. Because of the importance the corridor plays in the State's transportation network, it has been dubbed the "Greater MN Gateway," by Anoka County, a major project partner (see:



Highway 10 plays a key role in Minnesota's transportation network, serving commuters, freight haulers, and recreational travelers.



#### www.anokacounty.us/2521/Greater-MN-Gateway).

Highway 10/169 is an important freight corridor designated as part of the National Truck Network as a High Priority Interregional Corridor connecting the Minneapolis/St. Paul to St. Cloud metropolitan areas. The corridor is classified as Tier 2 in the Metropolitan Council's Highway Truck Corridor Study. Today the highway carries 3,300 heavy vehicles per day through the project area. If truck percentages relative to total traffic remain consistent moving forward, we expect 3,500 trucks per day in 2025 and 4,850 trucks per day in 2044 with the project built.

**What will happen if the Project isn't constructed?** With average daily traffic volumes of 60,600 vehicles per day on Highway 10/169 through the City of Anoka, the highway experiences numerous hours of delays caused by existing traffic signals and geometric deficiencies. Additionally, the Project area experiences a significant number of crashes, compared to similar highways throughout the state of Minnesota. Traffic forecasts show that 89,700 vehicles per day are expected to use Highway 10/169 by 2044. This increase in traffic will exacerbate the mobility and safety issues that are currently experienced by all who travel the corridor. See Figure 3 of **Attachment D** for existing and future traffic volumes in the project area.

**What will Project outcomes include?** The Project will increase corridor reliability by providing a 75% reduction in corridor delays through elimination of all at-grade access points and signals on Highway 10/169 in the Project area. The project will also result in a 57% reduction in crashes, greatly enhancing the safety, reliability, and efficiency of the movement of people, goods, and services. These outcomes will provide measurable local, regional, and statewide benefits. The traveling public and freight haulers will benefit from improved fuel

economy as well as decreased and more reliable travel times.

# Why is the City of Anoka applying for BUILD 2018 funding?

The Highway 10/169 Project that is the subject of this application is the culmination of many years of progressive planning that has been completed by MnDOT, Anoka County, and the City of Anoka, all in strong

#### Application Supporting

All Attachments referenced in this application are located at this project website:

- <u>https://clients.bolton-</u> menk.com/anokafunding/
- **Password:** anoka2018

partnership with the Metropolitan Council and neighboring cities. Since completion of the MnDOT led Highway 10 Access Planning Study in 2014, the city has further propelled project recommendations from that study, defining a vision for Highway 10/169 within the city. See Figure 2 of in **Attachment E** and **Attachment B**.

The City of Anoka has developed a realistic funding package with commitments from many agencies, but one that also relies on competitive funding awards such as this program. The project has significant funding secured, full support of all partners, with the city taking the lead on implementation of the improvements.



## II. Project Description

Highway 10/169 is a principal arterial that provides an important connection from Minneapolis -St. Paul to the northwest suburbs and beyond (see **Attachment A**, Project Location). This 4-lane highway carries average traffic volumes of 60,600 vehicles per day through Anoka, of which 3,300 are heavy commercial vehicles. Traveling from the Twin Cities, the Highway 10/169 freeway portion of the highway ends in Anoka and the expressway begins. Drivers encounter two signalized intersections in Anoka, at Fairoak Avenue and Thurston Avenue, along with other access points. The Project corridor, a portion of Highway 10/169 from the Anoka/Ramsey City limits to approximately 1,500 feet east of the Main Street interchange, is commonly congested and has crash rates over 1.5 times higher than the state average for similar facilitates. These conditions cause significant delays, mobility issues for many hours of the day, and safety issues.

Within the Project area, the BNSF line is between <sup>1</sup>/<sub>4</sub> and <sup>1</sup>/<sub>2</sub> mile north of Highway 10/169. The BNSF Railway is one of the largest in the United States, serving approximately 32,500 route miles in 28 states. Within the Project area, BNSF runs approximately 65 freight trains per day at speeds up to 75 mph. Additionally, the average freight train is 2.6 miles long. In addition to the freight trains, these tracks also carry a total of 12 Northstar commuter trains per day (six in each direction) and two Amtrak trains per day (one in each direction).

#### A. Highway 10/169 Safety and Mobility Improvements Project Elements

The Project includes the elements listed below and shown in Attachment B, Project Layout.

- **Highway 10/169 Improvements**—This project will reconstruct Highway 10/169 from approximately 1,500 feet east of Green Haven Road/Main Street to the Anoka/Ramsey City limits, including grade separations and improvements to crossing locations and the local roadway network. Highway 10/169 will be re-graded/reconstructed for approximately 7,900 feet to support grade separations at Fairoak Avenue and Thurston Avenue. When the project is completed, all vehicles will travel the corridor uninterrupted, greatly improving the regional movements through this area.
- **Highway 10/169 Access and Local Circulation**—All at-grade direct access to Highway 10/169 in the project area will be eliminated. Local access will be served with a combination of supporting roadways leading to interchanges at Main Street and Thurston Avenue.
- Thurston Avenue Improvements— Thurston Avenue provides a key connection from Highway 10/169 to numerous businesses and to Anoka Technical College to the north, and additional



Delays on Thurston Avenue inhibit movement of goods from over 70 businesses



businesses and residential areas to the south (see Figure 2 in **Attachment D**). Thurston Avenue provides the only grade-separated crossing of the BNSF railroad between 7th Avenue and Armstrong Boulevard (in Ramsey), a distance over 5 miles. Local businesses and the Anoka Technical College now experience long delays associated with southbound, left-turning traffic from Thurston Avenue onto Highway 10/169.

This area frequently experiences a high percentage of truck traffic, in part due to the Anoka Enterprise Park shown on Figure 2 in **Attachment D**. The Anoka Enterprise Park is a business and industrial park that is home to over 70 businesses. Additionally, Federal Premium Ammunition (parent company, Vista Outdoors), located just south of the business park, has 1,500 employees.

The existing traffic signal at Highway 10/169 and Thurston Avenue will be replaced with a full-access interchange which will allow traffic to flow much more efficiently along the highway and to and from destinations along Thurston Avenue. Documentation of the City of Anoka's request for an interchange at Highway 10/169 and Thurston Avenue through the Metropolitan Council's interchange approval process is included in **Attachment C**.

The Project will remove the all-way stop that is now located less than 500 feet north of Highway 10/169. This stop restricts vehicle flow causing significant queuing numerous hours of the day. This access point will be shifted an additional 500 feet north to improve intersection spacing, and will be improved to an intersection type with greater capacity to maintain movement for commuters and freight along Thurston Avenue. See roundabout on Thurston Avenue north of Highway 10/169 on **Attachment B**, Project Layout Figure.

