Application

01969 - 2014 Roadway System Management

01996 - Ramsey County State Aid Highway 96 Traffic Signal Coordination, Obsolete Signal Controller and Cabinet Replacement, Interconnect Upgrade, APS, ADA Upgrades, and Flashing Yellow Left-Turn Indication Installation.

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	12/01/2014 10:25 AM

Primary Contact

Name:*

Salutation	First Name	Middle Name	Last Name
	Joseph	Frank	Lux

Title: Senior Planner

Department: Ramsey County Public Works

Email: joseph.lux@co.ramsey.mn.us

Address: 1425 Paul Kirkwold Drive

*

City	State/Province	Postal Code/Zip
Arden Hills	Minnesota	55112

Phone:*

Phone	Ext.
651-266-7114	

Fax: 651-266-7110

What Grant Programs are you most interested in? Regional Solicitation - Roadways Including Multimodal Elements

Organization Information

Name:	RAMSEY COUNTY
Jurisdictional Agency (if different):	
Organization Type:	County Government
Organization Website:	
Address:	DEPT OF PUBLIC WORKS 1425 PAUL KIRKWOOD DR
*	ARDEN HILLS (City) Minnesota (State/Province) 55112 (Postal Code/Zip)
County:	Ramsey
Phone:*	651-266-7100 Ext.
Fax:	
PeopleSoft Vendor Number	0000023983A30

Project Information

Project Name	Highway 96 Traffic Signal Timing and Intersection Upgrades
Primary County where the Project is Located	Ramsey
Jurisdictional Agency (If Different than the Applicant):	
Brief Project Description (Limit 2,800 characters; approximately 400 words)	Minor Arterial signal coordination project to replace obsolete traffic signal controllers and cabinets, develop and install coordinated signal timing plans, upgrade signal interconnect, install flashing yellow left-turn indications and APS at all signalized intersections. The project will also install ADA-compliant pedestrian ramps at all intersections on the corridor that are non-compliant. Note that the age of the traffic signal systems varies from 10-19 years and the equipment age listed in Section 4 is that of the oldest system.

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

Project Length (Miles)	7.56

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	This project is consistent with the Thrive 2040 goal of system preservation in that it optimizes the operation of an existing facility. It is consistent with Ramsey County's Comprehensive Plan in that it preserves our system and enhances the accessibility of the Highway 96 Regional Trail. It is consistent with the comprehensive plans of all communities it affects.

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	$1,893,519.40
Match Amount	$473,379.85
Minimum of 20% of project total	
Project Total	$2,366,899.25
Match Percentage	20.0%
Minimum of 20% *Compute the match percentage by dividing the match amount by the project total*	
Source of Match Funds	CSAH and local funds.

Preferred Program Year

Select one:	2018

MnDOT State Aid Project Information: Roadway Projects

County, City, or Lead Agency	Ramsey County Public Works
Functional Class of Road	Class A Minor Arterial- Expander
Road System	CSAH
TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET	
Name of Road	Highway 96
Example; 1st ST., MAIN AVE	
Zip Code where Majority of Work is Being Performed	55126
(Approximate) Begin Construction Date	05/14/2018
(Approximate) End Construction Date	11/16/2018

LOCATION

From: **(Intersection or Address)** *Do not include legal description; Include name of roadway if majority of facility runs adjacent to a single corridor.*	Snelling Avenue
To: **(Intersection or Address)**	1st Avenue
Type of Work *Examples: grading, aggregate base, bituminous base, bituminous surface, sidewalk, signals, lighting, guardrail, bicycle path, ped ramps, bridge, Park & Ride, etc.)*	Replace Obsolete Traffic Signal Controllers, Cabinets and Interconnect, APS and Flashing Yellow Left-Turn Arrows, Upgrade Ped Ramps, Retime Signals
Old Bridge/Culvert?	No
New Bridge/Culvert?	No
Structure is Over/Under (Bridge or culvert name):	

Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	$113,000.00
Removals (approx. 5% of total cost)	$90,783.90
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)	$102,343.00
Traffic Control	$0.00
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	$992,108.75
Wetland Mitigation	$0.00

Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$0.00
Roadway Contingencies	$0.00
Other Roadway Elements	$30,496.00
Totals	**$1,328,731.65**

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)	$461,309.60
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	$576,858.00
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	**$1,038,167.60**

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	$2,366,899.25
Construction Cost Total	$2,366,899.25
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
1996 Ramsey Co HSIP.pdf	Crash B/C	30 KB
CLASS_White Bear Pkwy_94.pdf	Vehicle Classification Count, west of White Bear Parkway	47 KB
Highway96Location.pdf	CSAH 96 System Management Location Map	1.3 MB
N O Ltr-County Grant Support.doc	North Oaks Support Letter	78 KB
RdwayAreaDef.pdf	Roadway Area Definition	1.0 MB
RegionalEcon.pdf	Regional Economy	1.3 MB
Shoreview Support ltr federal STP funds for Hwy 96.pdf	Shoreview Support Letter	268 KB
SocioEcon.pdf	Social Economic	1.4 MB
TransitCon.pdf	Transit Connections	1.3 MB
Vadnais Heights Support Letter.pdf	Vadnais Heights Support Letter	43 KB

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	41.874
Project Length	7.846
Average Distance	5.337
Upload Map	CSAH 96 System Roadway Definition.pdf

Measure B: Current Heavy Commercial Traffic

Location	CSAH 96, West of White Bear Parkway
Current daily heavy commercial traffic volume	1149.0

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	Yes
Direct connection to or within a mile of an Educational Institution	Yes
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)	
Upload Map	CSAH 96 Regional Economy.pdf

Measure A: Current Daily Person Throughput

Location	West of I-35E
Current AADT Volume	30350.0
Existing Transit Routes on the Project	6, 62, 261, 262, 265, 275, 285

Response - Daily Person Throughput

Average Annual Daily Transit Ridership	4.0
Current Daily Person Throughput	39459.0

Measure B: 2030 Forecast ADT

Use Metropolitan Council model to determine forecast (2030) ADT volume	Yes
METC Staff - Forecast (2030) ADT volume	39000.0
OR	
Approved county or city travel demand model to determine forecast (2030) ADT volume	
Forecast (2030) ADT volume	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	Yes
Projects census tracts are above the regional average for population in poverty or population of color	
Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly.	
Response (Limit 1,400 characters; approximately 200 words)	This project is located on one of three primary east/west arterial routes on the County system. CSAH 96 provides a connection to the I-35W and I-35E Principal Arterials, as well as the Snelling Avenue (TH 51), Lexington Avenue (CSAH 51), CSAH 49. Centerville Road (CSAH 59), and TH 61 Class A Minor Arterial Highways. As such, it provides a route to the job centers of New Brighton, Mounds View, Arden Hills, Shoreview, White Bear Township, Vadnais Heights, and White Bear Lake that provide manufacturing, technical, and professional jobs. Largely because of several lakes, there are no parallel east/west routes within approximately three miles north of CSAH 96. The nearest roughly parallel Principal Arterial, I-694 experiences over seven hours of congestion per day, making CSAH 96 a critical route to employment centers, as well as a secondary freight route.
Upload Map	CSAH 96 Socio-Economic.pdf

Measure B: Affordable Housing

City/Township	Segment Length (Miles)
Arden Hills	1.0
Shoreview	1.75
North Oaks	1.04
Vadnais Heights	1.235
White Bear Lake	1.665
White Bear Township	0.71

