

#### Application

04774 - 2016 Roadway Modernization		
04964 - Concord Street Improvements		
Regional Solicitation - Roadways Including Multimodal Elements		
Status:	Submitted	
Submitted Date:	07/13/2016 4:12 PM	

### **Primary Contact**

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Department:	Engineering			
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*	South St. Paul	l Minneso	ta	55075
	City	State/Provinc	e	Postal Code/Zip
Phone:*	651-554-3210 Phone		Ext.	
Fax:				
What Grant Programs are you most interested in?	Regional Solici Elements	itation - Roadwa	ays Includin	g Multimodal

### **Organization Information**

Name:

Jurisdictional Agency (if different):

Organization Type:	City			
Organization Website:				
Address:	125 3RD AVE N			

*	SO ST PAUL	Minnesota	55075
	City	State/Province	Postal Code/Zip
County:	Dakota		
Phone:*	612-450-8704		
		Ext.	
Fax:			
PeopleSoft Vendor Number	0000020997A1		

### **Project Information**

Project Name	Concord Street Improvements
Primary County where the Project is Located	Dakota
Jurisdictional Agency (If Different than the Applicant):	MnDOT

The project consists of

reconstruction/modernization of Concord Street, an A-Minor Arterial Reliever to TH 52, from Grand Avenue to 200 feet north of Annapolis Street in South St. Paul. The project will modernize the roadway and drainage, upgrade the traffic signals at Wentworth and Bryant Avenues, and make the corridor more multi-modal with on-street bike lanes and continuous sidewalks. The bike facilities will fill a gap in the Regional Bicycle Transportation Network, connecting Saint Paul, South St. Paul, and beyond with the Mississippi River Trail and Wakota Bridge across the Mississippi River via existing bike shoulders on Hardman and Verderosa Avenues.

Improvements vary throughout the corridor and are described below from south to north.

Brief Project Description (Limit 2,800 characters; approximately 400 words)

A short section of Concord Street from Grand Avenue to Hardman Avenue will be restriped to taper the existing four-lane to the proposed twolane section.

Section B will convert the existing 48-foot, unstriped section to a two-lane cross section with 11-foot lanes and dedicated left turn lanes at intersections. On-street bike lanes will be added. Sidewalks, where existing, will be replaced and widened and will be constructed to fill in gaps on both sides of the street. On-street parking will be maintained where possible, and retaining walls will be replaced as necessary. This section will be repaved, and drainage infrastructure will be replaced.

Section C will convert the existing 48-foot, unstriped section to a three-lane cross section with 11-foot lanes and a 12-foot shared center turn lane. On-street bike lanes will be added. Sidewalks, where existing, will be replaced and widened and

will be constructed to fill in gaps. On-street parking will be removed from both sides of the street. This section will be repaved, and drainage infrastructure will be replaced.

Section D will maintain the existing two-lane section, with dedicated left turn lanes added where necessary. On-street bike lanes and a 10-foot offroad path on the west side will be added. The path will provide connectivity to the Mississippi River Trail and the Dakota County greenway system via the Simon's Ravine trailhead and the River to River Greenway. On-street parking will be maintained in parking bays where necessary. This section will be repaved, and drainage infrastructure will be replaced.

This project will be an investment in traditionally disadvantaged communities; improve bike and pedestrian facilities and network connectivity; improve safety for all modes, including freight, by delineating lanes and adding turn lanes; and improve multimodal access to a Regional Manufacturing area.

Include location, road name/functional class, type of improvement, etc.

<u>TIP Description Guidance</u> (will be used in TIP if the project is selected for funding) Project Length (Miles) TH 156 (Concord St) from Grand Ave to Annapolis St, reconstruction with bike lanes, sidewalks, off-road path

2.2

#### **Project Funding**

Are you applying for funds from another source(s) to implement this project?	Yes
If yes, please identify the source(s)	MnDOT STIP and City funds
Federal Amount	\$7,000,000.00
Match Amount	\$2,200,000.00
Minimum of 20% of project total	
Project Total	\$9,200,000.00

Match Percentage	23.91%		
Minimum of 20% Compute the match percentage by dividing the match amount by the project total			
Source of Match Funds	City of South St. Paul		
A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources			
Preferred Program Year			
Select one:	2020		
For TDM projects, select 2018 or 2019. For Roadway, Transit, or Trail/Pedestrian projects, select 2020 or 2021.			

#### Additional Program Years:

Select all years that are feasible if funding in an earlier year becomes available.

### **Specific Roadway Elements**

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$475,000.00
Removals (approx. 5% of total cost)	\$530,000.00
Roadway (grading, borrow, etc.)	\$450,000.00
Roadway (aggregates and paving)	\$1,600,000.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$1,390,000.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$320,000.00
Traffic Control	\$36,000.00
Striping	\$80,000.00
Signing	\$20,000.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$320,000.00
Bridge	\$0.00
Retaining Walls	\$1,500,000.00
Noise Wall (do not include in cost effectiveness measure)	\$0.00
Traffic Signals	\$100,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$635,000.00
Other Roadway Elements	\$0.00

### **Specific Bicycle and Pedestrian Elements**

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$166,000.00
Sidewalk Construction	\$870,000.00
On-Street Bicycle Facility Construction	\$518,000.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$30,000.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$0.00
Pedestrian-scale Lighting	\$0.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$160,000.00
Other Bicycle and Pedestrian Elements	\$0.00
Totals	\$1,744,000.00

### Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	\$0.00
Stations, Stops, and Terminals	\$0.00
Support Facilities	\$0.00
Transit Systems (e.g. communications, signals, controls, fare collection, etc.)	\$0.00
Vehicles	\$0.00
Contingencies	\$0.00
Right-of-Way	\$0.00
Other Transit and TDM Elements	\$0.00
Totals	\$0.00

### **Transit Operating Costs**

Number of Platform hours

Cost Per Platform hour (full loaded Cost)	\$0.00
Substotal	\$0.00
Other Costs - Administration, Overhead,etc.	\$0.00
Totals	
Totals Total Cost	\$9,200,000.00
	\$9,200,000.00 \$9,200,000.00

#### **Requirements - All Projects**

#### **All Projects**

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

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

2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan objectives and strategies that relate to the project.

