

## Application

04774 - 2016 Roadway Modernization		
05230 - Scott County Highway 83 from 12th to 4th in Shakopee		
Regional Solicitation - Roadways Including Multimodal Elements		
Status:	Submitted	
Submitted Date:	07/15/2016 3:23 PM	

# **Primary Contact**

Name:*	Salutation	Jarrett First Name	Karl Middle Name	Hubbard	
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Department:	Public Works				
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	City	State/Province	8	Postal Code/Zip	
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What Grant Programs are you most interested in?	Regional Solicitation - Roadways Including Multimodal Elements				

# **Organization Information**

Name:

SCOTT COUNTY

Jurisdictional Agency (if different):

Organization Type:	County Government
Organization Website:	
Address:	600 COUNTRY TRAIL E

*	JORDAN	Minnesota	55352
	City	State/Province	Postal Code/Zip
County:	Scott		
Phone:*	612-496-8355		
		Ext.	
Fax:			
PeopleSoft Vendor Number	0000024262A3		

# **Project Information**

 Project Name
 CSAH 83 Roadway Reconstruction and Modernization

 Primary County where the Project is Located
 Scott

 Jurisdictional Agency (If Different than the Applicant):
 Vertical Agency (If Different than the Applicant)

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

The project is reconstruction and modernization of CSAH 83 from the north ramp of US 169 north to south of 4th Ave. E in Shakopee. CSAH 83 is an A-Minor Expander Arterial and the project area connects US 169 and CSAH 101, CSAH 83 is a key freight connection located in a regionally identified manufacturing/distribution center. The project will serve manufacturing and distribution land uses and associated heavy commercial vehicles in the corridor that includes regional and national companies such as Amazon, Seagate Technology, SanMar, Anchor Glass Container Corporation, Entrust Datacard, Polaris, Emerson Process Management, Imagine! Print Solutions, and Certain Teed Corporation. The project area also serves entertainment and hospitality uses with Canterbury Park located on CSAH 83. Canterbury Park has dedicated right of way on the west side of CSAH 83 for this project.

The project reconstructs a 4-lane undivided roadway to a 4-lane divided roadway adding turnlane, intersection, and bicycle/pedestrian improvements. Access management policies are implemented on the corridor through closure of streets and private driveways and installation of medians for right-in, right-out movements. Primary and secondary public accesses are to be improved with appropriate turn lane additions for deceleration to support the high percentage of heavy commercial vehicles along the corridor. The intersection of CSAH 83 and 12th Ave. will be upgraded to include additional turnlanes to reduce congestion in the interchange influence area and prevent traffic from backing up on to US 169. Landscaping, lighting, and curb & gutter are also part of the project components. Bituminous trail on the west side and sidewalk on the east side of the roadway will be installed, providing facilities and connections where currently none exist. These pedestrian facilities will provide last mile

connections to jobs for transit users. The project will connect bicyclists to the regional trail system at CSAH 101.

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

TIP Description Guidance (will be used in TIP if the project is	CSAH 83 reconstruct to 4-lane divided from north ramp of US
selected for funding)	169 north to south of 4th Ave E in Shakopee.
Project Length (Miles)	0.9

# **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	\$5,546,000.00	
Match Amount	\$1,386,500.00	
Minimum of 20% of project total		
Project Total	\$6,932,500.00	
Match Percentage	20.0%	
Minimum of 20% Compute the match percentage by dividing the match amount by the project total		
Source of Match Funds	Scott County	
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:	2019	
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)	\$250,600.00
Removals (approx. 5% of total cost)	\$446,700.00
Roadway (grading, borrow, etc.)	\$437,300.00
Roadway (aggregates and paving)	\$1,788,500.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$381,100.00

Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$752,200.00
Traffic Control	\$190,600.00
Striping	\$36,200.00
Signing	\$36,200.00
Lighting	\$148,400.00
Turf - Erosion & Landscaping	\$226,800.00
Bridge	\$0.00
Retaining Walls	\$0.00
Noise Wall (do not include in cost effectiveness measure)	\$0.00
Traffic Signals	\$500,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$1,045,920.00
Other Roadway Elements	\$180,600.00
Totals	\$6,421,120.00

# **Specific Bicycle and Pedestrian Elements**

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$153,600.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$23,900.00
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	\$33,880.00
Other Bicycle and Pedestrian Elements	\$0.00
Totals	\$211,380.00

# **Specific Transit and TDM Elements**

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Fixed Guideway Elements	\$0.00
Stations, Stops, and Terminals	\$300,000.00
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	\$300,000.00

# **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	\$6,932,500.00
Construction Cost Total	\$6,932,500.00
Transit Operating Cost Total	\$0.00

# **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.

2.17), Objectives A & B Strategies A1 (Page 2.17) & A2 (Page 2.18) Goal C: Access to Destinations, Objectives A, B, & E List the goals, objectives, strategies, and associated pages: Strategies C1 (Page 2.24), C2 (Page 2.25), C9 (Page 2.32), C15 (Page 2.36) Goal D: Competitive Economy (Page 2.38), Objectives A & B Strategies D1 (Page 2.38), D3 (Page 2.39)

Goal A: Transportation System Stewardship (Page

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:	County Highway 83 (Canterbury Road) Corridor
	Readiness Study, City of Shakopee, CH 16 to CH
	101. Prepared by Bolton & Menk, Inc. (2016). Full
	study is applicable to project: Pages 1 - 35.