Total Project Length

Total Project Length	7.56

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
Arden Hills	1.0	7.4	45.0	0.135	6.081
Shoreview	1.75	7.4	79.0	0.236	18.682
North Oaks	1.04	7.4	17.0	0.141	2.389
Vadnais Heights	1.235	7.4	40.0	0.167	6.676
White Bear Township	0.71	7.4	33.0	0.096	3.166
White Bear Lake	1.655	7.4	72.0	0.224	16.103
		44	**286**	**1**	**53**

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	7.4
Total Housing Score	53.097

Measure A: Equipment Improvements and Installation Year

Equipment to be Improved	Signal System A-N, Controller and Cabinet
Date of Equipment Installation	06/01/1995

Measure A: Cost Effectiveness of Vehicle Delay Reduction

Total Project Cost from Cost Sheet	$2,366,899.25
Total Peak Hour Vehicle Delay Without The Project	140.8
Total Peak Hour Vehicle Delay With The Project	89.74
Total Peak Hour Vehicle Delay Reduced by Project	51.06
Cost Effectiveness	$46,355.25
Synchro or HCM Reports	96-Lexington Combined PM & PM Retimed.pdf

Measure B: Cost Effectiveness of Emissions Reduction

Total Project Cost from Cost Sheet	$2,366,899.25
Total Peak Hour Kilograms Reduced by Project	3.6
Cost Effectiveness	$657,472.01
Synchro or HCM Reports	96-Lexington Combined PM & PM Retimed.pdf

Measure A: Benefit/Cost of Crash Reduction

Project Benefit/Cost Ratio	0.23
Worksheet Attachment	CSAH 96 & Lexington.xlsx

Measure A: Transit Connections

Existing Routes Directly Connected to the Project	6, 62, 261, 262, 265, 285
Planned Transitways directly connected to the project (alignment and mode determined and identified in the 2030 TPP)	N/A
Upload Map	CSAH 96 Transit connections.pdf

Response

Met Council Staff Data Entry Only

Route Ridership	3554778.0
Transitway Ridership	0

Measure B: Bicycle and Pedestrian Connections

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

The Highway 96 Regional Trail is located on the south side of this route and extends from Old Highway 8, just west of the project limits to White Bear Lake, just east of the project limits. This trail also provides a direct connection to Long Lake Regional Park, west of the CSAH 96 corridor and to the Rice Creek Regional Trail. It provides a direct link to 12 existing and two planned Regional Bikeways, as identified by the Met Council. This project will upgrade all pedestrian crossings along the Highway 96 Regional Trail that do not currently meet ADA standards, as well as all adjacent pedestrian facilities by adding detectable surfaces at all pedestrian ramps and installing Audible Pedestrian Signals where they do not exist. As part of the traffic signal coordination, walk phases will be reviewed and timing adjusted, as necessary.

Measure C: Multimodal Facilities

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

As noted, the Highway 96 Regional Trail is located on the south side of the CSAH 96 corridor. This project will update all pedestrian crosswalks in the corridor to current ADA standards. All traffic signals will be upgraded to include Audible Pedestrian signals and countdown timers. Pedestrian walk phases will be evaluated as part of the signal coordination plan and retimed, as needed. Separate project will remove gaps in the Highway 96 Regional Trail that exist across the I-35W and I-35E interchange areas in 2105 and 2015, respectively. Metro Transit will be consulted and appropriate modifications to stops and signal timing will be made, as allowed within the scope of the project.

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

100%

Stakeholders have been identified Yes

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 01/20/2017

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 10/28/2016

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: 09/30/2016

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 Yes

80%

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

30%

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

0%

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

Right-of-way or easements not required Yes

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

0%

Anticipated date or date of acquisition

7)Railroad Involvement (25 Percent of Points)

No railroad involvement on project

100%

Railroad Right-of-Way Agreement is executed (include signature page)

100%

Railroad Right-of-Way Agreement required; Agreement has been initiated

60%

Railroad Right-of-Way Agreement required; negotiations have begun

40%

Railroad Right-of-Way Agreement required; negotiations not begun

Yes

0%

Anticipated date or date of executed Agreement

10/28/2016

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

04/28/2017

9)Letting

Anticipated Letting Date

03/16/2018

HSIP 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 96	Highway 96 @ Lexington Ave			Ramsey County	1/1/2011	12/31/2013

Description of Proposed Work: Improve timing

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**									
	Personal Injury (PI)	**A**									
		B	2		2						**4**
		C	6								**6**
	Property Damage	**PD**	33	4	2	2					**41**
% Change in Crashes *Use Desktop Reference for Crash Reduction Factors	Fatal	**F**									
	PI	**A**									
		B	-8%		-8%						
		C	-8%								
	Property Damage	**PD**	-8%	-8%	-8%	-8%					
Change in Crashes = No. of crashes **X** % change in crashes	Fatal	**F**									
	PI	**A**									
		B	**-0.16**		**-0.16**						**-0.32**
		C	**-0.48**								**-0.48**
	Property Damage	**PD**	**-2.64**	**-0.32**	**-0.16**	**-0.16**					**-3.28**

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

Project Cost (exclude Right of Way):

Right of Way Costs (optional):

Traffic Growth Factor: **1%**

Capital Recovery

1. **Discount Rate:** **4.5%**
2. **Project Service Life (n):** **20**

Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit
F			**$ 1,100,000**	
A			**$ 550,000**	
B	**-0.32**	**-0.11**	**$ 160,000**	**$ 17,067**
C	**-0.48**	**-0.16**	**$ 81,000**	**$ 12,960**
PD	**-3.28**	**-1.09**	**$ 7,400**	**$ 8,091**
Total				**$ 38,117**

B/C= 0.23

Using present worth values,

B= $ 560,877

C= $ 2,366,899

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Technology **December 2008**

Ramsey County Public Works

1425 Paul Kirkwold Drive
Arden Hills, MN 55112

Highway 96 at White Bear Ave
CLASS COUNT

File Name : CLASS_White Bear Pkwy_94
Site Code :
Start Date : 11/18/2014
Page No : 1

Groups Printed- Cars + - Trucks

	Highway 96 From South		
Start Time	Thru	App. Total	Int. Total
12:00 AM	48	48	48
12:15 AM	31	31	31
12:30 AM	27	27	27
12:45 AM	27	27	27
Total	133	133	133
01:00 AM	18	18	18
01:15 AM	26	26	26
01:30 AM	30	30	30
01:45 AM	13	13	13
Total	87	87	87
02:00 AM	32	32	32
02:15 AM	25	25	25
02:30 AM	31	31	31
02:45 AM	27	27	27
Total	115	115	115
03:00 AM	24	24	24
03:15 AM	20	20	20
03:30 AM	19	19	19
03:45 AM	25	25	25
Total	88	88	88
04:00 AM	18	18	18
04:15 AM	37	37	37
04:30 AM	78	78	78
04:45 AM	113	113	113
Total	246	246	246
05:00 AM	99	99	99
05:15 AM	125	125	125
05:30 AM	204	204	204
05:45 AM	250	250	250
Total	678	678	678
06:00 AM	321	321	321
06:15 AM	355	355	355
06:30 AM	450	450	450
06:45 AM	533	533	533
Total	1659	1659	1659
07:00 AM	517	517	517
07:15 AM	564	564	564
07:30 AM	595	595	595
07:45 AM	593	593	593
Total	2269	2269	2269
08:00 AM	558	558	558
08:15 AM	496	496	496
08:30 AM	515	515	515
08:45 AM	510	510	510
Total	2079	2079	2079
09:00 AM	485	485	485
09:15 AM	490	490	490
09:30 AM	516	516	516