- Goal: Transportation System Stewardship; Objective A. Efficiently preserve and maintain...; Strategy A2...identify cost-effective opportunities to incorporate improvements for safety,...bicycle, and pedestrian facilities; page 2.6

- Goal: Safety and Security; Objective A. Reduce crashes and improve safety and security for all modes...; Strategies B1...incorporate safety and security...throughout processes, B6...provide and improve facilities for safe walking and bicycling...; page 2.7

- Goal: Access to Destinations; Objectives A. Increase the availability for multimodal travel options..., D. Increase...the share of trips taken using transit, bicycling, and walking, E. Improve multimodal travel options for people of all ages and abilities...; Strategies C1...systems that are multimodal and provide connections between modes, C2...provide a system of interconnected arterial roads, streets, bicycle facilities, and pedestrian facilities..., C15...focus investments on completing Priority Regional Bicycle Transportation Corridors..., C16...provide for [improved] bicycle and pedestrian...continuity between jurisdictions; page 2.8-2.10

- Goal: Competitive Economy; Objectives A. Improve multimodal access to regional job concentrations..., B. Invest is a multimodal transportation system...; Strategies D3...regional transit and bicycle systems that improve connections to jobs and opportunity; page 2.11

- Goal: Healthy Environment; Objectives C. Increase the availability and attractiveness of

List the goals, objectives, strategies, and associated pages:

transit, bicycling, and walking..., D. Provide a transportation system that promotes community cohesion and connectivity...; Strategies E3...implement a transportation system that considers the needs of all potential users..., E5...protect, enhance and mitigate impacts on the cultural and built environments...; page 2.12-13

- Goal: Leveraging Transportation Investments to Guide Land Use; Objective B. Maintain adequate highway...-accessible land to meet existing and future demand for freight movement; Strategy F3...operate, maintain, and rebuild an adequate system of interconnected highways and local roads; page 2.14

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

City of South St. Paul 2015-2019 Capital Improvement Plan, page 86; City of South St. Paul 2016-2020 Capital Improvement Program, page 112; Metropolitan Council's Draft 2017-2020 Transportation Improvement Program for the Twin Cities Metropolitan Area, page A-16

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

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

List the applicable documents and pages:

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

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

6.Applicants must not submit an application for the same project elements in more than one funding application category.

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

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.

Roadway Expansion: \$1,000,000 to \$7,000,000

Roadway Reconstruction/ Modernization: \$1,000,000 to \$7,000,000

Roadway System Management \$250,000 to \$7,000,000

Bridges Rehabilitation/ Replacement: \$1,000,000 to \$7,000,000

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

8. The project must comply with the Americans with Disabilities Act.

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

9. The project must be accessible and open to the general public.

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

10. The owner/operator of the facility must operate and maintain the project for the useful life of the improvement.

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

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

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

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

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

13. The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

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

#### **Roadways Including Multimodal Elements**

1.All roadway and bridge projects must be identified as a Principal Arterial (Non-Freeway facilities only) or A-Minor Arterial as shown on the latest TAB approved roadway functional classification map.

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

#### Roadway Expansion and Reconstruction/Modernization projects only:

2. The project must be designed to meet 10-ton load limit standards.

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

#### Bridge Rehabilitation/Replacement projects only:

3.Projects requiring a grade-separated crossing of a Principal Arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOTs Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

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

4. The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that <u>are exclusively</u> for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

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

5. The length of the bridge must equal or exceed 20 feet.

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

6. The bridge must have a sufficiency rating less than 80 for rehabilitation projects and less than 50 for replacement projects. Additionally, the bridge must also be classified as structurally deficient or functionally obsolete.

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

#### **Requirements - Roadways Including Multimodal Elements**

#### **Project Information-Roadways**

County, City, or Lead Agency	City of South St. Paul
Functional Class of Road	A-Minor Arterial Reliever
Road System	ТН
TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET	
Road/Route No.	156
i.e., 53 for CSAH 53	
Name of Road	Concord Street
Example; 1st ST., MAIN AVE	
Zip Code where Majority of Work is Being Performed	55075
(Approximate) Begin Construction Date	05/01/2020
(Approximate) End Construction Date	10/31/2021
TERMINI:(Termini listed must be within 0.3 miles of any we	ork)
From: (Intersection or Address)	Grand Avenue
To: (Intersection or Address)	Annapolis Street
DO NOT INCLUDE LEGAL DESCRIPTION	
Or At	
Primary Types of Work	Reconstruct base, surface, curb and gutter, storm sewer, retaining walls, signals, sidewalk, and pedestrian ramps; a bike lanes, sidewalk, off-road
Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER,STORM SEWER,	

add

SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS,

BRIDGE, PARK AND RIDE, ETC.

#### **BRIDGE/CULVERT PROJECTS (IF APPLICABLE)**

Old Bridge/Culvert No.:

New Bridge/Culvert No.:

Structure is Over/Under (Bridge or culvert name):

### Expander/Augmentor/Connector/Non-Freeway Principal Arterial

### Reliever: Relieves a Principal Arterial that is a Freeway Facility

Facility being relieved	TH 52
Number of hours per day volume exceeds capacity (based on the Congestion Report)	0

### Reliever: Relieves a Principal Arterial that is a Non-Freeway Facility

Facility being relieved

Number of hours per day volume exceeds capacity (based on the	^
table below)	0

### Non-Freeway Facility Volume/Capacity Table

Hour	NB/EB Volume	SB/WB Volume	Capacity	Volume exceeds capacity
12:00am - 1:00am			0	
1:00am - 2:00am			0	
2:00am - 3:00am			0	
3:00am - 4:00am			0	
4:00am - 5:00am			0	
5:00am - 6:00am			0	
6:00am - 7:00am			0	
7:00am - 8:00am			0	
8:00am - 9:00am			0	

9:00am - 10:00am	0
10:00am - 11:00am	0
11:00am - 12:00pm	0
12:00pm - 1:00pm	0
1:00pm - 2:00pm	0
2:00pm - 3:00pm	0
3:00pm - 4:00pm	0
4:00pm - 5:00pm	0
5:00pm - 6:00pm	0
6:00pm - 7:00pm	0
7:00pm - 8:00pm	0
8:00pm - 9:00pm	0
9:00pm - 10:00pm	0
10:00pm - 11:00pm	0
11:00pm - 12:00am	0

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

7046
3307
0
1468360147699_Regional Economy Map.pdf

### Measure C: Current Heavy Commercial Traffic

Location:	Concord Street south of Hardman Avenue
Current daily heavy commercial traffic volume:	1094
Date heavy commercial count taken:	6/15/16

### **Measure D: Freight Elements**

The improvements include delineating travel lanes in Sections B and C and adding a continuous shared left turn lane in Section C. The lane delineation will improve visibility and tracking for trucks traveling in this regional manufacturing/distribution center corridor, reducing conflicts with other travel modes. The turn lane will provide designated space for trucks to safely slow down and turn while minimizing conflicts with other vehicles in the corridor.