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.

# **Requirements - Roadways Including Multimodal Elements**

# **Project Information-Roadways**

County, City, or Lead Agency	Scott County
Functional Class of Road	A-Minor Expander Arterial
Road System	CSAH
TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET	
Road/Route No.	83
i.e., 53 for CSAH 53	
Name of Road	Canterbury Rd
Example; 1st ST., MAIN AVE	
Zip Code where Majority of Work is Being Performed	55379
(Approximate) Begin Construction Date	05/17/2021
(Approximate) End Construction Date	06/30/2022
TERMINI:(Termini listed must be within 0.3 miles of any we	ork)
From: (Intersection or Address)	US 169 north ramp
To: (Intersection or Address)	south of 4th Ave E
DO NOT INCLUDE LEGAL DESCRIPTION	
Or At	
Primary Types of Work	GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER,STORM SEWER, SIGNALS, LIGHTING, BIKE PATH, PED RAMPS
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):	

Expander/Augmentor/Connector/Non-Freeway Principal Arterial

Select one:	Expander
Area	4.874
Project Length	0.91
Average Distance	5.356
Upload Map	1468524571515_CH83_Roadway_Area_Definition_Map.pdf

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

Facility being relieved

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

Existing Employment within 1 Mile:	8164
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	4133
Existing Students:	0
Upload Map	1468524635359_CH83_Regional_Economy_Map.pdf

# Measure C: Current Heavy Commercial Traffic

Location:	CSAH 83 south of 12th Ave. E
Current daily heavy commercial traffic volume:	1211
Date heavy commercial count taken:	June 2015

Measure D: Freight Elements

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

CH 83 is currently a 10-ton road providing a key freight connection from the regionally identified manufacturing/distribution center to the Principal Arterial system. Current operational issues present at the 12th Ave intersection will worsen and cause significant delays and queuing issues as the area continues to grow. Safety is an issue with the crash count above the expected number, particularly for eastbound/westbound left turning movements. Traffic concerns at the intersection include northbound and westbound left turning movements. Proposed improvements include the additions of another westbound left turn lane and a northbound left turn lane, resulting in reduced queuing length to the allotted storage length for turn lanes at 12th Ave and decreased backups into the north TH 169 ramp intersection. This improves traffic flow during events at Canterbury Park that conflict with freight from manufacturing and distribution centers in the area. Conversion of the corridor to a 4-lane divided from 4-lane undivided and installation of turning lanes will reduce conflict points for freight reducing queue lengths and keeping turning vehicles in turn lanes. The corridor includes regional and national companies such as Amazon, Seagate Technology, SanMar, Anchor Glass Container Corp, Entrust Datacard, Polaris, Emerson Process Management, Imagine! Print Solutions, and Certain Teed Corp.

### Measure A: Current Daily Person Throughput

Upload Transit Map	1468524771937_CH83_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	493, 496	
Current AADT Volume	18800	
Location	CSAH 83 at 12th Ave. E	

# **Response: Current Daily Person Throughput**

Average Annual Daily Transit Ridership

Yes

#### Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume	No
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	Scott County 2040 Model
Forecast (2040) ADT volume	29000

# 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 is located in a Census Tract that is above the regional average for population in poverty or populations of color. The project is located in Census Tract 803.01, which has a nonwhite population of 25 percent according to the 5-Year American Community Survey (ACS) Estimate for Race. Hispanic or Latino population from the 2010 Census is at 7.8 percent for Census Tract 803.01. The population below the poverty level is estimated at 16.4 percent for Census Tract 803.01 (U.S. Census Bureau, 2010-2014 ACS 5-Year Estimate). The Census Tract is over 12 square miles in area, and more of the population below poverty level is located closer to the project area. For example, Scott County CDA property information indicates five affordable housing projects within one mile of the project area.

The bicycle and pedestrian facilities implemented as part of this project will allow residents and workers in the area to travel to jobs and activities without using the shoulder of the roadway adjacent to heavy commercial vehicles. These facilities will also improve access to the Scott County MN Workforce Center, located on this segment of highway, to connect residents with education, job, and career resources. Transit specific amenities are planned at the workforce center and include a concrete bus pull out area, waiting area, and heated shelter. Transit riders will be able to use the trail or sidewalk amenities to travel the remaining distance to their destination. The addition of Amazon warehouse and distribution facility to the area will add 1,000 new jobs in July 2016 with an estimated 2,500 jobs at full operating capacity. Imagine! Print Solutions is also adding an additional shift, which is expected to increase employment by 300 jobs. New jobs are expected to be entry to mid level, with similar wages to other warehouse and distribution jobs in the area. This project will assist in bridging the transportation gap for workers to

#### travel to the facility without having to drive.

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

Upload Map	1468525881015 CH83

1468525881015\_CH83\_Socio-Economic\_Conditions\_Map.pdf

# Measure B: Affordable Housing City/Township Segment Length in Miles (Population) Shakopee 0.91 Total Project Length 0.91 Total Project Length (Total Population) 0.9

# 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)	0.91
Total Housing Score	0

## Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1973	0.55	1085.15	1192.473
1993	0.36	717.48	788.44
	1	1803	1981

