

Application

04751 - 2016 Roadway Expansion		
05191 - Snelling Ave Third Lane - County Rd B2 to Lydia Ave		
Regional Solicitation - Roadways Including Multimodal Elements		
Status:	Submitted	
Submitted Date:	07/15/2016 12:46 PM	

Primary Contact

Name:*	Mr. Salutation	Marcus First Name	Middle Name	Culver Last Name
Title:	City Engineer			
Department:				
Email:	Marc.Culver@	cityofroseville.co	om	
Address:	2660 Civic Cer	nter Drive		
*	Roseville _{City}	Minneso State/Provinc		55113 Postal Code/Zip
Phone:*	651-792-7042			
	Phone		Ext.	
Fax:				
What Grant Programs are you most interested in?	Regional Solic Elements	itation - Roadwa	ays Including	g Multimodal

Organization Information

Name:

Jurisdictional Agency (if different):

Organization Type:	City		
Organization Website:			
Address:	2660 CIVIC CTR DR	ł	
*	ROSEVILLE	Minnesota	55113
	City	State/Province	Postal Code/Zip
County:	Ramsey		
Phone:*	651-490-2200		

Fax:

PeopleSoft Vendor Number

0000020989A1

Ext.

Project Information

Project Name	Snelling Avenue Improvements near County Road C
Primary County where the Project is Located	Ramsey
Jurisdictional Agency (If Different than the Applicant):	MnDOT

The project will expand Snelling Avenue (TH 51), an A-Minor Arterial Augmentor, from County Road B2 to north of Lydia Avenue in Roseville. The project will add one 12-foot wide through lane in the northbound direction that ties in to the off-ramp from County Road B2 on the south end of the project area and ends about 1,180 feet north of Lydia Avenue on the north end. The existing right and left turn lanes at intersections will remain.

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

This project will add capacity to and improve safety on the A-Minor arterial system, support and invest in a developed community, and improve mobility and accessibility to regional manufacturing/distribution and job concentration centers.

Please note that this project will achieve a peak hour emissions reduction of 0.93 kg. This reduction is not reflected in Measure 5B of the application due to the need to round the per vehicle reduction to three decimal places. The reduction calculation is shown in the Synchro Reports with Emissions Summary attachment.

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 51 (Snelling Avenue) from County Road B2 to north of Lydia Avenue, add one northbound through lane

1.3

Project Funding

Are you applying for funds from another source(s) to implement this project?	No
If yes, please identify the source(s)	
Federal Amount	\$2,718,292.00
Match Amount	\$679,573.00
Minimum of 20% of project total	
Project Total	\$3,397,865.00

Match Percentage	20.0%
Minimum of 20% Compute the match percentage by dividing the match amount by the project tota	al
Source of Match Funds	City of Roseville
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:	2021
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.

Project Information: Roadway Projects

County, City, or Lead Agency	City of Roseville		
Functional Class of Road	A-Minor Arterial Augmentor		
Road System	ТН		
TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET			
Road/Route No.	51		
i.e., 53 for CSAH 53			
Name of Road	Snelling Ave		
Example; 1st ST., MAIN AVE			
Zip Code where Majority of Work is Being Performed	55113		
(Approximate) Begin Construction Date	03/01/2021		
(Approximate) End Construction Date	10/31/2021		
TERMINI:(Termini listed must be within 0.3 miles of any work)			
From: (Intersection or Address)	County Road B2		
To: (Intersection or Address)	1,180 feet north of Lydia Avenue		
DO NOT INCLUDE LEGAL DESCRIPTION			
Or At			
Primary Types of Work	Grade, agg base, bif surf, signals		
Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER,STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.			
BRIDGE/CULVERT PROJECTS (IF APPLICABLE)			

Old Bridge/Culvert No.:

New Bridge/Culvert No.:

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

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$150,000.00
Removals (approx. 5% of total cost)	\$0.00
Roadway (grading, borrow, etc.)	\$371,725.00
Roadway (aggregates and paving)	\$807,500.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$0.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$72,540.00
Traffic Control	\$0.00
Striping	\$13,000.00
Signing	\$6,300.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$216,800.00
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (do not include in cost effectiveness measure)	\$1,360,000.00
Traffic Signals	\$150,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$250,000.00
Roadway Contingencies	\$0.00
Other Roadway Elements	\$0.00
Totals	\$3,397,865.00

Specific Bicycle and Pedestrian Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$0.00

Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$0.00
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	\$0.00
Other Bicycle and Pedestrian Elements	\$0.00
Totals	\$0.00

Specific Transit and TDM Elements

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

Transit Operating Costs

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

Totals

Total Cost

Transit Operating Cost Total

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: Safety and Security; Objective A. Reduce crashes and improve safety and security for all modes...; Strategy B1...incorporate safety and security...throughout processes; page 2.7

- Goal: Access to Destinations; Objectives B. Increase travel time reliability and predictability...; Strategies C2...provide a system of interconnected arterial roads, streets, bicycle facilities, and pedestrian facilities..., C9....support investments in A-minor arterials that build, manage, or improve the system's ability to supplement the capacity of the principal arterial system and support access to the region's job, activity, and industrial and manufacturing concentrations; page 2-8, 2-9

- Goal: Competitive Economy; Objectives A. Improve multimodal access to regional job concentrations..., C. Support the region's economic competitiveness through the efficient movement of freight; Strategies D5...identify the impacts of highway congestion on freight and identify costeffective mitigation; page 2.11

- Goal: Healthy Environment; Objective A. Reduce transportation-related air emissions; Strategies E4...protect, enhance, and mitigate impacts on natural resources...including air and water quality, E5...protect, enhance and mitigate impacts on the cultural and built environments; page 2.13

- Goal: Leveraging Transportation Investments to Guide Land Use; Objectives A. Focus regional growth in areas that support the full range of multimodal travel, B. Maintain adequate highway...accessible land to meet existing and future demand for freight movement; Strategy

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

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.

List the applicable documents and pages:

City of Roseville 2030 Comprehensive Plan, pages 5-33 and 5-41

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

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

Expander/Augmentor/Non-Freeway Principal Arterial

Select one:	Augmentor
Area	2.499
Project Length	1.296
Average Distance	1.9282
Upload Map	1468435170548_Roadway Area Definition Map.pdf

Reliever: Relieves a Principle Arterial that is a Freeway Facility

Facility being relieved

Number of hours per day volume exceeds capacity (based on the Congestion Report) 0

Reliever: Relives a Principle 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	

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

Existing Employment within 1 Mile:	21139
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	2305
Existing Students:	4920
Upload Map	1468435237802_Regional Economy Map.pdf

Measure C: Current Heavy Commercial Traffic

Location:	Snelling Avenue & County Road C
Current daily heavy commercial traffic volume:	1766
Date heavy commercial count taken:	6/7/16

Measure D: Freight Elements

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

The project will increase the capacity of Snelling Avenue, reducing delay at intersections and improving access to industrial and commercial land uses.

Measure A: Current Daily Person Throughput

Upload Transit Map	1468435457979_Transit Connections Map.pdf
For New Roadways only, list transit routes that will be moved to the new roadway	,
Existing Transit Routes on the Project	65, 84, 225, 264
Current AADT Volume	36000
Location	Between County Road B2 and County Road C

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	46800.0

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

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)

Yes

The project will provide an investment and transportation benefit in a community that is above the regional average for population in poverty or population of color. The project will add capacity to TH 51/Snelling Avenue, improving mobility and accessibility for all travelers, including riders on bus Route 225. There are existing pedestrian crossings at County Road C, County Road C2, and Lydia Avenue. These crossings will be upgraded to current ADA standards, benefitting people with disabilities and young children in strollers.