#### Measure A: Current Daily Person Throughput

Response (Limit 1,400 characters; approximately 200 words)

Location	Concord Street north of Bryant Avenue	
Current AADT Volume	8400	
Existing Transit Routes on the Project	71	
For New Roadways only, list transit routes that will be moved to the new roadway		
Upload Transit Map	1468360302901_Transit Connections Map.pdf	

#### **Response: Current Daily Person Throughput**

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	10920.0

#### Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume

If checked, METC Staff will provide Forecast (2040) ADT volume

#### OR

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

Forecast (2040) ADT volume

#### Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50): Project located in Area of Concentrated Poverty:

Projects census tracts are above the regional average for population in poverty or population of color:

Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly: Response (Limit 2,800 characters; approximately 400 words)

The project will provide substantial investment and transportation system benefit in traditionally disadvantaged communities, including a community that is above the regional average for population in poverty or population of color and an area of concentrated poverty with 50 percent or more residents of color. The project will deliver a multimillion dollar investment in a census tract that has not seen significant highway and infrastructure investment in more than 60 years. The project will also improve the integrated, multimodal transportation system for people of all ages, incomes, and abilities in these areas. The project will close the existing gaps in the non-motorized transportation network, both by connecting to the Regional Bicycle Transportation Network and creating continuous sidewalks in the corridor, helping low-income individuals, children, and others that do not have a car access jobs and bus service in the corridor. The improvements will also upgrade the existing facilities to ADA-compliant facilities, benefitting people with disabilities and young children in strollers. The roadway improvements and resurfacing will provide an improved runningway for transit, both for buses and Metro Mobility, improving the ride quality for customers. Beyond the infrastructure benefits, this project will also create a more welcoming environment and improve the comfort and sense of security for all travelers.

Negative impacts will be limited to construction of the proposed project, which will be temporarily disruptive to the surrounding community and travelers in the corridor. Construction-phase impacts can be mitigated through staging and implementing multimodal best management practices.

The response should address the benefits, impacts, and mitigation for the populations affected by the project.

### Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)
South St. Paul	2.2
Saint Paul	0.04
	2
Total Project Length	
Total Project Length (Total Population)	2.2

### Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township	Segment Length (Miles)	Total Length (Miles)	Score	Leng	jment th/Total ngth	Housing Score Multiplied by Segment percent	
Item Deleted	0	2.24		0	0	0	
		2		0	0	0	

### Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	2.24
Total Housing Score	0

### Measure A: Year of Roadway Construction

19542.24298.81954.0242991954	Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
2 4299 1954	1954	2.2	4298.8	1954.0
		2	4299	1954

### **Average Construction Year**

**Total Segment Length** 

Measure B: Geometric, Structural, or Infrastructure Improvements				
Improving a non-10-ton roadway to a 10-ton roadway:				
Response (Limit 700 characters; approximately 100 words)				
Improved clear zones or sight lines:	Yes			
Response (Limit 700 characters; approximately 100 words)	Sight lines at intersections will be improved by the addition of left turn lanes.			
Improved roadway geometrics:	Yes			
Response (Limit 700 characters; approximately 100 words)	The current lanes are not delineated, which causes driver confusion and is a safety hazard. The proposed improvements would stripe 11-foot lanes, a 12-foot shared left turn lane in one section of the corridor, and dedicated left turn lanes at intersections in the remainder of the corridor.			
Access management enhancements:	Yes			
Response (Limit 700 characters; approximately 100 words)	Properties with multiple driveways will have accesses consolidated during final design where possible.			
Vertical/horizontal alignments improvements:				
Response (Limit 700 characters; approximately 100 words)				
Improved stormwater mitigation:	Yes			
Response (Limit 700 characters; approximately 100 words)	The proposed project includes replacement of the existing storm sewer and improvements to address capacity and flooding issues along the project corridor.			
Signals/lighting upgrades:	Yes			
Response (Limit 700 characters; approximately 100 words)	The signals at Wentworth Avenue and Bryant Avenue will be upgraded with ADA improvements.			
Other Improvements	Yes			

The proposed project includes constructing continuous sidewalks throughout the corridor. Sidewalks are currently intermittent and not ADAcompliant.

Boulevard trees will be planted in Section D.

Total Peak Hour Delay Per Vehicle Without The Project	Total Peak Hour Delay Per Vehicle With The Project	Total Peak Hour Delay Per Vehicle Reduced by Project	Volume (Vehicles per hour)	Total Peak Hour Delay Reduced by the Project:	EXPLANATIO N of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
0	0	0	0	0		14683608707 05_Congestio n_AQ Attachment.pd
Trade						f
Total Delay	1					

#### Measure A: Congestion Reduction/Air Quality

Response (Limit 700 characters; approximately 100 words)

Total Peak Hour Delay Reduced

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

0

Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced Per Vehicle by the Project (Kilograms):	Volume (Vehicles Per Hour):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
0	0	0	0	0
0	0		0	0

Total	
Total Emissions Reduced:	0
Upload Synchro Report	1468425018120_Congestion_AQ Attachment.pdf

Measure B: Roadway projects that are constructing new roadway segments, but do not include railroad grade-separation elements (for Roadway Expansion applications only):

Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced Per Vehicle by the Project (Kilograms):	Volume (Vehicles Per Hour):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	
0	0		0	0	
Total Parallel F	Roadways				
Emissions Reduced or	n Parallel Roadways		0		
Upload Synchro Repo	rt				
New Roadway	Portion:				
Cruise speed in miles	per hour with the proje	ect:	0		
Vehicle miles traveled with the project:			0		
Total delay in hours w	ith the project:		0		
Total stops in vehicles per hour with the project:			0		
Fuel consumption in gallons:			0		
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):			0		
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)					
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):			0.0		

### Measure B:Roadway projects that include railroad grade-separation elements

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0

Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0
EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)	

### **Transit Projects Not Requiring Construction**

If the applicant is completing a transit or TDM application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment. Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.

