Application

01968 - 2014 Roadway Reconstruction/Modernization

02290 - CSAH 21/Stagecoach Trail

Regional Solicitation - Roadways Including Multimodal Elements

Status:	Submitted
Submitted Date:	12/01/2014 1:40 PM

Primary Contact

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

Organization Information

Name:	WASHINGTON CTY
Jurisdictional Agency (if different):	
Organization Type:	
Organization Website:	
Address:	PUBLIC WORKS 11660 MYERON RD
*	STILLWATER (City) Minnesota (State/Province) 55082 (Postal Code/Zip)
County:	Washington
Phone:*	651-430-4325 Ext.
Fax:	
PeopleSoft Vendor Number	0000028637A10

Project Information

Project Name	CSAH 21/Stagecoach Trail
Primary County where the Project is Located	Washington
Jurisdictional Agency (If Different than the Applicant):	

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

This project will reconstruct CSAH 21/Stagecoach Trail from 22nd Street to just south of CSAH 14 in West Lakeland and Baytown Townships. Washington County is the project sponsor.

The existing facility is classified as an A-Minor Connector and is a two-lane rural highway with intermittent left turn lanes, right turn lanes, and bypass lanes scattered throughout the 2.48 mile segment. In addition, existing shoulder widths are highly variable and range between non-existent to approximately 8 feet wide. The roadway has evolved through a patchwork of improvements resulting from adjacent property developments, including industrial, residential, and institutional (school) uses. As a result, the facility lacks design consistency and impedes the predictable movement of traffic. Considering the mix of land uses, heavy truck volumes exceeding 18% of total traffic are also an issue. These factors contribute to safety concerns along the corridor. Indeed, the corridors crash rate exceeds the critical crash rate for similar roadways. MnDOT notes that locations with a crash rate above the critical rate are considered to be unsafe. In addition, the pavement is uneven, rutted, cracked, and shifting. Continuing past practices of occasional pavement overlays is inadequate and unsustainable. Originally constructed in 1922, the roadway is overdue for a complete reconstruction.

This project aims to modernize the roadway and transform it into a safe and consistently designed corridor. This will be accomplished by reconstructing the roadway as a three-lane facility with a center left turn lane. A concrete median will be constructed along the northern portions of the segment to facilitate appropriate access restrictions. Right turn lanes will also be provided at

intersections. Two northbound acceleration lanes will be installed to help facilitate the safe movement of heavy trucks exiting gravel pits adjacent to the roadway. In addition, the facility will run 10-foot wide shoulders for the length of the corridor to increase the safety of non-motorized users. A proposed typical section consists of 10-foot shoulders, 12-foot travel lanes, and a 13-foot center left-turn lane.

These improvements will modernize the roadway, increase its safety, and position it to accommodate future traffic needs.

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

Project Length (Miles) 2.48

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

- Washington County 2030 Comprehensive Plan (2010): 4-23 thru 25, 4-46 and 47, 4-75, 4-78 and 79

- Comprehensive Plan for City of Bayport, Minnesota (2012): Pages 18-30

- Washington County Capital Improvement Plan, 2015-2019 (Draft): Page 82 (see attached)

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 $4,800,000.00

Match Amount $1,200,000.00

Minimum of 20% of project total

Project Total $6,000,000.00

Match Percentage 20.0%

Minimum of 20%
Compute the match percentage by dividing the match amount by the project total

Source of Match Funds Local resources

Preferred Program Year

Select one: 2019

MnDOT State Aid Project Information: Roadway Projects

County, City, or Lead Agency Washington County

Functional Class of Road A-Minor Connector

Road System CSAH

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

Name of Road CSAH 21/Stagecoach Trail

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed 55003

(Approximate) Begin Construction Date 04/01/2019

(Approximate) End Construction Date 11/01/2019

LOCATION

From:
(Intersection or Address) 22nd Street

Do not include legal description;
Include name of roadway if majority of facility runs adjacent to a single corridor.

To:
(Intersection or Address) Just south of CSAH 14

Type of Work Roadway reconstruction including grading, aggregate base, pavement, concrete median, paved shoulders, etc.

Examples: grading, aggregate base, bituminous base, bituminous surface, sidewalk, signals, lighting, guardrail, bicycle path, ped ramps, bridge, Park & Ride, etc.)

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)	$300,000.00
Removals (approx. 5% of total cost)	$300,000.00
Roadway (grading, borrow, etc.)	$1,800,000.00
Roadway (aggregates and paving)	$1,500,000.00
Subgrade Correction (muck)	$240,000.00
Storm Sewer	$180,000.00
Ponds	$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	$360,000.00
Traffic Control	$300,000.00
Striping	$0.00
Signing	$0.00
Lighting	$0.00
Turf - Erosion & Landscaping	$120,000.00
Bridge	$0.00
Retaining Walls	$0.00
Noise Wall	$0.00
Traffic Signals	$0.00
Wetland Mitigation	$0.00
Other Natural and Cultural Resource Protection	$0.00
RR Crossing	$300,000.00
Roadway Contingencies	$600,000.00
Other Roadway Elements	$0.00
Totals	**$6,000,000.00**

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	$6,000,000.00
Construction Cost Total	$6,000,000.00
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. Yes

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. Yes

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
1_Concept_Layout_CSAH_21_Stagecoach_Trail.pdf	Project Concept/Layout	396 KB
2_CSAH_21_Stagecoach_Trail_Project_Area_Map.pdf	Project Location Map	1.3 MB
3_CIP_CSAH_21_Stagecoach_Trail.pdf	Washington County Draft 2015-2019 Capital Improvement Plan (CIP) excerpt	250 KB
4_Bayportsupportletter11-19-2014.pdf	City of Bayport letter of support	278 KB
5_Baytownsupportletter11-15-2014.pdf	Baytown Township letter of support	253 KB
6_WestLakelendsupportletter 11-19-2014.pdf	West Lakeland Township letter of support	27 KB
RdwayAreaDef.pdf	Roadway Area Definition	572 KB
RegionalEcon.pdf	Regional Economy	964 KB
SocioEcon.pdf	Socio Economic	969 KB
TransitCon.pdf	Transit Connections	990 KB

Reliever: Freeway Facility or

Facility being relieved

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

Reliever: Non-Freeway Facility or

Facility being relieved

Number of hours per day volume exceeds capacity (based on the table below)	0

Non-Freeway Facility Volume/Capacity Table

Hour	NB/EB Volume	SB/WB Volume	Capacity	Volume exceeds capacity
12:00am - 1:00am				
1:00am - 2:00am				
2:00am - 3:00am				
3:00am - 4:00am				
4:00am - 5:00am				
5:00am - 6:00am				

6:00am - 7:00am

7:00am - 8:00am

8:00am - 9:00am

9:00am - 10:00am

10:00am - 11:00am

11:00am - 12:00pm

12:00pm - 1:00pm

1:00pm - 2:00pm

2:00pm - 3:00pm

3:00pm - 4:00pm

4:00pm - 5:00pm

5:00pm - 6:00pm

6:00pm - 7:00pm

7:00pm - 8:00pm

8:00pm - 9:00pm

9:00pm - 10:00pm

10:00pm - 11:00pm

11:00pm - 12:00am

Expander/Connector/Augmentor/Non-Freeway Principal Arterial

Select one:	Connector
Area	8.84
Project Length	2.627
Average Distance	3.3651
Upload Map	Map_Roadway_Area_Definition_CSAH_21_Stagecoach_Trail.pdf

Measure B: Current Heavy Commercial Traffic

Location	CSAH 21 between CSAH 14 and Inspiration Parkway South
Current daily heavy commercial traffic volume	856.0

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	
Direct connection to or within a mile of a Manufacturing/Distribution Location	Yes
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	Yes
County or City Plan Reference (Limit 700 characters; approximately 100 words)	The Metropolitan Council map generator and ThriveMSP 2040 do not identify the presence of an educational institution in the project area, however, CSAH 21 provides a direct connection and only access point to St. Croix Preparatory Academy at the intersection of CSAH 21 and Inspiration Parkway South, which is located near the project corridors northern terminus. St. Croix Preparatory Academy is a K-12 charter school that has experienced substantial growth since opening in 2004 and will serve over 1,100 students during the 2014-2015 school year. Maintaining safe traffic movements around the school area is of critical importance.
Upload Map	Map_Regional_Economy_CSAH_21_Stagecoach_Trail.pdf

Measure A: Current Daily Person Throughput

Location	CSAH 21 between CSAH 14 and Inspiration Parkway S
Current AADT Volume	6124.0
Existing Transit Routes on the Project	

Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	7961.0

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	9600.0

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	Yes
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)

The project does not impose adverse human health or environmental effects on protected or limited mobility populations. Per the map generator, the project area is located within census tracts identified as having above regional average concentrations of race/poverty. The project will increase north-south mobility within the region and provide safer travel on a major alternative route between I-94 and the Bayport and Stillwater communities surrounding TH 36.

