

Application

Name:

04774 - 2016 Roadway Modernization						
05352 - CSAH 54 Realignment						
Regional Solicitation - Roadways Including Multimodal E	Elements					
Status:	Submitted					
Submitted Date:	07/15/2016 12:42 PM					
Primary Contact						
Namat		Jack	L	Forslund		
Name:*	Salutation	First Name	Middle Name	Last Name		
Title:	Multimodal F	Planning Manag	jer			
Department:	Anoka Coun	Anoka County Transportation Division				
Email:	jack.forslund	jack.forslund@co.anoka.mn.us				
Address:	1440 Bunker	Lake Boulevar	rd NW			
*	Andover	Minne	esota	55304-4005		
	City	State/Pro	ovince	Postal Code/Zip		
Phone:*	763-862-423	30				
Thomas and the second s	Phone		Ext.			
Fax:	763-862-420)1				
What Grant Programs are you most interested in?	Regional Sol Elements	licitation - Road	lways Includin	g Multimodal		
Organization Information						

ANOKA COUNTY

Jurisdictional Agency (if different):			
Organization Type:	County Government		
Organization Website:			
Address:	1440 BUNKER LAKE BLVD		
*	ANDOVER	Minnesota	55304
	City	State/Province	Postal Code/Zip
County:	Anoka		
Phone:*	763-862-4200		
	Ext.		
Fax:			
PeopleSoft Vendor Number	0000003633A15		

Project Information

Project Name CSAH 54 Realignment

Primary County where the Project is Located Anoka

Jurisdictional Agency (If Different than the Applicant):

Anoka County proposes a realignment of 0.77 miles of CSAH 54, an A Minor Reliever roadway within the City of Columbus. Existing CSAH 54 runs parallel along the west side of I-35. It provides relief to I-35 and local access throughout the City of Columbus, as well important connections to the Cities of Lino Lakes, Centerville, and Ramsey County not otherwise served by I-35 interchanges

The proposed project will realign the existing CSAH 54 corridor 0.15 miles to the west.

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

The realigned two-lane roadway will include a median and turn-lanes at intersections.

The southern end of the project will include a full-access roundabout intersection which will connect to the southeastern corner of the Running Aces Harness Park and the Running Aces Park and Ride. This intersection will also connect to the existing alignment of CSAH 54 (which will function as a frontage road) for access to existing businesses and parcels. A 10-foot bituminous multiuse trail will be constructed along the west side of the project to provide safe transportation and recreational opportunities for travelers near CSAH 54.

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)

CSAH 54 Realignment

Project Funding

Are you applying for funds from another source(s) to implement this project?

If yes, please identify the source(s)

Federal Amount \$3,367,500.00

Match Amount \$841,900.00

No

0.77

Minimum of 20% of project total

Project Total \$4,209,400.00

Match Percentage 20.0%

Minimum of 20%

Compute the match percentage by dividing the match amount by the project total

Source of Match Funds

Anoka County Highway Fund

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources.

Preferred Program Year

Select one: 2020

For TDM projects, select 2018 or 2019. For Roadway, Transit, or Trail/Pedestrian projects, select 2020 or 2021.

Additional Program Years: 2018, 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)	\$437,400.00
Removals (approx. 5% of total cost)	\$121,500.00
Roadway (grading, borrow, etc.)	\$237,400.00
Roadway (aggregates and paving)	\$840,800.00
Subgrade Correction (muck)	\$497,600.00
Storm Sewer	\$733,700.00
Ponds	\$398,600.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$372,000.00
Traffic Control	\$47,900.00
Striping	\$56,500.00
Signing	\$25,100.00
Lighting	\$106,100.00
Turf - Erosion & Landscaping	\$198,300.00
Bridge	\$0.00
Retaining Walls	\$36,300.00
Noise Wall (do not include in cost effectiveness measure)	\$0.00
Traffic Signals	\$0.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00

Roadway Contingencies \$0.00
Other Roadway Elements \$16,100.00
Totals \$4,125,300.00

Specific Bicycle and Pedestrian Elements
CONSTRUCTION PROJECT ELEMENTS/COST

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$84,000.00
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

\$84,000.00

Specific Transit and TDM Elements

Totals

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

Transit Operating Costs

Number of Platform hours 0

Cost Per Platform hour (full loaded Cost) \$0.00

Substotal \$0.00

Other Costs - Administration, Overhead, etc. \$0.00

Totals

Total Cost \$4,209,300.00

Construction Cost Total \$4,209,300.00

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.

2040 Transportation Policy Plan (TPP)

Goal B: Safety and Security: The regional transportation system is safe and secure for all users (page 60)

- Objectives: Reduce crashes and improve safety and security for all modes of passenger travel and freight transport.

Strategies: Regional transportation partners will incorporate safety and security considerations for all modes and users throughout the process of planning, funding, construction, and operation.

Goal C: Access to Destinations: People and businesses prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond (page 62).

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

- Objectives: Increase the availability of multimodal travel options, especially in congested highway corridors.
- Increase travel time reliability and predictability for travel on highway and transit systems.
- Ensure access to freight terminals such as river ports, airports, and intermodal rail yards.

Strategies: C7. Regional transportation partners will manage and optimize the performance of the principle arterial system as measured by person throughput.

Strategies: C8. Regional transportation partners will prioritize all regional highway capital investments based on a project?s expected contributions to achieving the outcomes, goals, and objectives identified in Thrive MSP 2040 and the

Transportation Policy Plan.

Strategies: C9. The Council will 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.

Goal D: Competitive Economy: The regional transportation system supports the economic competitiveness, vitality, and prosperity of the region and state (page 64).

 Objectives: Support the region?s economic competitiveness through the efficient movement of freight.

Goal F: Leveraging Transportation Investment to Guide Land Use: The leverages transportation investments to guide land use and development patterns that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability (page 70).

- Objectives: Encourage local land use design that integrates highways, streets, transit, walking, and bicycling.

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:

2030 Columbus Comprehensive Plan (2008) Page 37

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 are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

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

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

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

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

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

Requirements - Roadways Including Multimodal Elements

Project Information-Roadways

County, City, or Lead Agency Anoka County

Functional Class of Road "A" Minor Arterial Reliever

Road System CSAH

TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET

Road/Route No. 54

i.e., 53 for CSAH 53

Name of Road West Freeway Drive

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55025

(Approximate) Begin Construction Date 04/03/2018
(Approximate) End Construction Date 11/01/2018

TERMINI:(Termini listed must be within 0.3 miles of any work)

From:

(Intersection or Address)

CSAH 23/CSAH 54 Intersection

To:

(Intersection or Address) Immediately north of Gander Drive􀀀

DO NOT INCLUDE LEGAL DESCRIPTION

Or At

Primary Types of Work

Grading, aggregates/paving, storm sewer, bituminous bike

path, roundabout, 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

0

0

Select one:

Area

Project Length

Average Distance

Upload Map

Reliever: Relieves a Principal Arterial that is a Freeway Facility

Facility being relieved I-35

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

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)

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: 2019

Existing Manufacturing/Distribution-Related Employment within 1

Mile:

316

Existing Students: 0

Upload Map 1467739115699_Map_CSAH 54 Regional Economy.pdf

Measure C: Current Heavy Commercial Traffic

Location: CSAH 54, south of CSAH 23

Current daily heavy commercial traffic volume: 210

Date heavy commercial count taken: May, 2015

Measure D: Freight Elements

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

The proposed project includes paved shoulders, turn-lanes, and intersection roundabouts, all of which will improve travel times and economic efficiencies for the movement of freight on CSAH 54 and the parallel I-35 corridor. Also, it is necessary to realign CSAH 54 in order for the reconstruction of the I-35 and TH 97 interchange, as currently, it is located too close to the I-35 on/off ramps.