Check Here if Your Transit Project Does Not Require Construction

### Measure A: Risk Assessment

1)Project Scope (5 Percent of Points)	
Meetings or contacts with stakeholders have occurred	Yes
100%	
Stakeholders have been identified	
40%	
Stakeholders have not been identified or contacted	
0%	
2)Layout or Preliminary Plan (5 Percent of Points)	
Layout or Preliminary Plan completed	Yes
100%	
Layout or Preliminary Plan started	
50%	
Layout or Preliminary Plan has not been started	
0%	
Anticipated date or date of completion	06/29/2016
3)Environmental Documentation (5 Percent of Points)	

EIS	
EA	
PM	Yes
Document Status:	
Document approved (include copy of signed cover sheet)	100%
Document submitted to State Aid for review	75%
Document in progress; environmental impacts identified; review request letters sent	
50%	
Document not started	Yes
0%	
Anticipated date or date of completion/approval	05/01/2019
4)Review of Section 106 Historic Resources (10 Percent of	Points)
No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge	
100%	
Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated	Yes
80%	
Historic/archaeological review under way; determination of adverse effect anticipated	
40%	
Unsure if there are any historic/archaeological resources in the project area	
0%	
Anticipated date or date of completion of historic/archeological review:	05/01/2019
Project is located on an identified historic bridge	
5)Review of Section 4f/6f Resources (10 Percent of Points)	
4(f) Does the project impacts any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or public private historic proper 6(f) Does the project impact any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or historic property that	ties?

date submitted

was purchased or improved with federal funds?

No Section 4f/6f resources located in the project area

100%

No impact to 4f property. The project is an independent bikeway/walkway project covered by the bikeway/walkway Negative Declaration statement; letter of support received

#### 100%

Section 4f resources present within the project area, but no known adverse effects	Yes
80%	
Project impacts to Section 4f/6f resources likely coordination/documentation has begun	
50%	
Project impacts to Section 4f/6f resources likely coordination/documentation has not begun	
30%	
Unsure if there are any impacts to Section 4f/6f resources in the project area	
0%	
6)Right-of-Way (15 Percent of Points)	
Right-of-way, permanent or temporary easements not required	
100%	
Right-of-way, permanent or temporary easements has/have been acquired	
100%	
Right-of-way, permanent or temporary easements required, offers made	
75%	
Right-of-way, permanent or temporary easements required, appraisals made	
50%	
Right-of-way, permanent or temporary easements required, parcels identified	Yes
25%	
Right-of-way, permanent or temporary easements required, parcels not identified	
0%	
Right-of-way, permanent or temporary easements identification has not been completed	
0%	
Anticipated date or date of acquisition	01/01/2020
7)Railroad Involvement (25 Percent of Points)	
No railroad involvement on project	Yes
100%	
Railroad Right-of-Way Agreement is executed (include signature page)	100%
Railroad Right-of-Way Agreement required; Agreement has been initiated	

#### 60%

0078	
Railroad Right-of-Way Agreement required; negotiations have begun	
40%	
Railroad Right-of-Way Agreement required; negotiations not begun	
0%	
Anticipated date or date of executed Agreement	
8)Interchange Approval (15 Percent of Points)*	
*Please contact Karen Scheffing at MnDOT (Karen.Scheffing@state.m to determine if your project needs to go through the Metropolitan Coun Interchange Request Committee.	
Project does not involve construction of a new/expanded interchange or new interchange ramps	Yes
100%	
Interchange project has been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee	
100%	
Interchange project has not been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee	
0%	
9)Construction Documents/Plan (10 Percent of Points)	
Construction plans completed/approved (include signed title sheet)	
100%	
Construction plans submitted to State Aid for review	
75%	
Construction plans in progress; at least 30% completion	Yes
50%	
Construction plans have not been started	
0%	
Anticipated date or date of completion	12/01/2019
10)Letting	
Anticipated Letting Date	02/01/2020

### Measure A: Roadway Projects that do not Include Railroad Grade-Separation Elements

**Crash Modification Factor Used:** 

	There are three areas of the corridor that will
	experience reductions in crashes. The first one is
	providing a two-way left-turn lane for Section C,
	which results in a CMF of 0.44 (three star rating).
Rationale for Crash Modification Selected:	Additionally, dedicated northbound left-turn lanes
Rationale for orasin modification delected.	are being provided along TH 156 at Butler Street
	and Annapolis Street. The CMF for adding one left-
	turn lane on the major street is 0.26 (five star
	rating). The benefit for all three individual
	improvements were totaled.
(Limit 1400 Characters; approximately 200 words)	
Project Benefit (\$) from B/C Ratio	\$1,829,946.00
Worksheet Attachment	1468361090967_Safety Attachment.pdf

### Roadway projects that include railroad grade-separation elements:

Current AADT volume:	0
Average daily trains:	0
Crash Risk Exposure eliminated:	0

Measure A: Multimodal Elements and Existing Connections

The project area currently includes bus service and intermittent sidewalks, often on one side of the street. The project area is currently served by Route 71, a local bus route that runs from Inver Grove Heights to Little Canada. Bike lanes on Concord Street currently end in Saint Paul and there are no sidewalks that connect to Simon's Ravine trailhead near Butler Avenue, which leads to the River to River Greenway and the Mississippi River Regional Trail.

The improvements include the construction of onstreet bike lanes, continuous sidewalks, and an offroad path. In Sections B and C, six-foot bike lanes and eight- to 10-foot sidewalks will be added on both the east and west sides of the street. In Section D, six-foot bike lanes will be added on both sides of Concord Street, and a 10-foot path will be added on the west side, separated from the travel lanes by a six-foot boulevard.

The new pedestrian facilities will fill gaps in the existing sidewalk network and provide connections to bus stops and Simon's Ravine trailhead, which leads to the River to River Greenway and Mississippi River Regional Trail. The boulevards separating the pedestrians from the bikes and cars in some portions of the corridor will contribute to pedestrians' sense of safety.

The project area is identified as a Tier 1 corridor in the Regional Bicycle Transportation Network (RBTN), and the new bike facilities will fill gaps in the existing RBTN. Via the existing bike shoulders on Hardman and Verderosa Avenues, the bike lanes will also provide a connection to the Mississippi River Regional Trail and to the Wakota Bridge across the Mississippi River. This will enhance regional bicycle connectivity and support commuting bicyclists by providing connections to

Response (Limit 2,800 characters; approximately 400 words)

the east, south, and north. The pedestrian and bicycle improvements will allow for easier, safer, and more efficient non-motorized travel in the corridor and beyond.

The proposed project will improve ride quality on buses and provide more and safer options for transit customers boarding and alighting from buses in the corridor.