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

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

Upload Map

1468437415456_Socio-Economic Conditions Map.pdf

Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)	
Roseville	1.296	
	1	
Total Project Length		
Total Project Length (Total Population	on) 1.3	

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township	Segment Length (Miles)	Total Length (Miles)	Score		Segment Length/Total Length	Housing Score Multiplied by Segment percent	
		0		0	0	0	

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	1.296
Total Housing Score	0

Measure A: Infrastructure Age

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2	
1970.0	2.75	5417.5	1970.0	
	3	5418	1970	
Average Construction Year Weighted Year 1970.0				
Total Segment Length (Miles)				

Total Segment Length

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 (Seconds)	EXPLANATIO N of methodology used to calculate railroad crossing delay, if applicable:	Synchro or HCM Reports
63.6	55.4	8.2	5742.0	47084.4		14684380151 45_Synchro Reports.pdf

Measure A: Vehicle Delay Reduction

Total Delay

Total	Peak	Hour	Delay	Reduced
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47084.4

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

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):	
0.005	0.005	0	5742.0	0	
0	0		5742	0	
Total Total Emissions Reduc Upload Synchro Repor			0 1468513730828_Syr Summary.pdf	nchro Reports with E	missions

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):	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 Roadways

Emissions Reduced on Parallel Roadways

Upload Synchro Report

New Roadway Portion:

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

Measure A: Benefit of Crash Reduction

Crash Modification Factor Used:	0.15	
(Limit 700 Characters; approximately 100 words)		
Rationale for Crash Modification Selected:	Since the bulk of the improvements along the Snelling Avenue corridor is widening from four lanes to five lanes, a CMF was applied consistent with the study authored by Park et al (March 2015). In this study, the impacts to the amount of crashes after the study roadway widened from four to six lanes was reviewed over time. The results indicated that the conversion of a four-lane road to a six-lane road resulted in a crash reduction of 15 percent for total crashes. Therefore, a CMF of 0.15 was applied to all crashes along TH 51. Since this corridor will only be widened in one direction, the benefit was reduced by 50 percent.	
(Limit 1400 Characters; approximately 200 words)		
Project Benefit (\$) from B/C Ratio:	245139.0	
Worksheet Attachment	1468447125034_Benefit Sheet and CMF.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

There are no sidewalks or trails along Snelling Avenue in the project area, but there are three trail crossings in the project area: at Country Road C, County Road C2, and Lydia Avenue. These crossings will be upgraded to ADA-compliant crossings, making them safer for bicyclists and pedestrians.

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

There are five transit routes with a direct connection to the project area (Routes 65, 84, 225, 264, and 921). The Increased Revenue Scenario for Transitways in the 2040 Transportation Policy Plan also shows Snelling Avenue as the alignment for Accelerated Arterial BRT investments up to the former Twin Cities Army Ammunition Plant (TCAAP) site, which is being redeveloped as a mixed-use development now known as Rice Creek Commons. Increasing the capacity of Snelling Avenue will decrease congestion, benefitting customers on existing and future transit routes.

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

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Layout or Preliminary Plan started		
50%		
Layout or Preliminary Plan has not been started		
0%		
Anticipated date or date of completion	06/28/2016	
3)Environmental Documentation (5 Percent of Points)		
EIS		
EA	Yes	
PM		
Document Status:		
Document approved (include copy of signed cover sheet)	100%	
Document submitted to State Aid for review	75%	date submitted
Document in progress; environmental impacts identified; review request letters sent		
50%		
Document not started	Yes	
0%		
Anticipated date or date of completion/approval	03/01/2020	
4)Review of Section 106 Historic Resources (10 Percent of I	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:	03/01/2020	
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 properties?6(f) Does the project impact any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or historic property that 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

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

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	01/31/2021
7)Railroad Involvement (25 Percent of Points)	
No railroad involvement on project	
100%	
Railroad Right-of-Way Agreement is executed (include signature page)	100%
Railroad Right-of-Way Agreement required; Agreement has been initiated	
60%	
Railroad Right-of-Way Agreement required; negotiations have begun	
40%	
Railroad Right-of-Way Agreement required; negotiations not begun	Yes
0%	
Anticipated date or date of executed Agreement	01/31/2021
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 Cour 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	
50%	
Construction plans have not been started	Yes
0%	
Anticipated date or date of completion	01/31/2021
10)Letting	

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form):	\$3,397,865.00
Enter Amount of the Noise Walls:	\$1,360,000.00
Total Project Cost subtract the amount of the noise walls:	\$2,037,865.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

Other Attachments

File Name	Description	File Size
2016-0628_ Snelling Avenue Widening Layout1.pdf	Project Layout	4.7 MB
Existing Conditions Photos.pdf	Existing Conditions Photos	3.9 MB
Pages from Chapter-6-Transit- Investment-Direction-and-Plan.pdf	Map of Increased Revenue Scenario Transitways from 2040 TPP	947 KB
Roseville Parks and Trails Map.pdf	Roseville Parks and Trails Map	1.7 MB
Snelling Avenue_TH 51 MnDOT letter of support.pdf	MnDOT Letter of Support	106 KB









HCM Signalized Intersection Capacity Analysis 20: Snelling Ave & Co Rd C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	<u>††</u>	1	٦	∱ ₽		ሻሻ	<u>††</u>	1	۲	<u>††</u>	7
Traffic Volume (vph)	236	625	416	199	368	110	319	1684	133	133	1408	111
Future Volume (vph)	236	625	416	199	368	110	319	1684	133	133	1408	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.5	6.5	5.0	6.5		5.0	7.0	7.0	5.0	7.0	7.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1752	3384		3400	3505	1568	1752	3505	1568
Flt Permitted	0.15	1.00	1.00	0.14	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	271	3505	1568	257	3384		3400	3505	1568	1752	3505	1568
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	238	631	420	201	372	111	322	1701	134	134	1422	112
RTOR Reduction (vph)	0	0	176	0	15	0	0	0	51	0	0	42
Lane Group Flow (vph)	238	631	244	201	468	0	322	1701	83	134	1422	70
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	_	1	6	
Permitted Phases	4	00 F	4	8	00 7		10 5		2	110	07.5	6
Actuated Green, G (s)	54.3	33.5	33.5	44.7	28.7		19.5	93.0	93.0	14.0	87.5	87.5
Effective Green, g (s)	54.3	33.5	33.5	44.7	28.7		19.5	93.0	93.0	14.0	87.5	87.5
Actuated g/C Ratio	0.30	0.19	0.19	0.25	0.16		0.11	0.52	0.52	0.08	0.49	0.49
Clearance Time (s)	5.0	6.5	6.5	5.0	6.5		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)	2.0	4.5	4.5	2.0	4.5		3.0	7.0	7.0	2.0	7.0	7.0
Lane Grp Cap (vph)	252	652	291	196	539		368	1810	810	136	1703	762
v/s Ratio Prot	c0.11	c0.18	0.17	0.09	0.14		0.09	c0.49	0.05	c0.08	0.41	0.04
v/s Ratio Perm	0.18 0.94	0.97	0.16 0.84	0.16 1.03	0.87		0.00	0.94	0.05 0.10	0.99	0.83	0.04
v/c Ratio Uniform Delay, d1	0.94 52.8	72.7	0.84 70.7	60.1	73.8		0.88 79.0	0.94 40.9	22.2	0.99 82.9	40.0	0.09 24.9
Progression Factor	1.10	0.90	0.79	1.21	0.97		1.00	1.00	1.00	02.9	40.0 0.67	0.30
Incremental Delay, d2	37.4	25.0	17.8	69.5	14.1		20.0	11.0	0.3	70.0	4.8	0.30
Delay (s)	95.6	90.4	73.4	142.3	85.9		99.1	51.9	22.5	139.9	31.7	7.6
Level of Service	75.0 F	70.4 F	F E	F	55.7 F		F	D	22.3 C	F	с С	7.0 A
Approach Delay (s)		85.8			102.5			57.1	U		38.8	Λ
Approach LOS		F			F			E			D	
Intersection Summary												
HCM 2000 Control Delay			63.6	Н	CM 2000	Level of S	Service		E			
HCM 2000 Volume to Capa	acity ratio		0.97									
Actuated Cycle Length (s)			180.0		um of los				23.5			
Intersection Capacity Utiliza	ation		101.8%	IC	CU Level	of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