Measure A: Current Daily Person Throughput

Location CSAH 54, south of CSAH 23

Current AADT Volume 3000

Existing Transit Routes on the Project 2

For New Roadways only, list transit routes that will be moved to the new roadway

Upload Transit Map 1467743764070_CSAH54_T C.pdf

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership 0

Current Daily Person Throughput 3900.0

Measure B: 2040 Forecast ADT

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:

Yes

The CSAH 54 expansion and realignment will improve travel times and economic efficiencies for local, commuter, freight, and recreational travel on CSAH 54 and the parallel I-35 corridor, all of which support the health and growth of northern Anoka County's local economy. These benefits help to provide opportunities for job growth and stability for low-income households (10%) living around the project and immediately northeast of the project (15%) (above the County and 7-county average, respectively).

The project's connection to the Metro Transit Park and Ride and I-35 will also enable efficient transit connections to job concentrations and manufacturing centers in and near Minneapolis and St. Paul for low-income populations taking advantage of the service.

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

The multiuse trail facility included in the proposed project will improve access, local and regional connectivity to nearby Forest Lake HS and Century Jr. HS, transportation choice, and recreational opportunities for all populations living in proximity to the project, including the elderly (10%) and children (22%), which are above and equal to county averages.

Finally, the project is consistent with the goals and desired outcomes in Thrive 2040 to connect local residents in these neighborhoods (inclusive of all races, ethnicity, incomes, and abilities) with a safe and reliable transportation system to improve their overall quality of life.

Measure B: Affordable Housing

City/Township Segment Length in Miles (Population)

Columbus 0.77

1

0

1961

0

Total Project Length

Total Project Length (Total Population)

0.77

0

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township Segment Total Length Score Segment Length (Miles) (Miles) Score Length Length Length Dercent

0

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles) 0.77

Total Housing Score 0

Measure A: Year of Roadway Construction

Year of Original Roadway Construction

or Most Recent
Reconstruction

1961

0.77

Calculation

Calculation 2

1961.0

1

Average Construction Year

Weighted Year 1961

Total Segment Length (Miles)

Total Segment Length

0.77

1510

Measure B: Geometric, Structural, or Infrastructure Improvements

Improving a non-10-ton roadway to a 10-ton roadway:

Yes

Response (Limit 700 characters; approximately 100 words)

The roadway, currently a 9-ton roadway, will be reconstructed as a 10-ton roadway.

Improved clear zones or sight lines:

Yes

Response (Limit 700 characters; approximately 100 words)

Sight lines at all intersections/access points will be improved, particularly for the intersection of CSAHs 54 and 23, which will be moved away from the I-35 SB on/off ramps.

Improved roadway geometrics:

Yes

Response (Limit 700 characters; approximately 100 words)

The roadway will include turn-lanes at all intersections.

Access management enhancements:

Yes

Response (Limit 700 characters; approximately 100 words)

Realignment of CSAH 54 west out of the interchange area will significantly improve traffic operations at the CSAH 54/CSAH 23 intersection, and will also help to bring CSAH 23 into compliance with Anoka County's access spacing guidance for a 55 mph arterial roadway.

Vertical/horizontal alignments improvements:

Response (Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

Yes

Response (Limit 700 characters; approximately 100 words)

The existing highway does not have any controls for the stormwater rate or quality control. This project will address these deficiencies.

Signals/lighting upgrades:

Response (Limit 700 characters; approximately 100 words)

Other Improvements

Yes

Response (Limit 700 characters; approximately 100 words)

The proposed project includes the contruction of a roundabout at the intersection of CSAHs 54 and 23, which has tremendous benefits for travel mobility and safety. The project will also include paved shoulders and a multiuse trail.

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:	N of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
3.0	2.0	1.0	1131	1131.0		14677406542 83_CSAH 54 - Synchro Reports.pdf

Total Delay

Total Peak Hour Delay Reduced

1131.0

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):
0.64	0.63	0.01	1131.0	11.31
1	1		1131	11

Total

Total Emissions Reduced:

11.31

Upload Synchro Report

1467740844447_CSAH 54 - Synchro Reports.pdf

EXPLANATIO

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

Measure B:Roadway	projects	that include	railroad	grade-se	paration	elements

0

0

0.0

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

Total stops in vehicles per hour with the project:

Produced on New Roadway (Kilograms):

1,400 characters; approximately 200 words)

Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or

EXPLANATION of methodology and assumptions used:(Limit

Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the

Fuel consumption in gallons:

Project (Kilograms):

Fuel consumption in gallons (F2)	U
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.

100%

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	
100%	
Layout or Preliminary Plan started	Yes
50%	
Layout or Preliminary Plan has not been started	
0%	
Anticipated date or date of completion	04/03/2017
3)Environmental Documentation (5 Percent of Points)	
EIS	
EA	Yes
PM	
Document Status:	
Document approved (include copy of signed cover sheet)	

Document in progress; environmental impacts identified; review request letters sent

Yes

50%

Document not started

0%

Anticipated date or date of completion/approval

03/01/2017

Yes

4) Review of Section 106 Historic Resources (10 Percent of Points)

No known historic properties eligible for or listed in the National Register of Historic Places are located in the project area, and project is not located on an identified historic bridge

100%

Historic/archeological review under way; determination of no historic properties affected or no adverse effect anticipated

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%

coordination/documentation has not begun	
30%	
Unsure if there are any impacts to Section 4f/6f resources in the project area	
0%	
6)Right-of-Way (15 Percent of Points)	
Right-of-way, permanent or temporary easements not required	
100%	
Right-of-way, permanent or temporary easements has/have been acquired	
100%	
Right-of-way, permanent or temporary easements required, offers made	
75%	
Right-of-way, permanent or temporary easements required, appraisals made	
50%	
Right-of-way, permanent or temporary easements required, parcels identified	Yes
25%	
Right-of-way, permanent or temporary easements required, parcels not identified	
0%	
Right-of-way, permanent or temporary easements identification has not been completed	
0%	
Anticipated date or date of acquisition	02/01/2017
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%	

Project impacts to Section 4f/6f resources likely

Anticipated date or date of executed Agreement

8)Interchange Approval (15 Percent of Points)*

*Please contact Karen Scheffing at MnDOT (Karen.Scheffing@state.mn.us or 651-234-7784) to determine if your project needs to go through the Metropolitan Council/MnDOT Highway Interchange Request Committee.