### **Measure A: Cost Effectiveness**

Total Project Cost (entered in Project Cost Form):	\$9,200,000.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$9,200,000.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

#### **Other Attachments**

File Name	Description	File Size
Concord Street Layout_Updated.pdf	Project Layout	6.3 MB
Existing Conditions Photos.pdf	Existing Conditions Photos	6.4 MB
Federal STBGP Letter of Support for Concord Boulevard.pdf	Dakota County Letter of Support	504 KB
Figure from SSP Bike & Ped Plan.pdf	South St. Paul Bicycle Network	673 KB
RBTN Map.pdf	Regional Bicycle Transportation Network Map	876 KB
TH156_Concord MnDOT letter of support.pdf	MnDOT Letter of Support	106 KB

#### Roadway Area Definition Roadway Reconstruction/Modernization Project: Concord Street Improvements | Map ID: 1466523623052 Conway Ave .94 Landfall Hudson Rd Acre Battle Creek Regional Park Blvd W 52 Results Battle Creek Regional Park St. Paul Project Length: 2.218 miles Downtown Lower Alton 0 5 Airport Battle Creel Deorge St W Regional Park Project Area: 4.785 sq mi 149 N.O. Cherokee Regional Park Annapolis S1 W Annapolis St E Linwood Ave 218 dale Pigs Eye Lake Courty Rd Highwood Ave Ojibway Park 13 4:785 sq mi West St. Paul Pig's Eye Island Rookery SNA Thompson Ave Carver Ave Wentworth Ave W Dodgo Natura Center Marie Ave W Bailey Rd South St. Paul ights Mendota Rd E 110 Dodge Nature Center Newport Sunfish Lake Loveland 52 Gian Rd Park Der 55th 5. Onell Rd Metropolitan Council South St. Paul Project Points -Principal Arterials A Minor Arterials Planned A Minor Arterials Project Project Area Principal Arterials Planned Created: 6/21/2016 0.5 2 3 4 0 1 For complete disclaimer of accuracy, please visit METROPOLITAN ⊐ Miles http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx LandscapeRSA1





Socio-Economic Conditions Roadway Reconstruction/Modernization Project: Concord Street Improvements | Map ID: 1466523623052

Results

0.5

Project located IN Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50): (0 to 30 Points)



# Concord Street Improvements Project City of South St. Paul

No Synchro or HCM analysis was completed for this project.

# Concord Street Improvements Project City of South St. Paul

No Synchro or HCM analysis was completed for this project.

B/C worksheet		Control Section	T.H. / Roadway			Location			Begii Ref			Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends		
		t		156	TH 156 (Concord Street) from Grand Avenue to Annapolis Street)								South Saint Paul	1/1/2013	12/31/2015		
Description of Proposed Work Roadway modific					ificat	ions alon	g FM 156 bet	ween Grand A	Avenue an	d Annapo	lis St	reet					
Accid	ent Dia		1		2	-	3 5		5	4, 7		8,9			6, 90, 98, 99	3, 99	
			<b></b>				<u>_</u>		<b>_</b> _					Pedestrian	Other	Total	
	Fatal	F	0		0			0	0	0			0 0		0		
	y (PI)	A		1	0			0	0	0			0	0	0	1	
Study Period:	Personal Injury (PI)	в		0	0			0	0	(	)		0	0	0		
Number of Crashes	Person	с		1	0			0	0	(	)		0	0	0	1	
	Property Damage	PD	4		2			1	3	(	)		0	0	0	10	
% Change	Fatal	F	-4	4%	-44%		-4	44%	-44%	-44	1%		-44%	-44%	-44%		
in Crashes		A	-44%		-44%		-4	44%	-44%	-44%			-44%	-44%	-44%		
*Use FHWA	PI	в	-4	4%	-44%		-4	44%	-44%	-44	1%		-44%	-44%	-44%		
cmfclearingho use for Crash		с	-4	4%	-44%		-4	44%	-44%	-44	1%		-44%	-44%	-44%		
Reduction Factors	Property Damage		-4	4%	-44%		-4	-44%		-44	1%		-44%	-44%	-44%		
	Fatal	F															
		A	-0	.44												-0.44	
Change in Crashes	PI	в															
= No. of		с	-0	.44												-0.44	
crashes X % change in crashes Z		-0.88		-1	0.44	-1.32							-4.40				
<b>Year</b> (Safety I			t Construct	ion)	2020												
Project Cost (exclude Right of Way) \$ 2,6			\$ 2,000,0	00	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost pe	r Crash		Annual Benefit		B/C=	0.79			
Right of Way Costs (optional)					F			\$1,	140,000			Using present	t worth valu	es,			
Traffic Growth Factor 1%						Α	-0.44	-0.15	\$	570,000	\$	83,676	B=		1,578,632		
Capital Recovery					В			\$	170,000			C=	\$	2,000,000			
1. Discount Rate 4.5%					С	-0.44	-0.15	\$	83,000	\$	12,184	See "Calculations" sheet for amortization					
2. Project	Servi	ce Lif	fe (n)		20		PD -4.40 -1.47 \$			7,600	\$	11,157					
							Total Updated 12-10-2015				\$	107,018					

Updated 12-10-2015

-



### **Study Details**

Study Title: The Safety and Operational Effects of Road Diet Conversion in Minnesota

Authors: Gates et al.

#### **Publication Date: 2007**

Abstract: Research was undertaken to explore the safety and operational effects of converting four-lane undivided roadways to three-lanes with a center two-way left turn lane (TWLTL) in Minnesota. Such conversions are commonly referred to as "road diets", Speed and/or crash data were collected for 9 road diet sites in Minnesota. Using multiple years of before and after data from each site, several statistical analyses were performed using both Empirical Bayes and Grouped Comparison procedures. Based on the results of an Empirical Bayes statistical analysis of total crashes, consistent decreases in the total crashes were observed after the road diet conversions at all seven sites for which crash data were available. The range of Empirical Bayes crash reductions between the seven sites varied from 37.3 to 54.3 percent, with an overall total crash reduction of 44.2 percent (408 crashes reduced). Crashes were also analyzed by injury status (injury vs. non-injury) and type (rear end, right angle, and left turn) using a Grouped Comparison procedure, which showed a net reduction in crashes after the conversions for non-injury and right angle crashes, with crash reductions of 45.7 and 37.0 percent, respectively. A net crash reduction was also observed for rear end and left turn crashes, although the reductions were not significant. Injury crashes showed negligible change. Reductions in the mean and 85th percentile speeds after the conversions were observed at each of the six sites for which speed data were available, with a median reduction in both the mean and 85th speeds of 2 mph. The research findings suggest that conversion of four-lane undivided to three-lane TWLTL roadways is a recommended option within a given range of average daily traffic (ADT) values if the roadway of interest is experiencing safety problems related to left-turning traffic conflicting with through vehicles, which is typical of four-lane undivided roadways with several unsignalized intersections or commercial driveways.