Timing Report, Sorted By Phase 20: Snelling Ave & Co Rd C

Phase Number 1 2 3 4 5 6 7 8 Movement SBL NBT WBL EBTL NBL SBT EBL WBTL Lead/Lag Lag Lead Lead Lag
Lead/Lag Lag Lead Lead Lag Lag Lead Lag Lead Lag Lead Lag <
Lead-Lag Optimize None None None None None None C-Max None None C-Max None None None None Maximum Split (s) 19 100 21 40 25 94 26 35 Maximum Split (s) 10.6% 55.6% 11.7% 22.2% 13.9% 52.2% 14.4% 19.4% Minimum Split (s) 15 28 13 18 15 28 13 18 Yellow Time (s) 3 5 3 4.5 3 5 3 4 All-Red Time (s) 2 2 2 2 2 2 2 2 5 10 Vehicle Extension (s) 2 7 2 4.5 3 7 2 4.5 Minimum Gap (s) 0.2 5 0.2 0.2 5 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0 </td
Recall ModeNoneC-MaxNoneNoneNoneC-MaxNoneNoneMaximum Split (s)19100214025942635Maximum Split (s)10.6%55.6%11.7%22.2%13.9%52.2%14.4%19.4%Minimum Split (s)1528131815281318Yellow Time (s)3534.53534All-Red Time (s)2222222.5Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.250.20.20.2Time Before Reduce (s)0250002500
Maximum Split (s)19100214025942635Maximum Split (%)10.6%55.6%11.7%22.2%13.9%52.2%14.4%19.4%Minimum Split (s)1528131815281318Yellow Time (s)3534.53534All-Red Time (s)2222222.5Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Maximum Split (%)10.6%55.6%11.7%22.2%13.9%52.2%14.4%19.4%Minimum Split (s)1528131815281318Yellow Time (s)3534.53534All-Red Time (s)22222222Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.250.20.20.2Time Before Reduce (s)0250002500
Minimum Split (s)1528131815281318Yellow Time (s)3534.53534All-Red Time (s)222222222Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Yellow Time (s)3534.53534All-Red Time (s)2222222222Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
All-Red Time (s)2222222222225Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Vehicle Extension (s) 2 7 2 4.5 3 7 2 4.5 Minimum Gap (s) 0.2 5 0.2 0.2 0.2 5 0.2
Minimum Gap (s) 0.2 5 0.2 <
Time Before Reduce (s) 0 25 0 0 0 25 0 0
Time To Reduce (s) 0 25 0 0 0 25 0 0
Walk Time (s) 7 7 7 7 7
Flash Dont Walk (s) 22 29 22 26
Dual Entry No No No No No No No
Inhibit Max No No No No No No No No
Start Time (s) 101 1 120 141 1 26 120 146
End Time (s) 120 101 141 1 26 120 146 1
Yield/Force Off (s) 115 94 136 174.5 21 113 141 174.5
Yield/Force Off 170(s) 115 72 136 145.5 21 91 141 148.5
Local Start Time (s) 100 0 119 140 0 25 119 145
Local Yield (s) 114 93 135 173.5 20 112 140 173.5
Local Yield 170(s) 114 71 135 144.5 20 90 140 147.5
Intersection Summary
Cycle Length 180
Control Type Actuated-Coordinated
Natural Cycle 120
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green
Splits and Phases: 20: Snelling Ave & Co Rd C

02 (R)	øı	√ ø3	↓ ø4
100 s	19 s	21 s	40 s
∮ \$5 \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$		<u>♦</u> ø7	↓ ø8
25 s 94 s		26 s	35 s

20: Snelling Ave & Co Rd C

Direction	EB	WB	NB	SB	
Future Volume (vph)	1277	677	2136	1652	
Fuel Consumed (gal)	37	23	151	61	
Fuel Economy (mpg)	3.2	5.3	19.4	13.4	
CO Emissions (kg)	2.59	1.64	10.54	4.27	
NOx Emissions (kg)	0.50	0.32	2.05	0.83	
VOC Emissions (kg)	0.60	0.38	2.44	0.99	

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	<u>††</u>	1	۲	≜ †⊅		ሻሻ	<u>†††</u>	1	۲	††	1
Traffic Volume (vph)	236	625	416	199	368	110	319	1684	133	133	1408	111
Future Volume (vph)	236	625	416	199	368	110	319	1684	133	133	1408	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.5	6.5	5.0	6.5		5.0	7.0	7.0	5.0	7.0	7.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.91	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1752	3384		3400	5036	1568	1752	3505	1568
Flt Permitted	0.22	1.00	1.00	0.13	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	411	3505	1568	232	3384		3400	5036	1568	1752	3505	1568
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	238	631	420	201	372	111	322	1701	134	134	1422	112
RTOR Reduction (vph)	0	0	183	0	15	0	0	0	72	0	0	45
Lane Group Flow (vph)	238	631	237	201	468	0	322	1701	62	134	1422	67
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	57.1	36.5	36.5	53.1	34.5		19.5	78.4	78.4	23.0	81.9	81.9
Effective Green, g (s)	57.1	36.5	36.5	53.1	34.5		19.5	78.4	78.4	23.0	81.9	81.9
Actuated g/C Ratio	0.32	0.20	0.20	0.30	0.19		0.11	0.44	0.44	0.13	0.46	0.46
Clearance Time (s)	5.0	6.5	6.5	5.0	6.5		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)	2.0	4.5	4.5	2.0	4.5		3.0	7.0	7.0	2.0	7.0	7.0
Lane Grp Cap (vph)	283	710	317	225	648		368	2193	682	223	1594	713
v/s Ratio Prot	c0.10	c0.18		0.09	0.14		0.09	c0.34		0.08	c0.41	
v/s Ratio Perm	0.17		0.15	0.17					0.04			0.04
v/c Ratio	0.84	0.89	0.75	0.89	0.72		0.88	0.78	0.09	0.60	0.89	0.09
Uniform Delay, d1	50.0	69.8	67.4	52.7	68.2		79.0	43.3	29.9	74.2	45.0	27.9
Progression Factor	0.97	0.89	0.77	1.20	0.98		1.00	1.00	1.00	0.82	0.70	0.36
Incremental Delay, d2	16.7	12.0	9.0	31.1	4.3		20.0	2.8	0.3	2.9	7.6	0.2
Delay (s)	65.3	74.4	61.1	94.1	71.3		99.1	46.1	30.1	63.7	39.1	10.2
Level of Service	E	E	E	F	Е		F	D	С	E	D	В
Approach Delay (s)		68.4			78.0			53.0			39.2	
Approach LOS		E			E			D			D	
Intersection Summary												
HCM 2000 Control Delay			55.4	Н	CM 2000	Level of S	Service		E			
HCM 2000 Volume to Capa	acity ratio		0.89									
Actuated Cycle Length (s)			180.0		um of los				23.5			
Intersection Capacity Utiliz	ation		95.9%	IC	CU Level	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