Project does not involve construction of a new/expanded interchange or new interchange ramps

Yes

100%

Interchange project has been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee

100%

Interchange project has not been approved by the Metropolitan Council/MnDOT Highway Interchange Request Committee

0%

9)Construction Documents/Plan (10 Percent of Points)

Construction plans completed/approved (include signed title sheet)

100%

Construction plans submitted to State Aid for review

75%

Construction plans in progress; at least 30% completion

Yes

50%

Construction plans have not been started

0%

Anticipated date or date of completion

12/01/2016

10)Letting

Anticipated Letting Date

03/10/2017

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

Crash Modification Factor Used:

41.0

CR 1 = Installation of a median

CR 2 = Conversion of stop-controlled intersection

to a roundabout

Rationale for Crash Modification Selected:

These improvements are part of the project. See the attachment for the HSIP Worksheets and additional information.

Project Benefit (\$) from B/C Ratio \$149,726.00

Worksheet Attachment 1468527506812_CSAH 54 HSIP Worksheets and

Attachments.pdf

Roadway projects that include railroad grade-separation elements:

Current AADT volume: 0

Average daily trains: 0

Crash Risk Exposure eliminated: 0

Measure A: Multimodal Elements and Existing Connections

The proposed 10-foot multiuse trail on the west side of the CSAH 54 corridor will connect to the CSAH 23/Lake Avenue corridor and the existing Hardwood Creek Trail. The project will enable travelers from Columbus, Forest Lake, and other surrounding communities in Washington and Anoka Counties to more safely travel to Running Aces Harness Park, a casino, music venue, restaurant, event center, and employer of nearly 400 people

A future extension of the projects proposed trail approximately 1.8 miles to the south will directly connect the facility to the Cities of Lino Lakes, Centerville, and a future Tier 1 Route on the Regional Bicycle Transportation Network. This connection to the growing regional bicycle trail network will allow travelers a broader array options for commuting and recreation. Furthermore, this southern extension of the trail will provide a local connection to Rice Creek Chain of Lakes Regional Park Reserve.

The roadway will include an access to the Running Aces Harness Park, which will also serve as an entrance to the Running Aces Park and Ride (P&R) facility. This 300-space lot serves two Metro Transit routes (285 and 288), and directly connect commuters from the City of Columbus and surrounding areas to job concentrations in Minneapolis and St. Paul. Furthermore, the Heartland Express rural transit service of Chisago & Isanti Counties directly serves the Running Aces P&R and enables two-seat, handicap accessible trips from the County Road 17/I-35 P&R outside of the City of North Branch to the core cities.

The relocation of existing CSAH 54 approximately 0.15 miles to the west will improve congestion on the corridor, which will positively impact transit operations and travel time for vehicles traveling to and from I-35 on CSAH 23.

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

Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form): \$4,209,300.00

Enter Amount of the Noise Walls: \$0.00

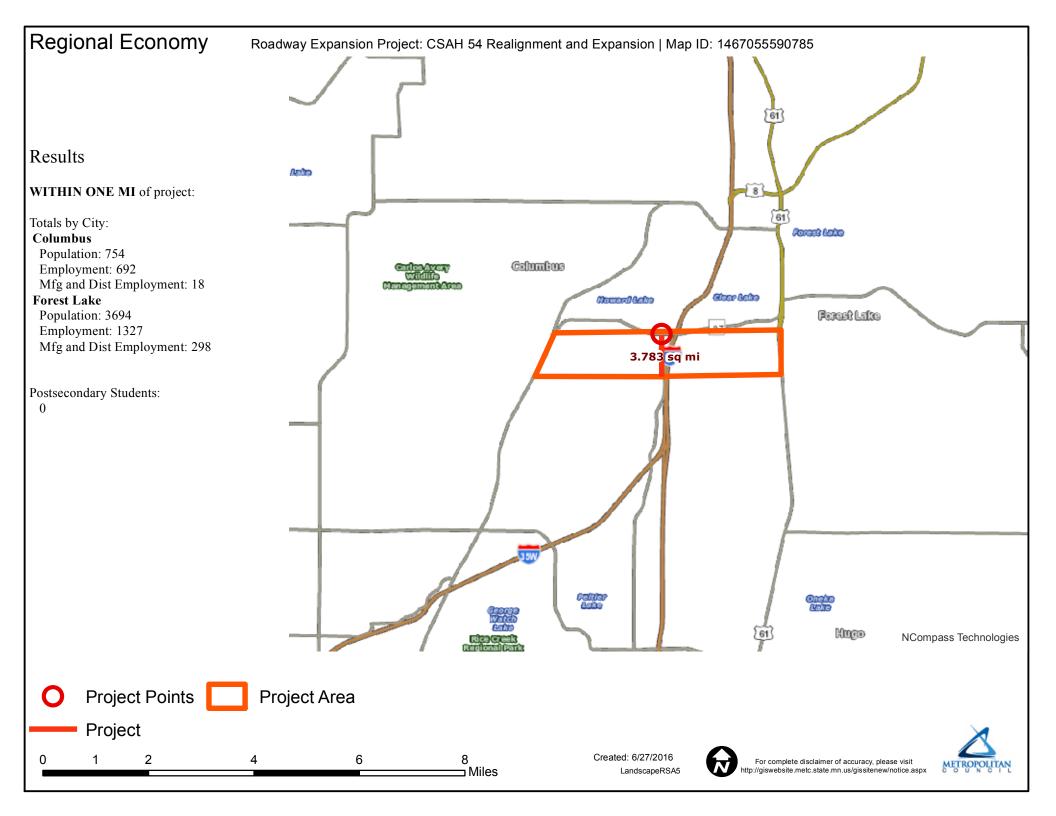
Total Project Cost subtract the amount of the noise walls: \$4,209,300.00