# **Average Construction Year**

Weighted Year

# **Total Segment Length (Miles)**

**Total Segment Length** 

0.91

# 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)	CH 83 is currently a 10-ton roadway. The project will maintain the 10-ton roadway designation. In addition, reconstruction of the pavement will preserve this roadway as a functioning 10-ton roadway for the regional system.
Improved clear zones or sight lines:	Yes
Response (Limit 700 characters; approximately 100 words)	Right of way sight triangles will be acquired throughout the corridor to improve sightlines at intersections. Implementation of turnlanes throughout the corridor will increase sight lines for through traffic vehicles and for vehicles making conflicting turning movements. Removal of access onto CH 83 will create larger clear zones along the corridor. The closure of private access thoughout the corridor in addition to the installation of a median to make it a 4-lane divided highway facility creates clearer sight lines.
Improved roadway geometrics:	Yes

#### Response (Limit 700 characters; approximately 100 words)

Access management enhancements:

Response (Limit 700 characters; approximately 100 words)

Vertical/horizontal alignments improvements:

Response (Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

CH 83 will be converted from a 4-lane undivided highway to a 4-lane divided highway with a median and turnlanes. The addition of medians provide a pedestrian refuge for crossings. The current skew at the intersection of CH 83 and Valley Industrial Blvd. S will be reduced. Geometrics will also be improved by the addition of turnlanes to provide for deceleration of heavy commercial vehicles in the corridor. Additional turnlanes will be added to the intersection of CH 83 and 12th Ave. E. This intersection has a crash count above the expected number with a high percentage occurring on eastbound/westbound movement crashes. Turnlane improvements will have protected signal movements.

#### Yes

The corridor has a high number of access points per mile compared to the Scott County guidelines for minimum access spacing between access points. Access points on CH 83 will be closed or relocated as part of the project, with other access limited to right-in, right-out movements consistent with the project layout. The project converts the corridor to a 4-lane divided highway from a 4-lane undivided and prioritizes access at primary and secondary public access intersections while restricting or removing private access. For the private accesses that remain, the added median will control access to right-in, right-out.

#### Yes

Project reduces the skewed angle at CH 83 and Valley Industrial Blvd. S by curving the road to meet CH 83 at more of a perpendicular angle. Turnlanes added throughout the corridor meet intersections at right angles and remove turning vehicles from through lanes so vehicle operators can better see approaching traffic.

Response (Limit 700 characters; approximately 100 words)	The project area does not meet current storwater standards. Storm sewer improvements are part of the project. The project would require this area to be brought up to current watershed district standards, including rate control, water quality, and volume control. The project will also comply with MPCA NPDES construction stormwater permit requirements.
Signals/lighting upgrades:	Yes
Response (Limit 700 characters; approximately 100 words)	Traffic control at 12th Ave. E will be upgraded to the latest ADA standards. Addition of turnlanes at the intersection of CH 83 and 12th Ave. E will increase the operational capacity of the signal. Intersection lighting will be upgraded to the latest standards.
Other Improvements	Yes
Response (Limit 700 characters; approximately 100 words)	Pedestrian and bicycle improvements include bituminous trail construction on the west side and construction of a sidewalk on the east side of CH 83 and upgrade of existing pedestrian curb ramps to ADA standards. Transit specific amenities will be incorporated as part of the project including a bus pull out area, concrete waiting area, and waiting shelter.

# Measure A: Congestion Reduction/Air Quality

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
24.0	18.0	6.0	2212	13272.0		14685262016 56_CSAH 83 PM Peak Hour Synchro.pdf

**Total Delay** 

**Total Peak Hour Delay Reduced** 

13272.0

# 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):	
4.15	3.35	0.6	2212.0	1327.2	
4	4		2212	1327	
Total					
Total Emissions Reduc	ced:		1327.2		
Upload Synchro Report		1468533665531_CSAH 83 PM Peak Hour Synchro.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) PeakTHour EmissionsHPer VehicleFwithout the Project (Kilograms):	Fotal (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):	

# **Total Parallel Roadways**

Emissions Reduced on Parallel Roadways

0

**Upload Synchro Report** 

**New Roadway Portion:** 

Vehicle miles traveled with the project:0Total delay in hours with the project:0Total stops in vehicles per hour with the project:0Fuel consumption in gallons:0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):0EXPLANATION of methodology and assumptions used: (Limit 1,400 characters; approximately 200 words)0.0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):0.0	Cruise speed in miles per hour with the project:	0
Total delay in hours with the project:0Total stops in vehicles per hour with the project:0Fuel consumption in gallons:0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):0EXPLANATION of methodology and assumptions used: (Limit 1,400 characters; approximately 200 words)0.0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the project (Kilograms):0.0	Vehicle miles traveled with the project:	0
Total stops in vehicles per hour with the project:0Fuel consumption in gallons:0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):0EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):0.0	Total delay in hours with the project:	0
Fuel consumption in gallons:0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):0EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):0.0	Total stops in vehicles per hour with the project:	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):0EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)0Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):0.0	Fuel consumption in gallons:	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	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): 0.0	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

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	03/31/2016	
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%	date submitted
Document in progress; environmental impacts identified; review request letters sent	Yes	
50%		
Document not started		
0%		
Anticipated date or date of completion/approval	12/31/2018	
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	Yes	
100%		
Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated		
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:

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

Yes

#### 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

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 Yes

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	11/30/2020
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%	
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.	n.us or 651-234-7784) cil/MnDOT Highway
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	
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	11/29/2019
10)Letting	
Anticipated Letting Date	05/29/2020

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

**Crash Modification Factor Used:** 

0.6

	CSAH 83 & Secretariat Intersection
	CRF=100% since access is completely going away
	CSAH 83 & 12th Avenue Intersection
	CMF ID 1581 - Install left-turn lane (signal has left- turn phase)
	Chosen because it was the only CMF which addressed installing left-turn lanes at a signalized intersection.
	CMF = 0.65
	CMF ID 380 - Modify change plus clearance interval to ITE 1985 Proposed Recommended Practice.
Rationale for Crash Modification Selected:	Chosen because it was the only CMF which addressed the benefit of completing signal retiming.
	CMF = 0.92
	Combined = 0.65*0.92=0.60
	CRF = 40%
	CSAH 83 Segment
	CMF ID 3097 - Absence of access points
	Chosen because it was the only CMF which addressed closing access points along a corridor.
	CMF = 0.56
	CMF ID 2219 - Install raised median
	Chosen because it was the only CMF which

addressed installing a raised median along a

	corridor.
	CMF = 0.29
	Combined = 0.56*0.29=0.16
	CRF = 84%
(Limit 1400 Characters; approximately 200 words)	
Project Benefit (\$) from B/C Ratio	\$1.14
Worksheet Attachment	1468526699593_83 FINAL cost benefit.xls

# 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

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

The majority of the existing project corridor is a 4lane undivided roadway without sidewalk or shoulder infrastructure. The proposed project adds a bituminous trail to the west side and sidewalk facility to the east side of CH 83, where today no pedestrian sidewalk or trail infrastructure exists. This trail alignment is identified as an RBTN Tier 2 Alignment. Curb ramps and intersection amenities including crossing technology will be implemented according to ADA standards throughout the corridor. The addition of bicycle and pedestrian specific infrastructure to this roadway modernization project makes employment opportunities in the area more accessible for transit users of the two routes currently operating in the project area. MVTA operates routes 493 and 499 through the project area which connect to major employers such as Canterbury, Seagate Technology, SanMar, Anchor Glass Container Corporation, Certain Teed Corporation, as well as the Scott County MN WorkForce Center. Bicycle and pedestrian facilities will also connect to the Scott County MN Workforce Center to connect residents with education, job, and career resources. Transit specific amenities are planned at the workforce center and include a bus pull out area, waiting area, and waiting shelter. Transit riders will be able to use the trail or sidewalk amenities to travel the remaining distance to their destination. Visitors to the hospitality and entertainment businesses, including Canterbury Park, hotels, and restaurants, in the corridor will also benefit from pedestrian and bicycle facilities.

The addition of a bituminous trail on the west side and a sidewalk facility on the east side of this roadway also provides a connection directly to the regional trail system (RBTN Tier 1 Alignment), CH 101 Trail, at the north end of the corridor. This trail connects west to Downtown Shakopee and east past ValleyFair, through the MN River Valley, over the MN River, and into the city of Bloomington. Connecting into the RBTN Tier 1 Alignment via an identified RBTN Tier 2 Alignment on CH 83 via this project will further implement the regional trail system vision.

# **Measure A: Cost Effectiveness**

Total Project Cost (entered in Project Cost Form):	\$6,932,500.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$6,932,500.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

# **Other Attachments**

File Name	Description	File Size
CSAH 83 Layout1.pdf	Project Layout	922 KB
CSAH 83 Shakopee Letter of Support.pdf	Letter of Support from City of Shakopee	902 KB
CSAH 83 Streetview.pdf	Project Streetview	831 KB
Scott County Resolution 2016-130.pdf	Local match resolution	258 KB

# Roadway Area Definition

Results

Project Length: 0.91 miles

Project Area: 4.874 sq mi

Project

1.25

0











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

1.25



# 6: CSAH 83 (Canterbury Road) & 12th Avenue

Direction	All	
Future Volume (vph)	2212	
Total Delay / Veh (s/v)	24	
CO Emissions (kg)	2.91	
NOx Emissions (kg)	0.57	
VOC Emissions (kg)	0.67	

