Application

01969 - 2014 Roadway System Management

02231 - Dakota County CSAHs 46 (160th St) & 31 (Pilot Knob Rd) Roadway Traffic Flow Improvements

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	12/01/2014 4:42 PM

Primary Contact

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	Phone		Ext.	
Fax:				
What Grant Programs are you most interested in?	Regional Solicitation - Roadways Including Multimodal Elements			

Organization Information

Name:	DAKOTA COUNTY

Jurisdictional Agency (if different):

Organization Type: County Government

Organization Website:

Address: TRANSPORTATION DEPT

14955 GALAXIE AVE

*	APPLE VALLEY	Minnesota	55124
	City	State/Province	Postal Code/Zip

County: Dakota

Phone:* 952-891-7100 Ext.

Fax:

PeopleSoft Vendor Number 0000002621A15

Project Information

Project Name Dakota County CSAHs 46 (160th) & 31 (Pilot Knob Rd) Roadway Traffic Flow Improvements

Primary County where the Project is Located Dakota

Jurisdictional Agency (If Different than the Applicant):

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

The proposed project is along CSAHs 46 (160th/162nd St), and 31 (Pilot Knob Rd) located in Apple Valley and Lakeville. The project consists of installing fiber optic cable for signal interconnection, traffic monitoring cameras, flashing yellow left turn arrows,additional primary signal heads, updating signal equipment for the new technology, and retiming traffic signals. Both roadways are classified as A-Minor Arterials. CSAH 31 runs north-south and CSAH 46 runs east-west across the county and are primary arteries serving commercial areas and access to Interstates 35 and 494, and Minnesota Highways 3 and 52. These roadways are heavily used by people living in the metro suburbs and commuting to Minneapolis or St. Paul, and commercial businesses. Dakota County currently has 1 zone of 3 interconnected and time coordinated signals along CSAH 46 and 1 zone of 3 coordinated signals along CSAH 31. The majority of the corridors lengths do not have interconnection equipment in place. The type of interconnection in the short segments that are currently in place is a mixture of copper wire, fiber, and radio. The existing interconnect is aging and is becoming more unreliable. The project consists of the installation of 8.8 miles of fiber optic cable and upgrading signal equipment for fiber optic use (cabinets, controllers), replacing the copper wire and radio. The corridors will benefit from the added functionality and reliability of the fiber optic communications. The project also includes the installation of flashing yellow left turn arrows at several of the intersections to allow for flexibility in operations throughout the day. Traffic monitoring cameras will be installed to assist the County in real-time traffic monitoring. The project will also include retiming of the 16 signals to relieve congestion resulting in less stops and delay for users. The Minnesota Valley Transit Authority (MVTA) has bus service routes within the project limits including 3 Park-N-Ride facilities located

along Kenrick Avenue south of 167th Street, at CSAH 23 & 155th Street, and at CSAH 31 & 157th Street that will benefit from the project by resulting in more timely service for the buses. The corridors will be integrated into the Countys planned 2015 Advanced Traffic Management System installation which will eliminate these zones and allow for the coordination of the corridors as a larger, connected system. The project will provide for enhanced traffic management, improved traffic flow, reduced traffic congestion and reduce harmful vehicle emissions along the project corridors.

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

Project Length (Miles) 10.01

Connection to Local Planning:

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 MnDOT 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.

Connection to Local Planning

Shown in adopted Dakota County 2030 Transportation plan, majority of the corridors within the project limits are expected to be over capacity by 2030 (Figure 5, page 2-16). Goal 4 of County plan is Management to Increase Transportation System Efficiency, Improve Safety, and Maximize Existing Highway Capacity (Chapter 7, page 7-1). Safe travel on routes with minimal congestion is an integral part of Dakota Countys vision for its transportation system. One County identified strategy is: Traffic Signal Coordination Consider coordination of signal systems on County highways as appropriate to maximize system efficiency and the capacity of the County highway system (page 7-27). Goal 5 in the County plan is Replace Deficient Elements of System. County policy R.1 Highway Replacement states: Reconstruct highways or highway elements that have exceeded their useful life based on structural, functional, operations, or safety factors (page 8-2).

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	$1,015,000.00
Match Amount	$255,000.00
Minimum of 20% of project total	
Project Total	$1,270,000.00
Match Percentage	20.08%
Minimum of 20% *Compute the match percentage by dividing the match amount by the project total*	
Source of Match Funds	County / City

Preferred Program Year

Select one:	2018

MnDOT State Aid Project Information: Roadway Projects

County, City, or Lead Agency	Dakota County
Functional Class of Road	CSAH 46 - A Minor Arterial CSAH 31 - A Minor Arterial
Road System *TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET*	CSAH
Name of Road *Example; 1st ST., MAIN AVE*	46 - 160th Street/162nd Street 31 - Pilot Knob Road
Zip Code where Majority of Work is Being Performed	55124
(Approximate) Begin Construction Date	05/31/2018
(Approximate) End Construction Date	11/30/2018

LOCATION

From: **(Intersection or Address)** *Do not include legal description;* *Include name of roadway if majority of facility runs adjacent to a single corridor.*	CSAH 46 - From Kenrick Avenue; CSAH 31 - From 170th Street
To: **(Intersection or Address)**	CSAH 46 - To CSAH 31 (Pilot Knob Rd); CSAH 31 - To CSAH 38 (McAndrews Rd)

Type of Work *Examples: grading, aggregate base, bituminous base, bituminous surface, sidewalk, signals, lighting, guardrail, bicycle path, ped ramps, bridge, Park & Ride, etc.)*	Fiber Optic Signal Interconnection, Traffic Signal Revision, Signal Retiming/Coord
Old Bridge/Culvert?	No
New Bridge/Culvert?	No
Structure is Over/Under (Bridge or culvert name):	N/A

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$31,000.00
Removals (approx. 5% of total cost)	$15,000.00
Roadway (grading, borrow, etc.)	$0.00
Roadway (aggregates and paving)	$0.00
Subgrade Correction (muck)	$0.00
Storm Sewer	$0.00
Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$0.00
Traffic Control	$40,000.00
Striping	$0.00
Signing	$0.00
Lighting	$0.00
Turf - Erosion & Landscaping	$0.00
Bridge	$0.00
Retaining Walls	$0.00
Noise Wall	$0.00
Traffic Signals	$1,034,000.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$150,000.00
Other Roadway Elements	$0.00
Totals	**$1,270,000.00**

Specific Bicycle and Pedestrian Elements

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

Specific Transit and TDM Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
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
Transit and TDM Contingencies	$0.00
Other Transit and TDM Elements	$0.00
Totals	**$0.00**

Transit Operating Costs

OPERATING COSTS	Cost
Transit Operating Costs	$0.00
Totals	**$0.00**

Totals

Total Cost	$1,270,000.00
Construction Cost Total	$1,270,000.00
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 2030 Transportation Policy Plan (amended 2013), the 2030 Regional Parks Policy Plan (amended 2013), and the 2030 Water Resources Management Policy Plan (2005).

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

2.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

3.Applicants must not submit an application for the same project in more than one funding sub-category.

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

4.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. Expansion, reconstruction/modernization, and bridges must be between $1,000,000 and $7,000,000. Roadway system management must be between $250,000 and $7,000,000.

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

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

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

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

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

7.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

8.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

9.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

10.The project applicant must send written notification regarding the proposed projected to all affected communities and other levels and units of government prior to submitting the application.

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

Requirements - Roadways Including Multimodal Elements

Expansion and Reconstruction/Modernization Projects Only

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

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

2.Federal funds are available for roadway construction and reconstruction on new alignments or within existing right-of-way, including associated construction and excavation, bridges, or installation of traffic signals, signs, utilities, bikeway or walkway components and transit components.
The project must exclude costs for right-of-way, studies, preliminary engineering, design, or construction engineering. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding unless included as part of a larger project, which is otherwise eligible.

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

Bridge Projects Only

3.The bridge project 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.

4.Bridges selected in previous Bridge Improvement and Replacement solicitations (1994 2011) are not eligible. A previously selected project is not eligible unless it has been withdrawn or sunset prior to the deadline for proposals in this solicitation.

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

5.Projects requiring a grade-separated crossing of a Principal Arterial of freeway design 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.

6.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 sub-categories. Rail-only bridges are ineligible for funding.

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

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

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

8.Project limits for bridge projects are limited from abutment to abutment.

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

9.The project must exclude costs for studies, preliminary engineering, design, construction engineering, and right-of-way.

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

Bridge Replacement Projects Only

10.The bridge must have a sufficienty rating less than 50. Additionally, it must also be classified as structurally deficient or functionally obsolete.

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

Bridge Rehabilitiation Projects Only

11.The bridge must have a sufficienty rating less than 80. Additionally, it must also be classified as structurally deficient or functionally obsolete.

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

Other Attachments

File Name	Description	File Size
2231 Dakota Co HSIP.pdf	Crash B/C	31 KB
Dakota Co 2030 AADT - Final_County_Analysis.pdf	Dakota County 2030 AADT map	1.7 MB
Dakota Co 46 31 Additional Crash Information.pdf	Additional Crash Information	149 KB
Dakota Co 46 31 Heavy Com Veh Count.pdf	Heavy Commercial Veh Count	33 KB
Dakota Co 46 31 Individual Roadway Area Def Maps.pdf	Individual Roadway Area Def Maps	105 KB
Dakota Co 46 31 Proj Location Map.pdf	Project Location Map	226 KB
Dakota Co 46 31 Resolution Letters.pdf	Dakota Co 46 31 Resolution Letters	264 KB
Dakota Co CSAH 46 31 Crash Data.xls	Dakota Co 46 31 Crash Data	312 KB
MnDOT series 50 map 3C.pdf	MnDOT Series 50 Map 3C	2.0 MB
RdwayAreaDef.pdf	Roadway Area Definition	1.2 MB
RegionalEcon.pdf	Regional Economy	1.1 MB
SocioEcon.pdf	Socio Economic	1.1 MB
TransitCon.pdf	Transit Connections	1.1 MB

Measure A: Functional Classification

Address how the project fulfills its role in the regional economy as identified by its current functional classification. If the project serves a system of routes, respond using the route with the highest functional classification. This system must include a Non-Freeway Principal Arterial or an "A" Minor Arterial.
Reference the Roadway Area Definition map generated at the beginning of the application process. Report the total area and project length, as depicted on the Roadway Project Summary map, to calculate the average distance between the project route (highest functional classification) and the closest parallel A Minor Arterials or Principal Arterials on both sides of the project.
Upload the "Roadway Area Definition" map used for this measure.

Area	28.214
Project Length	5.211
Average Distance	5.4143
Upload Map	Dakota Co 46 31 Roadway Area Def Map1A.pdf

Measure B: Current Heavy Commercial Traffic

Location	East of CSAH 46 & Galaxie
Current daily heavy commercial traffic volume	1605.0

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

Select all that apply:

Direct connection to or within a mile of a Job Concentration	Yes
Direct connection to or within a mile of a Manufacturing/Distribution Location	
Direct connection to or within a mile of an Educational Institution	
Project provides a direct connection to or within a mile of an existing local activity center identified in an adopted county or city plan	
County or City Plan Reference	
Response (Limit 700 characters; approximately 100 words)	CSAHs 46 is located within one mile of Job Concentration. CSAH 46 connects to CSAH 23 (Cedar AVe) which connects to commercial area in Apple Valley (Southport Center).
Upload Map	Dakota County 46 31 Regional Econ Map1C.pdf

Measure A: Current Daily Person Throughput

Location	CSAH 31 between CSAH 46 (160th)&CSAH 42 (150th St)
Current AADT Volume	23400.0
Existing Transit Routes on the Project	420, 476, 477, 478, 479

Response - Daily Person Throughput

Average Annual Daily Transit Ridership	134.0
Current Daily Person Throughput	30554.0

Measure B: 2030 Forecast ADT

Use Metropolitan Council model to determine forecast (2030) ADT volume	No
METC Staff - Forecast (2030) ADT volume	0
OR	
Approved county or city travel demand model to determine forecast (2030) ADT volume	Yes

Forecast (2030) ADT volume	35000.0

Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

Project located in Racially Concentrated Area of Poverty	
Project located in Concentrated Area of 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
Response (Limit 1,400 characters; approximately 200 words)	The primary benefit to the community will be realized through the project by enhancing mobility along major roadway cooridors which will reduce delays, queuing, and congestion while improving travel times in this area.
Upload Map	Dakota Co 46 31 Soc Econ Map3A.pdf

Measure B: Affordable Housing

City/Township	Segment Length (Miles)
Apple Valley	5.64
Lakeville	4.37
	10

Total Project Length

Total Project Length	10.01

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
Apple Valley	5.64	10.01	80.0	0.563	45.075
Lakeville	4.37	10.01	61.0	0.437	26.63
		20	**141**	**1**	**72**