Ramsey County Public Works

1425 Paul Kirkwold Drive
Arden Hills, MN 55112

Highway 96 at White Bear Ave
CLASS COUNT

File Name : CLASS_White Bear Pkwy_94
Site Code :
Start Date : 11/18/2014

Groups Printed- Cars + - Trucks

	Highway 96 From South		
Start Time	Thru	App. Total	Int. Total
09:45 AM	393	393	393
Total	1884	1884	1884
10:00 AM	368	368	368
10:15 AM	409	409	409
10:30 AM	396	396	396
10:45 AM	404	404	404
Total	1577	1577	1577
11:00 AM	438	438	438
11:15 AM	423	423	423
11:30 AM	475	475	475
11:45 AM	510	510	510
Total	1846	1846	1846
12:00 PM	505	505	505
12:15 PM	505	505	505
12:30 PM	522	522	522
12:45 PM	545	545	545
Total	2077	2077	2077
01:00 PM	493	493	493
01:15 PM	494	494	494
01:30 PM	447	447	447
01:45 PM	505	505	505
Total	1939	1939	1939
02:00 PM	523	523	523
02:15 PM	530	530	530
02:30 PM	504	504	504
02:45 PM	557	557	557
Total	2114	2114	2114
03:00 PM	651	651	651
03:15 PM	678	678	678
03:30 PM	717	717	717
03:45 PM	671	671	671
Total	2717	2717	2717
04:00 PM	695	695	695
04:15 PM	662	662	662
04:30 PM	742	742	742
04:45 PM	704	704	704
Total	2803	2803	2803
05:00 PM	763	763	763
05:15 PM	726	726	726
05:30 PM	685	685	685
05:45 PM	675	675	675
Total	2849	2849	2849
06:00 PM	623	623	623
06:15 PM	573	573	573
06:30 PM	471	471	471
06:45 PM	445	445	445
Total	2112	2112	2112

Ramsey County Public Works

1425 Paul Kirkwold Drive
Arden Hills, MN 55112

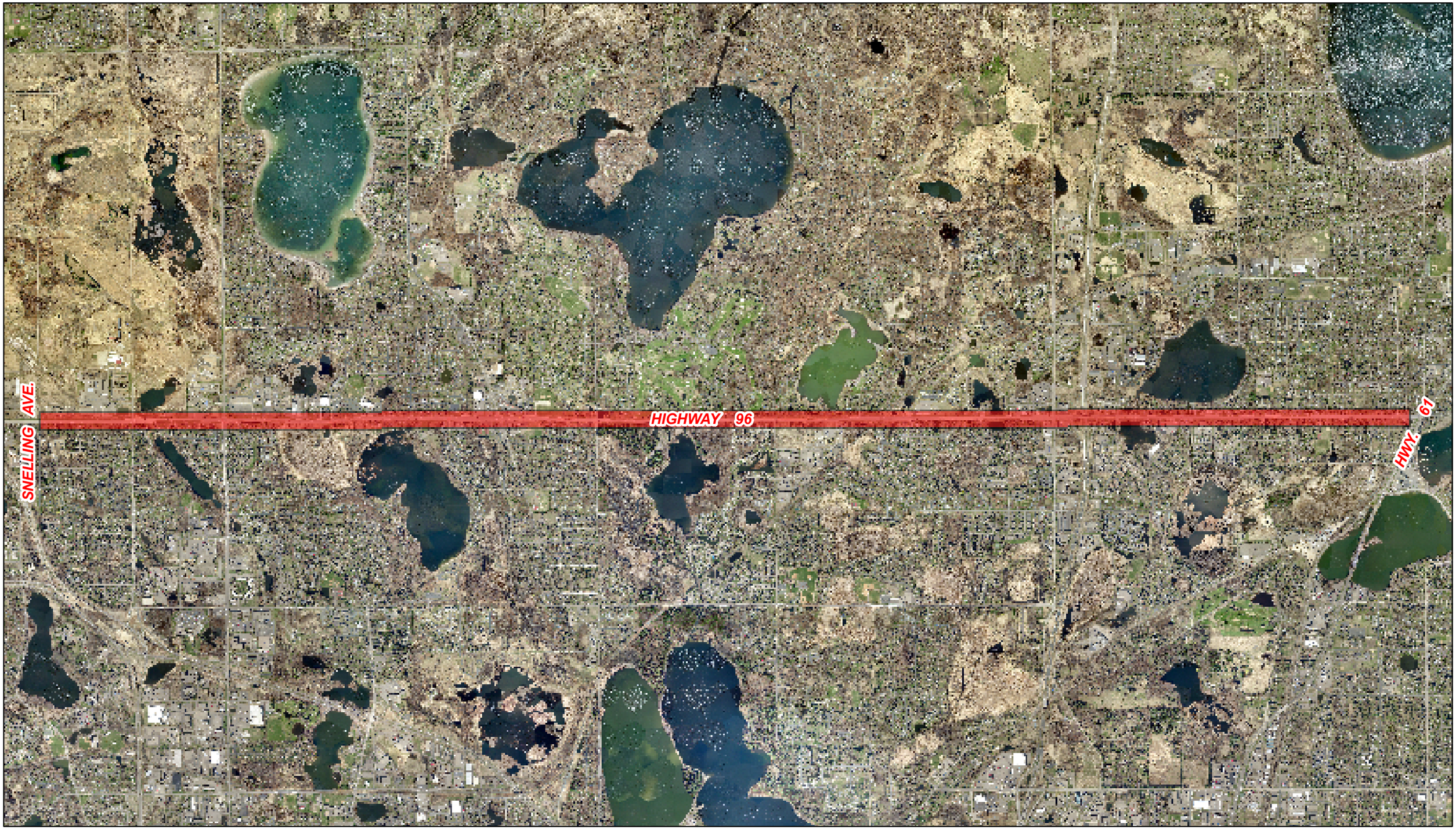
Highway 96 at White Bear Ave
CLASS COUNT

File Name : CLASS_White Bear Pkwy_94
Site Code :
Start Date : 11/18/2014

Groups Printed- Cars + - Trucks

	Highway 96 From South		
Start Time	Thru	App. Total	Int. Total
07:00 PM	390	390	390
07:15 PM	356	356	356
07:30 PM	330	330	330
07:45 PM	281	281	281
Total	1357	1357	1357
08:00 PM	282	282	282
08:15 PM	268	268	268
08:30 PM	289	289	289
08:45 PM	259	259	259
Total	1098	1098	1098
09:00 PM	254	254	254
09:15 PM	241	241	241
09:30 PM	195	195	195
09:45 PM	151	151	151
Total	841	841	841
10:00 PM	135	135	135
10:15 PM	135	135	135
10:30 PM	121	121	121
10:45 PM	122	122	122
Total	513	513	513
11:00 PM	82	82	82
11:15 PM	66	66	66
11:30 PM	72	72	72
11:45 PM	52	52	52
Total	272	272	272
Grand Total	33353	33353	33353
Apprch %	100		
Total %	100	100	
Cars +	32204	32204	32204
% Cars +	96.6	96.6	96.6
Trucks	1149	1149	1149
% Trucks	3.4	3.4	3.4

