

Application

04774 - 2016 Roadway Modernization

05179 - CSAH 50 (202nd St) Reconstruct to 2-lane divided with dedicated turn lanes from Holyoke Ave to CSAH 23 (Cedar Ave) in Lakeville

Regional Solicitation - Roadways Including Multimodal Elements

Status:

Submitted

Submitted Date:

07/15/2016 9:02 AM

## **Primary Contact**

Name:*	Ms.	Holly	Jo	Anderson
	Salutation	First Name	Middle Name	Last Name
Title:	P.E.S.			
Department:	Dakota County Transportation Dept			
Email:	Holly.Anderson@co.dakota.mn.us			
Address:	14955 Galaxie Avenue			
*	Apple Valley	Minnesota	a 55	5124
	City	State/Province	Po	stal Code/Zip
Phone:*	952-891-7090			
	Phone		Ext.	
Fax:				
What Grant Programs are you most interested in?	Regional Solicitation - Roadways Including Multimodal Elements			

## **Organization Information**

Name:	DAKOTA COUNTY		
Jurisdictional Agency (if different):			
Organization Type:	County Government		
Organization Website:			
Address:	TRANSPORTATION DEPT		
	14955 GALAXIE AVE		
*	APPLE VALLEY	Minnesota	55124
	City	State/Province	Postal Code/Zip
County:	Dakota		
Phone:*	952-891-7100		
FIGHE.	Ext.		
Fax:			
PeopleSoft Vendor Number	0000002621A15		

## **Project Information**

Project Name	CSAH 50 (202nd St) from Holyoke Ave to CSAH 23 (Cedar Ave) in Lakeville
Primary County where the Project is Located	Dakota
Jurisdictional Agency (If Different than the Applicant):	

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

CSAH 50 (202nd St) is currently a two lane undivided roadway with 4' shoulders(2'bit+2'gravel). The roadway is located in the developing suburb of Lakeville. Residential development is occurring on the eastern portion of the project. CSAH 50 will be reconstructed to a two-lane divided (concrete median) roadway and add multi-use trails (both sides) and ped tunnel near Aronson Park. The existing "T" intersection with CSAH 23 (Cedar Ave) will be reconstructed to a full intersection and a signal will be added. This segment of the CSAH 23 corridor is identified for Cedar Avenue BRT Red Line (Phase 2).

The pavement on CSAH 50 between Holyoke Ave and CSAH 23 (Cedar Ave) is deficient. The pavement is generally in poor condition, with severe cracking, patching, and potholes. The proposed project includes "flattening" of the vertical grade to improve sight distance, and adding protected left and right turn lanes at select locations. Vertical alignment will be determined by natural terrain, number of trucks or other heavy vehicles in the traffic stream, basic roadway crosssection and avoidance where possible of natural environmental factors (wetlands, historic, cultural & community resources). The horizontal alignment will remain "straight". The project will be designed for clear zones that allow a driver to stop safely, or regain control of a vehicle that has left the roadway. Approximately 37 power/telephone poles will be removed. A new traffic signal will be installed at the intersection of CSAH 50 & CSAH 23 (Cedar Ave) with accessible pedestrian signals and ADA standards being applied to provide safe pedestrian and bicycle movements through the intersection.

Within the project area, there are currently no sidewalk/pedestrian facilities along CSAH 50 (202nd St roadway). The 4' paved shoulder does not provide for safe recreational or commuter nonmotorized use of the roadway. The project will

improve safety and comfort for children, the elderly, and people with disabilities by constructing ADA compliant off-road multi-use trail facilities. In addition, the project includes a pedestrian tunnel to improve pedestrian access from residential areas to Quigley-Sime and Aronson Park. Multi-use trails will help to provide connections to the Tier 2 Regional Bicycle Transportation Corridors west of the project and to RTBN Corridor Tier 1 Alignment east of CSAH 23. Dakota County is committed to maintain & operate this facility for its useful life. Include location, road name/functional class, type of improvement, etc. TIP Description Guidance (will be used in TIP if the project is CSAH 50 (202nd St) Roadway Reconstruction from Holyoke Ave to CSAH 23 (Cedar Ave) in Lakeville selected for funding) **Project Length (Miles)** 1.26

#### **Project Funding**

Are you applying for funds from another source(s) to implement this project?	No
If yes, please identify the source(s)	
Federal Amount	\$3,200,000.00
Match Amount	\$800,000.00
Minimum of 20% of project total	
Project Total	\$4,000,000.00
Match Percentage	20.0%
Minimum of 20% Compute the match percentage by dividing the match amount by the project total	
Source of Match Funds	Dakota County/City of Lakeville
A minimum of 20% of the total project cost must come from non-federal sources; sources	additional match funds over the 20% minimum can come from other federal
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.	

## Specific Roadway Elements

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Mobilization (approx. 5% of total cost)	\$170,000.00
Removals (approx. 5% of total cost)	\$100,000.00
Roadway (grading, borrow, etc.)	\$810,000.00
Roadway (aggregates and paving)	\$1,110,000.00
Subgrade Correction (muck)	\$0.00
Storm Sewer	\$490,000.00
Ponds	\$0.00
Concrete Items (curb & gutter, sidewalks, median barriers)	\$352,000.00
Traffic Control	\$20,000.00
Striping	\$48,000.00
Signing	\$18,000.00
Lighting	\$0.00
Turf - Erosion & Landscaping	\$120,000.00
Bridge	\$0.00
Retaining Walls	\$25,000.00
Noise Wall (do not include in cost effectiveness measure)	\$0.00
Traffic Signals	\$300,000.00
Wetland Mitigation	\$0.00
Other Natural and Cultural Resource Protection	\$0.00
RR Crossing	\$0.00
Roadway Contingencies	\$0.00
Other Roadway Elements	\$0.00
Totals	\$3,563,000.00

## **Specific Bicycle and Pedestrian Elements**

CONSTRUCTION PROJECT ELEMENTS/COST ESTIMATES	Cost
Path/Trail Construction	\$410,000.00
Sidewalk Construction	\$0.00
On-Street Bicycle Facility Construction	\$0.00
Right-of-Way	\$0.00
Pedestrian Curb Ramps (ADA)	\$27,000.00

Crossing Aids (e.g., Audible Pedestrian Signals, HAWK)	\$0.00
Pedestrian-scale Lighting	\$0.00
Streetscaping	\$0.00
Wayfinding	\$0.00
Bicycle and Pedestrian Contingencies	\$0.00
Other Bicycle and Pedestrian Elements	\$0.00
Totals	\$437,000.00

## Specific Transit and TDM Elements

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

## **Transit Operating Costs**

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

## Totals

Total Cost	\$4,000,000.00
Construction Cost Total	\$4,000,000.00
Transit Operating Cost Total	\$0.00

## **Requirements - All Projects**

#### **All Projects**

1. The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 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 (p. 2.20) The regional transportation system is safe and secure for all users.

Objectives: A. Reduce crashes 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, operations. (p. 2.20)

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. (p. 2.23)

Goal: C. Access to Destinations

People and businesses prosper by using a reliable, affordable, and efficient multimodal transportation system that connects them to destinations throughout the region and beyond.

#### Objectives:

A. Increase the availability of multimodal travel options, especially in congested highway corridors.

B. Increase travel time reliability and predictability for travel on highway and transit systems.

#### Strategies:

C2. Local units of government should provide a system of interconnected arterial roads, streets, bicycle facilities, and pedestrian facilities to meet local travel needs using Complete Streets

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

principles. (p. 2.25)

Goal: E. Healthy Environment

The regional transportation system advances equity and contributes to communities? livability and sustainability while protecting the natural, cultural, ad developed environments. (p. 2.42)

Objectives:

Reduce transportation related air emissions.