Fairoak Avenue
 Improvements

**Improvements**—The existing traffic signal at Highway 10/169 and Fairoak Avenue will be removed. A new grade-separated underpass, which will provide local traffic circulation – both motorized and non-motorized - across the highway, will improve safety at this location.

Closing Fairoak Avenue access onto



The project will reduce corridor delays by 75% and reduce crashes by 57%, addressing frequent congestion shown here

the highway will address the close proximity of this intersection to the interchange to the east (1,450 feet center of Fairoak Avenue intersection to the center of Main Street interchange bridge). Access closure will also address the traffic queuing that currently occurs between the Fairoak Avenue traffic signal and the Main Street interchange.



• Main Street Improvements—

The Main Street interchange will be reconstructed with longer ramps to provide standard deceleration/acceleration lengths and roundabouts at the ramp terminals to improve traffic flows and increase safety. The eastbound exit ramp to Main Street will be extended to provide appropriate space for vehicles to decelerate upon entering the new south interchange roundabout. The acceleration lane for the westbound Highway 10/169



Substandard entrance ramp onto Hwy. 10/169 from Main Street

entrance ramp will be extended to provide all vehicles, including heavy commercial vehicles, a longer distance to accelerate onto the highway and merge at highway speeds. Main Street will be reconstructed for approximately 1,500 feet to accommodate the modifications. The Main Street interchange bridge will be replaced. An existing compound curve to the east will be corrected with the proposed project. This will improve safety conditions.

• **Frontage Road Improvements**—The existing public street frontage road system runs between Cutters Lane and Fairoak Avenue along the south side of Highway 10/169, providing access to the local businesses fronting the highway. The frontage road also has highway access in front of fast food restaurants (Culver's and McDonald's) and gas stations (Super America and Kwik Trip) (see inset photo).



The frontage road will be improved to better accommodate trucks and non-motorized traffic

The frontage road allows trucks to access businesses from a low speed, low volume roadway. However, depending on the truck routes, these heavy commercial vehicles need to use Highway 10/169 for potentially short portions of their trips as the frontage road does not connect to Thurston Avenue or to Main Street. Additionally, the tight spacing between the frontage road and Highway 10/169 makes some of the turning movements from or onto the frontage road impossible for these larger vehicles.



The Project will greatly enhance this frontage system by connecting it from Cutters Grove Avenue/Thurston Avenue all the way to Main Street, rather than terminating at Fairoak Avenue as it does in current conditions. Trucks will be able to navigate to their destinations more efficiently by using connections to the frontage road provided at both the Thurston Avenue and Main Street interchanges. This connection also effectively extends Main Street from Downtown Anoka to Thurston Avenue, making the area more easily accessible for all roadway users, including passenger vehicles and pedestrians/bicyclists, without needing to use Highway 10/169 for a portion of the local trip. The south frontage road will include construction of 4,000 feet of new and reconstructed roadway.

#### B. Existing Transportation Challenges and How the Project Addresses These

#### 1. Mobility Challenges

The transition of Highway 10/169 from freeway to expressway in Anoka contributes to severe traffic back-ups, particularly in the westbound direction during peak hour traffic demand. See Figure 1 of **Attachment D**, and inset photos. These back-ups result in severe travel delays, particularly in the PM peak hour.

The traffic signals at Fairoak Avenue and Thurston Avenue require trucks to stop, wait, crawl ahead through multiple signal cycles, and then accelerate from a stopped position through the signal, resulting in significant travel time delay. As shown on Figure 1 of **Attachment D**, Highway 10/169 and side streets – particularly Thurston Avenue – experience long queues, which drastically increases travel times during many hours of the day. Current delays associated



3 hours of this level of congestion every evening workday

with the southbound left turn from Thurston Avenue onto Highway 10/169 average over two minutes per vehicle. These characteristics of the current Highway 10/169 corridor result in:

- Long Travel Times It takes vehicles 4.3 times longer to travel westbound along Highway 10/169 from Highway 47 to Thurston Avenue during peak traffic vs off-peak traffic due to heavy congestion along Highway 10/169. (Eastbound traffic takes 1.25 times longer to travel from Thurston Avenue to Highway 47 in peak vs off-peak).
- Long Queues During the peak hour at Thurston Avenue, the maximum eastbound through queue extends 1,400 feet, the maximum westbound through queue extends 1,600 feet, and the maximum southbound left queue extends 2,250 feet. Trucks make-up 4.5% of the eastbound through traffic, 5.2% of the westbound through traffic and 8.8% of the peak hour southbound lefts.

At Fairoak Avenue maximum eastbound queues extend 1,800 feet, and maximum westbound queues extend 6,100 feet (1.15 miles). Trucks comprise 5.8% of the eastbound through traffic and 6.3% of the westbound through traffic. In addition to trucks travelling



through Anoka on Highway 10/169, several businesses within the project area generate truck traffic. These land uses are shown on Figure 2 in Attachment D. Major truck movements correspond to areas of long queuing in the Project area, which negatively impacts freight reliability through the corridor and to destinations.



1+ mile backups daily from Fairoak Avenue signal

• Long Delays – Long

traffic signal cycle length for streets that intersect with Highway 10/169 results in lengthy delays for traffic on those side streets. This is most pronounced on Thurston Avenue, which passes through the Anoka Enterprise Park. The worst Thurston Avenue delays average over 168 seconds in the morning and 138 seconds during evening peak periods (queue lengths are shown in Figure 1 in **Attachment D**).

- Slow Travel Speeds Average speeds in the Highway 10/169 Project Area during peak hours are much lower than the posted speed of 60 mph. Eastbound traffic averages 46 mph and 40 mph in the morning and evening peak periods. Westbound traffic averages 51 mph in the morning and 20 mph in the evening peak period (See Figure 4 in Attachment D). During these delays time spent in queued traffic means vehicles are regularly starting and stopping. Removing the signal at Thurston Avenue and Highway 10/169 and constructing an interchange will better accommodate all traffic, including truck traffic, which makes up 8.3% of all traffic on Thurston Avenue.
- Unsafe Speeds

- The exit from Highway 10/169 to Main Street provides an unimpeded entrance to the local roadway from the highway as the exit ramp is almost perfectly tangent to the alignment of



Highway traffic enters urban Anoka at near highway speeds due to roadway design

Main Street. The proposed project will introduce a roundabout at this location, which will



effectivly slow travel speeds for motorists exsiting Highway 10/169 and entering the downtown area via Main Street.