Community benefits include improved user safety, enhanced non-motorized usability, heavy truck accommodations, and a cohesive roadway design that facilitates current and future land use patterns. The existing roadway conditions developed through a patchwork approach of infrastructure improvements resulting from individual development needs instead of comprehensive and intentional design considerations.

Upload Map	Map_Socio-Economic_Conditions_CSAH_21_Stagecoach_Trail.pdf

Measure B: Affordable Housing

City/Township	Segment Length (Miles)

Baytown Township	1.5
West Lakeland Township	0.98
	2

Total Project Length

Total Project Length	2.48

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
Item Deleted	0	2.48	0	0	0
		2	**0**	**0**	**0**

Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	2.48
Total Housing Score	0

Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Roadway Segment Length (Miles)	Calculation	Calculation 2
1922.0	2.48	4766.56	1922.0
	2	**4767**	**1922**

Average Construction Year

Weighted Year	1922.0

Total Segment Length (Miles)

Total Segment Length	2.48

Measure B: Geometric, Structural, or Infrastructure Improvements

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

Existing roadway conditions have developed through a patchwork approach of infrastructure improvements resulting from individual development needs instead of comprehensive and intentional design considerations. In general, the project will transform the corridor into a three-lane facility utilizing a two-way left-turn lane. Existing design deficiencies that will be improved include inadequate and inconsistent shoulder width (will be increased to 10 feet wide throughout corridor), access management issues (median and 3/4 access intersections will be implemented where appropriate), and poor pavement quality (improved through reconstruction). Washington Countys draft 2015-2019 Capital Improvement Plan identifies the roadway surface as uneven, rutted, cracked, and shifting.

In addition, inconsistent turning lane facilities currently exist on the roadway. The addition of the center left-turn lane, a raised center median at the north end of the corridor, and right-turn lanes at each intersection will further improve safety. Two northbound acceleration lanes will be added to accommodate heavy trucks exiting gravel quarries. Acceleration lanes will increase safety for all users by decreasing dangerous speed differential within the traffic mix. Opportunities for access management improvements (i.e., consolidation and/or closure) will be considered throughout the design process.

Measure A: Cost Effectiveness of Vehicle Delay Reduction

Total Project Cost from Cost Sheet	$6,000,000.00
Total Peak Hour Vehicle Delay Without The Project	4578.0

Total Peak Hour Vehicle Delay With The Project	3810.0
Total Peak Hour Vehicle Delay Reduced by Project	768.0
Cost Effectiveness	$7,812.50
Synchro or HCM Reports	Synchro_Reports_CSAH_21_Stagecoach_Trail.pdf

Measure B: Cost Effectiveness of Emissions Reduction

Total Project Cost from Cost Sheet	$6,000,000.00
Total Peak Hour Kilograms Reduced by Project	-0.15
Cost Effectiveness	($40,000,000.00)
Synchro or HCM Reports	Synchro_Reports_CSAH_21_Stagecoach_Trail.pdf

Measure A: Benefit/Cost of Crash Reduction

Project Benefit/Cost Ratio	0.08
Worksheet Attachment	HSIP_BC_Worksheet_CSAH_21_Stagecoach_Trail.pdf

Measure A: Transit Connections

Existing Routes Directly Connected to the Project	N/A
Planned Transitways directly connected to the project (alignment and mode determined and identified in the 2030 TPP)	N/A
Upload Map	Map_Transit_Connections_CSAH_21_Stagecoach_Trail.pdf

Response

Met Council Staff Data Entry Only

Route Ridership	0
Transitway Ridership	0

Measure B: Bicycle and Pedestrian Connections

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

The current facility maintains inadequate shoulder widths (between 0 and 8 feet) for safe non-motorized use. The project will implement 10-foot wide shoulders throughout the length of the corridor to create a usable space for non-motorized users.

CSAH 21 provides a direct connection to St. Croix Preparatory Academy, a K-12 charter school that serves over 1,100 students. The school is located immediately west of the large Inspiration residential developments. Both the school property and Inspiration development have existing sidewalks that connect to CSAH 21. These educational and residential land uses generate pedestrian and bicycle traffic requiring safe and usable facilities for non-motorized users that currently do not exist along CSAH 21.

The project corridor is located within the heart of the Washington County 2030 Comprehensive Plans Middle St. Croix Valley Trail Search Area. As such, the project corridor is situated in a location that should anticipate future connections to bicycle and pedestrian facilities. The projects extended shoulder width will provide bicyclists a safer experience in an area of Washington County currently underserved with facilities for non-motorized users.

The implementation of 10-foot wide shoulders throughout the length of the corridor will help safely accommodate non-motorized traffic.

Measure C: Multimodal Facilities

The current facility maintains inadequate shoulder widths (between 0 and 8 feet) for safe non-motorized use. The project will implement 10-foot wide shoulders throughout the length of the corridor to create a usable space for non-motorized users. There is no transit service in the project area.

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

The existing roadway does not connect to any trails within the Washington County trail system. The lack of bicycle and pedestrian facilities in the area only enhances the need for consistently wide shoulder widths on the corridor. Non-motorized users, and bicyclists in particular, have few other options for safe and convenient north-south travel within the immediate vicinity of CSAH 21.

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

Yes

50%

Layout or Preliminary Plan has not been started

0%

Anticipated date or date of completion 06/01/2016

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 06/01/2016

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: 04/01/2016

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 04/01/2018

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%

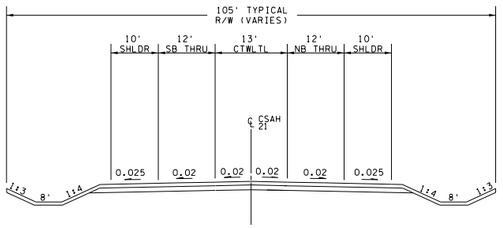
Anticipated date or date of completion 11/01/2018

9)Letting

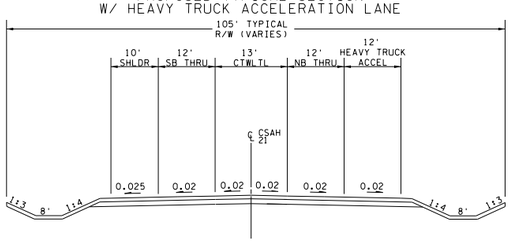
Anticipated Letting Date 03/01/2019

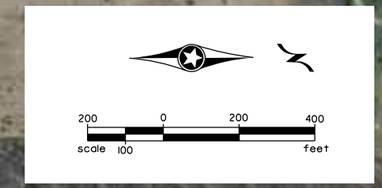
9:45:32 AM
11/12/2014
narnold
S:\UZ\W\Washc\130219\5-final-dsgn\51-const-dwgs-CAD\40-TransHwy\130219-concept.dgn

PROPOSED
TYPICAL SECTION



PROPOSED TYPICAL SECTION
W/ HEAVY TRUCK ACCELERATION LANE





PALOMINO TRAIL N

22ND ST N

CSAH 21 / STAGECOACH TRAIL

PERIWINKLE AVE

30TH ST N

HEAVY TRUCK ACCELERATION LANE

BRYAN ROCK PRODUCTS (GRAVEL PIT)