Highway 96 Roadway System Management
Snelling Avenue To 1st Avenue



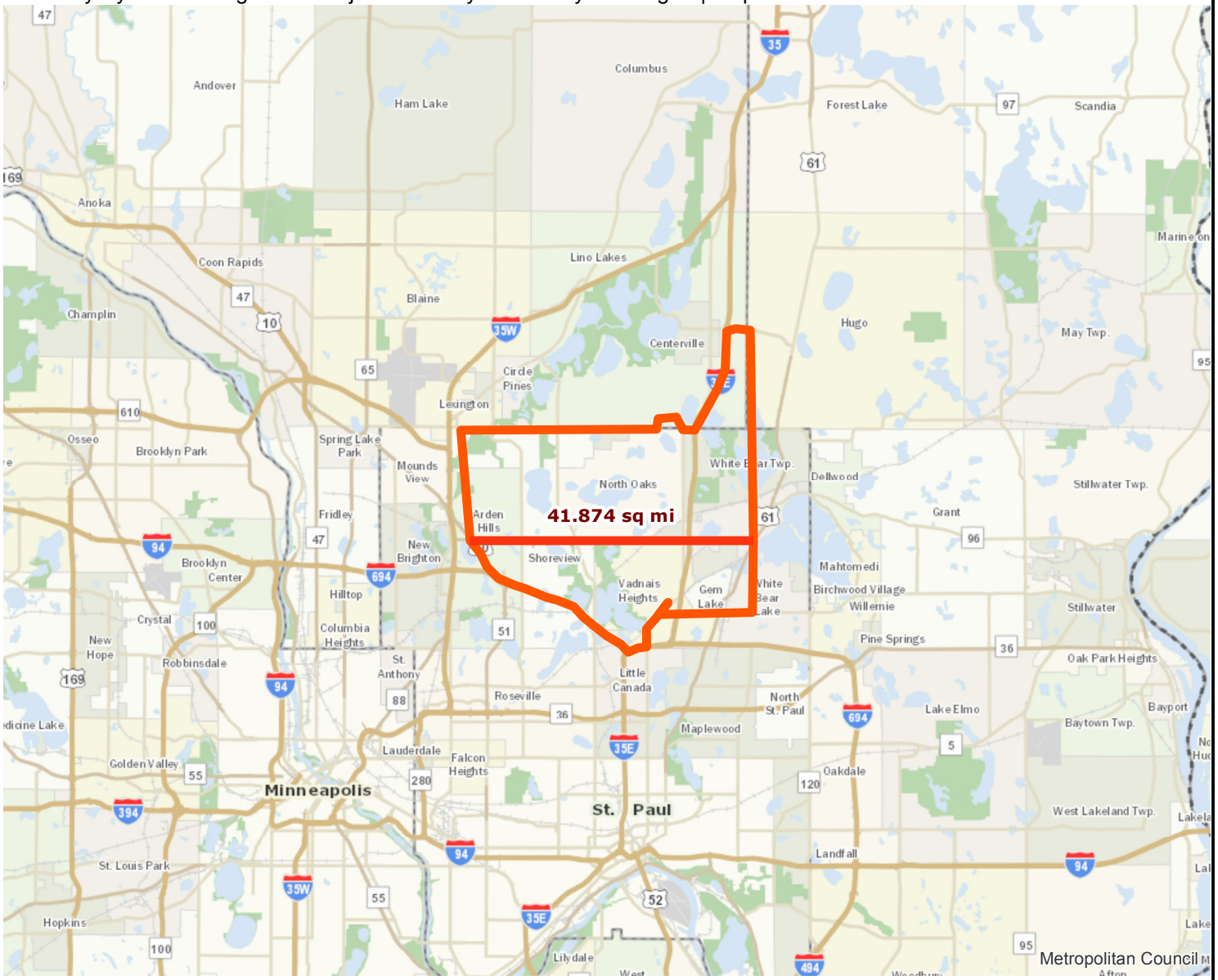
Roadway Area Definition

Roadway System Management Project: RamseyCsah96 System Mgmt | Map ID: 1419963256568

Results

Project Length: 7.846 miles

Project Area: 41.874 sq mi



Project

Project Area

0 2.75 5.5 11 16.5 22 Miles

Created: 12/30/2014
LandscapeRSA1

METROPOLITAN COUNCIL

Regional Economy

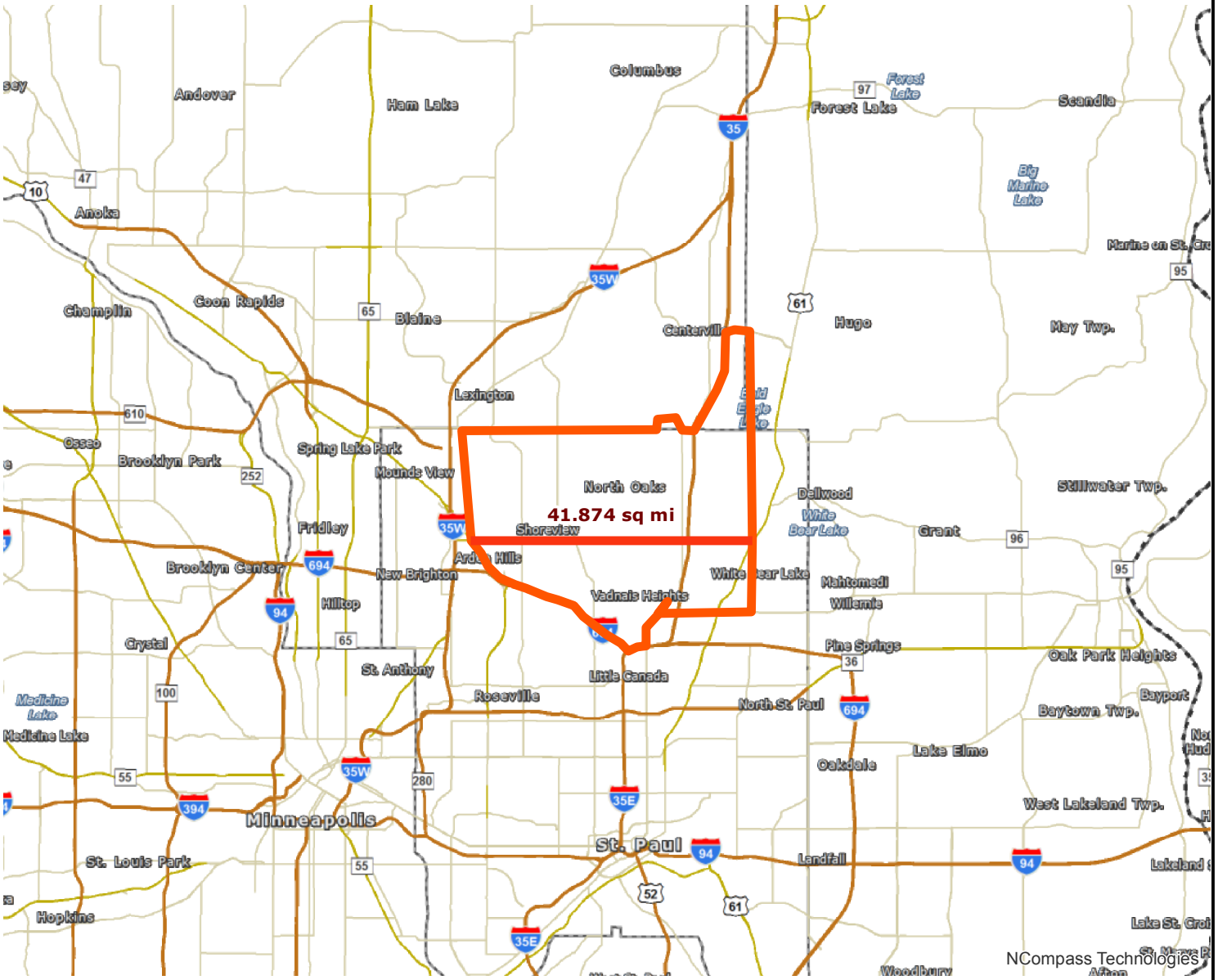
Roadway System Management Project: RamseyCsah96 System Mgmt | Map ID: 1419963256568

Results

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

Project **WITHIN ONE MI** of area of Manufacturing and Distribution.