#### 2. Safety Challenges

Highway 10/169 through the Project area experiences over 100 crashes per year. <u>Each week</u> there is at least one crash during the peak period that results in substantial delays stretching for <u>miles</u>. The Project will greatly reduce crashes and improve safety thereby greatly improving the reliability of the corridor. Safety concerns through Anoka was one of MnDOT's main drivers in studying this corridor in 2013-2014, as documented in MnDOT's 2014 Highway 10 Access Planning Study.

During a recent 10-year span (2006-2015), 1,128 crashes occurred in the two-mile segment from the Anoka/Ramsey city boundary to the Rum River. This included:

- 2 fatal crashes (2 more occurred in 2003)
- 7 Type "A" incapacitating injury crashes
- 325 people injured in Highway 10/169 area crashes
- 69 crashes involved a heavy commercial vehicle, accounting for 6% of all crashes
- 61% of crashes were rear-end
- 11 bicycle/pedestrian crashes. Pedestrian exposure is high between Thurston Avenue and Main Street. Numerous commercial properties and restaurants directly adjacent to Highway 10/169 in this area attract pedestrian and bicycle traffic from nearby residential neighborhoods.

The current segment crash rate for Highway 10/169 in the Project area (taken as the Anoka/Ramsey city boundary to the Rum River) is 2.52 crashes per million vehicle miles traveled, 1.5 times the Minnesota state average for this type of roadway. This rate includes the intersection crashes at Fairoak and Thurston Avenues and all crashes along Highway 10/169. Since the Fairoak Avenue traffic signal causes substantial backups along westbound Highway 10/169, certain crash types, i.e. rear end crashes, that occur to the east of this location can be largely attributed to the existing traffic signal.

#### 3. Geometric Design

The Highway 10/169 ramps at Main Street are substandard in design. This Project will lengthen the acceleration lane for northbound Main Street to the westbound Highway 10/169 entrance from 300 feet (existing) to 1,200 feet. This new length meets engineering standards and will allow vehicles to merge into traffic at appropriate speeds. The current acceleration length of 300 feet only allows vehicles to reach speeds of approximately 30 mph prior to merging; heavy commercial vehicles travel even slower. This large discrepancy in travel speed between vehicles on the mainline (posted 60 mph) and vehicles entering the highway causes mainline vehicles to slow and creates a shockwave/queuing effect. Large speed discrepancies also have higher potential for crashes.

#### 4. Supporting Roadways

The Project, along with separate local street projects, will provide a continuous supporting roadway network on both sides of Highway 10/169 with grade-separated crossings provided at



Thurston Avenue, Fairoak Avenue, and Main Street. As demonstrated on Figure 5 in **Attachment D**, the existing local transportation network in the Project Area is incomplete for local trips, including both those in motorized and non-motorized vehicles.

The Project includes closing six direct accesses, in addition to providing grade separations at the Thurston Avenue and Fairoak Avenue intersections. These changes will help keep local trips on the local system and off the highway. Pedestrians and bicyclists will be provided with accommodations to allow them to utilize the supporting roadway system to better travel throughout the city.

Upon completion of the Project, freight and deliveries will access the community from Thurston Avenue or Main Street interchanges and will use standard intersections designed to handle large truck movements. Current conditions make it difficult and sometimes impossible to make movements required to access the frontage road due to its tight spacing from the highway.

#### C. Project History: Previous Planning Efforts and Agency Support

This section highlights how the Highway 10/169 corridor vision has evolved over the past several years. As described in the narrative below, the City of Anoka, MnDOT, Anoka County, the City of Ramsey, the Metropolitan Council, and other relevant agencies have established a cooperative and effective relationship supporting the Project submitted in this application.

#### MnDOT Highway 10 Access Planning Study (2014)

• Recommended improvements to Highway 10/169 at Fairoak Avenue and Thurston Avenue emerged from MnDOT's Highway 10 Access Planning Study (2014) as the top regional priority. These recommendations were broadly supported by agencies who partnered in the study. The Metropolitan Council provided letters supporting the Study. The Cities of Anoka and Ramsey and Anoka County passed resolutions generally endorsing the study findings and recommendations. The City of Anoka's resolution is provided as document 1 in **Attachment E**.



Cover of MnDOT's 2014 Hwy. Access Planning Study

#### Anoka Solution Plan

- In 2015 the City of Anoka led further study of Highway 10 within the city limits to refine the ideas presented within the Highway 10 Access Planning Study.
- In June 2015 the City of Anoka met with MnDOT and Anoka County to review concept development since completion of the Highway 10 Access Planning Study. All agencies fully supported the refinements of the vision.



Anoka Solution, See Attachment E



• In July 2015, the City adopted the Anoka Solution plan for Highway 10 by resolution. See documents 2 and 3 in **Attachment E**.

#### Since Adoption of Anoka Solution Plan

- Since adoption, the City of Anoka has further refined the vision with full agency support, as shown on **Attachment B** (project layout).
- The Project is consistent with City of Anoka plans, as evidenced by documentation included in Attachment E which includes support of MnDOT's Highway 10 Access Planning Study, the Anoka Solution Plan and the city's formal adoption, and excerpts from the city's 2030 Comprehensive Plan. The Highway 10/169 Project will also be included in the city's 2040 Comprehensive Plan, which is currently under development and will be finalized in 2018.
- In June 2016 and with MnDOT support, the Anoka City Council took the lead on this Project and dedicated \$2 million towards the improvements.
- In July 2016 MnDOT provided a letter of support for the City's STP Application for the Fairoak Avenue Underpass of Highway 10 Project. The letter noted, "MnDOT, as the agency with jurisdiction over TH 10, would allow the improvements included in the application for the interchange project." In January 2017 the city was awarded \$7 million to construct the Fairoak Avenue Area Improvements; this Project was the highest scoring in its category.
- The city has continued to lead development of improvements on Highway 10/169. Current Project activities include preparation of an Environmental Assessment (to meet NEPA requirements) and preliminary design. These activities will ready the Project for right-of-way acquisition and final design so that FY 2018 BUILD funds can be obligated by September 30, 2020.
- On May 15, 2017 the City of Anoka awarded a construction contract for Green Haven Parkway – Phase I, which had been identified as the first of the projects on the Anoka Solution. This improvement provides a local connection between Thurston Avenue and Garfield Street on the north side of Highway 10/169. This Project was completed Fall 2017 and provides a public road connection through this area. See Attachment B for the location of this improvement.
- In August 2017 the joint MnDOT and Metropolitan Council Interchange Review Committee determined the proposed interchange at Highway 10/169 and Thurston Avenue is consistent with the Metropolitan Council's Transportation Policy Plan. See **Attachment C** for the approval letter.
- In 2017, the Metropolitan Council completed the Principal Arterial Intersection Conversion Study for the Twin Cities metropolitan area. This study ranked the intersections on Highway 10/169 in Anoka as high priority for grade separation. This includes Fairoak Avenue and Thurston Avenue. See an excerpt from this study report specific to Highway 10/169 in Anoka in **Attachment F**. The Principal Arterial



Intersection Conversion Study considered needs at intersections on non-freeway principal arterials throughout the metropolitan area, specifically to set priorities for grade separations. The study recommends grade-separating three intersections in Anoka County - two of which are included in the Project.

