



Application

04751 - 2016 Roadway Expansion

05372 - TH 101 Expansion

Regional Solicitation - Roadways Including Multimodal Elements

Status: Submitted  
Submitted Date: 07/14/2016 9:55 AM

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## Primary Contact

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\* Chanhassen Minnesota 55317  
City State/Province Postal Code/Zip

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Phone Ext.

**Fax:**

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

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## Organization Information

**Name:** CHANHASSEN, CITY OF

**Jurisdictional Agency (if different):**

**Organization Type:**

City

**Organization Website:**

**Address:**

7700 MARKET BLVD

PO BOX 147

\*

CHANHASSEN

Minnesota

55317

City

State/Province

Postal Code/Zip

**County:**

Carver

**Phone:\***

952-227-1100

Ext.

**Fax:**

**PeopleSoft Vendor Number**

0000020930A2

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## Project Information

**Project Name**

TH 101 Expansion

**Primary County where the Project is Located**

Carver

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

The proposed TH 101 Expansion project involves 1.2 miles of safety and capacity improvements between Pioneer Trail (CSAH 14) and Flying Cloud Drive (CSAH 61) in the City of Chanhassen (see Figure 1). The project includes reconstruction and realignment of TH 101 from a two-lane undivided A Minor Arterial to a four-lane divided roadway with turn lanes at key intersections. A paved multi-use trail is proposed along both sides of TH 101 from Pioneer Trail to Creekwood Street and along the east side of TH 101 from Creekwood Street to Flying Cloud Drive. On the south end, the project will tie into the newly constructed TH 101/Flying Cloud Drive roundabout. The trail will also connect to the Minnesota Bluffs Regional Trail. See Figure 2 for a layout and Figure 3 for existing conditions. The project will leverage and tie into existing investments to TH 101 south of Flying Cloud Drive and will provide the following benefits:

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

**Safety:** The corridor has several major safety concerns based on its current design. Steep grades (up to 13%) and numerous curves along the roadway necessitate warning signs with 15 mph advisory speeds, and difficult travel conditions are caused by slick pavement during inclement weather. Inadequate sight distances create blind intersections with roadways, driveways, and a trail crossing (see Figure 1). A crash analysis was performed as part of the 2014 preliminary engineering and environmental review, which identified crash and severity rates more than twice the average for two-lane rural highways. The predominant crash type was run-off-the road, a symptom of poor sight conditions, tight curves, and undulating terrain through the project area. These issues are still present under today's existing conditions.

The corridor will also provide safer pedestrian/bicycle connections by constructing a grade separated crossing at the TH 41/Flying Cloud

Drive roundabout, and expanding the trail network (see Figure 2).

Regional Connectivity: TH 101 (between the MN River and TH 212) is a logical and direct link that serves travel demands to and from the Twin Cities area. TH 101, between the communities of Shakopee and Chanhassen, serves as one of only a few options available for travelers seeking to cross the MN River in the area. With severe congestion on the TH 169 bridge and the fact that the TH 41 bridge often closes during flooding, the regional importance of this connection cannot be understated for both automobiles and freight traffic.

With the proposed improvements, TH 101 has the potential to serve as an alternative roadway connection for all vehicles, particularly freight traffic, seeking an alternative to these congested river crossings.

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

**TIP Description Guidance** (will be used in TIP if the project is selected for funding)

TH 101 Expansion from CSAH 14 to CSAH 61

**Project Length (Miles)**

1.2

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## Project Funding

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

No

**If yes, please identify the source(s)**

TH 101 Expansion from CSAH 14 to CSAH 61

**Federal Amount**

\$7,000,000.00

**Match Amount**

\$6,421,000.00

*Minimum of 20% of project total*

**Project Total**

\$13,421,000.00

**Match Percentage**

47.84%

*Minimum of 20%*

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

**Source of Match Funds**

State Turnback Funds

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

### Preferred Program Year

Select one: 2020

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

Additional Program Years: 2019

Select all years that are feasible if funding in an earlier year becomes available.

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## Project Information: Roadway Projects

County, City, or Lead Agency

City of Chanhassen

Functional Class of Road

A Minor Arterial Expander

Road System

TH

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

Road/Route No.

101

i.e., 53 for CSAH 53

Name of Road

TH 101

Example; 1st ST., MAIN AVE

Zip Code where Majority of Work is Being Performed

55317

(Approximate) Begin Construction Date

03/01/2019

(Approximate) End Construction Date

11/01/2020

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

From:

(Intersection or Address)

Pioneer Trail (CSAH 14)

To:

(Intersection or Address)

Flying Cloud Drive (CSAH 61)

DO NOT INCLUDE LEGAL DESCRIPTION

Or At

Primary Types of Work

GRADE, AGG BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, BIKE PATH

Examples: GRADE, AGG BASE, BIT BASE, BIT SURF, SIDEWALK, CURB AND GUTTER, STORM SEWER, SIGNALS, LIGHTING, GUARDRAIL, BIKE PATH, PED RAMPS, BRIDGE, PARK AND RIDE, ETC.

**BRIDGE/CULVERT PROJECTS (IF APPLICABLE)**

Old Bridge/Culvert No.:

New Bridge/Culvert No.:

Structure is Over/Under

(Bridge or culvert name):

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## Specific Roadway Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Mobilization (approx. 5% of total cost)	\$600,000.00
Removals (approx. 5% of total cost)	\$300,000.00
Roadway (grading, borrow, etc.)	\$4,630,000.00
Roadway (aggregates and paving)	\$2,560,000.00
Subgrade Correction (muck)	\$400,000.00
Storm Sewer	\$1,050,000.00
Ponds	\$420,000.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$497,000.00
Traffic Control	\$100,000.00
Striping	\$100,000.00
Signing	\$50,000.00
Lighting	\$150,000.00
Turf - Erosion & Landscaping	\$1,150,000.00
Bridge	\$0.00
Retaining Walls	\$300,000.00
Noise Wall (do not include in cost effectiveness measure)	\$0.00
Traffic Signals	\$0.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$639,000.00
Other Roadway Elements	\$0.00
<b>Totals</b>	<b>\$12,946,000.00</b>

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## Specific Bicycle and Pedestrian Elements

<b>CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES</b>	<b>Cost</b>
Path/Trail Construction	\$475,000.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00

Pedestrian Curb Ramps (ADA)	\$0.00
Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$0.00
Pedestrian-scale Lighting	\$0.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$0.00
Other Bicycle and Pedestrian Elements	\$0.00
<b>Totals</b>	<b>\$475,000.00</b>

## Specific Transit and TDM Elements

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

## Transit Operating Costs

Number of Platform hours	0
Cost Per Platform hour (full loaded Cost)	\$0.00
Subtotal	\$0.00
Other Costs - Administration, Overhead, etc.	\$0.00

## Totals

Total Cost	\$13,421,000.00
Construction Cost Total	\$13,421,000.00
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 2040 Transportation Policy Plan, the 2040 Regional Parks Policy Plan (2015), and the 2040 Water Resources Policy Plan (2015).*

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

*2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan objectives and strategies that relate to the project.*



Goal B: Safety and Security (2040 TPP, pg. 2.7) -  
The regional transportation system is safe and  
secure for all users.

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

Strategies:

B1 - Regional transportation partners will  
incorporate safety and security considerations for  
all modes and users throughout the processes of  
planning, funding, construction, operation.

B3 - Regional transportation partners should  
monitor and routinely analyze safety and security  
data by mode and severity to identify priorities and  
progress.

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

B6 - Regional transportation partners will use best  
practices to provide and improve facilities for safe  
walking and bicycling, since pedestrians and  
bicyclists are the most vulnerable users of the  
transportation system.

Goal D: Competitive Economy (2040 TPP, pg.  
2.11) - The regional transportation system supports  
the economic competitiveness, vitality, and  
prosperity of the regions and state.

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

Strategies:

D5 - The Council and MnDOT will work with transportation partners to identify the impacts of highway congestion on freight and identify cost-effective mitigation.

Goal F: Leveraging Transportation Investment to Guide Land Use (2040 TPP, pg. 2.14) The region leverages transportation investments to guide land use and development patterns that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability.

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

Strategies:

F7 - Local governments should include bicycle and pedestrian elements in local comprehensive plans.

*3. The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.*

City of Chanhassen 2030 Comprehensive Plan,  
Transportation Chapter, Page 7-12

Carver County Roadway Systems Plan (2010-  
2030), Page 23

**List the applicable documents and pages:**

Carver County Comprehensive Plan (2030),  
Transportation Amendment, Page 5

4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of bicycle/pedestrian projects, transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible.

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

5. Applicants that are not cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

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

6. Applicants must not submit an application for the same project elements in more than one funding application category.

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

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below.

**Roadway Expansion:** \$1,000,000 to \$7,000,000

**Roadway Reconstruction/ Modernization:** \$1,000,000 to \$7,000,000

**Roadway System Management** \$250,000 to \$7,000,000

**Bridges Rehabilitation/ Replacement:** \$1,000,000 to \$7,000,000

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

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

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

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

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

10. The owner/operator of the facility must operate and maintain the project for the useful life of the improvement.

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

11. The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

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

12. The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

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

13. The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

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

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## Roadways Including Multimodal Elements

1. All roadway and bridge projects must be identified as a Principal Arterial (Non-Freeway facilities only) or A-Minor Arterial as shown on the latest TAB approved roadway functional classification map.

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

**Roadway Expansion and Reconstruction/Modernization projects only:**

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

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

**Bridge Rehabilitation/Replacement projects only:**

3. Projects requiring a grade-separated crossing of a Principal Arterial freeway must be limited to the federal share of those project costs identified as local (non-MnDOT) cost responsibility using MnDOTs Cost Participation for Cooperative Construction Projects and Maintenance Responsibilities manual. In the case of a federally funded trunk highway project, the policy guidelines should be read as if the funded trunk highway route is under local jurisdiction.

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

4. The bridge must carry vehicular traffic. Bridges can carry traffic from multiple modes. However, bridges that are exclusively for bicycle or pedestrian traffic must apply under one of the Bicycle and Pedestrian Facilities application categories. Rail-only bridges are ineligible for funding.

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

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

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

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

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

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## Requirements - Roadways Including Multimodal Elements

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### Expander/Augmentor/Non-Freeway Principal Arterial

Select one:	Expander
Area	3.665
Project Length	1.193
Average Distance	3.0721
Upload Map	1474403724718_RAD101CarvREX.pdf

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

Facility being relieved

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

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### Reliever: Relives a Principle Arterial that is a Non-Freeway Facility

Facility being relieved

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

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## Non-Freeway Facility Volume/Capacity Table

Hour	NB/EB Volume	SB/WB Volume	Capacity	Volume exceeds capacity
12:00am - 1:00am			0	
1:00am - 2:00am			0	
2:00am - 3:00am			0	
3:00am - 4:00am			0	
4:00am - 5:00am			0	
5:00am - 6:00am			0	
6:00am - 7:00am			0	
7:00am - 8:00am			0	
8:00am - 9:00am			0	
9:00am - 10:00am			0	
10:00am - 11:00am			0	
11:00am - 12:00pm			0	
12:00pm - 1:00pm			0	
1:00pm - 2:00pm			0	
2:00pm - 3:00pm			0	
3:00pm - 4:00pm			0	
4:00pm - 5:00pm			0	
5:00pm - 6:00pm			0	
6:00pm - 7:00pm			0	
7:00pm - 8:00pm			0	
8:00pm - 9:00pm			0	
9:00pm - 10:00pm			0	
10:00pm - 11:00pm			0	
11:00pm - 12:00am			0	

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## Measure B: Project Location Relative to Jobs, Manufacturing, and Education

Existing Employment within 1 Mile:	2630
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	347
Existing Students:	0

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## Measure C: Current Heavy Commercial Traffic

Location:	TH101 south of Creekwood Drive
Current daily heavy commercial traffic volume:	149
Date heavy commercial count taken:	2014

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## Measure D: Freight Elements

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

TH 101 provides the only direct link between Chanhassen and Shakopee, both are focused on increasing downtown livability. Currently, this link is a dangerous corridor for trucks because of steep grades, numerous curves, inadequate sight distances, and lack of shoulders. TH 101 is often closed to trucks during winter events (snow and ice) given the steep grades. Add in the geographical constraints of the river, trucks are also forced to use a more circuitous route to serve the downtowns. While this means increased costs for freight users, it impacts the size of trucks serving the communities. Many carriers use large trucks to service other areas along the way to justify the cost of avoiding the TH 101 direct connection.

The project includes reconstruction and realignment of TH 101 from a two-lane to a four-lane divided roadway with turn lanes at key intersections. It builds up on recently completed TH 101 MN River Crossing project, and would provide the missing four-lane link between the MN River and the freeway system. With severe congestion on the TH 169 and the TH 41 often closes during flooding, this project will provide needed resiliency to the regional freight system.

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## Measure A: Current Daily Person Throughput

Location	North of Creekwood Drive
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Current AADT Volume	5000
Existing Transit Routes on the Project	N/A
<i>For New Roadways only, list transit routes that will be moved to the new roadway</i>	
Upload Transit Map	1468339129598_Transit.pdf

### Response: Current Daily Person Throughput

Average Annual Daily Transit Ridership	0
Current Daily Person Throughput	6500.0

### Measure B: 2040 Forecast ADT

Use Metropolitan Council model to determine forecast (2040) ADT volume

No

If checked, METC Staff will provide Forecast (2040) ADT volume

OR

Identify the approved county or city travel demand model to determine forecast (2040) ADT volume

Carver County Travel Demand Model

Forecast (2040) ADT volume

19500

### Measure A: Project Location and Impact to Disadvantaged Populations

Select one:

Project located in Area of Concentrated Poverty with 50% or more of residents are people of color (ACP50):

Project located in Area of Concentrated Poverty:

Projects census tracts are above the regional average for population in poverty or population of color:

Project located in a census tract that is below the regional average for population in poverty or populations of color or includes children, people with disabilities, or the elderly:

Yes

TH 101 is an important regional connection, because it serves as a MN River crossing and a link to TH 212 that provides surrounding cities with better access to jobs. Many of these cities, including Chaska & Shakopee, contain areas that are above the regional average for populations of race/poverty. Shakopee's commercial and industrial sectors have experienced tremendous growth in recent years, adding many blue collar jobs. The proposed improvements will provide a better link for all users accessing this area from the north. Also, 40 rental units located at the existing intersection of TH 101 and Flying Cloud Drive are low income housing.