Project **WITHIN ONE MI** of 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

City Council:
Sandy Martin, Mayor
Emy Johnson
Terry Quigley
Ady Wickstrom
Ben Withhart

Shoreview

City of Shoreview
4600 Victoria Street North
Shoreview, MN 55126
651-490-4600 phone
651-490-4699 fax
www.shoreviewmn.gov

November 26, 2014

Mr. Joseph Lux, Senior Planner
Ramsey County Public Works
1425 Paul Kirkwold Drive
Arden Hills, MN 55112-3933

RE: STP System Management Funds Highway 96

Dear Mr. Lux:

The City of Shoreview supports Ramsey County's federal STP System Management funding proposal for Highway 96. The City recognizes that the proposed improvements would be beneficial to both motorized and non-motorized modes of transportation in and around the Highway 96 Corridor.

Sincerely,

CITY OF SHOREVIEW

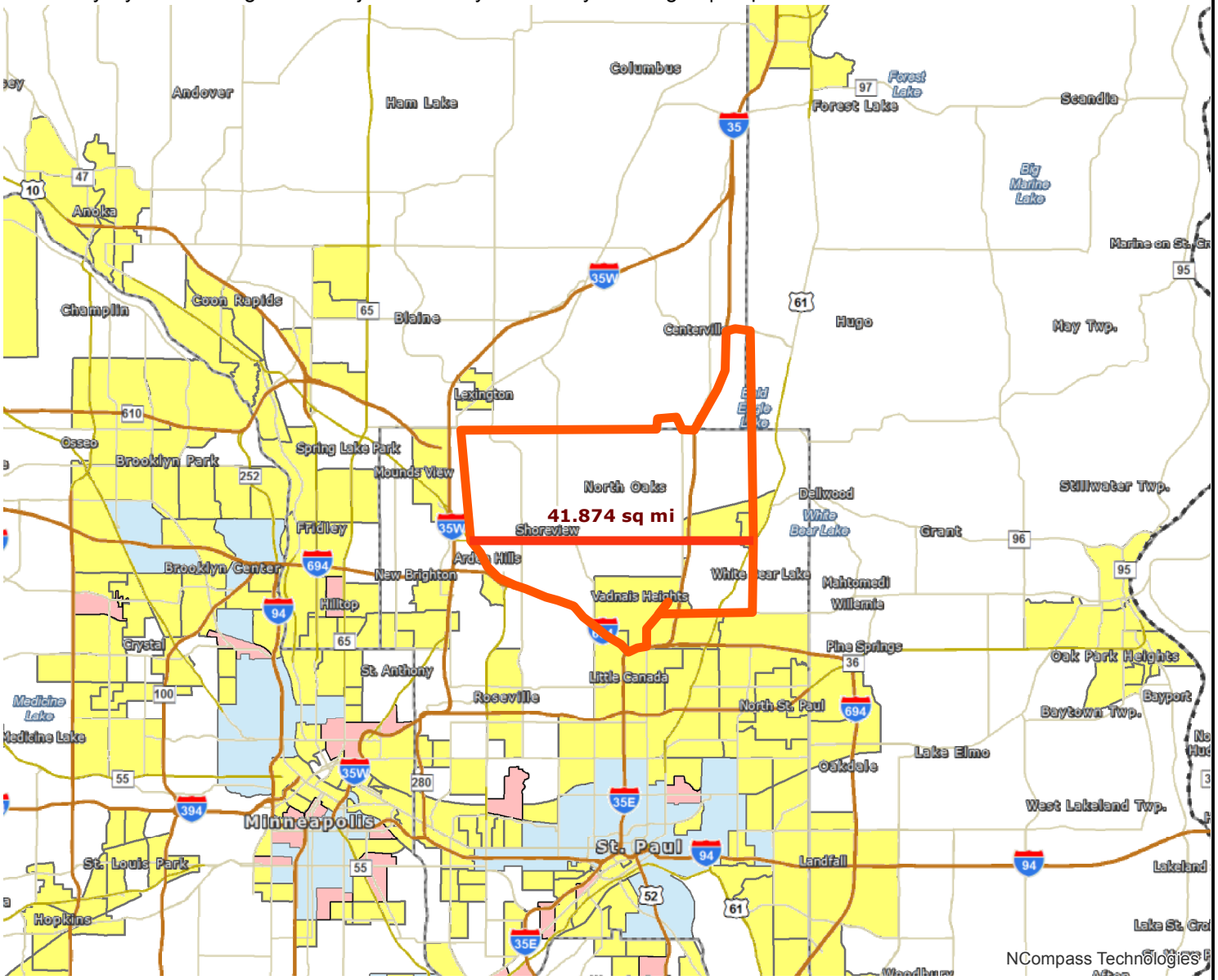
Tom Wesolowski, P.E.
City Engineer

Socio-Economic Conditions

Roadway System Management Project: RamseyCsah96 System Mgmt | Map ID: 1419963256568

Results

Project **IN** area of above average concentration of race or 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