SEH
PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

130219

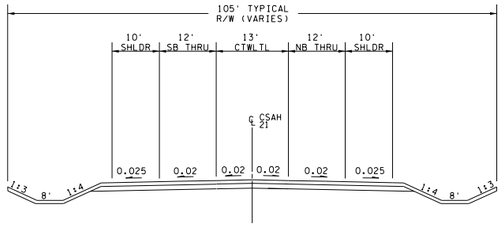
DATE:
11/06/2014

CSAH 21/STAGECOACH TRAIL LAYOUT CONCEPT

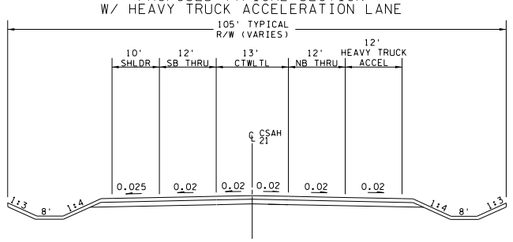
SHEET
1/3

9:45:00 AM
11/12/2014
narnold

PROPOSED TYPICAL SECTION



PROPOSED TYPICAL SECTION W/ HEAVY TRUCK ACCELERATION LANE



30TH ST N

34TH ST N

CATAPILLER RD

40TH ST N

CSAH 21 / STAGECOACH TRAIL

HEAVY TRUCK ACCELERATION LANE

HEAVY TRUCK ACCELERATION LANE

BRYAN ROCK PRODUCTS (GRAVEL PIT)

MILLER EXCAVATING (GRAVEL PIT)

200 0 200 400
scale 100 feet

SEH
PHONE: (651)490-2000
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110

130219

DATE: 11/06/2014

CSAH 21/STAGECOACH TRAIL LAYOUT CONCEPT

SHEET 2/3

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9:47:45 AM

11/13/2014

nornold

ST. CROIX PREPARATORY ACADEMY

CSAH 14 / 47 ST N

47TH ST N

CSAH 21 / STAGECOACH TRAIL

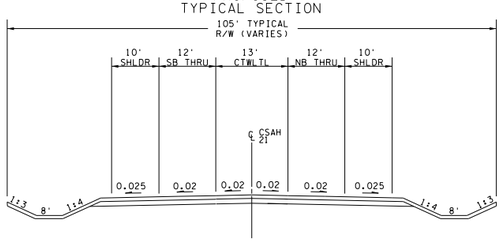
40TH ST N

INSPIRATION PKWY S

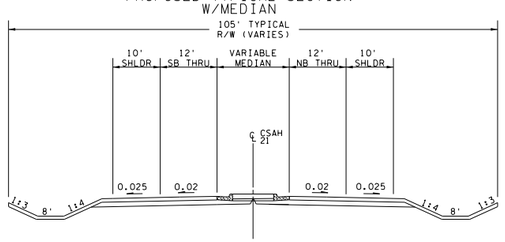
PHASE II INSPIRATION DEVELOPMENT

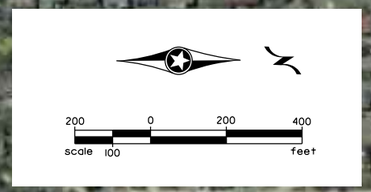
HEAVY TRUCK ACCELERATION LANE

PROPOSED TYPICAL SECTION



PROPOSED TYPICAL SECTION W/MEDIAN





S:\UZ\W\Washc\130219\5-final-dsgn\51-const-dwgs-CAD\40-TransHwy\130219_concept.dgn

SEH PHONE: (651)490-2000 3535 VADNAIS CENTER DR. ST. PAUL, MN 55110	130219 DATE: 11/06/2014	**CSAH 21/STAGECOACH TRAIL LAYOUT CONCEPT**	**SHEET 3 /3**

Washington County

SEH

Stagecoach Trail North
(CSAH 21) STP Application
Project Area Map

Project # RB-2577

Project Name CSAH 21 Pavement and Safety

Location Various Roads

Department Capital Road & Bridge Project
Contact W. Sandberg
Type Construction
Useful Life 5+ years
Category Road & Bridge
Priority

Description

County State Aid Highway (CSAH) 21 is an important North-South Minor Arterial in this region. Pavement condition, coupled with increased truck traffic from various construction projects in the region result in a roadway that is uneven, rutted, cracked and shifting.

This project intends to improve the pavement condition, add safety improvements at various intersections, and evaluate opportunities for improved pedestrian and cycling uses.

Justification

These improvements will provide a safer roadway with increased access for a variety of road users.

Expenditures	2015	2016	2017	2018	2019	Total
Planning / Design			500,000			500,000
Construction				3,000,000		3,000,000
Total			**500,000**	**3,000,000**		**3,500,000**

Funding Sources	2015	2016	2017	2018	2019	Total
State Aid			500,000	3,000,000		3,500,000
Total			**500,000**	**3,000,000**		**3,500,000**

Budget Impact/Other

Improved pavement condtion and safety improvements will reduce the amount of maintenance funding needed for this road.

Increased pavement width at various intersections will increase costs to maintain, especially for snow and ice control.

CITY OF BAYPORT
294 NORTH THIRD STREET
BAYPORT, MINNESOTA 55003
PHONE 651-275-4404 FAX 651-275-4411

November 20, 2014

Wayne Sandberg
Washington County Engineer
11660 Myeron Road North
Stillwater Mn 55082

Support for Reconstruction/Modernization of CSAH 21 (from 22nd Street to CSAH 14 in West Lakeland and Baytown Townships.

Dear Mr. Sandberg,

The City of Bayport supports Washington County's application for Federal Surface Transportation Program funds to reconstruct County State Aid Highway (CSAH) 21 from 22nd Street in West Lakeland Township to CSAH 14 in Baytown Township adjacent to the City of Bayport.

Increased traffic and truck volumes along this stretch of roadway is straining the capacity of the existing two lane roadway. Safety concerns are increasing which include pedestrian crossings, and turning movements to and from the local street network. This roadway provides an important regional transportation connection so reconstruction and modernization of this roadway will provide the necessary safety and management improvements for the future.

Thank you for your consideration on this matter. If you have any questions, comments, or concerns, please do not hesitate to contact me

Regards,

Logan Martin
City Administrator
City of Bayport

Baytown Township
4220 Osgood Avenue North | Stillwater, MN 55082
P: (651) 430-4992 | F: (651) 430-4986 | E: baytowncf@comcast.net

December 1, 2014

Wayne Sandberg
Washington County Engineer
11660 Myeron Road North
Stillwater Mn 55082

Support for Reconstruction/Modernization of CSAH 21 (from 22nd Street to CSAH 14 in West Lakeland and Baytown Townships.

Dear Mr. Sandberg,

Baytown Township supports Washington County's application for Federal Surface Transportation Program funds to reconstruct County State Aid Highway (CSAH) 21 from 22nd Street in West Lakeland Township to CSAH 14 in Baytown Township adjacent to the City of Bayport.

An increased traffic and truck volume along this stretch of roadway is straining the capacity of the existing two lane roadway. Safety concerns are increasing which include pedestrian crossings, and turning movements to and from the local street network. This roadway provides an important regional transportation connection so reconstruction and modernization of this roadway will provide the necessary safety and management improvements for the future.

Thank you for your consideration on this matter. If you have any questions, comments, or concerns, please do not hesitate to contact me

Regards,

Kent Grandlienard

Kent Grandlienard
Baytown Township Board Chair

Cc: Ann Pung-Terwedo, Senior Planner

WEST LAKELAND TOWNSHIP

November 10, 2014

Wayne Sandberg
Washington County Engineer
11660 Myeron Road North
Stillwater Mn 55082

Support for Reconstruction/Modernization of CSAH 21 (from 22nd Street to CSAH 14 in West Lakeland and Baytown Townships.

Dear Mr. Sandberg,

West Lakeland Township supports Washington County's application for Federal Surface Transportation Program funds to reconstruct County State Aid Highway (CSAH) 21 from 22nd Street in West Lakeland Township to CSAH 14 in Baytown Township adjacent to the City of Bayport.