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

The project area is also defined as a Transit Market Area IV by the Met Council (i.e. an area that only supports dial-a-ride and peak period express/commuter service). Therefore, this project will improve multimodal connectivity between transit facilities (e.g., SouthWest Village Park and Ride, and the Chanhassen Transit Station) and low income populations that depend on the transit services to access job centers in the Twin Cities. This connection is critical given the lack of transit services provided in the area, which in some respect is a result of the geographical barriers (e.g., Minnesota River) and the rural nature of the County.

The proposed trails will also improve safety and travel experience for bikes/pedestrians traveling along TH 101, including local users connecting to existing trails on the north at Pioneer Trail and on the south at Flying Cloud Drive. Furthermore, a grade separated crossing will be constructed as part of this project and a future pedestrian/bicycle bridge at the Minnesota River Bluffs LRT Trail is being considered (see Figure 2). The proposed



crossing and trails along TH 101 will offer benefits to all trail users, including children and the disabled, and will be compliant with the Americans with Disabilities Act (ADA). Nearly 36 percent of residents in the projects census tract are children, as compared to only 27 percent within the seven county regional area. Families with children would be common users of the new trail along TH 101 and its connection to the MN River Bluffs Regional Trail. Additionally, people without automobiles are not currently able to safely use the project segment of TH 101 because of its steep grades and lack of shoulders. Bikes and pedestrians must divert 0.7 mile to the east to access the MN River Bluffs Regional Trail at Pioneer Trail and continue south.

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

Upload Map

1468339063162\_SEC.pdf

### Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)
Chanhassen	1.2
	1

### Total Project Length

Total Project Length (Total Population)	1.2
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### Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

City/Township	Segment Length (Miles)	Total Length (Miles)	Score	Segment Length/Total Length	Housing Score Multiplied by Segment percent
		0	0	0	0

### Affordable Housing Scoring - To Be Completed By Metropolitan Council Staff

Total Project Length (Miles)	1.2
Total Housing Score	0

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## Measure A: Infrastructure Age

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2
1949.0	1.2	2338.8	1949.0
	1	<b>2339</b>	<b>1949</b>

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## Average Construction Year

Weighted Year	1949.0
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## Total Segment Length (Miles)

Total Segment Length	1.2
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## Measure A: Vehicle Delay Reduction

Total Peak Hour Delay Per Vehicle Without The Project	Total Peak Hour Delay Per Vehicle With The Project	Total Peak Hour Delay Per Vehicle Reduced by Project	Volume (Vehicles Per Hour)	Total Peak Hour Delay Reduced by the Project (Seconds)	EXPLANATION of methodology used to calculate railroad crossing delay, if applicable:	Synchro or HCM Reports
62.0	9.1	52.9	2497.0	132091.3	See attachment for more information.	14684371296 19_TH 101_HCM.pdf

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## Total Delay

Total Peak Hour Delay Reduced	132091.3
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## Measure B: Roadway projects that do not include new roadway segments or railroad grade-separation elements

Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced Per Vehicle by the Project (Kilograms):	Volume (Vehicles Per Hour):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):
4.99	2.4	2.59	2496.0	6464.64
5	2		2496	6465

## Total

Total Emissions Reduced:	6464.64
Upload Synchro Report	1468413510301_TH 101_HCM.pdf

## Measure B: Roadway projects that are constructing new roadway segments, but do not include railroad grade-separation elements (for Roadway Expansion applications only):

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

## Total Parallel Roadways

Emissions Reduced on Parallel Roadways	0
Upload Synchro Report	

## New Roadway Portion:

Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons:	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced or Produced on New Roadway (Kilograms):	0

EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)

Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): 0.0

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### Measure B: Roadway projects that include railroad grade-separation elements

Cruise speed in miles per hour without the project:	0
Vehicle miles traveled without the project:	0
Total delay in hours without the project:	0
Total stops in vehicles per hour without the project:	0
Cruise speed in miles per hour with the project:	0
Vehicle miles traveled with the project:	0
Total delay in hours with the project:	0
Total stops in vehicles per hour with the project:	0
Fuel consumption in gallons (F1)	0
Fuel consumption in gallons (F2)	0
Fuel consumption in gallons (F3)	0
Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	0

EXPLANATION of methodology and assumptions used:(Limit 1,400 characters; approximately 200 words)

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### Measure A: Benefit of Crash Reduction

TH 101 from Pioneer Tail to North of TH 101/Flying Cloud Drive Intersection:

CR 1 - Increase Number of Lanes

CR 2 - Flatten Horizontal Curvature

CR 3 - Improve Pavement Friction

CR 4 - Convert from a Signal to Roundabout

Crash Modification Factor Used:

See crash analysis attachment for more information.

*(Limit 700 Characters; approximately 100 words)*

**Rationale for Crash Modification Selected:**

The crash reduction factors are consistent with the proposed improvements. For more information, please see the attachment.

*(Limit 1400 Characters; approximately 200 words)*

**Project Benefit (\$) from B/C Ratio:**

5491159.0

**Worksheet Attachment**

1468252473057\_Hwy 101 Complete Crash Analysis.pdf

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**Roadway projects that include railroad grade-separation elements:**

**Current AADT volume:** 0

**Average daily trains:** 0

**Crash Risk Exposure eliminated:** 0

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**Measure A: Multimodal Elements and Existing Connections**

Currently, there are no bicycle or pedestrian facilities along TH 101 in the project area. This section of TH 101 is a dangerous corridor for these users because of steep grades, numerous curves, inadequate sight distances, and lack of shoulders. The project will complete the missing bicycle/ped. links between the walkable Chanhassen and Shakopee downtowns. Both downtowns are village centers identified in their comprehensive plans as mixed-use developments (supported by higher densities) with high pedestrian traffic.

The proposed trail on the east side of TH 101 will connect to the MN River Bluffs Regional Trail, which crosses TH 101 at an at-grade intersection approximately 0.2 miles north of Flying Cloud Dr. The existing trail crossing has safety deficiencies that make it difficult for TH 101 drivers to see trail users as they approach the intersection. In the future, the City of Chanhassen is planning to construct a trail bridge crossing from the MN River Bluffs Regional Trail over TH 101, as identified in the 2030 Comprehensive Plan (see Figure 2). This project will include a grade separated crossing at the TH 41/Flying Cloud Drive roundabout (see Figure 2). The proposed crossings and trails will improve safety and travel experience for bikes/peds traveling along TH 101, including local users connecting to trails on the north at Pioneer Trail and on the south at Flying Cloud Dr.

The area is designated as a "Transit Market Area IV" by the Met Council (i.e. an area that only supports dial-a-ride and peak period express/commuter service). However, the proposed project will achieve much more than supporting this designation. The proposed project will improve various multi-modal connections to nearby transit facilities and community amenities, as well as improving safety for all users along the corridor. For example, the proposed project will introduce trails,

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

improve the access for all modes, and expand the opportunities for new north-south transit service (between TH 212 and downtown Chanhassen & Shakopee). These connections will help link pedestrians, bicyclists and commuters to a cohesive network for multimodal and recreational amenities, which include the following:

SouthWest Village Park and Ride

Chanhassen Transit Station

Express Routes in downtown Chanhassen  
The planned SW Light Rail Transit Mitchell Station, which will be located along TH 212 in Eden Prairie (see Green Line on Transit Map)

MN River Bluffs Regional Trails

Seminary Fen Scientific and Natural Area

Badimere Park and Riley Lake Park

MN River, including the MN Valley Wild Refuge

MN Valley State Trail in Shakopee

More importantly, these connections will provide greater opportunities to access jobs, housing, schools, and public services without having to depend on a vehicle.

---

## Transit Projects Not Requiring Construction

*If the applicant is completing a transit or TDM application that is operations only, check the box and do not complete the remainder of the form. These projects will receive full points for the Risk Assessment.*

*Park-and-Ride and other transit construction projects require completion of the Risk Assessment below.*

**Check Here if Your Transit Project Does Not Require Construction**

---

## 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 Yes

100%

Layout or Preliminary Plan started

50%

Layout or Preliminary Plan has not been started

0%

Anticipated date or date of completion

### 3) Environmental Documentation (5 Percent of Points)

EIS

EA Yes

PM

Document Status:

Document approved (include copy of signed cover sheet) Yes

100%

Document submitted to State Aid for review

75%

date submitted

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

50%

Document not started

0%

Anticipated date or date of completion/approval

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

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

100%



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

80%

**Historic/archeological review under way; determination of adverse effect anticipated**

40%

**Unsure if there are any historic/archeological resources in the project area**

0%

**Anticipated date or date of completion of historic/archeological review:**

**Project is located on an identified historic bridge**

**5)Review of Section 4f/6f Resources (10 Percent of Points)**

*4(f) Does the project impacts any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or public private historic properties?*

*6(f) Does the project impact any public parks, public wildlife refuges, public golf courses, wild & scenic rivers or historic property that was purchased or improved with federal funds?*

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

Yes

100%

**No impact to 4f property. The project is an independent bikeway/walkway project covered by the bikeway/walkway Negative Declaration statement; letter of support received**

100%

**Section 4f resources present within the project area, but no known adverse effects**

80%

**Project impacts to Section 4f/6f resources likely coordination/documentation has begun**

50%

**Project impacts to Section 4f/6f resources likely coordination/documentation has not begun**

30%

**Unsure if there are any impacts to Section 4f/6f resources in the project area**

0%

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

**Right-of-way, permanent or temporary easements not required**

100%

**Right-of-way, permanent or temporary easements has/have been acquired**

100%

**Right-of-way, permanent or temporary easements required, offers made**

75%

**Right-of-way, permanent or temporary easements required, appraisals made**

Yes

50%

**Right-of-way, permanent or temporary easements required, parcels identified**

25%

**Right-of-way, permanent or temporary easements required, parcels not identified**

0%

**Right-of-way, permanent or temporary easements identification has not been completed**

0%

**Anticipated date or date of acquisition**

12/01/2019

### **7)Railroad Involvement (25 Percent of Points)**

**No railroad involvement on project**

Yes

100%

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

100%

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

60%

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

40%

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

0%

**Anticipated date or date of executed Agreement**

### **8)Interchange Approval (15 Percent of Points)\***

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

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

Yes

100%

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

100%

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

0%

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

Construction plans completed/approved (include signed title sheet)

100%

Construction plans submitted to State Aid for review

75%

Construction plans in progress; at least 30% completion Yes

50%

Construction plans have not been started

0%

Anticipated date or date of completion 01/01/2019

## 10)Letting

Anticipated Letting Date 03/07/2019

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## Measure A: Cost Effectiveness

Total Project Cost (entered in Project Cost Form): \$13,421,000.00

Enter Amount of the Noise Walls: \$300,000.00

Total Project Cost subtract the amount of the noise walls: \$13,121,000.00

Points Awarded in Previous Criteria

Cost Effectiveness \$0.00

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## Other Attachments

File Name	Description	File Size
Canterbury LOS.pdf	Letter of Support (Canterbury Park)	48 KB
Figure 1 - Existing Conditions.pdf	Figure 1 - Existing Conditions	3.1 MB
Figure 2 - Layout.pdf	Figure 2 - Layout	6.8 MB
Figure 3 - Street View.pdf	Figure 3 - Street View	1.1 MB
LOS 1.pdf	Letter of Support (Level 7 Development)	107 KB
Shakopee LOS.pdf	City of Shakopee Resolution	170 KB
TH 101_2014 Regional Solicitation application_FINAL.pdf	City of Chanhassen Resolution	156 KB
TH101 Reconstruction Project MnDOT letter of support.pdf	MnDOT Letter of Support	105 KB
TH101ChanhassenResolution.pdf	Carver County Resolution	83 KB

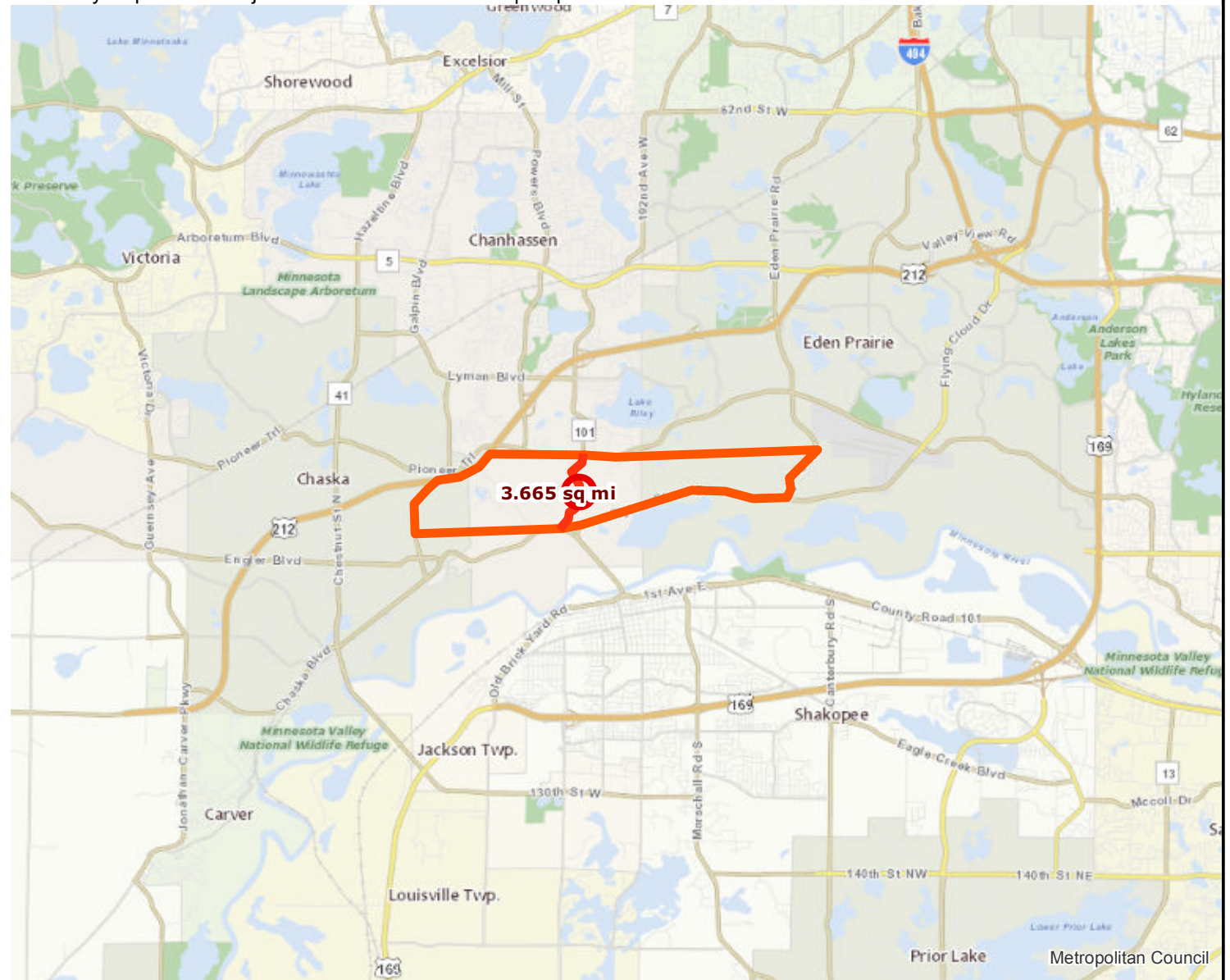
# Roadway Area Definition

Roadway Expansion Project: Carv 05372 101 REX | Map ID: 1471898372602

## Results

Project Length: 1.193 miles

Project Area: 3.665 sq mi



 Project Points  Project Area

 Project



Created: 8/22/2016  
LandscapeRSA1



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



# Regional Economy

Roadway Expansion Project: TH 101 Expansion | Map ID: 1468338624617

## Results

**WITHIN ONE MI** of project:

Totals by City:

**Chanhassen**

Population: 4167  
Employment: 2363  
Mfg and Dist Employment: 330

**Chaska**

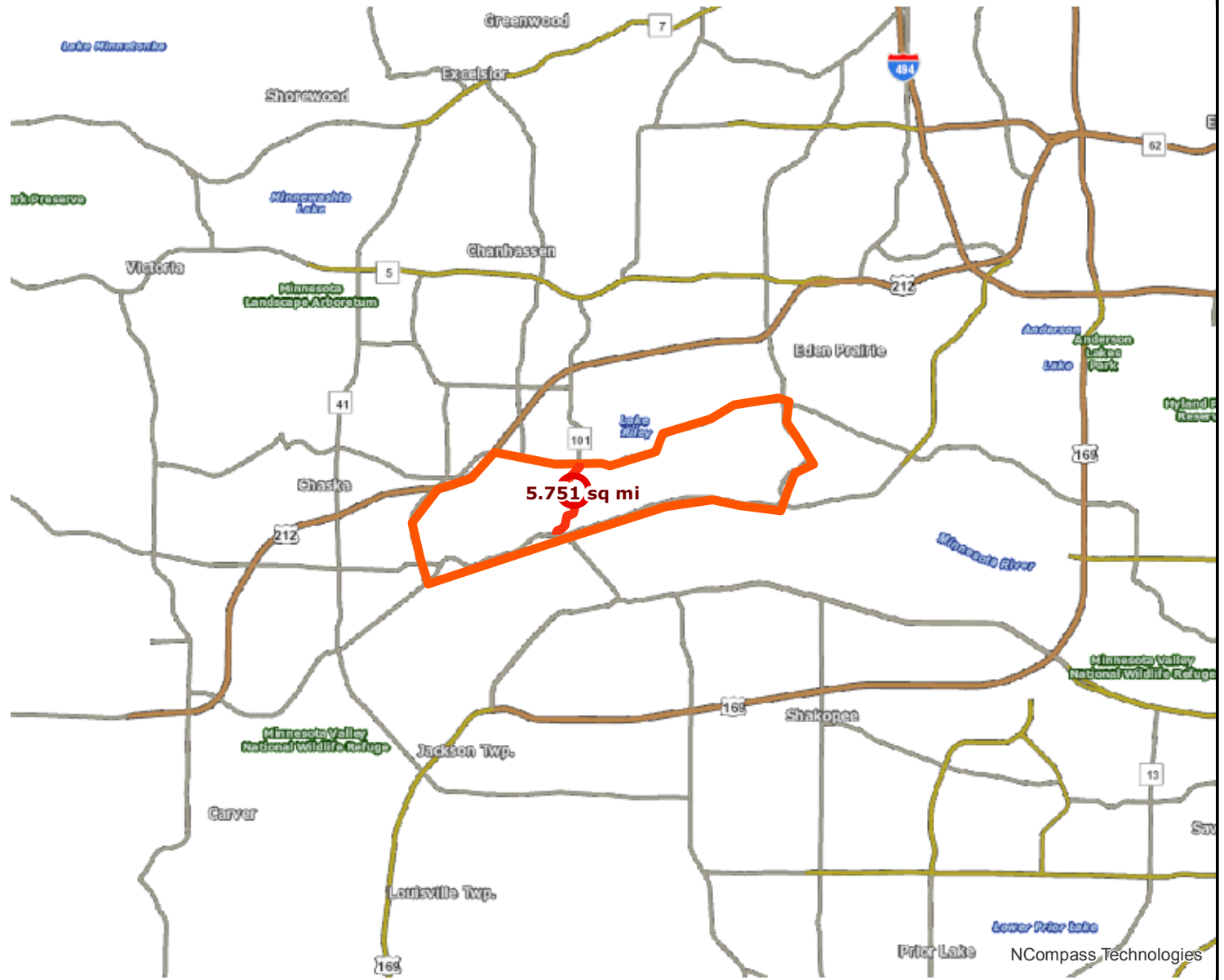
Population: 1353  
Employment: 103  
Mfg and Dist Employment: 5

**Eden Prairie**

Population: 2842  
Employment: 164  
Mfg and Dist Employment: 12

Postsecondary Students:

0



 Project Points  Project Area

 Project

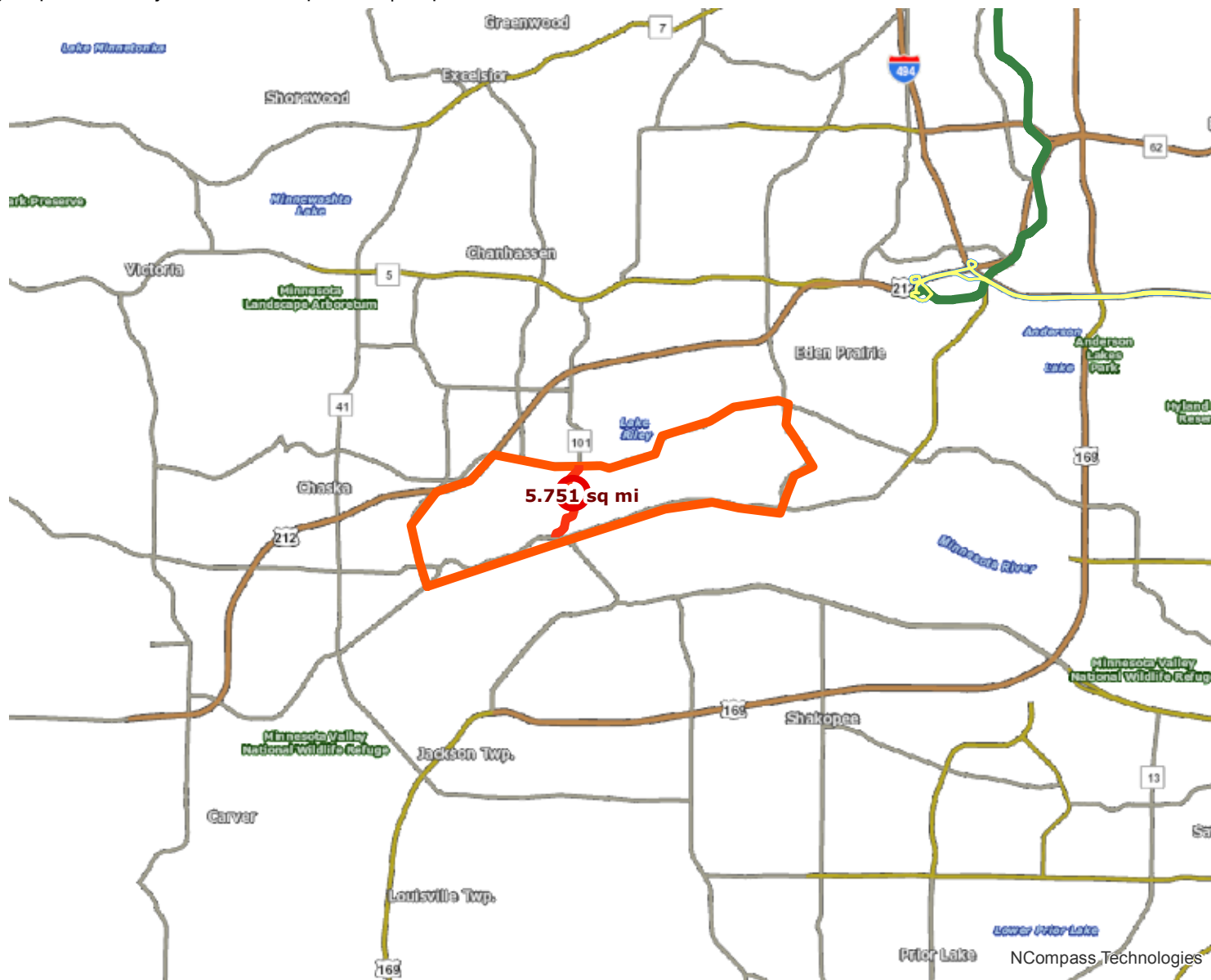


Created: 7/12/2016  
LandscapeRSA5



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





Results

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

*\*indicates Planned Alignments*

○ Project Points   
  Project Area   
 **Planned Alignments**   
 — Light Rail, Green Line Extension  
— Project   
 — Arterial BRT



Created: 7/12/2016  
LandscapeRSA3



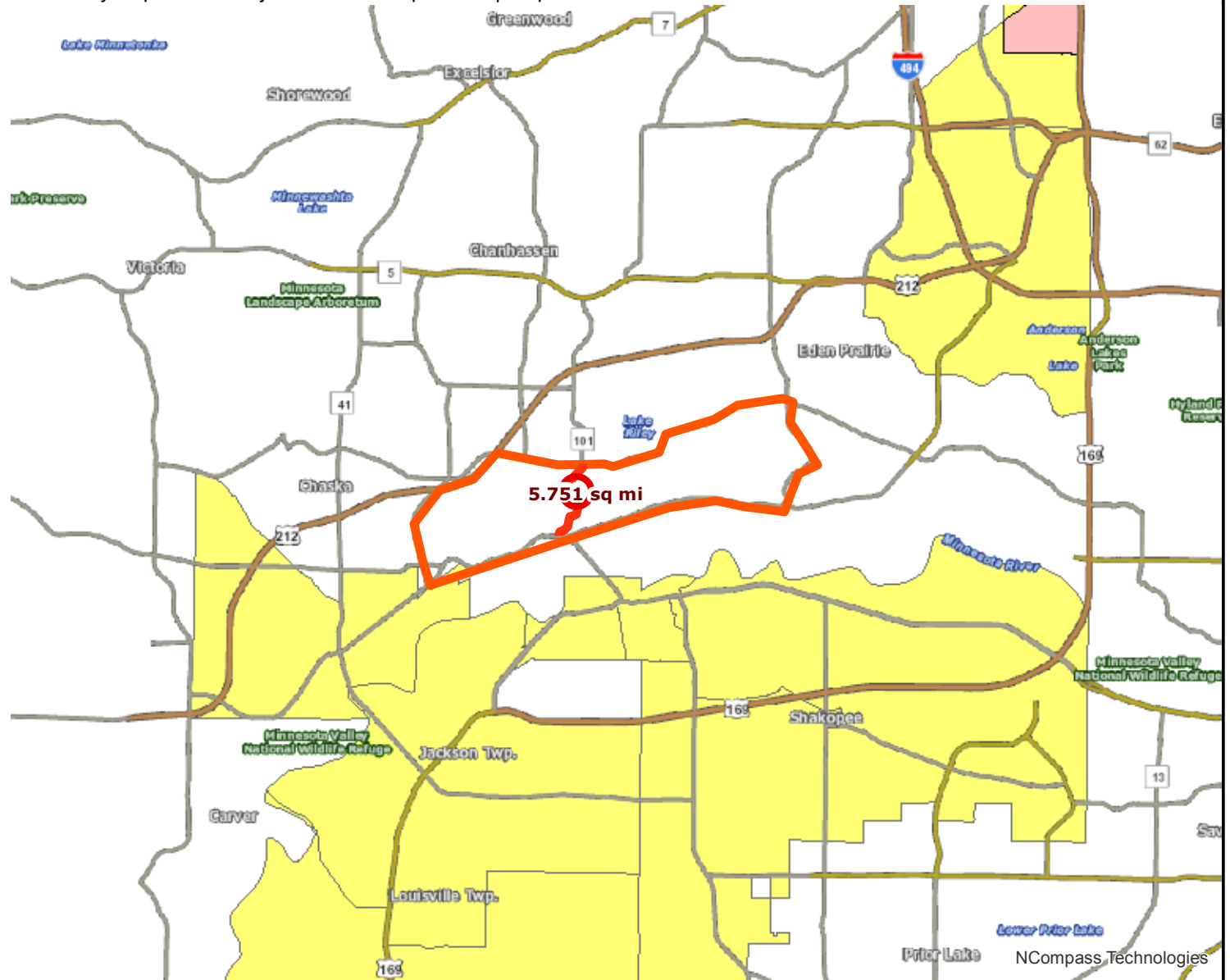
For complete disclaimer of accuracy, please visit  
<http://giswebsite.metc.state.mn.us/gissitenew/notice.aspx>



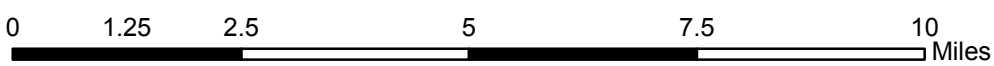
Peter Lake NCompass Technologies

Results

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:  
(0 to 12 Points)



- Project Points
- Project
- Project Area
- Area of Concentrated Poverty > 50% residents of color
- Area of Concentrated Poverty
- Above reg'l avg conc of race/poverty



Created: 7/12/2016  
LandscapeRSA2



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



NCompass Technologies

3: TH 101 & Flying Cloud Dr

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Direction	All
Future Volume (vph)	2497
Total Delay / Veh (s/v)	62
CO Emissions (kg)	3.50
NOx Emissions (kg)	0.68
VOC Emissions (kg)	0.81



3: TH 101 & Flying Cloud Dr

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Direction	All
Future Volume (vph)	2496
Total Delay / Veh (s/v)	0
CO Emissions (kg)	1.68
NOx Emissions (kg)	0.33
VOC Emissions (kg)	0.39