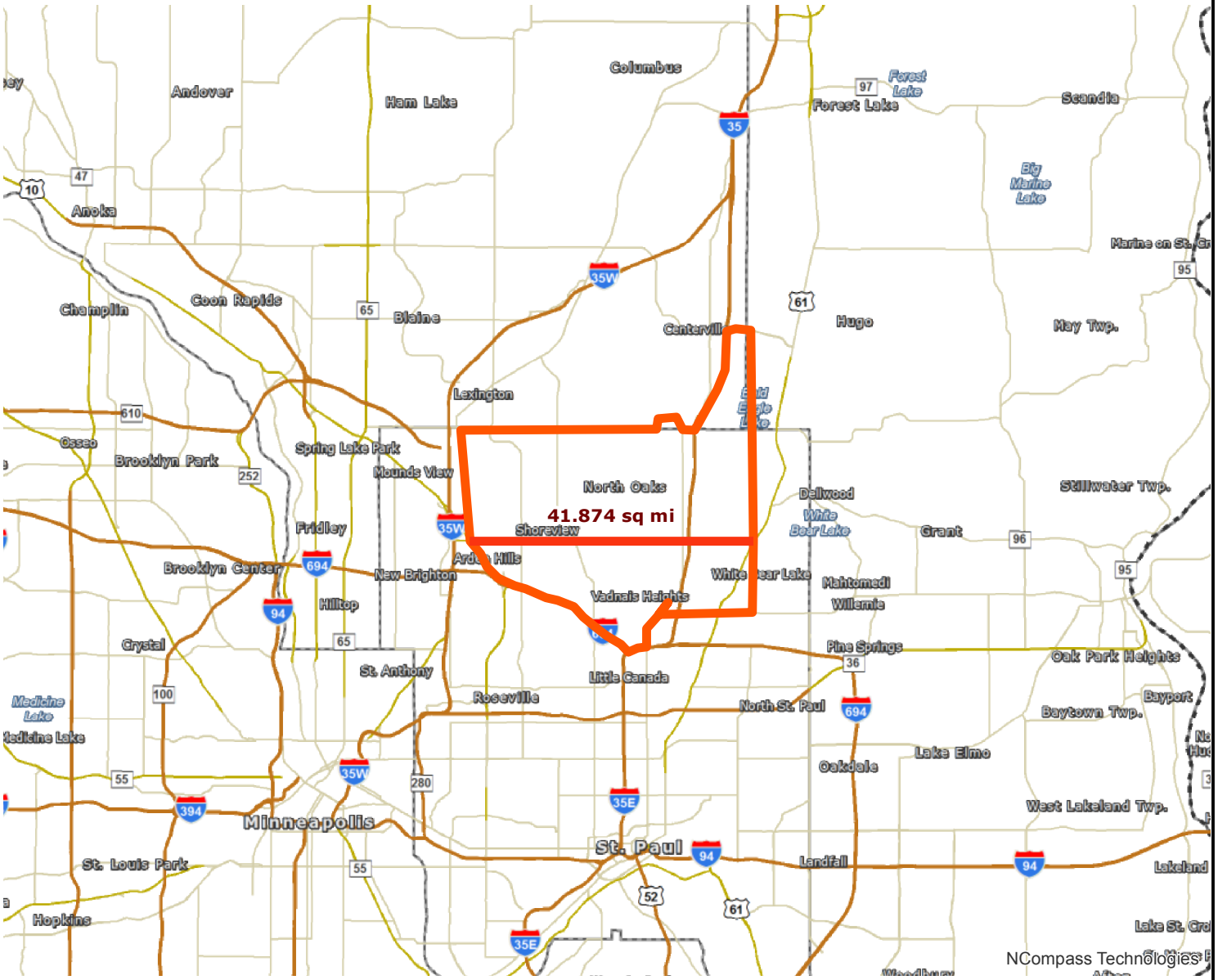
LandscapeRSA2

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

METROPOLITAN COUNCIL

Transit Connections

Roadway System Management Project: RamseyCsah96 System Mgmt | Map ID: 1419963256568



Results

Transit with a Direct Connection to project:
62 261 262 265 275 860

**indicates Planned Alignments*

Project

Project Area

0 2.75 5.5 11 16.5 22 Miles

Created: 12/30/2014
LandscapeRSA3

METROPOLITAN COUNCIL

November 25, 2014

Mr. Joe Lux
Ramsey County Public Works Department
1425 Kirkwold Drive
Arden Hills, MN 55112

Re: Support of STP System Management Grant Application for Highway 96

To Whom It May Concern:

The City of Vadnais Heights works closely with Ramsey County on a variety of transportation projects and strongly supports their efforts in securing STP System Management funds for Highway 96.

Highway 96 creates the north border of Vadnais Heights and is a critical roadway that serves our 12,500 residents. Highway 96 provides access to a multitude of businesses for their employees and patrons, as well as connection to both Interstate 35E and Interstate 35W. Highway 96 also connects to TH 61, TH 10 and Highway 49. It is the most important County roadway serving Vadnais Heights.

While the County does an excellent job of maintenance on Highway 96, there are several deficiencies that need to be addressed. The traffic signals located at our three intersections, as well as thru the entire corridor between I35 E and W, are not properly interconnected to allow a free flow of traffic. County staff spends an inordinate amount of repair time on the dilapidated traffic signal control cabinets and controllers. The City has had great success with the permissive flashing yellow left turn indicators at other intersections and would like to see these installed along Highway 96. Both the City and the County frequently receive calls seeking improved traffic flow and turning movements along Highway 96. The existing pedestrian trail along the south side of Highway 96 is heavily used and is in need of improved audible signals, curb ramps and countdown timers.

The safe and efficient operation of Highway 96 is crucial to the region, particularly Vadnais Heights and the six other communities bordering it. We urge you to include Ramsey County's submittal in the STP System Management Grant Program. Please contact me if you have any questions or require further information.