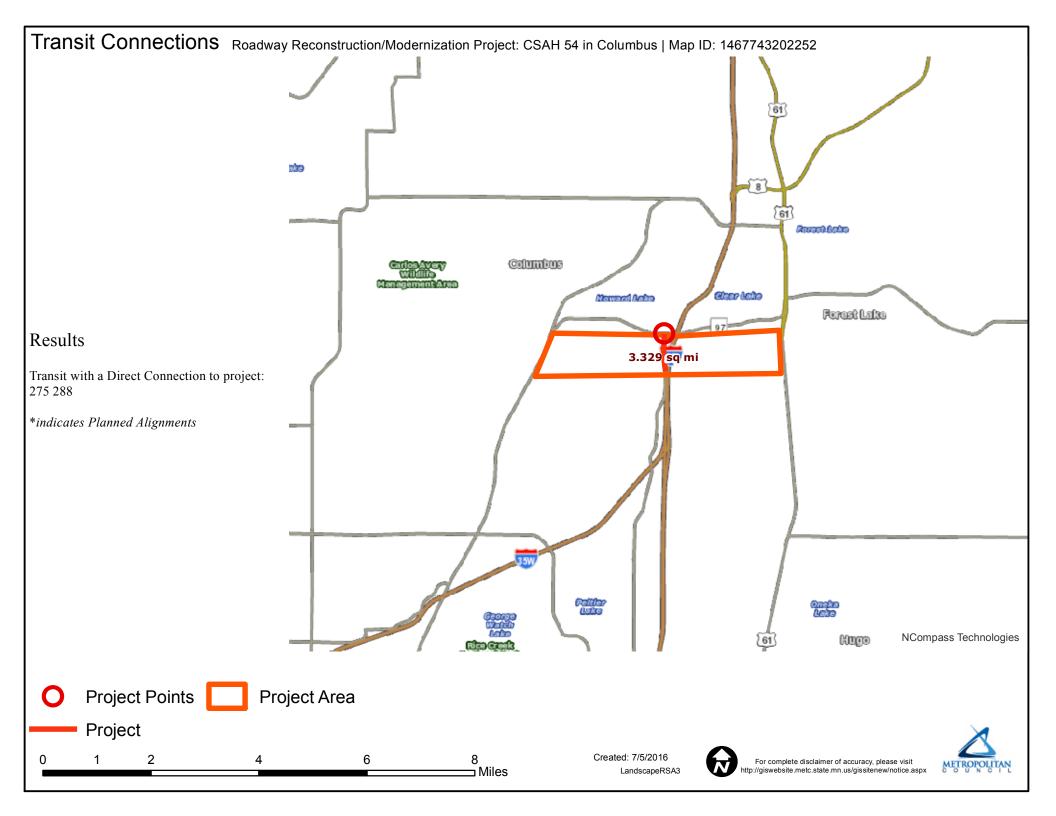
Points Awarded in Previous Criteria

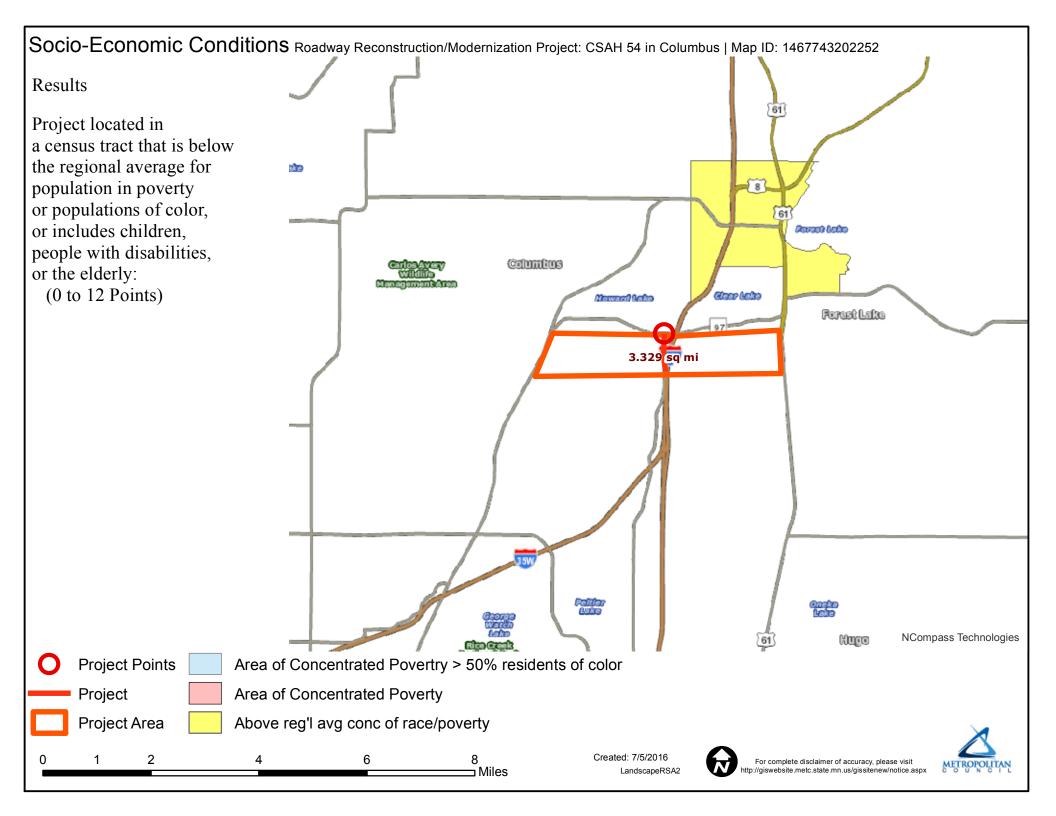
Cost Effectiveness \$0.00

Other Attachments

Description	File Size
05352AnokaRRMRad	284 KB
05352AnokaRRMSEC	186 KB
05352AnokRRMREC	217 KB
05352AnokRRMTRC	207 KB
Anoka County Board Resolution of Support for Project	669 KB
Synchro Summary Reports	15 KB
Project Layout	646 KB
Project Area	3.9 MB
	05352AnokaRRMRad 05352AnokaRRMSEC 05352AnokRRMREC 05352AnokRRMTRC Anoka County Board Resolution of Support for Project Synchro Summary Reports Project Layout







Direction	All	
Volume (vph)	1131	
Total Delay / Veh (s/v)	3	
CO Emissions (kg)	0.45	
NOx Emissions (kg)	0.09	
VOC Emissions (kg)	0.10	

Direction	All
Volume (vph)	1131
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.44
NOx Emissions (kg)	0.09
VOC Emissions (kg)	0.10

Direction	All	
Volume (vph)	1131	
Total Delay / Veh (s/v)	3	
CO Emissions (kg)	0.45	
NOx Emissions (kg)	0.09	
VOC Emissions (kg)	0.10	

Direction	All
Volume (vph)	1131
Total Delay / Veh (s/v)	2
CO Emissions (kg)	0.44
NOx Emissions (kg)	0.09
VOC Emissions (kg)	0.10

HS works			Control Section	T.H. / Roadway		Location			Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
			Descript	-	80th To CSAH	23 (Lake l	Or.)		005+00.140	009+00.010	Anoka Co.	01/01/2013	12/31/201
	, D		Proposed 1 Rear End		Construct Round		Lake Dr. (62°		n All Crashes. In 4,7 Ran off Road		Application of the Assessment Control of the Contro		ashes)
Accid		Codes	rear En		2 Sideswipe Same Direction	S Lett 1th	n Main Line	5 Right Angle	4,7 Kan off Road	8, 9 Head On/ Sideswipe - Opposite Direction	Pedestrian	6, 90, 99 Other	Total
	Fatal												
	-	F											
Study Period:	Personal Injury (PI)	A B									1		
Number of Crashes	Person	C											
	Property Damage	PD					1	1	2				
% Change	Fatal	F											
n Crashes		A											
lse Desktop	PI	В											
eference for Crash		С											
Reduction Factors	Property Damage	PD					-82%	-82%	-39%				
	Fatal	F											
		A											
Change in Crashes	PI	В									0.00		
= No. of crashes X	> 0	С											
% change in crashes	Property Damage	PD					-0.82	-0.82	-0.78				-2.4
ear (Safety I			Construct	ion)	2018								
roject Cost	(exclu	de Ris	tht of Way)	\$ 4,209,000	Type of	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit		B/C=	0.04
ight of Wa					3 1,207,000	F			\$ 1,140,000		Using present	worth values,	
raffic Grov	-				0.5%	A			\$ 570,000		B=		149,720
apital Reco	very					В			s 170,000		C=	\$ 4	,209,000
1. Discoun	t Rate	:			2%	С			\$ 83,000		See "Calculat	ions" sheet for	amortization
2. Project	Servi	e Lif	e (n)		30	PD	-2.42	-0.81	s 7,600	\$ 6,136	000 000		
						Total				\$ 6,136	Office of Tra August 2015	ffic, Safety and	1 Technolog



Dual CRF for CSAH 54

Improvements include conversion of stop controlled intersection to a roundabout and installation of a raised median.