## **III. Project Location**

This proposed Project is located in Anoka, Minnesota, in Anoka County, U.S. Congressional District 6. The Project is located in the U.S. Census Bureau's Minneapolis-St. Paul, MN-WI Combined Statistical Urban Area. A map of the Project area within the larger context of the Twin Cities region and the state of Minnesota is included in **Attachment A**.



2017 Principal Arterial Intersecton Conversion Study, recommending gradeseparation on Highway 10/169 in Anoka

## **IV. Project Parties**

#### A. Project Lead and Applicant: City of Anoka, Minnesota

The proposed Project is sponsored by the City of Anoka. A resolution supporting the city's application is included as document 5 in **Attachment E**. The City has committed \$2 million to this Project.

#### **B. Project Partners**

The City has developed the Project in partnership with MnDOT and Anoka County. Letters of support for this application from these agencies are included in **Attachment G**.

#### **C. Project Supporters**

The Project is broadly supported at all levels of government, including US Senator Klobuchar and US Congressman Tom Emmer (see letters of support from these offices are provided in **Attachment G**). The City has received letters of support from the nearby cities of Ramsey and Coon Rapids (see **Appendix G**), local businesses and local business organizations (provided in **Attachment H**).

## V. Grant Funds, Sources, and Uses of All Project Funding

#### A. Grant Funds and Funding Sources

The estimated total cost of the Project is \$92.9 million. As shown in the table below, the City has secured \$79.86 million to date from federal, state, and local sources. The table also reflects the city's request for a 2018 BUILD Discretionary Grant of \$13.04 million.

![](_page_14_Picture_17.jpeg)

#### **TABLE 1: FUNDING SOURCES**

FUNDING SOURCES*	AMOUNT	PERCENT OF
		TOTAL
BUILD Discretionary Grant, 2018 (requested)	\$13,040,000	14.04%
Other Federal		/
- Surface Transportation Program (STP) (administered by Metropolitan Council as MPO through Regional Solicitation program)	\$7,000,000	7.53%
- Minnesota Highway Freight Program (FAST funding)	\$20,000,000	21.54%
Non-Federal		
- State of Minnesota (bonding bill commitment)	\$15,000,000	16.15%
- MnDOT**	\$31,860,000	34.29%
- City of Anoka	\$2,000,000	2.15%
- Anoka County	\$4,000,000	4.3%
TOTAL FUNDING	\$92,900,000	100.00%
TOTAL PROJECT COST	\$92,900,000	100.00%

\*All identified funds other than BUILD request have been secured; see Attachment I.

\*\*Includes committed funds, MnDOT-administered competitive grants secured by City of Anoka, as well as committed construction administration and bridge design services.

The STP source noted in **Table 1** was awarded for the Project corridor between Fairoak Avenue to Main Street. The Project was expanded by the City of Anoka and Project partners MnDOT and Anoka County in July 2017 to include the Thurston Avenue interchange.

A more detailed Preliminary Funding Plan for this Project is included in **Attachment I** which documents known limitations of project funds, including conditions that must be satisfied before obtaining funds and time and/or letting limitations, under the Comments column. The requested BUILD funds would close the final funding gap for the project.

![](_page_15_Picture_8.jpeg)

## B. Project Budget

The Project budget provided below shows how all sources of funding are planned to be spent. These funds are categorized as BUILD, Other Federal, and Non-Federal.

#### TABLE 2: HIGHWAY 10/169 PROJECT BUDGET

				Project Development								
Funding Type	Status	Source	ROW	E	Design ngineering	E Re	invironmental eview/Planning	С	onstruction	Co Adı E	onstruction ministration/ ingineering	TOTAL
		City of Anoka		\$	2,000,000							\$ 2,000,000
		Anoka County		\$	1,800,000			\$	2,200,000			\$ 4,000,000
		MnDOT Services - Bridge		\$	600,000							\$ 600,000
Non Eddard	Socurad	MnDOT Services - Construction								\$	4,560,000	\$ 4,560,000
NOII-Federal	Secured	Transportation Economic Development						\$	5,000,000			\$ 5,000,000
		Local Road Improvement Program						\$	15,000,000			\$ 15,000,000
		MnDOT - RCIP						\$	14,000,000			\$ 14,000,000
		MnDOT - Rum River Bridge Project						\$	7,700,000			\$ 7,700,000
Other Federal	Secured	STP (Fairoak)						\$	7,000,000			\$ 7,000,000
Other rederal		MHFP	\$ 11,000,000			\$	800,000	\$	7,060,000	\$	1,140,000	\$ 20,000,000
BUILD	Submitted	BUILD, FY 2018						\$	13,040,000			\$ 13,040,000
Subtotal			\$ 11,000,000	\$	4,400,000	\$	800,000	\$	71,000,000	\$	5,700,000	\$ 92,900,000
Total Estimated												
Project Cost			\$ 11,000,000	\$	4,400,000	\$	800,000	\$	71,000,000	\$	5,700,000	\$ 92,900,000
Gap			\$ _	\$	_	\$	-	\$	-	\$	-	\$ _

![](_page_16_Picture_6.jpeg)

## VI. Merit Criteria

This section demonstrates how the Highway 10/169 Safety and Mobility Improvements Project aligns with the Merit Criteria, as described in the Notice of Funding Opportunity for the DOT's 2018 BUILD Program.

#### A. Safety

Through elimination of two unsafe at-grade crossings, the Project is anticipated to reduce the number of crashes per million vehicle miles traveled by 57% over existing conditions. We estimate the Project area crash rate for

![](_page_17_Picture_6.jpeg)

Today's Crash Rate = 2.52 Build Crash Rate = 1.09

Highway 10/169 will be reduced from 2.52 to 1.09 as a result of this Project. This translates into reductions in all crash types, most notably fatal and injury crashes. The results of a crash count analysis are provided in **Table 3**.