Sincerely,

Kevin Watson, City Administrator
Vadnais Heights, Minnesota
CC: City Council

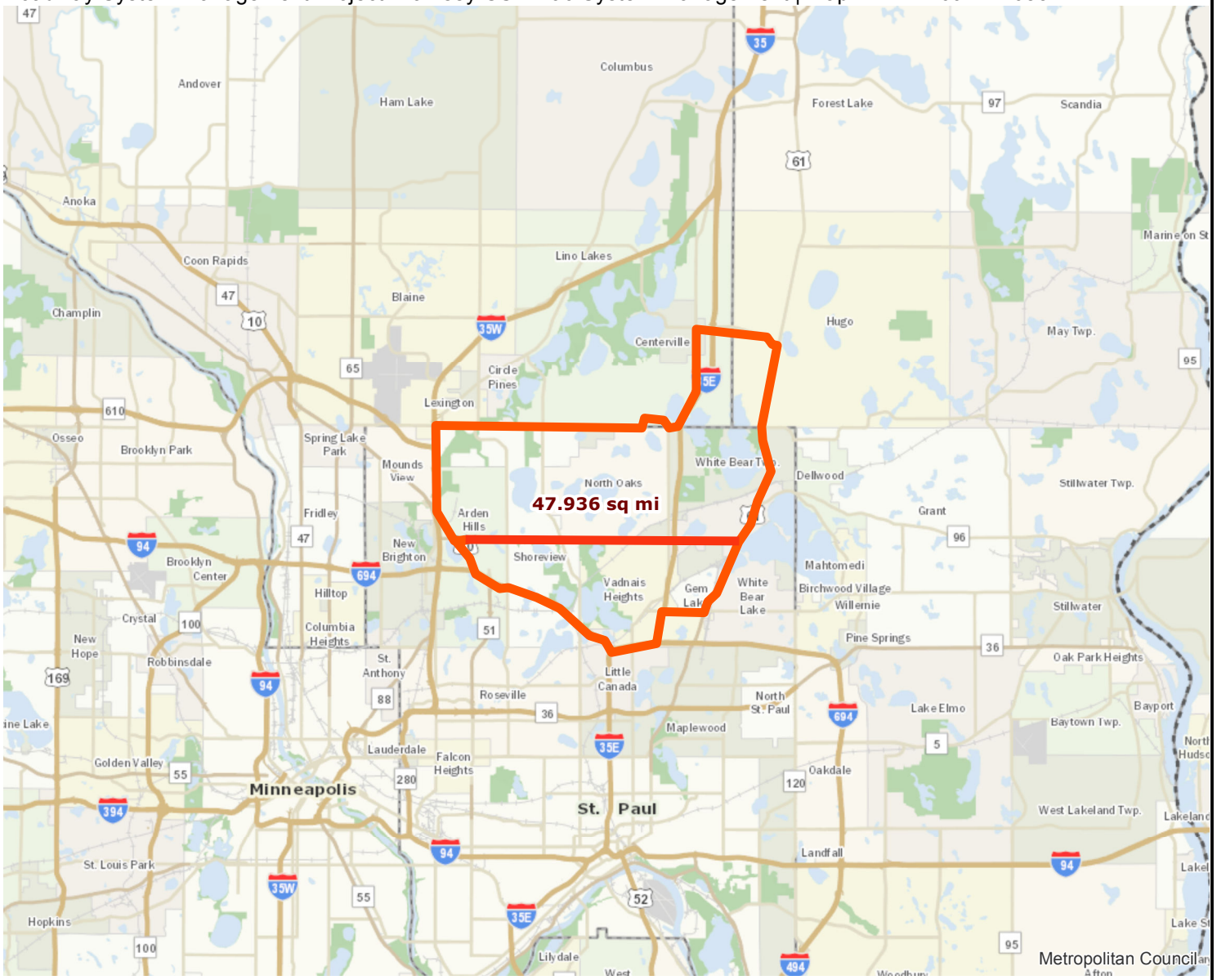
Roadway Area Definition

Roadway System Management Project: Ramsey CSAH 96 System Management | Map ID: 1414697724083

Results

Project Length: 7.556 miles

Project Area: 47.936 sq mi



Project

Project Area

0 2.75 5.5 11 16.5 22 Miles

Created: 10/30/2014
LandscapeRSA1

METROPOLITAN COUNCIL

Regional Economy

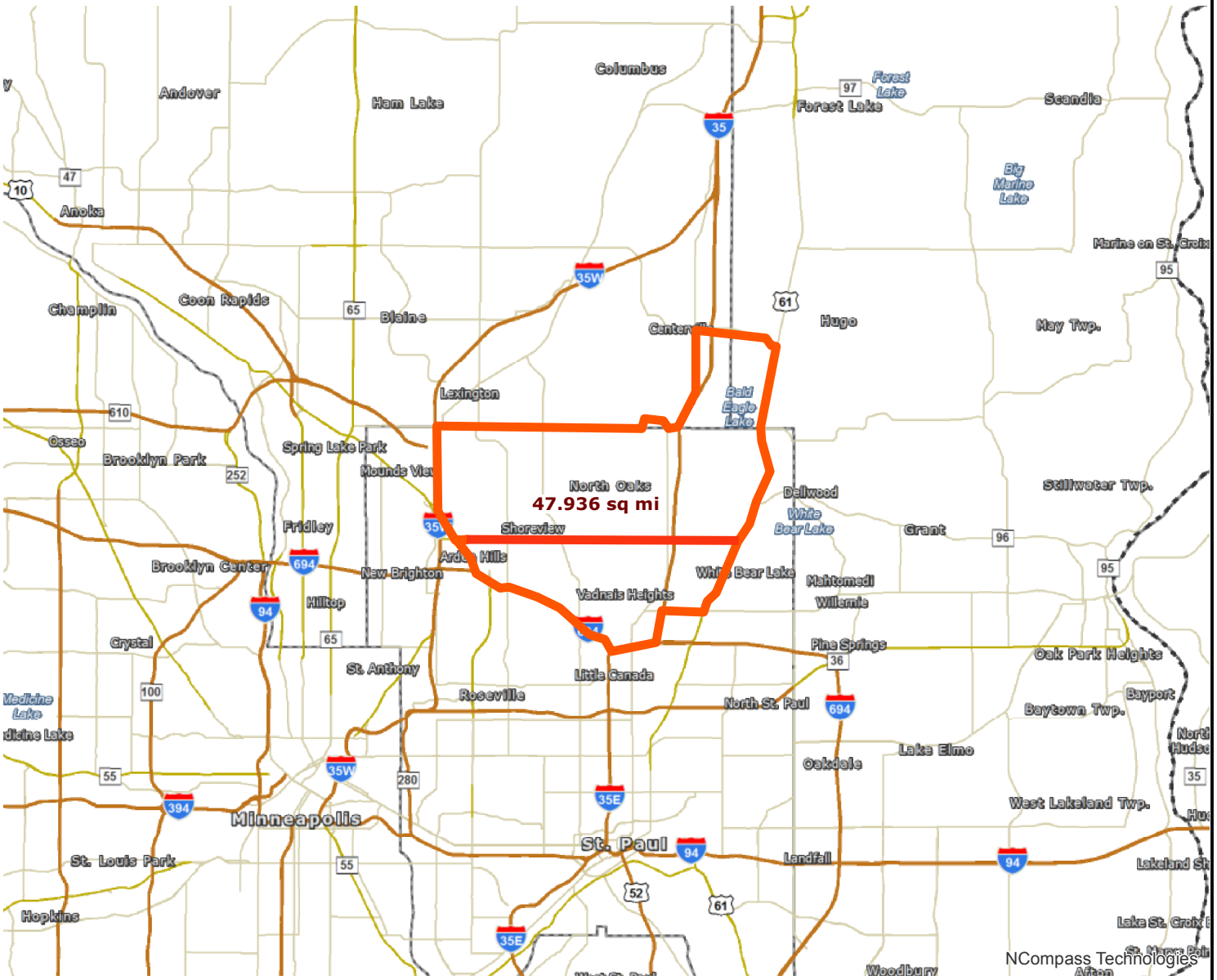
Roadway System Management Project: Ramsey CSAH 96 System Management | Map ID: 1414697724083

Results

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

Project **WITHIN ONE MI** of area of Manufacturing and Distribution.

Project **WITHIN ONE MI** of area of Education Institutions.