Increased traffic and truck volumes along this stretch of roadway is straining the capacity of the existing two lane roadway. Safety concerns are increasing which include pedestrian crossings, and turning movements to and from the local street network. This roadway provides an important regional transportation connection so reconstruction and modernization of this roadway will provide the necessary safety and management improvements for the future.

Thank you for your consideration on this matter. If you have any questions, comments, or concerns, please do not hesitate to contact me

Regards,

Township Board Chair

Cc: Ann Pung-Terwedo, Senior Planner

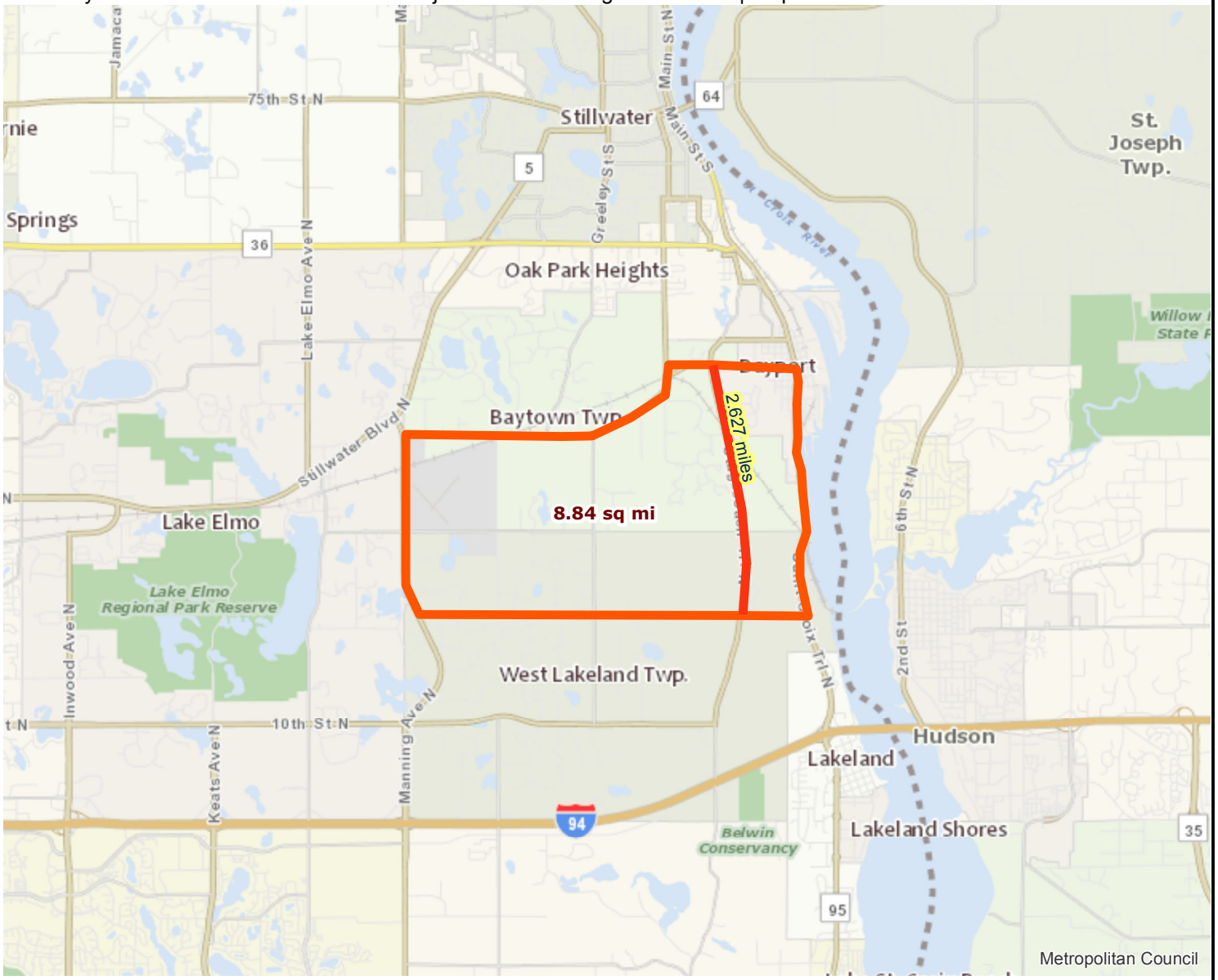
Roadway Area Definition

Roadway Reconstruction/Modernization Project: Csah 21 Stagecoach Trail | Map ID: 1419956643225

Results

Project Length: 2.627 miles

Project Area: 8.84 sq mi



Project

Project Area

0 1 2 4 6 8 Miles

Created: 12/30/2014
LandscapeRSA1

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

METROPOLITAN COUNCIL

Regional Economy

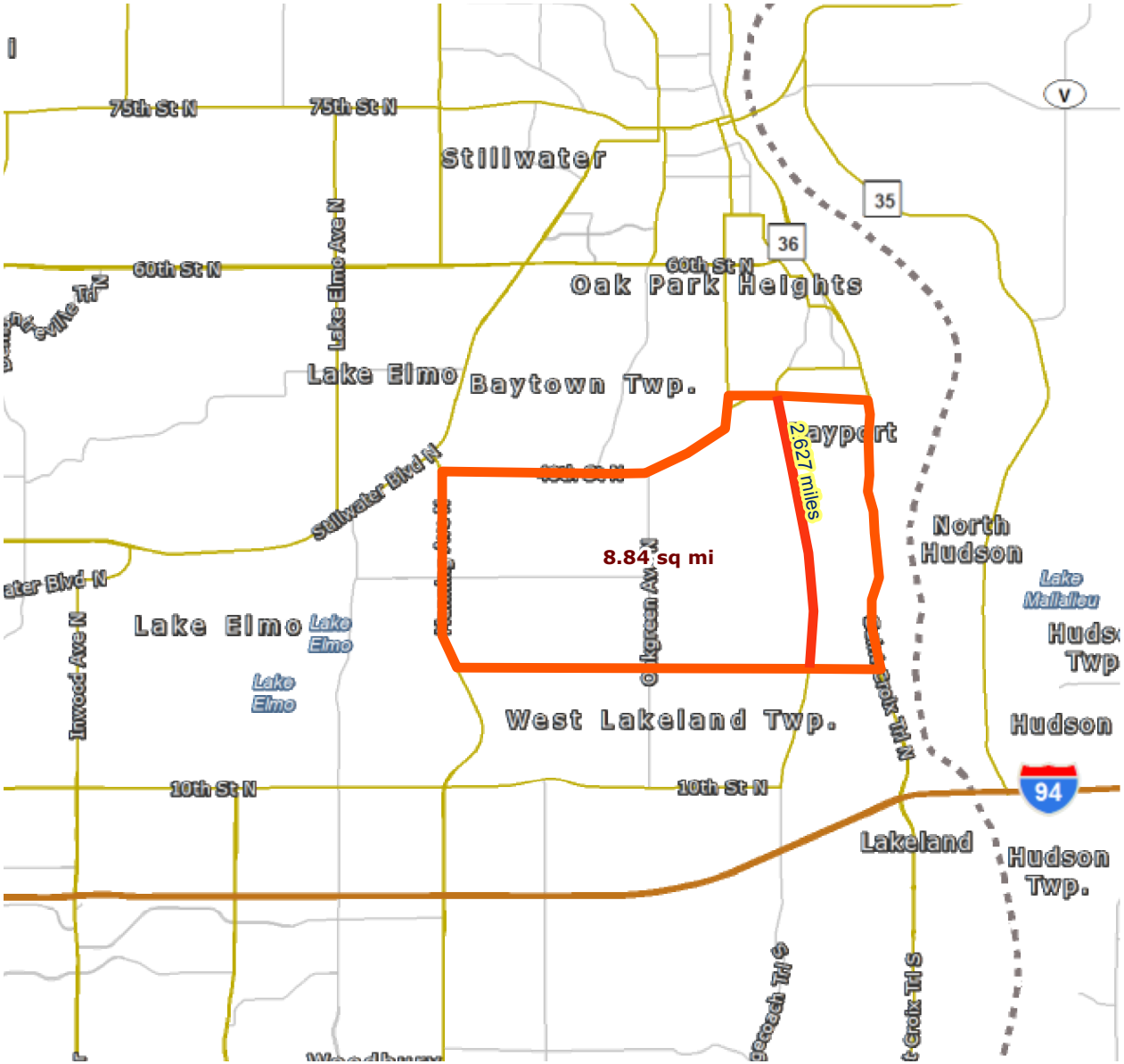
Roadway Reconstruction/Modernization Project: Csah 21 Stagecoach Trail | Map ID: 1419956643225

Results

Project **NOT IN** area of Job Concentration.