Intersection											
Intersection Delay, s/veh	23.4										
Intersection LOS	C										
Approach	EB		WB		NB			SB			
Entry Lanes	2		2		2			2			
Conflicting Circle Lanes	2		2		2			2			
Adj Approach Flow, veh/h	612		897		821			384			
Demand Flow Rate, veh/h	625		915		837			392			
Vehicles Circulating, veh/h	1011		589		157			1277			
Vehicles Exiting, veh/h	612		128		1479			227			
Follow-Up Headway, s	3.186		3.186		3.186			3.186			
Ped Vol Crossing Leg, #/h	0		0		0			0			
Ped Cap Adj	1.000		1.000		1.000			1.000			
Approach Delay, s/veh	42.4		31.6		5.0			13.4			
Approach LOS	E		D		A			B			
Lane	Left	Right	Left	Right	Left	Right	Bypass	Left	Right	Bypass	
Designated Moves	LT	R	L	TR	LT	TR	R	LT	TR	R	
Assumed Moves	LT	R	L	TR	L	TR	R	LT	TR	R	
RT Channelized							Free				
Lane Util	0.176	0.824	0.727	0.273	0.755	0.245		0.471	0.529		
Critical Headway, s	4.293	4.113	4.293	4.113	4.293	4.113		4.293	4.113		
Entry Flow, veh/h	110	515	665	250	423	137	277	163	183	46	
Cap Entry Lane, veh/h	529	557	726	748	1004	1012	1938	434	462	1938	
Entry HV Adj Factor	0.976	0.981	0.980	0.981	0.981	0.980	0.980	0.978	0.982	0.980	
Flow Entry, veh/h	107	505	652	245	415	134	272	159	180	45	
Cap Entry, veh/h	517	546	712	734	985	992	1900	424	454	1900	
V/C Ratio	0.208	0.925	0.915	0.334	0.421	0.135	0.143	0.376	0.396	0.024	
Control Delay, s/veh	9.8	49.4	40.0	9.0	8.4	4.9	0.0	15.4	15.0	0.0	
LOS	A	E	E	A	A	A	A	C	C	A	
95th %tile Queue, veh	1	11	12	1	2	0	0	2	2	0	

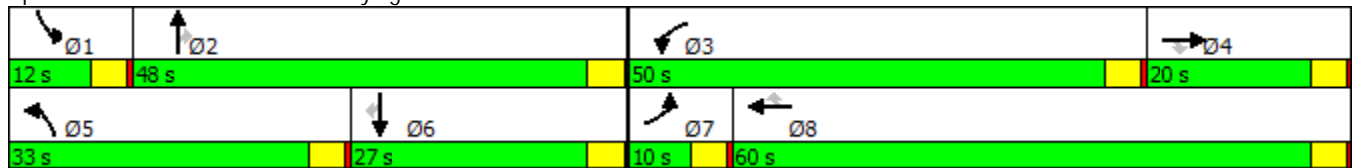


Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	12	48	50	20	33	27	10	60
Maximum Split (%)	9.2%	36.9%	38.5%	15.4%	25.4%	20.8%	7.7%	46.2%
Minimum Split (s)	8	20	8	20	8	20	8	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		11		11		11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	12	60	110	0	33	60	70
End Time (s)	12	60	110	0	33	60	70	0
Yield/Force Off (s)	8	56	106	126	29	56	66	126
Yield/Force Off 170(s)	8	56	106	115	29	56	66	115
Local Start Time (s)	97	109	27	77	97	0	27	37
Local Yield (s)	105	23	73	93	126	23	33	93
Local Yield 170(s)	105	23	73	82	126	23	33	82

Intersection Summary

Cycle Length	130
Control Type	Actuated-Uncoordinated
Natural Cycle	130

Splits and Phases: 3: TH 101 & Flying Cloud Dr



The Flying Cloud Drive/TH 101 intersection does not have a before and after configuration that can be accurately analyzed as the Flying Cloud Drive/TH 101 intersection is currently split between four T-intersections. In order to analyze an “existing” model, all of the intersections were combined into one signalized intersection (removing the free EBR and WBT movements) that realigns TH 101. This best represents how the future “build” intersection will identify as, however, the build will be a multilane roundabout. Under the reconfigured existing intersection, delay and emissions can be identified and compared to those of build conditions.

3: TH 101 & Flying Cloud Dr

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Direction	All
Future Volume (vph)	2497
Total Delay / Veh (s/v)	62
CO Emissions (kg)	3.50
NOx Emissions (kg)	0.68
VOC Emissions (kg)	0.81

3: TH 101 & Flying Cloud Dr

---

Direction	All
Future Volume (vph)	2496
Total Delay / Veh (s/v)	0
CO Emissions (kg)	1.68
NOx Emissions (kg)	0.33
VOC Emissions (kg)	0.39

Intersection											
Intersection Delay, s/veh	23.4										
Intersection LOS	C										
Approach	EB		WB		NB			SB			
Entry Lanes	2		2		2			2			
Conflicting Circle Lanes	2		2		2			2			
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Demand Flow Rate, veh/h	625		915		837			392			
Vehicles Circulating, veh/h	1011		589		157			1277			
Vehicles Exiting, veh/h	612		128		1479			227			
Follow-Up Headway, s	3.186		3.186		3.186			3.186			
Ped Vol Crossing Leg, #/h	0		0		0			0			
Ped Cap Adj	1.000		1.000		1.000			1.000			
Approach Delay, s/veh	42.4		31.6		5.0			13.4			
Approach LOS	E		D		A			B			
Lane	Left	Right	Left	Right	Left	Right	Bypass	Left	Right	Bypass	
Designated Moves	LT	R	L	TR	LT	TR	R	LT	TR	R	
Assumed Moves	LT	R	L	TR	L	TR	R	LT	TR	R	
RT Channelized							Free				
Lane Util	0.176	0.824	0.727	0.273	0.755	0.245		0.471	0.529		
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Cap Entry, veh/h	517	546	712	734	985	992	1900	424	454	1900	
V/C Ratio	0.208	0.925	0.915	0.334	0.421	0.135	0.143	0.376	0.396	0.024	
Control Delay, s/veh	9.8	49.4	40.0	9.0	8.4	4.9	0.0	15.4	15.0	0.0	
LOS	A	E	E	A	A	A	A	C	C	A	
95th %tile Queue, veh	1	11	12	1	2	0	0	2	2	0	

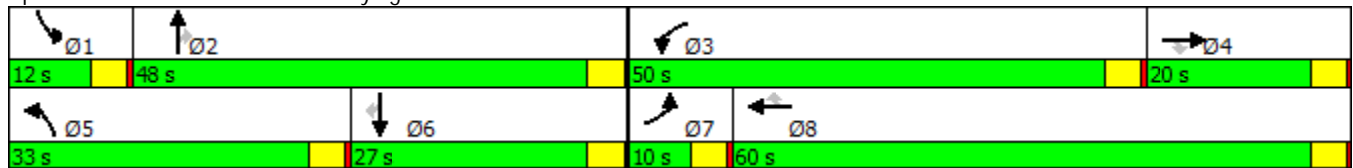


Phase Number	1	2	3	4	5	6	7	8
Movement	SBL	NBT	WBL	EBT	NBL	SBT	EBL	WBT
Lead/Lag	Lead	Lag	Lead	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	Min	None	None	None	Min	None	None
Maximum Split (s)	12	48	50	20	33	27	10	60
Maximum Split (%)	9.2%	36.9%	38.5%	15.4%	25.4%	20.8%	7.7%	46.2%
Minimum Split (s)	8	20	8	20	8	20	8	20
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Minimum Initial (s)	4	4	4	4	4	4	4	4
Vehicle Extension (s)	3	3	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0	0	0
Walk Time (s)		5		5		5		5
Flash Dont Walk (s)		11		11		11		11
Dual Entry	No	Yes	No	Yes	No	Yes	No	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	0	12	60	110	0	33	60	70
End Time (s)	12	60	110	0	33	60	70	0
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Local Start Time (s)	97	109	27	77	97	0	27	37
Local Yield (s)	105	23	73	93	126	23	33	93
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Intersection Summary

Cycle Length	130
Control Type	Actuated-Uncoordinated
Natural Cycle	130







Splits and Phases: 3: TH 101 & Flying Cloud Dr





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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
		Hwy 101	From south of Pioneer Trail to north of Flying Cloud Drive						Chanhassen	1/1/2013	12/31/2015
Description of Proposed Work		A Roadway expansion from 2 to 4 lanes and realigning the roadway (flattening horizontal curves)									
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		6, 90, 99			
											
Study Period: Number of Crashes	Fatal	F									
	Personal Injury (PI)	A									
		B					1			1	
		C	2				3		1	6	
	Property Damage	PD	1			1	5		2	9	
% Change in Crashes <small>*Use Crash Modification Factors Cleanhouse</small>	Fatal	F									
	PI	A									
		B					-94%				
		C	-87%				-94%		-91%		
	Property Damage	PD	-87%			-93%	-94%	-94%	-91%		
Change in Crashes <small>= No. of crashes X % change in crashes</small>	Fatal	F									
	PI	A									
		B					-0.94			-0.94	
		C	-1.74				-2.82		-0.91	-5.47	
	Property Damage	PD	-0.87			-0.93	-4.70		-1.82	-8.32	
Year (Safety Improvement Construction)		2019									
Project Cost (exclude Right of Way)		\$ 13,421,000		Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit	<div style="border: 1px solid black; background-color: #FFDAB9; padding: 5px; display: inline-block;">B/C= 0.29</div> <i>Using present worth values,</i> <b>B= \$ 3,951,648</b> <b>C= \$ 13,421,000</b> <i>See "Calculations" sheet for amortization.</i> Office of Traffic, Safety and Technology September 2014		
Right of Way Costs (optional)				F			\$ 1,400,000				
Traffic Growth Factor		3%		A			\$ 570,000				
Capital Recovery				B	-0.94	-0.31	\$ 170,000	\$ 53,315			
1. Discount Rate		4.5%		C	-5.47	-1.83	\$ 83,000	\$ 151,475			
2. Project Service Life (n)		20		PD	-8.32	-2.78	\$ 7,600	\$ 21,097			
				Total				\$ 225,887			

# 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
		Hwy 101	Pioneer Trail intersection						Chanhassen	1/1/2011	12/31/2013
Description of Proposed Work		A Roadway expansion from 2 to 4 lanes, including a full reconstruction of the roadway									
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			6, 90, 99		
							Pedestrian		Other	Total	
Study Period: Number of Crashes	Fatal	F									
	Personal Injury (PI)	A									
		B				1				1	
		C									
Property Damage	PD	1						1	2		
% Change in Crashes	Fatal	F									
	PI	A									
		B				-57%					
		C				-57%					
Property Damage	PD	-83%						-59%			
Change in Crashes <small>= No. of crashes X % change in crashes</small>	Fatal	F									
	PI	A									
		B				-0.57				-0.57	
		C									
Property Damage	PD	-0.83						-0.59	-1.42		
Year (Safety Improvement Construction)		2020									
Project Cost (exclude Right of Way)		\$ 13,421,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit	<div style="border: 1px solid black; background-color: #FFDAB9; padding: 5px; display: inline-block;">B/C= 0.05</div> <i>Using present worth values,</i> <b>B= \$ 627,985</b> <b>C= \$ 13,421,000</b> <i>See "Calculations" sheet for amortization.</i> Office of Traffic, Safety and Technology September 2014			
Right of Way Costs (optional)			F			\$ 1,400,000					
Traffic Growth Factor		3%	A			\$ 570,000					
Capital Recovery			B	-0.57	-0.19	\$ 170,000	\$ 32,300				
1. Discount Rate		4.5%	C			\$ 83,000					
2. Project Service Life (n)		20	PD	-1.42	-0.47	\$ 7,600	\$ 3,597				
			Total			\$ 35,897					

# 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
		Hwy 101	Flying Cloud Drive Intersections						Chanhasseen	1/1/2011	12/31/2013
Description of Proposed Work		Roadway expansion from 2 to 4 lanes and changing from signal to multilane roundabout control									
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		6, 90, 99			
									Pedestrian	Other	Total
Study Period: Number of Crashes	Fatal	F									
	Personal Injury (PI)	A									
		B									
		C					2				2
Property Damage	PD	4	1			1			1	7	
% Change in Crashes <small>*Use Crash Modification Factors Cleanhouse</small>	Fatal	F									
	PI	A									
		B									
		C	-75%				-71%				
Property Damage	PD	-75%	-71%			-71%				-64%	
Change in Crashes <small>= No. of crashes X % change in crashes</small>	Fatal	F									
	PI	A									
		B									
		C					-1.42				-1.42
Property Damage	PD	-3.00	-0.71			-0.71				-0.64	-5.06
Year (Safety Improvement Construction)		2019									
Project Cost (exclude Right of Way)		\$ 13,421,000	Type of Crash	Study Period: Change in Crashes	Annual Change in Crashes	Cost per Crash	Annual Benefit	<div style="border: 1px solid black; background-color: #FFDAB9; padding: 5px; display: inline-block;">B/C= 0.07</div> <i>Using present worth values,</i> <b>B= \$ 911,526</b> <b>C= \$ 13,421,000</b> <i>See "Calculations" sheet for amortization.</i>			
Right of Way Costs (optional)			F			\$ 1,400,000					
Traffic Growth Factor		3%	A			\$ 570,000					
Capital Recovery			B			\$ 170,000					
1. Discount Rate		4.5%	C	-1.42	-0.47	\$ 83,000	\$ 39,287				
2. Project Service Life (n)		20	PD	-5.06	-1.69	\$ 7,600	\$ 12,819				
			Total			\$ 52,105					

▪ Countermeasure: Improve pavement friction (increase skid resistance)

CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
0.799	20.1	★★★★★	All	All	All	Lyon and Persaud, 2008	

▪

0.667	33.3	★★★★★	All	All	All	Lyon and Persaud, 2008	
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▪

0.819	18.1	★★★★★	All	All	All	Lyon and Persaud, 2008	
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▪

0.797	20.3	★★★★★	All	All	All	Lyon and Persaud, 2008	
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▪

1.271	- 27.1	★★★★★	All	All	All	Lyon and Persaud, 2008	
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▪

0.426	57.4	★★★★★	Wet road	All	All	Lyon and Persaud, 2008	
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▪

0.372	62.8	★★★★★	Wet road	All	All	Lyon and Persaud,	
-------	------	-------	----------	-----	-----	-------------------	--