CR1=Installation of median CR2=Conversion of stop controlled intersection to a roundabout

CR=1 - (1-CR1)*(1-CR2)

Left Turn: CR=1-(1-.39)*(1-.71)=.82Right Angle: CR=1-(1-.39)*(1-.71)=.82Ran Off Road: CR=.39 (CR1 applies only) Countermeasure: Convert intersection with minor-road stop control to modern roundabout

=

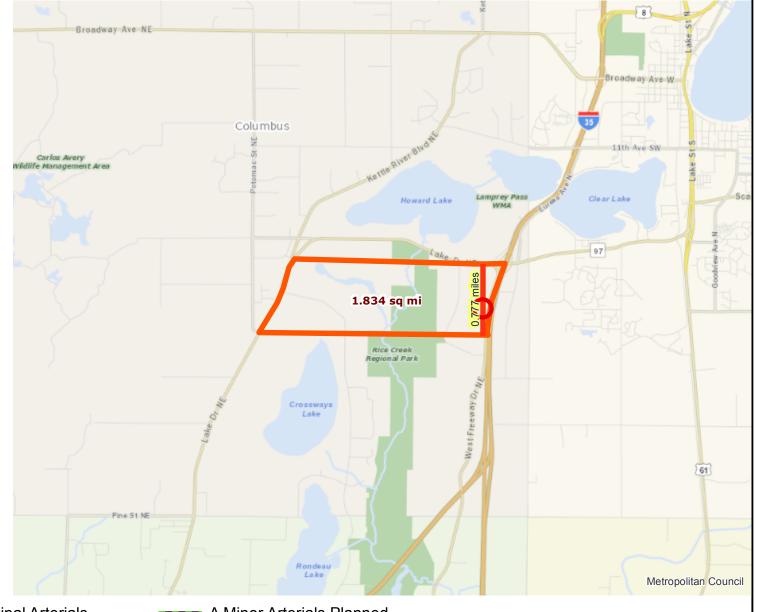
Are Cras Crash CM CRF(% Referenc a Quality h Severit Comments Тур Type e Countermeasur Rodegerdt e name 0.5 44 南南南南南 All All All s et al., changed from 6 [B] 2007 "convert ... [read more] Countermeasure Serious Rodegerdts 0.18 name changed Г 82 All Injury, Minor All et al., 常常常常常 from "convert ... 2007 Injury [read more] Countermeasure Rodegerdts 0.29 [B] name changed 71 常常常常常 All All Rural et al., from "convert ... 2007 [read more] Countermeasure Serious Rodegerdts 0.13 [B] name changed 87 All Injury, Minor Rural et al., 常常常常常 from "convert ... Injury 2007 [read more] Countermeasure Rodegerdts 0.71 [B] name changed Г 29 RESERVE All All Urban et al., from "convert ... 2007 [read more]

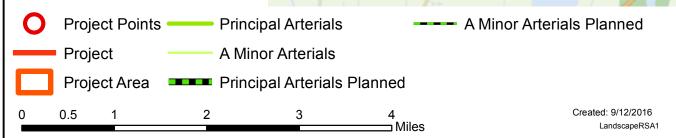
Roadway Area Definition Roadway Reconstruction/Modernization Project: 05352 Roadway Modernization Anoka Co CSAH 54 | Map ID: 1473694125923