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

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



Project

Project Area

0 1 2 4 6 8 Miles

Created: 12/30/2014
LandscapeRSA5

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

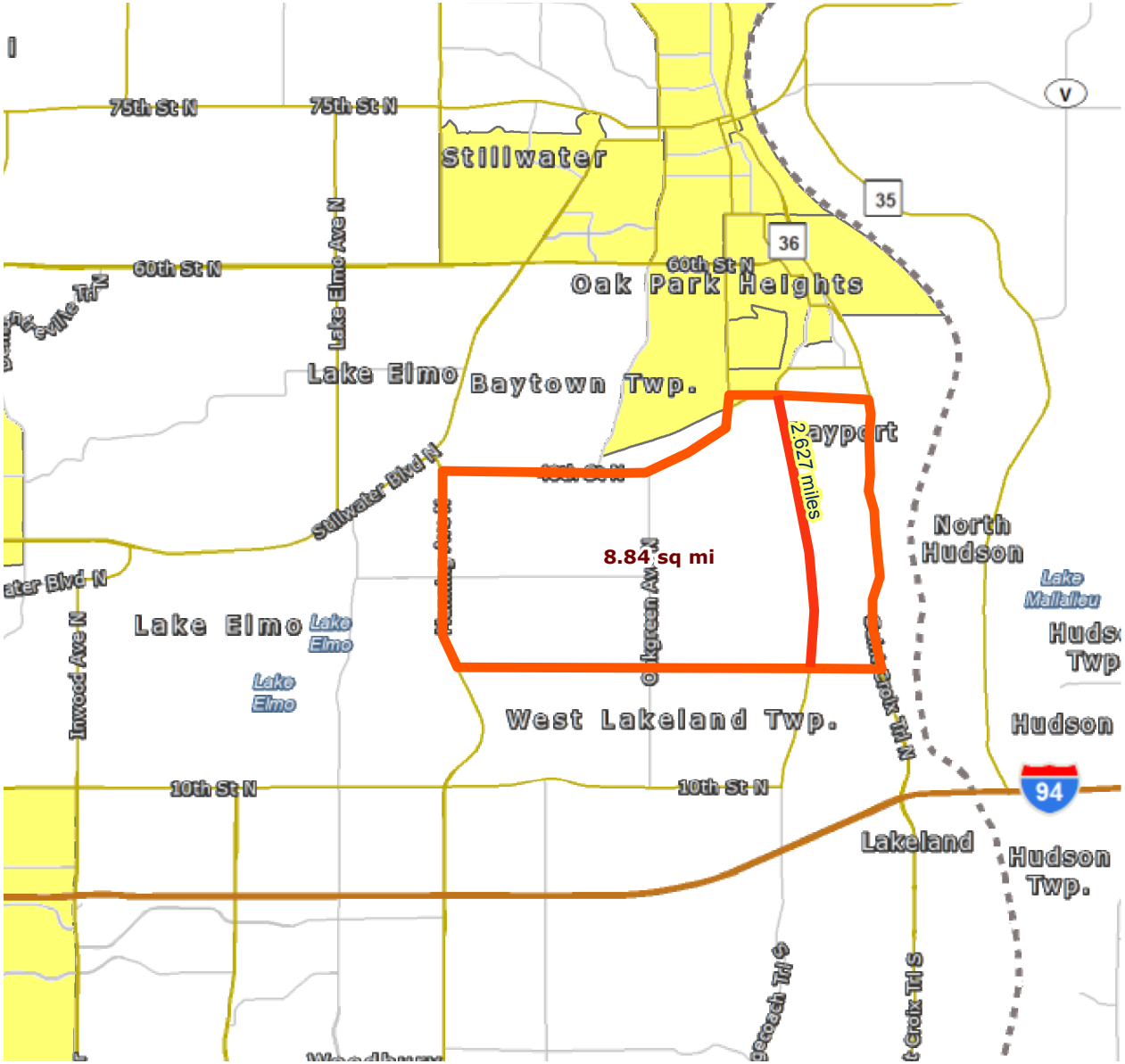
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: Csah 21 Stagecoach Trail | Map ID: 1419956643225

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 1 2 4 6 8 Miles

Created: 12/30/2014
LandscapeRSA2

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

METROPOLITAN COUNCIL

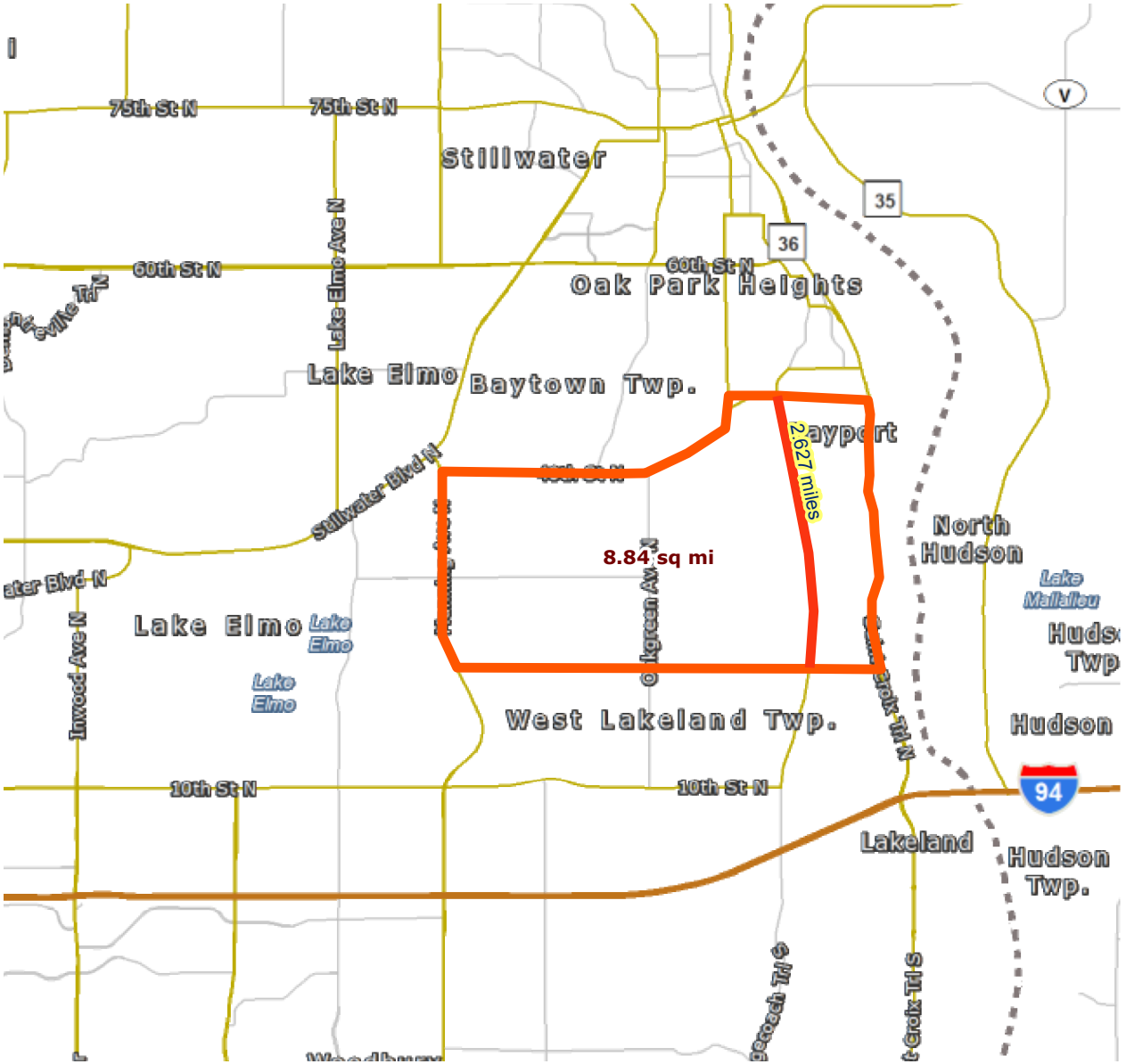
Transit Connections

Roadway Reconstruction/Modernization Project: Csah 21 Stagecoach Trail | Map ID: 1419956643225