0.575

42.5



Rear end, Wet road

All

Lyon and Persaud, 2008

0.59

41



All

All

All

Lyon and Persaud, 2008

0.589

41.1



All

All

All

Lyon and Persaud, 2008

0.361

63.9



Wet road

All

All

Lyon and Persaud, 2008

0.304

69.6



Rear end

All

All

Lyon and Persaud, 2008

0.943

5.7



Rear end

All

All

Lyon and Persaud, 2008

0.504

49.6



Rear end

All

All

Lyon and Persaud, 2008

0.221

77.9



Rear end, Wet road

All

All

Lyon and Persaud, 2008

0.787

21.3



Angle

All

All

Lyon and Persaud, 2008

0.828

17.2



Angle

All

All

Lyon and Persaud, 2008

0.898

10.2



Angle

All

All

Lyon and Persaud, 2008

0.799

20.1



Angle, Wet road

All

All

Lyon and Persaud, 2008

0.47

53



Angle, Wet road

All

All

Lyon and Persaud, 2008

0.828

17.2



Angle, Wet road

All

All

Lyon and Persaud, 2008

Countermeasure: Convert signalized intersection to modern roundabout

CMF	CRF(%)	Quality	Crash Type	Crash Severity	Area Type	Reference	Comments
0.68	32	★★★★★	All	Serious injury, Minor injury	Not specified	De Brabander and Vereeck, 2007	Countermeasure name has been slightly ... <a href="#">[read more]</a>

Countermeasure: Convert signalized intersection to modern roundabout

0.4 [B]	60	★★★★★	All	Serious Injury, Minor Injury	Urban	Rodegerdts et al., 2007	Countermeasure name changed to match ... <a href="#">[read more]</a>
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Countermeasure: Convert signalized intersection to modern roundabout

0.33 [B]	67	★★★★★	All	All	Suburban	Rodegerdts et al., 2007	Countermeasure name changed to match ... <a href="#">[read more]</a>
-------------	----	-------	-----	-----	----------	-------------------------	--

Countermeasure: Convert signalized intersection to modern roundabout

0.52 [B]	48	★★★★★	All	All	All	Rodegerdts et al., 2007	Countermeasure name changed to match ... <a href="#">[read more]</a>
-------------	----	-------	-----	-----	-----	-------------------------	--

Countermeasure: Convert signalized intersection to modern roundabout

0.22 [B]	78	★★★★★	All	Serious Injury, Minor Injury	All	Rodegerdts et al., 2007	Countermeasure name changed to match ... <a href="#">[read more]</a>
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Countermeasure: Convert signalized intersection to modern roundabout


0.79	21	★★★★★	All	All	Urban and suburban	Gross et al., 2012	Countermeasure name has been slightly ... <a href="#">[read more]</a>
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Countermeasure: Convert signalized intersection to modern roundabout

0.34	66	★★★★★	All	Serious	Urban	Gross	Countermeasure
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					injury,Minor injury	and suburban	et al., 2012	name has been slightly ... [ <a href="#">read more</a> ]
■								
0.58	42		All	All	Suburban		Gross et al., 2012	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
■								
0.26	74		All	Serious injury,Minor injury	Suburban		Gross et al., 2012	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
■								
1.15	-15		All	All	Urban		Gross et al., 2012	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
■								
0.45	55		All	Serious injury,Minor injury	Urban		Gross et al., 2012	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
■								
0.76	24		All	All	Urban and suburban		Gross et al., 2012	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
■								
0.34	66		All	Serious injury,Minor injury	Urban and suburban		Gross et al., 2012	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
■								

0.792 20.8  All All Urban and suburban [Srinivasan, et al., 2011](#) Countermeasure name has been slightly ... [[read more](#)]

■

0.342 65.8  All Fatal, Serious injury, Minor injury Urban and suburban [Srinivasan, et al., 2011](#) Countermeasure name has been slightly ... [[read more](#)]


■

0.809 19.1  All All Urban and suburban [Srinivasan, et al., 2011](#) Countermeasure name has been slightly ... [[read more](#)]

■

0.288 71.2  All Fatal, Serious injury, Minor injury Urban and suburban [Srinivasan, et al., 2011](#) Countermeasure name has been slightly ... [[read more](#)]

■

0.576 42.4  All All Suburban [Srinivasan, et al., 2011](#) Countermeasure name has been slightly ... [[read more](#)]


■

0.259 74.1  All Fatal, Serious injury, Minor injury Suburban [Srinivasan, et al., 2011](#) Countermeasure name has been slightly ... [[read more](#)]


■

0.445 55.5  All Fatal, Serious injury, Minor injury Urban [Srinivasan, et al., 2011](#) Countermeasure name has been slightly ... [[read more](#)]

■

0.759 24.1  All All Urban and suburban [Srinivasan, et al., 2011](#) Countermeasure name has been slightly ... [[read more](#)]


■

0.87 13  All Serious injury Not specified [De Brabander and Vereeck, 2007](#) Countermeasure name has been slightly ... [[read more](#)]


■

0.69 31  All Minor injury Not specified [De Brabander and Vereeck, 2007](#) Countermeasure name has been slightly ... [[read more](#)]

■

0.99<sub>[B]</sub> 1  All All Urban [Rodegerdts et al., 2007](#) Countermeasure name changed to match ... [[read more](#)]


■

1.07 -7  All All Urban and suburban [Gross et al., 2012](#) Countermeasure name has been slightly ... [[read more](#)]

■

0.37 63  All Serious injury, Minor injury Urban and suburban [Gross et al., 2012](#) Countermeasure name has been slightly ... [[read more](#)]


■

0.625 37.5  All All Rural [Uddin, Headrick, and Sullivan, 2012](#) Countermeasure name has been slightly ... [[read more](#)]

■

0.4	60		All	Serious injury, Minor injury	Rural	<a href="#">Uddin, Headrick, and Sullivan, 2012</a>	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
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■

0.735	26.5		All	All	Urban and suburban	<a href="#">Srinivasan, et al., 2011</a>	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
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■

0.451	54.9		All	Fatal, Serious injury, Minor injury	Urban and suburban	<a href="#">Srinivasan, et al., 2011</a>	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
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■

1.15	-15		All	All	Urban	<a href="#">Srinivasan, et al., 2011</a>	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
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■

1.066	-6.6		All	All	Urban and suburban	<a href="#">Srinivasan, et al., 2011</a>	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
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■

0.37	63		All	Fatal, Serious injury, Minor injury	Urban and suburban	<a href="#">Srinivasan, et al., 2011</a>	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
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■

0.338	66.2		All	Fatal, Serious injury, Minor injury	Urban and suburban	<a href="#">Srinivasan, et al., 2011</a>	Countermeasure name has been slightly ... [ <a href="#">read more</a> ]
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Desktop Reference for Crash Reduction Factors

Roadway Departure Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Road Type	Daily Traffic Volume (veh/day)	Ref	Effectiveness			Study Type
							Crash Reduction Factor / Function	Range		
								Std Error	Low	
	All	All			<5,000/lane	15	20			
	All	All			>5,000/lane	15	31			
	All	All				15	10			
	All	All				15	20			
	All	All				15	22			
	All	All				15	25			
	All	All				15	25			
	All	All				15	25			
	All	Fatal				15	39			
	All	Injury				15	23			
	All	PDO				15	27			
	Head-on	All			<5,000/lane	15	38			
	Head-on	All			>5,000/lane	15	44			
	Head-on	All				15	53			
	Head-on	All				15	53			
	Head-on	PDO				15	50			
	Left-turn	All				15	71			
	Left-turn	PDO				15	67			
	ROR	All				15	44			
	ROR	All				15	26			
	ROR	All				15	44			
	ROR	All				15	44			
	ROR	PDO				15	50			
	Overturn	All			<5,000/lane	15	42			
	Overturn	All			>5,000/lane	15	52			
	Rear-end	All			<5,000/lane	15	42			
	Rear-end	All			>5,000/lane	15	52			
	Rear-end	All				15	32			
	Rear-end	All				15	32			
	Rear-end	All				15	40			
	Rear-end	All				15	53			
	Rear-end	PDO				15	53			

Increase number of lanes

Desktop Reference for Crash Reduction Factors

Roadway Departure Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Road Type	Daily Traffic Volume (veh/day)	Ref	Effectiveness			Study Type	
							Crash Reduction Factor / Function	Std Error			Range
								Low	High		
Increase number of lanes (cont'd)	Right-angle	All			<5,000/lane	15	35				
	Right-angle	All			>5,000/lane	15	45				
	Right-angle	All				15	15				
	Right-angle	PDO				15	46				
	Sideswipe	All			<5,000/lane	15	38				
	Sideswipe	All			>5,000/lane	15	44				
	Sideswipe	All				15	30				
	Sideswipe	All				15	30				
	Sideswipe	All				15	35				
	Sideswipe	PDO				15	64				
Increase vertical grade by 1%	All	All	Rural	2-lane		23	-1.6P; P=percent grade (absolute value)				
Install acceleration/ deceleration lanes	All	All				15	26				
	All	All	All	All		1	10				
	All	All				15	10				
	All	All				15	10				
	All	All				15	10				
	All	All				15	10				
	All	All				15	25				
	All	All				15	75				
	Rear-end	All				15	75				
	Sideswipe	All				15	75				
Install channelized lane	All	All				15	67				
	All	PDO				15	62				
	Rear-end	All				15	93				
	All	Fatal/ Injury	Rural	2-lane		38	33				
Install climbing lane (where large difference between car and truck speed)	All	Fatal/ Injury	Rural	2-lane		38	33				

Desktop Reference for Crash Reduction Factors

Intersection Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Config	Control	Major Daily Traffic Volume (veh/day)		Ref	Obs	Crash Reduction Factor / Function		Effectiveness		Study Type
						Minor	Daily Traffic			Std Error	Range	Low	High	
<b>OTHER GEOMETRIC COUNTERMEASURES</b>														
	All	All		4-Leg	No signal			28		57				
	All	Fatal/Injury	Urban	4-Leg		<70%*	>30%*	13		33	6			Meta-analysis
	All	Fatal/Injury	Urban	4-Leg		>85%*	<15%*	13		-35	15			Meta-analysis
Convert four-leg to two T-intersections	All	Fatal/Injury	Urban	4-Leg		70-85%*	15-30%*	13		25	5			Meta-analysis
	All	PDO	Urban	4-Leg		<70%*	>30%*	13		10	5			Meta-analysis
	All	PDO	Urban	4-Leg		>85%*	<15%*	13		-15	6			Meta-analysis
	All	PDO	Urban	4-Leg		70-85%*	15-30%*	13		0	5			Meta-analysis
	All	All		4-Leg				51		57				Meta-analysis
	All	All	All		All			50	55	35	3			EB Before-After
	All	All	All		Signal			50	9	48	5			EB Before-After
	All	All	All		Signal			21	23	40				EB Before-After
	All	All	All		Stop (2-way)			50	36	44	4			EB Before-After
	All	All	All		Stop (4-way)			50	10	-3	15			EB Before-After
	All	All	Rural	1-lane	Stop (2-way)			50	9	72	4			EB Before-After
	All	All	Rural		Stop	7,185-17,220		44		58	7			EB Before-After
	All	All		3-Leg				15		50				Simple Before-After
	All	All		4-Leg				15		75				Simple Before-After

\* Percentage of Total Daily Traffic Volume



Desktop Reference for Crash Reduction Factors

Intersection Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Config	Control	Major		Ref	Obs	Effectiveness			Study Type
						Daily Traffic Volume (veh/day)	Minor			Crash Reduction Factor / Function	Std Error	Range	
Convert intersection to roundabout (cont'd)	All	Fatal/Injury						55	181	65			Simple Before-After
	All	PDO						55	181	42			Simple Before-After
	Ped	All						55	181	89			Simple Before-After
	All	All	Urban		Stop		13,272-30,418	44		5	10		EB Before-After
	All	All	Urban		Signal		5,322-31,525	44		35	9		EB Before-After
	All	All	Urban		Signal			50	5	1	12		EB Before-After
	All	All	Urban		Signal			21	4	35			EB Before-After
	All	All	Urban		Stop (2-way)			50	27	31	6		EB Before-After
	All	All	Urban	1-lane	Stop (2-way)			50	16	56	6		EB Before-After
	All	All	Urban	2-lane	Signal			50	4	67	4		EB Before-After
	All	All	Urban	2-lane	Stop (2-way)			50	11	18	8		EB Before-After
	All	All	Urban		Stop		4,600-17,825	44		72	6		EB Before-After
	All	Fatal/Injury	All		All			50	55	76	3		EB Before-After
All	Fatal/Injury	All		Signal			50	9	78	6		EB Before-After	
All	Fatal/Injury	All		Stop (2-way)			50	36	82	3		EB Before-After	

Desktop Reference for Crash Reduction Factors

Intersection Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Config	Control	Major		Ref	Obs	Effectiveness			Study Type	
						Daily Traffic Volume (veh/day)	Minor			Crash Reduction Factor / Function	Std Error	Range Low		Range High
Convert intersection to roundabout (cont'd)	All	Fatal/Injury	All		Stop (4-way)			50	10	-28	41		EB Before-After	
	All	Fatal/Injury	All		All			21	23	80			EB Before-After	
	All	Fatal/Injury	Rural	1-lane	Stop (2-way)			50	9	87	3		EB Before-After	
	All	Fatal/Injury	Rural		Stop		7,185-17,220	44		82	9		EB Before-After	
	All	Fatal/Injury			No signal			11	62	44		34	52	EB and Meta-analysis
	All	Fatal/Injury			Signal			11	34	32		19	43	EB and Meta-analysis
	All	Fatal/Injury						11	96	39		31	45	EB and Meta-analysis
	All	Fatal/Injury	Urban		Signal			50	5	60	12			EB Before-After
	All	Fatal/Injury	Urban		Stop (2-way)			50	27	74	6			EB Before-After
	All	Fatal/Injury	Urban	1-lane	Stop (2-way)			50	16	78	7			EB Before-After
	All	Fatal/Injury	Urban	2-lane	Stop (2-way)			50	11	72	9			EB Before-After
	All	Fatal/Injury	Urban		Signal		5,322-31,525	44		74	14			EB Before-After
	All	Fatal/Injury	Urban		Stop		4,600-17,825	44		88	8			EB Before-After
	Ped	Fatal/Injury			No signal			11		27				
	Ped	Fatal/Injury			Signal			11		-28				