Reduce impacts of transportation construction, operations, and use on the natural, cultural, and developed environments.

Increase the availability and attractiveness of transit, bicycling, and walking to encourage healthy communities and active car-free lifestyles.

Strategies:

E3. Regional transportation partners will plan and implement a transportation system that considers the needs of all potential users, including children, senior citizens, and persons with disabilities, and that promotes active lifestyles and cohesive communities. A special emphasis should be placed on promoting the environmental and health benefits of alternatives to single-occupancy vehicle travel. (p. 2.44)

E4. Regional transportation partners will protect, enhance and mitigate impacts on natural resources when planning, constructing, and operation transportation systems. (p.2.44-2.45)

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.

Dakota County 2030 Transportation Plan, June 2012

Goal 5: Replace Deficient Elements of the System

This goal provides measures, strategies and policies aimed at replacement of four important elements of the transportation system - bridges, highways (p.8-2), traffic signals and gravel roads.

Goal 4: Management to Increase Transportation System Efficiency, Improve Safety and Maximize Existing Highway Capacity, Safety & Management p.7-26

CIP Investment Categories - Safety and Management

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.

#### List the applicable documents and pages:

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

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

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

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

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

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

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

#### **Roadways Including Multimodal Elements**

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

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

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

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

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

#### Bridge Rehabilitation/Replacement projects only:

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

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

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

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

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

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

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

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

#### **Requirements - Roadways Including Multimodal Elements**

## Project Information-Roadways

County, City, or Lead Agency	Dakota County (19)	
Functional Class of Road	A-Minor Arterial Expander	
Road System	CSAH	
TH, CSAH, MSAS, CO. RD., TWP. RD., CITY STREET		
Road/Route No.	50	
i.e., 53 for CSAH 53		
Name of Road	202nd Street West	
Example; 1st ST., MAIN AVE		
Zip Code where Majority of Work is Being Performed	55044	
(Approximate) Begin Construction Date	02/01/2019	
(Approximate) End Construction Date	11/29/2019	
TERMINI:(Termini listed must be within 0.3 miles of any wo	rk)	
From: (Intersection or Address)	Holyoke Avenue	
To: (Intersection or Address)	CSAH 23 (Cedar Avenue)	
DO NOT INCLUDE LEGAL DESCRIPTION		
Or At		
Primary Types of Work	Grade, Agg Base, Bit Base, Bit Surf, Ped Trail, Curb & Gutter, Storm Sewer, Signal	
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.:	n/a	
New Bridge/Culvert No.:	TBD (Ped/Bike Tunnel)	
Structure is Over/Under (Bridge or culvert name):		

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

Select one:	Expander
Area	6.402
Project Length	1.255
Average Distance	5.1012
Upload Map	1467574370825_CSAH50-RAD.pdf

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

Facility being relieved

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

## Reliever: Relieves a Principal Arterial that is a Non-Freeway Facility

Facility being relieved

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

## Non-Freeway Facility Volume/Capacity Table

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

9:00pm - 10:00pm	0
10:00pm - 11:00pm	0
11:00pm - 12:00am	0

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

Existing Employment within 1 Mile:	5983
Existing Manufacturing/Distribution-Related Employment within 1 Mile:	1136
Existing Students:	0
Upload Map	1467574408942_CSAH50-RegEcon.pdf

## Measure C: Current Heavy Commercial Traffic

Location:	CSAH 50 (202nd St) west of CSAH 23 (Cedar Ave) in Lakeville
Current daily heavy commercial traffic volume:	350
Date heavy commercial count taken:	06/14/2016

Measure D: Freight Elements

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

This project is located near an area of job concentration, manufacturing and distribution. Lakeville's Airlake Industrial Park is located approximately 1.1 miles south of the project area. Current roadway configuration is two-lane roadway with narrow 4'shoulders (2'bit+2'gravel). This project will construct a 2-lane divided (conc median) roadway, add exclusive left/right turn lanes at select intersections and add 8' paved shoulders with off road trail(s). The new roadway will better accommodate trucks using this route as an alternate to northbound I-35. Safety will be improved with better sight lines (vertical alignment), new dedicated turn lanes to accommodate truck turning radii, a trail to separate pedestrian/bikers from roadway. Improved intersection geometrics will increase safety for all modes (auto/tuck/bike/pedestrian) of transportation. City of Lakeville's Fire Station No. 1 is located in the NE corner of CSAH 50/Holyoke intersection and new roadway geometrics will allow for improved response time. The roadway will be built to 10 ton standards. A large park is located on the south side of the roadway and elderly living complex on the north side, this divided roadway design will help reduce conflicts between younger drivers and elderly drivers.

#### Measure A: Current Daily Person Throughput

Upload Transit Map	1467574652556_CSAH50-TransitConnect.pdf
For New Roadways only, list transit routes that will be moved to the new roadway	
Existing Transit Routes on the Project	N/A
Current AADT Volume	7300
Location	East of Holyoke Avenue

#### **Response: Current Daily Person Throughput**

Average Annual Daily Transit Ridership

#### 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	Methodology: 2015 Counts & 2030 Model with straight line projection out to 2040. Dakota County Traffic Engineer compared results to reasonable capacity of roadway. Refer to 07.01.2016 e-mails between Dak Co (Brian Sorenson) & Met Council (Elaine Koutsoukos)
Forecast (2040) ADT volume	22000

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

Select one:

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

Project located in Area of Concentrated Poverty:

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

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

Yes

The northerly project area is adjacent to an above average concentration of race and poverty as shown on the attached map. The project will improve mobility and safety along the roadway, improve the intersection at CSAH 23 (Cedar Ave), and cost effectively enhance linkages between existing and future jobs and housing. Along the project corridor is Highview Hills senior living that provides independent/assisted living, nursing care, Alzheimer?s Care, Memory Care, Respite Care ? Short Term Stay. Lakeville Senior Community Center is located in the northeasterly quadrant of the CSAH 50 & Holyoke intersection, just to the north of Fire Station #1.

The comprehensive plan designates the area near the roadway as mixed use. The vision for this area is to establish a neighborhood area that integrates higher density residential uses with neighborhood commercial services. The opportunity exists to integrate a variety of land uses making neighborhood commercial areas truly accessible to the surrounding residential neighborhood both due to the close proximity of the uses and a pedestrian sidewalk/trail system (with pedestrian tunnel under roadway) that provides direct linkages to residential, recreational, commercial and employment.

A shared multi-use trail on both sides of both sides of the roadway (with a pedestrian underpass near Aronson Park/church/public/recreational areas) will provide for ADA compliant safe crossings for all users. This project area is within the Regional Bicycle Transportation Network (RBTN) Corridor, identified as Tier 2 Regional Bicycle Transportation Corridor.

The project will add multi-use trails, pedestrian ramps, pedestrian underpass and traffic signal (at CSAH 23) which will provide a benefit to those who

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

rely on walking as a mode of transportation, ADA compliant pedestrian ramps will be installed to provide smooth transitions form the sidewalk to the roadway at intersections. Countdown timers will be installed at the intersection to display the time remaining in the pedestrian crossing phase to pedestrians. Areas below the regional average (poverty/color/disability/elderly) rely heavily on transit. The easterly edge of the project is on the Cedar Ave BRT Red Line (Phase 2). The response should address the benefits, impacts, and mitigation for the populations affected by the project.