Results

Project Length: 0.777 miles

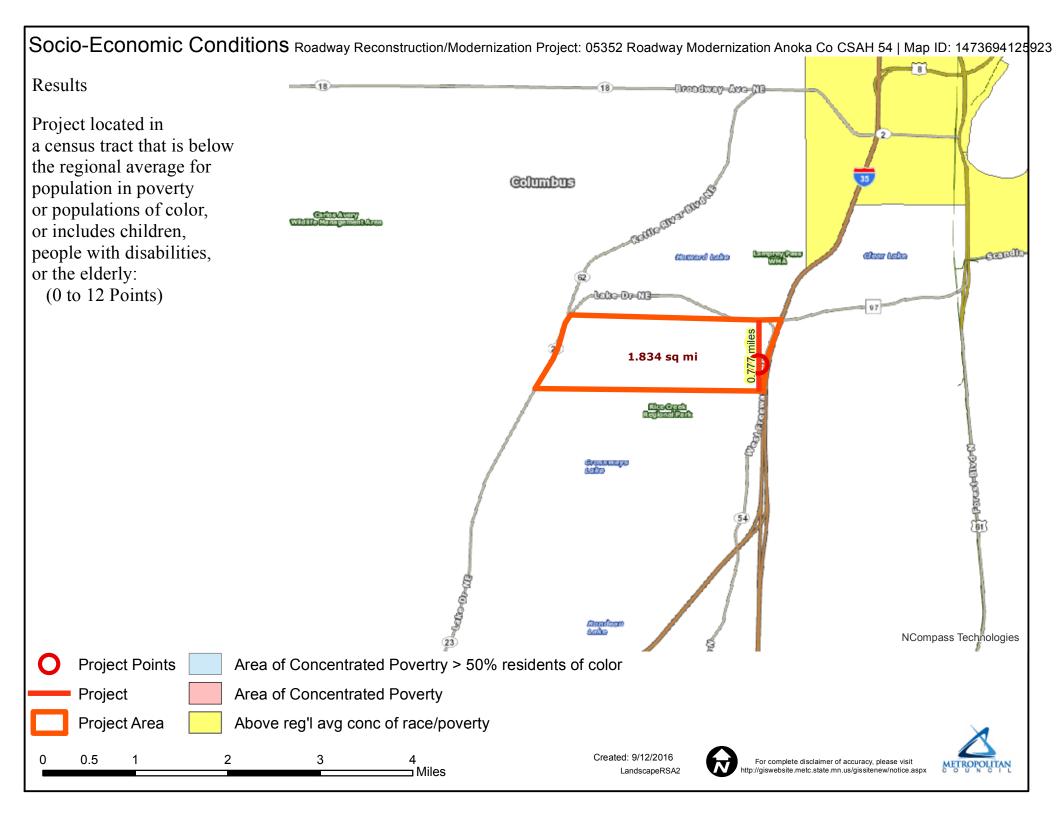
Project Area: 1.834 sq mi

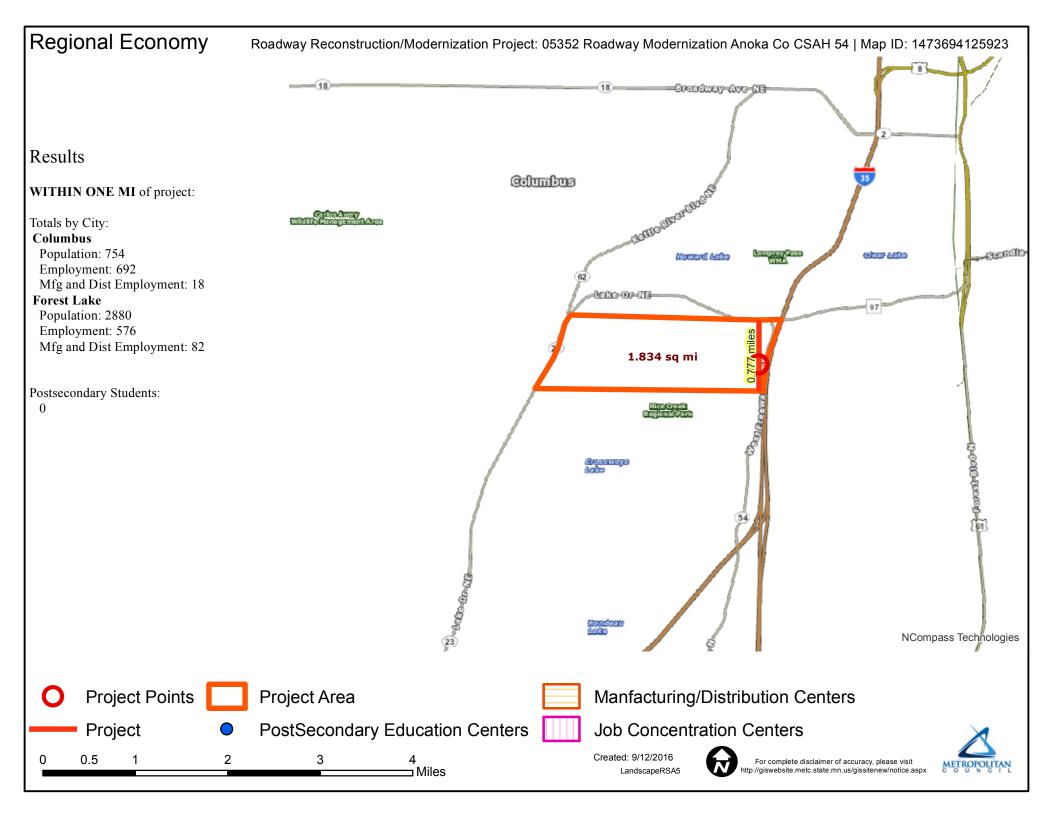


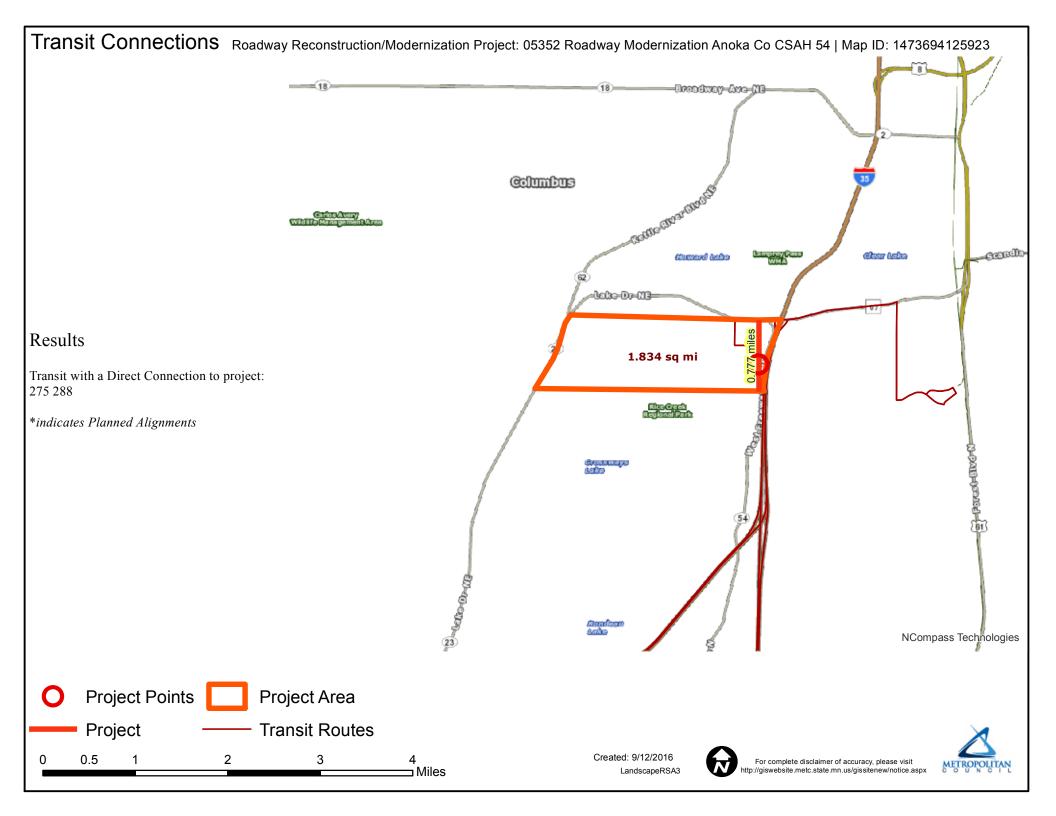












BOARD OF COUNTY COMMISSIONERS

Anoka County, Minnesota

DATE: July 12, 2016 RESOLUTION #2016-95

OFFERED BY COMMISSIONER: Schulte

RESOLUTION AUTHORIZING SUBMITTAL OF FEDERAL FUNDING APPLICATION FOR CSAH 54

WHEREAS, CSAH 54 is an "A" minor arterial reliever route that provides an important north-south transportation connection through eastern Anoka County; and,

WHEREAS, existing and future traffic volumes on CSAH 54have been increasing and are projected to continue to increase as the area develops; and,

WHEREAS, existing travel safety is a concern at the intersection of CSAH 54 and CSAH 23; and,

WHEREAS, Anoka County has identified the need to realign CSAH 54 to the west to provide better spacing between intersections and to improve mobility and safety, and to provide better access to future areas of development; and,

WHEREAS, Anoka County and the City of Columbus have worked together in the past to improve the area's transportation system; and,

WHEREAS, the Anoka County Board of Commissioners is aware of and understands the project being submitted, and commits to operate and maintain the facility for its design life and not change the use of any right-of-way acquired without prior approval from MnDOT and the Federal Highway Administration:

NOW, THEREFORE, BE IT RESOLVED that the Anoka County Highway Department is hereby authorized to submit an application to the Transportation Advisory Board of the Metropolitan Council for 2019-2021 to receive federal transportation funds to make capacity and safety improvements to CSAH 54 (West Freeway Drive) south of CSAH 23 in Columbus.