**Study Citation:** Gates, T. J., Noyce, D. A., Talada, V., and Hill, L., "The Safety and Operational Effects of "Road Diet" Conversion in Minnesota." 2007 TRB 86th Annual Meeting: Compendium of Papers CD-ROM, Vol. TRB#07-1918, Washington, D.C., (2007)

### **CMFs Associated With This Study**

#### **Category: Roadway**

Countermeasure: Narrow cross section (4 to 3 lanes with two way left-turn lane)

CMF	CRF(%)	Quality	Crash Type	Crash Severity	Roadway Type	Area Type
0.63	37	***	All	All	Not specified	Urban
<u>1</u>	<u>0</u>		All	Fatal,Serious injury,Minor injury	Not specified	Urban
<u>0.54</u>	<u>46</u>	***	All	Property damage only (PDO)	Not specified	Urban
0.76	24	<b>WARK</b>	Angle	All	Not specified	Urban
0.69	31	***	Rear end	All	Not specified	Urban
<u>0.63</u>	<u>37</u>	會會會會意意	Angle	All	Not specified	Urban

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

http://www.cmfclearinghouse.org/study\_detail.cfm?stid=68

#### For more information, contact Karen Scurry, FHWA Office of Safety Programs 609-637-4207

The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.
<b>B</b> /			Control Section			Loca	tion			ginning ef. Pt.	Ending Ref. Pt.		State, County, City or Township	Study Period Begins	Study Period Ends
worksheet		t		156	TH 156 (Concord Street) at Butler St								South Saint Paul	1/1/2013	12/31/2015
Description of Proposed Work			Addition of a dec	icated nort	hbound left-tu	Irn lane at the	intersec	ction of TH	156 and Butler Stre	æt					
Accide	ent Dia	gram Codes	1		2	3		5	4, 7		8, 9			6, 90, 98, 99	
		/		<b>&gt;-&gt;</b>	<b>_</b>	J	◄					<u> </u>	Pedestrian	Other	Total
	Fatal	F	-	0	0		0	0		0	0		0	0	
	y (PI)	A		0	0		0	0		0	0		0	0	
Study Period:	Personal Injury (PI)	в		0	0		0	0		0	0		0	0	
Number of Crashes	Person	с		0	0		0	0		1	0		0	0	1
	Property Damage	PD		0	0		0	0		1	1		0	0	2
% Change	Fatal	F	-2	26%	-26%	-	26%	-26%	-	26%	-26%		-26%	-26%	
in Crashes		A	-2	26%	-26%	-	26%	-26%	-	26%	-26%		-26%	-26%	
*Use FHWA	PI	в	-2	26%	-26%	-	26%	-26%	-	26%	-26%		-26%	-26%	
cmfclearingho use for Crash		с	-2	26%	-26%	-	26%	-26%	-	26%	-26%		-26%	-26%	
Reduction Factors	Property Damage	PD	-2	26%	-26%	-	26%	-26%	-	26%	-26%		-26%	-26%	
	Fatal	F													
		A													
Change in Crashes	PI	В													
= No. of		с							-	0.26					-0.26
crashes <b>X</b> % change in crashes	Property Damage	PD							-	0.26	-0.26				-0.52
<b>Year</b> (Safety I	Improv	ement	Construct	tion)	2020										
Project Cost (exclude Right of Way)		\$ 2,000,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost	per Crash	Annual Ber	nefit		B/C=	0.06			
Right of Way Costs (optional)		F			\$	1,140,000			Using presen						
Traffic Growth Factor 1%		Α			\$	570,000			B=	<u> </u>	125,657				
Capital Recovery			В			\$	170,000			C=	\$	2,000,000			
1. Discount Rate 4.5%			С	-0.26		-	83,000	\$	7,200	See "Calcula	tions" sheet	for amortization.			
2. Project	Servio	e Lif	če (n)		20	PD	-0.52	-0.17	\$	7,600	\$	1,319			
						Total				d 12-10-2015	\$	8,518			

Updated 12-10-2015

-



# AV6 26%

## **CMF / CRF Details**

CMF ID: 261

### Provide a left-turn lane on one major-road approach

Description:

Prior Condition: No Prior Condition(s)

Category: Intersection geometry

Study: Safety Effectiveness of Intersection Left- and Right-Turn Lanes, Harwood et al., 2002

Star Quality Rating: 🔺 🛊 🛊 🚖

	Crash Modification Factor (CMF)
Value:	0.73
Adjusted Standard Error:	0.04
Unadjusted Standard Error:	

#### **Crash Reduction Factor (CRF)**

Value:	27 (This value indicates a <b>decrease</b> in crashes)			
Adjusted Standard Error:	4			
Unadjusted Standard Error:				

### Applicability

Crash Type:	All	
Crash Severity:	All	
Roadway Types:	Not Specified	

Number of Lanes:

Road Division Type:

Speed Limit:

Area Type: Urban

Page	2	of	2

Traffic Volume:	
Time of Day:	
	If countermeasure is intersection-based
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)
	Development Details
Date Range of Data Used:	
Municipality:	
State:	

Country:

Type of Methodology Used:

Before/after using empirical Bayes or full Bayes

Sample Size Used:

#### **Other Details**

Included in Highway Safety Manual? Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.