#### Upload Map

1467052951120\_SE2.pdf

#### Measure B: Affordable Housing

City/Township	Segment Length in Miles (Population)	
City of Lakeville	1.255	
	1	

## **Total Project Length**

Total Project Length (Total Population)

1.26

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

City/Township	Segment Length (Miles)	Total Length (Miles)	Score	Sore Len L		Housing Score Multiplied by Segment percent	1
		0		0	0	C	)

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

Total Project Length (Miles)	1.255
Total Housing Score	0

## Measure A: Year of Roadway Construction

Year of Original Roadway Construction or Most Recent Reconstruction	Segment Length	Calculation	Calculation 2	
1959	1.077	2109.843	1681.15	
1998	0.178	355.644	283.382	
	1	2465	1965	
Average Construct	ion Year	1964		
Total Segment Len Total Segment Length	gth (Miles)	1.255		

## Measure B: Geometric, Structural, or Infrastructure Improvements

Improving a non-10-ton roadway to a 10-ton roadway:	Yes
	The project will construct the CSAH 50 (202nd
	Street) to 10-ton roadway standards. Dakota
	County 2030 Transportation Plan (Figure 32)
	identifies CSAH 23 (Cedar Ave) as a proposed 10
	Ton Highway, at the easterly end of project. As
Response (Limit 700 characters; approximately 100 words)	opportunities present themselves, the roadways in
	their entirety will be reconstructed to 10-ton
	standards. Dakota County 2030 Transportation
	Plan, Management Policy M4, 10-Ton Route
	System Implementation: Work with local
	jurisdictions in implementing a 10-ton route system.
Improved clear zones or sight lines:	Yes

#### Response (Limit 700 characters; approximately 100 words)

#### Improved roadway geometrics:

Response (Limit 700 characters; approximately 100 words)

Access management enhancements:

The project designed for clear zones that allow a driver to stop safely, or regain control of a vehicle that has left the roadway. Sign supports within the clear zone will be breakaway or shielded by a barrier. Approximately 37 power and/or telephone poles will be removed with this project. Trees are the single most commonly struck objects in serious roadside collisions; all trees will be removed from the clear zone. Turn lanes will be designed-aligned to provide good visibility. Roadway/intersection sight lines will be improved with "flattening" vertical alignment. LED intersection lighting will improve night visibility.

#### Yes

Two-lane roadway will be reconstructed to two-lane divided, concrete center median, 8' paved shoulders, dedicated left/right turn lanes & off road multi-use trails with tunnel to park. "T" intersection at CSAH 50 & CSAH 23 is reconstructed to accommodate future roadway to east. Project will be reconstructed to improve operations, safety, water quality (storm sewer) & deterioration that occurred over the years. Project will be designed to ensure that all roadway geometrics, such as turning radii, pavement depths & road widths accommodate the range of vehicles. Off road Ped/bike trail both sides & tunnel will reduce pedestrian conflicts/improve safety.

Yes

#### Response (Limit 700 characters; approximately 100 words)

Vertical/horizontal alignments improvements:

Response (Limit 700 characters; approximately 100 words)

Improved stormwater mitigation:

The project will eliminate some individual access & better realign x-street/park access along CSAH 50. Dakota County pursues access spacing opportunities as new plats come under review/approval of the Dakota County Plat Commission (DCPC). This project will adhere to DCPC's access guidelines for platted development adjacent to the project. Dakota County stipulates specific access spacing requirements for highway types through: 2030 Transportation Plan; Plat Commission; permits & corridor studies. Strategies to ensure access/mobility are properly balanced consistent with the function of the roadway will reduce delay, improve traffic movement & create a safer system.

#### Yes

The projects horizontal and vertical alignments are consistent with the topography, a balance of developed (& park) properties along the road with new development and incorporating community values. Horizontal alignment is straight. Vertical alignment will be determined by natural terrain, number of trucks or other heavy vehicles in the traffic stream, basic roadway cross-section, and avoidance where possible of natural environmental factors (wetlands, historic, cultural & community resources). The project will "flatten" the vertical curve at Hamburg Avenue to improve safety & sight lines at the intersection. The project will meet all applicable State & Federal design requirements.

Yes

#### Response (Limit 700 characters; approximately 100 words)

#### Signals/lighting upgrades:

#### Response (Limit 700 characters; approximately 100 words)

#### **Other Improvements**

Response (Limit 700 characters; approximately 100 words)

Reconstruction of the roadway will provide a smooth surface & improve drainage. Utility manholes require adjustments to address settlement and deterioration that has occurred over the years. Drainage improvements to the project will be constructed with the installation of center concrete median, new left lanes & new impervious surfaces including properly sizing the new storm sewer for capacity and providing necessary ponding per the National Pollutant Discharge Elimination System (NPDES) and Local Watershed requirements.

#### Yes

A new traffic signal will be included with the intersection improvement at the east end of the project (CSAH 50 & CSAH 23). The signal system will have dedicated left/right turn lanes to increase vehicle throughput. Intersection will be ADA compliant (pedestrian ramps, countdown timers, median islands, accessible pedestrian signals & crosswalk markings). New intersection lighting will be energy efficient LED technology that will help to increase safety/visibility at the intersection.

#### Yes

The existing signage along the corridor is faded and requires replacement to improve wayfinding and driver compliance. New multi-use trails along both sides of CSAH 50 and ped/bike tunnel will connect north side of roadway (high density residential, senior living, Lakeville senior center) to south side of roadway (Quigley Sime Baseball complex-4 baseball fields, Aronson Park 9-softball fields, 4-soccer fields), playground and F-86H Sabre jet focal point of Lakeville Veteran's Memorial.

#### Measure A: Congestion Reduction/Air Quality

Total Peak Hour Delay Per Vehicle Without The Project	Total Peak Hour Delay Per Vehicle With The Project	Total Peak Hour Delay Per Vehicle Reduced by Project	Volume (Vehicles per hour)	Total Peak Hour Delay Reduced by the Project:	EXPLANATIO N of methodology used to calculate railroad crossing delay, if applicable.	Synchro or HCM Reports
6.0	5.0	1.0	1	1.0	insert text from Traffic	14684235457 41_Synchro - PM_Peak Hour - Report.pdf
6.0	5.0	1.0	1775	1775.0	n/a	14684240613 61_Synchro - PM_Peak Hour - Report.pdf

## **Total Delay**

Total Peak Hour Delay Reduced 1776.0

# Measure B:Roadway projects that do not include new roadway segments or railroad grade-separation elements

Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle without the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Per Vehicle with the Project (Kilograms):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced Per Vehicle by the Project (Kilograms):	Volume (Vehicles Per Hour):	Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms):	
0.002	0.002	0	1775.0	0	
0	0		1775	0	
Total					
Total Emissions Reduc	ced:		0		
Upload Synchro Report			1468423891659_Synchro - PM_Peak Hour - Report.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	C	)
Total Parallel F Emissions Reduced or Upload Synchro Repor	Roadways n Parallel Roadways rt		0		
New Roadway	Portion:				
Cruise speed in miles	per hour with the proje	ct:	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

## 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)	

## **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	
100%	
Stakeholders have been identified	Yes
40%	
Stakeholders have not been identified or contacted	
0%	
2)Layout or Preliminary Plan (5 Percent of Points)	
Layout or Preliminary Plan completed	
100%	
Layout or Preliminary Plan started	Yes
50%	
Layout or Preliminary Plan has not been started	
0%	
Anticipated date or date of completion	12/01/2018
3)Environmental Documentation (5 Percent of Points)	
EIS	
EA	
РМ	Yes
Document Status:	