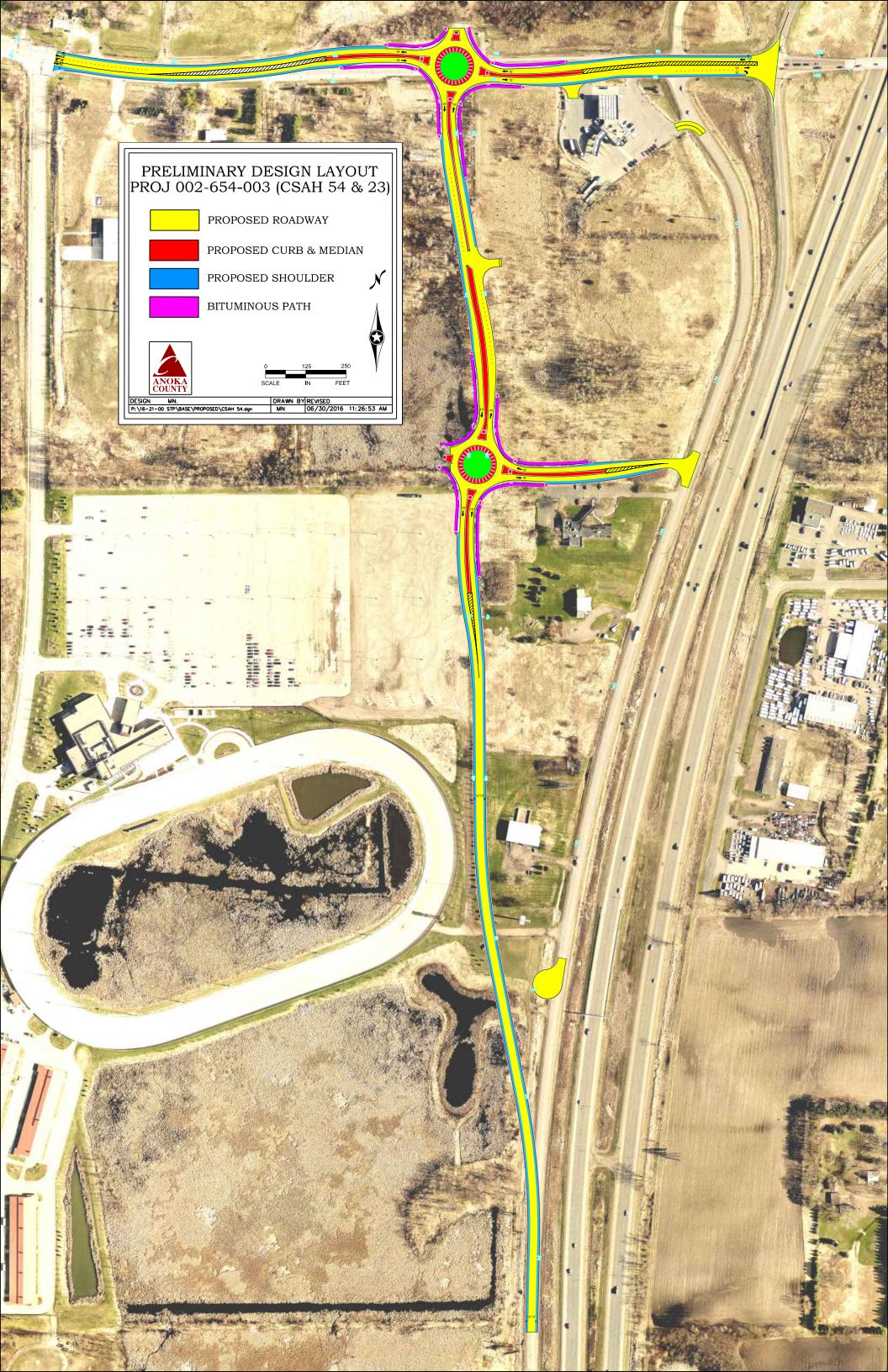
STATE OF MINNESOTA) COUNTY OF ANOKA) SS		YES	NO
I, Jerry Soma, County Administrator, Anoka County, Minnesota, hereby certify that I have compared the foregoing copy of the	District #1 – Look	X	
resolution of the county board of said county with the original record thereof on file in the Administration Office, Anoka County,	District #2 – Braastad	X	
Minnesota, as stated in the minutes of the proceedings of said board at a meeting duly held on July 12, 2016, and that the same is a true and	DISTRICT #3 – WEST	X	Topo and the second second
correct copy of said original record and of the whole thereof, and that said resolution was duly passed by said board at said meeting.	District #4 – Kordiak	X	
Witness my hand and seal this 12th day of July 2016.	District #5 – Gamache	X	
In Sum	District #6 – Sivarajah	X	
JERRY SOMA COUNTY ADMINISTRATOR	DISTRICT #7 – SCHULTE	X	