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	10.01
Total Housing Score	71.705

Measure A: Equipment Improvements and Installation Year

Equipment to be Improved	'93cabinet/controller; '96 signal interconnect
Date of Equipment Installation	05/31/1993

Measure A: Cost Effectiveness of Vehicle Delay Reduction

Total Project Cost from Cost Sheet	$1,270,000.00
Total Peak Hour Vehicle Delay Without The Project	236608.0
Total Peak Hour Vehicle Delay With The Project	125698.0
Total Peak Hour Vehicle Delay Reduced by Project	110910.0
Cost Effectiveness	$11.45
Synchro or HCM Reports	Dakota Co 46 31 5A.pdf

Measure B: Cost Effectiveness of Emissions Reduction

Total Project Cost from Cost Sheet	$1,270,000.00
Total Peak Hour Kilograms Reduced by Project	10462.51
Cost Effectiveness	$121.39
Synchro or HCM Reports	Dakota Co 46 31 5B.pdf

Measure A: Benefit/Cost of Crash Reduction

Project Benefit/Cost Ratio	2.36
Worksheet Attachment	46 31 HSIP BC worksheet.xls

Measure A: Transit Connections

Existing Routes Directly Connected to the Project	420, 476, 477, 478, 479
Planned Transitways directly connected to the project (alignment and mode determined and identified in the 2030 TPP)	N/A
Upload Map	Dakota Co 46 31 Transit Connect Map7A.pdf

Response

Met Council Staff Data Entry Only

Route Ridership	548760.0
Transitway Ridership	0

Measure B: Bicycle and Pedestrian Connections

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

Both Dakota County State Aid Highway (CSAH) 46 (160th St) and CSAH 31 (Pilot Knob Rd) currently have shared use trails on one or both sides of the roadway that provide pedestrian access to business/commercial (Southport Center), park-n-ride facilities, parks (Lebanon Hills Regional Park, Crystal Lake) and residential areas.

Measure C: Multimodal Facilities

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

The primary benefit to the community will be realized through reduced delays and increased safety at the intersection for motorists, transit, and pedestrian users. The Minnesota Valley Transit Authority (MVTA) has bus service routes within the project limits including 3 Park-N-Ride facilities located along Kenrick Avenue south of 167th Street, at CSAH 23 & 155th Street, and at CSAH 31 & 157th Street that will benefit from the signal coordination and retiming. The retiming will relieve congestion along the corridor, therefore decreasing delay experienced by the buses. MVTA will benefit from the retiming of the signals and integration into the Countys planned traffic monitoring system by providing more responsive signal timing adjustments, less delay, less stops and more timely service for the buses, and seamless travel to users.

Transit Projects Not Requiring Construction

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

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

50%

Layout or Preliminary Plan has not been started Yes

0%

Anticipated date or date of completion

3)Environmental Documentation (10 Percent of Points)

EIS

EA

PM Yes

Document Status:

Document approved (include copy of signed cover sheet)
100%

Document submitted to State Aid for review
75%

Document in progress; environmental impacts identified

50%

Document not started Yes

0%

Anticipated date or date of completion/approval

4)Review of Section 106 Historic Resources (15 Percent of Points)

No known potential for archaeological resources, no historic resources known to be eligible for/listed on the National Register of Historic Places 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%

Unknown impacts to historic/archaeological resources Yes

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 (15 Percent of Points)

(4f is publicly owned parks, recreation areas, historic sites, wildlife or waterfowl refuges; 6f is outdoor recreation lands where Land and Water Conservation Funds were used for planning, acquisition, or development of the property)

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

100%

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%

Adverse effects (land conversion) to Section 4f/6f resources likely

30%

Unknown impacts to Section 4f/6f resources in the project area Yes

0%

6)Right-of-Way (15 Percent of Points)

Right-of-way or easements not required

100%

Right-of-way or easements has/have been acquired

100%

Right-of-way or easements required, offers made

75%

Right-of-way or easements required, appraisals made

50%

Right-of-way or easements required, parcels identified

25%

Right-of-way or easements required, parcels not identified

0%

Right-of-way or easements identification has not been completed Yes

0%

Anticipated date or date of acquisition

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)Construction Documents/Plan (10 Percent of Points)

Construction plans completed/approved (include signed title sheet)

100%

Construction plans submitted to State Aid for review

75%

Construction plans in progress; at least 30% completion

50%

Construction plans have not been started Yes

0%

Anticipated date or date of completion

9)Letting

Anticipated Letting Date 05/30/2018

B/C worksheet

Control Section	T.H. / Roadway	Location	Beginning Ref. Pt.	Ending Ref. Pt.	State, County, City or Township	Study Period Begins	Study Period Ends
	CSAH 46, 31	At variousintersections along CSAH 46, 31 (see attached list of locations)			City Eagan, Dakota Co	1/1/2011	12/31/2013

Description of Proposed Work: CMF ID 414: Add signal (additional primary head) for through movement

		Accident Diagram Codes	1 Rear End	2 Sideswipe Same Direction	3 Left Turn Main Line	5 Right Angle	4,7 Ran off Road	8, 9 Head On/ Sideswipe - Opposite Direction	Pedestrian	6, 90, 99 Other	Total
Study Period: Number of Crashes	Fatal	**F**	0	0	0	0	0	0		0	
	Personal Injury (PI)	**A**	0	0	0	0	0	0		0	
		B	0	0	1	3	1	0		1	**6**
		C	2	1	0	8	0	3		2	**16**
	Property Damage	**PD**	12	2	0	1	0	1		2	**18**
% Change in Crashes *Recommend using MnDOT's *% Change in Crashes*		**F**	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%	
	PI	**A**	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%	
		B	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%	
		C	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%	
		PD	-28%	-28%	-28%	-28%	-28%	-28%	-28%	-28%	
Change in Crashes = No. of crashes **x** % change in crashes		**F**									
	PI	**A**									
		B			0.00	-0.84	-0.28			-0.28	-1.40
		C	-0.56	-0.28		-2.24		-0.84		-0.56	-4.48
		PD	-3.36	-0.56		-0.28		-0.28		-0.56	-5.04

Year (Safety Improvement Construction): **2018**

		Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
Project Cost (exclude Right of Way)	**$ 1,540,000**					
Right of Way Costs (optional)	**$ -**	**F**			**$ 10,300,000**	
Traffic Growth Factor	**3%**	**A**			**$ 550,000**	
Capital Recovery		**B**	-1.40	-0.47	**$ 160,000**	**$ 74,667**
1. Discount Rate	**4.5%**	**C**	-4.48	-1.49	**$ 81,000**	**$ 120,960**
2. Project Service Life (n)	**20**	**PD**	-5.04	-1.68	**$ 7,400**	**$ 12,432**
		Total				**$ 208,059**

B/C= 2.36

Using present worth values,

B= $ 3,639,761

C= $ 1,540,000

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Operations **November 2007**

Dakota County Highway Capacity Deficiencies, 2030

- Under Capacity = V/C < .8 (312 Miles)
- Approaching Capacity V/C = .8 - 1 (54 Miles)
- Over Capacity V/C > 1 - 1.2 (25 Miles)
- Really Over Capacity V/C > 1.2 (32 Miles)
- Future County Highways (40 Miles)

0 1 2 4 6 8 Miles

Crash ID: 1414 Add additional primary head CR=0.28
Yes - An extra head is needed
No - An extra head is not needed

CSAH 46	Mainline	Side Street
Ipava	Yes-EB only	No
LacLavon	Yes	Yes
Gardenview/Highview	No	Yes
CSAH 23	No	No
Galaxie	Yes	No
Foliage	Yes	No
Flagstaff	Yes	Yes
CSAH 31	No	No

CSAH 31	Mainline	Side Street
31 South Project		
170th Street	Yes	No
CSAH 9	No	No
CSAH 46	No	No
157th Street	No	No
CSAH 42	No	No
140th Street	No	No
CSAH 33	No	No
CSAH 38	No	Yes- WB only

LOGPOINT LISTINGS

TRUNK HIGHWAY LOGPOINT LISTING

NOV 18,2014

CSAH ROUTE SYSTEM - ROUTE 19000031 - BEGINNING AT 007+00.000 - ENDING AT 012+00.200

ROUTE NUMBER	REF-POINT (MILES)	FEATURES	ACCUM (MILES)	C D	M A	CNTRL SECTN	PTRL STAT	CITY	TWN NUM
CSAH 31	007+00.019	NORTH CREEK DR LT; PVT RD	7.019			19		2150	000
CSAH 31	007+00.133	173RDST W LT; PVT RD	7.133			19		2150	000
CSAH 31	007+00.410	170TH ST W MSAS-131 X-ING	7.410			19		2150	000
CSAH 31	007+00.660	167TH ST W RT M-873	7.660			19		2150	000
CSAH 31	007+00.916	165TH ST W M-816 LT	7.916			19		2150	000
CSAH 31	008+00.170	DODD BLVD CSAH-9 LT	8.170			19		2150	000
CSAH 31	008+00.397	160TH ST W CSAH-46 X-ING; APPLE VALLEY CL	8.397			19		0102	000
CSAH 31	008+00.410	160TH ST W CSAH-46 X-ING; APPLE VALLEY CL	8.410			19		0102	000
CSAH 31	008+00.472	BR#19J48 PED TRAIL	8.472			19		0102	000
CSAH 31	008+00.656	157TH ST W EBL RT M-832	8.656			19		0102	000
CSAH 31	008+00.668	157TH ST W WBL RT M-832	8.668			19		0102	000
CSAH 31	008+00.926	DODD BLVD RT MSAS-117	8.926			19		0102	000
CSAH 31	009+00.412	150TH ST W CSAH-42 EB X-ING	9.412			19		0102	000
CSAH 31	009+00.422	150TH ST W CSAH-42 WB X-ING	9.422			19		0102	000
CSAH 31	009+00.537	ENERGY WAY M-652 LT	9.537			19		0102	000
CSAH 31	009+00.671	UPPER 147TH ST W M-195 X-ING	9.671			19		0102	000
CSAH 31	009+00.994	144TH ST W M-518 X-ING	9.994			19		0102	000
CSAH 31	010+00.158	142ND ST W X-ING; MSAS-105 LT M-361 RT	10.158			19		0102	000
CSAH 31	010+00.260	141ST ST W M-628 RT	10.260			19		0102	000
CSAH 31	010+00.297	SCHOOL ENT LT; SHOPPING CENTER ENT RT	10.297			19		0102	000
CSAH 31	010+00.407	140TH ST MSAS-104 X-ING	10.407			19		0102	000
CSAH 31	010+00.656	138TH ST W M-257 LT; ESSEX TRL M-657 RT	10.656			19		0102	000
CSAH 31	010+00.822	ELLICE TR W MSAS-101 LT	10.822			19		0102	000
CSAH 31	010+00.942	134TH ST W M-164 LT	10.942			19		0102	000
CSAH 31	011+00.002	EMBRY WAY RT; PVT RD	11.002			19		0102	000
CSAH 31	011+00.181	ELKWOOD DR M-205 RT	11.181			19		0102	000
CSAH 31	011+00.293	CITY PARK RT	11.293			19		0102	000
CSAH 31	011+00.384	132ND ST W M-19 LT	11.384			19		0102	000
CSAH 31	011+00.717	DIAMOND PATH W X-ING; M-607 LT CSAH-33 RT	11.717			19		0102	000
CSAH 31	011+00.878	EDGEWATER PATH M-639 LT DORCHESTER TRL M-553 RT	11.878			19		0102	000
CSAH 31	012+00.120	MCANDREWS RD CSAH-38 X-ING	12.120			19		0102	000