Timing Report, Sorted By Phase 20: Snelling Ave & Co Rd C

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Phase Number	1	2	3	4	5	6	7	8	
Movement	SBL	NBT	WBL	EBTL	NBL	SBT	EBL	WBTL	
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize									
Recall Mode	None	C-Max	None	None	None	C-Max	None	None	
Maximum Split (s)	28	84	25	43	25	87	27	41	
Maximum Split (%)	15.6%	46.7%	13.9%	23.9%	13.9%	48.3%	15.0%	22.8%	
Minimum Split (s)	15	28	13	18	15	28	13	18	
Yellow Time (s)	3	5	3	4.5	3	5	3	4	
All-Red Time (s)	2	2	2	2	2	2	2	2.5	
Minimum Initial (s)	7	20	5	10	7	20	5	10	
Vehicle Extension (s)	2	7	2	4.5	3	7	2	4.5	
Minimum Gap (s)	0.2	5	0.2	0.2	0.2	5	0.2	0.2	
Time Before Reduce (s)	0	25	0	0	0	25	0	0	
Time To Reduce (s)	0	25	0	0	0	25	0	0	
Walk Time (s)		7		7		7		7	
Flash Dont Walk (s)		22		29		22		26	
Dual Entry	No	No	No	No	No	No	No	No	
Inhibit Max	No	No	No	No	No	No	No	No	
Start Time (s)	85	1	113	138	1	26	113	140	
End Time (s)	113	85	138	1	26	113	140	1	
Yield/Force Off (s)	108	78	133	174.5	21	106	135	174.5	
Yield/Force Off 170(s)	108	56	133	145.5	21	84	135	148.5	
Local Start Time (s)	84	0	112	137	0	25	112	139	
Local Yield (s)	107	77	132	173.5	20	105	134	173.5	
Local Yield 170(s)	107	55	132	144.5	20	83	134	147.5	
Intersection Summary									
Cycle Length			180						
Control Type	Actu	ated-Coo							
Natural Cycle			90						
Offset: 1 (1%), Referenced to	o phase 2	:NBT and	16:SBT, 3	Start of 1	st Green				
Splits and Phases: 20: Sn	elling Ave	e & Co Ro	1 C						1

ø2 (R)	øı	√ ø3	4 ø4
84 s	28 s	25 s	43 s
ø5 ♥ ø6 (R)		<u>∕</u> ≉ _{ø7}	↓ Ø8
25 s 87 s		27 s	41 s

20: Snelling Ave & Co Rd C

Direction	EB	WB	NB	SB
Future Volume (vph)	1277	677	2136	1652
Fuel Consumed (gal)	33	21	147	62
Fuel Economy (mpg)	3.6	6.0	19.9	13.2
CO Emissions (kg)	2.31	1.44	10.30	4.34
NOx Emissions (kg)	0.45	0.28	2.00	0.84
VOC Emissions (kg)	0.53	0.33	2.39	1.01

HCM Signalized Intersection Capacity Analysis 20: Snelling Ave & Co Rd C

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	٦	<u>††</u>	1	٦	≜ †⊅		ሻሻ	<u>††</u>	1	۲	<u>††</u>	7
Traffic Volume (vph)	236	625	416	199	368	110	319	1684	133	133	1408	111
Future Volume (vph)	236	625	416	199	368	110	319	1684	133	133	1408	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.5	6.5	5.0	6.5		5.0	7.0	7.0	5.0	7.0	7.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1752	3384		3400	3505	1568	1752	3505	1568
Flt Permitted	0.15	1.00	1.00	0.14	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	271	3505	1568	257	3384		3400	3505	1568	1752	3505	1568
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	238	631	420	201	372	111	322	1701	134	134	1422	112
RTOR Reduction (vph)	0	0	176	0	15	0	0	0	51	0	0	42
Lane Group Flow (vph)	238	631	244	201	468	0	322	1701	83	134	1422	70
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2	_	1	6	
Permitted Phases	4	00 F	4	8	00 7		10 5		2	110	07.5	6
Actuated Green, G (s)	54.3	33.5	33.5	44.7	28.7		19.5	93.0	93.0	14.0	87.5	87.5
Effective Green, g (s)	54.3	33.5	33.5	44.7	28.7		19.5	93.0	93.0	14.0	87.5	87.5
Actuated g/C Ratio	0.30	0.19	0.19	0.25	0.16		0.11	0.52	0.52	0.08	0.49	0.49
Clearance Time (s)	5.0	6.5	6.5	5.0	6.5		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)	2.0	4.5	4.5	2.0	4.5		3.0	7.0	7.0	2.0	7.0	7.0
Lane Grp Cap (vph)	252	652	291	196	539		368	1810	810	136	1703	762
v/s Ratio Prot	c0.11	c0.18	0.17	0.09	0.14		0.09	c0.49	0.05	c0.08	0.41	0.04
v/s Ratio Perm	0.18 0.94	0.97	0.16 0.84	0.16 1.03	0.87		0.00	0.94	0.05 0.10	0.99	0.83	0.04
v/c Ratio Uniform Delay, d1	0.94 52.8	72.7	0.84 70.7	60.1	73.8		0.88 79.0	0.94 40.9	22.2	0.99 82.9	40.0	0.09 24.9
Progression Factor	1.10	0.90	0.79	1.21	0.97		1.00	1.00	1.00	02.9	40.0 0.67	0.30
Incremental Delay, d2	37.4	25.0	17.8	69.5	14.1		20.0	11.0	0.3	70.0	4.8	0.30
Delay (s)	95.6	90.4	73.4	142.3	85.9		99.1	51.9	22.5	139.9	31.7	7.6
Level of Service	75.0 F	70.4 F	F E	F	55.7 F		F	D	22.3 C	F	с С	7.0 A
Approach Delay (s)		85.8			102.5			57.1	U		38.8	Λ
Approach LOS		F			F			E			D	
Intersection Summary												
HCM 2000 Control Delay			63.6	Н	CM 2000	Level of S	Service		E			
HCM 2000 Volume to Capa	acity ratio		0.97									
Actuated Cycle Length (s)			180.0		um of los				23.5			
Intersection Capacity Utiliza	ation		101.8%	IC	CU Level	of Service			G			
Analysis Period (min)			15									
c Critical Lane Group												