Results

Transit with a Direct Connection to project:
-- NONE --

**indicates Planned Alignments*



Project

Project Area

0 1 2 4 6 8 Miles

Created: 12/30/2014
LandscapeRSA3

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

METROPOLITAN COUNCIL

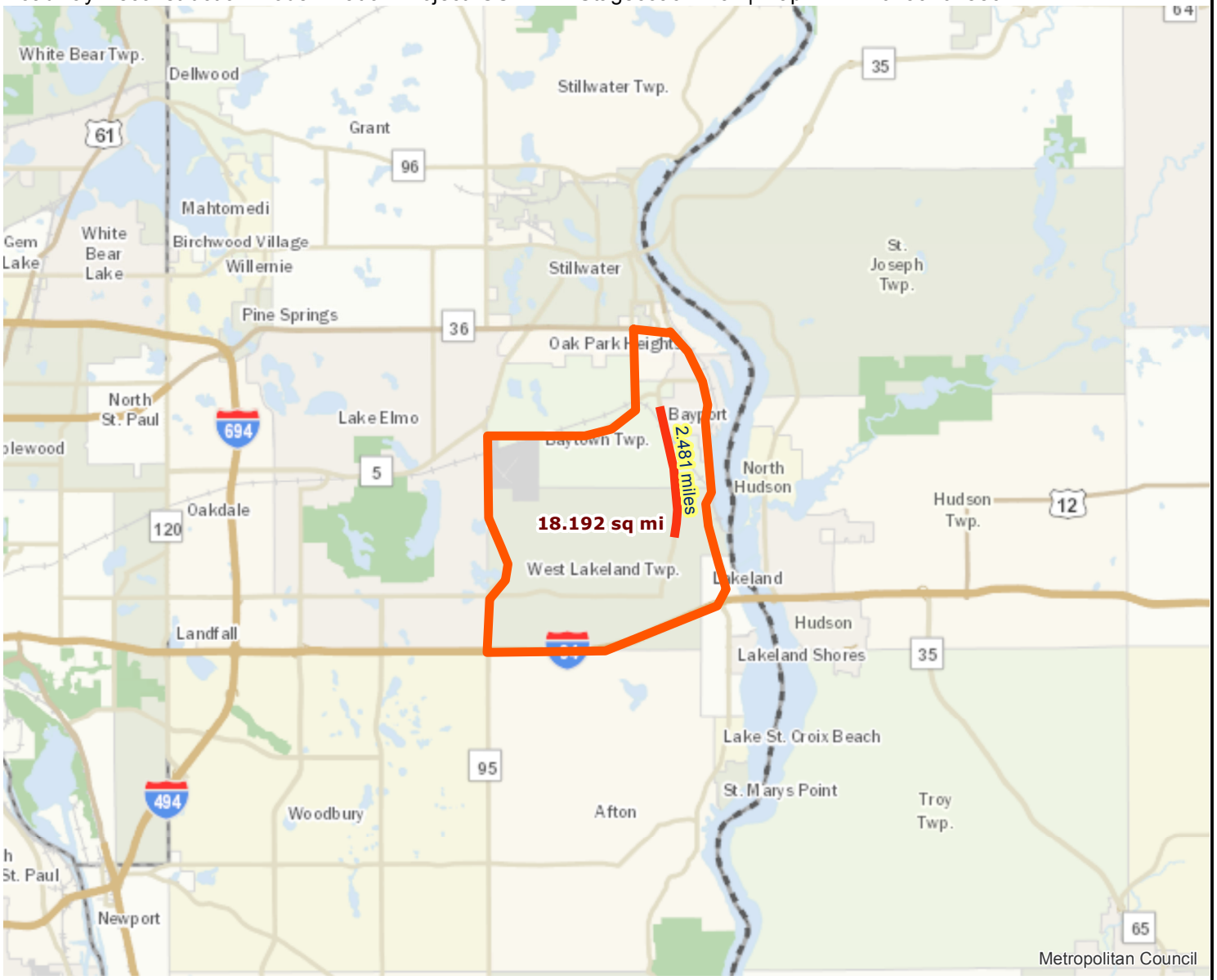
Roadway Area Definition

Roadway Reconstruction/Modernization Project: CSAH 21/Stagecoach Trail | Map ID: 1416239407886

Results

Project Length: 2.481 miles

Project Area: 18.192 sq mi



Project

Project Area

0 1.75 3.5 7 10.5 14 Miles

Created: 11/17/2014
LandscapeRSA1

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

METROPOLITAN COUNCIL

Regional Economy

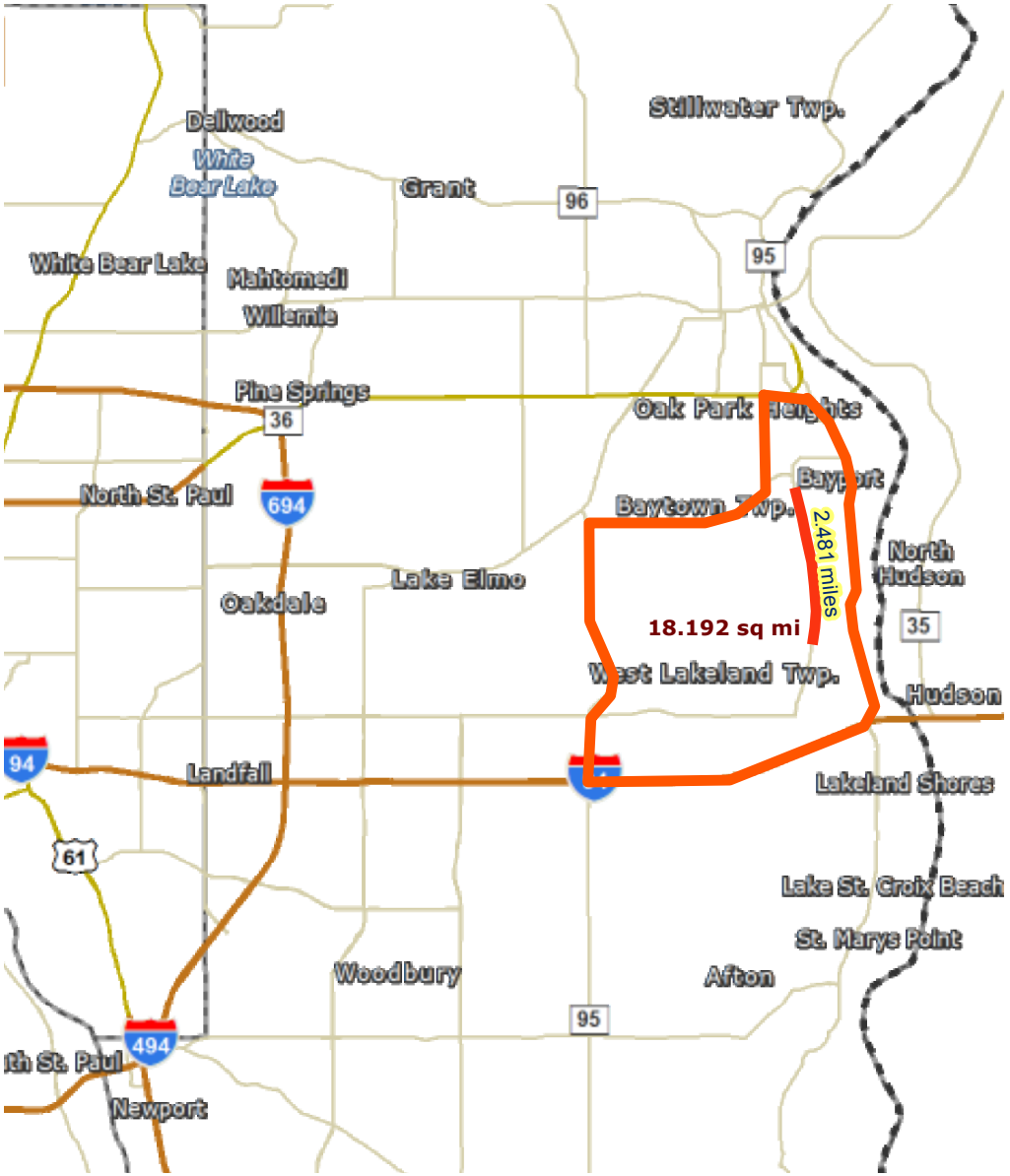
Roadway Reconstruction/Modernization Project: CSAH 21/Stagecoach Trail | Map ID: 1416239407886

Results

Project **NOT IN** area of Job Concentration.