Project

Project Area

0 2.75 5.5 11 16.5 22 Miles

Created: 10/30/2014
LandscapeRSA5

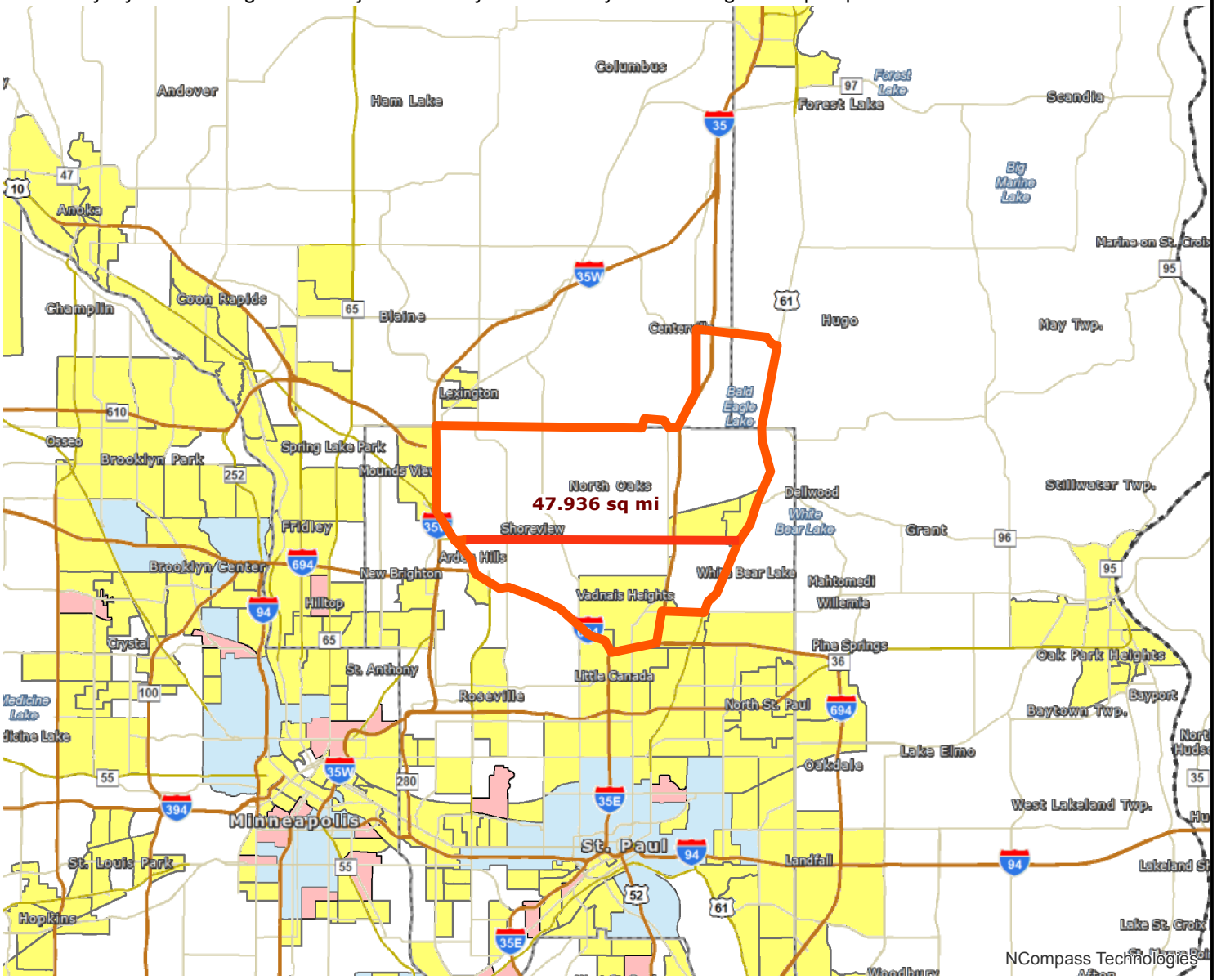
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway System Management Project: Ramsey CSAH 96 System Management | Map ID: 1414697724083

Results

Project **IN** area of above average concentration of race or 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: 10/30/2014
LandscapeRSA2

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

METROPOLITAN COUNCIL

3:

Direction	All
Volume (vph)	5570
Total Delay / Veh (s/v)	91
CO Emissions (kg)	13.27
NOx Emissions (kg)	2.58
VOC Emissions (kg)	3.08

3:

Direction	All
Volume (vph)	5570
Total Delay / Veh (s/v)	58
CO Emissions (kg)	10.75
NOx Emissions (kg)	2.09
VOC Emissions (kg)	2.49

3:

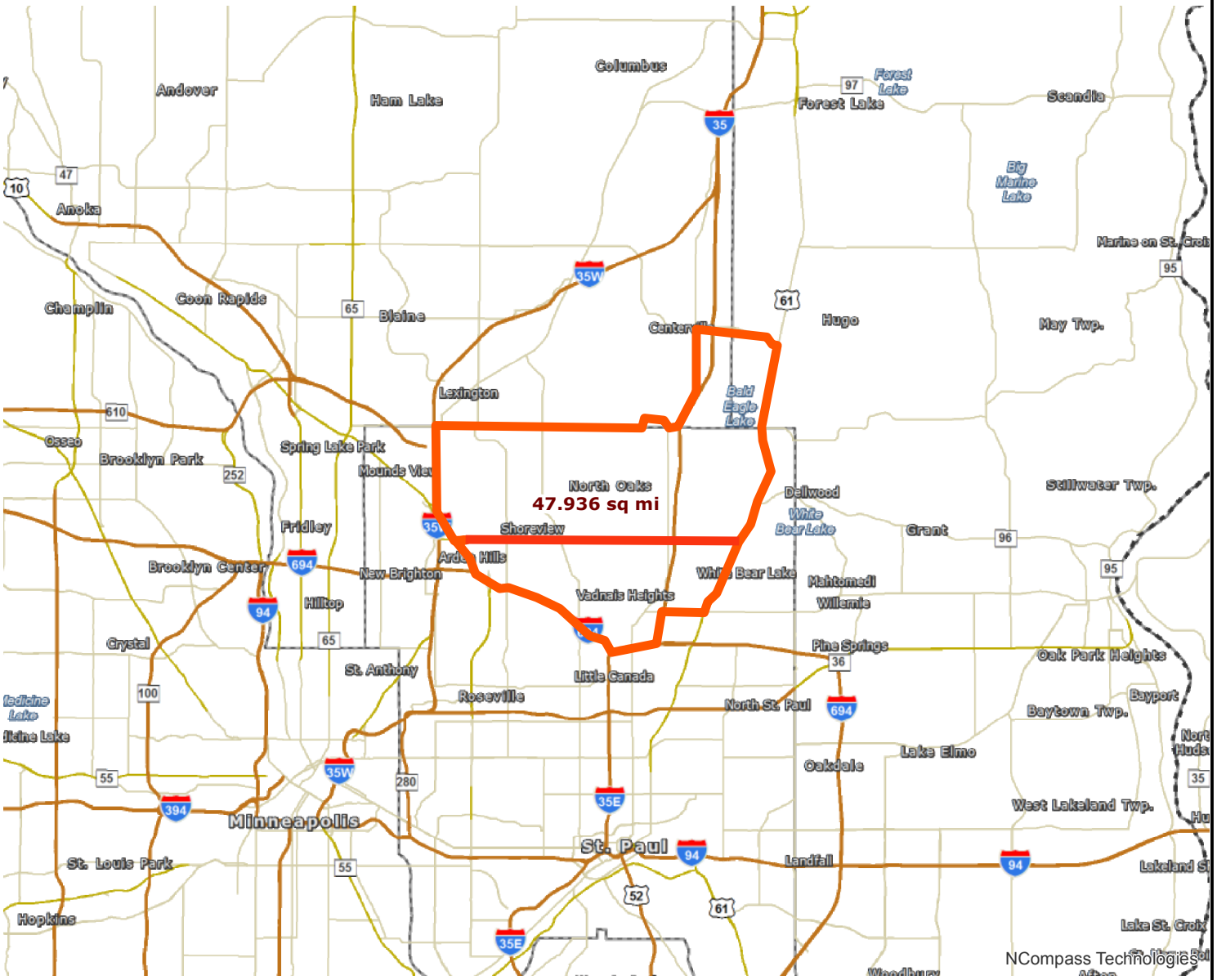
Direction	All
Volume (vph)	5570
Total Delay / Veh (s/v)	91
CO Emissions (kg)	13.27
NOx Emissions (kg)	2.58
VOC Emissions (kg)	3.08

3:

Direction	All
Volume (vph)	5570
Total Delay / Veh (s/v)	58
CO Emissions (kg)	10.75
NOx Emissions (kg)	2.09
VOC Emissions (kg)	2.49

Transit Connections

Roadway System Management Project: Ramsey CSAH 96 System Management | Map ID: 1414697724083



Results

Transit with a Direct Connection to project:
62 261 262 265 275 285

**indicates Planned Alignments*

Project

Project Area

0 2.75 5.5 11 16.5 22 Miles

Created: 10/30/2014
LandscapeRSA3

METROPOLITAN COUNCIL