Date Added to Clearinghouse:

Comments: Countermeasure name changed to match HSM

		Details]

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### **CMF / CRF Details**

CMF ID: 263

### Provide a left-turn lane on one major-road approach

Description:

Prior Condition: No Prior Condition(s)

Category: Intersection geometry

Study: Safety Effectiveness of Intersection Left- and Right-Turn Lanes, Harwood et al., 2002

Star Quality Rating: 😭 🚖 🚖 🌟

#### **Crash Modification Factor (CMF)**

Value:			
Adjusted Standard Error:	0.03		
Unadjusted Standard Error:			

#### Crash Reduction Factor (CRF)

Value:	24 (This value indic	cates a <b>decrease</b> in crash	es)
Adjusted Standard Error:	3		
Unadjusted Standard Error:	3		

#### Applicability

Crash Type:	All
Crash Severity:	All
<b>Roadway Types:</b>	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

http://www.cmfclearinghouse.org/detail.cfm?facid=263

Page		

Traffic Volume:		
Time of Day:		
	If countermeasure is intersection-based	
Intersection Type:	Roadway/roadway (not interchange related)	
Intersection Geometry:	4-leg	
Traffic Control:	Signalized	
Major Road Traffic Volume:	Minimum of 4600 to Maximum of 40300 Average Daily Traffic	(ADT)
Minor Road Traffic Volume:	Minimum of 100 to Maximum of 13700 Average Daily Traffic ( $\prime$	ADT)
	Development Dataile	
	Development Details	
Date Range of Data Used:		
Municipality:		
State:		
Country:		
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes	
Sample Size Used:		
	Other Details	
Included in Highway Safety Manual?	Yes. HSM lists this CMF in <b>bold</b> font to indicate that it has the it has an adjusted standard error of 0.1 or less.	highest reliability since
Date Added to Clearinghouse:		
Comments:	Countermeasure name changed to match HSM	
		Export PDF
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		a PDF file

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### **CMF / CRF Details**

CMF ID: 265

### Provide a left-turn lane on one major-road approach

Description:

Prior Condition: No Prior Condition(s)

Category: Intersection geometry

Study: Safety Effectiveness of Intersection Left- and Right-Turn Lanes, Harwood et al., 2002

Star Quality Rating: 👚 🚖 🚖 🚖

	Crash Modification Factor (CMF)	ĺ.
Value:	0.71	
Adjusted Standard Error:	0.05	

Unadjusted Standard Error: 0.04

#### Crash Reduction Factor (CRF)

	29 (This value indicates a <b>decrease</b> in crashes)
Adjusted Standard Error:	5
Unadjusted Standard Error:	

#### Applicability

Crash Type:	All
Crash Severity:	Fatal, Serious Injury, Minor Injury
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban

http://www.cmfclearinghouse.org/detail.cfm?facid=265

**Traffic Volume:** 

Time of Day:

	If countermeasure is intersection-based
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)

#### **Development Details**

Date Range of Data Used:

Municipality:

State:

and a market

Country:

Type of Methodology Used:

Sample Size Used:

#### **Other Details**

Before/after using empirical Bayes or full Bayes

**Included in Highway Safety Manual?** Yes. HSM lists this CMF in **bold** font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.

Date Added to Clearinghouse:

Comments: Countermeasure name changed to match HSM

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			Control Section	T.H. / Roadway		Loca	tion			eginning Ref. Pt.		Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
			156	TH 156 (Concord	l Street) at	Annapolis Sti	reet					South Saint Paul	1/1/2013	12/31/2015	
			Descript Proposed		Addition of a dec	licated nort	hbound left-tu	arn lane at the	interse	ection of TH	156 and An	napolis Street			
Accid	ent Dia				2	3		5	4,7		8, 9		6, 90, 98, 99		
		/			<b>_</b>	J		<del>\</del>					Pedestrian	Other	Total
	Fatal	F		0	0		0	0		0		0	0	0	
	y (PI)	A		0	0		0	0		0		0	0	0	
Study Period:	Personal Injury (PI)	в		0	0		0	0		0		0	0	0	
Number of Crashes		с		0	0		0	0		0		0	0	1	1
	Property Damage	PD		0	0		0	1		1		0	0	0	2
% Change	Fatal	F	-2	26%	-26%	=	26%	-26%		-26%		-26%	-26%	-26%	
in Crashes		A	-2	26%	-26%	-	26%	-26%		-26%		-26%	-26%	-26%	
<u>*Use FHWA</u>	PI	в	-2	26%	-26%	-	26%	-26%		-26%		-26%	-26%	-26%	
cmfclearingho use for Crash		с	-2	26%	-26%	-	26%	-26%		-26%		-26%	-26%	-26%	
Reduction Factors	Property Damage	PD	-2	26%	-26%	-	26%	-26%		-26%		-26%	-26%	-26%	
	Fatal	F													
		A													
Change in Crashes	PI	в													
= No. of		с												-0.26	-0.26
crashes <b>X</b> % change in crashes	Property Damage	PD						-0.26		-0.26					-0.52
Year (Safety I	Improv	ement	Construct	ion)	2020										
Project Cost (exclude Right of Way) \$ 2,00		\$ 2,000,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost	per Crash	Ann	ual Benefit		B/C=	0.06			
Right of Way Costs (optional)		F			\$	1,140,000			Using present	t worth valu	es,				
Traffic Growth Factor 1%			Α			\$	570,000			B=		125,657			
Capital Recovery			В			\$	170,000			C=	\$	2,000,000			
1. Discoun	t Rate	e			4.5%	С	-0.26			83,000		7,200	See "Calculat	tions" sheet	for amortization.
2. Project	Servio	e Lif	e (n)		20	PD	-0.52	-0.17	\$	7,600	\$	1,319			
						Total				ed 12-10-2015	\$	8,518			

Updated 12-10-2015

-



### **CMF / CRF Details**

CMF ID: 261

### Provide a left-turn lane on one major-road approach

Description:

Prior Condition: No Prior Condition(s)

Category: Intersection geometry

Study: Safety Effectiveness of Intersection Left- and Right-Turn Lanes, Harwood et al., 2002

Star Quality Rating: 🗌 🏫 🚖 🚖

	Crash Modification Factor (CMF)
Value:	0.73
Adjusted Standard Error:	
Unadjusted Standard Error:	0.03

#### **Crash Reduction Factor (CRF)**

Value:	27	(This value indicates a <b>decr</b> e	ease in crashes)		
Adjusted Standard Error:					
Unadjusted Standard Error:					

### Applicability

Crash Type:		
Crash Severity:		
Roadway Types:	Not Specified	
Number of Lanes:		
Road Division Type:		
Speed Limit:		
Area Type:	Jrban	

http://www.cmfclearinghouse.org/detail.cfm?facid=261



Traffic Volume:	
Time of Day:	
	If countermeasure is intersection-based
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)
	Development Details
Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	
	Other Details
Included in Highway Safety Manual?	Yes. HSM lists this CMF in <b>bold</b> font to indicate that it has the highest reliability since it has an adjusted standard error of 0.1 or less.