LOGPOINT LISTINGS

TRUNK HIGHWAY LOGPOINT LISTING

NOV 18,2014

CSAH ROUTE SYSTEM - ROUTE 19000046 - BEGINNING AT 000+00.500 - ENDING AT 006+00.200

ROUTE NUMBER	REF-POINT (MILES)	FEATURES	ACCUM (MILES)	C D	M A	CNTRL SECTN	PTRL STAT	CITY	TWN NUM
CSAH 46	000+00.540	ENT RAMP FROM I-35 SB LT	0.540						
CSAH 46	000+00.560	EXIT LOOP TO I-35 SB LT	0.560						
CSAH 46	000+00.766	ENT LOOP FROM I-35 NB LT	0.766						
CSAH 46	000+00.786	EXIT RAMP TO I-35 NB LT	0.786						
CSAH 46	000+00.886	KENRICK AVE M-28 X-ING	0.886						
CSAH 46	001+00.038	PARK ENTRANCE LT	1.038						
CSAH 46	001+00.377	CITY PARK LT JAVA LA RT M-559	1.377						
CSAH 46	001+00.505	JAMAICA AVE W LT M-44 JAGUAR AVE W RT MSAS-123	1.505						
CSAH 46	001+00.892	163RD ST W RT M-851	1.892						
CSAH 46	001+00.967	CHURCH ENTRANCE LT	1.967						
CSAH 46	001+00.999	CHURCH ENTRANCE LT	1.999						
CSAH 46	002+00.035	IPAVA AVE MSAS-101 SBL RT	2.035						
CSAH 46	002+00.046	IPAVA AVE MSAS-101 NBL RT	2.046						
CSAH 46	002+00.170	161ST ST W M-486 LT	2.170						
CSAH 46	002+00.340	LACLAVON DR M-9 LT INTERLACHEN BLVD RT MSAS-101 RT	2.340						
CSAH 46	002+00.677	BURNSVILLE HYLAND AVE M-646 LT; HYLAND AVE M-567 RT	2.677						
CSAH 46	002+00.827	HAWTHORNE DR SBL MSAS-107 RT	2.827						
CSAH 46	002+00.832	APPLE VALLEY GARDEN VIEW DR MSAS-115 LT	2.832						
CSAH 46	002+00.837	HAWTHORNE DR NBL MSAS-107 RT	2.837						
CSAH 46	003+00.017	HAWTHORNE PATH RT M-869	3.017						
CSAH 46	003+00.219	HARWELL AVE M-395 LT	3.219						
CSAH 46	003+00.420	HARMONY WAY M-381 LT HARMONY PATH RT MSAS-148	3.420						
CSAH 46	003+00.695	GROVE TR RT M-479	3.695						
CSAH 46	003+00.820	GRANADA AVE LT M-471 SHOPPING CENTER RT	3.820						
CSAH 46	004+00.090	CEDAR AVE CSAH-23 SBL X-ING	4.090			19		0102	000
CSAH 46	004+00.106	CEDAR AVE CSAH-23 NBL X-ING	4.106			19		0102	000
CSAH 46	004+00.199	GLACIER AVE RT M-661	4.199			19		0102	000
CSAH 46	004+00.340	GARRETT PATH LT M-647 GARRETT AVE RT M-700	4.340			19		0102	000
CSAH 46	004+00.590	GALAXIE AVE LT MSAS-102	4.590			19		0102	000
CSAH 46	004+00.790	FOLIAGE AVE MSAS-130 RT	4.790			19		0102	000
CSAH 46	005+00.090	FLAGSTAFF AVE MSAS-106 LT; LAKEVILLE MSAS-117 RT	5.090			19		0102	000
CSAH 46	005+00.340	FINCH AVE M-728 LT	5.340			19		0102	000
CSAH 46	005+00.565	FAIRGREEN AVE MSAS-132 RT	5.565			19		0102	000
CSAH 46	005+00.635	EXCELSIOR DR M-429 RT	5.635			19		0102	000
CSAH 46	005+00.740	EXCEL WAY E M-387 RT W JCT	5.740			19		0102	000
CSAH 46	005+00.870	EXCEL WAY E M-387 RT E JCT	5.870			19		0102	000
CSAH 46	006+00.120	PILOT KNOB RD CSAH-31 X-ING	6.120			19		2150	000
CSAH 46	006+00.130	PILOT KNOB RD CSAH-31 X-ING	6.130			19		2150	000

CRASH MODIFICATION FACTORS CLEARINGHOUSE

CMF / CRF Details

CMF ID: 1414

Add signal (additional primary head)

Description:

Prior Condition: Intersection has one primary signal head per approach

Category: Intersection traffic control

Study: *Safety Benefits of Additional Primary Signal Heads*, Felipe et al., 1998

Star Quality Rating:	★★★☆☆ [View score details]

Crash Modification Factor (CMF)	
Value:	0.72
Adjusted Standard Error:	
Unadjusted Standard Error:	

Crash Reduction Factor (CRF)	
Value:	28 *(This value indicates a **decrease** in crashes)*

Adjusted Standard Error:	
Unadjusted Standard Error:	

Applicability

Crash Type:	All
Crash Severity:	All
Roadway Types:	Not specified
Number of Lanes:	
Road Division Type:	
Speed Limit:	
Area Type:	Urban
Traffic Volume:	
Time of Day:	

If countermeasure is intersection-based

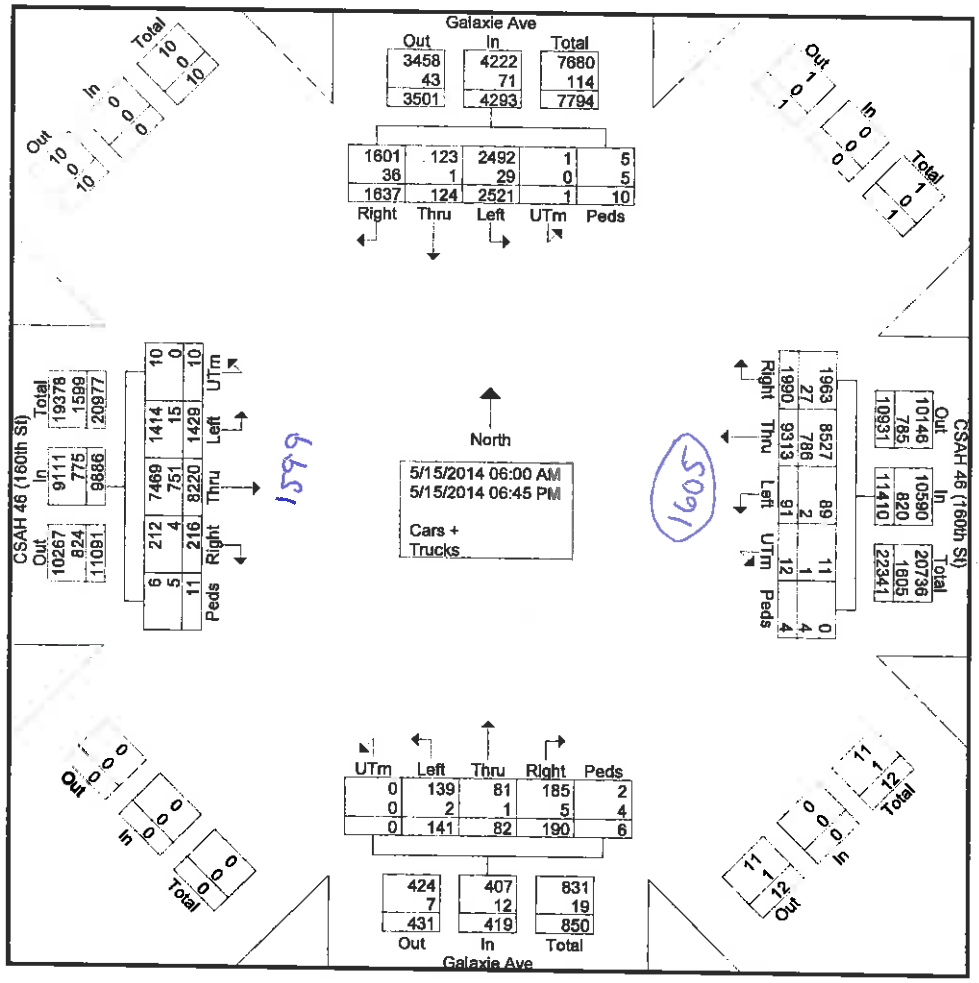
Intersection Type:	Roadway/roadway (not interchange related)
Intersection Geometry:	4-leg
Traffic Control:	Signalized
Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Traffic Data Inc

PO Box 16296
St. Louis Park, MN 55416

CSAH 46 (160th St) & Galaxie Ave
Apple Valley/Lakeville, MN

File Name : 48 - CSAH 46 (160th St) & Galaxie Ave, 5-15-14, 6am-7pm
Site Code : 48
Start Date : 5/15/2014
Page No : 3