Document approved (include copy of signed cover sheet)	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	Yes	
0%		
Anticipated date or date of completion/approval	11/20/2018	
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/archaeological review under way; determination of adverse effect anticipated		
40%		
Unsure if there are any historic/archaeological resources in the project area		
0%		
Anticipated date or date of completion of historic/archeological review:	06/01/2018	
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 proper 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?	rties?	
No Section 4f/6f resources located in the project area		
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	Yes
30%	
Unsure if there are any impacts to Section 4f/6f resources in the project area	
0%	
6)Right-of-Way (15 Percent of Points)	
Right-of-way, permanent or temporary easements not required	
100%	
Right-of-way, permanent or temporary easements has/have been acquired	
100%	
Right-of-way, permanent or temporary easements required, offers made	
75%	
Right-of-way, permanent or temporary easements required, appraisals made	
50%	
Right-of-way, permanent or temporary easements required, parcels identified	Yes
25%	
Right-of-way, permanent or temporary easements required, parcels not identified	
0%	
Right-of-way, permanent or temporary easements identification has not been completed	
0%	
Anticipated date or date of acquisition	12/01/2018
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	09/01/2018	
10)Letting		
Anticipated Letting Date	02/14/2019	

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

Crash Modification Factor Used:	7569.0
	CMF used: 7569 & 7853 (could not get both in box)
Rationale for Crash Modification Selected:	Rural CMF 7569 Conversion of urban and rural two-lane roadways to four-lane divided roadways. Type All, Severity All

CMF 7853 Install Left-turn Lane

(Limit 1400 Characters; approximately 200 words)

Project Benefit (\$) from B/C Ratio

Worksheet Attachment

\$4,190,693.00

1468532672015\_benefit-cost-worksheet-CSAH 50-aug2015.xls

Roadway projects that include railroad grade-separation elements:		
Current AADT volume:	0	
Average daily trains:	0	
Crash Risk Exposure eliminated:	0	

## Measure A: Multimodal Elements and Existing Connections

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

The existing CSAH 50 roadway is two-lane road with 4' shoulders(2'bit+2'gravel). The roadway pavement is in need of repair with uneven surface, cracking & potholes. This project includes new multi-use off road trails along both sides of CSAH 50 and a tunnel to connect the north side of roadway (high density residential, senior living, Lakeville senior center) to south side of roadway (Quigley Sime Baseball complex-4 baseball fields, Aronson Park 9-softball fields, 4-soccer fields), playground and F-86H Sabre jet focal point of Lakeville Veteran's Memorial. Off road trails will provide separation & reduce conflict between nonmotorized & motorized traffic. At the east end of the project the trails provide a direct connection to the Cedar Ave BRT Red Line Phase 2. The project trails will connect to the Tier 2 Regional Bicycle Transportation Network (RBTN) Corridor on the west. The new trails will fill a gap in the existing trail system & will connect to local city trails/sidewalks at cross streets. This will provide a non-automobile option and connectivity to Lakeville's central downtown, Heritage Commons commercial area, Airlake Industrial Park and Airlake Airport. Dakota County is developing a comprehensive transit system, bicycle and pedestrian network and other non-automobile modes for people to maximize the efficiency of the transportation system by providing safe, timely & efficient connections between communities, activity generators & employment centers.

Increasingly, pedestrian & bicycle facilities in the developing Cities of Dakota County are serving the dual role of providing recreational value as well as viable options for commuters (for work or shopping). The expansion of commuter pedestrian & bicyclist use is expected into the future with the expansion of transit facilities and expected continued increases in automobile cost. To better develop opportunities for Dakota County residents

to walk & bike for transportation and for recreation, the county is working closely with local communities to improve walkability.

The County began a study to help transit planners focus on new east-to-west connections in Dakota County. The demand for suburb-to-suburb routes in Dakota County has the potential to be high. According to U.S. census date from 2013 - most recent year available-nearly half of Dakota county workers also live in the county. Transit in the metro region is pretty "hub and spoke" where everything goes to the core.

## **Measure A: Cost Effectiveness**

Total Project Cost (entered in Project Cost Form):	\$4,000,000.00
Enter Amount of the Noise Walls:	\$0.00
Total Project Cost subtract the amount of the noise walls:	\$4,000,000.00
Points Awarded in Previous Criteria	
Cost Effectiveness	\$0.00

#### **Other Attachments**

File Name	Description	File Size
2040Traffic.pdf	2040 Dak Co Traffic Projection Methodology E-Mail 07.01.2016	84 KB
44 - CSAH 23 CSAH 50 N Jct 6-14- 16.pdf	CSAH 50 (202nd Street) Heavy Commercial	37 KB
5023-LAYOUT-DIVIDED.pdf	CSAH 50 (202nd Street) Layout	1.3 MB
7569.pdf	Crash Modification Factor 7569	131 KB
7853.pdf	Crash Modification Factor 7853	128 KB
Bituminous1964.pdf	CSAH 50 at Holyoke Intersection Area Plan Cover Sheet	536 KB
CSAH 50 From Dodd Blvd to Cedar Ave (2013 -2015).xls	Crash Report	165 KB
Dakota County Resolution June 21 2016.pdf	Dakota County Resolution	178 KB
LvilleSupport.pdf	City of Lakeville - letter of support	57 KB
PlanCoverSheet.pdf	CSAH 50 (202nd Street) Original Grading Plan Note: County Roadways re-numbered since 1959 202nd Street = C-13, Job C5913 Sta. 6+00 to 67+97 in Sections 28 & 29. Cross street Holyoke = C-32, present day CSAH 23 = Road #4	148 KB
Proposed_PM_Timing - Report.pdf	Proposed PM Timing Report	41 KB









Direction	All
Future Volume (vph)	1775
Total Delay / Veh (s/v)	6
CO Emissions (kg)	2.47
NOx Emissions (kg)	0.48
VOC Emissions (kg)	0.57

Direction	All	
Future Volume (vph)	1775	
Total Delay / Veh (s/v)	5	
CO Emissions (kg)	2.66	
NOx Emissions (kg)	0.52	
VOC Emissions (kg)	0.62	

5. Congestion Reduction / Air Quality RESPONSE A (Calculation):

CSAH 23 (Cedar) & CSAH 50 (202nd St)

•Total Peak Hour Delay/Vehicle without the Project (Seconds/Vehicle): 6 sec/veh

•Total Peak Hour Delay/Vehicle with the Project (Seconds/Vehicle): 5 sec/veh

•Total Peak Hour Delay/Vehicle Reduced by the Project (Seconds/Vehicle): <u>1 sec/veh</u>

•Volume (Vehicles Per Hour): 1775 vph

•Total Peak Hour Delay Reduced by the Project (Seconds): 1775 sec

5. Congestion Reduction / Air Quality RESPONSE B (Calculation):

CSAH 23 (Cedar) & CSAH 50 (202nd St)

•Total (CO, NOX, and VOC) Peak Hour Émissions/Vehicle without the Project (Kilograms): 0.0020 kg •Total (CO, NOX, and VOC) Peak Hour Emissions/Vehicle with the Project (Kilograms): 0.0021 kg •Total (CO, NOX, and VOC) Peak Hour Emissions Reduced/Vehicle by the Project (Kilograms): 0.0001 kg •Volume (Vehicles Per Hour): 1775 vph

•Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): -0.28 kg

Direction	All
Future Volume (vph)	1775
Total Delay / Veh (s/v)	6
CO Emissions (kg)	2.47
NOx Emissions (kg)	0.48
VOC Emissions (kg)	0.57

Direction	All	
Future Volume (vph)	1775	
Total Delay / Veh (s/v)	5	
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•Total Peak Hour Delay/Vehicle without the Project (Seconds/Vehicle): 6 sec/veh

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•Total Peak Hour Delay/Vehicle Reduced by the Project (Seconds/Vehicle): <u>1 sec/veh</u>

•Volume (Vehicles Per Hour): 1775 vph

•Total Peak Hour Delay Reduced by the Project (Seconds): 1775 sec

5. Congestion Reduction / Air Quality RESPONSE B (Calculation):

CSAH 23 (Cedar) & CSAH 50 (202nd St)