Timing Report, Sorted By Phase 20: Snelling Ave & Co Rd C

Phase Number 1 2 3 4 5 6 7 8 Movement SBL NBT WBL EBTL NBL SBT EBL WBTL Lead/Lag Lag Lead Lead Lag
Lead/Lag Lag Lead Lead Lag Lag Lead Lag Lead Lag Lead Lag <
Lead-Lag Optimize None None None None None None C-Max None None C-Max None None None None Maximum Split (s) 19 100 21 40 25 94 26 35 Maximum Split (s) 10.6% 55.6% 11.7% 22.2% 13.9% 52.2% 14.4% 19.4% Minimum Split (s) 15 28 13 18 15 28 13 18 Yellow Time (s) 3 5 3 4.5 3 5 3 4 All-Red Time (s) 2 2 2 2 2 2 2 2 5 10 Vehicle Extension (s) 2 7 2 4.5 3 7 2 4.5 Minimum Gap (s) 0.2 5 0.2 0.2 5 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0 </td
Recall ModeNoneC-MaxNoneNoneNoneC-MaxNoneNoneMaximum Split (s)19100214025942635Maximum Split (s)10.6%55.6%11.7%22.2%13.9%52.2%14.4%19.4%Minimum Split (s)1528131815281318Yellow Time (s)3534.53534All-Red Time (s)2222222.5Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.250.20.20.2Time Before Reduce (s)0250002500
Maximum Split (s)19100214025942635Maximum Split (%)10.6%55.6%11.7%22.2%13.9%52.2%14.4%19.4%Minimum Split (s)1528131815281318Yellow Time (s)3534.53534All-Red Time (s)2222222.5Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Maximum Split (%)10.6%55.6%11.7%22.2%13.9%52.2%14.4%19.4%Minimum Split (s)1528131815281318Yellow Time (s)3534.53534All-Red Time (s)22222222Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Minimum Split (s)1528131815281318Yellow Time (s)3534.53534All-Red Time (s)222222222Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Yellow Time (s)3534.53534All-Red Time (s)2222222222Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
All-Red Time (s)2222222222225Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Minimum Initial (s)720510720510Vehicle Extension (s)2724.53724.5Minimum Gap (s)0.250.20.20.250.20.2Time Before Reduce (s)0250002500
Vehicle Extension (s) 2 7 2 4.5 3 7 2 4.5 Minimum Gap (s) 0.2 5 0.2 0.2 0.2 5 0.2
Minimum Gap (s) 0.2 5 0.2 <
Time Before Reduce (s) 0 25 0 0 0 25 0 0
Time To Reduce (s) 0 25 0 0 0 25 0 0
Walk Time (s) 7 7 7 7 7
Flash Dont Walk (s) 22 29 22 26
Dual Entry No No No No No No No
Inhibit Max No No No No No No No No
Start Time (s) 101 1 120 141 1 26 120 146
End Time (s) 120 101 141 1 26 120 146 1
Yield/Force Off (s) 115 94 136 174.5 21 113 141 174.5
Yield/Force Off 170(s) 115 72 136 145.5 21 91 141 148.5
Local Start Time (s) 100 0 119 140 0 25 119 145
Local Yield (s) 114 93 135 173.5 20 112 140 173.5
Local Yield 170(s) 114 71 135 144.5 20 90 140 147.5
Intersection Summary
Cycle Length 180
Control Type Actuated-Coordinated
Natural Cycle 120
Offset: 1 (1%), Referenced to phase 2:NBT and 6:SBT, Start of 1st Green
Splits and Phases: 20: Snelling Ave & Co Rd C

02 (R)	øı	√ ø3	↓ ø4
100 s	19 s	21 s	40 s
∮ \$5 \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$		<u>♦</u> ø7	↓ ø8
25 s 94 s		26 s	35 s

20: Snelling Ave & Co Rd C

Direction	EB	WB	NB	SB	
Future Volume (vph)	1277	677	2136	1652	
Fuel Consumed (gal)	37	23	151	61	
Fuel Economy (mpg)	3.2	5.3	19.4	13.4	
CO Emissions (kg)	2.59	1.64	10.54	4.27	
NOx Emissions (kg)	0.50	0.32	2.05	0.83	
VOC Emissions (kg)	0.60	0.38	2.44	0.99	

	٦	-	$\mathbf{\hat{v}}$	4	←	•	1	Ť	1	5	ţ	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	۲	<u>††</u>	1	۲	≜ †⊅		ሻሻ	<u>†††</u>	1	۲	††	1
Traffic Volume (vph)	236	625	416	199	368	110	319	1684	133	133	1408	111
Future Volume (vph)	236	625	416	199	368	110	319	1684	133	133	1408	111
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	6.5	6.5	5.0	6.5		5.0	7.0	7.0	5.0	7.0	7.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95		0.97	0.91	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1752	3384		3400	5036	1568	1752	3505	1568
Flt Permitted	0.22	1.00	1.00	0.13	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	411	3505	1568	232	3384		3400	5036	1568	1752	3505	1568
Peak-hour factor, PHF	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Adj. Flow (vph)	238	631	420	201	372	111	322	1701	134	134	1422	112
RTOR Reduction (vph)	0	0	183	0	15	0	0	0	72	0	0	45
Lane Group Flow (vph)	238	631	237	201	468	0	322	1701	62	134	1422	67
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8					2			6
Actuated Green, G (s)	57.1	36.5	36.5	53.1	34.5		19.5	78.4	78.4	23.0	81.9	81.9
Effective Green, g (s)	57.1	36.5	36.5	53.1	34.5		19.5	78.4	78.4	23.0	81.9	81.9
Actuated g/C Ratio	0.32	0.20	0.20	0.30	0.19		0.11	0.44	0.44	0.13	0.46	0.46
Clearance Time (s)	5.0	6.5	6.5	5.0	6.5		5.0	7.0	7.0	5.0	7.0	7.0
Vehicle Extension (s)	2.0	4.5	4.5	2.0	4.5		3.0	7.0	7.0	2.0	7.0	7.0
Lane Grp Cap (vph)	283	710	317	225	648		368	2193	682	223	1594	713
v/s Ratio Prot	c0.10	c0.18		0.09	0.14		0.09	c0.34		0.08	c0.41	
v/s Ratio Perm	0.17		0.15	0.17					0.04			0.04
v/c Ratio	0.84	0.89	0.75	0.89	0.72		0.88	0.78	0.09	0.60	0.89	0.09
Uniform Delay, d1	50.0	69.8	67.4	52.7	68.2		79.0	43.3	29.9	74.2	45.0	27.9
Progression Factor	0.97	0.89	0.77	1.20	0.98		1.00	1.00	1.00	0.82	0.70	0.36
Incremental Delay, d2	16.7	12.0	9.0	31.1	4.3		20.0	2.8	0.3	2.9	7.6	0.2
Delay (s)	65.3	74.4	61.1	94.1	71.3		99.1	46.1	30.1	63.7	39.1	10.2
Level of Service	E	E	E	F	Е		F	D	С	E	D	В
Approach Delay (s)		68.4			78.0			53.0			39.2	
Approach LOS		E			E			D			D	
Intersection Summary												
HCM 2000 Control Delay			55.4	Н	CM 2000	Level of S	Service		E			
HCM 2000 Volume to Capa	acity ratio		0.89									
Actuated Cycle Length (s)			180.0		um of los				23.5			
Intersection Capacity Utiliz	ation		95.9%	IC	CU Level	of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												
Timing Report, Sorted By Phase 20: Snelling Ave & Co Rd C

	×	ŧ	4	4	•	4	٦	¥	
Phase Number	1	2	3	4	5	6	7	8	
Movement	SBL	NBT	WBL	EBTL	NBL	SBT	EBL	WBTL	
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lag	Lead	Lag	
Lead-Lag Optimize									
Recall Mode	None	C-Max	None	None	None	C-Max	None	None	
Maximum Split (s)	28	84	25	43	25	87	27	41	
Maximum Split (%)	15.6%	46.7%	13.9%	23.9%	13.9%	48.3%	15.0%	22.8%	
Minimum Split (s)	15	28	13	18	15	28	13	18	
Yellow Time (s)	3	5	3	4.5	3	5	3	4	
All-Red Time (s)	2	2	2	2	2	2	2	2.5	
Minimum Initial (s)	7	20	5	10	7	20	5	10	
Vehicle Extension (s)	2	7	2	4.5	3	7	2	4.5	
Vinimum Gap (s)	0.2	5	0.2	0.2	0.2	5	0.2	0.2	
Time Before Reduce (s)	0	25	0	0	0	25	0	0	
Time To Reduce (s)	0	25	0	0	0	25	0	0	
Valk Time (s)		7		7		7		7	
Flash Dont Walk (s)		22		29		22		26	
Dual Entry	No	No	No	No	No	No	No	No	
nhibit Max	No	No	No	No	No	No	No	No	
Start Time (s)	85	1	113	138	1	26	113	140	
End Time (s)	113	85	138	1	26	113	140	1	
'ield/Force Off (s)	108	78	133	174.5	21	106	135	174.5	
/ield/Force Off 170(s)	108	56	133	145.5	21	84	135	148.5	
₋ocal Start Time (s)	84	0	112	137	0	25	112	139	
_ocal Yield (s)	107	77	132	173.5	20	105	134	173.5	
₋ocal Yield 170(s)	107	55	132	144.5	20	83	134	147.5	
Intersection Summary									
Cycle Length			180						
Control Type	Actu	ated-Coo							
Natural Cycle			90						
Offset: 1 (1%), Referenced t	o phase 2	:NBT and	16:SBT, 3	Start of 1	st Green				
Splits and Phases: 20: Sn	elling Ave	e & Co Ro	1 C						