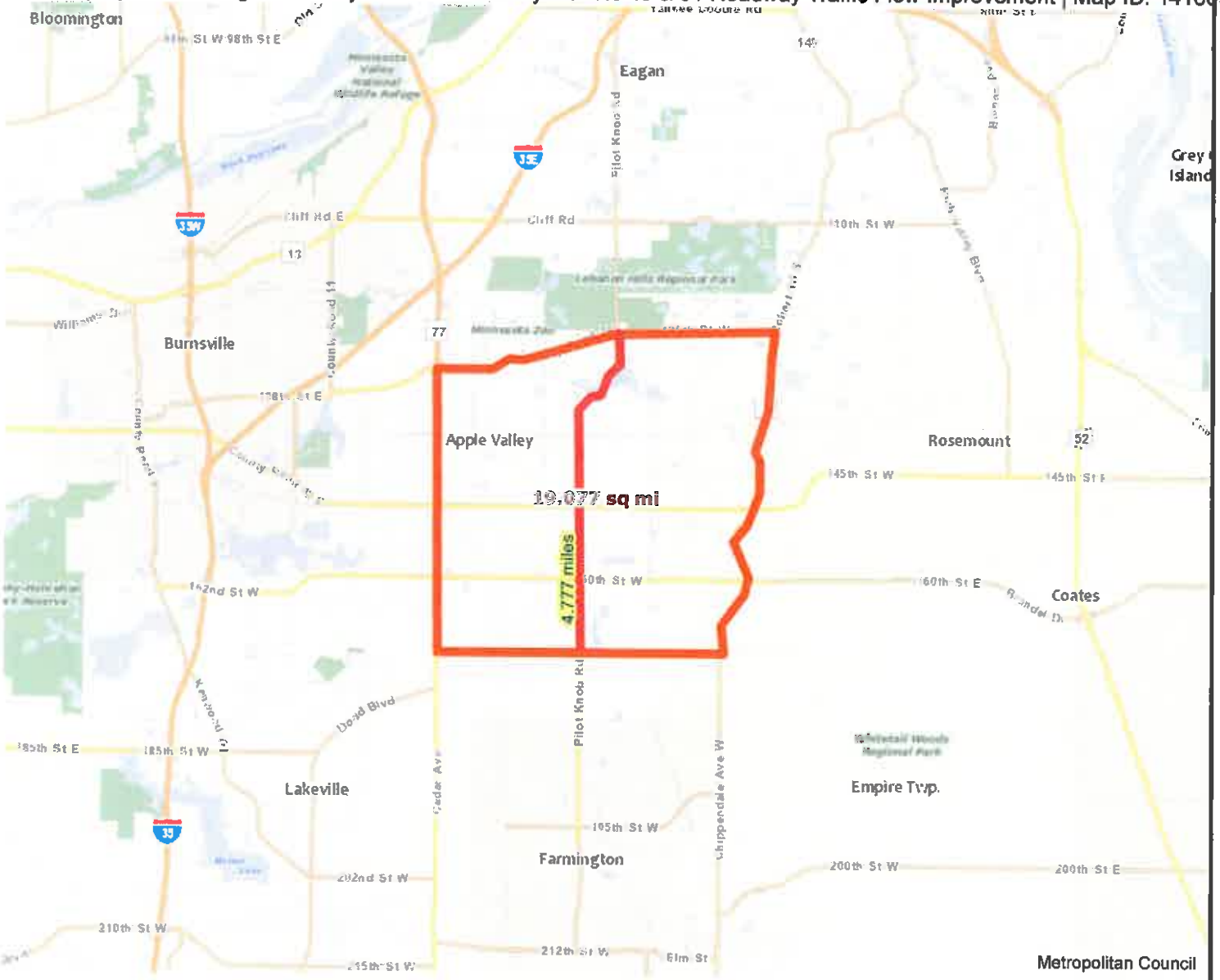
Roadway Area Definition

CSAH 31

Results

Project Length: 4.777 miles

Project Area: 19.077 sq mi



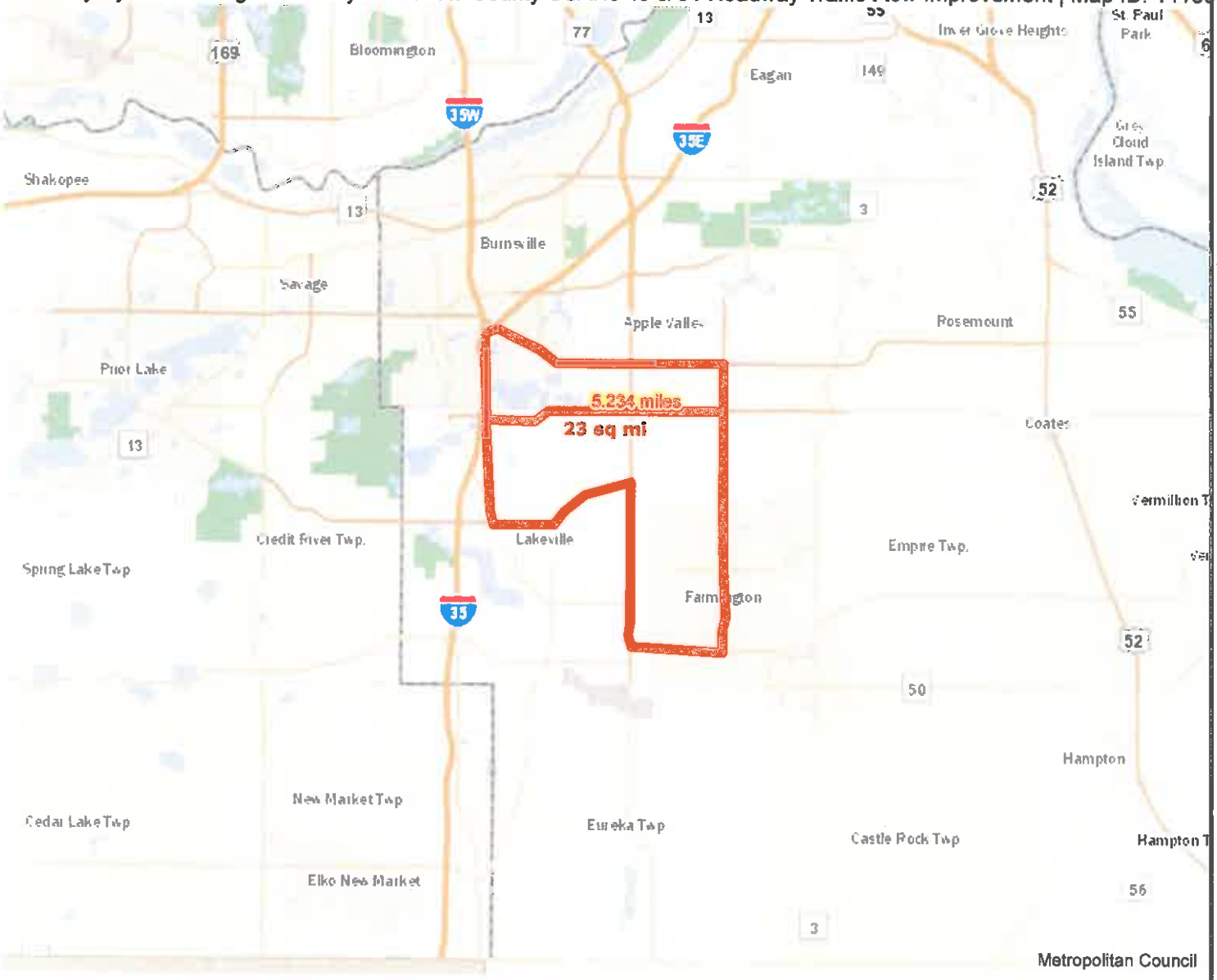
Roadway Area Definition

CSAH 46

Results

Project Length: 5.234 miles

Project Area: 23 sq mi



Project

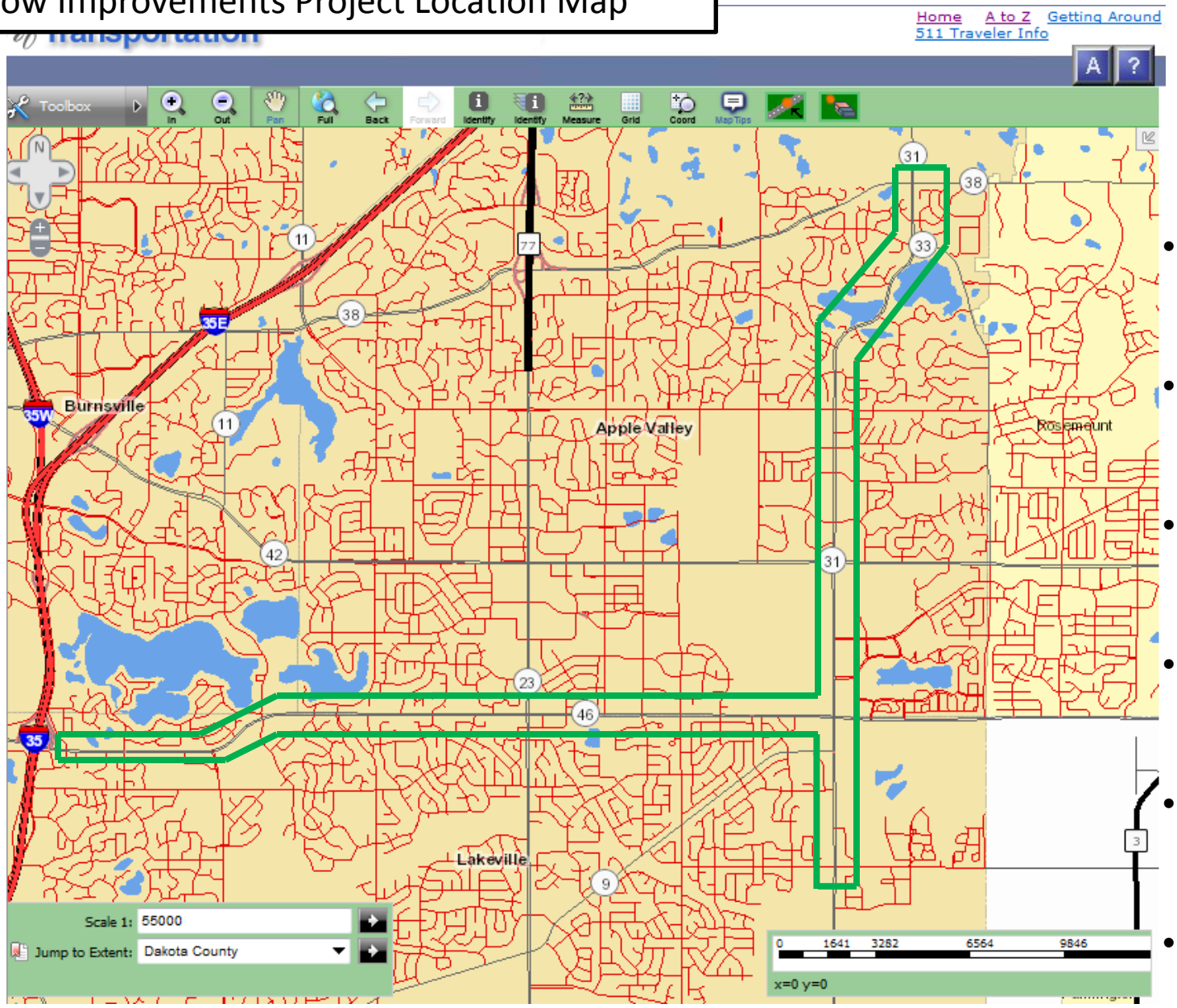
Project Area

0 2 4 8 12 16 Miles

Created: 11/15/2014
LandscapeRSA1

METROPOLITAN COUNCIL

Dakota County CSAHs 46 and Roadway Traffic Flow Improvements Project Location Map



Major Project Items

Installation of:

- Traffic monitoring cameras
- Fiber optic signal interconnect
- Flashing yellow left turn arrows
- Additional primary signal heads
- Signal equipment upgrades
- Signal retiming

Approval Of Grant Application Submittals For Transportation Advisory Board 2014 Federal Funding Solicitation Process

WHEREAS, the Transportation Advisory Board (TAB) is requesting project submittals for federal funding under the Moving Ahead for Progress in the 21st Century Act (MAP-21); and

WHEREAS, these federal programs fund up to 80 percent of project construction costs; and

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

WHEREAS, non-federal funds must be at least 20 percent of the project costs; and

WHEREAS, project submittals are due on December 1, 2014; and

WHEREAS, all projects proposed are consistent with the adopted Dakota County Comprehensive Plan.

NOW, THEREFORE, BE IT RESOLVED, That the Dakota County Board of Commissioners hereby approves the following County lead projects for submittal to the TAB for federal funding:

1. County State Aid Highway (CSAH) 9 (Dodd Boulevard) from Hayes Avenue to CSAH 23 (Cedar Avenue) in Lakeville
2. CSAH 26 (Lone Oak Road) at its intersection with CSAH 43 (Lexington Avenue) in Eagan
3. CSAH 26 (70th Street) at its intersection with Trunk Highway (TH) 3 in Inver Grove Heights
4. CSAH 28/63 (Yankee Doodle Road/Argenta Trail) from south of TH 55 to south of CSAH 26 (70th Street)
5. CSAH 31 (Pilot Knob Road) from I-35E to north of Central Parkway in Eagan
6. CSAH 42 (145th Street East) at its interchange with TH 52 in Rosemount
7. CSAH 23 (Foliage Avenue) from CSAH 86 (280th Street) to CR 96 (320th Street) in Greenvale Township
8. CSAH 86 (280th Street) from CSAH 23 (Galaxie Avenue) to TH 3 in Eureka, Greenvale, Castle Rock, and Waterford Townships
9. CSAH 86 (280th Street) from TH 3 to CSAH 47(Northfield Blvd) in Castle Rock, Waterford, and Sciota Townships
10. CSAH 31 and CSAH 46 Advanced Traffic Management System for 16 Signals
11. CSAH 26, CSAH 28, CSAH 31, and CSAH 43 Advanced Traffic Management System for 25 Signals
12. Mississippi River Regional Trail – Rosemount East
13. Minnesota River Greenway – Eagan South
14. North Creek Greenway – CSAH 42 Underpass east of Flagstaff in Apple Valley
15. CSAH 14 (Southview Boulevard) from 14th Avenue to 3rd Avenue in South St. Paul; and

BE IT FURTHER RESOLVED, That, subject to federal funding award, the Dakota County Board of Commissioners would be asked to consider authorization to execute the grant agreement at a future meeting; and

BE IT FURTHER RESOLVED, That the Dakota County Board of Commissioners hereby supports the following submittals by others:

16. Apple Valley Transit Station Parking Expansion – Lead Agency: Minnesota Valley Transit Authority
17. CSAH 73 (Oakdale Ave) Trail from CSAH 14 to CSAH 8 – Lead Agency: West St. Paul
18. River to River Greenway Robert Street Pedestrian Bridge – Lead Agency: West St. Paul
19. North Creek Greenway – Farmington Gap – Lead Agency: Farmington
20. Lake Marion Greenway – Sunset Park to Murphy Hanrehan Regional Park – Lead Agency: Burnsville
21. Lake Marion Greenway – Ritter Farm Park Connection – Lead Agency: Lakeville
22. Rosemount Greenway – Downtown Rosemount to Lebanon Hills – Lead Agency: Rosemount
23. Vermillion Highlands Greenway – CSAH 42 Underpass at Akron- Lead Agency : Rosemount; and

BE IT FURTHER RESOLVED, That, subject to federal funding award of the city lead projects, the Dakota County Board of Commissioners will provide the local match for regional greenway projects, and for non-greenway projects will provide Dakota County's share of the matching funds consistent with Dakota County transportation cost share policies.

County Manager's Comments:

- ☒ Recommend Action
- ☐ Do Not Recommend Action
- ☐ Reviewed—No Recommendation
- ☐ Reviewed—Information Only
- ☐ Submitted at Commissioner Request

Reviewed by (if required):

- ☒ County Attorney's Office
- ☒ Financial Services
- ☒ Risk Management
- ☐ Employee Relations
- ☐ Information Technology
- ☐ Facilities Management

Brandt Richard

County Manager

Dakota
COUNTY

Physical Development Division

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

952.891.7000
Fax 952.891.7031
www.dakotacounty.us

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

Office of Planning

Operations Management
Facilities Management
Fleet Management
Parks

Transportation
Highways
Surveyor's Office
Transit Office

November 19th, 2014

Zachary Johnson
City Engineer
City of Lakeville
20195 Holyoke Ave.
Lakeville, MN 55044

Dear Mr. Johnson:

The Dakota County Transportation Department is submitting a Roadway System Management funding application for a transportation project as part of the Metropolitan Council's 2014 Federal Funding Solicitation. The project consists of the installation of fiber optic cable for signal interconnection, traffic monitoring cameras, flashing yellow left turn arrows at intersections, and signal timing optimization of signals along the County State Aid Highways (CSAH) 31 (Pilot Knob Road) and 46 (160th/162nd Street) corridors in the cities of Apple Valley and Lakeville. This will provide the County ability to manage traffic signals on county / city roadways as an entire system versus as limited and unconnected zones. The project will provide for improved traffic flow, and reduced traffic congestion and harmful emissions.