•Total (CO, NOX, and VOC) Peak Hour Émissions/Vehicle without the Project (Kilograms): 0.0020 kg •Total (CO, NOX, and VOC) Peak Hour Emissions/Vehicle with the Project (Kilograms): 0.0021 kg •Total (CO, NOX, and VOC) Peak Hour Emissions Reduced/Vehicle by the Project (Kilograms): 0.0001 kg •Volume (Vehicles Per Hour): 1775 vph

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Direction	All
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Direction	All	
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•Total Peak Hour Delay/Vehicle Reduced by the Project (Seconds/Vehicle): <u>1 sec/veh</u>

•Volume (Vehicles Per Hour): 1775 vph

•Total Peak Hour Delay Reduced by the Project (Seconds): 1775 sec

5. Congestion Reduction / Air Quality RESPONSE B (Calculation):

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•Total (CO, NOX, and VOC) Peak Hour Émissions/Vehicle without the Project (Kilograms): 0.0020 kg •Total (CO, NOX, and VOC) Peak Hour Emissions/Vehicle with the Project (Kilograms): 0.0021 kg •Total (CO, NOX, and VOC) Peak Hour Emissions Reduced/Vehicle by the Project (Kilograms): 0.0001 kg •Volume (Vehicles Per Hour): 1775 vph

•Total (CO, NOX, and VOC) Peak Hour Emissions Reduced by the Project (Kilograms): -0.28 kg

From:	May, Matt
To:	Sorenson, Brian; Tracy, Sarah; Sebastian, Kristi; Sass, John; Anderson, Holly; Rezac, Jacob; Fabish, Jenna; Connelly, Joe; Mertens,
	John
Cc:	<u>Vu. Phong</u>
Subject:	RE: Metropolitan Council Releases Regional Solicitation - Traffic Projections
Date:	Friday, July 08, 2016 1:21:51 PM

Hey Everybody,

We looked over the traffic numbers and decided to go about a different route for projecting most of the 2030 volumes to 2040. Originally we used the 20 year growth factor (1.2) to project the 2030 Model out to 2040. Our new method takes the 2015 counts and 2030 model and does a straight line projection out to 2040. Kristi compared the results to the reasonable capacity of each road, per Elaine Koutsoukos email to Brian, and feels comfortable using the numbers below:

#### Expansion Project 2: CSAH 9 & CSAH 50 (AADT from CSAH 9)

2040 AADT – 25,000, calculated by straight line projection

#### Expansion Project 3: CSAH 26 – TH 55/149 to TH 3

2040 AADT - 23,900, calculated by straight line projection

#### Expansion 4: CSAH 31 & CSAH 32 (AADT from CSAH 31)

2040 AADT – 35,000, this is the only project still using the original 1.2 growth factor. Using straight line projection resulted in a unreasonable volume.

#### Reconstruct 5: CSAH 23 (Foliage) - CR 96 to CSAH 86

2040 AADT – 6,700, calculated by straight line projection

#### <u>Reconstruct 6: CSAH 50 (202<sup>nd</sup>) – Holyoke to CSAH 23</u>

2040 AADT – 22,000 AADT, calculated by straight line projection

#### Reconstruct 7: CSAH 86 - CSAH 23 to TH 3

2040 AADT – 13,900, calculated by straight line projection

Let me know if you have any questions. Thanks,

Matt

From: Sorenson, Brian
Sent: Friday, July 01, 2016 3:10 PM
To: Tracy, Sarah; Sebastian, Kristi; May, Matt; Sass, John; Anderson, Holly; Rezac, Jacob; Fabish, Jenna; Connelly, Joe; Mertens, John
Subject: FW: Metropolitan Council Releases Regional Solicitation

Fyi. Please take a look at the projections traffic has developed to determine if they seem reasonable. A 9.5% increase in the northern part of the County may be too high. In the growing suburban areas, it may be too low. There may be other specifics that are reasonable to consider in varying from the projection factor as well. Regardless, we'll need to explain how we came up with the projection factors.

From: Koutsoukos, Elaine [mailto:elaine.koutsoukos@metc.state.mn.us] Sent: Friday, July 01, 2016 3:04 PM To: Sorenson, Brian Subject: RE: Metropolitan Council Releases Regional Solicitation

#### Brian,

Explain in the text box how your determined the 2040 forecast. Let me know whether the text box has sufficient character limit for an explanation.

Elaine

From: Sorenson, Brian [mailto:Brian.Sorenson@CO.DAKOTA.MN.US]
Sent: Friday, July 01, 2016 3:00 PM
To: Koutsoukos, Elaine <<u>elaine.koutsoukos@metc.state.mn.us</u>>
Subject: RE: Metropolitan Council Releases Regional Solicitation

Thanks, Elaine. I think that makes sense, but does bring in judgment. In our case, a 9.5% increase in the northern suburbs is likely too much, but in the growing suburban areas, it's likely too low. If we vary from the projection factor increase, should we be explaining this in the application?

Brian

From: Koutsoukos, Elaine [mailto:elaine.koutsoukos@metc.state.mn.us] Sent: Friday, July 01, 2016 2:14 PM To: Sorenson, Brian Subject: RE: Metropolitan Council Releases Regional Solicitation

Brian,

I consulted with Mark Filipi, who will be reviewing the forecasts of the applicants. He said that you can use this as a starting point, but should review the results with a critical eye. If the straight factoring yields a result beyond the reasonable capacity of the road, the county should consider if trips are likely to re-route. Basically, none of the local communities are likely to have 2040 forecast numbers at hand to use and will have to either ask us for them or come up with their own projections.

Elaine

#### **Elaine Koutsoukos**

TAB Coordinator | Transportation Advisory Board elaine.koutsoukos@metc.state.mn.us P. 651.602.1717 | F. 651.602.1739 390 North Robert Street, St. Paul, MN 55101 metrocouncil.org

From: Sorenson, Brian [mailto:Brian.Sorenson@CO.DAKOTA.MN.US]
Sent: Friday, July 01, 2016 10:15 AM
To: Koutsoukos, Elaine <<u>elaine.koutsoukos@metc.state.mn.us</u>>

#### Subject: RE: Metropolitan Council Releases Regional Solicitation

#### Hi Elaine-

The solicitation asks for 2040 traffic projections. We don't have a 2040 County model to use, so we are using our 2030 model numbers increased to 2040 using our County 1.19 projection factor, meaning we're increasing our 2030 model numbers by 9.5%. Is there a better way to get to 2040 projections? Thanks-

Brian K. Sorenson, PE Assistant County Engineer Dakota County Transportation Department 14955 Galaxie Ave Apple Valley, Mn 55124 952-891-7122 Brian.sorenson@co.dakota.mn.us

From: Metropolitan Council [mailto:METC@public.govdelivery.com] Sent: Thursday, May 19, 2016 5:16 PM To: Sorenson, Brian Subject: Metropolitan Council Releases Regional Solicitation

Having trouble viewing this email? View it as a Web page.

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## **Metropolitan Council Releases Regional Solicitation**

#### ?

The Metropolitan Council released the 2016 Regional Solicitation on May 18, 2016, and will accept applications for federal transportation funding until July 15, 2016, at 4 p.m. After technical experts from across the region rank and score the projects, the Transportation Advisory Board (TAB) will select projects for funding early in 2017.

Eligible metro-area applicants include the seven counties, cities and townships, state agencies, colleges and universities, school districts, American Indian tribal governments, transit providers, non-profit organizations, and park districts.

Approximately \$180 million in federal transportation funds will be available for allocation in 2020 and 2021. Also, due to increased funding levels under the new federal FAST Act legislation, limited federal funding is also available in 2017 (see below), 2018, and 2019 for projects that can be implemented sooner.

To learn more about the Regional Solicitation and to apply online, please visit the Regional Solicitation website.

Council staff will conduct online application training at the Council Offices at 390 Robert St. in Saint Paul in the Lower Level Room C Computer Lab. Please <u>contact Elaine Koutsoukos</u>, TAB Coordinator, to reserve your computer station for one of the following dates.