ø2 (R)	øı	√ ø3	4 ø4
84 s	28 s	25 s	43 s
ø5 ♥ ø6 (R)		<u>∕</u> ≉ _{ø7}	↓ Ø8
25 s 87 s		27 s	41 s

20: Snelling Ave & Co Rd C

Direction	EB	WB	NB	SB
Future Volume (vph)	1277	677	2136	1652
Fuel Consumed (gal)	33	21	147	62
Fuel Economy (mpg)	3.6	6.0	19.9	13.2
CO Emissions (kg)	2.31	1.44	10.30	4.34
NOx Emissions (kg)	0.45	0.28	2.00	0.84
VOC Emissions (kg)	0.53	0.33	2.39	1.01

	CALCULATION OF EMISSION REDUCTION											
	Existing C	onditions	Build Co	onditions	Total Reduction							
	Total (kg)	Per Vehicle (kg)	Total (kg)	Per Vehicle (kg)	Total (kg)	Per Vehicle (kg)						
CO	19.04	0.003316	18.39	0.003203	-0.65	-0.000113						
NO _X	3.7	0.000644	3.57	0.000622	-0.13	-0.000022						
VOC	4.41	0.000768	4.26	0.000742	-0.15	-0.000026						
Total	27.15	0.004728	26.22	0.004567	-0.93	-0.000161						

B/C worksheet		Control Section	T.H. / Roadway		Loca	tion]	Beginning Ref. Pt.		Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends	
WULKS	nee	L		51	TH 51 (Snelling A Lydia Lane	H 51 (Snelling Avenue) from County Road B2 to ydia Lane							Roseville	1/1/2013	12/31/2015
			Descripti Proposed		Widening of TH 5	1 from for	ur (4) lanes to	six (6) lanes	betwo	een County Ro	ad B2 a	nd Lydia Lane in Ros	eville, MN.		
Accide	ent Dia (gram Codes	1		2	3		5	4, 7		8, 9			6, 90, 98, 99	
					_	ع	—						Pedestrian	Other	Total
	Fatal	F		0	0		0	0		0		0	0	0	
		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		2	0		0	0		0		0	0	0	2
	Property Damage	PD		7	4		1	0		2		0	0	1	15
% Change	Fatal	F	-1	5%	-15%	-	15%	-15%		-15%		-15%	-15%	-15%	
in Crashes		A	-1	5%	-15%	-	15%	-15%		-15%		-15%	-15%	-15%	
*Use FHWA	PI	в	-1	5%	-15%	-	15%	-15%		-15%		-15%	-15%	-15%	
<u>cmfclearingho</u> use for Crash		с	-1	5%	-15%	-	15%	-15%		-15%		-15%	-15%	-15%	
Reduction Factors	Property Damage	PD	-1	5%	-15%	-	15%	-15%		-15%		-15%	-15%	-15%	
	Fatal	F													
		A													
Change in Crashes	PI	В													
= No. of		с	-0	0.30											-0.30
crashes X % change in crashes	Property Damage	PD	-1	.05	-0.60	-	0.15			-0.30				-0.15	-2.25
Year (Safety I	mprov	ement	Constructi	ion)	2020								_		
Project Cost	(exclu	de Rig	tht of Way)	\$ 2,000,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Со	st per Crash		Annual Benefit		B/C=	0.12
Right of Way	v Cost	s (opt	ional)			F			\$	1,140,000			Using present	worth value	<i>S</i> ,
Traffic Growth Factor 3%			3%	Α			\$	570,000			B=		245,139		
Capital Reco	very					В			\$	170,000			C=	\$	2,000,000
1. Discoun					4.5%	С	-0.30	-0.10		83,000	\$	8,308	See "Calculat	ons" sheet f	or amortization.
2. Project	Servic	e Lif	e (n)		20	PD	-2.25	-0.75	\$	7,600	\$	5,705			
						Total					\$	14,013			

-





Study Details

Study Title: Assessment of safety effects for widening urban roadways in developing crash modification functions using nonlinearizing link functions

Authors: Park et al.

Publication Date: MAR, 2015

Abstract: Since a crash modification factor (CMF) represents the overall safety performance of specific treatments in a single fixed value, there is a need to explore the variation of CMFs with different roadway characteristics among treated sites over time. Therefore, in this study, we (1) evaluate the safety performance of a sample of urban four-lane roadway segments that have been widened with one through lane in each direction and (2) determine the relationship between the safety effects and different roadway characteristics over time. Observational before-after analysis with the empirical Bayes (EB) method was assessed in this study to evaluate the safety effects of widening urban four-lane roadways to six-lanes. Moreover, the nonlinearizing link functions were utilized to achieve better performance of crash modification functions (CMFunctions). The CMFunctions were developed using a Bayesian regression method including the estimated nonlinearizing link function to incorporate the changes in safety effects of the treatment over time. Data was collected for urban arterials in Florida, and the Florida-specific full SPFs were developed and used for EB estimation. The results indicated that the conversion of four-lane roadways to six-lane roadways resulted in a crash reduction of 15 percent for total crashes, and 24 percent for injury crashes on urban roadways. The results show that the safety effects vary across the sites with different roadway characteristics. In particular, LOS changes, time changes, and shoulder widths are significant parameters that affect the variation of CMFs. Moreover, it was found that narrowing shoulder and median widths to make space for an extra through lane shows a negative safety impact. It was also found that including the nonlinearizing link functions in developing CMFunctions shows more reliable estimates, if the variation of CMFs with specific parameters has a nonlinear relationship. The findings provide insights into the selection of roadway sites for adding through lanes.

Study Citation: Park, J., M. Abdel-Aty, J. Wang, and C. Lee. "Assessment of safety effects for widening urban roadways in developing crash modification functions using nonlinearizing link functions". Accident Analysis and Prevention, Vol. 79, (2015) pp. 80-87.

CMFs Associated With This Study

Category: Roadway

Countermeasure: Increase from 4 lanes to 6 lanes

CMF	CRF(%)	Quality	Crash Type	Crash Severity	Roadway Type	Area Туре
0.85	<u>15</u>		All	All	Not specified	Urban
0.901	<u>9.9</u>	minin térése	All	All	Not specified	Urban
0.847	<u>15.3</u>	XXXX	All	All	Not specified	Urban
0.798	20.2	Antoint esie	All	All	Not specified	Urban
0.802	<u>19.8</u>		All	All	Not specified	Urban
0.761	23.9		All	Fatal,Serious injury,Minor injury	Not specified	Urban
0.841	<u>15.9</u>		All	Fatal,Serious injury,Minor injury	Not specified	Urban
0.755	<u>24.5</u>	****	All	Fatal,Serious injury,Minor injury	Not specified	Urban
0.696	30.4	****	All		Not specified	Urban

				Fatal,Serious injury,Minor injury			
0.702	<u>29.8</u>	全全全全全	All	Fatal,Serious injury,Minor injury	Not specified	Urban	
0.809	19.1	***	All	All	Not specified	Urban	
<u>0.853</u>	14.7	***	All	All	Not specified	Urban	
<u>0.918</u>	8.2	***	All	All	Not specified	Urban	
0.657	<u>34.3</u>	****	All	Fatal,Serious injury,Minor injury	Not specified	Urban	
0.742	25.8	***	All	Fatal,Serious injury,Minor injury	Not specified	Urban	
0.868	13.2	***	All	Fatal, Serious injury, Minor injury	Not specified	Urban	
<u>0.916</u>	<u>8.4</u>	*** ***	All	All	Not specified	Urban	
<u>0.807</u>	<u>19.3</u>	TAT ES	All	Fatal, Serious injury, Minor injury	Not specified	Urban	
0.737	26.3	****	All	All	Not specified	Urban	
<u>0.702</u>	<u>29.8</u>	****	All	Fatal,Serious injury,Minor injury	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

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.