As part of the application, the County is requesting a letter of support from the City of Lakeville to include in our project funding application. The application deadline is December 1, 2014. To assist in this request, I am enclosing a draft letter that can be used as a framework for you to modify as you see appropriate. The letter can be returned directly to me.

The City of Lakeville's support of the project for Dakota County to improve traffic safety and mobility along CSAHs 31 and 46, and your assistance in the funding application is greatly appreciated.

Sincerely,

Suzanne Hanrahan

Suzanne Hanrahan, P.E.
Assistant Traffic Engineer

Dakota
COUNTY

Physical Development Division

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Highways
Surveyor's Office
Transit Office

November 19th, 2014

Colin Manson, PE
City Engineer
City of Apple Valley
7100 147th St. W.
Apple Valley, MN 55124

Dear Mr. Manson:

The Dakota County Transportation Department is submitting a Roadway System Management funding application for a transportation project as part of the Metropolitan Council's 2014 Federal Funding Solicitation. The project consists of the installation of fiber optic cable for signal interconnection, traffic monitoring cameras, flashing yellow left turn arrows at intersections, and signal timing optimization of signals along the County State Aid Highways (CSAH) 31 (Pilot Knob Road) and 46 (160th/162nd Street) corridors in the cities of Apple Valley and Lakeville. This will provide the County ability to manage traffic signals on county / city roadways as an entire system versus as limited and unconnected zones. The project will provide for improved traffic flow, and reduced traffic congestion and harmful emissions.

As part of the application, the County is requesting a letter of support from the City of Apple Valley to include in our project funding application. The application deadline is December 1, 2014. To assist in this request, I am enclosing a draft letter that can be used as a framework for you to modify as you see appropriate. The letter can be returned directly to me.

The City of Apple Valley's support of the project for Dakota County to improve traffic safety and mobility along CSAHs 31 and 46, and your assistance in the funding application is greatly appreciated.

Sincerely,

Suzanne Hanrahan

Suzanne Hanrahan, P.E.
Assistant Traffic Engineer

From: Hanrahan, Suzanne
Sent: Wednesday, November 05, 2014 8:33 PM
To: Zachary Johnson (zjohnson@ci.lakeville.mn.us)
Subject: Metropolitan Council Regional Solicitation Grant Application

Zach,

The Metropolitan Council is currently soliciting Regional Grant Applications. Dakota County Transportation is working to submit an application for the Roadway System Management category (formerly Congestion Mitigation/Air Quality – CMAQ). The application would be for a project to:

- Install 5 miles of fiber optic cable for signal interconnect along County Highway 46 (160^{th}/162^{nd} St) between Kenrick Avenue and County Highway 31 (Pilot Knob Road)
- Install approximately 3 miles of fiber optic cable for signal interconnect along County Highway 31 between 170^{th} Street in Lakeville to County Highway 38 (McAndrews Rd) in Apple Valley
- Installation of traffic monitoring cameras
- Signal conversions at several intersections to include flashing yellow left turn arrows
- Signal equipment upgrades for the newer technology
- Signal corridor retiming

The fiber optic installation would allow for these signals to be incorporated into the new Advanced Traffic Management System Dakota County is acquiring next year for signal operation/management and traffic monitoring.

Currently there is not equipment in the ground throughout the majority of these two corridors for the signals to be interconnected and for the signal timing to be coordinated. The Transportation Department has received numerous phone calls over the years from citizens with concerns regarding the ability to travel along these major roadway corridors with minimal delay. County Commissioners have also received similar concerns and have shared these with the Transportation Department for having these signals coordinated to keep traffic moving efficiently as possible.

The federal funding would be for project construction in 2017 or 2018. The federal funding would contribute 80% of the construction costs. We are in the process of developing an overall project cost and each involved agency's cost share responsibility including design and construction costs. I will get that information to you early next week and will then be requesting City of Lakeville's support for this project. A support letter from local agencies that will have an involvement in the project is also to be include with the grant application.

If you have any initial thoughts or questions, please let me know. Otherwise, I will be in touch with you again early next week.

Sincerely,
Suzanne

Suzanne Hanrahan, PE | Assistant Traffic Engineer
Dakota County Transportation Department
14955 Galaxie Avenue | Apple Valley, MN 55124
Ph: 952-891-7177 I Fax: 952-891-7127
Suzanne.Hanrahan@co.dakota.mn.us

From: Hanrahan, Suzanne
Sent: Wednesday, November 19, 2014 9:53 PM
To: Zachary Johnson (zjohnson@ci.lakeville.mn.us)
Subject: RE: Metropolitan Council Regional Solicitation Grant Application

Hi Zach,

It took a little longer to get the cost estimate completed than anticipated. Below is the cost breakdown for the project as proposed below:

	Total Project Cost	Federal Contribution	County Contribution	Apple Valley Contribution	Lakeville Contribution	Locations of FYA Conversions
Fiber Optic Interconnect Installation / Flashing Yellow Arrow Conversions / Traffic Monitoring Cameras	$1,270,000	$1,015,000	$174,000	$40,000	$41,000	On 160th/162nd St: Ipava, LacLavon, Garden View, Galaxie, Foliage, Flagstaff On Pilot Knob: 170th St, Dodd, 142nd St, 140th St, Diamond Path, McAndrews Rd
Engineering Costs (8%) Not covered by federal funds	$91,000	$0	$63,000	$14,000	$14,000	
Total	$1,361,000	$1,015,000	$237,000	$54,000	$55,000	

Attached is the formal request letter from the County for Lakeville's support in the project. If Lakeville can support the project, the application is due December 1st so I would need a response support letter before then.
Please let me know if you have any questions/comments.

Thanks,
Suzanne

From: Hanrahan, Suzanne
Sent: Wednesday, November 05, 2014 8:37 PM
To: Manson, Colin
Subject: Metropolitan Council Regional Solicitation Grant Application

Colin,

The Metropolitan Council is currently soliciting Regional Grant Applications. Dakota County Transportation is working to submit an application for the Roadway System Management category (formerly Congestion Mitigation/Air Quality – CMAQ). The application would be for a project to:

- Install 5 miles of fiber optic cable for signal interconnect along County Highway 46 (160^{th}/162^{nd} St) between Kenrick Avenue and County Highway 31 (Pilot Knob Road)
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The fiber optic installation would allow for these signals to be incorporated into the new Advanced Traffic Management System Dakota County is acquiring next year for signal operation/management and traffic monitoring.

Currently there is not equipment in the ground throughout the majority of these two corridors for the signals to be interconnected and for the signal timing to be coordinated. The Transportation Department has received numerous phone calls over the years from citizens with concerns regarding the ability to travel along these major roadway corridors with minimal delay. County Commissioners have also received similar concerns and have shared these with the Transportation Department for having these signals coordinated to keep traffic moving efficiently as possible.

The federal funding would be for project construction in 2017 or 2018. The federal funding would contribute 80% of the construction costs. We are in the process of developing an overall project cost and each involved agency's cost share responsibility including design and construction costs. I will get that information to you early next week and will then be requesting City of Apple Valley's support for this project. A support letter from local agencies that will have an involvement in the project is also to be include with the grant application.

If you have any initial comments or questions, please let me know. Otherwise, I will be in touch with you again early next week.

Sincerely,
Suzanne

Suzanne Hanrahan, PE | Assistant Traffic Engineer
Dakota County Transportation Department
14955 Galaxie Avenue | Apple Valley, MN 55124
Ph: 952-891-7177 | Fax: 952-891-7127
Suzanne.Hanrahan@co.dakota.mn.us

From: Hanrahan, Suzanne [mailto:Suzanne.Hanrahan@CO.DAKOTA.MN.US]
Sent: Wednesday, November 19, 2014 9:50 PM
To: Manson, Colin
Subject: RE: Metropolitan Council Regional Solicitation Grant Application

Colin,

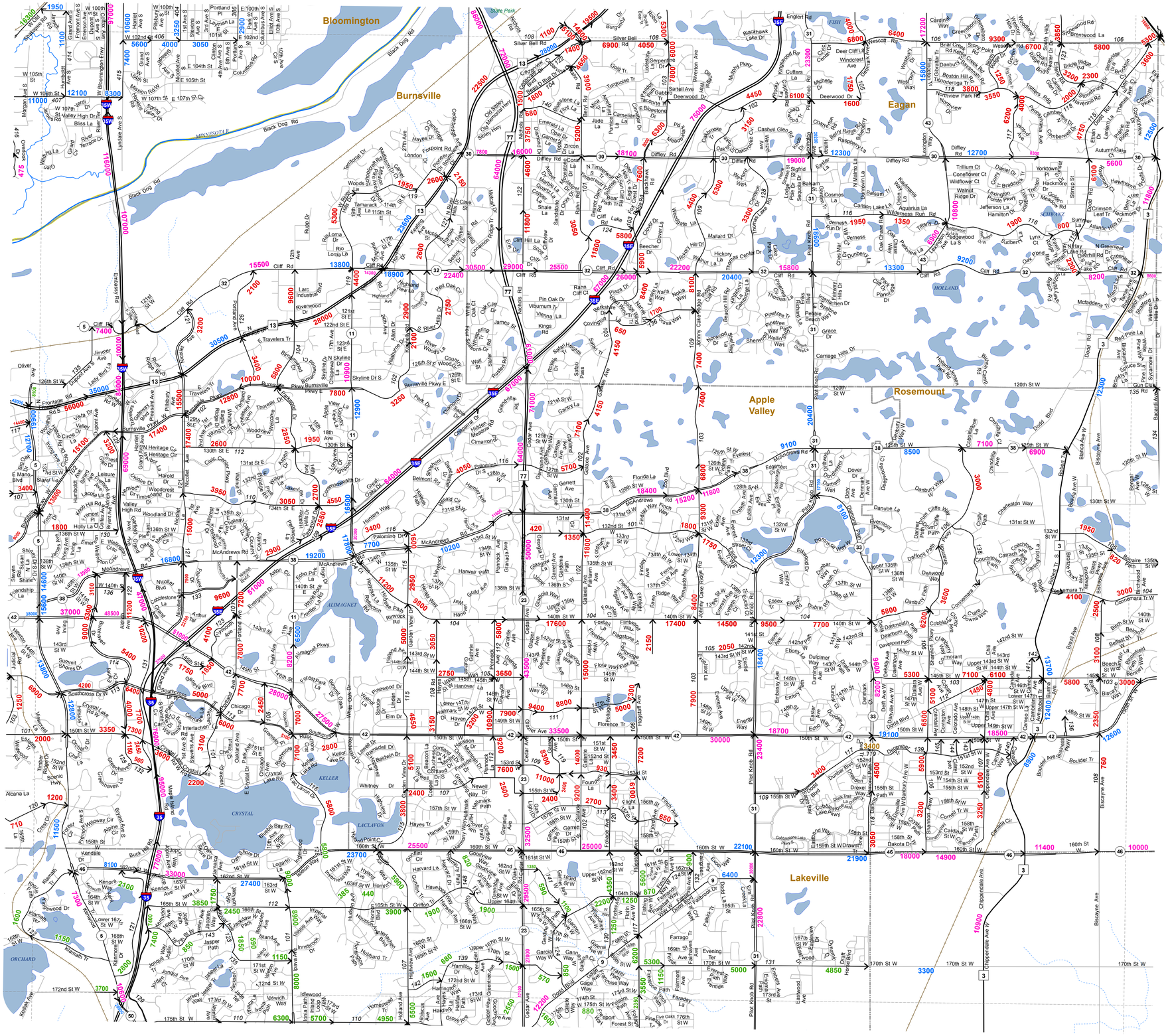
It took a little longer to get the cost estimate completed than anticipated. Below is the cost breakdown for the project as proposed below:

	Total Project Cost	Federal Contribution	County Contribution	Apple Valley Contribution	Lakeville Contribution	Locations of FYA Conversions
Fiber Optic Interconnect Installation / Flashing Yellow Arrow Conversions / Traffic Monitoring Cameras	$1,270,000	$1,015,000	$174,000	$40,000	$41,000	On 160th/162nd St: Ipava, LacLavon, Garden View, Galaxie, Foliage, Flagstaff On Pilot Knob: 170th St, Dodd, 142nd St, 140th St, Diamond Path, McAndrews Rd
Engineering Costs (8%) Not covered by federal funds	**$91,000**	**$0**	**$63,000**	**$14,000**	**$14,000**	
Total	$1,361,000	$1,015,000	$237,000	$54,000	$55,000	

Attached is the formal request letter from the County for Apple Valley's support in the project. I'm not sure what you'll be able to give me in the short timeframe, but if so, the application is due December 1st so it would need to be before then.