# Timings 6: CSAH 83 (Canterbury Road) & 12th Avenue

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	•	1	<u> </u>	el el		7	<u>^</u>	1	<u>۲</u>	<b>^</b>	1
Traffic Volume (vph)	40	61	199	443	124	47	257	185	269	60	464	63
Future Volume (vph)	40	61	199	443	124	47	257	185	269	60	464	63
Satd. Flow (prot)	1770	1863	1583	1770	1786	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.635			0.714			0.407			0.626		
Satd. Flow (perm)	1183	1863	1583	1330	1786	0	758	3539	1583	1166	3539	1583
Satd. Flow (RTOR)			216		27				292			109
Lane Group Flow (vph)	43	66	216	482	186	0	279	201	292	65	504	68
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		6
Detector Phase	4	4	4	8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	16.0	16.0	16.0	16.0	16.0		13.0	31.0	31.0	13.0	31.0	31.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		13.0	31.0	31.0	13.0	31.0	31.0
Total Split (%)	45.0%	45.0%	45.0%	45.0%	45.0%		16.3%	38.8%	38.8%	16.3%	38.8%	38.8%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	1.5	1.5	2.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	5.5	5.5		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.6	29.6	29.6	30.1	30.1		35.4	28.4	28.4	34.4	26.0	26.0
Actuated g/C Ratio	0.37	0.37	0.37	0.38	0.38		0.44	0.36	0.36	0.43	0.32	0.32
v/c Ratio	0.10	0.10	0.30	0.96	0.27		0.65	0.16	0.39	0.12	0.44	0.12
Control Delay	17.1	16.8	3.9	59.3	15.8		21.9	17.6	4.5	12.2	21.6	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	16.8	3.9	59.3	15.8		21.9	17.6	4.5	12.2	21.6	1.9
LOS	В	В	А	Е	В		С	В	А	В	С	А
Approach Delay		8.2			47.2			14.2			18.6	
Approach LOS		Α			D			В			В	
Stops (vph)	26	38	21	369	97		182	96	44	32	329	4
Fuel Used(gal)	1	2	4	10	2		4	2	1	1	12	1
CO Emissions (g/hr)	83	126	302	704	148		276	157	95	93	868	57
NOx Emissions (g/hr)	16	24	59	137	29		54	31	19	18	169	11
VOC Emissions (g/hr)	19	29	70	163	34		64	36	22	22	201	13
Dilemma Vehicles (#)	0	2	0	0	0		0	20	0	0	29	0
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 80												
Offset: 14 (18%), Referenced	to phase	2:NBTL	and 6:SB	TL, Start	of 1st Gre	en						
Natural Cycle: 80												
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 0.96												
Intersection Signal Delay: 23.	.7			lr	ntersection	n LOS: C						
Intersection Capacity Utilization	on 78.3%			10	CU Level	of Service	e D					

CSAH 83 Corridor Readiness Study 6/5/2015 2015 PM Peak Hour - Existing Conditions Bolton & Menk, Inc.

Synchro 9 Report Page 1 Analysis Period (min) 15

Splits and Phases: 6: CSAH 83 (Canterbury Road) & 12th Avenue



# 6: CSAH 83 (Canterbury Road) & 12th Avenue

Direction	All	
Future Volume (vph)	2212	
Total Delay / Veh (s/v)	15	
CO Emissions (kg)	2.49	
NOx Emissions (kg)	0.48	
VOC Emissions (kg)	0.58	

# Timings 6: CSAH 83 (Canterbury Road) & 12th Avenue

6/22/2	2016
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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	۲.	•	1	ካካ	f,	ካካ	<b>^</b>	1	ሻ	<b>^</b>	1	
Traffic Volume (vph)	40	61	199	443	124	257	185	269	60	464	63	
Future Volume (vph)	40	61	199	443	124	257	185	269	60	464	63	
Lane Group Flow (vph)	40	61	199	443	171	257	185	269	60	464	63	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	
Protected Phases	7	4		3	8	5	2		1	6		
Permitted Phases	4		4	8		2		2	6		6	
Detector Phase	7	4	4	3	8	5	2	2	1	6	6	
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	7.0	20.0	20.0	7.0	20.0	20.0	
Minimum Split (s)	8.0	16.0	16.0	8.0	16.0	13.0	31.0	31.0	13.0	31.0	31.0	
Total Split (s)	8.0	18.0	18.0	13.0	23.0	13.0	36.0	36.0	13.0	36.0	36.0	
Total Split (%)	10.0%	22.5%	22.5%	16.3%	28.8%	16.3%	45.0%	45.0%	16.3%	45.0%	45.0%	
Yellow Time (s)	3.5	4.0	4.0	3.5	3.5	3.0	4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	2.0	1.5	1.5	2.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	5.5	5.0	6.0	6.0	5.0	6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max	
Act Effct Green (s)	17.4	10.4	10.4	26.4	19.5	41.6	36.4	36.4	39.6	31.6	31.6	
Actuated g/C Ratio	0.22	0.13	0.13	0.33	0.24	0.52	0.46	0.46	0.50	0.40	0.40	
v/c Ratio	0.13	0.25	0.50	0.53	0.38	0.25	0.11	0.31	0.09	0.33	0.08	
Control Delay	19.8	34.0	8.7	23.2	26.1	6.6	11.9	2.7	9.2	17.8	0.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.8	34.0	8.7	23.2	26.1	6.6	11.9	2.7	9.2	17.8	0.2	
LOS	В	С	A	С	С	A	В	А	A	В	A	
Approach Delay		15.3			24.0		6.5			15.0		
Approach LOS		В			С		Α			В		
Stops (vph)	32	55	25	327	124	77	76	22	28	309	0	
Fuel Used(gal)	1	2	5	7	3	2	2	1	1	12	1	
CO Emissions (g/hr)	89	152	319	460	184	129	125	69	86	822	51	
NOx Emissions (g/hr)	17	30	62	90	36	25	24	13	17	160	10	
VOC Emissions (g/hr)	21	35	74	107	43	30	29	16	20	190	12	
Dilemma Vehicles (#)	0	3	0	0	0	0	13	0	0	29	0	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 80												
Offset: 22 (28%), Referenced Natural Cycle: 70	l to phase	2:NBTL	and 6:SB	TL, Start	of 1st Gre	en						
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 0.53												
Intersection Signal Delay: 14.	.8			Ir	ntersectio	n LOS: B						
Intersection Capacity Utilizati	on 62.5%			(	CU Level	of Service	θB					
Analysis Period (min) 15												
Splits and Phases: 6: CSA	H 83 (Car	nterhurv F	Road) & 1	2th Aven								