K:\TWC_LDEV\WALMART\116199108_ROSEVILLE_SAMS\3 Design\CAD\Edit Files\2016-0628_ Snelling Avenue Widening.dwg June 28, 2016 - 3:18pm

				LEGEND I TURNING LANE PROPOSED LANE PROPOSED SHOULDER
SHEET NUMBER	SNELLING AVE. WIDENING	KHA PROJECT XXXXXXX DATE 06/28/16	Kimley »Horn	
EX. 1	ROSEVILLE, MN	SCALEASSHOWNDESIGNED BYMLSDRAWN BYMLSCHECKED BYATB	© 2016 KIMLEY-HORN AND ASSOCIATES, INC. 2550 UNIVERSITY AVENUE WEST, SUITE 238N, ST. PAUL, MN 55114 PHONE: 651-645-4197 WWW.KIMLEY-HORN.COM	

Existing Conditions Photos

Google Earth Plan View Photos (from north to south)





























Increased Revenue Scenario Transitways Building an Accelerated Transitway Vision





		City Parks and Facilities									
Acorn Rd N	H:4	Street Inde Fisk St N	E:15	grid locator on city ma Mildred DrN	A,B:6	Shady Beach Ave N	K:20	Park	Acreage	Map Ref	
Aglen Ave N	C,D:13	Fry St N	E-F,I:8		3:7,8,10,13-15	Sharondale Ave W	I:5		44.25	E:19,20	
Aglen St N	F,K:13	Fulham St N	G-J:2	Millwood St W	B:1,19	Sheldon St N	B,D,F:10	Acorn Applewood Overlook	2.42	C:9,10	
Aladdin St N Alameda St N	E:16	Galtier Cir N Galtier St N	F:20	Milton St N	A,H:14	Sherren StW Shorewood CurvW	H:11-15	Applewood Park	2.09	C:9,10	
Albemarle Ct N	I,K:16 I:20	Garden Ave W	B-D,F,L:19 K:11,12	Minnesota Ave W Moundsview Ave W	G:18-20 J:17	Shorewood Ln W	A:7 A:7	Autumn Grove	6.61	A,B:10	
Albemarle St N	1:20	Giesmann St N	I,J:19	Nancy PIN	G,H:14	Shryer Ave W	J:5-7,10-14,16,17	Bruce Russell	1.93	J:12	
Albert St N	A,B,F,H:10	Glen Hill Rd W	A:10	Nature View Ct N (Private)	E:18	Simpson St N	A,B:9,10;F,J:9	Central Park	225.00	D:15,E:13	5-17,F:17
Aldine St N	B,E,J:7	Glenwood Ave W	K:17,18	Northview St N	B:20	Skillman Ave W	J:5,6,10-12,16,20;I:7	Concordia Park	4.75	G:17	
Alta Vista Dr N	K,L:16	Gluek Ln W	H:5,6	Oakcrest Ave W E:5-	-8,11,12,15,18	Snelling Ave N	A-J:9	Cottontail	6.40	B:11	
American St N	F:7,8	N Gluek Ln W	H:6	Oakcrest Ln W	E:19	Snelling Curv N	E,F:9	Evergreen	3.94	l:7	
Applewood Ct W	C:9	S Gluek Ln W	H:6	Old Highway 8 N	A,B:1,2	E Snelling Service D		Howard Johnson Ladyslipper	9.05 16.52	D:11 A:19,20	
Arona St N	A-C,F,J:9	Grandview Ave W	G:13-16,18-20	Orchard Ln W	C:14	W Snelling Dr N	B-D:8	Langton Lake	53.54	A-C:6	
Arthur PI N	B:6	Griggs St N	C,D:12	Overlook Dr W	E:16	Southhill Dr N	G:18	Lexington	8.45	1:12	
Arthur St N Asbury St N	A:6,D:6 A,B,J:9	Grotto St N Haddington Rd N	E-H:15 H:8	Owasso Hills Dr W S Owasso Blvd W	B:18,C:17 A-C:16-20	Stanbridge Ave W Stanbridge Cir W	B:7,8 B:19	Mapleview	3.26	B:19	
Auerbach Ave N	А,В,J.9 G:19	Hamline Ave N	п.о A-L:10	W Owasso Blvd N	A.B:15-16	Stanbridge St W	A:1	Materion	8.51	G:19,20	
Autumn PI W	J:5	Hand Ave N	G,I:19		,C-F,H,J,K:13	Stuber Rd W	K:16	Mayflower	2.26	I:12	
Autumn St W	K:12	Harriet Ln W (Private)	J:13	Parker Ave W	I:13-15	Summer St W	K:12	Memorial Park		D:12	
Avon St N	A,E,I:15	Heinel Cir W	C:16	Partridge Rd N	B:3,4	Talisman Curv W	D:10	Oasis	14.44	B,C:7,8	
Bayview Dr W	J:18	Heinel Dr W	A-D:15-17	Pascal St N	A-F,H-J:10	Tatum St N	J:6	Owasso Ballfields	4.37	D:14	
Beacon St N	E,J:7	Herschel Ave N	H:7	Patton Rd N	A,B,D:1	Terminal Rd W	F:1-3	Owasso Hills	8.51	B,C:17	
Belair Cir W	B:11	Herschel St N	J:7	W Perimeter Dr W	G:6	Terrace Ct W	C:17	Pioneer	4.71	J:14	
Belmont Ln W	I:10,11,16	Highcourte N	B:18	Pineview Ct W	K:16	Terrace Dr W	C:7,8,10,11,18;D:15,16	Pocahontas Reservoir Woods	5.69	E:10 J;15-16,K:	.17
Bossard Dr N	H:18	Highcrest Rd N	A-B,G-H:1	Primrose Curv W	D:10	Top Hill Cir N	G:18	Reservoir woods Rosebrook	109.75 8.28	J;15-16,K: E:8	.17
Brenner Ave W	A:5,6,9,10,13-15	Highpointe Curv N	A-B:18	Prior Ave N	B-G,I-J:5	Transit Ave W	F:9-14,16-20	Rosebrook Sandcastle	8.28 3.37	E:8 A:1,2	
Brenner Ct W	A:2	Hillscourte North W	B:18	Prior Cir N	A:5	Troseth Rd N	B:1,2	Tamarack	5.37 6.46	K,L:19	
Brenner St W	A:1	Hillscourte South N	C:17	Rambler Ct W	D:18	Turnstone Ct (Private	·	Valley	10.61	A:15	
	F:8,9,10,12-14,18,19	Hillsview East N	B:18	Rambler Rd W Rice St N	D:10	Victoria St N Virginia Ave N	A-L:14 C,D:19	Veterans	3.57	D:12	
Brooks Cir N Burke Ave W	F:19 I:10-14,19,20	Hillsview West N Hilltop Ave W	B:18 K:17	Rice St N N Ridgewood Ln W	A-L:20 J:8	Virginia Ave N Virginia Cir N	C,D:19 F:19	Villa	40.83	I,J:17,18	
Capitol View (Private)	1:10-14,19,20 H:20	Holton St N	F:10	S Ridgewood Ln W	J.8 J:8	Wagener PIN	K:20	Willow Pond	14.76	F:11	
Capitol View (Filvale)	H:19,20	Huron Ave N	K:11	Ridgewood Rd N	J.8 A:9	Wagner St W	K:17-19	Woodhill	2.63	D:19	
Capitol View Cir N	H:19	Huron St N	C-D:11		L:11-13,16,19	Walnut St N	E-H:1	Facility	Address	Phone	Map Ref
Centennial Dr W	C:7,9,10,18	Highway 35W N	A,B:4,G-H:1-4		7-12,15,16,18	Western Ave N	B-K:18	City Hall	2660 Civic Center Dr	792-7000	D:12
Center St W	K:20	N Highway 36 Service Dr W	G:3-4,6	Rosedale Dr N	J:3	Westwood Cir N	J:4	Parks and Recreation Office	2660 Civic Center Dr	792-7006	D:12
Centre Pointe Dr N	A-B:4	S Highway 36 Service Dr W	H:3-4,7-8,17	Rosegate	F-G:4	Wewers Rd N	E:20	Skating Center	2661 Civic Center Dr	792-7007	D:12