- Tuesday, May 24 from 10:00-11:00 a.m.
- Wednesday, June 1 from 1:30-2:30 p.m. or 3:00-4:00 p.m.
- Friday, June 3 from 8:30-9:30 a.m. or 10:00-11:00 a.m.
- Wednesday, June 8 from 1:30-2:30 p.m. or 3:00-4:00 p.m.

In addition, the deadline to register for the online application system (needed to submit an application) is July 7, 2016.

#### **Ten Application Categories**

Projects will be selected from the following 10 application categories:

- 1. Roadway Expansion
- 2. Roadway Reconstruction/Modernization
- 3. Roadway System Management
- 4. Bridge Rehabilitation/Replacement
- 5. Multiuse Trails and Bicycle Facilities
- 6. Pedestrian Facilities
- 7. Safe Routes to School
- 8. Transit Expansion
- 9. Transit System Modernization
- 10. Travel Demand Management (2018 and 2019 funds)

#### 2017 Funding Opportunity: Unique Projects

In addition to the 10 application categories, applicants may also submit a letter of interest for "unique projects." These are projects that do not fit in any of the above categories. They must be federally eligible and generate regional benefits. Letters of interest must establish why projects should not be included in the competitive process, and are not easily compared to other submitted projects in the above categories. Any unique projects selected for funding are subject to all TAB policies that must be followed for other Regional Solicitation projects such as the scope change policy. Submissions for unique projects for 2017 funding must be submitted to Elaine Koutsoukos by June 8. Submissions for unique projects for funding in 2018-2021 must be made by July 15.

To submit an application for a unique project, applicants should include the following information in less than two pages:

- Project description and discussion of benefits to the region.
- Substantiation that the project is federally eligible to receive Surface Transportation Block Grant Program or Congestion Mitigation Air Quality federal funds.
- Reasons why the project is not competitive against other projects in any of the 10 existing application categories.
- Preferred year of funding.
- Project budget and amount of federal funding requested (Note: a minimum of a 20% local non-federal match is required).

Questions about the Regional Solicitation can be directed to Elaine Koutsoukos at 651.602.1717 or Elaine.Koutsoukos@metc.state.mn.us.

Update your subscriptions, modify your password or email address, or stop subscriptions at any time on your <u>Subscriber Preferences Page</u>. You will need to use your email address to log in. If you have questions or problems with the subscription service, please contact <u>subscriberhelp.govdelivery.com</u>.

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This service is provided to you at no charge by Metropolitan Council.

This email was sent to brian.sorenson@co.dakota.mn.us using GovDelivery, on behalf of: Metropolitan Council · 390 Robert St. North · Saint Paul, MN 55101-1805 · 651-602-1000

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## **Traffic Data Inc**

PO Box 16269 St. Louis Park, MN 55416

> File Name : 44 - CSAH 23 & CSAH 50 N Jct, 6-14-16 Site Code : 44 Start Date : 6/14/2016 Page No : 5

#### CSAH 23 Out Total In 7164 372 7536 7721 403 8124 14885 775 15660 1704 65 1769 6013 338 0 0 4 0 \_\_\_\_\_0 \_\_\_\_4 \_\_\_ Left UTm Peds 6351 Right Thru **↓** Passenger Cars: 6471 (95%) Trucks: 350 (5%) Total: 6821 Right 000 ♠ Out 0 1315 72 North 000 6/14/2016 12:00 AM 6/14/2016 11:45 PM 00 5 Ł ပယ္လ 000 Cars + **⊿**T Trucks Fotal 0 3 000 0 U 00 0 3 Peds Peds M ¶ <u>UTrn Left</u> Thru Right Peds 1669 104 5849 300 0 0 2 0 0 0 2 1773 6149 0 0 7788 442 8230 7520 404 15308 846 16154 7924 Out In Total CSAH 23

## CSAH 23 & CSAH 50 N Jct Lakeville, MN

# C.S.A.H. 50 (202ND ST. W.) HOLYOKE AVE. TO C.S.A.H. 23 (CEDAR AVE.)





# **CMF / CRF Details**

CMF ID: 7569

Convert 2 lane roadway to 4 lane divided roadway

Description: Conversion of urban and rural two-lane roadways to four-lane divided roadways

**Prior Condition: 2 lane roadway** 

**Category: Roadway** 

Study: <u>Evaluation of the Safety Effectiveness of the Conversion of Two-Lane</u> <u>Roadways to Four-Lane Divided Roadways: Bayesian vs. Empirical Bayes</u>, Ahmed <u>et al., 2015</u>

Star Quality Rating:	***** [View score details]

Crash Modification Factor (CMF)	
Value:	0.712
Adjusted Standard Error:	
Unadjusted Standard Error:	0.076

Crash Reduction Factor (CRF)		
Value:	28.79 (This value indicates a <b>decrease</b> in crashes)	
Adjusted Standard Error:		
Unadjusted Standard Error:	7.65	

Applicability		
Crash Type:	All	
Crash Severity:	All	
Roadway Types:	Not specified	
Number of Lanes:	2	
Road Division Type:	Undivided	
Speed Limit:		
Area Type:	Rural	
Traffic Volume:		
Time of Day:	All	

## If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	
Traffic Control:	

Major Road Traffic Volume:	
Minor Road Traffic Volume:	

Development Details	
Date Range of Data Used:	2002 to 2012
Municipality:	
State:	FL
Country:	USA
Type of Methodology Used:	Before/after using empirical Bayes or full Bayes
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	
Comments:	

This site is funded by the U.S. Department of Transportation Federal Highway Administration and maintained by the University of North Carolina Highway Safety Research Center

The information contained in the Crash Modification Factors (CMF) Clearinghouse is

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# **CMF / CRF Details**

CMF ID: 7853

Install left-turn lane

**Description:** 

**Prior Condition: Intersections without left-turn lanes** 

**Category: Intersection geometry** 

Study: <u>Validation and Application of Highway Safety Manual (Part D) in Florida</u>, <u>Abdel-Aty et al., 2014</u>

Star Quality Rating:	★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★★	

Crash Modification Factor (CMF)	
Value:	0.69
Adjusted Standard Error:	
Unadjusted Standard Error:	0.11

**Crash Reduction Factor (CRF)** 

Value:	31 (This value indicates a <b>decrease</b> in crashes)
Adjusted Standard Error:	
Unadjusted Standard Error:	11

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

## If countermeasure is intersection-based

Intersection Type:	
Intersection Geometry:	4-leg
Traffic Control:	Stop-controlled
Major Road Traffic Volume:	

Development Details	
Date Range of Data Used:	2007 to 2011
Municipality:	
State:	FL
Country:	USA
Type of Methodology Used:	Before/after using comparison group
Sample Size Used:	

Other Details	
Included in Highway Safety Manual?	No
Date Added to Clearinghouse:	Mar-08-2016
Comments:	

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*in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.* 