Crash Type	Number of Crashes in Base Year, 2025—No Build	Number of Crashes in Base Year, 2025—Build Scenario	Number of Crashes in Forecast Year 2044— No Build	Number of Crashes in Forecast Year, 2044—Build Scenario
	Scenario	Scenario	Scenario	Scenario
(K) Fatality	2	1	3	1
(A) Serious Injury	7	3	9	4
(B) Moderate Injury	73	28	97	39
(C) Minor Injury	220	80	291	111
(O) Property Damage Only	826	340	1093	472
Total	1,128	452	1,493	627

#### TABLE 3: CRASH COUNT ANALYSIS

These estimates, for 2025 (first full year of benefits), and forecast year 2044, are provided for both build and no build scenarios. The analysis was completed using a ten-year historical average. As demonstrated in **Table 3**, all crash types, from fatalities to property damage only, would be expected to drop considerably under the build scenario – both in years 2025 and 2044.

The number of crashes anticipated in the forecast year were calculated by assuming the same growth rate in crashes as in traffic volume (no change in crash rate between years). To determine a reduction for the Build Scenario, state averages were used for similar urban freeway segments. Forecast crashes used the same crash severity distribution as existing.

![](_page_17_Picture_13.jpeg)

#### **B. State of Good Repair**

This Project is consistent with relevant plans to maintain transportation facilities or systems in a state of good repair and address current and projected vulnerabilities. The Project is consistent with state, local, and regional planning efforts as evidenced by multiple study documents demonstrating planning efforts and need.

This Project will contribute to the state of good repair by expanding the capacity, improving the safety, and improving the efficiency of a key portion of Highway 10/169. As demonstrated earlier this corridor provides a key link in the Twin Cities region and is also a critical link between the Twin Cities and St. Cloud.

Highway 10/169 traffic exceeds roadway capacity and causes significant changes in travel times for three hours in the afternoon peak period alone on normal days. Without the Highway 10/169 Project traffic operations substantially worsen. Future traffic volumes shown in Figure 3 of **Attachment D**, show that traffic levels are expected to increase by almost 50% along the highway between now and 2044. This level of volume increase will greatly impact congestion in this corridor and make travel even more unreliable than it is currently. All travelers of the corridor will continue to experience unreliable travel times.

The improvements included in the Project will also improve safety conditions on the corridor, resulting in fewer crashes (see the Safety discussion included in Section VI.C.1., Merit Criteria of this application). Improved reliability provided by the corridor will help with travel efficiencies, which will contribute to the economic competitiveness of businesses and industries within the Project area, region, and state.

The Project will improve the condition of the roadway, and life cycle costs will be minimized with construction. Regularly scheduled maintenance will ensure this transportation facility remains in a state of good repair.

#### C. Economic Competitiveness

The increase in traffic volumes anticipated by 2044 will continue to diminish the corridor's attractiveness to businesses to remain or locate in the corridor. This has the potential to negatively affect investments existing businesses make in their operations. It may also negatively impact the location of new businesses in the area. This could would result in overall lower investment in the corridor and, thus, fewer jobs.

This discussion below demonstrates how the Project will contribute to the state, regional, and local economies. These benefits will be realized through reduced congestion, improved reliability, and improved safety.

#### a. Support Existing and Future Traffic Demands

**Table 4** and Figure 3 in **Attachment D** provide existing and future traffic volumes on Highway 10/169.

![](_page_18_Picture_13.jpeg)

Forecast Year (2044		
No Build Scenario	Build Scenario	
84,800	89,700	
108,600	114,750	
5,900	6,200	
4,200	1,700	
220	90	
te	220 ted using travel	

#### TABLE 4: HIGHWAY 10/169 EXISTING AND FUTURE TRAFFIC VOLUMES

Vehicle Miles Traveled and Vehicle Hours Traveled were calculated using travel time and node analysis in VISSIM.

These are also shown on Figure 3, Existing and Future Traffic Volumes, found in **Attachment D**. As shown in the table above, over 64,000 vehicles per day are expected to travel Highway 10/169 in the Project corridor by 2025; this number is anticipated to grow to over 84,000 vehicles per day under the no build scenario. With high levels of congestion delay experienced by drivers today, with 60,600 vehicles per day, conditions will be considerably worse with an additional 20,000 plus vehicles per day.

Annual Average Daily Traffic recorded is on Highway 10/169 only. Vehicle Miles and Vehicle Hours Traveled includes vehicles in the surrounding Project area that are not using Highway 10/169 along with traffic on Highway 10/169. For example, vehicles taking new local connections instead of the highway count towards the totals.

Converting this section of TH 10/169 into a freeway will accommodate the anticipated growth in traffic volumes and, therefore, vehicle miles traveled in the area as shown by the drastic reduction in vehicle hours traveled between no build and build scenarios.

#### b. Support Economic Development

The Highway 10/169 Project will support economic development of businesses located within the Project area, as well as people and freight traveling through the Project corridor by means of improved efficiency and safety along Highway 10/169. Overall delay in the Project area is expected to decrease by 75%. Maintaining and improving both the regional and local aspects of the area's transportation network will improve the attractiveness of this area for doing business. The Project will spur investment and allow companies to expand and add jobs, thus positively

![](_page_19_Picture_10.jpeg)

affecting the state, regional, and local economy. Discussion of specific project elements' impact on economic development is provided below:

• **Highway 10/169** - Currently, Highway 10/169 does not simply have "peak hours" of travel, but rather "peak periods" consisting of numerous hours of delay caused by the existing traffic signals and geometric deficiencies. Vehicles currently traveling this route experience unreliable travel times because of signal delays, congestion resulting from long-back-ups, and frequent crashes (see Figure 1 of Attachment D).

These traffic issues impact the businesses located in the Project corridor. Traffic congestion and crashes on Highway 10/169 and cross roads add delay to the travel times of employees, freight haulers, delivery drivers, and customers traveling to and from local businesses. Congestion also adds time to regional business trips passing through the area on Highway 10/169. These delays lessen the attractiveness of the area for doing business. City staff have heard anecdotal stories that some local businesses only schedule appointments (with job applicants, customers, and sales people) between 10 a.m. and 2 p.m. because traffic and delays during the rest of the day is so unpredictable.

The Project will increase reliability, thereby reducing idling and frequent starting/stopping. Businesses will benefit from better fuel economy as well as decreased and more reliable travel times. Overall trip time reliability will be improved through reduced travel times as vehicles will no longer need to wait at a signal at Thurston Avenue when accessing Highway 10/169. Without the signalized intersections on mainline Highway 10/169, the long queuing and long delays will be eliminated. Travel times and speeds experienced now only in the middle of the night will be commonplace during rush hour and throughout the day, as the freeway is expected to operate near posted speed.