Chandler Ave N	K:17	Highway 88 N	A-C:1-3	Roselawn Ave W	J:2-14,17	Wewers Rd W	E:20	Brimhall Community Gymnasium	1744 County Road B W	638-1958	I:7
Charlotte St N	E:8	Highway 280 N	H-J:1	Rosetown Ct N	E:16	Wheaton Ave W	D:15,16	Central Park School Community Gym		481-9951	F:17
Chatsworth St N	A,B,F,G,J-L:13	Hythe St N	J:4	Rose Vista Ct W (Private)	L:11	Wheeler Ave N	E:7	Roseville Gymnastics Center Cedarholm Golf Course	1240 County Road B2 W 2323 Hamline Ave N	635-1660 792-7011	G:11-12 G:10
Christy Cir W	E:11	Iona Cir N	C:18	N Rosewood Ln W	J:3,4	Wheeler St N	A,B,I,J:7	Harriet Alexander Nature Center	2520 Dale St N	792-7011	6.10 F:17
Churchill St N	A,C,D,F:13	Iona Ln W	C-D:16-20	S Rosewood Ln W	J:3,4	Wilder St N	A,I:5	Roseville Fire Administration*	2701 Lexington Ave N	792-7009	D:12
Civic Center Dr N Clarmar Ave W	D:12	Irene Cir N	C:18	Ruggles St W Rvan Ave W	K:11-13 J:5-7,9-13,17	William St N Willow Cir W	l,J:19 E:11	Roseville Police Department*	2660 Civic Center Dr	792-7008	D:12
Cleveland Ave N	A:9,10 A-F,I,J:4,G:4-6	Irene Ct W Irene St N	F:18 E,F,H,I:18	St Albans St N	C,F,G,L:16	Willow Ln W	E:11	*For all police or fire emerger	ncies - dial 911		
Cleveland Service Dr N	F-G:5,H:4	Josephine Rd W	B:11,12	St Croix St N	G,H:2	Woodbridge Cir N	G:20	Tor an ponce of the energer			
Cohansey Blvd N	H-J:18	Judith Ave W	C:10-13,18	St Stephen St N	H:2	Woodbridge Ct N	L:20				
Cohansey Cir N	C:18	Karyl PI W	l:12	Samuel St N (Private)	1:8	Woodbridge St N	A-G,1:20				
Cohansey St N	E-G:18	Kent St N	B, D, J, I, L:17	Sandhurst Cir W	H:18	Woodhill Dr W	D:11-14,17,18				
Colonial Dr W (Private)	G:10	Lake St N	J:2	Sandhurst Dr W H:10-12	2,14,15,17,19	Woodlynn Ave W	A:9,10,13,14,19,20				
Commerce St W	H:9,10	Lakeview Ave N	C,D:13	Sandy Hook Dr N	A:17	Woodruff Ave N	K:18				
Cope Ave W	G:15,16	Larpenteur Ave W	L:11-20	Sextant Ave W F:9,10	0,12,15,16,18	Woodruff Ave W	K:18				
County B Rd W	H:1-20	Laurie Rd W	H:3,8,12								
County B2 Rd W	F:4-20	Lexington Ave N	A-L:12								
County C Rd W	D:1-20	Lincoln Dr N	B-D:8								
County C2 Rd W	B:1-14	Lindy Ave N	I,L:12								
County D Rd W Crescent Ln W	A:1-7,12-16	Little Bay Rd N	A:17-18								
Dale Ct N	l:18 K:16	Long Lake Rd N Loren Rd W	A-F:3 J:5								
Dale St N	C-L:16	Lovell Ave W	G:13-18								
Dellwood Ave N	I-L:11	Lovell Ln W (Private)	G:13								
Dellwood St N	C-E, G-H:11	N Lovell Ln W (Private)	G:13								
Dellwood St N (Private)	G:11	S Lovell Ln W (Private)	G:13								
Dionne Ave W	L:19	Lydia Ave W	A,B:1,4,6-14								
Dionne St W	L:12,13	Lydia Ct N	A:1								
Draper Ave W	J:3,4,11,13	Lydia Dr W	A,B:14								
Draper Dr W	J:6	Mackubin St N	C,D,J,L:17								
Dunlap St N	E,F,L:12	Manson St N	B:1								
Eldridge Ave W	1:5,7,8,10-12,16,18	Maple Ln W	B:1,7,8,20								
Elmer St W	J:19-20	Maple Lane Ct W	B:19								
Emerald Ridge W Eustis St N	L:16 E,H:1	Marion Rd N Marion St N	H:3 B-I,L:20								
Evelyn St N	E, H. I A:5	Matilda Cir N	Б-1,L:20 F:19								
Evergreen Ct N	A.5 J:5	Matilda St N	B-D,F,G:19								
Fairview Ave N	J.5 A-J:6	McCarron St W	J:20								
Fairways Ln N	I:2	N McCarrons Blvd W	J:18-20								
Farrington Ave N	B, I:19	S McCarrons Blvd W	K,L:18-20								
Farrington Cir N	F:19	Merrill St N	B,C,H,K:11								
Farrington Ct N	A:19	Mid Oaks Ln	J:8								
Farrington St N	B-D,H,L:19	Mid Oaks Rd	J:8								
Fernwood Ave N	K-L:11	Midland Grove Rd N	H:4								
Fernwood Ct N	E:12	Midland Hills Rd N	J:3								
Fernwood St N	C-E,G-J:11	Midland View Ct N	H:3								
Ferris Ln N	H:5	Midlothian Rd N	H,I:8								



Minnesota Department of Transportation Metro District 1500 West County Road B-2 Roseville, MN 5511

July 15, 2016

Marc Culver Public Works Director City of Roseville 2660 Civic Center Drive Roseville, Minnesota 55113

RE: Regional Solicitation Application for the Snelling Avenue (TH 51) project

Dear Mr. Culver:

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 Snelling Avenue/TH 51 (County Road B2 to approximately 1,000 feet north of Lydia Avenue, in the northbound direction only) project impacts MnDOT right of way on trunk highway (TH) 51.

MnDOT, as the agency with jurisdiction over TH 51, would allow the improvements included in the application for the interchange 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.

This project currently has no funding from MnDOT. The Metro District currently has no discretionary funding in year 2020 of the State Transportation Improvement Program (STIP) or year 2021 of the Capital Highway Investment Plan (CHIP) to assist with construction or assist with MnDOT services such as the design or construction engineering of the project. Please continue to work with MnDOT Area staff to assist in identifying additional project funding if needed.

Sincerely,

Sitter 2

Scott McBride, P.E. Metro District Engineer

An Equal Opportunity Employer

Cc: Elaine Koustsoukos, Metropolitan Council Sheila Kauppi, MnDOT Metro District – North Area Manager