Please let me know if you have any questions/comments.
Thanks,
Suzanne

2013 Publication Traffic Volumes Metro Street Series - 3C



N

0 0.25 0.5 0.75 1 Mi.

Numerals Indicate Average Annual Daily Traffic (AADT) Volumes on Designated Roads

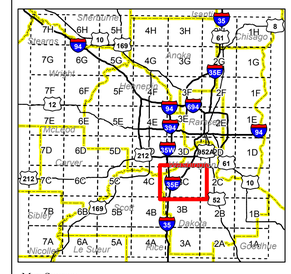
Traffic Volumes are Subject to Variability and Construction Effects
For More Info Visit:
http://www.dot.state.mn.us/traffic/data/coll-methods.html#cp

Minnesota Department of Transportation
Office of Transportation Data and Analysis
Traffic Volume Program
http://www.dot.state.mn.us/traffic/data/index.html

MAP LEGEND

AADT Year
2013 2012
2011 2010
2009 and older

Interstate 94
US Highway 169
MN Highway 55
CSAH 55
MSAS 101
County Road 55
Other Roads
Railroads
Street Series Grid
Cities
COUNTIES
Lakes
Rivers
Perennial Streams
Ditches
National Forests
National Parks
Tribal Gov'ts
State Forests
State Parks



Map Source:
Minnesota Department of Transportation
Office of Transportation Data and Analysis
Traffic Volume Program
2013 AADT Product
http://www.dot.state.mn.us/traffic/data/data-products.html

To view this data using an online interactive map please visit: http://www.dot.state.mn.us/traffic/data/tma.html

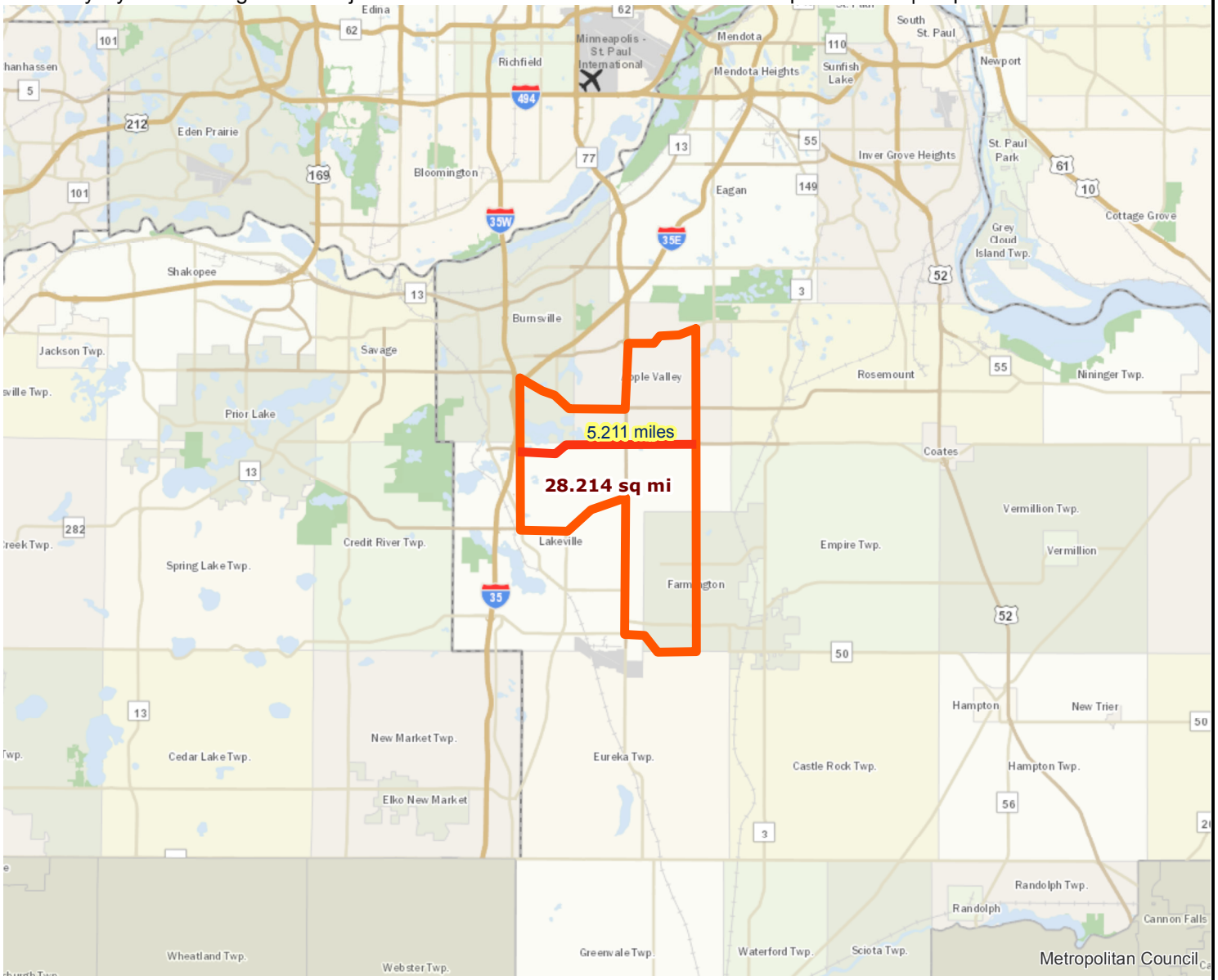
Roadway Area Definition

Roadway System Management Project: Dakota Co Csah 46 & 31 Traffic Flow Improvements | Map ID: 1419962939131

Results

Project Length: 5.211 miles

Project Area: 28.214 sq mi



Project

Project Area

0 2.75 5.5 11 16.5 22 Miles

Created: 12/30/2014
LandscapeRSA1

METROPOLITAN COUNCIL

Regional Economy

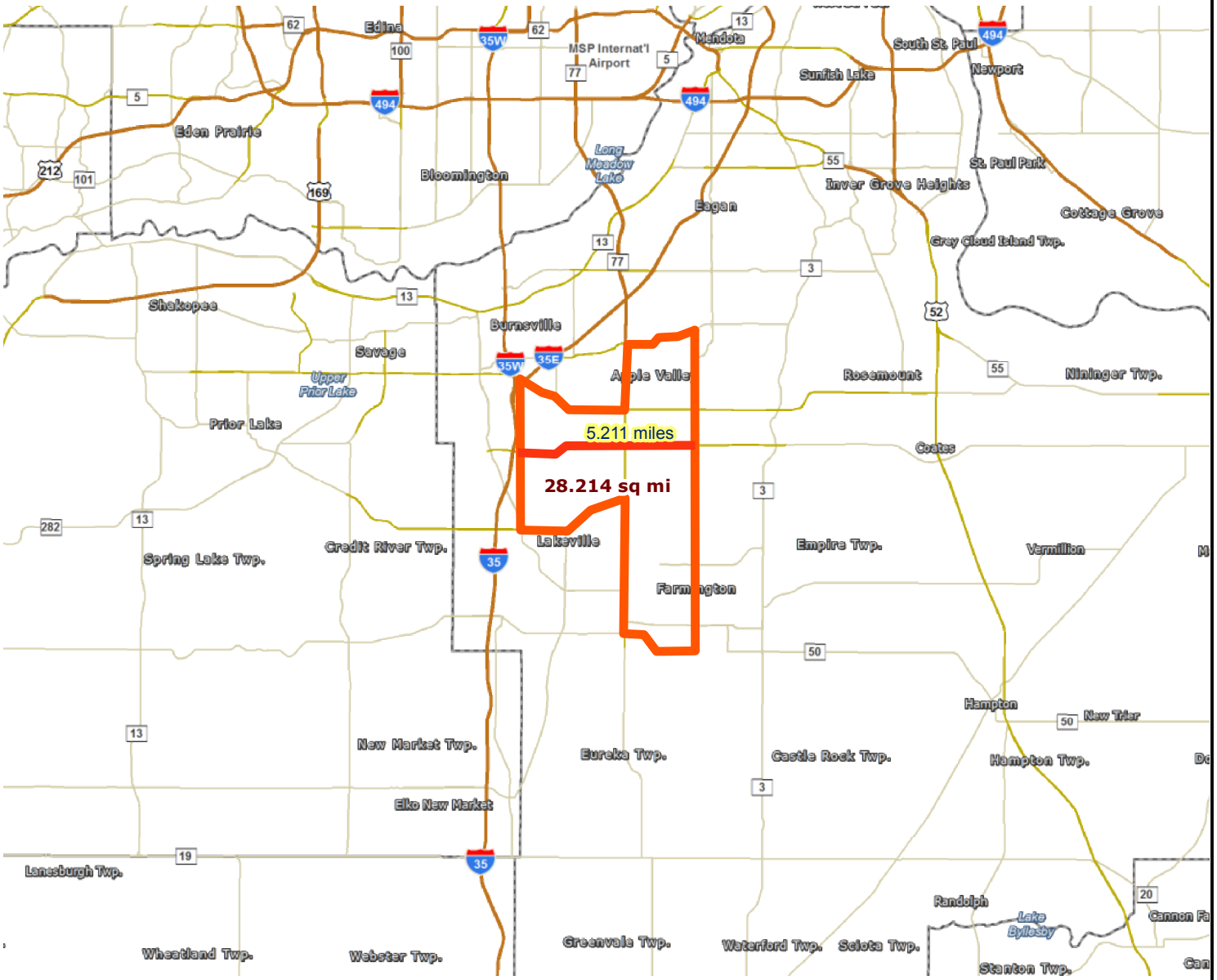
Roadway System Management Project: Dakota Co Csah 46 & 31 Traffic Flow Improvements | Map ID: 1419962939131

Results

Project **WITHIN ONE MI** of area of Job Concentration.

Project **NOT IN** to area of Manufacturing and Distribution.

Project **NOT CONNECTED** to area of Education Institutions.



Project

Project Area

0 2.75 5.5 11 16.5 22 Miles

Created: 12/30/2014
LandscapeRSA5

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

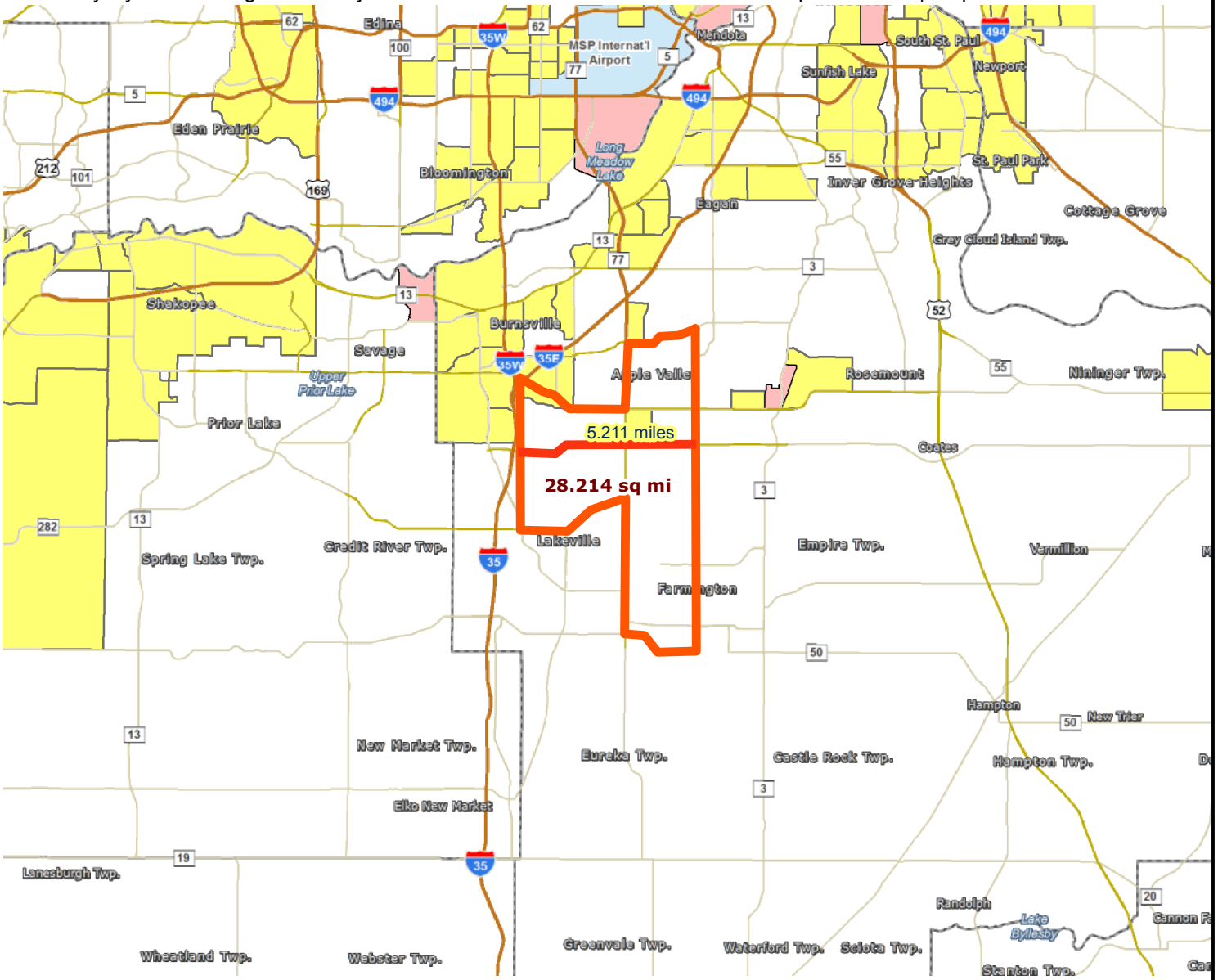
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway System Management Project: Dakota Co Csah 46 & 31 Traffic Flow Improvements | Map ID: 1419962939131

Results

Project **NOT IN** any area of concentrated poverty.