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

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



Project

Project Area

0 1.75 3.5 7 10.5 14 Miles

Created: 11/17/2014
LandscapeRSA5

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

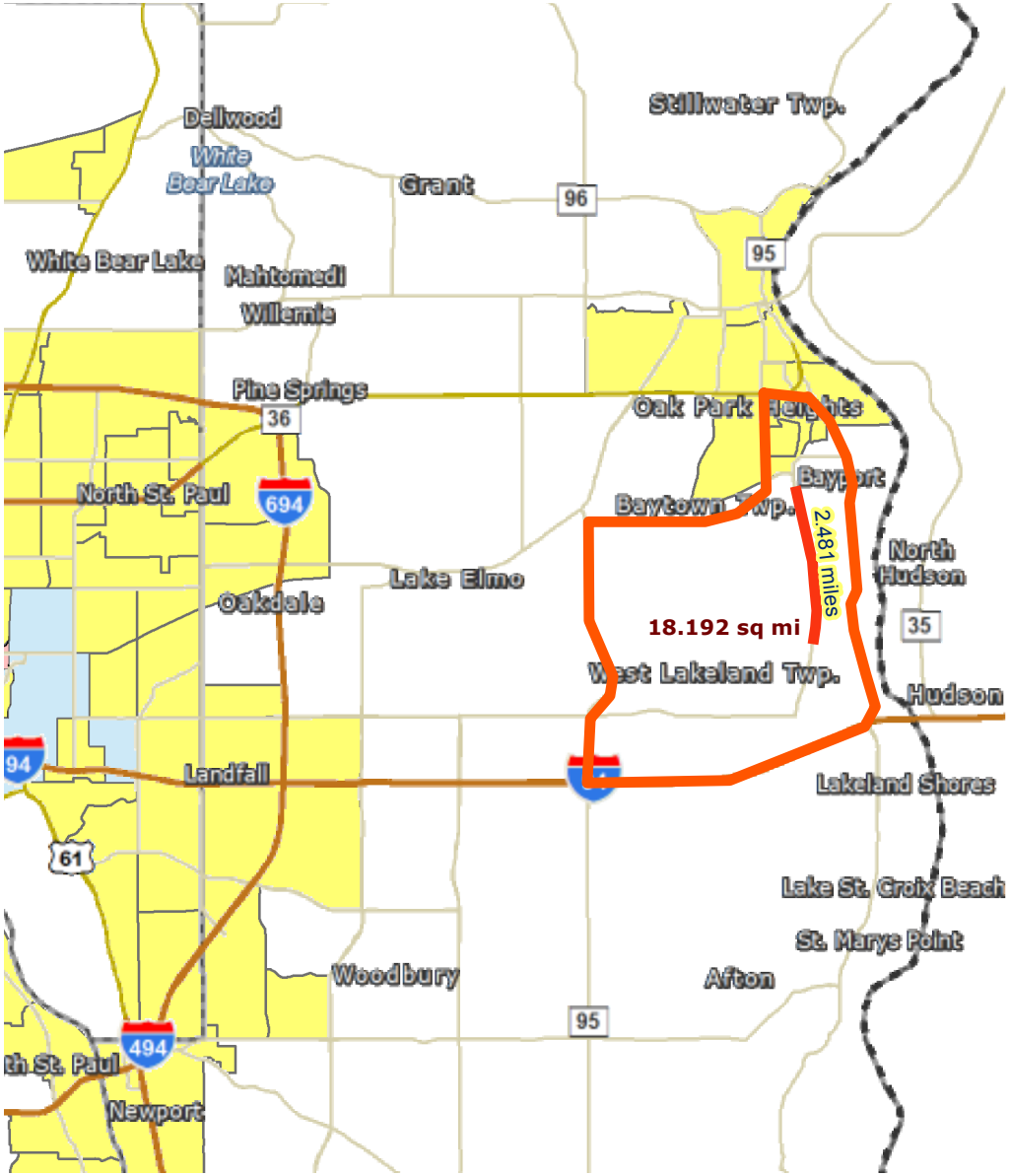
METROPOLITAN COUNCIL

Socio-Economic Conditions

Roadway Reconstruction/Modernization Project: CSAH 21/Stagecoach Trail | Map ID: 1416239407886

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 1.75 3.5 7 10.5 14 Miles

Created: 11/17/2014
LandscapeRSA2

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

METROPOLITAN COUNCIL

3: 22nd Street N & Stagecoach Trail N - No Build

Direction	All
Volume (vph)	763
Total Delay / Veh (s/v)	6
CO Emissions (kg)	1.11
NOx Emissions (kg)	0.22
VOC Emissions (kg)	0.26

SimTraffic Performance Report
Baseline 11/21/2014

3: 22nd Street N & Stagecoach Trail N - No Build Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Del/Veh (s)	0.3	0.3	0.3	0.4	0.3	0.3
Total Del/Veh (s)	4.6	5.8	4.6	5.4	4.6	5.0
HC Emissions (g)	84	77	78	65	65	74
CO Emissions (g)	3709	3454	3525	3186	3424	3460
NOx Emissions (g)	285	268	266	238	240	260
Vehicles Entered	770	749	739	755	760	754

Synchro limitations produce conservative results. SimTraffic modeling of 5 scenarios provides a clearer understanding of project benefits.

Analysis from SimTraffic indicates increased peak hour vehicle delay reduction (1,322 seconds to 768 seconds) and improved cost effectiveness ($4,538.58 to $7,812.50) produced by the project compared to Synchro analysis . SimTraffic also indicates an increase in emissions reductions (0.442 kg to -0.15 kg) and improved cost effectiveness ($13,574,661 to -$40,000,000) compared to Synchro).

3: 22nd Street N & Stagecoach Trail N - Build

Direction	All
Volume (vph)	762
Total Delay / Veh (s/v)	5
CO Emissions (kg)	1.22
NOx Emissions (kg)	0.24
VOC Emissions (kg)	0.28

SimTraffic Performance Report
Build Scenario
11/21/2014

3: 22nd Street N & Stagecoach Trail N - Build Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Del/Veh (s)	0.3	0.3	0.2	0.3	0.3	0.3
Total Del/Veh (s)	3.4	3.2	3.3	3.4	3.2	3.3
HC Emissions (g)	80	73	73	61	60	69
CO Emissions (g)	3348	3056	3064	2798	2845	3022
NOx Emissions (g)	289	271	269	238	241	261
Vehicles Entered	770	749	739	755	760	754

Synchro limitations produce conservative results. SimTraffic modeling of 5 scenarios provides a clearer understanding of project benefits.