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Road Type	Daily Traffic Volume (veh/day)	Ref	Effectiveness			Study Type
							Crash Reduction Factor / Function	Std Error	Range Low High	
<b>GEOMETRIC COUNTERMEASURES</b>										
Change shoulder type and/or width	All	All	Rural			21	$100(1 - ((AMFWRA \times AMFTRA - 1.0)PRA + 1.0))$ , AMFWRA=accident modification factor for related accidents based on shoulder width (for values of AMFWRA, refer to source), AMFTRA=accident modification factor for related accidents based on shoulder type (for values of AMFTRA, refer to source), PRA=proportion of total crashes constituted by related crashes.			Expert Panel
	All	All	All	All		27	20	19		EB Before-After
	All	Fatal/Injury	All	All	All		27	51	19	
Flatten crest vertical curve	All	Fatal/Injury	Rural	2-lane		38	50			
	All	All				15	39			
	All	All	All	All		1	40			
	All	All				15	35			
	All	All								
Flatten horizontal curve	All	All	Rural			21	$100(1 - ((1.55Lc + 80.2/R - 0.012Is) / 1.55Lc))$ ; Lc=length of horizontal curve (mi) without spiral curve length, R=curve radius (ft), Is=presence of a spiral transition curve (1 if a spiral transition is present, 0 otherwise).			Expert Panel
	All	Fatal				15	87			
	All	Injury				15	87			
	All	PDO				15	87			
	Fixed object	All				15	68			

Desktop Reference for Crash Reduction Factors

Roadway Departure Crashes

Countermeasure(s)	Crash Type	Crash Severity	Area Type	Road Type	Daily Traffic Volume (veh/day)	Ref	Effectiveness			Study Type
							Crash Reduction Factor / Function	Range		
								Std Error	Low	
Flatten horizontal curve (cont'd)	Fixed object	All			>5,000/lane	15	87			
	Head-on	All			<5,000/lane	15	67			
	Head-on	All			>5,000/lane	15	64			
	ROR	All			<5,000/lane	15	90			
	ROR	All			>5,000/lane	15	79			
	Overturn	All			<5,000/lane	15	73			
	Overturn	All			>5,000/lane	15	24			
	Rear-end	All			<5,000/lane	15	73			
	Rear-end	All			>5,000/lane	15	24			
	Rear-end	All				15	49			
Flatten horizontal curves (10 to 5 degrees)	All	All				15	45			
Flatten horizontal curves (15 to 5 degrees)	All	All				15	63			
Flatten horizontal curves (20 to 10 degrees)	All	All				15	48			
Flatten side slopes	All	All			<5,000/lane	15	43			
	All	All			>5,000/lane	15	45			
	All	All	All	All		1	30			
	All	All				15	25			
	All	All				15	30			
	All	All				15	32			
	All	All				15	35			
	Fixed object	All				15	62			
	ROR	All				15	10			

Dual CRF for Hwy 101 from Pioneer Trail to North of the Hwy 101/Flying Cloud Drive intersection

Improvements include a 2 lane to 4 lane conversion and realigning the roadway (reducing curvature). It should be noted that each lane of the roadway is expected to have less than 5,000 vehicles per day.

CR1=Increase Number of Lanes

CR2=Flatten Horizontal Curvature

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

Other Crashes:  $CR=1 - (1-.31)*(1-.87) = .91$

Run off Road/Head On/Sideswipe:  $CR=1 - (1-.44)*(1-.90) = .94$

Right Angle:  $CR=1 - (1-.45)*(1-.87) = .93$

Left-Turn:  $CR=1 - (1-.71)*(1-.87) = .96$

Rear End:  $CR=1 - (1-.52)*(1-.73) = .87$

Dual CRF for Hwy 101/Pioneer Trail

Improvements include a 2 lane to 4 lane conversion and reconstructing the roadway (improving pavement friction)

CR1=Increase Number of Lanes

CR2=Improve Pavement Friction

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

$$\text{Right Angle: } CR=1 - (1-.45)*(1-.21) = .57$$

$$\text{Read End: } CR=1 - (1-.42)*(1-.70) = .83$$

$$\text{All: } CR=1 - (1-.31)*(1-.41) = .59$$

Dual CRF for Hwy 101/Flying Cloud Drive intersections

Improvements include a 2 lane to 4 lane conversion and converting from signal control to multilane roundabout control.

CR1=Increase Number of Lanes

CR2=Convert from signal to roundabout

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

Other Crashes (PDO):  $CR=1 - (1-.31)*(1-.48) = .64$

Other Crashes (Fatal/Injury):  $CR=1 - (1-.31)*(1-.78) = .85$

Run off Road/Head On/Sideswipe:  $CR=1 - (1-.44)*(1-.48) = .71$

Right Angle:  $CR=1 - (1-.45)*(1-.48) = .71$

Left-Turn:  $CR=1 - (1-.71)*(1-.48) = .85$

Rear End:  $CR=1 - (1-.52)*(1-.48) = .75$

**Flying Cloud Drive From R.P. 05+00.889 to R.P. 06+00.474 (2013 -2015) - created on 06-20-201**

Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.

SYS	NUM	REF_POINT	GIS_ROUTE	GIS_TM	RD_DIR	ELEM	RELY	INV	R_U
04	10000061	005+00.961	0410000061	5.961	Z		1	2	U
04	10000061	005+00.961	0410000061	5.961	Z		1	2	U
04	10000061	005+00.964	0410000061	5.964	Z		1	2	U
04	10000061	006+00.055	0410000061	6.055	Z		1	2	U
04	10000061	006+00.315	0410000061	6.315	Z		1	2	U
04	10000061	006+00.388	0410000061	6.388	Z		1	2	U
04	10000061	006+00.388	0410000061	6.388	Z		1	2	U
04	10000061	006+00.414	0410000061	6.414	W		2	2	U
04	10000061	006+00.461	0410000061	6.461	Z		3	2	U



6 by rile1che

ATP	CO	CITY	DOW	MONTH	DAY	YEAR	TIME	SEV
AND HE DID NOT SEE HIM WHEN HE PULLED BACK INTO THE TRAVEL LANE FROM THE SHOULDER. THERE WAS MODER	10	0640	2-Mon	10	6	2014	1638	N
UNIT 2 STOPPED AT RED LIGHT AT THE INTERSECTION OF HWY 61 AND HWY 101. UNIT 1 SOUTHBOUND ON HWY 61.	10	0640	2-Mon	11	17	2014	2258	N
BERTUCCI WAS TRAVELING EASTBOUND ON CO RD 61, DEER RAN OUT FROM SOUTH SIDE OF ROAD, MADE CONTACT WI	10	0640	3-Tue	10	14	2014	1919	N
UNIT 1 AND UNIT 2 WERE BOTH TRAVELING EASTBOUND ON COUNTY ROAD 61 EAST OF HWY 101 IN THE CITY OF CH	10	0640	1-Sun	12	29	2013	0921	N
D1 TRANSPORTED BY RIDGEVIEW TO 212 ER FOR POSSIBLE INJURY. PRIVATE TOW FOR MOTORCYCLE.	10	0640	2-Mon	3	16	2015	1610	C
VEHICLE 1 SAID SHE WAS TRAVELING WEST CO RD 61 TO GO SOUTH HWY 101. VEHICLE 1 SAID SHE WAS TRAVELIN	10	0640	6-Fri	2	8	2013	0200	C
ON 01/01/2014 AT 1251 HOURS, DEPUTIES WERE DISPATCHED TO A SINGLE VEHICLE ACCIDENT AT THE INTERSECT	10	0640	4-Wed	1	1	2014	1251	N
V1 WAS TRAVELING WEST IN THE INSIDE LANE ON CO RD 61. V2 WAS IN THE OUTSIDE LANE TRAVELING WEST ON	10	0640	4-Wed	9	11	2013	1715	N
ON 04/1/2014 AT 1527 HOURS, THERE WAS A TWO VEHICLE PROPERTY DAMAGE CRASH APPROXIMATELY ONE HALF MI	10	0640	3-Tue	4	1	2014	1530	N

															PERSON1		
NUM_KILLED	NUM_VEH	JUNC	SL	TYPE	DIAG	LOC1	TCD	LIT	WTHR1	WTHR2	SURF	CHAR	DESGN	ACC_NUM	VTYPE	DIR	ACT
0	2	2	50	1	2	1	1	1	1	0	1	5	8	142820175	2	6	1
0	2	2	30	1	1	1	1	4	1	0	1	5	8	143220009	3	4	1
0	1	1	55	8	90	1	98	7	1	0	1	1	8	142880015	3	3	1
0	2	1	55	1	1	1	98	1	1	0	1	1	8	133640020	1	3	1
0	1	1	55	90	7	1	98	1	1	0	1	5	3	150750131	11	7	1
0	1	3	55	34	7	2	98	4	1	0	1	5	8	130390022	1	5	1
0	1	3	55	30	7	4	1	1	2	0	1	5	8	140020025	3	7	1
0	2	1	55	1	1	1	98	1	1	0	1	1	3	132540170	3	7	14
0	2	1	55	1	1	1	98	1	1	0	1	1	8	140910195	1	3	1

								PERSON2										PERSON3	
FAC1	FAC2	POSN	INJ	EQP	PHYS	AGE	SEX	VRTXE	DIR	ACT	FAC1	FAC2	POSN	INJ	EQP	PHYS	AGE	SEX	VRTXE
1	0	1	N	4	1	50	M	1	6	33	9	15	1	N	4	1	69	M	
15	2	1	N	4	1	44	M	1	4	1	1	0	1	N	4	1	57	F	
1	0	1	N	4	1	31	F												
1	0	1	N	4	1	53	F	1	3	1	15	0	1	N	4	1	28	F	
16	0	1	C	12	1	18	M												
3	0	1	C	4	1	20	F												
18	3	1	N	99	2	27	M												
4	8	1	N	4	1	32	F	1	7	1	1	0	1	N	4	1	55	F	
4	0	1	N	4	1	27	M	3	3	10	1	0	1	N	4	1	61	F	

PERSON4										PERSON4										
DIR	ACT	FAC1	FAC2	POSN	INJ	EQP	PHYS	AGE	SEX	VTYPE	DIR	ACT	FAC1	FAC2	POSN	INJ	EQP	PHYS	AGE	SEX

**TH 101 From Pioneer Trail to Flying Cloud Drive (2013 - 2015) - created on 06-20-2016 by rile1**

Crash data is managed by the Mn/DOT Office of Traffic, Safety, and Operations.

SYS	NUM	REF_POINT	GIS_ROUTE	GIS_TM	RD_DIR	ELEM	RELY	INV	R_U
03	00000101	009+00.037	0300000101	9.037	Z		A	2	U
03	00000101	009+00.037	0300000101	9.037	Z		1	1	U
03	00000101	009+00.037	0300000101	9.037	Z		1	1	U
03	00000101	009+00.147	0300000101	9.147	Z		B	1	U
03	00000101	009+00.173	0300000101	9.173	Z		A	2	U
03	00000101	009+00.280	0300000101	9.280	Z		1	2	U
03	00000101	009+00.392	0300000101	9.392	Z		1	2	U
03	00000101	009+00.393	0300000101	9.393	Z		2	2	U
03	00000101	009+00.478	0300000101	9.478	N		1	2	U
03	00000101	009+00.483	0300000101	9.483	Z		1	2	U
03	00000101	009+00.493	0300000101	9.493	Z		1	2	U
03	00000101	009+00.493	0300000101	9.493	Z		1	2	U
03	00000101	009+00.580	0300000101	9.580	Z		B	1	U
03	00000101	009+00.762	0300000101	9.762	Z		3	2	U
03	00000101	010+00.021	0300000101	10.021	Z		1	2	U
03	00000101	010+00.037	0300000101	10.037	Z		1	0	U
03	00000101	010+00.124	0300000101	10.124	Z		1	2	U
03	00000101	010+00.262	0300000101	10.262	Z		1	2	U
03	00000101	010+00.262	0300000101	10.262	Z		1	2	U

che

ATP  
UNIT 1 WAS W/B ON CTY RD 61 AND THOUGHT SHE HAD A  
-BOTH VEHICLES NB HWY 101 SOUTH OF CR 61 -DV2 SAID SHE STOPPED SUDDENLY IN TRAFFIC -DV1 SAID HE COU  
V/1 DRIVER WAS SOUTH ON 101, WHEN SHE REALIZED SHE MADE THE WRONG TURN. SHE WENT ON TO TELL ME THA  
V1 WAS ON 101 SB AND LOST CONTROL OF VEHICLE. D1 W  
AN UNKNOWN SOUTHBOUND HWY 101 VEHICLE RAN OFF THE  
UNIT ONE WAS EAST BOUD COUNTY ROAD 61 APPROXIMATELY 0.25 MI EAST OF MN HWY 101 NORTH. UNIT ONE WAS  
VEHICLE #1 WAS S/B MN HWY. 101 SOUTH OF THE INTERSECTION WITH LAKOTA LN. DRIVER SAID HE LOST CONTRO  
VEH 1 WAS SB ON HWY 101. DRIVER #1 STATED SHE WAS GOING SLOW AND WAS NOT ABLE TO KEEP CONTROL OF HE  
VEHICLE 1 WAS TRAVELING NORTH ON HWY 101 WHEN LOST CONTROL ON WET SNOW/ICY SPOTS AND HIT GUARDRAIL  
ON 01/27/2014 AT 0550 HOURS, THERE WAS A ONE VEHICLE PROPERTY DAMAGE CRASH ON MNTH 101 SOUTH OF LAK  
ON 12/04/2013 AT 0930 HOURS, THERE WAS A ONE VEHICLE PROPERTY DAMAGE CRASH AT THE INTERESECTION OF  
THE DRIVER WAS TRAVELLING N/B ON HWY 101 WHEN A DEER RAN INFRONT OF HER. DRIVER SAID SHE TURNED TO  
-DV1 N/B 101 -DV1 LOST CONTROL, LEFT THE ROADWAY,  
D1 WAS SB ON CO. RD. 101 IN A GROUP OF MOTORCYLCES. D1 WENT OF ROAD RIGHT, HIT GRAVEL, OVERCORRECTE  
VEHICLE 1 TRAVELING SB HWY 101/GREAT PLAINS BLVD AT 30+MPH. DRIVER 1 STATED HE ATTEMPTED TO SLOW A  
ON 11/22/2013 AT 1222 HOURS THERE WAS A TWO VEHICLE PROPERTY DAMAGE CRASH NEAR THE INTERSECTION OF  
UNIT ONE NB MN HWY 101 APPROACHING CO RD 14 PULLING CAR TRAILER (MN 1762CPT) LOADED WITH THREE VEHC  
ON 02/25/2015 AT 1120 HOURS, THERE WAS A TWO VEHICLE PERSONAL INJURY CRASH AT THE INTERSECTION OF M