STATE LINE COUNTY LINE Contene angental Contened and TOWNSHIP OR RANGE LINE \_\_\_\_ SECTION LINE මා රා වා රා මේ රා මා රා මා රා මා රා මා රා මේ ------QUARTER LINE\_\_ R 24 W ----SIXTEENTH LINE RIGHT-OF-WAY LINE ORCHARD -----PRESENT ROAD %/w LINE LIMITED ACCESS \_\_\_\_\_O \_\_\_\_O ROCK LEDGE\_\_\_\_\_ PROPERTY LINE (Except Land Lines)\_-----VACATED PLATTED PROPERTY CORPORATE OR CITY LIMITS\_\_\_\_\_ SAND TRUNK HIGHWAY CENTER LINE\_\_\_\_ EDGE OF CUT\_\_\_\_\_ RETAINING WALL . -----STEAM RAILROAD ELECTRIC RAILROAD CATCH BASIN RAILROAD RIGHT-OF-WAY LINE MANHOLE \_\_\_\_\_\_. NAME DROP INLET\_\_\_\_\_ CREEK \_ FETTIE FIRE HYDRANT RAFIDS OR WATERFALL DRY RUN ARC LAMP OTHER LAMPS (State Kind)\_\_\_\_\_ DRAINAGE DITCH\_\_\_\_\_\_ RAILROAD CROSSING SIGN\_\_\_\_\_ HIGH TENSION LINE RAILROAD CROSSING BELL POWER POLE LINE ELECTRIC WARNING SIGN TELEPHONE OR TELEGRAPH LINE\_\_\_\_ CROSSING GATE TELEPHONE CONDUIT CATTLE GUARD GUARD RAIL WIRE FENCE OVERHEAD (Highwa RAILROAD SNOW FENCE BOARD OR HIGHWAY SNOW FENCE\_ UNDERPASS (Highway Under) STONE WALL OR FENCE \_\_\_\_\_ MONOBOODOBOODOBO WATER PIPE\_\_\_\_\_\_ ABUTMENT, WALL & PIER . SEWER PIPE\_\_\_\_\_\_ DRAIN TUE\_\_\_\_\_\_ GRAVEL PIT\_\_\_\_\_\_ BUILDING (One Story Frame) SAND PIT\_\_\_\_\_\_ (5) C-CONCRETE S- STONE T-TILE B-BRICK ST. - STUCCO CLAY PIT \_\_\_\_\_ (C) HEDGE\_\_\_\_\_ ROCK QUARRY\_\_\_\_\_ IRON PIPE STONE MONUMENT WOOD STAKE OR HUB\_\_\_\_\_ MARSH\_\_\_\_\_\_ NOTE: SECTION NUMBERS READ FROM THE SOUTH 51 5 BEG. C-6464-B STA. 2+19 H 24 09 END C-6464-B STA. 67+47 POSSIBLE SOURCES GRAVEL FOR: SUB-BASE, BASE, BITUM. AGGREGATE, & AGGREGATE SHOULDERING. DUNAHM PIT NW4, SECTION 25, THAN-R2IW RANFT PIT N1/2, SECTION 29, TII4N-R20W. - SPECIFICATIONS-R 21 W THE "STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCT-ION", DATED JANUARY 1, 1964, SHALL GOVERN.



## BOARD OF COUNTY COMMISSIONERS DAKOTA COUNTY, MINNESOTA

#### Approval Of Grant Application Submittals For Transportation Advisory Board 2016 Federal Funding Solicitation Process

WHEREAS, the Transportation Advisory Board (TAB) is requesting project submittals for federal funding under the Fixing America's Surface Transportation (FAST) Act; and

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

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

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

WHEREAS, project submittals are due on July 15, 2016; and

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

WHEREAS, subject to federal funding award, the Dakota County Board of Commissioners would be asked to consider authorization to execute a grant agreement at a future meeting.

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

- 1. 179th Street Extension from ½ mile west of County State Aid Highway (CSAH) 31 to CSAH 31 and the existing 179th Street intersection with Flagstaff Avenue in Lakeville
- 2. CSAH 9 (Dodd Boulevard) from Heritage Way to CSAH 50 in Lakeville
- 3. CSAH 26 (Lone Oak Road/70th Street) from Trunk Highway (TH) 55 to TH 3 (Robert Street) in Eagan and Inver Grove Heights
- 4. CSAH 32 (Cliff Road) at its intersection with CSAH 31 (Pilot Knob Road) in Eagan
- 5. CSAH 23 (Foliage Avenue) from CSAH 86 (280th Street) to County Road 96 (320th Street) in Greenvale Township
- 6. CSAH 50 (202nd Street) from Holyoke Avenue to CSAH 23 (Cedar Avenue) in Lakeville
- 7. CSAH 86 (280th Street) from CSAH 23 (Galaxie Avenue) to TH 3 in Eureka, Greenvale, Castle Rock, and Waterford Townships
- 8. Minnesota River Greenway Eagan Gap Segment in Eagan
- 9. River to River Greenway TH 149 Underpass in Mendota Heights
- 10. River to River Greenway Robert Street Crossing Connections in West St Paul
- 11. North Creek Greenway CSAH 42 Underpass east of Flagstaff in Apple Valley; and

STATE OF	MINNESOTA
County	of Dakota

	VOTE	CE
Slavik	Yes	pr
Gaylord	Yes	- se
Egan	Yes	D.
Schouweiler	Yes	W
Workman	Yes	
Holberg	Yes	
Gerlach	Yes	

I, Jennifer Reynolds, Clerk to the Board of the County of Dakota, State of Minnesota, do hereby certify that I have compared the foregoing copy of a resolution with the original minutes of the proceedings of the Board of County Commissioners, Dakota County, Minnesota, at their session held on the 21st day of June, 2016, now on file in the County Administration Department, and have found the same to be a true and correct copy thereof.

Witness my hand and official seal of Dakota County this 23rd day of June, 2016.

Jen Reynold

Clerk to the Board

12. CSAH 14 - Southview Boulevard from 20th Avenue to 3rd Avenue and 3rd Avenue from Southview Boulevard to Marie Avenue in South St. Paul; and

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

- 13. 117th Street from CSAH 71 (Rich Valley Boulevard) to TH 52 Lead Agency: Inver Grove Heights
- 14. Orange Line Extension Lead Agency: Metro Transit
- 15. CSAH 73 (Oakdale Avenue) from CSAH 14 (Mendota Road) to CSAH 8 (Wentworth Avenue) Lead Agency: West

St. Paul

- 16. TH 149 (Dodd Road) from Mendota Heights Road to Decorah Lane and from Maple Street to Smith Avenue – Lead Agency: Mendota Heights
- 17. North Creek Greenway Farmington Gap Lead Agency: Farmington
- 18. CSAH 8 (Wentworth Avenue) from CSAH 63 (Delaware Avenue) to Humboldt Avenue Lead Agency: West St. Paul
- 19. CSAH 8 (Wentworth Avenue) from TH 52 to 15th Avenue Lead Agency: South St Paul; and

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

#### STATE OF MINNESOTA County of Dakota

	VOTE
Slavik	Yes
Gaylord	Yes
Egan	Yes
Schouweiler	Yes
Workman	Yes
Holberg	Yes
Gerlach	Yes

I, Jennifer Reynolds, Clerk to the Board of the County of Dakota, State of Minnesota, do hereby certify that I have compared the foregoing copy of a resolution with the original minutes of the proceedings of the Board of County Commissioners, Dakota County, Minnesota, at their session held on the 21st day of June, 2016, now on file in the County Administration Department, and have found the same to be a true and correct copy thereof.

Witness my hand and official seal of Dakota County this 23rd day of June, 2016.

Jen Reynold

Clerk to the Board



July 12, 2016

Mr. Mark Krebsbach, P.E. Transportation Director/County Engineer 14955 Galaxie Avenue, 3<sup>rd</sup> Floor Apple Valley, MN 55124

SUBJECT:Federal FAST Act Letter of Support for Dakota CountyCounty State Aid Highway 50 A-Minor Arterial Reconstruction/Modernization Project

Dear Mark,

The City of Lakeville supports Dakota County's application for federal funding for the County State Aid Highway (CSAH) 50 (202<sup>nd</sup> Street) A-Minor Arterial Reconstruction/Modernization Project. The City understands the project is a joint effort between the City and County, and that the Dakota County Board of Commissioners is committed to fund and construct the project in cooperation with the City.