• **Thurston Avenue** - The Project will enhance access to the existing, established industrial park and manufacturing presence at the Anoka Enterprise Park and Federal Premium Ammunition, located just south of the business park. Travel times and reliability to these locations will also be improved. The Project will minimize long queues currently experienced during peak periods southbound on Thurston Avenue. Delays are expected to drop by more than 90% for this movement.

Over 70 businesses located in the Anoka Enterprise Park produce and distribute a wide variety of goods. The most common goods produced in freight-generating businesses are tools, mechanical parts and equipment, medical devices and health care products, flooring, metals, and food products and supplies. Federal Premium brand is one of the world's largest producers of sporting ammunition.

Letters of support from local businesses, including six located in the Anoka Enterprise Park and one from Federal Premium Ammunition, are included in **Attachment H**. Federal Premium Ammunition, with approximately 1,500 employees, is the City's largest employer. Most of these businesses depend on freight to provide materials and ship finished products. They understand the importance of this Project as it relates to the competitiveness and longevity of their businesses in this location.

With improvements to the transportation network, the City of Anoka anticipates the majority of existing facilities currently located in the Project area will remain with some

![](_page_20_Picture_10.jpeg)

growth, and other similar industrial and manufacturing businesses will be attracted to the corridor. These jobs will benefit individuals who work in these industries.

The Project will also benefit the 2,800 students and instructors at the Anoka Technical College (shown on Figure 2 of **Attachment D**). This campus offers more than 35 accredited career programs. A letter of support from Anoka Technical College, in support of the Project, is included in **Attachment H**.

- Main Street Main Street serves as a shortcut and more direct route from Highway 10/169 from the west to southbound Highway 169. Both directions of travel utilize this shortcut to avoid congestion on the mainline as well as congestion at the Highway 10/Highway 169/Highway 47 interchanges. Figure 2 of Attachment D shows the high volume of truck traffic that utilizes this route. Currently, 5.1% of daily traffic (900 vehicles) on Main Street are heavy commercial vehicles. This is projected to increase to 1,350 in the 2044 forecast year.
- Reconfiguring the interchange of Highway 10/169 at Main Street will allow traffic, including commercial vehicles, to move more efficiently, thus benefitting businesses by reducing delays. The extension of the westbound entrance ramp acceleration distance at Main Street will also reduce delay as entering vehicles will not have such a pronounced effect in slowing down mainline traffic during merging.

#### **D. Environmental Protection**

This Project is expected to reduce greenhouse gas and air pollutant emissions within the Project area by minimizing idling, starting, and stopping associated with congestion. The proposed Project will facilitate trips made by foot, by bicycle, or by transit, reducing per capita carbon emissions.

A portion of the proposed Project is partially within the boundary of the Mississippi National River and Recreation Area (MNRRA). This area is south of Highway 10/169 and west of Cutters Grove Avenue. The Project team has and will continue to coordinate with the National Park Service through construction of the Project. As requested by the Park Service, staging equipment and materials for this Project will not be placed within the MNRRA boundary, in an effort to protect the Mississippi River from adverse effect. Moving forward, the Project team will also consider opportunities to limit runoff and erosion in the MNRRA area both during and after construction. Additionally, opportunities to use a vegetated buffer to separate the Mississippi River from the highway and exit ramps will be considered, with regard to Mississippi River Corridor Critical Area land use management regulations.

The Project does not involve the physical or hydrologic alteration of any surface waters. Wetland delineations have been performed in the Project area meeting all applicable regulatory standards and requirements. Based on this field review and the project design as depicted on **Attachment B**, no wetland impacts are anticipated.

The proposed Project is not anticipated to change wildlife use in the area because the existing roadway corridor and immediate surrounding area does not provide significant habitat for wildlife. However, the Project team will coordinate with the Minnesota Department of Natural Resources regarding potential for impacts biotic resources, and work with the agency to avoid impacting any species known to have occurred within a mile of the Project area.

![](_page_21_Picture_11.jpeg)

#### E. Quality of Life

The majority of the residential areas adjacent to Highway 10/169 in the Project area – on both the north and south sides – are multi-family residential, including apartments and townhouses (see Figure 5 in **Attachment D**). According to city data the Project area is home to a 20% non-white race population. The Project area also is the community for many elderly residents.

The Project will improve the safety and travel conditions for the general traveling public, as well as travel related to freight, non-motorized traffic, and transit. The Project will increase the viability of non-motorized transportation and transit for a wider number of people, as well as improve access to essential daily functions, including commuting to jobs and access to services such as retail, medical services, and restaurants. For City of Anoka residents, Highway 10/169 is a major barrier between the north and the south sides of town. This is the result of local neighborhoods being separated when Highway 10 was constructed in 1962. Details of how the project will improve existing quality of life for those travelling through and living in the area are discussed below.

#### 1. Non-motorized Transportation

There are several destinations within the Project area that generate considerable foot traffic. Several fast food restaurants, gas/convenience stores, and a liquor store are in close proximity to the Highway 10/169 and Fairoak Avenue intersection. These destinations, located on both sides of the highway, generate considerable foot traffic. The existing at-grade intersection requires a pedestrian to cross six lanes of traffic (over 100 feet of exposure) and often results in inconvenient wait times as the traffic signal gives priority to the mainline.

High traffic volumes and speeds make Highway 10/169 a challenging corridor for non-motorized travelers. Currently, limited pedestrian facilities exist along the highway within the Project area. However, pedestrians frequently walk alongside the highway, sometimes on shoulders. Many pedestrians also cross Highway 10/169 at signals, and also at un-signalized and unmarked locations due to lengthy signal delays or inconvenience. Eight pedestrian and bicycle crashes (1 fatal) occurred within the Project area from 2006 to 2015.

Non-motorized transportation system enhancements included in the Highway 10/169 Improvement Project will improve connections between area residential areas and major job centers and education facilities, including the Anoka Enterprise Park, Anoka Technical College, and Federal Premium Ammunition. The Project will also enhance connections to essential services, including existing medical facilities (Health Partners Riverway Clinic, located on Green Haven Parkway), and commercial businesses located throughout the Project area, as well as Downtown Anoka to the east. Non-motorized transportation network projects included in the Project are shown in the Project layout in **Attachment B**, and are described below:

- The Fairoak Avenue underpass will include off-street facilities and provide a grade-separated crossing of Highway 10/169.
- The Thurston Avenue/Cutters Grove Avenue will include a sidewalk on the west side of this local roadway, as well as a sidewalk in the western extension of Green Haven Parkway and the north frontage road between the city's western limit and Green Haven Parkway.