Date Added to Clearinghouse:

**Comments:** Countermeasure name changed to match HSM

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For more information, contact Karen Scurry, FHWA Office of Safety Programs 609-637-4207



### **CMF / CRF Details**

**CMF ID: 263** 

### Provide a left-turn lane on one major-road approach

Description:

Prior Condition: No Prior Condition(s)

Category: Intersection geometry

Study: Safety Effectiveness of Intersection Left- and Right-Turn Lanes, Harwood et al., 2002

Star Quality Rating: 🔺 🚖 🚖 🚖

Crash Modification Factor (CMF)		
Value:	0.76	
Adjusted Standard Error:	0.03	
Unadjusted Standard Error:		

#### **Crash Reduction Factor (CRF)**

Value:	24 (This value indicates a <b>decrease</b> in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	

### Applicability

Crash	Type:	All

Crash Severity: All

Roadway Types: Not Specified

Number of Lanes:

and the second sec

Road Division Type:

Speed Limit:

Area Type: Urban

http://www.cmfclearinghouse.org/detail.cfm?facid=263

Traffic Volume:	
Time of Day:	
	If countermeasure is intersection-based
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	Minimum of 4600 to Maximum of 40300 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 100 to Maximum of 13700 Average Daily Traffic (ADT)
	Development Details
Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	
	Other Details
Included in Highway Safety Manual?	Yes. HSM lists this CMF in <b>bold</b> font to indicate that it has the highest reliability since it has an adjusted standard error of $0.1$ or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM
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### **CMF / CRF Details**

CMF ID: 265

### Provide a left-turn lane on one major-road approach

Description:

Prior Condition: No Prior Condition(s)

Category: Intersection geometry

Study: Safety Effectiveness of Intersection Left- and Right-Turn Lanes, Harwood et al., 2002

Star Quality Rating: 👷 🚖 🚖

### **Crash Modification Factor (CMF)**

Value:	0.71	
Adjusted Standard Error:	0.05	
Unadjusted Standard Error:		
Unadjusted Standard Error:	0.04	

#### **Crash Reduction Factor (CRF)**

	29 (This value indicates a decrease in crashes)		
Adjusted Standard Error:	5		
Unadjusted Standard Error:	4		

#### Applicability

Crash Type:	All
Crash Severity:	Fatal,Serious Injury,Minor Injury
Roadway Types:	Not Specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	

Area Type: Urban

http://www.cmfclearinghouse.org/detail.cfm?facid=265

Traffic Volume:	
Time of Day:	
	If countermeasure is intersection-based
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	Minimum of 1500 to Maximum of 40600 Average Daily Traffic (ADT)
Minor Road Traffic Volume:	Minimum of 200 to Maximum of 8000 Average Daily Traffic (ADT)
	Development Details
Date Range of Data Used:	
Municipality:	
State:	
Country:	
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	
	Other Details
Included in Highway Safety Manual?	Yes. HSM lists this CMF in <b>bold</b> font to indicate that it has the highest reliability since it has an adjusted standard error of $0.1$ or less.
Date Added to Clearinghouse:	
Comments:	Countermeasure name changed to match HSM
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# **Existing Conditions**

# Google Earth Plan View Photos – Full Corridor from South to North













Concord Street Improvements City of South St. Paul



Concord Street Improvements City of South St. Paul







Concord Street Improvements City of South St. Paul

















## Google Earth Street View Photos

Concord Street at Grand Avenue (looking northwest)





Concord Street north of Wentworth Avenue (looking northwest)



Concord Street south of Central Avenue (looking northwest)



Concord Street south of Butler Avenue (looking northwest)



July 13, 2016

Physical Development Division Steven C. Mielke, Director

> Dakota County Western Service Center 14955 Galaxie Avenue Apple Valley, MN 55124-8579

> > 952.891.7000 Fax 952.891.7031 www.dakotacounty.us

Environmental Resources Land Conservation Groundwater Protection Surface Water Waste Regulation Environmental Initiatives

Office of Planning

Operations Management Facilities Management Fleet Management Parks

> Transportation Highways Surveyor's Office Transit Office

Elaine Koutsoukos, Transportation Coordinator Transportation Advisory Board Metropolitan Council 390 Robert Street North St. Paul, MN 55101

RE: Federal STBGP Letter of Support for Concord Boulevard from Hardman Avenue to Annapolis Street

Dear Ms. Koutsoukos:

The County Board of Commissioners has committed to support the proposed reconstruction of Concord Boulevard between Hardman Avenue and Annapolis Street in the City of South St Paul. This project would provide needed bicycle facilities, pedestrian safety and connectivity, and roadway capacity and safety improvements.

The City of South St. Paul, Dakota County, City of St. Paul, and the Minnesota Department of Transportation are jointly developing a Concord Street Corridor vision. Dakota County is aware of and understands the proposed project being submitted.

Dakota County appreciates efforts to secure funding for needed improvements along Concord Boulevard, and is supportive of the City of South St. Paul moving forward with this project.

We will be happy to answer any questions you may have regarding this project.

Sincerely,

Mark J. Krebsbach, P.E. Transportation Director/County Engineer





Regional Bicycle Transportation Network (RBTN) Concord Street Improvements City of South St. Paul



July 8, 2016

Chris Hartzell, PE City Engineer City of South St. Paul 125 3<sup>rd</sup> Ave N South St. Paul, MN 55075

RE: Regional Solicitation Application for the Concord St (TH 156) Reconstruction project

Dear Mr. Hartzell:

Thank you for requesting a letter of support from MnDOT for the Metropolitan Council/Transportation Advisory Board (TAB) 2016 Regional Solicitation. Your application for the Concord St/TH 156 (Hardman Ave to Annapolis St) Reconstruction project impacts MnDOT right of way on TH 156.

MnDOT, as the agency with jurisdiction over TH 156 would allow the improvements included in the application for Concord St/TH 156 Reconstruction project. Details of a future maintenance agreement with the City would be determined during project development to define how the improvements will be maintained for the project's useful life.

The City's project has no specific funding from MnDOT at this time. MnDOT does have a pavement project on TH 156 in year 2020 of the Draft 2017-2020 State Transportation Improvement Program (STIP) that extends the length of the City's proposed project. The City's project could be constructed in conjunction with the MnDOT pavement project. Given the fluctuations in MnDOT funding, a project could move out of the programmed year or be modified in some other way. Please continue to work with MnDOT Area staff to coordinate project funding.

Sincerely,

Scott McBride, P.E. Metro District Engineer

Cc: Elaine Koustsoukos, Metropolitan Council Jon Solberg, MnDOT Metro District – South Area Manager