The City of Lakeville is aware of and understands the proposed project includes the reconstruction of CSAH 50 to a 2-lane divided roadway (concrete center median) with dedicated left and right turn lanes and geometric improvements to the vertical alignment. As part of this project, turn lanes will be added to the CSAH 50/Hamburg Avenue and CSAH 50/CSAH 23 (Cedar Avenue) intersections. The project also integrates other modes of transportation with the highway project. Dakota County has jurisdiction over CSAH 50 and commits to operate and maintain these roadways for their design life.

The City supports this project for federal funding and agrees to provide a financial commitment for the improvements directly related to CSAH 50, consistent with the current County cost participation policy. Thank you for making us aware of this application effort and the opportunity to provide support.

Respectfully Zach Johnson, P.E.

City Engineer

C: Justin Miller, City Administrator

20195 Holyoke Avenue, Lakeville, MN 55044 952-985-4400 • 952-985-4499 fax www.lakevillemn.gov

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	ESTIMATED QUA	<u>VIIIED</u>	· · · · · · · · · · · · · · · · · · ·
SPECIFICATION NO.	ITEM	UNIT	TOTAL ESTIMATED QUANTITIES
		TREE	13
2101.502	CLEARING	TREF	14
2101.507	GRUBBING	INEL	
			0.02(7
2105,501	CLASS "A" EXCAVATION	<u> </u>	80361
	(INCL. 2871 C.Y. SUB-CUT & 1794 C.Y. TOPSOIL S	RIPPING UNDER FILLS	12501
2104.510	REMOVE FENCE	LIN. FT.	12501
557.621	RESET FENCE	LIN.FT.	12342
357.00			
0574 EQ	POADSIDE SEEDING	ACRE	16.87
2574.50	ADEA CODDING	SQ. YD.	4304
2576.501	AREA SUDDING	54. 12.	
			502
2104.501	REMOVE PORTABLE CULVERTS	LIN, F1.	
2501.531	INSTALL PORTABLE CULVERTS	LIN. FT.	342
		•	
	ELLE OMP CILV	LIN. FT	188
2501.511-15		I IN CT	58
2501.511 - 18"	F. E.I. 18 C.PI.H. CULV.		28
2501.511-24"	F. & I. 24 C.M.P. CULV.		
2501.511 - 30"	F. & I. 30" C.M.P. CULV.	LIN, FI,	<u> </u>
2501.512 - 18" SPAN	E. E.I. 18" SPAN C.M.PA. CULV.	LIN, FT.	24
0501 512-22" CPAN	E & 1 22" SPAN C.M.P.A. CULV	LIN. FT.	22
2301. 512-22 SFAIL	r. cl. cc or his on hit rit addition		
			100
2501.521-18"	F. &1. 18" S.C.P. CULV.		100
2501, 521 - 24"	F. \$ 1. 24" S.C. P. CULV.	LIN. FT.	66
2501.521-36	E. & L. 36" S. C.P. CULV.	LIN. FT.	42
25 01 521- 72"	E \$1 72" SCP CHIV	LIN, FT	40
2301,321-12			
		LIN ET	34
2501.522-44 SPAN	F. E. 1. 44 SPAN S.C.P A. COLV.		32
2501.522-51" SPAN	F.&I. 51" SPAN S.C.PA. CULV.	LIN. FI.	52
2515.531-18	F. CI. 18" MET. APRONS FOR C.M.P.	APRON	4
2515.531-24"	E.E.I. 24" MET. APRONS FOR C.M.P.	APRON	۵
2010 621-20"	E & I 30" MET ADDONS FOD CMD	APRON	2
C212,231-30	THE OVIER AFRONDION GIRE		
	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	<u> </u>
2515,541-18	F.E.I. 18" CONC. APRONS FOR S.C.P.	APRON	<u>ک</u>
2515.541-24"	F.E.I. 24" CONC. APRONS FOR S.C.P.	APRON	<u> </u>
2515,541-36"	F. &I. 36" CONC. APRONS FOR S.C.P.		2
<u>, , , , , , , , , , , , , , , , , , , </u>		APRON	·
2515.541 - 72"	E &I. 72" CONC. APRONS FOR S.C.P.	APRON	2
OFIE EAG AN OPALL	E & L AA" ADANI CONO ADDONIS EOD S CD		2
CO10.042-44 SPAN	R. G. 44 DRAIN LUNC MERCIND FOR D.C.R.		
2515.542-51" SPAN	F. & I. 51" SPAN CONC. APRONS FOR S.C.P.	APHON	<u> </u>
2414.511	F. EI. 72" PC. CONC. CATTLE PASS		
	(8-6' SECTIONS, 1-4' SECTIONS)	LIN. FT.	52
2414 512	EEL 70" P-C CONC CATTLE PAGE END		
C-11-1, DIG	CECTIONS	GEOTION	2
	DECHORD	35011014	<u> </u>
2251.527	GRAVEL WEARING COURSE IN PLACE	C.Y.(V.M.)	2330
1		l	L

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ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND ORDINANCES WILL BE COMPLIED WITH IN THE CONSTRUCTION OF THIS PROJECT.

## STANDARD DETAIL PLATES

THE FOLLOWING STANDARD DETAIL PLATES, APPROVED BY THE BUREAU OF PUBLIC ROADS, SHALL APPLY ON THIS PROJECT.

PLATE NO.	DESCRIPTION						
3123 A	MET APR. FOR C.M. PIPES						
3040	CORRUGATED METAL PIPE-ARCH						
3000 B	REINFORCED CONCRETE PIPE						
3100 B	CONCRETE APRON FOR REINFORCED CONC. PIPE						
3014	REINFORCED CONC. PIPE-ARCH						
3110	CONC. APRON FOR REINFORCED CONC. PIPE-ARCH						
9000	APPROACHES & ENTRANCES						

## SPECIFICATIONS

THE "SPECIFICATIONS FOR HIGHWAY CONSTRUCTION" DATED MAY I, 1959, AND SUBMITTED FOR APPROVAL BY THE DIVISION ENGINEER OF THE BUREAU OF PUBLIC ROADS ON MARCH 26, 1959, SHALL GOVERN.



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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	5	1	ሻ	<b>^</b>	<b>†</b> †	1
Traffic Volume (vph)	107	150	145	615	592	166
Future Volume (vph)	107	150	145	615	592	166
Turn Type	Prot	Perm	Perm	NA	NA	Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Detector Phase	4	4	2	2	6	6
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	27.5	27.5	27.5	27.5
Total Split (%)	45.0%	45.0%	55.0%	55.0%	55.0%	55.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Max	C-Max	C-Max	C-Max
Act Effct Green (s)	8.6	8.6	35.3	35.3	35.3	35.3
Actuated g/C Ratio	0.17	0.17	0.71	0.71	0.71	0.71
v/c Ratio	0.38	0.40	0.29	0.27	0.26	0.15
Control Delay	21.2	6.8	6.6	4.3	4.3	1.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.2	6.8	6.6	4.3	4.3	1.3
LOS	С	А	А	А	А	А
Approach Delay	12.8			4.7	3.6	
Approach LOS	В			А	А	
Intersection Summary						
Cycle Length: 50						
Actuated Cycle Length: 50						
Offset: 0 (0%), Referenced to	o phase 2:	NBTL an	d 6:SBT,	Start of G	Green	
Natural Cycle: 50						
Control Type: Actuated-Coor	dinated					
Maximum v/c Ratio: 0.40						
Intersection Signal Delay: 5.4	4			lı	ntersectio	n LOS: A
Intersection Capacity Utilizat	rsection Capacity Utilization 41.6% ICU Level of Service A					
Analysis Period (min) 15						

Splits and Phases: 2: CSAH 23 (Cedar) & CSAH 50 (202nd St)

Ø2 (R)	A 04		
27.5 s		22.5 s	
● Ø6 (R)			
27.5 s			