Project
Project Area
Racially concentrated area of poverty
Concentrated area of poverty
Above reg'l avg conc of race/poverty

0 2.75 5.5 11 16.5 22 Miles

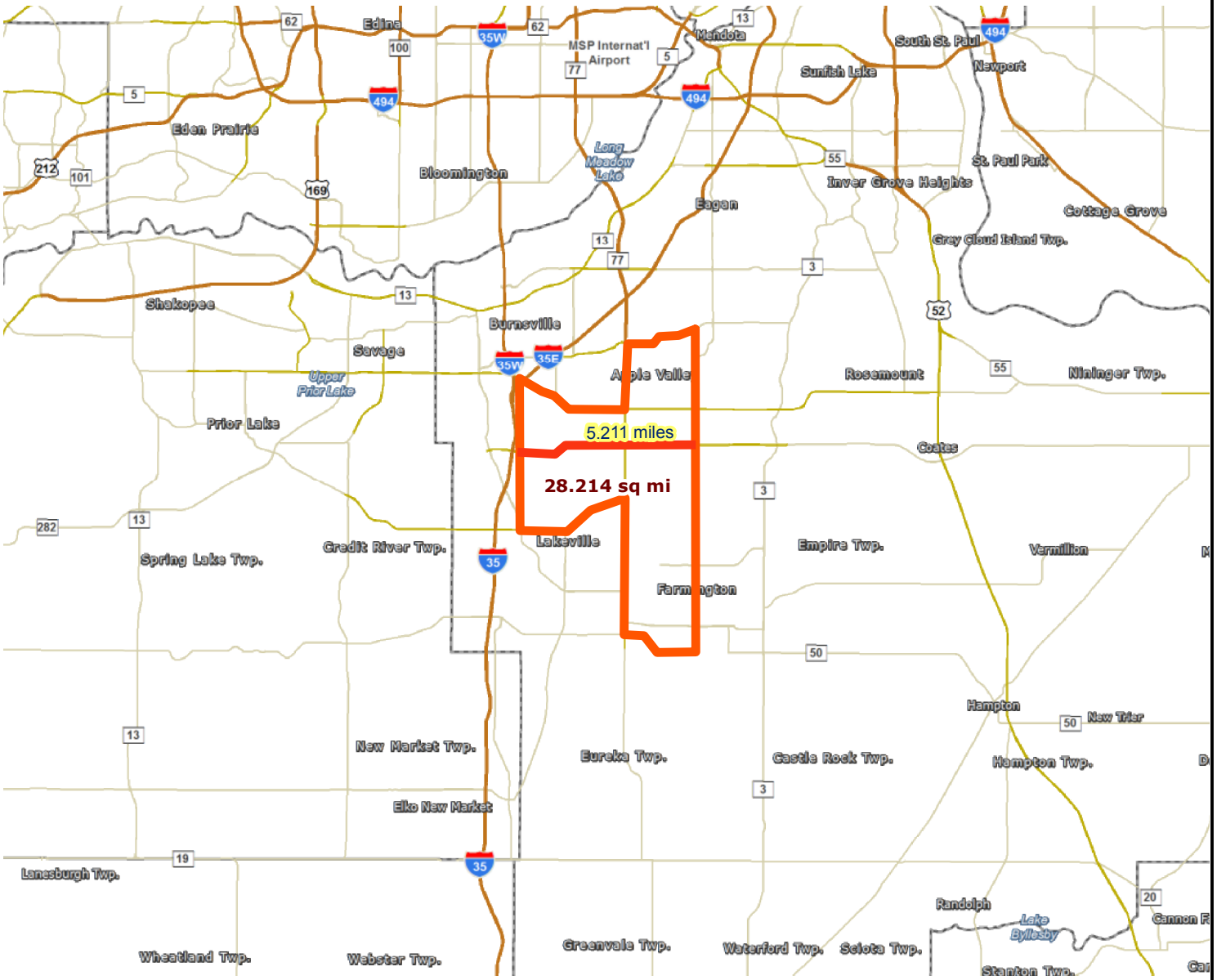
Created: 12/30/2014
LandscapeRSA2

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Transit Connections

Roadway System Management Project: Dakota Co Csah 46 & 31 Traffic Flow Improvements | Map ID: 1419962939131



Results

Transit with a Direct Connection to project:
477 479
*Red Line - Phase 2

**indicates Planned Alignments*

Project

Project Area

0 2.75 5.5 11 16.5 22 Miles

Created: 12/30/2014
LandscapeRSA3

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

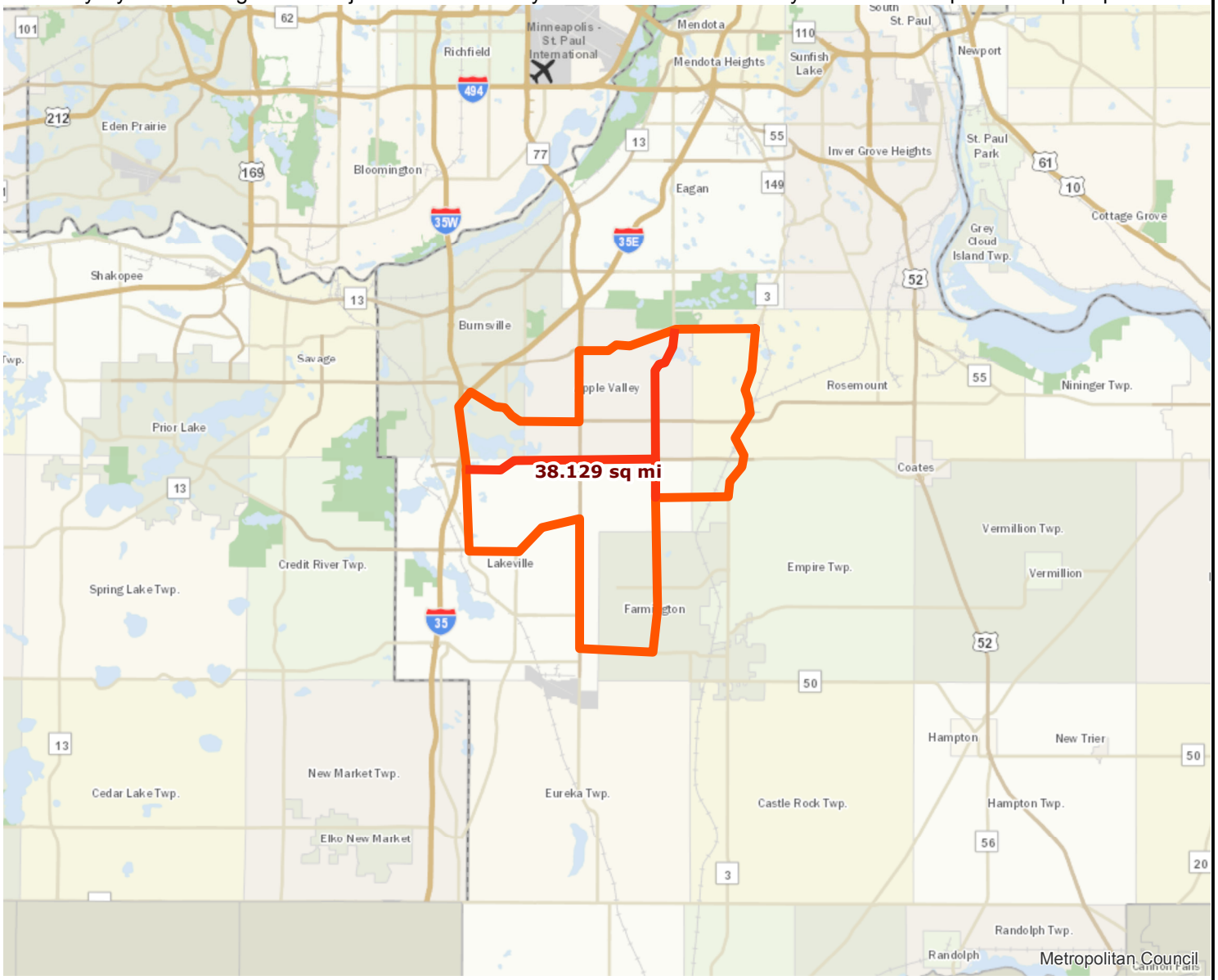
Roadway Area Definition

Roadway System Management Project: Dakota County CSAHs 46 & 31 Roadway Traffic Flow Improvement | Map ID: 14160967

Results

Project Length: 10.966 miles

Project Area: 38.129 sq mi



Project

Project Area

0 2.5 5 10 15 20 Miles

Created: 11/15/2014
LandscapeRSA1

For complete disclaimer of accuracy, please visit
http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

Regional Economy

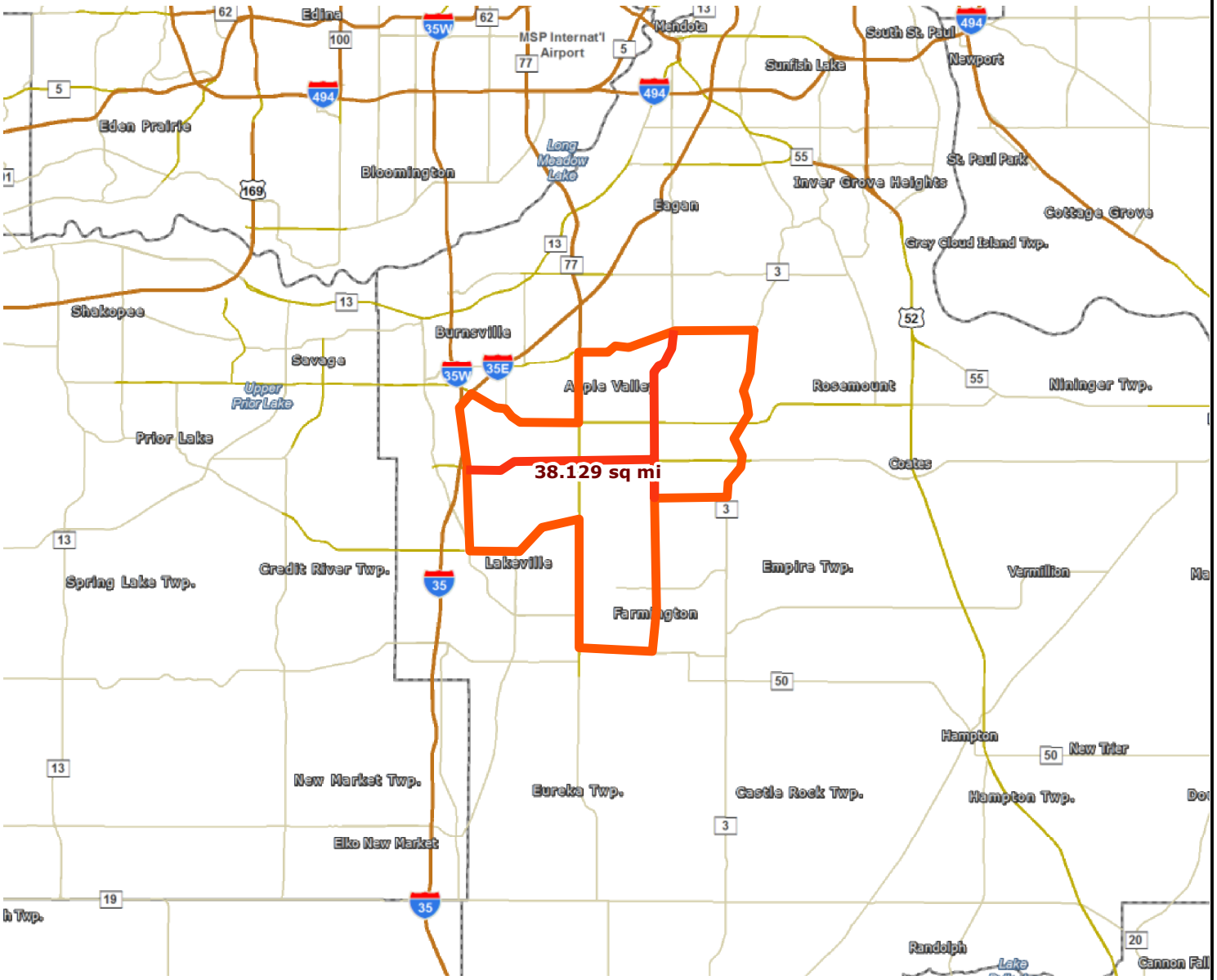
Roadway System Management Project: Dakota County CSAHs 46 & 31 Roadway Traffic Flow Improvement | Map ID: 1416096739240

Results

Project **WITHIN ONE MI** of area of Job Concentration.