#### Splits and Phases: 6: CSAH 83 (Canterbury Road) & 12th Avenue

Ø2 (R)	Ø1	Ø3		A 104	
36 s	13 s	13 s		18 s	
₩ Ø6 (R)	▲ ø5		<b>₩</b> ø	}	
36 s	13 s	8 s	23 s		

# 6: CSAH 83 (Canterbury Road) & 12th Avenue

Direction	All	
Future Volume (vph)	2212	
Total Delay / Veh (s/v)	24	
CO Emissions (kg)	2.91	
NOx Emissions (kg)	0.57	
VOC Emissions (kg)	0.67	

# Timings 6: CSAH 83 (Canterbury Road) & 12th Avenue

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	<u>۲</u>	•	1	<u> </u>	el el		7	<b>^</b>	1	<u> </u>	<b>^</b>	1
Traffic Volume (vph)	40	61	199	443	124	47	257	185	269	60	464	63
Future Volume (vph)	40	61	199	443	124	47	257	185	269	60	464	63
Satd. Flow (prot)	1770	1863	1583	1770	1786	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.635			0.714			0.407			0.626		
Satd. Flow (perm)	1183	1863	1583	1330	1786	0	758	3539	1583	1166	3539	1583
Satd. Flow (RTOR)			216		27				292			109
Lane Group Flow (vph)	43	66	216	482	186	0	279	201	292	65	504	68
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2		2	6		6
Detector Phase	4	4	4	8	8		5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0		7.0	20.0	20.0	7.0	20.0	20.0
Minimum Split (s)	16.0	16.0	16.0	16.0	16.0		13.0	31.0	31.0	13.0	31.0	31.0
Total Split (s)	36.0	36.0	36.0	36.0	36.0		13.0	31.0	31.0	13.0	31.0	31.0
Total Split (%)	45.0%	45.0%	45.0%	45.0%	45.0%		16.3%	38.8%	38.8%	16.3%	38.8%	38.8%
Yellow Time (s)	4.0	4.0	4.0	3.5	3.5		3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	1.5	1.5	2.0	1.5	1.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0	5.5	5.5		5.0	6.0	6.0	5.0	6.0	6.0
Lead/Lag							Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.6	29.6	29.6	30.1	30.1		35.4	28.4	28.4	34.4	26.0	26.0
Actuated g/C Ratio	0.37	0.37	0.37	0.38	0.38		0.44	0.36	0.36	0.43	0.32	0.32
v/c Ratio	0.10	0.10	0.30	0.96	0.27		0.65	0.16	0.39	0.12	0.44	0.12
Control Delay	17.1	16.8	3.9	59.3	15.8		21.9	17.6	4.5	12.2	21.6	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.1	16.8	3.9	59.3	15.8		21.9	17.6	4.5	12.2	21.6	1.9
LOS	В	В	А	Е	В		С	В	А	В	С	А
Approach Delay		8.2			47.2			14.2			18.6	
Approach LOS		Α			D			В			В	
Stops (vph)	26	38	21	369	97		182	96	44	32	329	4
Fuel Used(gal)	1	2	4	10	2		4	2	1	1	12	1
CO Emissions (g/hr)	83	126	302	704	148		276	157	95	93	868	57
NOx Emissions (g/hr)	16	24	59	137	29		54	31	19	18	169	11
VOC Emissions (g/hr)	19	29	70	163	34		64	36	22	22	201	13
Dilemma Vehicles (#)	0	2	0	0	0		0	20	0	0	29	0
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 80												
Offset: 14 (18%), Referenced	to phase	2:NBTL	and 6:SB	TL, Start	of 1st Gre	en						
Natural Cycle: 80												
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 0.96												
Intersection Signal Delay: 23.	.7			lr	ntersection	n LOS: C						
Intersection Capacity Utilization	on 78.3%			10	CU Level	of Service	e D					

CSAH 83 Corridor Readiness Study 6/5/2015 2015 PM Peak Hour - Existing Conditions Bolton & Menk, Inc.

Synchro 9 Report Page 1 Analysis Period (min) 15

Splits and Phases: 6: CSAH 83 (Canterbury Road) & 12th Avenue



# 6: CSAH 83 (Canterbury Road) & 12th Avenue

Direction	All	
Future Volume (vph)	2212	
Total Delay / Veh (s/v)	15	
CO Emissions (kg)	2.49	
NOx Emissions (kg)	0.48	
VOC Emissions (kg)	0.58	