![](_page_22_Picture_11.jpeg)

- Continuous walkways along the south frontage road will connect new and existing pedestrian facilities along Fairoak Avenue to an existing walkway on Main Street, establishing a connected route into the downtown core business district.
- The south ramp terminal roundabout will provide safe and convenient pedestrian facilities that connect into the south frontage road trail and the trail on Main Street providing another grade-separated underpass of Highway 10/169.
- Adding a center barrier and a perimeter fence alongside Highway 10/169 in the Project area will eliminate the ability for pedestrians to continue running across the highway at unmarked at-grade locations.

#### 2. Transit

This segment of Highway 10/169 includes several transit routes. Two bus routes utilize the highway, and the Northstar Commuter Rail Line runs along Highway 10/169 using the railroad tracks just to the north. The Northstar Commuter Rail offers service between Big Lake and downtown Minneapolis stopping at Elk River, Ramsey, Anoka, Coon Rapids, and Fridley. Existing transit routes connect commuters to the almost 12,000 jobs in the area and to the Anoka Technical College campus, located just west of Thurston Avenue. The lack of continuous pedestrian routes and safe, convenient crossings of Highway 10/169 also makes access to transit stops in the Project area difficult.

Improved mobility in the Project area will increase reliability of transit. As previously stated, average speeds on Highway 10/169 (Anoka/Ramsey city boundary to Rum River) during peak hours are much lower than the posted speed of 60 mph. Eastbound traffic averages 46 mph and 40 mph in the morning and evening peak periods. Westbound traffic averages 51 mph in the morning and 20 mph in the evening peak period. Consistent crashes only further contribute to delays, congestion and unreliability of efficient transit. New pedestrian facilities will reduce delays and provide opportunity for future transit stops within the Project area.

#### 3. Freight Traffic

Highway 10/169 is an important freight corridor designated as part of the National Truck Network as a High Priority Interregional Corridor connecting the Minneapolis/St. Paul to St. Cloud metropolitan areas. The corridor is classified as Tier 2 in the Metropolitan Council's Highway Truck Corridor Study.

The HCAADT for Highway 10/169 within the Project area is 3,300 heavy commercial vehicles (see Figure 2 of **Attachment D**). These volumes were obtained from 24-hour turning movement counts completed in May 2017 for use in the preliminary design of this Project. Those counts indicate an existing daily traffic volume of 60,600. Using these volumes, heavy commercial trucks account for 5.4% of Highway 10/169 traffic within the Project area. Twenty-year forecasts developed for this Project indicate a HCAADT on Highway 10/169 of 3,500 in the 2025 build year and up to 4,850 in the 2044 forecast year. Figure 3 of **Attachment D** shows the existing, 2025, and 2044 total daily volumes for reference.

Heavy commercial vehicle traffic on Thurston Avenue is noteworthy given the industrial land uses that are located on this local road north of Highway 10/169 (see Figure 2 in **Attachment D**). The 24-hour turning movement count from the intersection of Highway 10/169 at Thurston Avenue indicates daily traffic in the range of 10,200 vehicles per day. This same count revealed 850 heavy commercial vehicles per day, which translates into 8.3% of all traffic. Twenty-year

![](_page_23_Picture_12.jpeg)

forecasts developed for this Project indicate a HCAADT on Thurston Avenue of 900 in the 2025 build year and up to 1,350 in the 2044 forecast year. The Highway 10/169 Improvement Project will result in improved efficiency and safety of freight movement through this interregional corridor by reducing delays, congestion, and minimizing conflicts.

#### F. Innovation

Though not specifically identified at this time, the Project team will consider including Intelligent Transportation System (ITS) elements similar to other freeways in the Twin Cities, as part of Highway 10/169 improvements. Such elements may include cameras, in-pavement system loop detectors, and dynamic message signs. All elements included in the Highway 10/169 Project, if included, would be connected to MnDOT's Regional Transportation Management Center (RTMC), where the Minnesota State Patrol, MnDOT Maintenance, and MnDOT Freeway Operations coordinate to quickly detect, respond to, and remove incidents off of the freeway system. Connection to the RTMC in this location would ensure incidents are responded to quickly so secondary crashes are avoided and roadways operate as efficiently as possible.

The latest construction, contract management and project delivery techniques will be employed to the benefit of the Project. As part of the project delivery process, MnDOT communication staff will keep the public informed of the improvements, particularly those impacted by construction. Techniques include:

- A project-specific website to post updated information and mapping
- Constant Contact software to collect and send project information via email
- Notifications to businesses who in turn notify customers, delivery systems, and suppliers about detours or other project impacts
- Updates on a local radio station with an opportunity for interactive call-in periods
- Updates on social media outlets such as Twitter and Facebook

These outreach efforts have been favorably received by the traveling public and by businesses affected by major construction projects in the county.

#### **G.** Partnership

As discussed above in Section IV, Project Parties, the City of Anoka has developed the Project in partnership with MnDOT and Anoka County. These partners have a long history of collaboration and all are committed to this Project. As the Project has continued to be developed, the City of Anoka will continue to implement the public involvement plan, shown on the next page.

![](_page_24_Picture_14.jpeg)

### TABLE 5 PUBLIC AND AGENCY INVOLVEMENT PLAN

	Meeting Groups Attended By*		Role	Frequency
Direction	Project Management Team (PMT)	<ul><li>City of Anoka</li><li>Project Consultant</li></ul>	<ul> <li>Core working group to lead project development, set strategies, and coordinate</li> <li>Lead development of deliverables</li> </ul>	Monthly Meetings
Project I	Technical Advisory Committee (TAC)	<ul> <li>City of Anoka</li> <li>Anoka County</li> <li>MnDOT</li> <li>Project Consultant</li> </ul>	<ul> <li>Provide county and state agency perspectives</li> <li>Identify project risks</li> <li>Discuss strategies to minimize negative impacts</li> </ul>	Monthly Meetings
gs	Businesses	<ul> <li>Business owners and operators directly affected by project</li> <li>Anoka Business and Land Owner Association</li> <li>Anoka Enterprise Park Board</li> </ul>	• Identify concerns specific to individual business owners/operators regarding project, including during construction	Periodically/ As Needed
lination Meeting	<ul> <li>Community groups</li> <li>Property Owners</li> <li>Emergency Services</li> <li>Schools Parks and Trails</li> </ul>		<ul> <li>Identify community issues and perspectives on project success</li> <li>Work with the project team to resolve issues affecting the local community and businesses</li> </ul>	Ongoing
Coord	Agency Coordination (Local, State, and Federal) • FHWA • National Park Service • MnSHPO • Anoka County • Lower Rum River WMO		<ul> <li>Review issues and opportunities</li> <li>Discuss mitigation strategies to minimize negative impacts</li> </ul>	Periodically/ As Needed
	Utility Coordination	• Utility owners and operators	<ul> <li>Identify project area utilities</li> <li>Develop solutions to conflicts</li> </ul>	Periodically/As Needed
ach	Public Open Houses	<ul><li>Public</li><li>Stakeholders</li></ul>	• Gather input on issues, needs, and opportunities	At key Milestones
ic Outre	City Council Coordination • Council • City Staff • Project Consultant		<ul> <li>Review deliverables and recommendations</li> <li>Make decisions to implement improvements</li> </ul>	At key Milestones
Pub	Other Communications	N/A	<ul><li>Website</li><li>Mailings and newsletters</li><li>Press releases</li></ul>	Ongoing

![](_page_25_Picture_4.jpeg)

#### H. Non-Federal Revenue

The project will not generate non-federal revenue as defined in Section E.1.i.(h) in the Federal Register Notice of Funding Availability for the 2018 BUILD program.