Project **NOT IN** to area of Manufacturing and Distribution.

Project **NOT CONNECTED** to area of Education Institutions.



Project

Project Area

0 2.5 5 10 15 20 Miles

Created: 11/15/2014
LandscapeRSA5

For complete disclaimer of accuracy, please visit http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

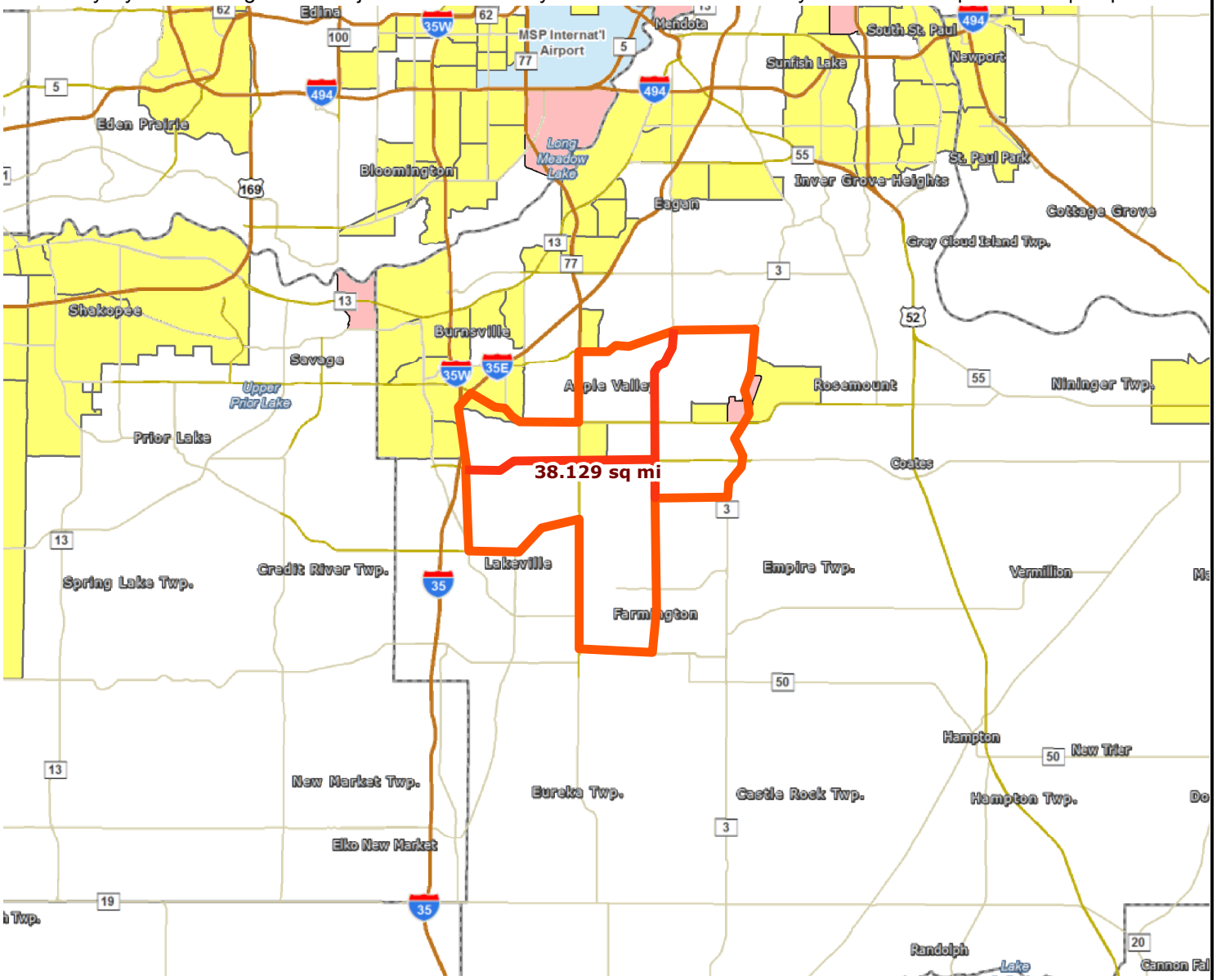
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway System Management Project: Dakota County CSAHs 46 & 31 Roadway Traffic Flow Improvement | Map ID: 14160967

Results

Project **NOT IN** any area of concentrated poverty.



Project
Project Area
Racially concentrated area of poverty
Concentrated area of poverty
Above reg'l avg conc of race/poverty

0 2.5 5 10 15 20 Miles

Created: 11/15/2014
LandscapeRSA2

For complete disclaimer of accuracy, please visit http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx

METROPOLITAN COUNCIL

6: CSAH 31/Pilot Knob & CSAH 42

Direction	All
Volume (vph)	4133
Total Delay / Veh (s/v)	54
CO Emissions (kg)	13.90
NOx Emissions (kg)	2.70
VOC Emissions (kg)	3.22

11: CSAH 31/Pilot Knob Rd & CSAH 46/160th Street

Direction	All
Volume (vph)	4946
Total Delay / Veh (s/v)	71
CO Emissions (kg)	14.90
NOx Emissions (kg)	2.90
VOC Emissions (kg)	3.45

17: Pilot Knob Rd/CSAH 31 & Park & Ride/157th St

Direction	All
Volume (vph)	2666
Total Delay / Veh (s/v)	24
CO Emissions (kg)	6.21
NOx Emissions (kg)	**1.21**
VOC Emissions (kg)	1.44

20: CSAH 31 & 170th St

Direction	All
Volume (vph)	3272
Total Delay / Veh (s/v)	28
CO Emissions (kg)	8.42
NOx Emissions (kg)	1.64
VOC Emissions (kg)	1.95

23: CSAH 31 & CSAH 9

Direction	All
Volume (vph)	3697
Total Delay / Veh (s/v)	67
CO Emissions (kg)	9.65
NOx Emissions (kg)	1.88
VOC Emissions (kg)	2.24

13.77

6: CSAH 31/Pilot Knob & CSAH 42

Direction	All
Volume (vph)	4133
Total Delay / Veh (s/v)	42
CO Emissions (kg)	13.38
NOx Emissions (kg)	2.60
VOC Emissions (kg)	3.10

11: CSAH 31/Pilot Knob Rd & CSAH 46/160th Street

Direction	All
Volume (vph)	4946
Total Delay / Veh (s/v)	67
CO Emissions (kg)	14.27
NOx Emissions (kg)	2.78
VOC Emissions (kg)	3.31

17: Pilot Knob Rd/CSAH 31 & Park & Ride/157th St

Direction	All
Volume (vph)	2666
Total Delay / Veh (s/v)	26
CO Emissions (kg)	5.75
NOx Emissions (kg)	1.12
VOC Emissions (kg)	1.33

20: CSAH 31 & 170th St

Direction	All
Volume (vph)	3272
Total Delay / Veh (s/v)	20
CO Emissions (kg)	6.83
NOx Emissions (kg)	1.33
VOC Emissions (kg)	1.58

* 23: CSAH 31 & CSAH 9

Direction	All
Volume (vph)	3697
Total Delay / Veh (s/v)	34
CO Emissions (kg)	7.67
NOx Emissions (kg)	1.49
VOC Emissions (kg)	1.78

10.94

6: CSAH 31/Pilot Knob & CSAH 42

Direction	All
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CO Emissions (kg)	7.67
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VOC Emissions (kg)	1.78

10.94

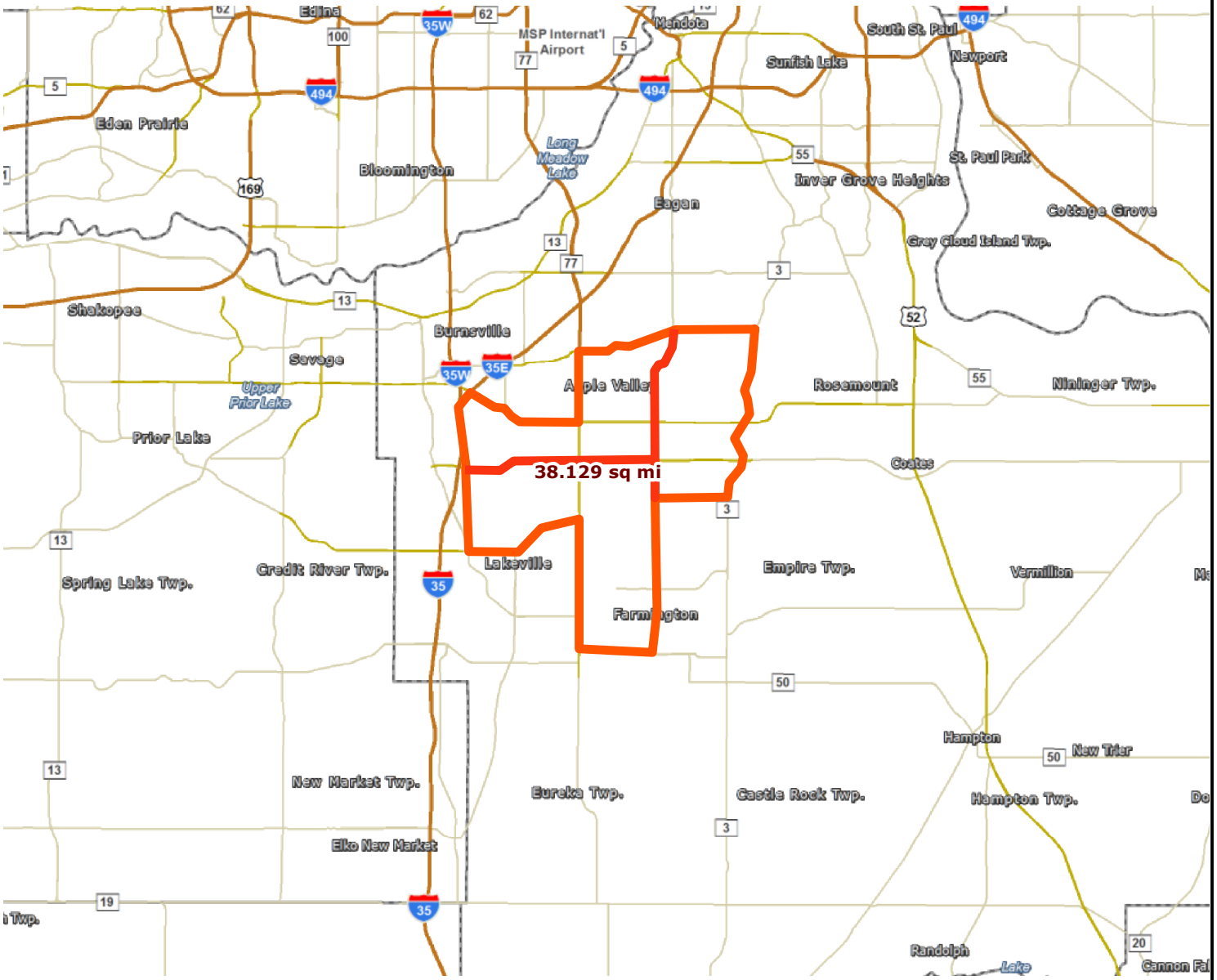
Transit Connections

Roadway System Management Project: Dakota County CSAHs 46 & 31 Roadway Traffic Flow Improvement | Map ID: 1416096739240

Results

Transit with a Direct Connection to project:
420 476 477 478 479
*Red Line - Phase 2

**indicates Planned Alignments*



Project

Project Area

0 2.5 5 10 15 20 Miles

Created: 11/15/2014
LandscapeRSA3

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METROPOLITAN COUNCIL