# Timings 6: CSAH 83 (Canterbury Road) & 12th Avenue

6/22/2	2016
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Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	۲.	•	1	ካካ	f,	ካካ	<b>^</b>	1	ሻ	<b>^</b>	1	
Traffic Volume (vph)	40	61	199	443	124	257	185	269	60	464	63	
Future Volume (vph)	40	61	199	443	124	257	185	269	60	464	63	
Lane Group Flow (vph)	40	61	199	443	171	257	185	269	60	464	63	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA	Perm	pm+pt	NA	Perm	
Protected Phases	7	4		3	8	5	2		1	6		
Permitted Phases	4		4	8		2		2	6		6	
Detector Phase	7	4	4	3	8	5	2	2	1	6	6	
Switch Phase												
Minimum Initial (s)	4.0	10.0	10.0	4.0	10.0	7.0	20.0	20.0	7.0	20.0	20.0	
Minimum Split (s)	8.0	16.0	16.0	8.0	16.0	13.0	31.0	31.0	13.0	31.0	31.0	
Total Split (s)	8.0	18.0	18.0	13.0	23.0	13.0	36.0	36.0	13.0	36.0	36.0	
Total Split (%)	10.0%	22.5%	22.5%	16.3%	28.8%	16.3%	45.0%	45.0%	16.3%	45.0%	45.0%	
Yellow Time (s)	3.5	4.0	4.0	3.5	3.5	3.0	4.5	4.5	3.0	4.5	4.5	
All-Red Time (s)	0.5	2.0	2.0	0.5	2.0	2.0	1.5	1.5	2.0	1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	5.5	5.0	6.0	6.0	5.0	6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag	Lead	Lead	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Recall Mode	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max	
Act Effct Green (s)	17.4	10.4	10.4	26.4	19.5	41.6	36.4	36.4	39.6	31.6	31.6	
Actuated g/C Ratio	0.22	0.13	0.13	0.33	0.24	0.52	0.46	0.46	0.50	0.40	0.40	
v/c Ratio	0.13	0.25	0.50	0.53	0.38	0.25	0.11	0.31	0.09	0.33	0.08	
Control Delay	19.8	34.0	8.7	23.2	26.1	6.6	11.9	2.7	9.2	17.8	0.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.8	34.0	8.7	23.2	26.1	6.6	11.9	2.7	9.2	17.8	0.2	
LOS	В	С	A	С	С	A	В	А	A	В	А	
Approach Delay		15.3			24.0		6.5			15.0		
Approach LOS		В			С		Α			В		
Stops (vph)	32	55	25	327	124	77	76	22	28	309	0	
Fuel Used(gal)	1	2	5	7	3	2	2	1	1	12	1	
CO Emissions (g/hr)	89	152	319	460	184	129	125	69	86	822	51	
NOx Emissions (g/hr)	17	30	62	90	36	25	24	13	17	160	10	
VOC Emissions (g/hr)	21	35	74	107	43	30	29	16	20	190	12	
Dilemma Vehicles (#)	0	3	0	0	0	0	13	0	0	29	0	
Intersection Summary												
Cycle Length: 80												
Actuated Cycle Length: 80												
Offset: 22 (28%), Referenced Natural Cycle: 70	l to phase	2:NBTL	and 6:SB	TL, Start	of 1st Gre	en						
Control Type: Actuated-Coord	dinated											
Maximum v/c Ratio: 0.53												
Intersection Signal Delay: 14.	.8			Ir	ntersectio	n LOS: B						
Intersection Capacity Utilizati	on 62.5%			(	CU Level	of Service	θB					
Analysis Period (min) 15												
Splits and Phases: 6: CSA	Splits and Phases: 6: CSAH 83 (Canterbury Road) & 12th Avenue											

#### Splits and Phases: 6: CSAH 83 (Canterbury Road) & 12th Avenue

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36 s	13 s	13 s		18 s	
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36 s	13 s	8 s	23 s		



July 14, 2016



Ms. Lisa Freese Transportation Program Director Scott County Highway Department 600 Country Trail East Jordan, MN 55352

RE: CSAH 83 Reconstruction and Modernization Project

Dear Ms. Freese:

The City of Shakopee is aware Scott County is applying for federal funding through the Metropolitan Council's Regional Solicitation for the reconstruction of CSAH 83, under the Roadway Reconstruction and Modernization category.

The project is reconstruction and modernization of CSAH 83 from the north ramp of US 169 north to south of 4<sup>th</sup> Ave. E in Shakopee. The project reconstructs a 4-lane undivided roadway to a 4-lane divided roadway adding turnlane, intersection, and bicycle/pedestrian improvements. These improvements are endorsed by the City of Shakopee, and we are supportive of the Regional Solicitation application.

Please let me know if there is any additional information you need from us regarding this funding application.

Sincerely,

Bruce Loney 🌔

Public Works Director City of Shakopee





Google Streetview: CSAH 83 between 12<sup>th</sup> Ave E and Shenandoah Dr. in southbound lane facing north.

AGENDA # 5.3 SCOTT COUNTY, MINNESOTA REQUEST FOR BOARD ACTION MEETING DATE: JULY 5, 2016

ORIGINATING DIVISION: ORIGINATING DEPARTMENT:	Community Services Physical Development	CONSENT AGENDA:	Yes No			
PRESENTER:	Lisa Freese - 8363 Program Director	ATTACHMENTS:	Yes INO			
PROJECT:	Regional Solicitation Gran	TIME REQUESTED:	N/A			
ACTION REQUESTED:	Adopt Resolution No. 2016 Projects to the Transportat 2016 Regional Solicitation	-130; Authorizing Submittal ion Advisory Board (TAB) fo Process	of Transportation or Consideration in the			
CONTRACT/POLICY/GRANT:	County Attorney Review	FISCAL:	Finance Review			
	Risk Management Review		☐ Budget Change			
ORGANIZATIONAL VALUES:	☐ Provide a Supportive Organ	izational Culture				
	Jevelop Strong Public Part	lic Partnerships				
	I Manage Challenges and Cr	and Create Opportunities				
	Je Assure Long Term Fiscal S	ability				
	Emphasize Excellence in C	ustomer Service				
DEPARTMENT/DIVISION HE	AD SIGNATURE:	COUNTY ADMINISTRAT	OR SIGNATURE:			
Authy Minuki		R				
Approved: MBJU	5 ayes DIS	TRIBUTION/FILING INSTR	UCTIONS:			
Denied:		Community Services, Tony Winiecki				
Other:	Cor	nmunity Services, Lisa Free	se			
Deputy Clerk :	ak Bras					
Date: (7-5-/						