CO	CITY	DOW	MONTH	DAY	YEAR	TIME	SEV
10	0640	4-Wed	1	30	2013	1050	N
10	0640	2-Mon	1	12	2015	1659	N
10	0640	7-Sat	10	17	2015	2015	C
10	0640	4-Wed	6	5	2013	0721	C
10	0640	3-Tue	1	8	2013	0735	N
10	0640	5-Thu	1	8	2015	1158	N
10	0640	1-Sun	1	11	2015	0052	C
10	0640	1-Sun	1	25	2015	1044	N
10	0640	7-Sat	2	1	2014	0358	C
10	0640	2-Mon	1	27	2014	0550	N
10	0640	4-Wed	12	4	2013	0930	N
10	0640	3-Tue	2	24	2015	0546	N
10	0640	2-Mon	2	11	2013	1249	C
10	0640	3-Tue	9	2	2014	1843	B
10	0640	5-Thu	1	8	2015	1124	N
10	0640	6-Fri	10	10	2014	1805	C
10	0640	6-Fri	11	22	2013	1222	N
10	0640	7-Sat	11	15	2014	1429	N
10	0640	4-Wed	2	25	2015	1123	B

															PERSON1		
NUM_KILLED	NUM_VEH	JUNC	SL	TYPE	DIAG	LOC1	TCD	LIT	WTHR1	WTHR2	SURF	CHAR	DESGN	ACC_NUM	VTYPE	DIR	ACT
0	2	4	50	1	5	1	1	1	2	0	1	1	6	130300119	1	7	1
0	2	1	40	1	1	1	98	6	2	0	2	1	8	150180128	3	1	11
0	2	4	45	1	1	1	1	4	1	0	1	1	8	152910157	3	7	7
0	1	1	50	32	7	2	98	1	2	0	2	1	3	131880125	1	5	90
0	1	1	30	34	4	2	98	1	2	0	2	2	8	130080129	99	5	0
0	1	1	50	30	7	4	98	1	4	7	3	6	8	150080263	1	3	1
0	1	1	40	30	4	4	98	6	2	0	4	6	8	150110023	1	5	1
0	2	1	30	1	90	1	98	1	1	0	5	6	8	150250047	1	4	1
0	1	1	40	34	90	1	98	6	2	0	2	6	8	140320022	2	1	1
0	1	1	40	34	4	1	98	6	2	0	5	6	8	140270029	1	1	1
0	1	2	45	30	4	4	98	1	4	0	3	3	8	133380121	1	5	1
0	1	1	40	51	7	1	98	6	2	0	1	7	8	150550021	2	1	1
0	1	1	40	30	7	3	98	1	2	0	2	6	8	130430253	1	1	1
0	1	1	30	51	7	1	98	3	1	0	1	5	8	142450155	11	5	1
0	1	1	45	26	98	2	98	1	2	4	3	5	1	150080204	1	5	1
0	2	0	55	1	1	0	98	1	1	0	1	0	0	143170034	1	6	11
0	2	2	45	1	1	1	98	1	1	0	1	3	8	133260091	1	5	1
0	2	4	45	1	90	1	1	1	4	2	3	2	8	143190150	2	1	1
0	2	4	50	1	5	1	1	1	1	0	4	2	8	150560139	2	3	1

								PERSON2										PERSON3		
FAC1	FAC2	POSN	INJ	EQP	PHYS	AGE	SEX	VTYPE	DIR	ACT	FAC1	FAC2	POSN	INJ	EQP	PHYS	AGE	SEX	VTYPE	DIR
99	0	1	N	4	1	45	F	4	5	6	99	0	1	N	4	1	55	M		
1	0	1	N	4	1	50	F	1	1	1	3	4	1	N	4	1	18	M		
15	0	1	N	4	1	17	F	1	7	11	1	0	1	C	4	1	29	M		
21	0	1	C	4	1	34	M	53	5	51	1	0	34	N	98	1	42	U		
0	0	1	N	98	0	901	Z													
90	0	1	N	4	1	23	M													
46	61	1	C	4	1	46	M													
61	0	1	N	4	1	27	M	1	4	1	61	0	1	N	4	1	54	F		
3	0	1	C	1	1	42	F													
3	0	1	N	4	1	32	M													
3	0	1	N	4	1	32	F													
90	0	1	N	4	1	34	F													
3	90	1	C	4	90	29	F													
3	13	1	B	12	1	51	F													
3	3	1	N	4	1	34	M													
0	0	1	C	4	0	26	M	1	7	11	0	0	1	N	4	0	19	M		
4	0	1	N	4	1	26	F	1	5	1	1	0	1	N	4	1	60	F		
61	42	1	N	4	1	35	M	3	3	1	1	0	1	N	4	1	40	F		
1	0	1	N	4	1	49	M	3	1	1	5	0	1	B	4	1	40	M		



PERSON4									PERSON4										
ACT	FAC1	FAC2	POSN	INJ	EQP	PHYS	AGE	SEX	VTYPE	DIR	ACT	FAC1	FAC2	POSN	INJ	EQP	PHYS	AGE	SEX



November 10, 2014

Mr. Todd Gerhardt  
City Manager  
City of Chanhassen  
7700 Market Blvd.  
P.O. Box 147  
Chanhassen, MN 55317

Re: Support for Highway 101 Improvements from Pioneer Trail to Flying Cloud Drive

Dear Mr. Gerhardt:

I understand the City of Chanhassen is actively pursuing federal funding to make improvements to Highway 101 from Pioneer Trail to Flying Cloud Drive. Canterbury Park strongly supports the effort to obtain federal funding and upgrade Highway 101.

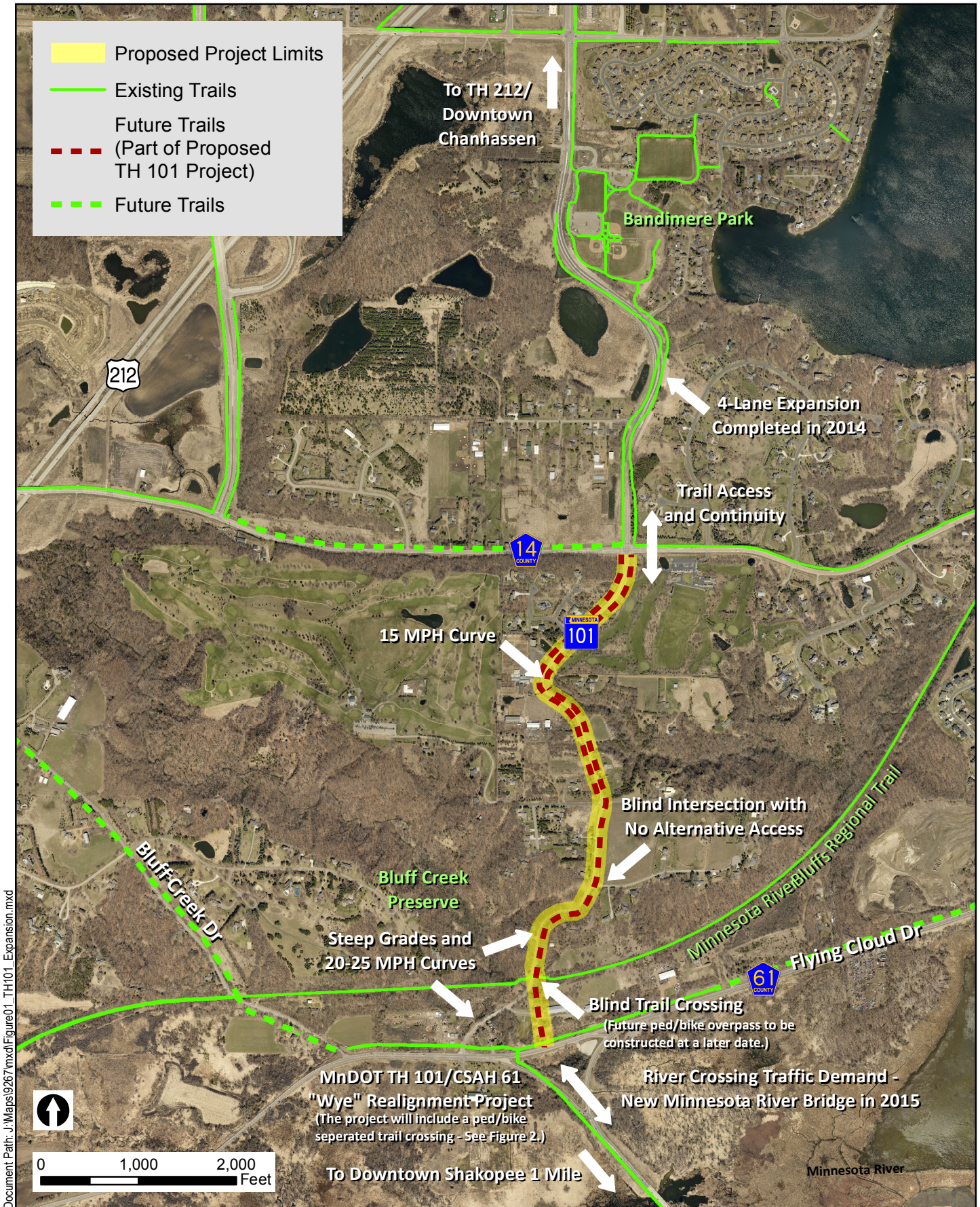
Highway 101 is a key connection from the southwest metro to the RiverSouth entertainment destinations (Canterbury Park, Valley Fair, Mystic Lake Casino, Minnesota Renaissance, etc.). Collectively, over 10 million people visit these attractions every year. A good transportation system is critical to continued economic growth in the southwest metro area.

Highway 101 is also a vital regional link between Hennepin, Scott and Carver counties. Residents that travel this stretch of road on a daily basis know that these highway improvements are necessary to improve safety, add additional capacity and create roadway continuity.

Thank you for your efforts and for taking the lead to make improvements to Highway 101.

Sincerely,

Randall D. Sampson  
President & CEO  
Canterbury Park



### Project Limits

TH 101 Expansion  
 Chanhasseen Regional Solicitation Roadway Expansion Application

Figure 1

9/11/2015 8/18/2015 jowens 6-1-158d\pmt\6-1-158d\pmt\30454\_11x17.dgn

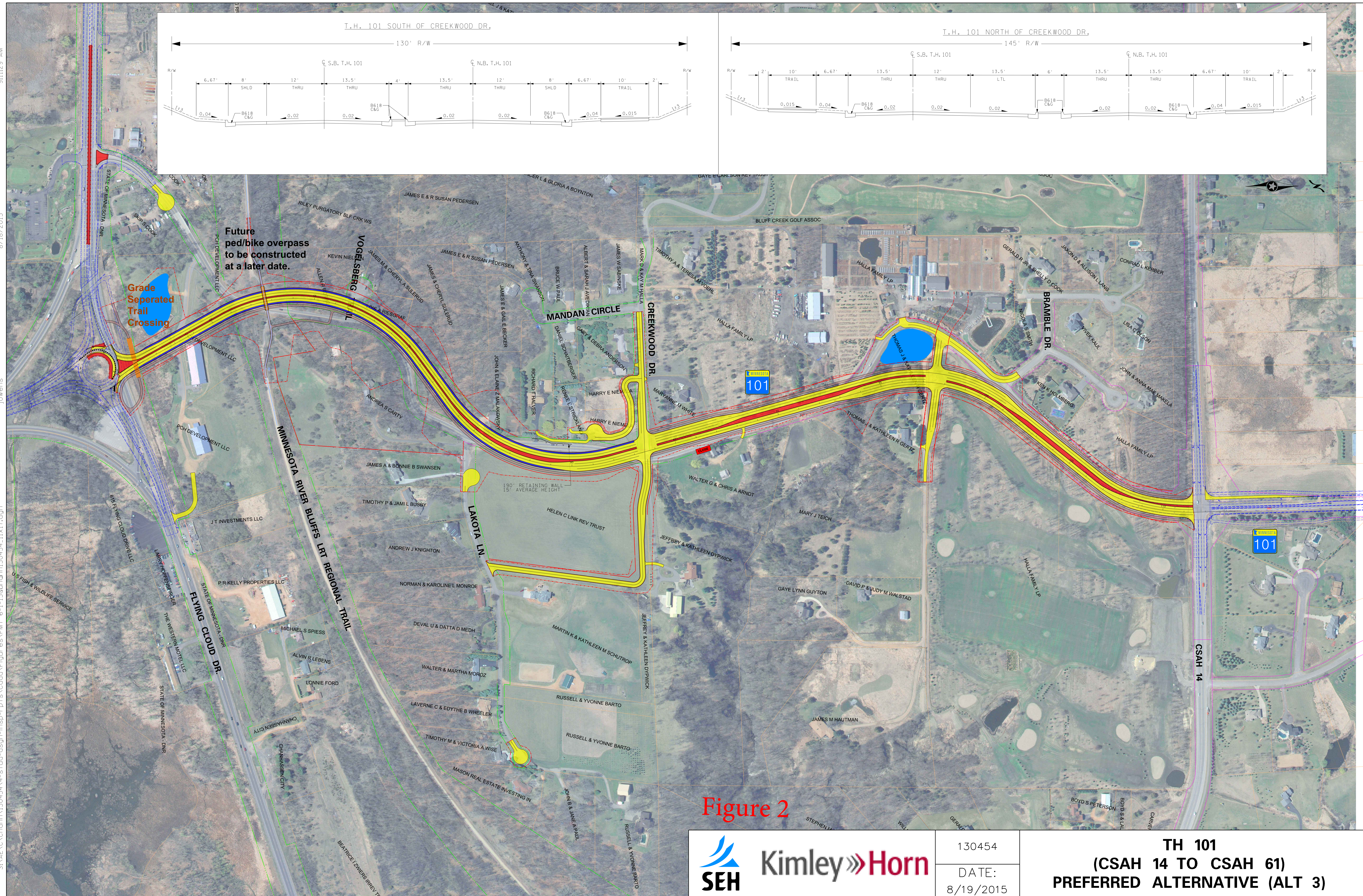
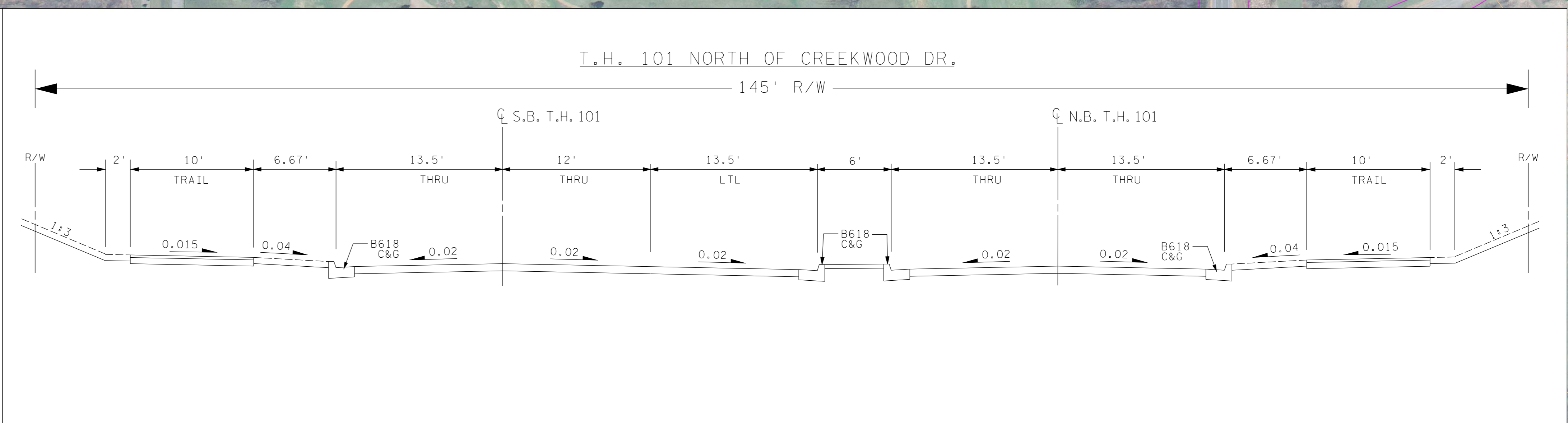
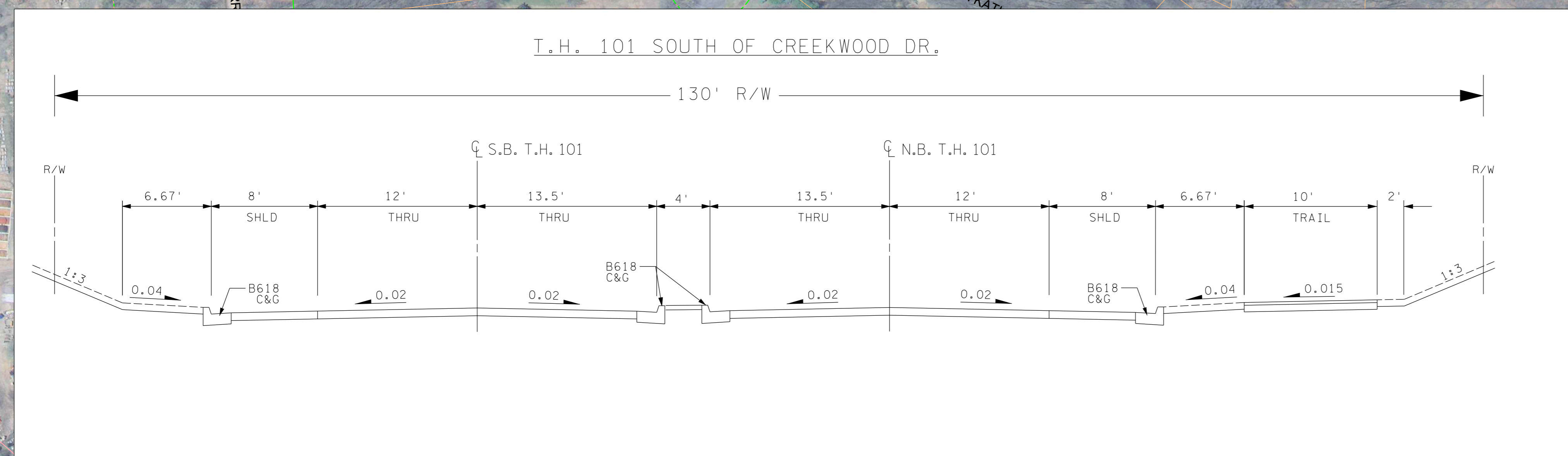