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SimTraffic Performance Report
Baseline 11/21/2014

3: 22nd Street N & Stagecoach Trail N - No Build Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Del/Veh (s)	0.3	0.3	0.3	0.4	0.3	0.3
Total Del/Veh (s)	4.6	5.8	4.6	5.4	4.6	5.0
HC Emissions (g)	84	77	78	65	65	74
CO Emissions (g)	3709	3454	3525	3186	3424	3460
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Volume (vph)	762
Total Delay / Veh (s/v)	5
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SimTraffic Performance Report
Build Scenario
11/21/2014

3: 22nd Street N & Stagecoach Trail N - Build Performance by run number

Run Number	1	2	3	4	5	Avg
Denied Del/Veh (s)	0.3	0.3	0.2	0.3	0.3	0.3
Total Del/Veh (s)	3.4	3.2	3.3	3.4	3.2	3.3
HC Emissions (g)	80	73	73	61	60	69
CO Emissions (g)	3348	3056	3064	2798	2845	3022
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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
82	21	CSAH 21 from 22nd Street to 47th Street in Bayport, M	017+00.350	019+00.990	Washington County, MN	1/1/2011	12/31/2013

Description of Proposed Work: Addition of a center two way left turn lane on CSAH 21 in Bayport, MN

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**									
	Personal Injury (PI) **B**									
	Personal Injury (PI) **C**	1		1						**2**
	Property Damage **PD**	2	1		2	1	4			**10**
% Change in Crashes *Use Crash Modification Factors Clearinghouse	Fatal **F**	-36%	-36%	-36%	-36%	-36%	-36%	-36%	-36%	
	PI **A**	-36%	-36%	-36%	-36%	-36%	-36%	-36%	-36%	
	PI **B**	-36%	-36%	-36%	-36%	-36%	-36%	-36%	-36%	
	PI **C**	-36%	-36%	-36%	-36%	-36%	-36%	-36%	-36%	
	Property Damage **PD**	-36%	-36%	-36%	-36%	-36%	-36%	-36%	-36%	
Change in Crashes = No. of crashes **X** % change in crashes	Fatal **F**									
	PI **A**									
	PI **B**									
	PI **C**	**-0.36**		**-0.36**						**-0.72**
	Property Damage **PD**	**-0.72**	**-0.36**		**-0.72**	**-0.36**	**-1.44**			**-3.60**

Year (Safety Improvement Construction): **2019**

Project Cost (exclude Right of Way): **$ 6,000,000**

Right of Way Costs (optional):

Traffic Growth Factor: **3%**

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			$ 160,000	
C	-0.72	-0.24	$ 81,000	$ 19,440
PD	-3.60	-1.20	$ 7,400	$ 8,880
Total				$ 28,320

B/C= 0.08

Using present worth values,

B= $ 495,428

C= $ 6,000,000

See "Calculations" sheet for amortization.

Office of Traffic, Safety and Technology **September 2014**

Amortizing…

Year	Crash Benefits	Present Worth Benefits	Present Worth Costs
2019	$ 28,320	$ 28,320	$ 6,000,000
2020	$ 29,170	$ 27,913	
2021	$ 30,045	$ 27,513	
2022	$ 30,946	$ 27,118	
2023	$ 31,874	$ 26,729	
2024	$ 32,831	$ 26,345	
2025	$ 33,816	$ 25,967	
2026	$ 34,830	$ 25,594	
2027	$ 35,875	$ 25,227	
2028	$ 36,951	$ 24,865	
2029	$ 38,060	$ 24,508	
2030	$ 39,202	$ 24,156	
2031	$ 40,378	$ 23,809	
2032	$ 41,589	$ 23,467	
2033	$ 42,837	$ 23,131	
2034	$ 44,122	$ 22,799	
2035	$ 45,445	$ 22,471	
2036	$ 46,809	$ 22,149	
2037	$ 48,213	$ 21,831	
2038	$ 49,659	$ 21,517	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
0	$ -	$ -	
	Totals =	**$ 495,428 (B)**	**$ 6,000,000 (C)**

year (n)= 1, 2, 3,….
discount rate (i) = 7%

$$\text{Crash Benefits (@ year n)} = (\text{Crash Benefits})_{n-1} \times (1 + \text{Traffic Growth Factor})$$

$$\text{Present Worth Benefits (@ year n)} = (\text{Crash Benefits})_{n} \times 1/(1 + \text{Discount Rate})^{n}$$

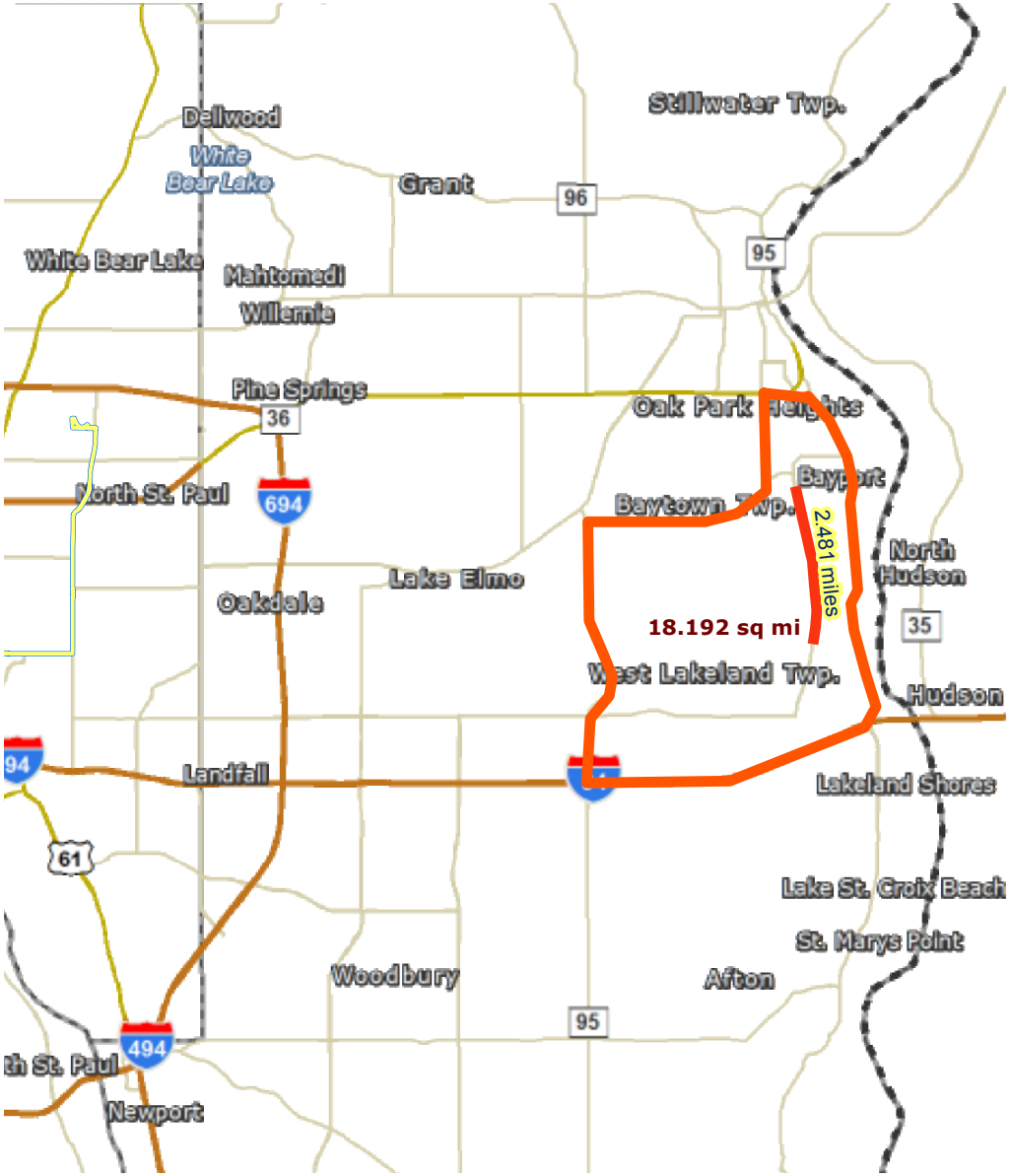
Transit Connections

Roadway Reconstruction/Modernization Project: CSAH 21/Stagecoach Trail | Map ID: 1416239407886

Results

Transit with a Direct Connection to project:
-- NONE --

**indicates Planned Alignments*



Project
Project Area
Planned Alignments
Arterial BRT

0 1.75 3.5 7 10.5 14 Miles

Created: 11/17/2014
LandscapeRSA3

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

METROPOLITAN COUNCIL