# **Background/Justification:**

The purpose of this agenda item is to adopt Resolution No. 2016-130, authorizing submittal of transportation projects to the Transportation Advisory Board (TAB) for consideration in the 2016 Regional Solicitation process.

The Metropolitan Council, in partnership with TAB, is requesting project submittals for federal funding under the Surface Transportation Block Grant Program (STBGP), Congestion Mitigation and Air Quality (CMAQ) and Transportation Alternatives Program (TA). This funding provides up to 80 percent of the project construction cost. The local agency submitting the applications must commit to providing at least 20 percent local match and maintaining the constructed facilities for their useful life. A total of approximately \$180 million in federal funds is anticipated to be available in this solicitation for program years 2020 and 2021 for projects in the 7-County Twin Cities Metropolitan Area. Also, due to increased funding levels under the new federal FAST Act legislation, limited federal funding is also available in 2017, 2018, and 2019 for projects that can be implemented sooner. Project submittals are due on July 15, 2016 for all applications. The Highway Safety Improvement Program Solicitation (HSIP) applications are administered by the Minnesota Department of Transportation (MnDOT) and are due September 1, 2016. The HSIP applications will be brought to the County Board for consideration in August as a separate action.

Funding applications are categorized by transportation mode (auto/roadway, bike/ped, transit) instead of by funding program. The applications also include considerations based on measures emphasized in Thrive MSP 2040, including project relationship to regional economy, equity and affordable housing, and system preservation and modernization.

Staff is recommending six projects be submitted for scoring under the regional solicitation process. If successful, projects dates of delivery may need to be accelerated by the County to align with federal funding or if federal funding availability is after the County program year, Advanced Construction (AC) will be requested. The selection process timeline will allow the County to make adjustments for successful applications in the annual update of the Transportation Improvement Program (TIP) 2018-2027,

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# Fiscal Impact:

The federal grant programs require a 20 percent local match for the project. Funding match obligations for several of the projects are included in the 2016-2025 Transportation Improvement Program (TIP). If the grant is secured for a currently non-funded project, the funding match obligations will be identified in the 2017 update of the County's TIP.

## BOARD OF COUNTY COMMISSIONERS SCOTT COUNTY, MINNESOTA

Date:	July 5, 2016					
Resolution No.:	2016-130					
Motion by Commissioner:	Beard					
Seconded by Commissioner:	Ulrich					

# RESOLUTION NO. 2016-130; AUTHORIZING SUBMITTAL OF TRANSPORTATION PROJECTS TO THE TRANSPORTATION ADVISORY BOARD FOR CONSIDERATION IN THE 2016 REGIONAL SOLICITATION PROCESS

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

WHEREAS, funding is available in the 2017-2021 federal fiscal years; and

WHEREAS, funding provides up to 80 percent of project construction costs; and

WHEREAS, this federal funding of projects reduces the burden on local taxpayers for regional improvements; and

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

WHEREAS, the Scott County Board of Commissioners desires to support these projects.

NOW, THEREFORE BE IT RESOLVED, that the Scott County Board of Commissioners hereby supports the submittal of the following projects to the Transportation Advisory Board for Consideration in 2016 Regional Solicitation Process:

- 1. CH21/TH13 Intersection Improvements
- 2. CH83 Improvements from 12<sup>th</sup> to 4<sup>th</sup> Ave
- 3. CH21 Improvements from Adelmann St to CH87
- 4. CH27 Expansion from CH44 to CH 21
- 5. CH14 Overpass of US 169
- 6. CH17 Bike/Ped Overpass of US 169
- 7. Scott County Transportation Management Association

COMMISSIONERS			VOTE	
Wagner	₽ Yes	∟ No	☐ Absent	☐ Abstain
Wolf	₽ Yes	□ No	☐ Absent	☐ Abstain
Beard	🗹 Yes	[] No	☐ Absent	L. Abstain
Marschall	₽ Yes	∏ No	☐ Absent	☐ Abstain
Ulrich	I Yes	Г. No	☐ Absent	☐ Abstain

#### State of Minnesota)

County of Scott

I, Gary L. Shelton, duly appointed qualified County Administrator for the County of Scott, State of Minnesota, do hereby certify that I have compared the foregoing copy of a resolution with the original minutes of the proceedings of the Board of County Commissioners, Scott County, Minnesota, at their session held on the 5<sup>th</sup> day of July, 2016 now on file in my office, and have found the same to be a true and correct copy thereof. Witness my hand and official seal at Shakopee, Minnesota, this 5th day of July 2016.

County Administrator

Administrator's Designee