Figure 2

	130454	<b>TH 101</b> <b>(CSAH 14 TO CSAH 61)</b> <b>PREFERRED ALTERNATIVE (ALT 3)</b>
	DATE: 8/19/2015	

Figure 3 – Existing Conditions (Street View)

TH 101 (southbound) at Flying Cloud Drive



TH 101 (northbound) at Flying Cloud Drive



TH 101 (northbound) south of Mustard Seed at Halla Nursery



TH 101 (northbound) south of Pioneer Trail



TH 101 (northbound) at Bluff Creek Bridge



TH 101 (southbound) at Lakota Lane



TH 101 (northbound) north of Vogelsberg Trail



TH 101 (southbound) north of Vogelsberg Trail





TH 101 (northbound) north of Creekwood



April 5, 2016

Mayor Denny Laufenburger  
City of Chanhassen  
PO Box 147  
Chanhassen, MN 55317

Dear Mayor Laufenburger:

I understand the City of Chanhassen is actively pursuing state bonding for improvements to Highway 101 from Pioneer Trail to Flying Cloud Drive. Level 7 Development is in the early stages of a major mixed-use project in Chanhassen. The project would bring retail shops, restaurants, offices, apartments, and a hotel. For this project to be successful, it is "vital" that Highway 101 be upgraded to a four-lane divided highway. Successful corridors like State Highway 101 provide access to a range of housing choices and retail stores that serve the local community, as well as offices and accessibility to parks and open space.

We understand that driving is not the only option. In Chanhassen, people can walk or bike, and between neighboring towns, they can also use transit. People enjoy an opportunity to choose from a variety of routes and modes, thanks to the vision of the City of Chanhassen. Our site has a network of streets, trails, and transit facilities. Our biggest issue and concern for the site is a good north and south highway connection across the Minnesota River.

Highway 101 is a key connection for our project and the southwest region, but it would also improve safety, enhance connectivity and provide better multi-modal access.

I cannot thank you enough for your passion in taking the lead to make improvements to Highway 101. If there is anything else I can do, please do not hesitate to reach out to me for assistance to make this a reality.

Sincerely,

A handwritten signature in black ink, appearing to read "Bahram Akradi". The signature is fluid and cursive, with a large initial "B" and "A".

Bahram Akradi  
Chief Manager  
Level 7 Development LLC

**RESOLUTION NO. 7487**

**A Resolution in Support for Improvements to Highway 101 between Pioneer Trail (CSAH 14) and Flying Cloud Drive (CSAH 16) in the City of Chanhassen, Carver County**

**WHEREAS**, the City of Shakopee has been contacted by the City of Chanhassen regarding support of the City's application for federal funding to make improvements to Highway 01; and,

**WHEREAS**, Highway 101 is a critical regional transportation link between Shakopee, eastern Carver County and Hennepin County; and,

**WHEREAS**, Highway 101 from Flying Cloud Drive to Pioneer Trail has safety issues, geometric problems and capacity constraints that need to be addressed to realize Highway 101 as a regional corridor; and,

**WHEREAS**, the City of Shakopee is a partner on the Highway 101 Minnesota River Flood Mitigation Project; and,

**WHEREAS**, Carver County, in conjunction with the City of Chanhassen and the Minnesota Department of Transportation (Mn/DOT), completed a corridor and environmental screening study for Highway 101 in May, 2007, from Lyman Boulevard to the Carver/Scott County line and are currently working on environmental documentation and preliminary design for the section of Highway 101 from Pioneer Trail to Flying Cloud Drive.

**NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SHAKOPEE, MINNESOTA:**

1. Federal funding is necessary for advancement of this project which will provide needed safety and capacity improvements.
2. The City of Shakopee supports the City of Chanhassen federal funding application and making improvements to Highway 101.

Adopted in Reg. session of the City Council of the City of Shakopee, Minnesota, held this 18th day of November, 2014.

  
\_\_\_\_\_  
Mayor of the City of Shakopee

**ATTEST:**

  
\_\_\_\_\_  
City Clerk

**CITY OF CHANHASSEN  
CARVER AND HENNEPIN COUNTIES, MINNESOTA**

**DATE:** October 27, 2014      **RESOLUTION NO.:** 2014-66

**MOTION BY:** Laufenburger      **SECONDED BY:** Ernst

**RESOLUTION IN SUPPORT OF FEDERAL FUNDING FOR  
PEDESTRIAN TRAIL IMPROVEMENTS AT TH 101 FROM  
FLYING CLOUD DRIVE TO PIONEER TRAIL  
PROJECT NO. 14-08**

**WHEREAS**, a corridor scoping study was completed in 2007 and identified safety and mobility needs for TH 101 from Flying Cloud Drive to Pioneer Trail; and

**WHEREAS**, the City of Chanhassen, Carver County and MnDOT are currently working on environmental documentation and preliminary design for TH 101 from Flying Cloud Drive to Pioneer Trail; and

**WHEREAS**, it is determined a grade separated crossing of the Three Rivers Park District, Minnesota River Bluffs LRT Regional Trail at TH 101 is needed; and

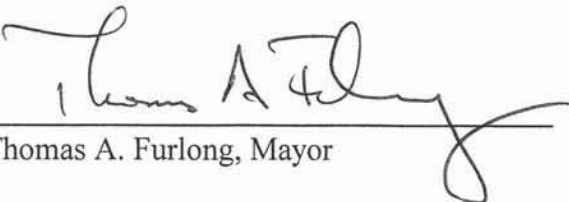
**WHEREAS**, paving the Minnesota River Bluffs LRT Regional Trail from Bluff Creek Drive to TH 101 is recommended.

**NOW, THEREFORE, BE IT RESOLVED**, that the City Council is in support of federal funding application for the pedestrian trail improvements to the Three Rivers Park District, Minnesota River Bluffs LRT Regional Trail in conjunction with TH 101 improvements (Flying Cloud Drive to Pioneer Trail).

Passed and adopted by the Chanhassen City Council this 27th day of October, 2014.

ATTEST:

  
\_\_\_\_\_  
Todd Gerhardt, City Manager

  
\_\_\_\_\_  
Thomas A. Furlong, Mayor

YES  
Furlong  
Ernst  
Laufenburger  
McDonald  
Tjornhom

NO  
None

ABSENT  
None



## Minnesota Department of Transportation

Metro District  
1500 West County Road B-2  
Roseville, MN 5511

July 8, 2016

Paul Oehme  
Director of Public Works/City Engineer  
City of Chanhassen  
7700 Market Blvd  
Chanhassen, MN 55317

RE: Regional Solicitation Application for TH101 Reconstruction Project – Pioneer Trail (CSAH 14) to Flying Cloud Drive CSAH 61

Dear Mr. Oehme:

Thank you for requesting a letter of support from MnDOT for the Metropolitan Council/Transportation Advisory Board (TAB) 2016 Regional Solicitation. Your application for the TH101 Reconstruction Project impacts MnDOT right of way on TH 101.

MnDOT, as the agency with jurisdiction over TH 101, would allow the improvements included in the application for TH101 Reconstruction Project. Details of a future maintenance agreement with the City would be determined during project development to define how the improvements will be maintained for the project's useful life.

This project has no funding from MnDOT. In addition, the Metro District currently has no discretionary funding in year 2020 of the State Transportation Improvement Program (STIP) or year 2021 of the Capital Highway Investment Plan (CHIP) to assist with construction or assist with MnDOT services such as the design or construction engineering of the project. Please continue to work with MnDOT Area staff to assist in identifying additional project funding if needed.

Sincerely,

A handwritten signature in blue ink that reads "Scott R. McBride".

Scott McBride, P.E.  
Metro District Engineer

Cc: Elaine Koustoukos, Metropolitan Council  
Jon Solberg, MnDOT Metro District – South Area Manager

An Equal Opportunity Employer



# BOARD OF COUNTY COMMISSIONERS CARVER COUNTY, MINNESOTA

Date: July 5, 2016

Resolution No: 38-16

Motion by Commissioner: Workman

Seconded by Commissioner: Maluchnik

## RESOLUTION APPROVING APPLICATION FOR FEDERAL FUNDING FOR TRUNK HIGHWAY (TH) 101 FROM FLYING CLOUD DRIVE (CSAH 61) TO PIONEER TRAIL (CSAH 14)

**WHEREAS**, Highway 101 is an A Minor Expander from Scott County to Hennepin County in the City of Chanhassen; and

**WHEREAS**, the 2030 Carver County Road System Plan recognizes the need to improve transportation connections and operations in order to provide a safe and efficient transportation system that meets anticipated future needs and demands; and

**WHEREAS**, said transportation plan demonstrates the need to expand TH 101 from 2 lanes to 4 lanes from Scott County to TH 5; and

**WHEREAS**, Carver County, in conjunction with the City of Chanhassen and the Minnesota Department of Transportation (MnDOT) completed an Environmental Assessment Worksheet (EAW) and officially mapped TH 101 in November, 2015 from Pioneer Trail (CSAH 14) to Flying Cloud Drive (CSAH 61); and

**WHEREAS**, the expansion of TH 101 will improve safety along the corridor, improve pedestrian mobility, improve regional connectivity, build on the TH 101 MN River crossing improvements recently completed and enhance the economic vitality of the County.

**NOW, THEREFORE, BE IT RESOLVED**, by the Carver County Board of Commissioners:

1. That the County Board endorses City of Chanhassen's regional solicitation application submitted to the Metropolitan Council for Federal funding for the Trunk Highway 101 expansion from 2 lanes to 4 lanes from CSAH 14 (Pioneer Trail) to Flying Cloud Drive (CSAH 61).

2. That Carver County agrees to financially participate with the Minnesota Department of Transportation and the City of Chanhassen in providing the matching funds at such time that the project is awarded Federal funding subject to agreement on the project details.

YES

ABSENT

NO

<u>Degler</u>	_____	_____
<u>Ische</u>	_____	_____
<u>Lynch</u>	_____	_____
<u>Maluchnik</u>	_____	_____
<u>Workman</u>	_____	_____

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STATE OF MINNESOTA  
COUNTY OF CARVER

I, Dave Hemze, duly appointed and qualified County Administrator of the County of Carver, State of Minnesota, do hereby certify that I have compared the foregoing copy of this resolution with the original minutes of the proceedings of the Board of County Commissioners, Carver County, Minnesota, at its session held on the 5<sup>th</sup> day of July, 2016, now on file in the Administration office, and have found the same to be a true and correct copy thereof.

Dated this 5<sup>th</sup> day of July, 2016.

DocuSigned by:  
*David Hemze*  
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Dave Hemze County Administrator