## **VII. Project Readiness**

#### A. Technical Feasibility

The project is technically feasible, as has been demonstrated by the planning studies, preliminary design, and agency coordination completed to date. Fairoak Avenue area and Thurston Avenue improvements were the top regional priorities identified in the 2014 Highway 10 Access Planning Study, which was led by MnDOT in partnership with Anoka County, City of Ramsey, City of Anoka, and Met Council. Previous activities that demonstrate technical feasibility has been and continues to be examined in close coordination with the City of Anoka, MnDOT, Anoka County, and other project partners, is provided in Section II of this application.

Other elements exhibiting technical feasibility are included in this application, including a detailed project description (see Project Description in Section II); project costs and budget (see Section V. Grant Funds, Sources, and Uses of All Project Funding); a project schedule (see the next section of the application, below, and **Attachment J**), and Project risks and potential mitigations (see subsection C below, in this section).

#### **B. Project Schedule**

As demonstrated in the Schedule, shown in **Attachment J**, all required activities will be completed to allow BUILD funds to be obligated by September 30, 2020. All required acquisitions will be completed in a timely manner and in accordance with 49 CRF part 24, 23 CFR part 719 and other applicable legal requirements. It is currently planned that construction will begin in the summer of 2022 and be completed in the fall 2024

#### I. Required Approvals

To meet National Environmental Policy Act (NEPA) and Minnesota Environmental Policy Act (MEPA) requirements, a joint Environmental Assessment/Environmental Assessment Worksheet (EA/EAW) needs to be completed for the project. A draft of the EA/EAW document has been generated by the City and submitted to MnDOT for review. At the time of this funding application, City representatives are responding to MnDOT comments on the draft document, and a subsequent draft is expected to be submitted to the Federal Highway Administration (FHWA) in July 2018. It is anticipated that the EA/EAW review and documentation process will be completed by January of 2019 as shown on the Highway 10/169 Schedule in **Attachment J**. Anticipated federal, state, and local approvals permits are listed in **Table 6**.

Agency	Action
City of Anoka and Anoka County	Property acquisition, land alteration/grading
Minnesota Pollution Control Agency	NPDES Permit and Response Action Plan
MnDOT	EAW Approval
MnDOT	Utility plan review and bridge review
MnDOT	Drainage review and permit
FHWA	EA Approval

#### **TABLE 6: ANTICIPATED APPROVALS & PERMITS**

![](_page_26_Picture_14.jpeg)

#### C. Assessment of Project Risks and Mitigation Strategies

The Project Team has and will continue to approach risk management through proactive investigation of potential risks. The information gathered will be used to help develop preliminary design alternatives. Some anticipated risks are discussed below:

## TABLE 7: PROJECT RISES AND MITIGATION STRATEGIESANTICIPATEDAPPROVALS & PERMITS

Risk Description	Project Phase	Probability	Risk Assessment	Mitigation Strategy	Project Effect
ROW constraints	Preliminary, Final, Construction	Medium	Schedule	Strong communication with affected owners	May constrain/guide solutions
Cost increases	Preliminary	High	Budget & Schedule	QA/QC; Value engineering to ensure optimal design	Manage project costs and schedule
Addressing Stakeholder Concerns and Issues	Preliminary	Medium	Schedule	Public engagement strategies - Context sensitive solutions	Project acceptance from stakeholders
Environmental Issues	Preliminary, Final, Construction	Medium	Budget & Schedule	NEPA and required regulatory processes	May affect cost, staging, and duration
Utilities in corridor risks adding relocation / replacement costs	Preliminary, Design, Construction	High	Schedule and Budget	Strong communications with affected owners	May affect cost, staging, and duration

## VIII. Benefit Cost Analysis

A Benefit-Cost Analysis is included in **Attachment K**. A summary of the Benefit-Cost Analysis results is provided in **Table 8**. The analysis shows considerable benefit to vehicle operators in the Project area in both travel time benefits and operating and maintenance cost benefits far outweigh the cost of constructing the Project. Using a discount rate of 3 percent yields a benefit-cost ratio of 3.893, while a discount rate of 7 percent yields a ratio of 2.075.

![](_page_27_Picture_8.jpeg)

Itom		Build					
Item	P	V (3% Discount Rate)		PV (7% Discount Rate)			
Travel Time Benefit	\$	202,586,000.00	\$	102,824,000.00			
Collision Reduction Benefit	\$	64,549,000.00	\$	33,363,000.00			
Operation and Maintenance Benefit	\$	794,000.00	\$	515,000.00			
Emissions Benefit	\$	(915,000.00)	\$	(445,000.00)			
Vehicle Operating Benefit	\$	(4,481,000.00)	\$	(2,179,000.00)			
PV Total Benefit	\$	262,533,000.00	\$	134,078,000.00			
Major Structures	\$	27,721,000.00	\$	22,596,000.00			
Surfacing	\$	11,314,000.00	\$	9,417,000.00			
Grading and Drainage/Sewer	\$	11,117,000.00	\$	9,259,000.00			
Lighting/Signals	\$	1,792,000.00	\$	1,467,000.00			
Subbase/Base	\$	1,039,000.00	\$	878,000.00			
Engineering	\$	8,678,000.00	\$	7,679,000.00			
Right-of-Way	\$	10,155,000.00	\$	9,145,000.00			
Other Costs	\$	12,261,000.00	\$	10,113,000.00			
PV Total Cost	\$	84,077,000.00	\$	70,554,000.00			
PV Salvage Value	\$	16,648,000.00	\$	5,951,000.00			
(PV Total Cost - Salvage Value)	\$	67,429,000.00	\$	64,603,000.00			
Benefit-Cost Ratio		3.893		2.075			

#### TABLE 8 BENEFIT-COST SUMMARY TABLE

![](_page_28_Picture_4.jpeg)