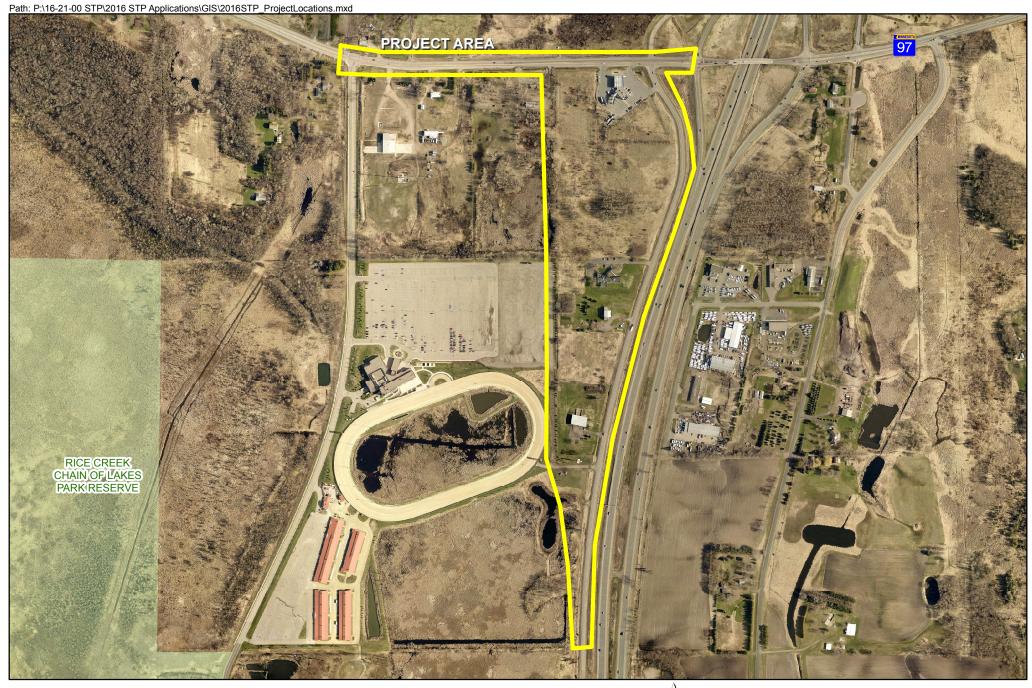
Lane Configurations		-	\rightarrow	•	←		~
Volume (vph) 515 12 108 374 8 114 Ideal Flow (vphpl) 1900	Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Volume (vph) 515 12 108 374 8 114 Ideal Flow (vphpl) 1900	Lane Configurations		7	ሻ		W	
Storage Length (ft) 75 100 0 0 Storage Lanes 1 1 1 0 Taper Length (ft) 150 25 100 Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 Fit 0.850 0.874 0.874 0.874 0.874 0.970 0.997 Satd. Flow (prot) 1863 1583 1770 1863 1623 0 0 0.997	Volume (vph)		12	108	374	8	114
Storage Lanes	Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Taper Length (ft) 150 25 Lane Util. Factor 1.00 1	Storage Length (ft)		75	100		0	0
Lane Util. Factor 1.00 1.00 1.00 1.00 1.00 1.00 1.00 Frt 0.850 0.874 Fit Protected 0.950 0.997 Satd. Flow (prot) 1863 1583 1770 1863 1623 0 Fit Permitted 0.950 0.997 Satd. Flow (perm) 1863 1583 1770 1863 1623 0 Link Speed (mph) 30 30 30 30 Link Distance (ft) 400 446 742 Travel Time (s) 9.1 10.1 16.9 Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 Adj. Flow (vph) 560 13 117 407 9 124 Shared Lane Traffic (%) Lane Group Flow (vph) 560 13 117 407 133 0 Enter Blocked Intersection No No No No No No No Lane Alignment Left Right Left Left Right Median Width(ft) 12 12 12 Link Offset(ft) 0 0 0 0 Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 9 15 15 9 Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Storage Lanes		1	1		1	0
Frt 0.850 0.874 Flt Protected 0.950 0.997 Satd. Flow (prot) 1863 1583 1770 1863 1623 0 Flt Permitted 0.950 0.997 0.992 0.992 0.992 0.992 0.992 0.992 0.992 0.992 0.992	Taper Length (ft)			150		25	
State	Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Satd. Flow (prot) 1863 1583 1770 1863 1623 0 Flt Permitted 0.950 0.997 Satd. Flow (perm) 1863 1583 1770 1863 1623 0 Link Speed (mph) 30	Frt		0.850			0.874	
Satd. Flow (perm)	Flt Protected			0.950		0.997	
Satd. Flow (perm) 1863 1583 1770 1863 1623 0 Link Speed (mph) 30 30 30 30 Link Distance (ft) 400 446 742 Travel Time (s) 9.1 10.1 16.9 Peak Hour Factor 0.92	Satd. Flow (prot)	1863	1583	1770	1863	1623	0
Link Speed (mph) 30 30 30 Link Distance (ft) 400 446 742 Travel Time (s) 9.1 10.1 16.9 Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 Adj. Flow (vph) 560 13 117 407 9 124 Shared Lane Traffic (%) Lane Group Flow (vph) 560 13 117 407 133 0 Enter Blocked Intersection No No No No No No No Lane Alignment Left Right Left Left Right Median Width(ft) 12 12 12 Link Offset(ft) 0 0 0 Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 9 15 15 9 Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Flt Permitted			0.950		0.997	
Link Distance (ft) 400 446 742 Travel Time (s) 9.1 10.1 16.9 Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 Adj. Flow (vph) 560 13 117 407 9 124 Shared Lane Traffic (%) Lane Group Flow (vph) 560 13 117 407 133 0 Enter Blocked Intersection No No <t< td=""><td>Satd. Flow (perm)</td><td>1863</td><td>1583</td><td>1770</td><td>1863</td><td>1623</td><td>0</td></t<>	Satd. Flow (perm)	1863	1583	1770	1863	1623	0
Travel Time (s) 9.1 10.1 16.9 Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 Adj. Flow (vph) 560 13 117 407 9 124 Shared Lane Traffic (%) Lane Group Flow (vph) 560 13 117 407 133 0 Enter Blocked Intersection No	Link Speed (mph)	30			30	30	
Peak Hour Factor 0.92	Link Distance (ft)	400			446	742	
Adj. Flow (vph) 560 13 117 407 9 124 Shared Lane Traffic (%) Lane Group Flow (vph) 560 13 117 407 133 0 Enter Blocked Intersection No	Travel Time (s)	9.1			10.1	16.9	
Shared Lane Traffic (%) Lane Group Flow (vph) 560 13 117 407 133 0 Enter Blocked Intersection No <	Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Lane Group Flow (vph) 560 13 117 407 133 0 Enter Blocked Intersection No No <t< td=""><td>Adj. Flow (vph)</td><td>560</td><td>13</td><td>117</td><td>407</td><td>9</td><td>124</td></t<>	Adj. Flow (vph)	560	13	117	407	9	124
Enter Blocked Intersection No No No No No No No Lane Alignment Left Right Left Left Left Right Median Width(ft) 12 12 12 12 Link Offset(ft) 0 0 0 0 Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 9 15 15 9 Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Shared Lane Traffic (%)						
Lane Alignment Left Right Left Left Left Right Median Width(ft) 12 12 12 12 Link Offset(ft) 0 0 0 0 Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane 1.00 1.00 1.00 1.00 Headway Factor 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 9 15 15 9 9 Sign Control Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized ICU Level of Service A	Lane Group Flow (vph)	560	13	117	407	133	0
Median Width(ft) 12 12 12 Link Offset(ft) 0 0 0 Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 9 15 15 9 Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Enter Blocked Intersection	No	No	No	No	No	No
Link Offset(ft) 0 0 0 Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 9 15 15 9 Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Lane Alignment	Left	Right	Left	Left	Left	Right
Crosswalk Width(ft) 16 16 16 Two way Left Turn Lane 1.00 <	Median Width(ft)	12			12	12	
Two way Left Turn Lane Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 9 15 15 9 Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Link Offset(ft)	0			0	0	
Headway Factor 1.00 1.00 1.00 1.00 1.00 1.00 Turning Speed (mph) 9 15 15 9 Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Crosswalk Width(ft)	16			16	16	
Turning Speed (mph) 9 15 15 9 Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Two way Left Turn Lane						
Sign Control Free Free Stop Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Intersection Summary Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Turning Speed (mph)		9	15		15	9
Area Type: Other Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Sign Control	Free			Free	Stop	
Control Type: Unsignalized Intersection Capacity Utilization 50.6% ICU Level of Service A	Intersection Summary						
Intersection Capacity Utilization 50.6% ICU Level of Service A	<i>J</i> I	Other					
	Control Type: Unsignalized						
Analysis Period (min) 15	Intersection Capacity Utilizat	tion 50.6%			IC	CU Level of	of Service
	Analysis Period (min) 15						

	-	•	•	•	1	~
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations		7		^		7
Volume (vph)	0	527	0	482	0	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				0.865
Flt Protected						
Satd. Flow (prot)	0	1611	0	1863	0	1611
Flt Permitted						
Satd. Flow (perm)	0	1611	0	1863	0	1611
Link Speed (mph)	30			30	30	
Link Distance (ft)	514			530	521	
Travel Time (s)	11.7			12.0	11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	573	0	524	0	133
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	573	0	524	0	133
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Yield			Yield	Yield	
Intersection Summary						
Area Tyne:	Other					

Area Type: Other
Control Type: Roundabout
Intersection Capacity Utilization 36.0%
Analysis Period (min) 15

ICU Level of Service A





Project Area

 $\bigwedge_{N} 0 0.075 0.15 0.3$ Miles

Regional Solicitation
CSAH 54 - Roadway Reconstruction

